

SEP - 5 2000

Date of Report: August 31, 2000

Date of Next Program Update: March 31, 2001

Date of Work Plan Approval: March 31, 2000 amendment approved

Project Completion Date: June 30, 2000 (1997 Trust Fund Appropriation); June 30, 2001 (1998 bonding appropriation)

LCMR and Bonding Work Program

I. PROJECT TITLE: Fisheries Statewide Hatchery Rehabilitation

Project Managers: Linda Erickson-Eastwood, Fisheries Program Manager
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Total Biennial Project Budget: Amounts in thousands

<u>Fund</u>	<u>Year</u>	<u>Approp.</u>	<u>Liquid.</u>	<u>Encumb.</u>	<u>Balance</u>
Fisheries statewide hatchery rehab (ETF)	1997	400	400	0	0
<u>RIM Fish Hatchery Rehabilitation</u>	<u>1998</u>	<u>1,000</u>	<u>872</u>	<u>0</u>	<u>128</u>
GRAND TOTAL		1,400	1,253	0	147

A. Legal Citations:

1997 Appropriation

ML 1997, Chap. 216, Sec. 15, Subd. 17(q)

FISHERIES STATEWIDE HATCHERY REHABILITATION \$400,000.

This appropriation is from the trust fund to the commissioner of natural resources to accelerate the reinvest in Minnesota program to implement projects to maintain and improve statewide fish culture facilities. This appropriation is available until June 30, 2000, at which time the project must be completed and final products delivered, unless an earlier date is specified in the work program.

1998 Appropriation

ML 1998, Chap. 404, Sec. 7, Subd. 15

RIM FISH HATCHERY REHABILITATION \$1,000,000

For improvements of a capital nature to rehabilitate, improve, or develop fish culture facilities.

B. Matching Funds: none.

II. PROJECT SUMMARY AND RESULTS:

This program exists to improve and maintain statewide facilities for fish culture, rearing, and holding. There are 17 fish hatcheries statewide including 5 coldwater hatcheries that provide trout and salmon and 12 warmwater hatcheries that provide walleye, muskellunge, channel catfish, and smallmouth bass. This work program includes continuing projects at three cold water hatcheries and one warm water hatchery funded by a 1997 Environmental Trust Fund appropriation. This work program will use the 1998 bonding appropriation for projects at two coldwater hatcheries and one warm water hatchery.

III. WORK PROJECT RESULTS 4/1/00 - 8/31/00:

1997 Appropriation:

- Waterville Hatchery ponds & water supply - completed engineering, awarded bid to contractor; reshaped eroded banks and drainage structures in rearing ponds; new piping and valves for pumphouse; purchased new pump; purchased a fry tank. Project is completed.
- * Peterson Hatchery access area - installed gate and driveway to township road; expanded approaches to 30' tanks; security light was moved; finished adding gravel around two tanks; finished installation of electric service to rearing areas and hooked up security lights. Project is completed.
- Lanesboro Hatchery linear clarifier (#1) - pump and plumbing supplies purchased. All installations have been completed. Completed the repairs to the sludge pit in July 2000. Project is completed.
- Crystal Springs Hatchery rearing pond rehab - build dike; new water control structure; rip rap, and repair road; removed old water control structure. Project is completed.
- Walker Lake Hatchery - generator was purchased and installed; purchased all other approved spigots, stand pipes, sensors, and plumbing needed. All items have been installed. Still waiting on parts for the electric pump and a tank. Project completed (July 2000).

1998 Appropriation:

- * French River Hatchery structural repair - demolition and construction of Xorbox room completed; starting demolition on mechanical buildings; new roof and trusses completed on the office building.
- Lanesboro Hatchery nursery renovation - preliminary design meetings begun; purchased all equipment; constructed new water delivery, drain lines, and ripped out all the old plumbing.
- Glenwood Hatchery water supply & raceways - engineering feasibility evaluation, water supply survey, system design completed; bid package in development; the bid has been awarded and work will begin shortly on this project.

IV. OUTLINE OF PROJECT RESULTS:

Fisheries Statewide Hatchery Rehabilitation 1997 - Trust Fund

Total Appropriation:	\$ 400,000
Original amount allocated to this program:	\$ 400,000
Amount added from other programs:	\$ 0
Amount moved to other programs:	\$ 0
Current amount allocated to this program:	\$ 400,000
Amount expended on this program to date:	\$ 400,000

Project	County	Amount Expended To Date	Balance Programmed to Complete Project	Total Project Cost
Lanesboro Hatchery Linear Clarifier (#1)	Fillmore	<u>\$ 96,700</u>	<u>\$ 0</u>	\$ 96,700
				(changed from \$59,200 to \$85,700 in 5/99; changed to 96,700 in 4/00)
Peterson Hatchery Access Area	Fillmore	<u>\$ 20,000</u>	<u>\$ 0</u>	\$ 20,000
				(changed from \$37,000 to \$20,000 in 4/98)
Waterville Hatchery Ponds & Water Supply	Le Sueur	<u>\$224,000</u>	<u>\$ 0</u>	\$224,000
				(changed from \$229,000 to \$224,000 in 5/99)
Crystal Springs Hatchery rearing pond rehab.	Winona	<u>\$4,150</u>	<u>\$ 0</u>	\$ 4,150
				(changed from \$31,800 to \$4,150 in 5/99)
Walker Lake Hatchery upgrade/maintenance	Ottertail	<u>\$ 17,000</u>	<u>\$ 0</u>	\$ 17,000
				(added to list 5/99)

Professional services	<u>\$38,150</u>	<u>\$0</u>	<u>\$ 38,150</u> (changed from \$60,000 in 5/99; <u>changed to \$38,150 in 4/00</u>)
Total Expended:	<u>\$400,000</u>		
Balance to be expended:		<u>\$0</u>	
Total Programmed:			\$400,000

Lanesboro Hatchery Linear Clarifier (#1)

The goal of this project is to improve the fish waste management capabilities at Lanesboro fish hatchery for future compliance with the conditions set forth in the existing National Pollution Discharge Elimination System (NPDES) permit. The project will change the course of the effluent from 20 raceways and production pond no. 2. This change will prevent the effluent from passing over settled sludge and carrying nutrients, such as nitrogen and phosphate, to Duschee Creek. The pond no. 1 clarifier will be complimentary to the clarifier/sludge lagoon project in place on pond no. 4. The pond no. 1 clarifier can be cleaned on a regular basis with sludge being pumped into a lagoon where it can settle out. The settleable solids can be then pumped out and land spread as fertilizer. The outcome of the project is to improve treatment of fish waste and reduce nutrient loading to Duschee Creek. This project will be funded with both 1995 ETF funds (\$14,800) and 1997 ETF funds (\$59,200). Approximately \$11,000 still remains in the 1997 Trust Fund appropriation that will not be used on any of the current approved projects. Approval is being requested to use the remaining funds at the Lanesboro Hatchery to help complete concreting the bottom of the existing sludge pit. This pit is closely related to the clarifier project that was previously funded and to manure management related to fish rearing. The department already has \$30,000 set aside for this project, but due to a recent increase in costs the project is short needed funds.

Peterson Hatchery Access Area

This project will provide a needed upgrade for ingress and egress of large fish transportation vehicles (tractor-trailer). The improvements will include an additional access from the county road, re-shaping and enlarging existing hatchery roads, construction of a disinfection station for large vehicles, and access for large vehicles where fish rearing takes place. The outcome of the project will reduce the risk of damage to the hatchery facility and reduce handling and stress on fish stocks. Visitor parking will also be added.

Waterville Hatchery Ponds and Water Supply

The goal of the project is to redesign and replace the water supply and drainage lines for eleven ponds at the Waterville hatchery. The new lines would allow for filling and draining any combination of rearing ponds at any time. This is not practical with the existing deteriorating system. The project would include dredging the ponds of silt and re-lining the ponds with clay. New pumps would also be installed for filling the ponds from Lake Tetonka. The outcome of then project would be the improvement of fish rearing capabilities for channel catfish and muskellunge fingerlings.

The following additional work was approved April 1999. Re-routing of existing garage drain lines and installation of a flammable trap. Installation of a wall between the hatchery and garage. The wall will help prevent any introduction of disease or parasites into the hatchery from these items and ensure that we maintain our disease-free status that we now have at the hatchery. Purchase of floating docks and stop logs for all the ponds at the Waterville hatchery. Putting in an electrical line for Pond 14 to provide for lighting and aeration in winter and summer months. Purchase of fry tanks at an estimated cost of \$6,000 each. One fry tank of a larger size was purchased to meet the hatchery needs. Even with this work approved an additional \$20,000 was not going to be used. A request to use this money to fund the Walker Lake Project was approved and the money was shifted to that project.

Crystal Springs Hatchery Rearing Pond Rehabilitation

The goal of this project is to rehabilitate a rearing pond in the Beaver Creek Valley to increase the lake trout production capacity of the Crystal springs Hatchery. This is a necessary adjustment because Minnesota cannot accept lake trout from the Iron River National Fish Hatchery for at least two years, due to disease problems. Minnesota has relied on the Iron River Hatchery to help meet lake trout quotas for Lake Superior. Increasing the capacity of the Crystal Springs Hatchery is the best alternative to ensure that we can produce sufficient numbers of lake trout for stocking Lake Superior.

In April 1999, it was determined that the Crystal Springs project would cost at least \$27,500 less than anticipated. A

request to LCMR was sent for approval. With the approval of the May 10 completion report, we were given approval to go ahead and shift the \$27,500 to the Lanesboro Clarifier Project (see notes in budget above).

Walker Lake Hatchery (approved in April 1999)

Upgrade and maintenance of buildings and hatchery facilities at the Walker Lake hatchery. This facility is one of the mainstays of the statewide walleye program and will be an important element of the expanded walleye program and Red Lake rehabilitation projects. The project would include the cost of a standby generator; roof and window repairs to the buildings; and purchase of jars, stand pipes, and oxygen diffuser and spigots.

RIM Fish Hatchery Rehabilitation 1998 - Bonding

Total Appropriation: \$ 1,000,000
 Original amount allocated to this program: \$ 1,000,000
 Amount added from other programs: \$ 0
 Amount moved to other programs: \$ 0
 Current amount allocated to this program: \$ 1,000,000
Amount expended on this program to date: \$ 367,000

Project	County	<u>Amount</u> <u>Expended</u> To Date	<u>Balance</u> <u>Programmed</u> <u>to Complete</u> Project	<u>Total</u> <u>Project</u> Cost
French River Hatchery structural repair	St. Louis	\$ 539,634	\$ 40,366	\$ 580,000
Glenwood Hatchery water supply & raceways	Douglas	\$ 133,932	\$ 76,068	\$ 210,000
Lanesboro Hatchery nursery renovation	Fillmore	\$ 198,392	\$ 11,608	\$ 210,000
Total Expended:		\$ 871,958		
Balance to be expended:			\$ 128,042	
Total Programmed:				\$1,000,000

French River Hatchery Structural Repair

In 1992, the roof collapsed on the rearing pond building at the French River Hatchery. This was repaired, however, there was concern that the remaining buildings at French River could also have structural problems. A structural analysis of the main building (which includes the office, hatchery, and mechanical equipment) and the biofilter building was done in 1997. The conclusion of the analysis was that structural deficiencies would lead to the collapse of both buildings. This project will involve reconstructing the main building roof, hatchery wing, and biofilter building. The total project cost is estimated to be about \$810,000. Additional funds (\$220,000) will be obtained from CAPRA and field services accounts.

Glenwood Hatchery Water Supply and Raceways

The water supply for the Glenwood Hatchery is spring water, which is collected through a series of cisterns, tiles, and main delivery lines. The water quality from the springs is exceptional, however, the water supply system has deteriorated which has affected the quantity and quality of water that is delivered to the hatchery. The water supply component of the project will involve replacing collection systems, reconstructing two water supply reservoirs, installing a new water main, and re-plumbing feeder lines into the hatchery. The raceways at the hatchery are used to temporarily hold walleye fingerlings for fall stocking. The existing raceways have deteriorated. This component of the project will involve rebuilding two new raceways, completing the plumbing, and connecting the raceways to water supply and drain mains.

Lanesboro Hatchery Nursery Renovation

The existing fish nursery in the hatchery is in poor condition. Water delivery and drain lines have deteriorated and fry and fingerling holding tanks are badly rusted and broken. This project will involve replacement of water delivery and drain lines, installation of a gutter drain system that can be cleaned out regularly, and replacement of fry and fingerling tanks.

V. DISSEMINATION: NA

VI. CONTEXT:

A. Significance:

Funding through LCMR and bonding provides critical dollars needed to maintain the state fish culture program. The Section of Fisheries annually spends about \$50,000 to \$100,000 to maintain fish culture facilities. Additional estimated needs for these activities through fiscal year 2001 are \$400,000 (1997 LCMR appropriation); \$1,000,000 (1998 bonding appropriation); \$220,000 (CAPRA and field services funding is being provided for French River Hatchery structural repair); and \$1,070,000 (additional unmet needs for high priority fish culture rehabilitation projects).

The department had originally requested \$1,300,000 in bonding in 1998 to fund the following projects:

- 1) French River Hatchery structural repair
- 2) Glenwood Hatchery water supply & raceways
- 3) Lanesboro Hatchery nursery renovation
- 4) New London Hatchery building, raceway, security fence, and driveway
- 5) Peterson Hatchery incubation and nursery area and information and education building

Since the department received only \$1,000,000 in bonding in 1998, the New London and Peterson Hatchery projects remain unfunded. These projects have become our top priorities for any upcoming funding and would cost \$325,000.

Additional unmet needs for high priority hatchery rehabilitation projects are:

- | | |
|---|-------------------|
| 1) Park Rapids Hatchery upgrade and maintenance | \$ 70,000 |
| 2) Buck's Mill rearing pond rehabilitation | \$ 25,000 |
| 3) Pike River Hatchery storage building | \$ 15,000 |
| 4) New London Hatchery filter and electricity | \$ 30,000 |
| 5) Spire Valley rearing pond remodeling | \$ 20,000 |
| 6) Lanesboro Hatchery raceway enclosure | \$ 50,000 |
| 7) Spire Valley Hatchery residence | \$ 100,000 |
| 8) Glenwood Hatchery building and interpretive center | \$ 420,000 |
| Total: | \$ 724,000 |

Accomplishments since 1983 include:

- acquisition of Peterson Hatchery
- improvement of four coldwater and nine warmwater hatcheries
- development or improvement of three rearing ponds
- development of one trout holding facility

B. Time:

The 1997 appropriation will be spent by June 30, 2000. The 1998 appropriation will be spent by June 30, 2001.

C. Budget Context: (for budget history see table on page 1)

Other Funding Sources for Fish Culture Rehabilitation

<u>Source</u>	<u>July 1995 - June 1997</u>	<u>July 1997 - June 1999</u>	<u>July 1999 - June 2001</u>
G&F Fund	\$ 140,000	\$ 140,000	\$ 140,000
General Fund		\$ 220,000	
<u>Other Bonding</u>	<u>\$ 50,000</u>		
Total	\$ 190,000	\$ 360,000	\$ 140,000

BUDGET:

RIM Fish Hatchery Rehabilitation - 1998 bonding

Professional services	\$ 150,000
Contract	\$ 850,000
Total	\$1,000,000

VII. COOPERATION: NA

VIII. LOCATION: Statewide

IX. Reporting Requirements: A work program progress report will be submitted not later than March 31, 2001.