

**Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)**

LCCMR ID: 170-F3+4

Project Title: Energy Cost Reduction for DNR Fish Hatcheries

Category: F3+4. Renewable Energy

Total Project Budget: \$ \$400,000

Proposed Project Time Period for the Funding Requested: 2 yrs, July 2011 - June 2013

Other Non-State Funds: \$ 0

Summary:

Reduce DNR fish rearing costs and carbon footprint at hatcheries by 10%, by investing in clean, renewable energy and more efficient methods of rearing and stocking fish.

Name: Linda Erickson-Eastwood

Sponsoring Organization: DNR

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Web Address _____

Location

Region: Statewide

Ecological Section: Statewide

County Name: Statewide

City / Township:

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity	_____ Readiness	_____ Leverage	_____ Employment
_____ TOTAL			_____ %

2011-2012 MAIN PROPOSAL

PROJECT TITLE: Alternative Energy Sources to Reduce Fish Rearing Costs at DNR Hatcheries

I. PROJECT STATEMENT

Many of Minnesota's excellent fishing opportunities in the state, such as trout fishing, are dependent on raising and stocking fish into water bodies. DNR fish hatcheries produce these fish and the energy costs to hatch and raise these fish have went up considerably in the past few years. This increase in cost is consuming a substantial and ever increasing part of facility operating budgets. The DNR has five coldwater species year-round hatcheries, 2 cool/warm water hatcheries, and around 28 seasonal hatcheries that produce fish that provide for fishing opportunities that would not exist naturally. Each of these DNR hatcheries is unique and has individual energy needs. But each site also has the potential to either install more energy efficient lights and equipment or use or produce energy from renewable sources such as solar, wind, geothermal, or micro hydro. By investing in clean, renewable energy and more efficient ways of rearing and distribution of these fish, the DNR hopes to reduce fish rearing costs by 10% at these hatcheries. In doing this, we will be able to reduce our carbon footprint and not have to reduce the numbers/and types of fish that are provided for stocking. This will allow the Department to continue supporting fishing opportunities around the state that are dependent on stocking of fish. Reducing energy use and converting to renewable sources will also provide long-term benefits to Minnesota's ecological resources.

In doing this type of energy modifications, we will also be able to educate the public and our staff about energy conservation and renewable energy. These facilities have interpretation and education programs for the thousands of visitors who stop each year. Those existing programs can easily incorporate and highlight our energy conservation and renewable energy efforts to provide a valuable educational experience.

Energy audits on each facility will identify where and how we can reduce consumption. These audits will be done first on the seven hatchery facilities and as funds become available will be done on the rearing facilities starting with the highest production to the lowest production facilities. Staff at each of these facilities will be assigned to work with contractors and the DNR's energy reduction committee to plan and prioritize for each facility what equipment, structures and operations will produce the best cost recovery from energy reduction options. Operations and production will include but not be limited to conservation, more efficient stocking routs, installation of efficient equipment, and developing on-site renewable energy production as appropriate for each situation.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Contract for energy audits

Budget: \$ 100,000

Outcome	Completion Date
1. Receive a detailed energy use and conservation plan for each facility that includes types, amounts and locations of energy use, efficiency of use and areas of loss. The plan will also identify renewable energy sources available on-site or through local	June 2012

markets. The plan will define how to reduce consumption and improve energy conservation as well as how to upgrade equipment and facilities to take advantage of efficient, cost effective technology. Start with audits at our most energy consumptive facilities.	
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Activity 2: _Install energy efficient equipment and alternative energy sources to run the equipment then monitor the results.

Budget: \$ 300,000__

Outcome	Completion Date
1. Reduce carbon footprint and annual energy costs by at least 10% through a combination of energy conservation methods, such as more efficient equipment, conversion to clean, and renewable energy sources; such as solar, wind, geothermal, or micro hydro. What will be done at each facility will be determined once energy audits have been completed	June 2013

III. PROJECT STRATEGY

A. Project Team/Partners

Minnesota DNR Division of Fisheries and Wildlife and Management Resources staff – Design and oversight of installation and working knowledge of the facilities.

Local lake associations, lake improvement districts and sportsman’s groups, and Trout Stamp Oversight Committee – Support of actions being taken and recommendations

Outside contractors – Project design and implementation

B. Timeline Requirements

We propose a two year grant beginning July 1, 2011 and ending on June 30, 2013.

C. Long-Term Strategy and Future Funding Needs

To reduce carbon foot print and the cost of rearing fish in state owned hatcheries and facilities by at least 10% over the next 10 years. Additional dollars will be needed in the future to do additional energy audits and to continue to install energy saving systems in our hatchery and rearing facilities. Funding sources that will be looked at are license fees, trout stamp, and bonding.

2011-2012 Detailed Project Budget

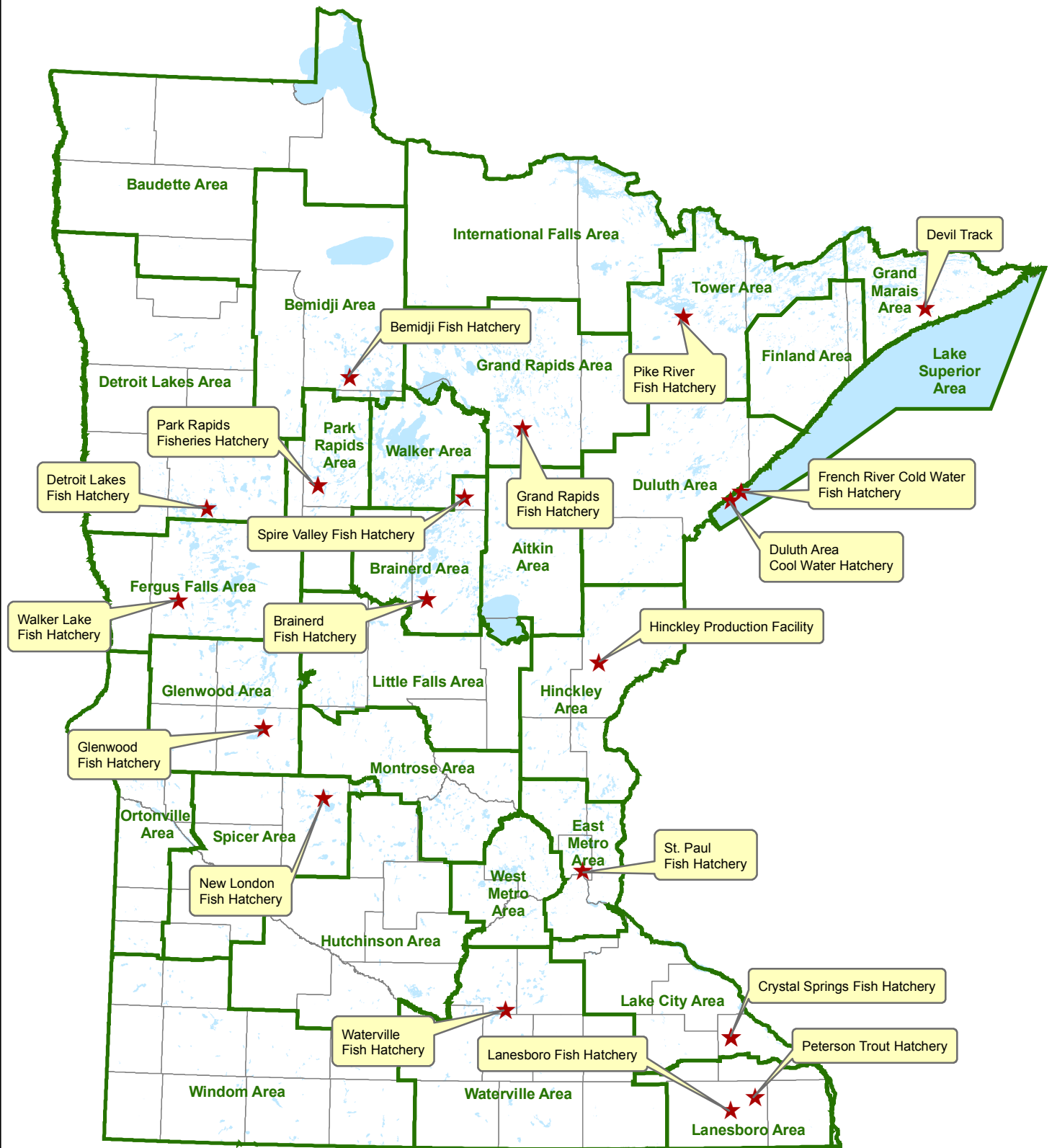
IV. TOTAL TRUST FUND REQUEST BUDGET 2 years

BUDGET ITEM <i>(See list of Eligible & Non-Eligible Costs, p. 13)</i>	AMOUNT
Contracts: Professional Energy Auditing Company such as McKinstry to conduct energy audits and produce a detailed plan to identify energy consumption, conservation measures, new process and renewable energy production equipment.	\$ 100,000
Contracts: DNR management resources design, surveys, and legal fees (10%). State bid process for contractors to process equipment (such as HVAC, lighting, plumbing, pumps, etc.) and renewable energy installers to install equipment or renewable energy equipment.	\$ 300,000
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST	\$ 400,000

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period:	NA	<i>Indicate: Secured or Pending</i>
Other State \$ Being Applied to Project During Project Period: .	NA	<i>Indicate: Pending</i>
In-kind Services During Project Period: From Game and Fish Fund and will cover the shared services and Division Support.	\$ 18,430	
Remaining \$ from Current ENRTF Appropriation (if applicable):	NA	<i>Indicate: Unspent? Not Legally Obligated? Other?</i>
Funding History: 2005 bonding for French River heat exchanger	\$500,000	
2008 bonding	\$100,000	

DNR Cool and Cold Water Fish Hatcheries



Program Manager Qualifications

Project Manager: Linda Erickson-Eastwood, Fisheries Program Manager
Affiliation: Department of Natural Resources, Fish and Wildlife Division
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Linda Erickson-Eastwood is the Fisheries Program Manager. Ms. Erickson-Eastwood is responsible for coordinating and administering all fisheries programs designed to meet section goals both on public and private lands. She provides programmatic direction and management to staff and is responsible for working with the Fisheries Management Section Chief on the oversight of the sections budget. She has been involved with the implementation of several previous bonding and LCMR projects and oversees the Section's \$35 million dollar budget.

Ms. Erickson-Eastwood has served as the Fisheries Program Manager since 1998. Other related experiences include: Fisheries Ed Coordinator, Fisheries Information Specialist, Fisheries Management Supervisor, Research Assistant, and Waterfowl Technician.

Education: Graduated from the Iowa State University in 1981 with a bachelor's degree in Wildlife and Fisheries Management. Graduated from University of WI – LaCrosse in 1986 with a Master's degree in Fisheries and Wildlife Management with computer programming minor.

Ms. Erickson-Eastwood will provide overall management to this proposed LCCMR project. She has effectively demonstrated her capacity to manage programs and budgets, maintain accurate records, and direct staff. Ms. Erickson-Eastwood has experience and demonstrated an ability to collaborate with a wide range of internal and external stakeholders in addressing complicated and contentious management issues. She knows how to get work done on the ground.

Organizational Description

The MN DNR – Section of Fisheries' mission is to "to conserve and manage Minnesota's aquatic resources and associated fish communities for their intrinsic values and long-term ecological, economic, and recreational benefits to the people of Minnesota." **Broad Goals:**

1. To make recreational fishing as good as it can be in the state of Minnesota for the present and future.
2. To conserve, maintain, enhance, or rehabilitate Minnesota's aquatic resources to serve environmental, social, and commercial purposes.
3. To foster an ethic of natural resource stewardship among all Minnesotans.