

**Environment and Natural Resources Trust Fund
2010 Request for Proposals (RFP)**

LCCMR ID: 058-B1

Project Title:

BioFuel Research & Forest Management E C Minnesota

LCCMR 2010 Funding Priority:

B. Renewable Energy Related to Climate Change

Total Project Budget: \$ \$35,000

Proposed Project Time Period for the Funding Requested: 2 years, 2010 - 2012

Other Non-State Funds: \$ \$3,750

Summary:

Project is expanding research on biofuels and enhancing forest health treatments in 5 - 11 counties of east central Minnesota, creating jobs and improved forest health and renewable fuels.

Name: Steve Nelson

Sponsoring Organization: East Central Woodland Owners Council Chapter MFA

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Fax: _____

Web Address: _____

Location:

Region: Regional

County Name: Statewide

City / Township:

_____ Knowledge Base	_____ Broad App.	_____ Innovation
_____ Leverage	_____ Outcomes	
_____ Partnerships	_____ Urgency	_____ TOTAL

MAIN PROPOSAL

PROJECT TITLE: Research & Forest Management in Minnesota's developing Forestry and Renewable Energy Sectors.

I. PROJECT STATEMENT

This project continues research and development of cellulosic biomass and biofuels while enhancing forest health treatments and wood utilization on private forest lands in 5 counties in East Central Minnesota.

There presently is great opportunity for developing the renewable energy and forestry sectors of Minnesota's economy.

But, compared to many countries around the world, Minnesota is behind in renewable energy development and still coal-dependant. The State also faces current & future threats to forest health from many invasive plant and animal species. Two major non-native, invasive pests that prey-upon monoculture forests are the oak wilt fungus (current) and the emerald ash borer insect (future).

The four issues this project address are renewable energy, forest disease, insect and invasive species control and employment.

Minnesota has the opportunity to be a strong provider of biomass fuel through long-term management of our forests. Unfortunately, until an industry is developed to produce marketable products, funding and research are needed to develop biofuels and proper management of the forest resource. East Central Minnesota has a tremendous volume of biomass material close to major markets. Increased utilization of this biomass not only creates more jobs, it also leads to improved forest health, improved water quality, greater wildlife diversity, increased cultural and recreational benefits, and improved air quality.

The goal of the project is to apply our present knowledge of resource management and forest health research with the commercial utilization of biomass for biofuels.

The project will positively impact the regional forest industry, the regional and statewide energy sector (mostly fuels and electricity production), and employment in these two sectors. The project is focused in Chisago, Isanti, Kanabec, Pine and Mille Lacs counties. Additional counties in East Central MN that could be involved are Sherburne, Benton and parts of Anoka, Morrison, Washington and Wright.

The project will coordinate advancements in biomass & bioenergy research with providers of the resource and utilizers of the resource. It links the woodland owners (Providers) with manufacturers and distributors (Loggers, Sawmills and Farm and Electric Co-ops). It will build a viable bioenergy industry in East Central Minnesota.

II. DESCRIPTION OF PROJECT RESULTS

Result 1: Produce forest pest management and forest management plans by tree species including regeneration, restoration and harvesting. **Budget: \$ 7,500**

Result 2: Produce biomass utilization costs workbook. This will provide information to the forest landowner on what the costs of wood extraction -- of all types -- are. Prices will be based-upon delivered prices that are connected-to specific wood and biomass users. **Budget: \$ 7,500**

Result 3: Work with Co-operators on Phase II of Chisago-Isanti-Pine Biofuels study, which will extend / expand research of biofuels and the production / distribution-of biomass raw materials. The project also examines how forest health treatments define biofuels and biomass development. This will lead-to construction of a wood pellet plant (by or before 2014) and, longer term (by or before 2025), a renewable energy facility in East Central Minnesota that converts cellulosic biomass into liquid transportation fuels. **Budget: \$ 20,000**

Deliverable	Completion Date
Result 1. Final documents completed	February 2011
Result 2. Workbook finished	November 2011
Result 3. Augmentation of Studies & Forest Health Treatments on-going, most can be accomplished by	July 2012

III. PROJECT STRATEGY

A. Project Team/Partners

David Cartwright – East Central Woodland Owner’s Council (ECWOC) Steering Committee member and Board Member of East Central Energy. David networks biofuels and biomass uses concepts to Farm Co-ops, Great River Energy, University of MN, County Governments, Soil and Water Conservation Districts, and the Minnesota Legislature.

Steve Kunde – Consulting Forester; will coordinate ongoing research -- with U of MN and the US Forest Service, and MN DNR – on Forest Health threats like oak wilt and emerald ash borer. Steve Nelson – Consulting Forester, ECWOC Treasurer & Steering Committee member, works with private forest landowners, loggers and sawmills, preparing timber sales and completing oak wilt control.

ECWOC Steering Committee Members

Tom Trevorrow, Jean and Joe Crocker - Isanti County private woodland owners, who started to develop a Woodlands Co-op in East Central MN early 2000.

Sam Klocksien, Consulting Forester and Oak Wilt Specialist

Steve Zabinski – Urban Tree Specialist.

Advisors

Kirk Brown – Forester and past-President of Tree Trust for over 30 years.

Jennifer Juzwik – U of M and US Forest Service

Donald Willeke – Attorney, and founding Chair of Minnesota Shade Tree Advisory Committee (MnSTAC).

Partners

East Central Woodland Owner’s Council, East Central Energy, Federated Co-ops, Chisago County EDA (Chris Eng), Chisago County SWCD.

B. Timeline Requirements

Improvements on Forest Health and Biofuels research, uses and applications can evolve over a 10 – 20 year period. Our goal is to have enough economic & scientific data to help develop a pellet facility and/or a small to medium- sized combined heat and power energy complex by July 2012.

C. Long-Term Strategy

This project proposal is a component of a larger, David French Forest Health Initiative project that can be applied regionally or statewide, and will deal – with effective treatments of current forest health problems and effective utilization of the wood resource. These treatments and utilization projects will ensure a continued supply of biomass into the future for Minnesota jobs and energy.

Project Budget

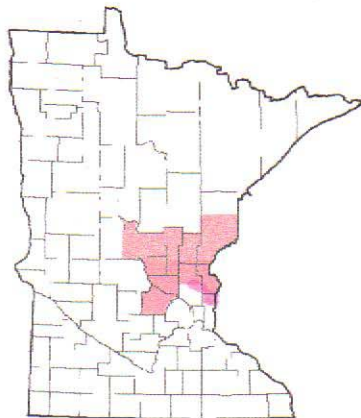
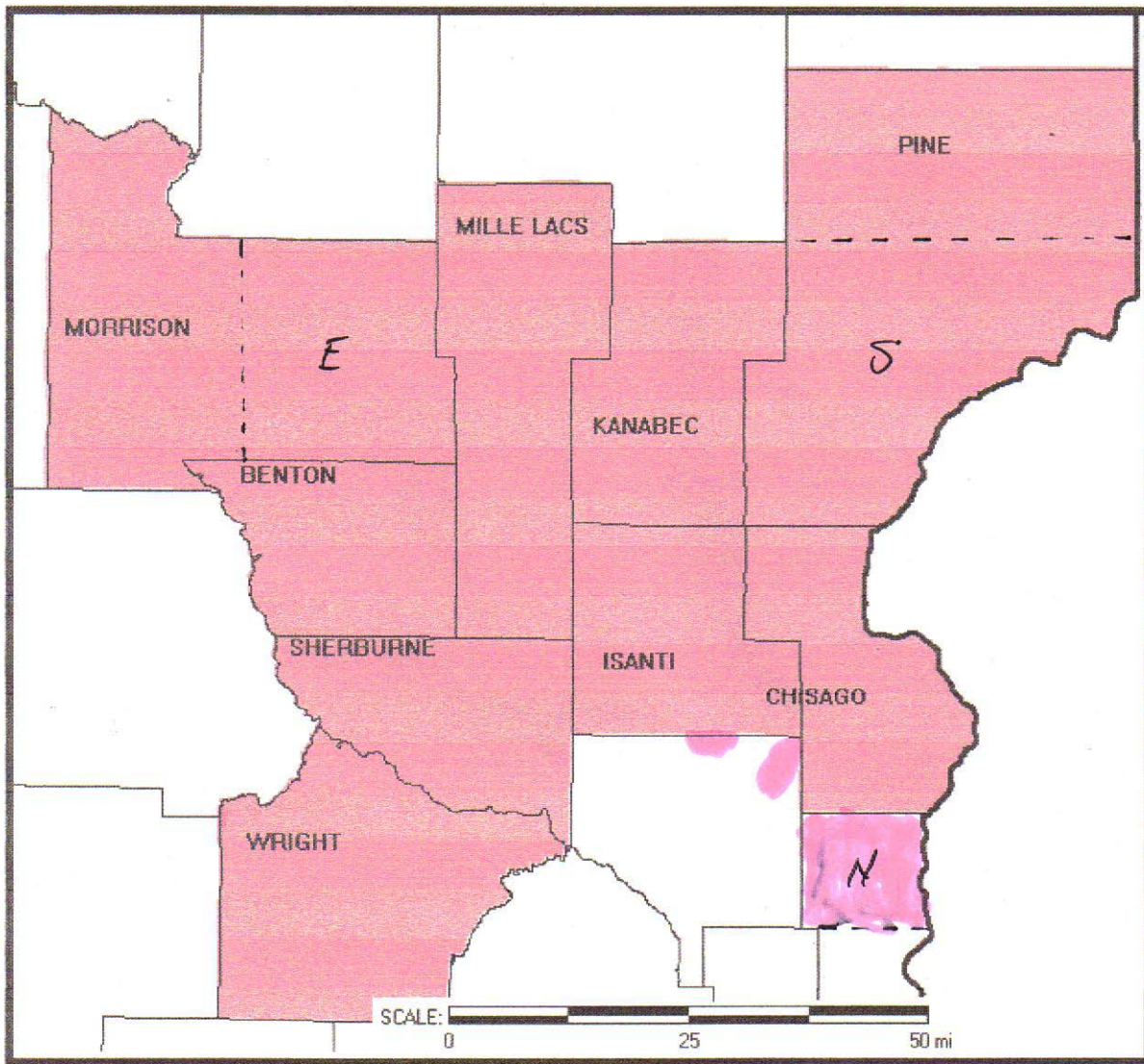
TOTAL PROJECT BUDGET REQUEST TO LCCMR

<u>Budget Item - One year July 2010 - June 2011</u>	<u>AMOUNT</u>
Personnel - Kirk Brown part time Coordinator position salary only	\$ 20,000
Steve Nelson - part time aide to coordinator - Forest Health Technical Support	\$ 2,500
Chisago SWCD - part time aide to Coordinator - BioFuels Research Augmentation Technical Support	\$ 3,750
Contracts: With East Central Woodland Owner's Council, covering meeting expenses, copying and paper expenses	\$ 5,000
Mileage Expenses	\$ 3,750
	\$ -
	\$ -
	\$ -
TOTAL PROJECT BUDGET REQUEST TO LCCMR	\$ 35,000

V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Musser Fund	\$ 3,750	Pending
In-Kind Services ECWOC	\$ 5,000	Planned
	\$ -	

East Central Woodland Owners Council
Project Map



Steve Nelson / E.C.W.O.C. BACKGROUND

Steven F. Nelson – Consulting Forester, Mora, Minnesota.

B.S. Forest Resources Management from University of Minnesota, 1978.

1984 – Present Private Consulting Forester, specializing in oak wilt disease control and forest management & timber sales in southern half of Minnesota.

1996 – 2007 Director, Isanti County Parks and Recreation

East Central Woodland Owner's Council- ECWOC Local/Regional

Created October 18, 1990. Promotes the stewardship of private woodlands in Mille Lacs, Kanabec, Isanti and Chisago counties. Had a resurgence of activity between 1995 and 2001, then limped-along from 2002 until present.

Minnesota Forestry Association - MFA Statewide

Minnesota's oldest conservation organization.

MFA was created in 1876 by a group of Minneapolis women who were compelled to stop the lumber companies from taking advantage of Indians and their lands in north central Minnesota. This organization was formed in the middle of the "Big Give Away" when 4 out of 5 homesteader's abandoned their land. During this same time period lumber companies clear-cut the land, then either let it go forfeit, or tried to sell it -- mostly to recently-arrived settlers -- as "good farmland". This behavior (of the companies) led to the collapse of northern Minnesota's economy, described in the 1930's as "one of the Nation's most critical social and economic problems". It also created a lot of Minnesota's State Forests and State Parks. MFA faded-away until the early 1970's and was "reborn" in 1978.

MFA s' Mission Statement is:

"works on behalf of family forest owners, through education and advocacy, to promote stewardship of woodlands".

MFA is a non-profit 501(c)(3) and parent organization for those woodland councils or committees in Minnesota that have Chapter status.

** - Between the 1850's and the early 1900's, any head of household could lay claim to 160 acres, with title to the land transferred after 5 years' residency and the most minimal improvements.