

**Environment and Natural Resources Trust Fund
2012-2013 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 026-B

Redesigned State and County Land Forest Inventory System

Topic Area: B. Forestry/Agriculture/Minerals

Total Project Budget: \$ 3,400,000

Proposed Project Time Period for the Funding Requested: 2 yrs, July 2013 - June 2015

Other Non-State Funds: \$ 0

Summary:

Redesign and begin implementing a state and county forest land inventory system that better meets current user needs, integrates parallel inventory systems, and incorporates modern design and technological efficiencies.

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Sponsoring Organization: MN DNR

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Location

Region: Statewide

County Name: Statewide

City / Township:

<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> Employment	<input type="checkbox"/> TOTAL <input type="checkbox"/> %



Environment and Natural Resources Trust Fund (ENRTF) 2012-2013 Main Proposal

PROJECT TITLE: *Redesigned State & County Land Forest Inventory System*

I. PROJECT STATEMENT

Since the early 1980s, DNR has maintained its current forest inventory on 5 million acres of DNR lands. Several counties maintain forest inventory data using the same DNR methods. This inventory is THE principle, core dataset upon which DNR and county forest management decisions are founded. Everything from statewide (or county-wide) and landscape-level strategic planning, to multi-year and annual operational plans, to day-to-day forest management decisions rely on the inventory data.

However, the current inventory system was developed decades ago and much has changed since then, including technology, resource management issues, data demands, user needs, and available budgets and staffing. As a result, the current inventory struggles to remain sustainable and meet current needs.

Project Goals:

- Improve the quality, reliability, utility, scope and timeliness of forest resource information (status and change) on state and county forest lands.
- Better integrate currently separate state and county land inventory and monitoring systems for more efficient use of limited resources.
- Improve forest resource use, conservation and protection policies and management decisions based on the most relevant and current resource information.

Project Outcomes:

- More reliable, relevant, and timely information about the status of and changes to forest resources on state and county lands, including for example: timber and other forest vegetation; native plant communities; biomass; carbon stocks; and terrestrial invasive species.
- A modernized and improved forest inventory system and technology that provides for the more efficient and effective gathering, recording and analysis of critical natural resources information by resource professionals and land managers.
- An improved understanding about the current and changing condition of state and county forest lands, leading to better, more informed decisions and by: natural resource policy makers; professional forest land managers; stakeholders; and the general public.

This project will convene a project team of DNR, county and university experts and practitioners to design and develop a new forest land inventory system to meet current needs and incorporate efficiencies to address current and anticipated budget and staffing realities. The new inventory system would then be applied and evaluated on a pilot area totaling 400,000 acres of state and county lands.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: *Identify the Preferred Alternative for a Redesigned Forest Inventory System* **Budget:** \$250,000
DNR staff and partners would convene a project team to examine various alternatives to consider for redesigned forest land management inventory. The strengths and weaknesses of the alternatives would be analyzed and a recommended redesign identified, including procedures, data to be collected, methodology for collecting data, procedures for recording data, along with cost estimates.

Outcome	Completion Date
1. Convene project team	7/15/2013
2. User needs analysis & identify reasonable inventory objectives	9/30/2013
3. Identify redesign alternatives	10/30/2013

4. Analyze alternatives	12/1/2013
5. Select the alternative to fully develop	12/15/2013

Activity 2: Fully develop & prepare for implementing the Redesigned Inventory System Budget: \$750,000
DNR staff and partners would take the selected redesign inventory concept and fully develop the standards, procedures and methodologies needed to begin implementation. This would include some field testing of data collection techniques and information systems development. Training would be provided to DNR and county staff in the design, application and use of the new inventory system.

Outcome	Completion Date
1. Paper and internet page describing field techniques of new inventory system	6/30/2014
2. Technology white paper for new data storage, acquisition and delivery	6/30/2014
3. Select field staff from participating partners	7/15/2014
4. Train the trainers	10/31/2014

Activity 3: Implementation new system on targeted initial areas Budget: \$2.4 million
Apply the new inventory system to a strategically located target area of approximately 400,000 acres. This will provide users and stakeholder to evaluate and improve the new system prior to expanding to additional areas.

Outcome	Completion Date
1. New inventory data available to Foresters, Planners, others for pilot area	6/30/2015
2. Evaluate, fix problems, re-deploy	6/30/2015

III. PROJECT STRATEGY

A. Project Team/Partners

Jon Nelson (DNR Resource Assessment Supervisor) is the project manager, will be partially supported by project funds, and will convene and direct the project team. Four additional staff from the DNR Resource Assessment unit will also be supported by project funds, including 1 GIS specialist, 2 natural resource inventory specialists, and 1 biometrician. Other DNR staff, and partners from the University of Minnesota (CFANS) and participating counties would contribute in-kind staff time as project team experts primarily in the scoping and redesign phase of the project (i.e., Activities 1 and 2 above).

B. Timeline Requirements

The proposed project is expected to last 24 months, from July 1, 2013- June 30, 2015. Activities need to occur and be completed in the sequenced order and timeline above. Activity three is most dependent on seasonal field conditions, depending on the data included in the inventory redesign. For example, native plant community inventory requires early summer leaf-on, snow-free conditions; other inventory efforts demand frozen conditions. Activity 3 may extend into a third project year if data and seasonal conditions dictate.

C. Long-Term Strategy and Future Funding Needs

Additional funding will be needed to expand and complete the implementation of the new inventory system on remaining state and participating county forest lands. Once the system is proven, additional funding may come from multiple sources, including state and county operating funds, additional LCCMR requests, and other state funding sources currently supporting other inventory systems that may be integrated in the new system. The new inventory system would operate alongside the existing forest inventory, allowing for flexibility in timeframes for completing the new inventory state- or county- wide. The level of future funding needs will be better known once the current project is completed.

2012-2013 Detailed Project Budget

Redesigned State and County Land Forest Inventory System

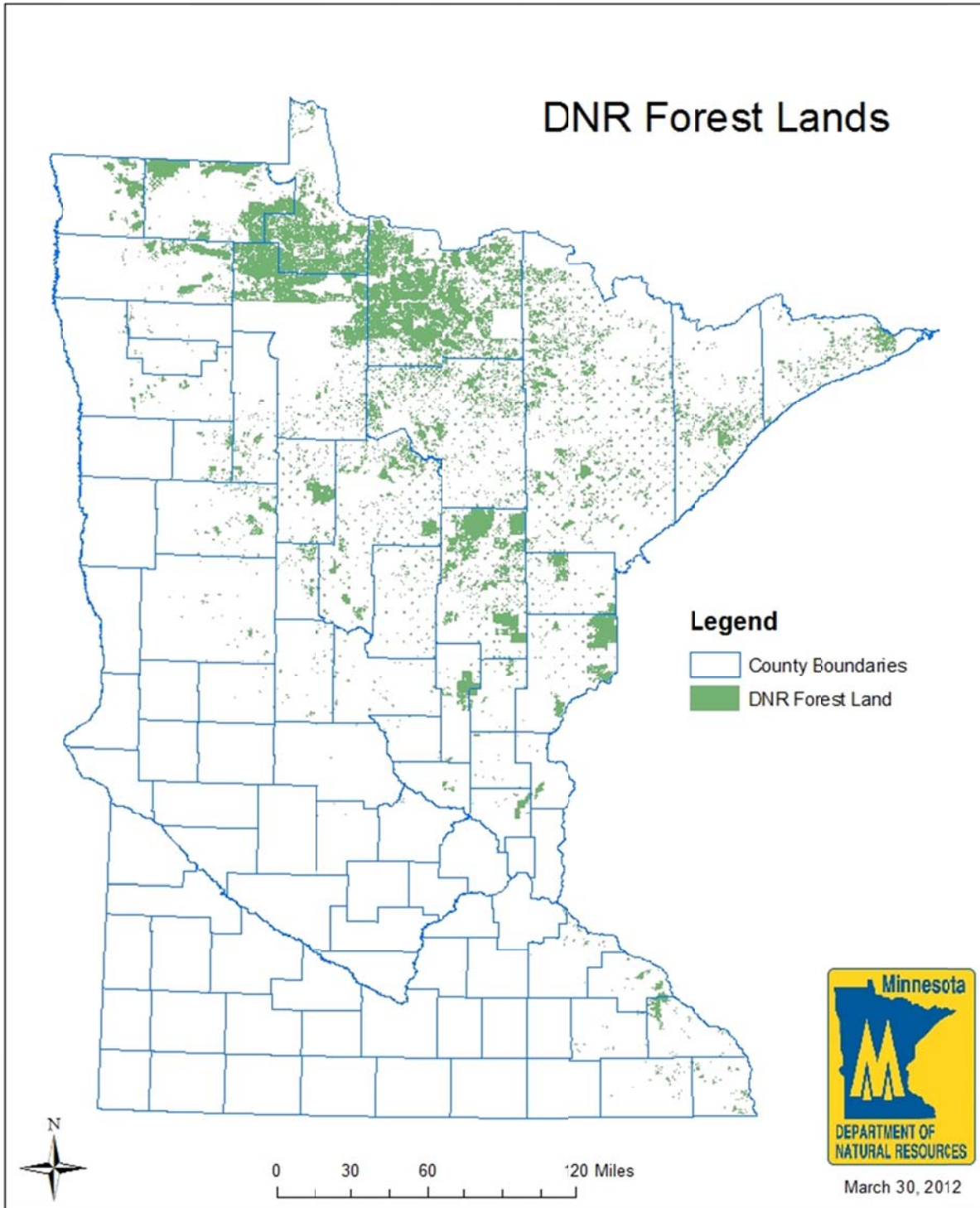
IV. TOTAL ENRTF REQUEST BUDGET 2 years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel: DNR Resource Assessment (RA) is a fully self-supported entity and must cover all salaries, overhead and operational costs through project dollars. Rates have been established at \$90.00 (see M.S. 84.025, subd. 9; 84.026; 84.0855; 89.421). Salaries in this cell are for RA staff at the current rate.	\$ 800,000
Contracts: Forest Inventory Contractors	\$ 2,250,000
Equipment/Tools/Supplies: Inventory equipment, including flagging, pins and data recorders.	\$ 55,000
Acquisition (Fee Title or Permanent Easements):	\$ -
Travel: travel time for "check-cruising" (field verifying) contractor work.	\$ 75,000
Additional Budget Items: DNR used a rate of 6.5% to calculate costs for direct support services, which are DNR's direct and necessary business services required to support this proposal.	\$ 220,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 3,400,000

V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ Being Applied to Project During Project Period: N/A	\$ -	
Other State \$ Being Applied to Project During Project Period: Depending on the final inventory design, there may be an opportunity to tap funding from other state sources currently being spent on other inventory efforts that may be merged in the redesigned inventory.	\$ -	Pending
In-kind Services During Project Period: Partner and DNR staff time in identifying and developing the new forest inventory design.	\$100,000 to \$200,000	Pending
Remaining \$ from Current ENRTF Appropriation (if applicable):	\$ -	
Funding History: .	\$ -	

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Project Manager Qualifications

Project Manager: Jon Nelson

Affiliation: Department of Natural Resources, Division of Forestry

Telephone Number: 651-259-5278

Title: Forest Policy and Planning Supervisor

Jon Nelson has over 25 years of experience working for the DNR Division of Forestry in various professional and supervisory positions, most of which involved various aspects of forest management planning (i.e., strategic and operational), forest management policy analysis, development and implementation, and interdisciplinary coordination on forest management issues. Currently he supervises the division's Forest Policy and Planning, Forest Certification, and Forestry Information Systems programs. He spent several years in the field collecting forest inventory data on DNR lands and for the past year supervised the DNR Resource Assessment unit (located in Grand Rapids).

Organization Description

The Minnesota Department of Natural Resources' overall mission is to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.

The Division of Forestry manages 58 state forests and 4.2 million acres of land for multiple forest resources, maintains over 2,000 miles of state forest roads that provide access to state and other forest lands, is responsible for protecting people, property and natural resources from wildfire on 45.5 million acres of land in Minnesota and works with private landowners, partner organizations, and consulting foresters to promote sustainable management on 5.7 million acres of non-industrial private forestland.

The DNR maintains a forest inventory for DNR administered forest lands under the authority of M.S. §84.03 that directs the commissioner to "collect and arrange statistics and other information in reference to the lands and general and specific resources of the state;" under M.S. §90.041 that directs the commissioner to "make thorough inquiry into the extent, character and value of the timber on all state lands;" and under M.S. §89A.07 that directs the commissioner to "establish a program for monitoring broad trends and conditions in the state's forest resources."