



## Environment and Natural Resources Trust Fund (ENRTF) M.L. 2011 Work Plan

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**Date of Status Update:**

**Date of Next Status Update:** 12/1/2011

**Date of Work Plan Approval:** 6/23/2011

**Project Completion Date:** 6/30/2014

**Is this an amendment request?** \_\_\_\_\_

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**Project Title:** Information System for Wildlife and Aquatic Management Areas

**Project Manager:** Steve Benson

**Affiliation:** MN DNR

**Address:** 1201 E Hwy 2

**City:** Grand Rapids **State:** MN **Zipcode:** 55744

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**Location:**

**Counties Impacted:** Statewide

**Ecological Section Impacted:** Lake Agassiz Aspen Parklands (223N), Minnesota and Northeast Iowa Morainal (222M), North Central Glaciated Plains (251B), Northern Minnesota and Ontario Peatlands (212M), Northern Minnesota Drift and lake Plains (212N), Northern Superior Uplands (212L), Paleozoic Plateau (222L), Red River Valley (251A), Southern Superior Uplands (212J), Western Superior Uplands (212K)

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**Total ENRTF Project Budget:**

**ENRTF Appropriation \$:** 500,000

**Amount Spent \$:** 0

**Balance \$:** 500,000

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**Legal Citation:** M.L. 2011, First Special Session, Chp. 2, Art.3, Sec. 2, Subd. 03j

**Appropriation Language:**

\$250,000 the first year and \$250,000 the second year are from the trust fund to the commissioner of natural resources to develop an information system to facilitate improved management of wildlife and fish habitat and facilities. This appropriation is available until June 30, 2014, by which time the project must be completed and final products delivered.

## **I. PROJECT TITLE: Wildlife and Aquatic Management Area Work Planning Information System**

### **II. PROJECT SUMMARY:**

Develop a DNR WMA/AMA Enterprise Information System to facilitate protection, enhancement and restoration of wildlife and fish habitat and facilities, and facilitate work planning, budgeting and reporting.

Minnesota DNR manages over 1.3 million acres contained within over 2,135 State Wildlife Management Areas (WMA) and Aquatic Management Areas (AMA).

DNR Division of Fish and Wildlife has spent over ten years building WMA/AMA databases, and an existing Geographic Information System (GIS) as funds were available. This proposal is intended to build on that effort, and produce a product that will allow unprecedented internal and external access to up-to-date WMA/AMA information, and the ability to use that information to identify WMA/AMA project needs; and prioritize and plan efforts to fund and carry out habitat and facilities management activities on WMAs and AMAs.

The software used in the current system is obsolete. A new system needs to be built to continue to manage and share all the existing data. Rebuilding means we have an opportunity to build in changes that could support identifying ongoing habitat and facility management needs, indentifying deferred obligations and support coordinated project planning. Not rebuilding puts the integrity of the data at risk, and maintains only the status quo on the DNR's ability to assess habitat conditions, and plan for future enhancement and protection needs.

This system would provide the ability to quickly summarize information to answer questions on project needs and funding, such as deferred obligations. Reports on habitat enhancement and facilities management needs will enable DNR and cooperators to pursue funding from sources other than Fish and Game, e.g., bonding, LCCMR, L-SOHC, private NGO grants, federal grants or other funds. Designing a system to accommodate both WMA and AMA data will allow the Sections to coordinate management activities within a common framework, thus improving DNR Fisheries and Wildlife divisional operations such as planning, mapping and reporting.

The objectives of the project are: (1) update the current GIS for vegetation, facilities and recreation potential, and build it as an integrated component of the DNR Enterprise system, (2) create tools for assessing and analyzing the unmet needs for WMA/AMA habitat and facility enhancement, protection and maintenance, (3) create tools to collect and record information on projects for habitat/facilities enhancement and protection activities and (4) make the resulting information and reports available to the public and resource management partners.

### **III. PROJECT STATUS UPDATES:**

**Project Status as of December 2011:**

**Project Status as of June 2012:**

**Project Status as of December 2012:**

**Project Status as of June 2013:**

**Project Status as of December 2013:**

**Project Status as of June 2014:**

**Final Report Summary August 2014:**

**IV. PROJECT ACTIVITIES AND OUTCOMES:**

**ACTIVITY 1:** Develop the WMA/AMA component of the Enterprise System

**Description:**

Build an integrated GIS component to capture and update existing GIS information on WMA/AMAs; boundaries, vegetation, habitat, facilities, deeds, acquisitions and public recreation opportunities.

**Summary Budget Information for Activity 1:**

**ENRTF Budget: \$ 193,500**  
**Amount Spent: \$ 0**  
**Balance: \$ 193,500**

**Activity Completion Date:**

<b>Outcome</b>	<b>Completion Date</b>	<b>Budget</b>
Information system for administrative, vegetation, facilities and recreation information completed.	June 2013	\$177,500
Purchase servers to support system	June 2013	\$16,000
Databases fully populated.	June 2014	\$0

**Activity Status as of December 2011:**

**Activity Status as of June 2012:**

**Activity Status as of December 2012:**

**Activity Status as of June 2013:**

**Activity Status as of December 2013:**

**Activity Status as of June 2014:**

**Final Report Summary August 2014:**

**ACTIVITY 2:** Develop a field data recording system

**Description:**

Design and build a system that captures field activities, e.g., seeding, prescribed burning, planting, invasives management, shoreline and habitat restoration, grassland conversions and provides for seamless integration with the GIS and planning/reporting components.

**Summary Budget Information for Activity 2:**

**ENRTF Budget: \$ 120,000**  
**Amount Spent: \$ 0**

**Balance: \$ 120,000**

**Activity Completion Date:**

<b>Outcome</b>	<b>Completion Date</b>	<b>Budget</b>
Field data collection and recording system developed	December 2013	\$70,000
Purchase field data recorders	December 2013	\$50,000
Field data fully entered into system	June 2014	\$0

**Activity Status as of December 2011:**

**Activity Status as of June 2012:**

**Activity Status as of December 2012:**

**Activity Status as of June 2013:**

**Activity Status as of December 2013:**

**Activity Status as of June 2014:**

**Final Report Summary August 2014:**

**ACTIVITY 3:** Create assessment, project prioritization, planning and reporting tools

**Description:**

Develop system tools for assessing habitat restoration and enhancement requirements and defining facilities management and maintenance project needs. Prioritize these needs for habitat and facilities, and use the information to build long-range management plans and help focus more immediate work planning on WMAs and AMAs.

**Summary Budget Information for Activity 3:**

**ENRTF Budget: \$ 186,500**  
**Amount Spent: \$ 0**  
**Balance: \$ 186,500**

**Activity Completion Date:**

<b>Outcome</b>	<b>Completion Date</b>	<b>Budget</b>
System developed to assess habitat and facilities management needs. Project planning, management, coordination and accomplishment reporting tools developed.	June 2013	\$186,500
Resource and project management data entered, reports and plans available.	June 2014	\$0

**Activity Status as of December 2011:**

**Activity Status as of June 2012:**

**Activity Status as of December 2012:**

**Activity Status as of June 2013:**

**Activity Status as of December 2013:**

**Activity Status as of June 2013:**

**Final Report Summary August 2014:**

## **V. DISSEMINATION:**

The result of this project will be a new information system and databases. Fish and Wildlife Information Technology (FAW IT) staff will create training materials and provide training sessions and support to Area, Region and Central Office staff. The information system will work from a set of central databases, and use of the system will be accomplished over the DNR network and Intranet. GIS data will be continue to be used to populate existing/enhanced public web applications such as the DNR WMA/AMA finder and the GIS Data Deli.

The overall objective is to create a system to assist in land management, project proposals, project tracking, habitat development/maintenance and facilities management. The use of this system at various levels within the DNR will provide the follow general benefits:

- For front line natural resource managers, put information about the land, habitat and facilities at their fingertips. This allows easy access to data, improving planning, decision making and the capability to use data and maps for day to day work accomplishments.
- For Fish and Wildlife (FAW) programs and employees who manage land interests, streamline processes for acquiring lands, proposing and managing projects, and reporting on status and accomplishments. This includes a new tool that allows both scoring and ranking of proposed acquisitions, including proposals from conservation partners.
- For executives and others charged with planning and funding projects, provide more information about resource management needs, plans, potential projects and timelines. This includes current summaries of resource and facilities management needs and obligations.
- For other DNR programs and divisions, make project activities, plans and goals more transparent.
- For the public, provide more information about state lands, how they are administered, how to access them and the outdoor recreation opportunities available on them.

**Activity Status as of December 2011:**

**Activity Status as of June 2012:**

**Activity Status as of December 2012:**

**Activity Status as of June 2013:**

**Activity Status as of December 2013:**

**Activity Status as of June 2014:**

**Final Report Summary August 2014:**

## **VI. PROJECT BUDGET SUMMARY:**

**A. ENRTF Budget:**

<b>Budget Category</b>	<b>\$ Amount</b>	<b>Explanation</b>
Professional/Technical Contracts:	\$434,000	Contract with DNR Management Information Systems for professional services; system design, programming, hardware and software support. Contract with an outside vendor for additional system programming.
Equipment/Tools/Supplies:	\$50,000	25 field data recorders and software
Capital Equipment over \$3,500:	\$16,000	2 network servers and software licenses sufficient to allow field staff to remotely use GIS tools to enter and manage data
<b>TOTAL ENRTF BUDGET:</b>	<b>\$500,000</b>	

**Explanation of Use of Classified Staff:**

MIS Staff will be contracted to assist in designing a system that functions smoothly with existing DNR enterprise wide systems, and leverages the work that has gone into creating these systems. These are the staff who designed and built the internal systems, and are the only people with the complex knowledge of how the systems work and how to best integrate additional systems. MIS will contract out those portions of the general programming that can be done without the expertise of DNR IT personnel.

**Explanation of Capital Expenditures Greater Than \$3,500:**

Additional network servers will be required to handle the load of many people entering data and using this new system.

**Number of Full-time Equivalent (FTE) funded with this ENRTF appropriation:**

**B. Other Funds:**

<b>Source of Funds</b>	<b>\$ Amount Proposed</b>	<b>\$ Amount Spent</b>	<b>Use of Other Funds</b>
<b>State</b>			
Game and Fish Fund operations	\$380,000	\$	In-kind cost of FAW staff for three years
General fund and other funds as appropriate	\$ 6,481		Shared Services Costs. Shared services (operations support governance) are services that DNR relies on in order to conduct business and support the work of the department. These services are more efficient when shared.
<b>TOTAL OTHER FUNDS:</b>	<b>\$386,481</b>	<b>\$</b>	

*Add or remove rows as needed*

**VII. PROJECT STRATEGY:**

**A. Project Partners:**

FAW IT staff, field staff and DNR MIS IT staff will work to design, build and populate this system. FAW will contract and work closely with MIS for system design and programming; field staff will provide direction, guidance and create data on needed field projects and plans. MIS Staff will assist in designing a system that functions smoothly with existing DNR enterprise-wide systems, and leverages

the work that has gone into creating these systems. MIS will contract out those portions of the general programming that can be done without the expertise of DNR IT personnel.

FAW IT staff will assist with design and development, and provide support and training as the system is rolled out at offices across the state. FAW and MIS have been working for the last six months to determine user needs, system requirements, scope and risks sufficient to have defined a Business Object Model, a conceptual system design and a series of Use Cases and example screens so the FAW development team can review and agree on the overall function and uses of the system.

Project Manager: (1) Steve Benson, Wildlife GIS Supervisor, [steve.benson@state.mn.us](mailto:steve.benson@state.mn.us); (218) 327-4149. MIS Staff will include the GIS Program Manager, the Data and Applications Manager, the Data Administrator and the Systems Analysis Unit Supervisor. FAW staff includes IT supervisors; GIS staff; systems development and programming staff, as well as field, regional and central office staff for oversight, review, approval and data entry.

**B. Project Impact and Long-term Strategy:**

FAW has spent over ten years building WMA/AMA data and GIS systems. The proposed new system would solve the obsolete software problem, and integrate AMA/WMA management into DNR Enterprise Systems such as the new Land Records System. The use of this system will be long term, and will support WMA/AMA habitat and facilities management, enhancement, planning and funding into the foreseeable future.

**C. Spending History:**

Funding Source	M.L. 2005 or FY 2006-07	M.L. 2007 or FY 2008	M.L. 2008 or FY 2009	M.L. 2009 or FY 2010	M.L. 2010 or FY 2011

*(This program is in its first year of ENTRF funding. DNR has spent significant time and resources preparing for this phase of work in prior years. )*

**VIII. ACQUISITION/RESTORATION LIST: N/A**

**IX. MAP(S):** Statewide project

**X. RESEARCH ADDENDUM: N/A**

**XI. REPORTING REQUIREMENTS:**

Periodic work plan status update reports will be submitted not later than June 2012, December 2012, June 2013 and December 2013. A final report and associated products will be submitted between June 30 and August 1, 2014 as requested by the LCCMR.

Attachment A: Budget Detail for M.L. 2011 (FY 2012-13) Environment and Natural Resources Trust Fund Projects											
<b>Information System for Wildlife and Aquatic Management Areas</b>											
Project Manager: Steve Benson											
M.L. 2011 (FY 2012-13) ENRTF Appropriation: \$ 500,000											
Project Length and Completion Date: 3 years, June 2014											
Date of Update: June 16, 2011											
ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Balance	Activity 2 Budget	Amount Spent	Balance	Activity 3 Budget	Amount Spent	Balance	TOTAL BUDGET	TOTAL BALANCE
<b>BUDGET ITEM</b>	<i>Develop the WMA/AMA component of the Enterprise System</i>			<i>Develop a field data recording system</i>			<i>Create assessment, project prioritization, planning and reporting tools</i>				
Professional/Technical Contracts: Contract with DNR Management Information Systems for professional services; system design, programming, hardware and software support. Contract with an outside vendor for system programming.	177,500			70,000			186,500			434,000	
Equipment/Tools/Supplies: 25 field data recorders				50,000						50,000	
Capital equipment over \$3,500: Two network servers	16,000									16,000	
<b>COLUMN TOTAL</b>	<b>\$193,500</b>			<b>\$120,000</b>			<b>\$186,500</b>			<b>\$500,000</b>	