

**Main Request for Funding Form**

**Lessard-Sams Outdoor Heritage Council  
Fiscal Year 2012**

**Program or Project Title: DNR AQUATIC HABITAT PROGRAM**

<b>Funds Requested (\$000s)</b>	<b>Funding Request</b>	<b>OHF Out-Year Projections of Needs</b>		
	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
Outdoor Heritage Fund	<b>\$ 17,815</b>	17,000	17,000	17,000

**Manager's Name:** Michael Duval  
**Organization:** Minnesota Dept of Natural Resources  
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**Organization Web Site:** www.mndnr.gov

**County Location:** *[Only need to enter on web form.]*

**Ecological Planning Regions:**

- Northern Forest       Forest/Prairie Transition       Southeast Forest  
 Prairie       Metro/Urban

**Activity Type:**

- Protect       Restore       Enhance

**Priority Resources addressed by activity:**

- Wetlands       Forests       Prairie       Habitat

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### Project Abstract

We will use a programmatic approach to achieve prioritized aquatic habitat protection, restoration, and enhancement for lakes, trout streams, and rivers across all LSOHC planning regions of Minnesota.

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### Project Narrative

#### Design and scope of work

##### *Problem to be addressed*

Minnesota's aquatic habitats have been degraded or threatened by a century or more of land, hydrology, and human settlement related alterations. The consequences to aquatic species have been reduced habitats for essential life history stages, lack of access to traditional spawning areas, and fragmentation of formerly continuous habitat that served as corridors to facilitate seasonal movements.

Geographically, aquatic habitats are in various states of quality and experiencing differing levels of environmental stress with a general pattern of healthy habitats under low stress in the northeast and less healthy habitats under high stress in the southern and western portions of the state (see Figure H-15 in the State Conservation and Preservation Plan). But even within this generalized pattern there are many notable exceptions – some aquatic habitats are exhibiting declining quality from local environmental stress in the otherwise low stress landscape of the northeast, while some moderate to high quality aquatic habitats still persist within the high environmental stress landscape to the west and south. Against this backdrop, DNR has a diverse infrastructure of habitat programs that provide a meaningful framework for delivering habitat protection, restoration, and enhancement throughout the state.

##### *Urgency and opportunity*

A recent series of articles entitled *Losing Our Lakes* in the Minneapolis Star Tribune highlighted a few case examples of both urban and lakeshore development and their degrading effect on Minnesota's lakes. The underlying conclusion of the series was that Minnesota's current development trajectory is not only unsustainable, but it is tremendously costly and difficult (if not uncertain) to undo the ecological damage to our prized aquatic resources from short-sighted development choices. The articles have left some Minnesotans angry, frustrated, or even hopeless about the future of their common heritage.

Yet this is not the first time a story like this has been told. Dennis Anderson's four-part series, *The State We're In*, published by the Star Tribune nearly a decade previous highlighted a century's worth of aquatic habitat degradation that has occurred throughout the Land of 10,000 Lakes. The Anderson series stirred Minnesotans' consciousness, stimulated debate between the conservation community and policy makers, and perhaps germinated the seed leading to historic passage of the Clean

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Water, Land and Legacy Amendment. But it did not change what was happening on the land and in the water across Minnesota. The ensuing decade since the Anderson series was published only saw an accelerated pace of aquatic habitat degradation as the real estate bubble continued to grow and the now retiring baby-boomer generation increasingly bought up and developed their own piece of Minnesota's lake heritage. Transportation infrastructure improved to more rapidly deliver Minnesotans from their homes in metropolitan areas to lakes country and the north woods in pursuit of vacation and recreation. The increased convenience of access to lakes country fueled development of seasonal homes and with them, removal of riparian habitats and the destruction and disturbance of nearshore, shallow water habitats by docks, sand blankets, and recreational boating activities. Federal farm policy continued to underfund conservation programs while emerging biofuel energy initiatives indirectly encouraged the conversion of existing conservation lands back into row-crop production. In short, the decision-making shortcomings highlighted by the Star Tribune *Losing Our Lakes* series are only a symptom of much greater economic and social drivers adversely affecting aquatic habitats throughout Minnesota.

But the current economic downturn creates a significant opportunity to deliver aquatic habitat conservation via the three-legged stool of protection, restoration, and enhancement. Real estate prices have moderated and provide good conservation value for fee title and conservation easement acquisitions. The state's construction workforce is more available for conservation restoration and enhancement projects following the decline of new start-ups in the building sector. Federal economic stimulus funding is being directed at major aquatic landscapes that include Minnesota such as the Great Lakes and the Mississippi River Basin and thereby represents an opportunity to leverage significant federal dollars. Federal legislation (the National Fish Habitat Conservation Act) is currently pending in Congress that would direct an additional \$75 million annually toward aquatic habitat protection, restoration, and enhancement work nationwide. These are certainly hard times but there is also a tremendous window of opportunity to create a conservation legacy for future generations much like was achieved 80 years ago.

### *Scope of the work*

This proposal uses a programmatic approach to achieve prioritized aquatic habitat protection, restoration, and enhancement for lakes, trout streams, and rivers across Minnesota. We propose to: i) protect over 38 miles of shoreline on lakes, rivers and trout streams; ii) restore and enhance river and stream functions that will benefit up to nearly 700 river miles; iii) enhance nearly 32 miles of shoreline habitat on publicly-owned lakeshore; iv) effect structural repair and modification to 1 dam that will integrate fish passage and restore connectivity to over 10 upstream river miles; and v) enhance fish passage through road culverts at 8 high-value stream sites around the state, thereby reconnecting access to an estimated 24 upstream miles. The strategic approach and priority resources targeted in this proposal are supported by a number of

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internal and external conservation planning documents. The DNR will implement the objectives of this proposal through established and highly successful programs each having strong stakeholder support including: Aquatic Management Area Program, Shoreland Habitat Restoration Program, Stream Habitat Program, and Coldwater Streams Program.

*How will this directly relate to restoring, protecting, or enhancing habitat? Why will this strategy work?*

Acquisition of priority habitats provides permanent protection backed by state and federal laws. The AMA designation unit within the Outdoor Recreation System was established by the Legislature in 1992 and has strong support from conservation groups and anglers. The AMA Program currently has an inventory of 830 miles of shoreline in over 330 AMAs, which provide permanent protection of critical riparian habitats, perpetuate fish and wildlife populations, safeguard water quality, and offer public recreational access opportunities as an important additional benefit.

Channel restoration, dam modification, and shoreline enhancement work is based on proven methods and DNR experience with multiple projects. By drawing on accumulated scientific knowledge, DNR strives to deliver the best possible restoration and enhancement projects using the best available science.

The DNR has worked on large-scale river and stream restoration projects since 1998 and has completed or assisted in design elements of over 100 stream projects addressing restoration, fish passage, dam removal and dam modification to rapids. Providing fish passage over in-stream barriers such as low-head dams reconnects fish and other aquatic species to upstream habitats essential for spawning, juvenile life stages, and overall abundance and genetic diversity. Stream restoration projects reconstruct the stream's natural pattern, profile, and dimension and address the key components of a stream: wildlife and fish habitat, water quality, connectivity to the floodplain and upstream reaches, and hydrology. Natural stream design favors hydrologic conditions that do not degrade the stream bank or bed and provides a diversity of microhabitats that are more favorable to fish and other aquatic species. As examples of implementing these strategies, DNR has conducted large-scale projects to restore the Whitewater River to its original channel and reconnected nearly the entire Minnesota portions of the Red River by direct dam removal or modification leaving only a few dams presently remaining that impede movement of fish (primarily lake sturgeon). These are significant and durable accomplishments benefiting aquatic habitat.

Scientific studies from throughout the Midwest have shown that shoreline development negatively impacts the quantity and quality of aquatic habitat. DNR research on spawning site selection by bass and crappie indicates that these species avoid developed shoreline for spawning even when suitable in-lake habitat is present there.

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Further, a Michigan study of bass nesting found reduced nesting success and fry production associated with developed shorelines in comparison to undeveloped areas of the same lake. Numerous studies in Wisconsin have shown a simplification of vegetation and woody habitat and declines in important non-game species like frogs and neo-tropical songbirds correlated with development of shorelines. And finally, preliminary results of on-going academic research funded by DNR through a federal SWAP grant is showing strong association of longear sunfish, a species of greatest conservation need (SGCN), with aquatic habitat fragments along developed shorelines, indicating, in contrast to game species research, the ability of some non-game species to utilize small remnant patches of habitat (preserved or restored). Therefore, pulling back human activities from the immediate shoreline area by use of native vegetated buffers, enhancing remnant patches of shoreline and nearshore habitat, and concentrating human activity to narrow access points at the shore-lake interface are collectively seen as a key strategy to overcome the adverse impacts of human shoreline development on game and non-game aquatic species. The DNR Shoreland Habitat Program was developed to address this strategic need and has conducted shoreline enhancement projects for over 10 years. During that time the program has grown in scope and popularity and enhanced over 21 miles of shoreline on lakes across the state including many challenging high erosion sites. The annual number of shoreland restoration projects completed has increased from 23 in 2002 to 60 in 2009. At the end of this L-SOHC grant period, public shoreline including AMAs and other state, county, township, and municipal lands will be enhanced to provide erosion protection, habitat diversity for multiple species of fish and wildlife (including game species and SGCNs), and enhanced aesthetics. Native plants and natural materials will be utilized to increase habitat complexity, provide protective cover, stabilize shorelines, and firmly anchor soils. And habitat benefits will continue to accrue beyond the term of this grant as project sites mature and the shoreline assumes a more natural character.

### *Parcel selection and scoring process*

To achieve the program goals of this proposal, DNR will implement AMA acquisition and stream habitat restoration projects from existing prioritized lists. Natural resource plans provide much of the criteria for prioritizing habitat protection, restoration, and enhancement activities. For example, AMA acquisition and large-scale stream restoration and enhancement projects are scored based on a suite of criteria ranging from scope of project and quality of resource benefited to project readiness and feasibility. The sum of these scores creates a ranking value from which to prioritize among the many available project opportunities. See pp. 40-41 of AMA Plan for example of scoring criteria.

Other projects are more opportunity driven such as lakeshore habitat or fish passage enhancement where the needs are ubiquitous. Priorities are then based upon willing

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landowners, capable partners, and magnitude of the project or benefit to the resource. Projects that enhance a sizeable length of shoreline, reconnect access to many miles of formerly severed stream, or build upon previous projects within a habitat complex are examples of prioritization considerations.

### *Level of stakeholder opposition to and involvement in this proposal.*

DNR has held face-to-face coordination discussions with several of our conservation partners and stakeholders about the elements of this proposal. They are informed of the aquatic habitat activities contained here and are supportive of our proposed approach.

From these discussions, it is clear that we have some priority project sites in common and we have coordinated which party will take the lead in submitting a funding proposal to the Council. Because this proposal seeks implementation funding to work through DNR's prioritized lists of project opportunities, the Council may see some project sites on our parcel list that also may appear as individual project proposals submitted by some of our local partners. For example, after extensive coordination discussions and joint planning efforts, our watershed district partners in the Red River Valley have submitted a proposal to the Council to fund habitat restoration work on the Mustinka River, which is a high-priority DNR project and appears on this proposal's parcel list, as well. This is not an attempt to double-dip, but rather, is transparent disclosure of the projects that DNR sees as our highest priority from a statewide programmatic perspective and how we would expend an OHF appropriation. Thus, if the Council chooses to fund our partner proposals, DNR's response would be to move to the next project(s) down the list until the requested funds are fully allocated or adjust our funding request to reflect the next few projects in queue. In short, DNR project lists represent our program priorities and do not change or get resorted based on coordinated funding requests by partners, but a favorable funding recommendation for a partner proposal by the Council will affect which projects DNR subsequently will pursue on our L-SOHC parcel list.

In addition to this formal coordination with partners, we have engaged partners and stakeholders in our aquatic conservation planning. The AMA Acquisition Planning Committee developed an acquisition plan in 2007 that recommended purchasing an additional 2,595 miles of riparian lands over 25 years to meet the habitat protection needs of a rapidly changing Minnesota. This stakeholder-developed plan guides DNR's AMA program implementation.

Restoration and enhancement elements of this proposal are linked to other landscape or system-specific management plans (e.g., the Southeast MN coldwater stream plan) that have been developed through extensive internal and external coordination. These elements represent shared priorities with multiple partners and stakeholders.

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### **Planning**

This proposal addresses the following LSOHC priority actions by planning section:

#### Forest Section

- (1) Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas.

#### /Prairie Transition Section

- (1) Protect, enhance, and restore wild rice wetlands, shallow lakes, wetland/grassland complexes, aspen parklands, and shoreland that provide critical habitat for game and non-game wildlife.

#### Urbanizing Section

- (3) Enhance and restore coldwater fisheries systems.
- (4) Protect, enhance and restore riparian and littoral habitats on lakes to benefit game and non-game fish species.

#### Forest Section

- (2) Protect, enhance and restore habitat for fish, game and non-game wildlife in rivers, cold water streams and associated upland habitat.

#### Section

- (4) Restore or enhance habitat on public lands.
- (5) Protect, restore and enhance shallow lakes.

In addition, this proposal is supported by the recommendations of the following plans:

#### MNDNR Strategic Conservation Agenda Update:

Meets the criteria of conservation in the Mission Statement, ‘work with citizens to conserve and manage the state’s natural resources;’ and Strategic Conservation Agenda goals to conserve, restore, and enhance Minnesota’s natural lands and habitats, water resources, and watersheds.

#### Minnesota Conservation and Preservation Plan

This proposal addresses a number of recommendations contained in the Statewide Conservation and Preservation Plan including:

- Habitat Recommendation 2, Protect critical shorelands of streams and lakes (p. 67). Fee acquisition and conservation easements are among the tools needed for protection of critical shorelines of streams and lakes. Acquiring the highest-priority shorelines “is one essential component of a multi-strategy approach to

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preserving the clean water legacy that Minnesota's citizens and visitors are used to experiencing." (p.69) Benefits include protection of critical shoreline habitats from degradation, public angler access, and providing areas for education and research.

- Habitat Recommendation 6A, Restore habitat structure within lakes (p. 81). This recommendation seeks "... to restore the natural features of lakeshore habitats (shoreland, shoreline, and near-shore areas)."
- Habitat Recommendation 6B, Protect and restore in-stream habitats (p. 82). Several approaches can be implemented to protect and restore in-stream habitats. Removal or modification of dams and installing culverts with increased capacity would improve connectivity of aquatic systems. Riparian vegetation can be restored to stabilize stream banks. Channelized streams can be reconstructed to provide a flood plain to dissipate stream energy and allow the channel to remeander, which will provide more diverse habitat for aquatic organisms.

### Tomorrow's Habitat for the Wild and Rare

The State's Wildlife Action Plan is a rare species condition assessment and habitat conservation guidance document for Minnesota's species of greatest conservation need. Several aquatic species of biota are included in this plan including plants, insects, mussels, fish, and water-dependent and seasonal migrant bird species. Aquatic management actions are listed on pages 270-281 of the plan.

### Minnesota's AMA Acquisition Plan 2008-2033

The DNR's AMA Acquisition Plan calls for shoreline acquisition to ensure shoreline habitat protection, water quality maintenance, and angler access for present and future generations. This plan envisions acquisition of 3,428 miles of lake and stream habitat during the next 25 years, and provides general ECS section acquisition targets (see table 2 on page 21 of the plan).

### Strategic Plan for Coldwater Resources Management in SE Minnesota 2004-2015

This plan establishes targets to protect, improve, and restore coldwater aquatic habitat (pgs 9-11) and fish communities. The plan identifies important issues and strategies that will enable DNR to maintain and improve the short and long-term values of the unique trout stream resource of the Southeast and provide angling clientele with diverse angling opportunities.

### Red River of the North Fisheries Management Plan

The overall approach to habitat management in the Red River is to maintain, restore, enhance, and protect riverine and upland habitats and their functions. The plan includes the following recommended actions (pgs 11-12):

- Establish and maintain stable stream channels.

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- Improve and protect high quality fish spawning and rearing habitats within Red River and tributaries.
- Provide uninterrupted fish passage/river connectivity.
- Provide appropriate heterogeneous and complex physical habitat components.
- Provide water of sufficient water quality to sustain healthy aquatic systems.
- Re-establish a more natural flow regime.

### Midwest Glacial Lakes Partnership: Strategic Plan for Fish Habitat Conservation in Midwest Glacial Lakes

The Midwest Glacial Lakes Partnership (MGLP) is a formal Fish Habitat Partnership under the National Fish Habitat Action Plan ([.fishhabitat.org](http://fishhabitat.org)). The mission of the Midwest Glacial Lakes Partnership is to work together to protect, rehabilitate, and enhance sustainable fish habitats in glacial lakes of the Midwest for the use and enjoyment of current and future generations. MGLP has developed a strategic plan ([.MidwestGlacialLakes.org/resources/](http://MidwestGlacialLakes.org/resources/)) to protect and restore aquatic habitats in naturally-formed glacial lakes across the upper Midwest states. The MGLP strategic plan identifies a number of objectives (p. 26-29) designed to conserve (protect, restore, and enhance) the habitats of Midwestern glacial lake fish populations, to support a broad natural diversity of aquatic species, to promote self-sustaining fish populations, and to provide successful fishing opportunities.

### National Fish Habitat Action Plan

The National Fish Habitat Action Plan is a national partnership-based framework for achieving protection and restoration of priority aquatic habitats that support a broad natural diversity of fish and other aquatic species. The plan uses a science-based approach to target priority areas and implement needed projects that address causative factors and use best management practices. The Action Plan is implemented through regional Fish Habitat Partnerships (functionally analogous to Waterfowl Joint Ventures under the North American Waterfowl Management Plan which is supported by the North American Wetlands Conservation Act). Fish Habitat Partnerships leverage national and state resources to achieve local priorities for habitat protection and restoration. ([.fishhabitat.org/documents/plan/National\\_Fish\\_Habitat\\_Action\\_Plan.pdf](http://fishhabitat.org/documents/plan/National_Fish_Habitat_Action_Plan.pdf))

### Individual Lake and Stream Management Plans

The Section of Fisheries produces individual fisheries management plans for every actively managed lake and stream resource in the state. In addition to fish population goals and objectives, these plans identify habitat actions unique to each waterbody that are needed or beneficial to sustain quality fisheries.

Our planning and evaluation model is similar to the US Fish and Wildlife Service's Strategic Habitat Conservation model in that it is composed of planning, implementation and evaluation phases in the traditional adaptive management framework. DNR

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develops management plans based on assessment data for actively managed lakes and streams in the state. Management plans guide fish population management and identify opportunities for habitat protection, restoration, and enhancement. Additional strategic planning documents guide habitat management activities, and these are referenced above. Proposed projects are ranked using specific criteria. Acquisition scoring criteria follow the recommendations of the AMA Acquisition Planning Committee. Considerable quantitative measurements go into the criteria development for stream restoration projects such as fish survey data, watershed evaluation, and presence of state or federally listed species. Ranked projects are approved for implementation through an internal review process. Evaluation is an integral step and, for stream restorations, involves project monitoring of fish passage, water chemistry, and continued geomorphology surveys to evaluate projects. Similar evaluations are conducted for lakeshore enhancement projects to ensure projects are functioning as designed. From these evaluations research is driven to improve designs and continue development of future projects. We also use the research to inform professionals working on stream restoration from state, federal and private firms through a series of courses taught by the Stream Habitat Program to further stream restoration efforts.

### **Relationship to Other Constitutional Funds**

The proposed habitat protection, restoration, and enhancement activities are most appropriately suited to the Outdoor Heritage Fund, although some activities will have additional secondary benefits to water quality (e.g., reduced nutrient and sediment loading). While DNR receives appropriations from the Clean Water Fund, these have been legislatively directed for such activities as data gathering, TMDL technical guidance and coordination, planning, monitoring and assessment work in support of TMDLs, and identifying non-source restoration and protection strategies. Some of these CWF activities could lead to the development of aquatic and riparian habitat projects that subsequently may be constitutionally eligible for Outdoor Heritage Fund implementation funding. DNR will ensure that OHF funds are applied to qualifying projects and will complement overall program budgets resulting in comprehensive protection, restoration, and enhancement delivery that benefits Minnesota's aquatic habitats.

### **Relationship to Current Organizational Budget**

This program funding will be supplemental to traditional funding sources, and is of reasonable size given the scale of DNR's recent fiscal year expenditures. Though Outdoor Heritage Funds would be spread out over multiple years, below are approximate Fiscal Year 2009 expenditures (not including Bonding) as an example of what DNR spends in a given year:

Fiscal Year 2009 Approximate Expenditures, not including Bonding funds, were:

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DNR - \$200 million

Ecological Resources Division - \$11.6 million

Fish and Wildlife Division - \$33.1 million

Forestry Division - \$25.5 million

Waters Division - \$33.4 million

This proposal represents slightly less than 9% of the DNR's FY09 expenditures from traditional funding sources.

*Demonstrate how this funding and activity will supplement your current budget.*

The program activities included in this proposal are above and beyond program activity funded through DNR base budget appropriations. In addition to legislative appropriations from Game and Fish Fund and capital bonding, the Department actively pursues other funding from a variety of sources including LCCMR, federal grants and private foundation grants to achieve aquatic habitat program outcomes. These alternative sources of funding are less certain or predictable and, thus, are not part of the Department's base budget.

### **Sustainability and Maintenance**

AMA acquisitions will be sustained through fee title ownership and perpetual easements held by the DNR. This is a long-term protection strategy. Long-term stewardship of fee title AMA lands is achieved through periodic and recurring monitoring of the property and boundaries for encroachment by adjoining property owners or for habitat management needs. Easement AMA lands, especially trout stream easements, additionally benefit from informal monitoring by the angling public and agency conservation partners.

River and stream restoration activities are designed to work with natural hydrology of the flowing systems so as to be durable and self-maintaining over time. Restoring natural channel function or mimicking natural riffles/rapids results in the desired habitat benefit but also provides perpetual self-maintenance.

Lakeshore enhancement activities will be sustained by the local units of government receiving grant funds. Routine maintenance will be accomplished by the local unit of government as part of an overall block grant agreement. Supplemental vegetation planting, watering of the restoration site and removal of invasive plant species are typical maintenance requirements during the early stages of restoration projects. A maintenance plan is required prior to project implementation as well as a 10-year maintenance agreement on all funded projects. Typically if a project is implemented and maintained for a 10-year period, the critical maintenance has been completed and long-term project success is likely.

### *Cost, schedule, and sources of funding*

Future funding for DNR is determined by legislative appropriation therefore sources of funding cannot be adequately forecasted beyond the current biennium, however, the following costs and schedule are anticipated to result from program activities highlighted in this proposal:

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- AMA costs to develop acquired parcels (signage, parking, fencing, demolition and removal of structures, habitat manipulations, and similar needs) are included in this request for funding. Routine maintenance of AMA parcels will be accomplished by Area Fisheries Managers as part of their public land management responsibilities. Periodic enhancements such as invasive species removal, prescribed burning, supplemental vegetation planting, shoreline stabilization and restoration, and similar activities will be accomplished through annual funding requests from a variety of funding sources including, but not limited to, Game and Fish Fund, Bonding, Gifts, Federal Sources, Environmental Trust Fund, and Outdoor Heritage Fund.
- Stream Restoration Program – Stream restoration projects are designed to be self-maintaining and require no future investments.
- Shoreland Habitat Enhancement – Shoreland enhancement projects typically require routine maintenance over a 10-year period to ensure long-term success. This maintenance will be conducted by the local unit of government.
- Dam Repair/Enhancement – Dams will require periodic inspection and maintenance over time. Inspection is conducted by DNR field hydrologists according to established monitoring schedules. Routine maintenance may be required and will be accomplished through annual funding requests from a variety of funding sources including, but not limited to, Game and Fish Fund, Bonding, Gifts, Federal Sources, Environmental Trust Fund, and Outdoor Heritage Fund. The DNR presently has a backlog of dam maintenance needs statewide that are prioritized based on danger to life, damage to property, and other factors as established in Minnesota Statutes Chapter 103G.511, Subd. 12.

**Types of Projects**

Fee Acquisition Projects

Will local government approval be sought prior to acquisition?

- Yes                       No, please explain                       not applicable

If no, please explain here:

Township and County support are usually obtained as part of the acquisition process. County Boards are typically notified after AMA parcels have been optioned and consistent with DNR policy.

Is the land you plan to acquire free of any other permanent protection?

- Yes                       No, please explain                       not applicable

If no, please explain here:

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**Easement Acquisition Projects**

Will the eased land be open for public use?

Yes                       No, please explain                       not applicable

If no, please explain here:

Whenever possible, AMA easement lands will be opened for angling, hunting, and other non-motorized light use activities consistent with M.R. 6270.0200.

Easements for stream channel restoration will provide for DNR management access as the primary easement interest acquired. Public use is a secondary interest that DNR will seek whenever possible.

Will the conservation easement be permanent?

Yes                       No, please explain                       not applicable

If no, please explain here:

**Restoration and Enhancement Projects**

Is the activity on permanently protected land and/or public waters?

Yes                       No, please explain                       not applicable

If no, please explain here:

Does the activity take place on an Aquatic Management Area (AMA), Scientific and Natural Area (SNA), Wildlife Management Area (WMA), or State Forests?

Yes, which ones                       No, please explain                       not applicable

If so, please indicate which ones:

Some proposed restoration and enhancement activities will occur on the following AMA lands:

- |                  |                  |                      |
|------------------|------------------|----------------------|
| Cannon River AMA | Games Lake AMA   | Nest Lake AMA        |
| Eagle Lake AMA   | Gemini AMA       | N.Br. Whitewater AMA |
| Eagle Creek AMA  | Headquarters AMA | Rush Lake AMA        |
| Francis Lake AMA | Miller Creek AMA | Stay Lake AMA        |

## Accomplishment Timeline

<b>Activity</b>	<b>Milestone</b>	<b>Date</b>
<i>AMA Acquisition</i>	<i>Acquire priority fee title &amp; easements – 23.0 miles</i>	<i>June 30, 2012</i>
	<i>Acquire priority fee title &amp; easements – 11.5 miles</i>	<i>June 30, 2013</i>
	<i>Acquire priority fee title &amp; easements – 3.9 miles</i>	<i>June 30, 2014</i>
<i>Stream Habitat Restoration &amp; Enhancement</i>	<i>Pre-design project plans completed – 2 projects/yr</i>	<i>June 30, 2012-2014</i>
	<i>Completed designs ready for construction – 1 proj/yr</i>	<i>June 30, 2012-2014</i>
	<i>Completed major construction activities – 1-6 proj from prioritized project list, restoring connectivity to up to 690 river miles</i>	<i>June 30, 2015</i>
	<i>Enhanced 3.2 mi trout streams</i>	<i>June 30, 2014</i>
	<i>Complete cost-share of culvert replacement on high-priority stream crossings – 1-2 proj/yr</i>	<i>June 30, 2014</i>
<i>Lake Habitat Enhancement</i>	<i>Reconstruct dam – Fish Lake</i>	<i>June 30, 2014</i>
	<i>Solicit list of potential shoreline projects on public lands</i>	<i>Spring 2011</i>
	<i>Review lists and making funding determinations</i>	<i>August 2011</i>
	<i>Award and develop grants</i>	<i>September – October 2011</i>
	<i>Develop and approve plans</i>	<i>December 2011 – March 2012</i>
	<i>Implement Plans</i>	<i>April 2012 – June 2014</i>

**Attachments:** *[Attach these documents to the web application form.]*

- A. Budget**
- B. Proposed Outcome Tables 1-5**
- C. Map**
- D. Parcel List**

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**Attachment A. Budget Spreadsheet**

[Link Here to definitions of the budget items below.](#)

**Total Amount of Request**     \$ 17,815,000 *From page 1 on the funding form.*

**Personnel**

Position breakdown here	Over # of		LSOHC Request	Anticipated Cash		Cash Leverage Source	Total
	FTE	years		Leverage			
<i>Field Acquisition Specialist</i>	1	3	\$ 185,088			\$	185,088
<i>Field Acquisition Specialist</i>	2	2	\$ -	\$ 200,000	<i>GLRI pass thru grant</i>	\$	200,000
<i>River Ecologist</i>	1	3	\$ 260,088			\$	260,088
<i>Shoreland Restoration Spec</i>	1	3	\$ 185,088			\$	185,088
						\$	-
						\$	-
						\$	-
<b>Total</b>			\$ 630,264	\$ 200,000		\$ -	\$ 830,264

**Budget and Cash Leverage** *(All your LSOHC Request Funds must be direct to and necessary for program outcomes.)*

*Please describe how you intend to spend the requested funds.*

Budget Item	Anticipated Cash		Cash Leverage Source	Total
	LSOHC Request	Leverage		
<b>Personnel - auto entered from above</b>	\$ 630,264	\$ 200,000	\$ -	\$ 830,264
<b>Contracts</b>	\$ 6,840,265	\$ 525,000	<i>SHRP grant match</i>	\$ 7,365,265
<b>Fee Acquisition w/ PILT (breakout in table 6 &amp; 7)</b>	\$ 5,400,000	\$ 2,014,200	<i>donated cash/value</i>	\$ 7,414,200
<b>Fee Acquisition w/o PILT (breakout in table 6 &amp; 7)</b>				\$ -
<b>Easement Acquisition</b>	\$ 3,500,000	\$ 1,410,500	<i>donated cash/value</i>	\$ 4,910,500
<b>Easement Stewardship</b>				\$ -
<b>Travel (in-state)</b>	\$ 140,000			\$ 140,000
<b>Professional Services</b>	\$ 697,691			\$ 697,691
<b>DNR Land Acquisition Costs</b>				\$ -
<b>Other</b>				\$ 5,164,999
Capital Equipment				\$ -
Other Equipment/Tools				\$ -
Supplies/Materials	\$ 606,780	\$ 4,558,219	<i>MRBI / LGU cost-share</i>	\$ 5,164,999
	\$ 17,815,000	\$ 8,707,919	\$ -	\$ 26,522,919

## Attachment B. Proposed Outcome Tables

Only enter data in the outlined cells

*Table 1 and Table 3 column totals should be the same AND Table 2 and Table 4 column totals should be the same*

*If your project has lakes or shoreline miles instead of land acres, convert miles to acres for Tables 1 and 3 using the following conversion:*

*Lakeshore = 6 acres per lakeshore mile / Stream & River Shore = 12 acres per linear mile, if both sides*

**Table 1. Acres by Resource Type**

Describe the scope of the project in acres (use conversion above if needed)

	Wetlands	Prairies	Forest	Habitats	Total
Restore				1047.6	1047.6
Protect				1774	1774
Enhance				8151.4	8151.4
<b>Total</b>	0	0	0	10973	

Total Acres (sum of Total column)

10973

*These two cells should be the same figure.*

Total Acres (sum of Total row)

10973

**Table 2. Total Requested Funding by Resource Type**

	Wetlands	Prairies	Forest	Habitats	Total
Restore				\$ 1,588,712	\$ 1,588,712
Protect				\$ 10,124,000	\$ 10,124,000
Enhance				\$ 6,102,288	\$ 6,102,288
<b>Total</b>	\$ -	\$ -	\$ -	\$ 17,815,000	

Total Dollars (sum of Total column)

\$ 17,815,000

*These two cells should be the same figure.*

Total Dollars (sum of Total row)

\$ 17,815,000

Check to make sure this amount is the same

as the Funding Request Amount on page 1 of Main Funding Form.

**Table 3. Acres within each Ecological Section**

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore				1047.6		1047.6
Protect	81	341	239	175	938	1774
Enhance	26.2	1154.6	330.9	6022.6	617.1	8151.4
<b>Total</b>	107.2	1495.6	569.9	7245.2	1555.1	

Total Acres (sum of Total column)

10973

*These three cells should be the same figure.*

Total Acres (sum of Total row)

10973

Total Acres from Table 1.

10973

## Attachment B. Proposed Outcome Tables

**Table 4. Total Requested Funding within each Ecological Section**

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore				\$ 1,588,712		\$ 1,588,712
Protect	\$ 223,278	\$ 2,203,083	\$ 2,325,723	\$ 895,826	\$ 4,476,090	\$ 10,124,000
Enhance	\$ 236,994	\$ 674,239	\$ 1,202,389	\$ 3,563,799	\$ 424,867	\$ 6,102,288
<b>Total</b>	\$ 460,272	\$ 2,877,322	\$ 3,528,112	\$ 6,048,337	\$ 4,900,957	

Total Dollars (sum of Total column)

\$ 17,815,000 *These two cells should*

Total Dollars (sum of Total row)

\$ 17,815,000 *be the same figure.*

Check to make sure these amounts are the same

as the Funding Request Amount on page 1 of Main Funding Form.

**Table 5. Target Lake/Stream/River Miles**

798.1

 # miles of Lakes / Streams / Rivers Shoreline

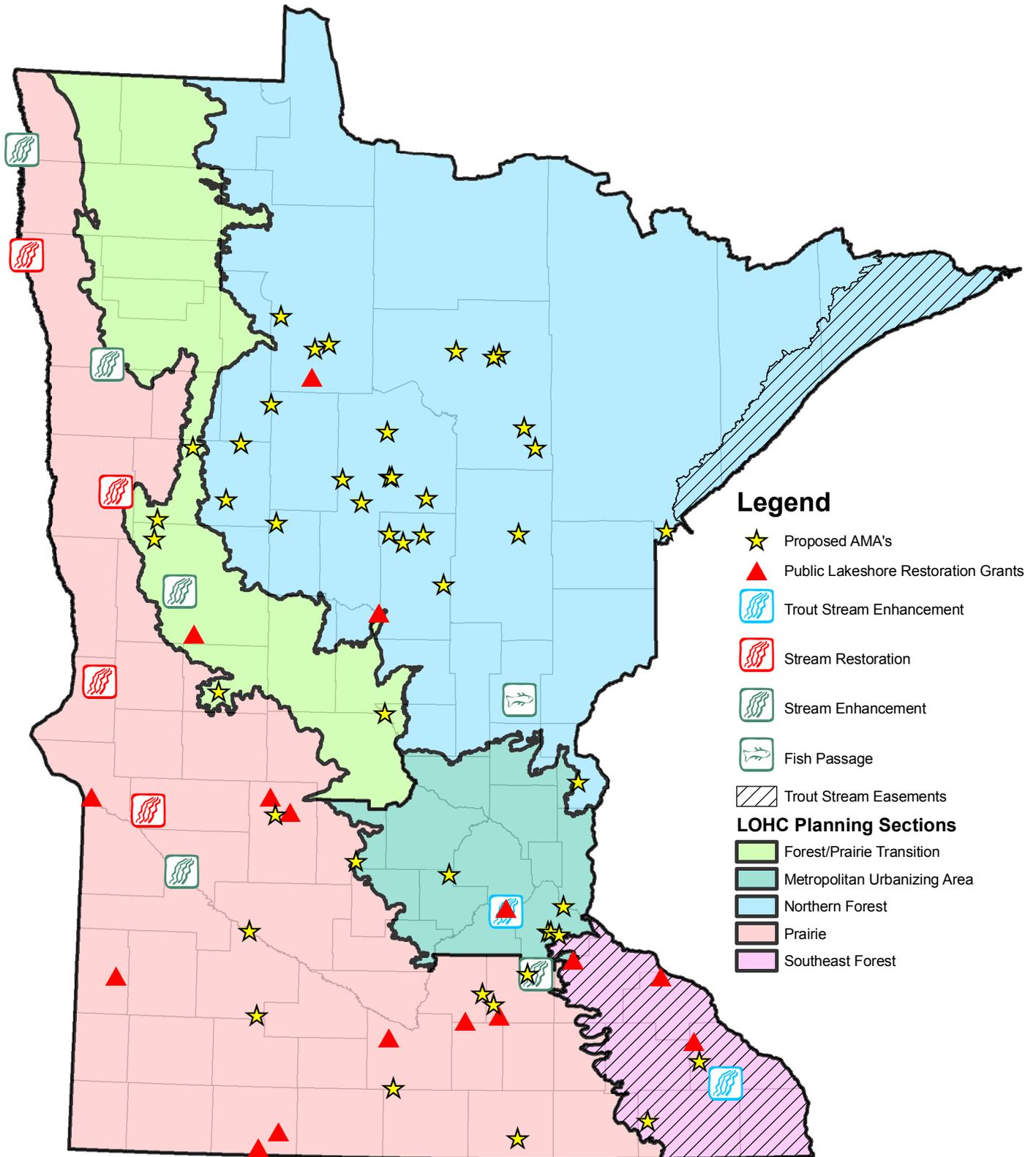
**Table 6. Acquisition by PILT Status (enter information in acres)**

	Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability				1000	1000
Acquired in Fee without State PILT Liability					0
Permanent Easement NO State PILT Liability				774	774

**Table 7. Estimated Value of Acquisition by PILT Status (enter information in dollars)**

	Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability				\$ 8,785,800	\$ 8,785,800
Acquired in Fee without State PILT Liability					\$ -
Permanent Easement NO State PILT Liability				\$ 5,593,000	\$ 5,593,000

# DNR Aquatic Habitat Program L-SOHC 2012



\* Fish passage cost-share with LGU's for high priority streams, statewide

**Attachment D. Parcel List**

**Program Title: DNR Aquatic Habitat Program**  
 Revised: 07/15/2010

Parcel Name	County	Township	Range	Direction	Section	TRDS	# of acres	Estimated		Description	Activity
								Cost	to OHF		
Bad Medicine Lake AMA, P13	Becker	142	37	2	5	14237205	7.6	\$ 300,000	Fee Title	P	
Balm Lake WMA	Beltrami	150	35	2	22	15035222	153	\$ 500,000	Fee Title	P	
Big Too Much Lake AMA, P2	Itasca	148	25	2	13	14825213	1	\$ 10,000	Fee Title	P	
Blue Earth River AMA, P3	Blue Earth	105	28	2	34	10528234	105	\$ 350,000	Fee Title	P	
Bruce Creek	Itasca	54	22	2	19	5422219	21.2	\$ 66,000	Easement	P	
Camp Cuyuna AMA, P3	Crow Wing	137	26	2	7	13726207	7.5	\$ 200,000	Easement	P	
Camp Cuyuna AMA, P2	Crow Wing	137	26	2	7	13726207	200	\$ 1,500,000	Fee Title	P	
Camp Wheatley AMA	Carver	117	25	2	11	11725211	100	\$ 800,000	Easement	P	
Cannon River AMA, P2	Rice	110	23	2	11	11023211	500	\$ 200,000	Fee Title	P	
Caron Lake AMA, P2	Rice	110	22	2	33	11022233	386	\$ 1,550,000	Fee Title	P	
Eagle Lake AMA, P1	Itasca	59	25	2	1	5925201	33	\$ 10,000	Fee Title	P	
Five Mile Point, P2	Cass	143	29	2	12	14329212	7.3	\$ 250,000	Fee Title	P	
Florida Lake AMA, P1	Kandiyohi	121	35	2	34	12135234	4.6	\$ 185,000	Fee Title	P	
Flowage Lake AMA, P2	Aitkin	49	23	2	30	4923230	50	\$ 400,000	Fee Title	P	
Grey Cloud AMA, P1	Washington	27	21	2	30	2721230	60	\$ 400,000	Fee Title	P	
Greenleaf AMA	Meeker	118	30	2	20	11830220	51	\$ 200,000	Fee Title	P	
Gull Lake AMA	Beltrami	148	32	2	4	14832204	10.8	\$ 60,000	Fee Title	P	
Hamlet Lake AMA	Crow Wing	46	28	2	27	4628227	30.5	\$ 300,000	Fee Title	P	
Horseshoe Lake AMA, P1	Itasca	59	25	2	10	5925210	18	\$ 300,000	Fee Title	P	
Horseshoe Lake AMA, P2	Cass	139	30	2	16	13930216	5.1	\$ 198,000	Fee Title	P	
La Salle Lake AMA	Hubbard	145	35	2	30	14535230	154	\$ 1,617,000	Fee Title	P	
Little Sand AMA, P1	Itasca	55	23	2	16	5523216	77	\$ 400,000	Easement	P	
Lizzie Lake AMA, P2&3	Otter Tail	137	42	2	32	13742232	3.5	\$ 250,000	Fee Title	P	
Lobster Lake AMA, P1	Douglas	128	38	2	30	12838230	3.3	\$ 60,000	Fee Title	P	
Maud Lake AMA, P1	Becker	138	42	2	28	13842228	9	\$ 200,000	Fee Title	P	
Middle Branch of Whitewater AMA	Olmsted	106	10	2	10	10610210	37	\$ 300,000	Fee Title	P	
Sandshell AMA	Stearns	127	29	2	25	12729225	86	\$ 900,000	Fee Title	P	
Shell Rock River AMA	Freeborn	102	21	2	25	10221225	254	\$ 1,500,000	Fee Title	P	
South Br. Vermillion	Dakota	114	18	2	29	11418229	65.6	\$ 450,000	Fee Title	P	
Spirit Lake AMA	Wadena	138	35	2	28	13835228	51	\$ 386,100	Fee Title	P	
Spring Brook AMA, P1	Rice	111	20	2	4	11120204	35	\$ 140,000	Fee Title	P	
Spring Valley Hatchery AMA	Fillmore	103	13	2	27	10313227	27	\$ 600,000	Fee Title	P	
Star Lake AMA	Crow Wing	137	28	2	25	13728225	280	\$ 1,000,000	Fee Title	P	
Sunrise Lake AMA	Chisago	34	20	2	17	3420217	46	\$ 300,000	Fee Title	P	
Sanborn AMA	Redwood	109	36	2	27	10936227	104	\$ 300,000	Fee Title	P	
Tallus Island AMA	St. Louis	49	15	2	23	4915223	51	\$ 10,000	Fee Title	P	
Ten Mile Lake AMA, P4	Cass	140	31	2	5	14031205	32	\$ 100,000	Fee Title	P	
Toad Lake AMA, P3	Becker	139	38	2	16	13938216	87.5	\$ 600,000	Fee Title	P	
Trout Stream Easments	Primarily SE & NE						85	\$ 2,500,000	Easement	P	
Turtle Lake AMA	Beltrami	148	33	2	15	14833215	19.2	\$ 200,000	Fee Title	P	
Upper Whitefish Lake AMA	Crow Wing	137	28	2	7	13728207	40	\$ 200,000	Fee Title	P	
Vermillion River AMA, P6	Dakota	114	19	2	22	11419222	160	\$ 800,000	Fee Title	P	
Vermillion River AMA, P8	Dakota	114	19	2	23	11419223	50	\$ 250,000	Fee Title	P	
Washburn Lake AMA	Cass	139	26	2	5	13926205	19.8	\$ 800,000	Fee Title	P	
Whispering Ridge AMA, P2	Redwood	114	36	2	30	11436230	408	\$ 1,500,000	Fee Title	P	
White Earth AMA	Becker	142	40	2	16	14240216	14	\$ 300,000	Fee Title	P	
Woman Lake AMA, P8	Cass	141	28	2	31	14128231	25	\$ 400,000	Fee Title	P	
Woman Lake AMA, P9	Cass	141	28	2	32	14128232	14	\$ 500,000	Fee Title	P	
Mustinka River	Traverse	128	45	2	18	12845218	228	\$ 5,500,000	Stream Restoration	R	
Red River of the North - Drayton Dam	Kitson	159	50	2	18	15950218	4800	\$ 1,000,000	Stream Enhancement	E	
Sand Hill River	Polk	147	45	2	29	14745229	1188	\$ 2,000,000	Stream Enhancement	E	
Cannon River- Malt-O-Meal Dam	Rice	111	20	2	1	11120201	204	\$ 500,000	Stream Enhancement	E	
Buffalo River- Hawley	Clay	139	45	2	12	13945212	18	\$ 1,000,000	Stream Restoration	R	
Grand Marais Creek	Polk	153	50	2	22	15350222	72	\$ 4,750,000	Stream Restoration	R	
Otter Tail River- Phelps Mill Dam	Otter Tail	134	41	2	35	13441235	1046.4	\$ 500,000	Stream Enhancement	E	
Pomme de Terre River	Swift	121	42	2	31	12142231	1017.6	\$ 500,000	Stream Restoration	R	
Fish Lake Dam	Kanabec	39	24	2	23	3924223	503	\$ 250,000	Fish passage & maintenance	E	
Eagle Creek	Scott	115	21	2	18	11521218	5.6	\$ 100,000	Trout stream enhancement	E	
Rush Creek AMA	Winona	105	8	2	1, 19, 20,	10508219	20	\$ 250,000	Trout stream enhancement	E	
Robinson Park - City of Lake Crystal	Blue Earth	108	28	2	32	10828232	0.4	\$ 47,747	Shoreland enhancement	E	
West Fork of the Des Moines River Dam Removal Site - Wayside Park	Jackson	102	35	2	24	10235224	0.8	\$ 52,747	Shoreland enhancement	E	
Rush Lake AMA Restoration	Jackson	101	36	2	23	10136223	0.5	\$ 27,747	Shoreland enhancement	E	
Stay Lake AMA Restoration	Lincoln	111	44	2	29	11144229	0.5	\$ 27,747	Shoreland enhancement	E	
Gemini AMA	Goodhue	112	17; 18	2	7;12	11217207	5.5	\$ 27,683	Shoreland enhancement	E	
Miller Creek AMA	Wabasha	111	12	2	8,9	11112208	4.4	\$ 22,583	Shoreland enhancement	E	
North Branch of Whitewater River AMA	Winona	107	10	2	5	10710205	5.0	\$ 25,383	Shoreland enhancement	E	
Mississippi River - Crow Wing State Park	Crow Wing	133	29	2	33	13329233	1.1	\$ 23,483	Shoreland enhancement	E	
Games Lake AMA restoration	Kandiyohi	122	35	2	32	12235232	0.3	\$ 40,247	Shoreland enhancement	E	
Nest Lake Islands AMA	Kandiyohi	121	34	2	28	12134228	1.1	\$ 97,747	Shoreland enhancement	E	
Eagle Lake?	Otter tail	131	40	2	15	13140215	0.2	\$ 8,385	Shoreland enhancement	E	
Francis Lk AMA	LeSueur	109	24	2	35	10924235	8.0	\$ 22,747	Shoreland enhancement	E	
Cannon River AMA	Rice	109	22	2	23	10922223	20.0	\$ 27,747	Shoreland enhancement	E	
HQ AMA	Big Stone	121	46	2	11	12146211	3.0	\$ 24,747	Shoreland enhancement	E	
City of Bemidji	Beltrami	146	33	2	4	14633434	5.0	\$ 26,383	Shoreland enhancement	E	
Cannon River	Rice and Goodhue						20.0	\$ 91,383	Shoreland enhancement	E	
Crow River	Numerous						20.0	\$ 107,747	Shoreland enhancement	E	
Eagle Creek AMA	Scott	115	21	2	7	11521207	0.6	\$ 27,747	Shoreland enhancement	E	