

Lessard-Sams Outdoor Heritage Council

2012 Revised DRAFT Accomplishment Plan

June 17, 2011

Program Title: DNR Aquatic Habitat Program H01

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Funds Recommended: \$6,500,000

Legislative Citation: ML 2011, Ch. X, Art. X, Sec. X, Subd. X (x): *(to be completed when signed by Governor)*

Abstract:

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

Program 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. As of 2001, Minnesota has lost an estimated 20-28% of the emergent and floating leaf aquatic vegetation – just one type of essential fish habitat – from our lakes, while agricultural drainage and urban stormwater discharges have had devastating effects on natural in-stream habitat and hydraulic function over large portions of the state's river and stream miles. ***This loss or alteration to native aquatic habitats along our lakes, rivers, and streams rivals the statewide loss of wetland habitats that have so adversely affected our waterfowl production and hunting heritage. For lakes in particular, loss or alteration of native near-shore habitats in large regions of our state exceeds the historic loss of native prairie habitat.***

The combined effects from direct alteration of nearshore physical habitat and watershed-scale land use impacts to water quality habitat have compromised the resiliency of our state's aquatic systems. 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.

In a recent series of articles entitled “Losing Our Lakes” 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 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.

Urgency and opportunity

Protection of habitat is the single most cost-effective strategy to ensure future sustainability of aquatic ecosystems. Already, about one-third of lakeshore across the state is in some form of protected status, mostly through public ownership (federal, state, or county), and reasonably assured of providing quality aquatic habitat. Yet existing aquatic habitat protection is not uniformly distributed across the state. Regionally, the average proportion of lakeshore in public ownership (i.e., long-term protection status) ranges from over 75% in the Arrowhead region of the state to less than 5% in the LSOHC Forest/Prairie Transition Section and less than 1% in the Prairie Section of the state¹. For the Metropolitan Urbanizing Section, over 97% of lakeshore is in private ownership and already in some form of intensive residential or urbanized development. Remnant high-quality lakeshore habitat is under increasing development pressure and especially so in the northern metropolitan counties and up through the north-central region of the state where the State Demographer’s Office predicts future population growth will exceed 24% over the next two decades. ***Therefore, targeted protection of critical aquatic habitats is paramount to preserve essential ecological functions for aquatic species that support the multi-billion dollar water-based fishing/hunting/boating recreational economy of our state.***

But protection by itself is not enough to ensure the future sustainability of aquatic species and our co-dependent recreation economy. We must build back much of the habitat that has been lost already. Scientific studies from throughout the Midwest have shown that shoreline development negatively

¹ Data adapted from Blann & Cornett, 2008. Identifying lake conservation priorities for The Nature Conservancy in Minnesota, North Dakota and South Dakota. Table 4.4, page 56

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. 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). ***Given the extent of existing shoreline development over vast portions of our state, habitat enhancement along developed shorelines is critical to ensure the long-term sustainability of recreational fishing and the forage species on which game fish depend.*** 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 corridors 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 challenges are large but the current economic downturn creates a significant opportunity to deliver aquatic habitat conservation. 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

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. We will use a comprehensive, programmatic approach to achieve prioritized aquatic habitat protection and enhancement for lakes, trout streams, and rivers across Minnesota. We propose to: i) protect nearly 28 miles of shoreline on lakes, rivers and trout streams; ii) enhance 16.1 miles of shoreline habitat on DNR-owned Aquatic Management Areas; iii) effect structural repair and modification to 1 dam that will integrate fish passage and restore connectivity to over 10 upstream river miles; and iv) enhance stream channel function and in-stream physical habitat that will benefit 3.2 miles of trout stream. The strategic approach and priority resources targeted in this proposal are supported by a number of 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 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.

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 enhancement projects using the best available science. The DNR Shoreland Habitat Program was developed to address the strategic need for habitat enhancement along developed shoreline 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 enhancement projects completed has increased from 23 in 2002 to 60 in 2009. Native plants and natural materials are utilized to increase habitat complexity, provide protective cover, stabilize shorelines, and firmly anchor soils. These shoreline enhancement projects now provide erosion protection, in-lake and upland habitat diversity benefitting multiple species of fish and wildlife (both game species and SGCNs), and enhanced aesthetics. Further habitat benefits will continue to accrue as project sites mature and the shoreline assumes a more natural character.

The DNR has an established history of conducting trout stream enhancement projects. Stream enhancement 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.

Parcel selection and scoring process

To achieve the program goals of this proposal, DNR will implement AMA acquisition 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 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 enhancement where the needs are ubiquitous. Priorities are then based upon willing 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. For purposes of this grant, however, shoreline enhancement projects will focus on currently identified needs within DNR-owned Aquatic Management Area lands.

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 implementing projects funded by the Council. 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.

Protection and enhancement elements of this proposal also 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.

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 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.

- 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 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 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-point 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:

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 by DNR staff for encroachment from 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.

Trout stream enhancement 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.

Maintenance of lakeshore enhancement activities will be included as part of the project plan, and the organizations contracted to do the enhancement work will also be contracted to complete the necessary maintenance of the enhanced sites, directed by input from DNR staff on the types of maintenance that will be completed. Supplemental vegetation planting, watering of the enhancement site and removal of invasive plant species are typical maintenance requirements during the early stages of enhancement 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:

- 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.
- Trout Stream Enhancements – Trout stream enhancement 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 DNR staff and willing partners.
- 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.

Accomplishment Timeline

Activity	Milestone	Date completed
<i>AMA Acquisition</i>	<i>Acquire priority fee title & easements – 16.8 miles</i>	<i>June 30, 2012</i>
	<i>Acquire priority fee title & easements – 8.4 miles</i>	<i>June 30, 2013</i>
	<i>Acquire priority fee title & easements – 2.8 miles</i>	<i>June 30, 2014</i>
<i>Trout Stream Enhancement</i>	<i>Enhanced 3.2 mi trout streams</i>	<i>June 30, 2014</i>
<i>Lake Habitat Enhancement</i>	<i>Refine list of shoreline projects on AMAs via annual budgeting process</i>	<i>Spring 2011</i>
	<i>Review lists and making funding determinations</i>	<i>August 2011</i>
	<i>Develop and approve plans</i>	<i>December 2011 – March 2012</i>
	<i>Implement Plans</i>	<i>April 2012 – June 2014</i>
	<i>Fish Lake Dam repaired and modified</i>	<i>June 30, 2014</i>

Duties of Personnel Funded in This Plan

Field Acquisition Specialist – The purpose of this position is to identify strategic trout stream easement acquisition opportunities, develop a prioritized list of projects to pursue with this appropriation and potential future funding, and acquire parcels.

Shoreland Restoration Specialist – The duties of this position include project design and design review, technical assistance, project site inspections during and following project implementation, and contract development and coordination for projects funded through OHF. These projects include the sites identified in this accomplishment plan and any necessary project follow-up from the FY2011 appropriation. This position will provide native vegetation planting design consultation and technical assistance for other project elements of this proposal as needed.

Amendment Language for Restoration and Enhancement Programs

Program managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the *Project Scope* table of this accomplishment plan. The final accomplishment plan report will include the final project parcel list.

Attachments (*on spreadsheet workbook – 3 separate tabs*):

- A. Budget
- B. Proposed Outcome Tables
- C. Parcel List

No Map is needed for the accomplishment plan

Attachment A. Budget Spreadsheet

Name of Proposal:	DNR Aquatic Habitat Program
Date:	June 21, 2011
Legal Citation / Proposal Number:	Proposal Number H-01

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

Total Amount of Request \$ **6,500,000** *From page 1 on the funding form.*

Personnel

Position breakdown here	FTE	Over # of years	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
<i>Field Acquisition Specialist</i>	<i>1</i>	<i>3</i>	<i>\$ 180,000</i>			\$ 180,000
<i>Shoreland Restoration Spec</i>	<i>0.5</i>	<i>1</i>	<i>\$ 38,500</i>			\$ 38,500
<i>position 3</i>						\$ -
<i>position 4</i>						\$ -
<i>position 5</i>						\$ -
<i>position 6</i>						\$ -
<i>position 7</i>						\$ -
Total	1.5		\$ 218,500	\$ -	\$ -	\$ 218,500

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	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
Personnel - <i>auto entered from above</i>	\$ 218,500	\$ -	\$ -	\$ 218,500
Contracts	\$ 869,000			\$ 869,000
Fee Acquisition w/ PILT <i>(breakout in table 6 & 7)</i>	\$ 2,369,000	\$ 788,877	<i>value/cash donation</i>	\$ 3,157,877
Fee Acquisition w/o PILT <i>(breakout in table 6 & 7)</i>				\$ -
Easement Acquisition	\$ 2,500,000			\$ 2,500,000
Easement Stewardship				\$ -
Travel (in-state)	\$ 15,000			\$ 15,000
Professional Services	\$ 242,500			\$ 242,500
DNR Direct Support Services <i>(DNR programs only)</i>	\$ 36,000			\$ 36,000
DNR Land Acquisition Costs				\$ -
Other				\$ -
Capital Equipment <i>(auto entered from below)</i>	\$ -	\$ -		\$ -
Other Equipment/Tools				\$ -
Supplies/Materials	\$ 250,000	\$ 4,208,219	<i>USDA MRBI funds</i>	\$ 4,458,219
	\$ 6,500,000	\$ 4,997,096	\$ -	\$ 7,038,877

Capital Equipment *(single items over \$10,000 - auto entered into table above)*

Item Name	LSOHC Request	Leverage
<i>Item 1 enter here</i>		
<i>Item 2 enter here</i>		
<i>Item 3 enter here</i>		
<i>Item 4 enter here</i>		
<i>Item 5 enter here</i>		
<i>Item 6 enter here</i>		
<i>Item 7 enter here</i>		
<i>Item 8 enter here</i>		
Total	0	0

Attachment B. Outcome Tables

Name of Proposal:	DNR Aquatic Habitat Proposal
Date:	June 21, 2011
Legal Citation / Proposal Number:	Proposal Number H-01

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					0
Protect				1035.7	1035.7
Enhance				590.3	590.3
Total	0	0	0	1626	

Total Acres (sum of Total column)

1626

These two cells should be the same figure.

Total Acres (sum of Total row)

1626

Table 2. Total Requested Funding by Resource Type

	Wetlands	Prairies	Forest	Habitats	Total
Restore					\$ -
Protect				\$ 5,521,000	\$ 5,521,000
Enhance				\$ 979,000	\$ 979,000
Total	\$ -	\$ -	\$ -	\$ 6,500,000	

Total Dollars (sum of Total column)

\$ 6,500,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 6,500,000

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						0
Protect	13.7	123.9	392.9	55.1	450.1	1035.7
Enhance	9		44.9	33.4	503	590.3
Total	22.7	123.9	437.8	88.5	953.1	

Total Acres (sum of Total column)

1626

These three cells should be the same figure.

Total Acres (sum of Total row)

1626

Total Acres from Table 1.

1626

Attachment B. Outcome Tables

Table 4. Total Requested Funding within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore						\$ -
Protect	\$ 82,600	\$ 748,566	\$ 2,006,920	\$ 332,983	\$ 2,349,931	\$ 5,521,000
Enhance	\$ 115,970		\$ 438,909	\$ 171,121	\$ 253,000	\$ 979,000
Total	\$ 198,570	\$ 748,566	\$ 2,445,829	\$ 504,104	\$ 2,602,931	

Total Dollars (sum of Total column)

\$ 6,500,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 6,500,000

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

56.9 # 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				427.2	427.2
Acquired in Fee w/o State PILT Liability					0
Permanent Easement NO State PILT Liability				608.5	608.5
	0	0	0	1035.7	

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				\$ 3,157,877	\$ 3,157,877
Acquired in Fee w/o State PILT Liability					\$ -
Permanent Easement NO State PILT Liability				\$ 2,500,000	\$ 2,500,000
	\$ -	\$ -	\$ -	\$ 5,657,877	

Attachment C. Parcel List

Name of Proposal:	DNR Aquatic Habitat Program
Date:	June 21, 2011
Legal Citation / Proposal Number:	Proposal Number H-01

County	Township	Range	Direction	Section	TRDS	# of acres	Budgetary Estimate	Description	Activity R=Restore P=Protect E=Enhance	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)
Parcel Name											
Bad Medicine Lake AMA, P13	Becker	142	37	2	5	14237205	7.6 \$	300,000 Fee Title	P	No	Yes
Big Too Much Lake AMA, P2	Itasca	148	25	2	13	14825213	1 \$	10,000 Fee Title	P	No	Angling Only
<u>Birds Eye Lake AMA, P2</u>	<u>Itasca</u>	<u>148</u>	<u>26</u>	<u>2</u>	<u>28</u>	<u>14826228</u>	<u>65.8 \$</u>	<u>300,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Blue Earth River AMA, P3	Blue Earth	105	28	2	34	10528234	105 \$	350,000 Fee Title	P	No	Yes
<u>Brandenberg Cr, P2</u>	<u>Otter Tail</u>	<u>133</u>	<u>38</u>	<u>2</u>	<u>30</u>	<u>13338230</u>	<u>32 \$</u>	<u>35,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Bruce Creek</u>	<u>Itasca</u>	<u>54</u>	<u>22</u>	<u>2</u>	<u>19</u>	<u>5422249</u>	<u>21.2 \$</u>	<u>66,000 Easement</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Camp Cuyuna AMA, P3	Crow Wing	137	26	2	7	13726207	7.5 \$	200,000 Easement	P	No	Yes
Camp Cuyuna AMA, P4	Crow Wing	137	26	2	7	13726207	200 \$	1,500,000 Fee Title	P	No	Yes
Camp Wheatley AMA	Carver	117	25	2	11	11725211	100 \$	800,000 Easement	P	No	Yes
<u>Cannon River AMA, P2</u>	<u>Rice</u>	<u>110</u>	<u>23</u>	<u>2</u>	<u>11</u>	<u>11023211</u>	<u>500 \$</u>	<u>200,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Caron Lake AMA, P2</u>	<u>Rice</u>	<u>110</u>	<u>22</u>	<u>2</u>	<u>33</u>	<u>11022233</u>	<u>386 \$</u>	<u>1,550,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Dundas AMA</u>	<u>Rice</u>	<u>111</u>	<u>20</u>	<u>2</u>	<u>15</u>	<u>11120215</u>	<u>58.9 \$</u>	<u>250,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Eagle Lake AMA, P1	Itasca	59	25	2	1	5925201	33 \$	10,000 Fee Title	P	No	Yes
Five Mile Point, P2	Cass	143	29	2	12	14329212	7.3 \$	250,000 Fee Title	P	No	Yes
<u>Florida Lake AMA, P1</u>	<u>Kandiyohi</u>	<u>121</u>	<u>35</u>	<u>2</u>	<u>34</u>	<u>12135234</u>	<u>4.6 \$</u>	<u>185,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Angling Only</u>
Flowage Lake AMA, P2	Aitkin	49	23	2	30	4923230	50 \$	400,000 Fee Title	P	No	Yes
Grey Cloud AMA, P1	Washington	27	21	2	30	2721230	60 \$	400,000 Fee Title	P	No	Yes
Greenleaf AMA	Meeker	118	30	2	20	11830220	51 \$	200,000 Fee Title	P	No	Yes
Hamlet Lake AMA	Crow Wing	46	28	2	27	4628227	30.5 \$	300,000 Fee Title	P	No	Yes
Horseshoe Lake AMA, P1	Itasca	59	25	2	10	5925210	18 \$	300,000 Fee Title	P	No	Yes
Horseshoe Lake AMA, P2	Cass	139	30	2	16	13930216	5.1 \$	198,000 Fee Title	P	No	Yes
<u>Hungry Lake AMA, P2</u>	<u>Becker</u>	<u>138</u>	<u>39</u>	<u>2</u>	<u>8</u>	<u>13839208</u>	<u>50 \$</u>	<u>150,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Koronis Lake AMA, P7</u>	<u>Stearns</u>	<u>122</u>	<u>32</u>	<u>2</u>	<u>32</u>	<u>12232232</u>	<u>21.4 \$</u>	<u>250,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Little Sand AMA, P1	Itasca	55	23	2	16	5523216	77 \$	400,000 Easement	P	No	Yes
Lizzie Lake AMA, P2&3	Otter Tail	137	42	2	32	13742232	3.5 \$	250,000 Fee Title	P	No	Angling Only
<u>Lost Lake AMA</u>	<u>Cass</u>	<u>143</u>	<u>30</u>	<u>2</u>	<u>14</u>	<u>14330214</u>	<u>4.2 \$</u>	<u>175,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Marion Lake AMA, P1A & 1B</u>	<u>Otter Tail</u>	<u>135</u>	<u>39</u>	<u>2</u>	<u>7</u>	<u>13539207</u>	<u>6.9 \$</u>	<u>400,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Maud Lake AMA, P1	Becker	138	42	2	28	13842228	9 \$	200,000 Fee Title	P	No	Angling Only
Middle Branch of Whitewater AMA	Olmsted	106	10	2	10	10610210	37 \$	300,000 Fee Title	P	No	Yes
<u>Miller Bay AMA, P1,2,3</u>	<u>Cass</u>	<u>142</u>	<u>30</u>	<u>2</u>	<u>36</u>	<u>14230236</u>	<u>61 \$</u>	<u>1,000,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Rock Lake AMA</u>	<u>Becker</u>	<u>140</u>	<u>40</u>	<u>2</u>	<u>20</u>	<u>14040220</u>	<u>98.6 \$</u>	<u>1,000,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Sanborn AMA	Redwood	109	36	2	27	10936227	104 \$	300,000 Fee Title	P	No	Yes
Sandshell AMA	Stearns	127	29	2	25	12729225	86 \$	900,000 Fee Title	P	No	Yes
South Br. Vermillion	Dakota	114	18	2	29	11418229	65.6 \$	450,000 Fee Title	P	No	Yes
<u>Spider Lake</u>	<u>Hubbard</u>	<u>141</u>	<u>33</u>	<u>2</u>	<u>28</u>	<u>14133228</u>	<u>20 \$</u>	<u>450,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Spirit Lake AMA	Wadena	138	35	2	28	13835228	51 \$	386,100 Fee Title	P	No	Yes
Spring Brook AMA, P1	Rice	111	20	2	4	11120204	35 \$	140,000 Fee Title	P	No	Yes
Spring Valley Hatchery AMA	Fillmore	103	13	2	27	10313227	27 \$	600,000 Fee Title	P	No	Yes
<u>Star Lake AMA</u>	<u>Crow Wing</u>	<u>137</u>	<u>28</u>	<u>2</u>	<u>25</u>	<u>13728225</u>	<u>280 \$</u>	<u>1,000,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
Sunrise Lake AMA	Chisago	34	20	2	17	3420217	46 \$	300,000 Fee Title	P	No	Yes
Tallus Island AMA	St. Louis	49	15	2	23	4915223	51 \$	10,000 Fee Title	P	No	Yes
Ten Mile Lake AMA, P4	Cass	140	31	2	5	14031205	32 \$	100,000 Fee Title	P	No	Yes
Toad Lake AMA, P3	Becker	139	38	2	16	13938216	87.5 \$	600,000 Fee Title	P	No	Yes
Trout Stream Easments	Primarily SE & NE						85 \$	2,500,000 Easement	P	No	Angling Only
Turtle Lake AMA	Beltrami	148	33	2	15	14833215	19.2 \$	200,000 Fee Title	P	No	Yes
Upper Whitefish Lake AMA	Crow Wing	137	28	2	7	13728207	40 \$	200,000 Fee Title	P	No	Yes
Vermillion River AMA, P6	Dakota	114	19	2	22	11419222	160 \$	800,000 Fee Title	P	No	Yes
Vermillion River AMA, P8	Dakota	114	19	2	23	11419223	50 \$	250,000 Fee Title	P	No	Yes
Washburn Lake AMA	Cass	139	26	2	5	13926205	19.8 \$	800,000 Fee Title	P	No	Yes
<u>Whispering Ridge AMA, P4</u>	<u>Renville</u>	<u>114</u>	<u>36</u>	<u>2</u>	<u>29</u>	<u>11436229</u>	<u>38 \$</u>	<u>150,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
<u>Whispering Ridge AMA, P6</u>	<u>Renville</u>	<u>114</u>	<u>36</u>	<u>2</u>	<u>33</u>	<u>11436233</u>	<u>159 \$</u>	<u>500,000 Fee Title</u>	<u>P</u>	<u>No</u>	<u>Yes</u>
White Earth AMA	Becker	142	40	2	16	14240216	14 \$	300,000 Fee Title	P	No	Yes
Woman Lake AMA, P8	Cass	141	28	2	31	14128231	25 \$	400,000 Fee Title	P	No	Yes
Woman Lake AMA, P9	Cass	141	28	2	32	14128232	14 \$	500,000 Fee Title	P	No	Yes
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	18, 19, 20, 2	10508219	20 \$	250,000 Trout stream 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		
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		
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		
Eagle Creek AMA	Scott	115	21	2	7	11521207	0.6 \$	27,747 Shoreland enhancement	E		