Lessard-Sams Outdoor Heritage Council Laws of Minnesota 2010 Final Report

Date: November 12, 2015

Program or Project Title: Cold Water River and Stream Restoration, Protection, and Enhancement, Phase 2

CLEAN WATER LAND & LEGACY

Funds Recommended: \$1,269,000

Manager's Name: John Lenczewski

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Legislative Citation: ML 2010, Ch. 361, Art. 1, Sec. 2, Subd. 5(c)

Appropriation Language: \$1,269,000 in fiscal year 2011 is to the commissioner of natural resources for an agreement with Trout Unlimited to restore, enhance, and protect cold water river and stream habitats in Minnesota. A list of proposed acquisitions and a list of proposed projects, describing the types and locations of restorations and enhancements, must be provided as part of the required accomplishment plan. The commissioner of natural resources must agree in writing to each proposed acquisition, restoration, and enhancement. All restorations must comply with subdivision 9, paragraph (b).

County Locations: Dakota, Fillmore, Goodhue, Wabasha, and Winona.

Regions in which work will take place:

- Southeast Forest
- Metro / Urban

Activity types:

Restore

Priority resources addressed by activity:

- Prairie
- Habitat

Abstract:

In-stream and riparian habitat was enhanced along six reaches of coldwater streams located in existing Aquatic Management Areas. The projects improved habitat for both game and non-game fish and wildlife species uniquely associated with coldwater trout streams and expanded recreational opportunities.

Design and scope of work:

Seriously degraded coldwater habitat is an important statewide conservation issue requiring immediate investment through habitat restoration and enhancement projects. The Lessard-Sams Outdoor Heritage Council identified the restoration and enhancement of coldwater fish habitat a priority action in the L-SOHC Sections in which these projects are located. As part of our ongoing program of trout and salmon habitat restoration and enhancement, Minnesota Trout Unlimited ("MNTU") has identified several priority projects for Fiscal Year 2011 funding. MNTU directly restored or enhanced in-stream and riparian fish and wildlife habitat in and along these Minnesota waters (counties), all of which are in existing state-owned Aquatic Management Areas:

1. Hay Creek (Goodhue);

- 2. Lost Creek (Fillmore);
- 3. Pine Creek, reach 1 (Winona);
- 4. Pine Creek, reach 2 (Winona);
- 5. Vermilion River (Dakota);
- 6. West Indian Creek (Wabasha).

Another project, on the North Branch of the Whitewater River, was designed but implementation postponed by DNR Parks so it can rework the design to make the site appear more closely like pre European settlement conditions. Rather than delay the expenditure of OHF funds on the ground, remaining funds budgeted for construction were used to enhance another reach of Pine Creek. This 1,800 foot long reach of enhanced habitat on Pine Creek will support greater numbers of adult trout and likely receive far heavier use than Whitewater River reach would have.

These projects employed the same successful strategy used in the projects done by MNTU chapters and the MNDNR in the past decade. Each project involved the installation of in-stream fish habitat structures, in addition to measures which have reduced stream bank erosion and associated sedimentation, and reconnected streams to their flood plains to reduce negative impacts from severe flooding. The specific fish habitat restoration or enhancement methods used on each stream varied slightly depending upon the distinct natural resource characteristics of each ecological region, as well as variations in the type and magnitude of poor land uses practices within each watershed. Each project was tailored to the site after close consultation with resource professionals within the Minnesota DNR. The projects were designed and implemented to accomplish a number of these purposes: a) reduce stream bank erosion and associated sedimentation, b) reconnect streams to their flood plains to reduce negative impacts from severe flooding, c) increase natural reproduction of trout and other aquatic organisms, d) maintain or increase adult trout abundance, e) increase biodiversity for both in-stream and non-game species, f) be long lasting with minimal maintenance required, and g) improve angler access.

Project partners included the MNDNR, Pheasants Forever, and Minnesota citizens. The MNDNR was a key partner on every project, helping to identifying priority project sites, offering professional input on designs, providing permitting review, and other support. Dedicated members of Pheasants Forever accomplished an excellent prairie restoration on the upland areas of the Vermilion River site. We encountered strong support from local communities, local businesses, community clubs, sporting groups, anglers, the MNDNR and the general public.

Which LSOHC state-wide priorities are addressed in this proposal:

- Address conservation opportunities that will be lost if not immediately acted on
- Allow public access. This comes into play when all other things about the request are approximately equal
- Are able to leverage effort and/or other funds to supplement any OHF appropriation
- Are ongoing, successful, transparent and accountable programs addressing actions and targets of one or more of the ecological sections
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and others while doing this important work
- Produce multiple enduring conservation benefits
- Provide Minnesotans with greater public access to outdoor environments with hunting, fishing and other outdoor recreation opportunities
- Restore or enhance habitat on state-owned WMAs, AMAs, SNAs, and state forests
- Target unique Minnesota landscapes that have historical value to fish and wildlife
- Use a science-based strategic planning and evaluation model to guide protection, restoration and enhancement, similar to the United States Fish and Wildlife Service's Strategic Habitat Conservation model

Which LSOHC section priorities are addressed in this proposal:

Metro / Urban:

• Enhance and restore coldwater fisheries systems

Southeast Forest:

• Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

Relationship to other funds:

Not Listed

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended:

The projects were designed for long-term ecological and hydraulic stability. We do not anticipate that there will be any significant

maintenance required in order to sustain the habitat improvements for several decades. We anticipated that long-term monitoring of the integrity of the improvements will be done in conjunction with routine inspections and biological monitoring conducted by local DNR staff, MNTU members, and/or landowners as appropriate. This monitoring will not require separate OHF or other constitutional funding. If some maintenance is needed in the future, possible sources of funding and volunteer labor could include Trout Unlimited, MNDNR AMA maintenance funding, and other grant funds and organizations. The Vermilion River project uses some additional methods on this unique prairie trout stream, but because they are intended to mimic natural habitat forming processes future human intervention should be minimal.

Outcomes:

Programs in metropolitan urbanizing region:

• Improved aquatic habitat indicators

How will they be measured and evaluated?

The outcome of improved aquatic indicators will be measured over time via fish population surveys conducted by the MNDNR.

Programs in southeast forest region:

• Improved aquatic habitat indicators

How will they be measured and evaluated?

The outcome of improved aquatic indicators will be measured over time via fish population surveys conducted by the MNDNR.

Budget Spreadsheet

Final Budget line item reallocations are allowed up to 10% and do not need require an amendment to the Accomplishment Plan

Total Amount: \$1,269,000

Budget and Cash Leverage

| BudgetName | Request | Spent | Cash Leverage (anticipated) | Cash Leverage (received) | Leverage Source | Total (original) | Total (final) |
|----------------------------|-------------|-------------|-----------------------------|--------------------------|-----------------|------------------|---------------|
| Personnel | \$51,000 | \$50,800 | \$0 | \$0 | | \$51,000 | \$50,800 |
| Contracts | \$271,000 | \$292,600 | \$0 | \$0 | | \$271,000 | \$292,600 |
| Fee Acquisition w/ PILT | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Fee Acquisition w/o PILT | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Easement Acquisition | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Easement Stewardship | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Travel | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Professional Services | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Direct Support Services | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| DNR Land Acquisition Costs | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Capital Equipment | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Other Equipment/Tools | \$445,600 | \$502,200 | \$0 | \$0 | | \$445,600 | \$502,200 |
| Supplies/Materials | \$501,400 | \$423,400 | \$0 | \$0 | | \$501,400 | \$423,400 |
| DNR IDP | \$0 | \$0 | \$0 | \$0 | | \$0 | \$0 |
| Total | \$1,269,000 | \$1,269,000 | \$0 | \$0 | | \$1,269,000 | \$1,269,000 |

Personnel

| Position | FTE | Over#ofyears | Spent | Cash Leverage | Leverage Source | Total |
|--------------------------------|------|--------------|----------|---------------|-----------------|----------|
| Program Manager (.425 FTE) | 0.00 | 3.00 | \$36,500 | \$0 | | \$36,500 |
| Program Coordinator (.125 FTE) | 0.00 | 3.00 | \$14,300 | \$0 | | \$14,300 |
| Comptroller (.125 FTE) | 0.00 | 0.00 | \$0 | \$0 | | \$0 |
| Total | 0.00 | 6.00 | \$50,800 | \$0 | | \$50,800 |

Output Tables

Table 1a. Acres by Resource Type

| Туре | Wetlands (original) | Wetlands (final) | Prairies (o riginal) | Prairies (final) | Forest (original) | Forest (final) | Habitats (original) | Habitats (final) | Total (original) | Total (final) |
|--|------------------------|---------------------|-------------------------|---------------------|----------------------|-------------------|------------------------|---------------------|---------------------|------------------|
| Restore | 0 | 0 | 15 | 22 | 0 | 0 | 70 | 52 | 85 | 74 |
| Protect in Fee with State PILT Liability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protect in Fee W/O State PILT Liability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protect in Easement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enhance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 15 | 22 | 0 | 0 | 70 | 52 | 85 | 74 |

Table 1b. How many of these Prairie acres are Native Prairie?

| Туре | Native Prairie (original) | Native Prairie (final) |
|--|---------------------------|------------------------|
| Restore | 0 | 0 |
| Protect in Fee with State PILT Liability | 0 | 0 |
| Pro tect in Fee W/O State PILT Liability | 0 | 0 |
| Protect in Easement | 0 | 0 |
| Enhance | 0 | 0 |
| Total | 0 | 0 |

Table 2. Total Requested Funding by Resource Type

| Туре | Wetlands (original) | Wetlands (final) | Prairies (o riginal) | Prairies (final) | Forest (original) | Forest (final) | Habitats (o riginal) | Habitats (final) | Total (original) | Total (final) |
|---|------------------------|---------------------|-------------------------|---------------------|----------------------|-------------------|-------------------------|---------------------|---------------------|------------------|
| Restore | \$0 | \$0 | \$24,000 | \$1,000 | \$0 | \$0 | \$1,245,000 | \$1,268,000 | \$1,269,000 | \$1,269,000 |
| Protect in Fee with State PILT Liability | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Protect in Fee W/O State PILT Liability | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Protect in Easement | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Enhance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$0 | \$0 | \$24,000 | \$1,000 | \$0 | \$0 | \$1,245,000 | \$1,268,000 | \$1,269,000 | \$1,269,000 |

Table 3. Acres within each Ecological Section

| Туре | Metro Urban (original) | Metro Urban (final) | ForestPrairie (original) | Forest Prairie (final) | SE Forest (original) | | Prairie (original) | Prairie (final) | N Forest (original) | | Total (original) | Total (final) |
|---|---------------------------|---------------------------|-----------------------------|------------------------------|-------------------------|----|-----------------------|--------------------|------------------------|---|---------------------|------------------|
| Restore | 21 | 27 | 0 | 0 | 64 | 47 | 0 | 0 | 0 | 0 | 85 | 74 |
| Protect in Fee with State PILT Liability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protect in Fee W/O State PILT Liability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Protect in Easement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enhance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 21 | 27 | 0 | 0 | 64 | 47 | 0 | 0 | 0 | 0 | 85 | 74 |

Table 4. Total Requested Funding within each Ecological Section

| Туре | Metro Urban (original) | Metro Urban (final) | ForestPrairie (original) | Forest Prairie (final) | SEForest (original) | | Prairie (original) | Prairie (final) | N Forest (original) | N Forest (final) | Total (original) | Total (final) |
|---|---------------------------|---------------------------|-----------------------------|------------------------------|------------------------|-------------|-----------------------|--------------------|------------------------|---------------------|---------------------|------------------|
| Restore | \$84,200 | \$75,000 | \$0 | \$0 | \$1,184,800 | \$1,194,000 | \$0 | \$0 | \$0 | \$0 | \$1,269,000 | \$1,269,000 |
| Protect in Fee with State PILT Liability | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Protect in Fee W/O State PILT Liability | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Protect in Easement | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Enhance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$84,200 | \$75,000 | \$0 | \$0 | \$1,184,800 | \$1,194,000 | \$0 | \$0 | \$0 | \$0 | \$1,269,000 | \$1,269,000 |

Target Lake/Stream/River Feet or Miles (original)

Approximately 4.4

Target Lake/Stream/River Feet or Miles (final)

Approximately 4.3

Parcel List

Section 1 - Restore / Enhance Parcel List

Dakota

| Name | TRDS | Acres | T o tal Cost | Existing Protection? | Description |
|-------------------------------|----------|-------|--------------|----------------------|---|
| Vermillion River | 11418220 | 27 | \$75,000 | Yes | Ebhance approximately 2,000 feet and upland |
| Fillmore | | | | | |
| Name | T RDS | Acres | T o tal Cost | Existing Protection? | Description |
| Lost Creek | 10411218 | 8 | \$200,000 | Yes | Enhance approximately 3,600 feet |
| Goodhue | | | | | |
| Name | T RDS | Acres | T o tal Cost | Existing Protection? | Description |
| Hay Creek | 11215226 | 13 | \$186,900 | Yes | Enhamce 5,500 feet of stream corridor |
| Wabasha | | | | | |
| Name | T RDS | Acres | T o tal Cost | Existing Protection? | Description |
| North Branch Whitewater River | 10811232 | 0 | \$19,900 | Yes | Design enhancement |
| West Indian Creek | 10911205 | 10 | \$260,400 | Yes | Enhance approximately 4,400 feet |
| Winona | _ | | _ | | |
| Name | TRDS | Acres | T o tal Cost | Existing Protection? | Description |
| Pine Creek | 10508230 | 16 | \$526,800 | Yes | Enhance combined 7,100 feet |

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Completed Parcel: Hay Creek

| # of T otal Acres: | 13 |
|---|--------------------|
| County: | Goodhue |
| Township: | 112 |
| Range: | 15 |
| Direction: | 2 |
| Section: | 26 |
| # of Acres: Wetlands/Upland: | |
| # of Acres: Forest: | |
| # of Acres: Prairie/Grassland: | |
| Amount of Shorline: | 5500 (Linear Feet) |
| Name of Adjacent Body of Water (if applicable): | Hay Creek |
| Has there been signage erected at the site: | Yes |
| Total cost of Restoration/Enhancement: | \$186,900 |

Completed Parcel: Lost Creek

| # of T o tal Acres: | 8 |
|---|--------------------|
| County: | Fillmore |
| T o wnship: | 104 |
| Range: | 11 |
| Direction: | 2 |
| Section: | 18 |
| # of Acres: Wetlands/Upland: | |
| # of Acres: Forest: | |
| # of Acres: Prairie/Grassland: | |
| Amo unt of Shorline: | 3600 (Linear Feet) |
| Name of Adjacent Body of Water (if applicable): | Lost Creek |
| Has there been signage erected at the site: | Yes |
| Total cost of Restoration/Enhancement: | \$200,000 |

Completed Parcel: North Branch Whitewater River

| # of T o tal Acres: | 0 |
|---|--|
| County: | Wabasha |
| Township: | 108 |
| Range: | 11 |
| Direction: | 2 |
| Section: | 32 |
| # of Acres: Wetlands/Upland: | |
| # of Acres: Forest: | |
| # of Acres: Prairie/Grassland: | |
| Amount of Shorline: | 2000 (Linear Feet) |
| Name of Adjacent Body of Water (if applicable): | North Branch Whitewater |
| | No - Project designed only. DNR Parks wants to revise in-house and implement, so project has not been completed. OHF construction budget was shifted to Pine Creek. |
| Total cost of Restoration/Enhancement: | \$19,900 |

Completed Parcel: Pine Creek

| # of T o tal Acres: | 16 |
|---|--------------------|
| County: | Winona |
| Township: | 105 |
| Range: | 08 |
| Direction: | 2 |
| Section: | 30 |
| # of Acres: Wetlands/Upland: | |
| # of Acres: Forest: | |
| # of Acres: Prairie/Grassland: | |
| Amount of Shorline: | 7100 (Linear Feet) |
| Name of Adjacent Body of Water (if applicable): | Pine Creek |
| Has there been signage erected at the site: | Yes |
| Total cost of Restoration/Enhancement: | \$526,800 |

Completed Parcel: Vermillion River

| # of T o tal Acres: | 27 |
|---|--------------------|
| County: | Dakota |
| Township: | 114 |
| Range: | 18 |
| Direction: | 2 |
| Section: | 20 |
| # of Acres: Wetlands/Upland: | |
| # of Acres: Fo rest: | |
| # of Acres: Prairie/Grassland: | 22 |
| Amo unt of Shorline: | 2000 (Linear Feet) |
| Name of Adjacent Body of Water (if applicable): | Vermilion River |
| Has there been signage erected at the site: | Yes |
| T o tal cost of Restoration/Enhancement: | \$75,000 |
| | |

Completed Parcel: West Indian Creek

| # of T o tal Acres: | 10 |
|---|--------------------|
| County: | Wabasha |
| Township: | 109 |
| Range: | 11 |
| Direction: | 2 |
| Section: | 05 |
| # o f Acres: Wetlands/Upland: | |
| # of Acres: Forest: | |
| # o f Acres: Prairie/Grassland: | |
| Amount of Shorline: | 4400 (Linear Feet) |
| Name of Adjacent Body of Water (if applicable): | West Indian Creek |
| Has there been signage erected at the site: | Yes |
| Total cost of Restoration/Enhancement: | \$260,400 |
| | |

Parcel Map

