CPL Applications (Total to date: 129)

Spreadsheet

Conservation Partners Legacy Grant Application

o date: 129) CPLI000125

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Name and Contact Project Identifier: CPL1000125 Street Address 1: PO Box 16034 Street Address 2: Project Name: Knife River Habitat Restoration City: Duluth Lake Superior Steelhead Organization Name: Association State: MN Organization Website: www.steelheader.org 55816 Zip Code: Organization Contact Craig Wilson Person: Contact Email: cwilson@etsmn.com Contact Phone: 218-722-6013 Location Primary County: St. Louis Nearest City: Two harbors Township: 53 North Project Site Name: West branch of the Knife River Project Site Land Ownership: State and County Other Land Ownership: **Project Information** Primary Activity: Restoration Fish, Game or Wildlife Habitat Primary Habitat Type: Total Project Acres: 16 Total Project Sites: 2 Total Grant Amount Requested: \$292750 Total Match Amount: \$385000 Total Project Cost: \$677750 Project Completion Date: 06/2012 (MM/YYYY)

Project Summary and Outcomes: See proposal emailed per Leslie's instructions

Attachments

- Project Site Information Form
- Project Budget and Match Description
- Partner Committment Letter
- Financial Documentation
- Conservation Easement
- Supplementary Attachment #1
- Supplementary Attachment #2

Back

Conservation Partners Legacy Grant Program Project Site Information

Contact informati	on						
Project name:	ect name: Knife River Habitat Restoration						
Organization:	Lake Superior Steelhead						
-	Associati	on					
Organization conta	act perso	n (Project Manager):	Craig Wilson				
Project information	on						
Project site:		West Branch of the Knif	e River Watershed]	
Project site land m	anager		Legal :	T53 N	R12 W	S	Q
or easement	holder:	MN DNR see attached		1	<u>.</u>		
Private land owne	r		County:	St Louis C	ounty]
(if ap	plicable):]
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Activity quantity:			Feet C Struct		/etlands		
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Conservation Partners Legacy Grant Program

Project timeline:

Time frame	Goal	Time frame	Goal
July-Nov 2010	Identify and walk sites for		
	restoration		
Nov 2010	Secure Bare root and/or potted		
	trees		
Dec 2010-Apr 2011	Design restoration efforts prepare		
	project plan and permits		
May 2011	Obtain project approvals and		
	permits		
June -August 2011	Obtain locations and permissions to		
	transplant trees from public lands		
	to restoration site		
June 2011-June	Equipment Prep, Site Prep, Tree		
2012	Transportation, Site Mapping, Tree		
	Planting		
June 2012	Final Reporting		

Project description and benefits (box will expand as typed into, not to be longer than 2 pages): See Attached Proposal

Please provide the answers to the following questions. Boxes will expand as typed into.

- 1. For lands acquired in fee title that will be turned over to a public agency for long-term management:
 - a. Provide a description of the work necessary to bring the land up to agency standards and an estimate of the associated cost.

N/A

Conservation Partners Legacy Grant Program

b. What short- and long-term work is required to manage the land you acquire?
 See Attached Proposal

2. For enhancement/ restoration projects on public lands:

a. Who is/will be the long-term manager for the project site?

DNR they hold the Easements

b. What short- and long-term maintenance work is required to sustain the habitat work you will do?

See Attached Proposal

c. Who will complete this maintenance work, and how will it be funded?

See Attached Proposal

d. Will the CPL funds supplant any existing funds?

No

As required by 2009 MN Session Law, Chapter 172 subd. 10 (8), "any agency or entity receiving an appropriation must, for any project funded in whole or in part with funds from the appropriation, give consideration to and **make timely written contact with the Minnesota Conservation Corps** for consideration of possible use of their services to contract for restoration and enhancement services". Contact MCC at <u>cplg@conservationcorps.org</u>, or email a copy of this form to the same address. For more information on costs, crew capabilities, etc., visit MCC's website at http://www.conservationcorps.org/useacrew.html.

Signature:

I certify that I have read the Conservation Partners Legacy Grants Program **Request for Proposal**, **Program Manual** and other program documents, and have discussed this project with the appropriate

public land manager, or private landowner and easement holder. I am authorized to apply for and manage these grant and match funds, and the project work by the organization or agency listed below. I have made timely written notification to MCC regarding my restoration or enhancement project.

Signature: Craig P. Wilson	Organization/ Agency: LSSA
Title: President	Date: 11/3/09

Please save this document to your computer or electronic storage device and attach this document as specified on the online submittal form when ready to apply. Contact <u>CPL Grant Staff</u> with any questions.

CPL Project Application Review and Approval Form

REVIEWER INFORM	ATION				
Land manager/ ease	ement holder name: MN DNR	Fisheries, Du	Iluth Area Office		
Title: Deserae H	Iendrickson, Area Supervisor	Date of m	eeting:		
Phone: 218-525-0	0853 Extension 201	Proposal	ID #:		
Email: deserae.h	endrickson@state.mn.us	(ass	igned by agency, optiona	1)	
PROJECT INFORMA	TION:				<u> </u>
Project Name:	Knife River Habitat Rehabilitati	on	Organization:	Lake Superior Steelh	ead
Contact Person:				Association (LSSA)	
Email	Cwilson@etsmil.com		Daytime Phone:	722-0013	
Please check the ap	propriate boxes: application and discussed this pro ements, the private landowner h	oposed proje nas been con	ect with the above li tacted and has give	sted Organization Con n support and approva	itact Person. al for this project.
i nave per	Tormed a Natural Heritage D				
] this project to have no features	s within one	mile.		
☐ this project to have features within one mile, but project is not likely to adversely affect those features. I have recommended the following minimization strategy: The only rare feature within 1 mile of the West Branch Knife River (4300 ft at nearest point to river), This was in a separate subwatershed, and separated by a road from the West Branch Knife Watershed. As there is no reason for project activities to be taking place in the area of this sighting, I have not made any recommendations for minimization.					
ar I do no business d I have discussed wh require: minima] this project is likely to adversel ad should be forwarded to DNR E t have access to the Natural Fea ays to <u>CPL Staff</u> at <u>LSCPLGrants.</u> at role my office will be expected al or no involvement from my off	ly affect Nati Ecological Re I tures datab a DNR@dnr.st d to have in f ice for comp	ural Heritage feature sources staff for fur ase and will forward cate.mn.us for revie this project and find letion.	es. I feel that this proj ther review. d this completed form w. that the project, as de	ect is important to DNR within 3 escribed will
a comm ar	nitment of involvement by staff t nd workload.	that is reason	nable and can be ac	complished with curre	nt staffing levels

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an amount of staff involvement that cannot be committed during the project time period with current staffing levels. Unless additional staffing can be committed from other offices, Divisions or appropriate partners, I feel this project cannot be completed within the project timeline to our desired standards.

CPL Project Application Review and Approval Form

I have discussed permits and applications that the applicant may be responsible for using the Working on DNR Lands and Working on Public Lands, or Working on Private Lands documents.

Upon final review of this project:

- ☐ I find this project to be consistent with sound conservation science. This work will benefit area fish, game and wildlife by restoring, enhancing or protecting forests, wetlands, prairies and habitat and is consistent with the management or stewardship plan for this land. (APPROVAL)
- I find that this project does not follow the management or stewardship plan for this land and does not fit within the long range goals for this land at this time on the local level. (DECLINE)
- I find that this project should be sent up to a higher level within the agency for further review and decision. I have forwarded the Project Planning Form and this Review and Approval Form for further review to:
 Name: Deserae Hendrickson
 Phone: 218-525-0853 ext 201

By checking this box and typing my name below I certify that I have met with the above applicant and discussed the proposed project and have provided feedback to the applicant.

Name: Deserae Hendrickson

Comments: LSSA is in the process of contacting landownders where work is anticipated on Fisheries easements, and will have that completed before work begins. Most of the land along the West Branch Knife River is in public ownership. Links to both easement and Fisheries fee title documents have been sent in a prior email.

I have also discussed several inaccurate statements made in the draft proposal document with Craig Wilson, and have asked that they be modified or removed.

Additional review (if necessary):

Name:	Phone:
Title:	Email:
Comment	s(including approval or denial, reasoning):
artners I e	agecy Grant Program

Lessard – Sams Conservation Partners Legacy Grant Proposal

Knife River Habitat Restoration



Lake Superior Steelhead Association PO Box 16034 Duluth, MN 55816

www.steelheaders.org

Conservation Partners Legacy Grant Proposal November 2009

Knife River Watershed

Situated on the St Louis/Lake County border in NE MN, the Knife River has over 181 miles of stream length within its watershed. The Knife River Watershed consists of approximately 54,000 acres, of which 29,000 acres are owned by the State of Minnesota, St. Louis County and Lake County (Attachment 1 Site Location Map). Approximately 25,000 acres are privately owned and of this privately owned property 6,200 acres or approximately 25% are enrolled in stewardship plans (Attachment 2 Knife River Watershed Map). The Knife River is the best steelhead spawning habitat on Minnesota's Northshore.

History of the Knife River

The Knife River once held one of the largest populations of natural reproducing steelhead in the Great Lakes and provided spawning habitat in its upper watershed to thousands of steelhead each spring. Since the late 1970's, the Knife River steelhead population has seen a dramatic decrease. Where thousands of steelhead once traveled upstream to spawn now only seven hundred make this same journey. One of the primary reasons for the decrease in the Knife River's steelhead population is the degradation to the upper Knife River Watershed riparian habitat.

The Knife River lacks significant spring flow and is kept cool in the summer by the shade of riparian trees along the streambank. Without cold water, juvenile trout migrate downstream in search of suitable cold water habitat or parish. According to a DNR fisheries study, the increased water temperature and lack of flow cause juvenile steelhead to prematurely migrate to Lake Superior. When these smolts migrate prematurely (before age 2) to Lake Superior they are significantly preyed upon. According to the DNR, 1 out of every 600 juvenile trout that migrate prematurely to Lake Superior return to spawn in the Knife River. In contrast, 1 out of every 10 two-year old smolts (non-early migrants) return from Lake Superior to spawn as adults. This is a major limiting factor to the recovery of the steelhead population.

History of the Lake Superior Steelhead Association

The Lake Superior Steelhead Association was formed in 1970 due to the growing concern by area steelhead fishermen that the coldwater steelhead fishery was in decline. The first newsletter was published in 1971 and the club was incorporated in 1973, gaining IRS 501.c.3 non-profit status in 1973. Per Article II of the Bylaws of the Lake Superior Steelhead Association, "the Association's primary purpose is to promote the propagation of trout and other cold water fishes through such methods as hatchery development and the improvement and protection of the coldwater environment that supports these game fish." For over thirty-five years, we have strived to uphold these noble objectives.

LSSA Steelhead and Habitat Project Experience

In 1971, the LSSA began its first steelhead rehabilitation effort, the "Make it a Million" program. This program was intended to raise \$100,000 to purchase one million juvenile fish to be planted in Lake Superior. It was an energetic goal, but beyond the reach of our club at that time.

In 1972, the LSSA recognized the need for a coldwater hatchery to conduct annual stocking of trout in Lake Superior, its tributaries and the surrounding designated trout lakes. The LSSA began lobbying for a state or federal hatchery to be built in the Duluth area. The result is the existing French River Coldwater Hatchery we have today.

Even with the new French River Hatchery, steelhead decline still persists especially on the Knife River. As stated above, the importance of the Knife River has always been recognized by the LSSA. This led the club to actively pursue reducing the legal take of steelhead in the Knife River. However in the 1980's, the DNR did not have steelhead population data just "anecdotal evidence from fishermen" to support the club's concerns. The only tool available to the DNR at that time was their Spring Creel Census and this occurred every other year. In an effort to get better information, the LSSA donated **\$3,304** to fund an intensive Knife River census in 1987. Then in 1988 and 1989, the club again funded two more years of the Knife River Spring Creel Census in the amount of **\$4,119** and **\$3,774** respectively. Data obtained from these censuses backed up the club's concerns of a steelhead fishery in decline.

As the club continued working with the DNR, knowledge of both the fishery and the habitat became the utmost focus of the LSSA in the 1980's and 90's. The LSSA donated **\$875** to the DNR so that a thermograph could be installed on the Little Knife Weir, enabling the department to gather more critical information on the parameters of the steelhead run in the Knife River watershed. In 1988, the club donated **\$2,200** for a fisherman parking lot on the river, which alleviated uncontrolled vehicle parking and associated habitat degradation from erosion. The LSSA donated funds to have the fishermen trails leading to the river covered with wood chips, which also reduced erosion/sediment runoff into the river.

In the late 1980's, the DNR had no steelhead rearing/stocking plans so the LSSA worked with the department on various pilot projects. The LSSA spent **\$6,500** and countless volunteer hours in 1988 to raise steelhead in a private spring pond in the Lester River watershed. Then in 1989, the LSSA donated **\$8,400** to the DNR for their first large-scale attempt at raising wild steelhead in the French River Coldwater Hatchery.

Obtaining fish for any propagation program was difficult for the DNR because of a lack of resources, so the LSSA organized and funded "Catch and Donate" weekends where volunteer anglers would donate their fair hooked steelhead to DNR personnel so that they could be taken back to the hatchery, spawned and then released back to the river. LSSA assisted the DNR with netting the upper and lower falls on the Knife River to get an additional egg source so the DNR could raise additional fish. The result of this egg collection not only provided fish for stocking, but a unique opportunity to conduct various steelhead studies on the Knife River.

The desire to learn more about the fishery resulted in the decision by the DNR to construct a weir on the Knife River. The original plan did not incorporate a juvenile trap in its design. The LSSA felt that the data obtained through a juvenile trap would be invaluable so in 1995, the LSSA donated **\$50,000** so the DNR could construct a weir that incorporated a juvenile trap into the design. The LSSA also donated **\$5,000** to the DNR for a video-viewing window that could be incorporated in the fish passageway to record migrating fish. This single item of construction

has allowed the DNR to obtain almost all of their information pertaining to the steelhead run on the Knife River and continues to be used annually to obtain population data.

The LSSA understands that the health of the entire watershed plays a vital role in the health of the coldwater fishery. From the late 1990's into the 2003, the LSSA donated in excess of **\$14,000** for the Knife River Watershed Program. This program funded a forester to develop land management plans to encourage the health of the watershed through private landowners. Many plans were drawn up and implemented in the watershed, which continue to be beneficial to the overall health of the system today.

Beaver dams and beaver deforestation have been a problem in the watershed during the last 25 years. The LSSA has donated over **\$15,000** for various beaver related programs in the watershed. In 2001 the club donated **\$13,000** to the NCRS for a two-year, riparian zone tree-planting project throughout the watershed. LSSA volunteers have also donated many hundreds of hours of labor to improve the watershed in multiple tree planting projects, beaver dam removal efforts and bank stabilization projects.

The LSSA's largest block of donations occurred from 1997 through 2006 for the Knife River Smolt Project. During this period, the LSSA donated over **\$305,000** to offset some of the cost so the French River Coldwater Hatchery could raise smolt steelhead.

The LSSA's efforts continue today. The total funded over the past 20+ years to the benefit of the coldwater fishery in the western end of Lake Superior has approached **\$650,000**. Our goal is to improve the coldwater fishery in the Knife River watershed. To achieve this goal, it is paramount that we rehabilitate the upper watershed to restore the pleasure and the prominence that this great fishery once provided to the people of Minnesota.

Phase I Beaver Dam Stream Restoration

After extensive historic logging of the coniferous trees throughout the Knife River Watershed, aspen regeneration occurred along the river's corridor. Beavers then migrated and colonized this corridor attracted to the aspen, which is a primary food source. Once beavers colonized this area, dams were built blocking the stream flow and flooding the riparian tree cover. The flooded trees quickly died resulting in open water ponds. The impoundment of shallow water and lack of tree cover associated with the beaver pond caused the water temperature to quickly warm (Attachment 3 DNR Graph Comparing water temperature above and below beaver dams).

Recognizing that the upper river habitat was being degraded, the DNR started to remove beavers and beaver dams from the watershed. However, the DNR did not have the resources to restore the habitat destruction that was left behind once the beaver dam was removed. The results are numerous barren meadow landscapes where beaver dams once existed.

The habitat concerns to the Knife River Watershed from these beaver meadows are an increase in water temperatures due to a lack of a tree canopy, reduced stream flows due to increased evaporation from a lack of a tree canopy, and decreased water quality due to erosion/siltation. The Knife River water quality has been impaired to the point that this watershed was added to the 2006 Minnesota Pollution Control Agency (MPCA) Total Maximum Daily Load (TMDL) list of impaired waters for turbidity (Attachment 4 MPCA TMDL Listing).

The DNR has conducted an aerial survey of the upper Knife River Watershed since the mid 1990's to locate beaver dams (Attachment 5 Knife River Beaver Dam Location Map). As previously stated, each year the DNR has trapped beavers and performed limited beaver dam removal, but has not rehabilitated the habitat damage caused to the streambed and adjacent riparian cover. The damage these beaver dams have left behind is the loss of overhead tree canopy, siltation of the stream's spawning gravel, debris in the water and stream bank erosion (Attachment 6 Photographs of Watershed Damage from Past Beaver Activity).

The LSSA proposes to use the DNR's existing aerial data and beaver dam location maps to locate and assess the beaver impacted areas on the upper Knife River. The DNR and LSSA will discuss and rank the locations for rehabilitation. The area of focus will start with the primary spawning tributary in the Knife River watershed, which is the West Branch of the Main Knife River. A field reconnaissance will be conducted to determine the stream section's condition and to design the rehabilitation project. The design parameters will assess for the:

- Presence of beaver dams.
- Erosion of stream banks.
- Mortality of tree canopy.
- Loss of large woody debris.
- Siltation of the streambed.

The project design/scope of work (project plans) will be submitted for review to the Knife River stakeholders and conservation partners in "Draft Form" so the LSSA can receive their input and approval. The LSSA will modify the project plans as necessary and submit the plans to DNR Fisheries for approval. Once we receive DNR Fisheries approval, we will submit the plans to the Board of Water and Soil Resources (BWSR), South St. Louis County and Lake County Soil and Water Conservation District (SWCD) or Lake County SWCD and Army Corp of Engineers for project permit approval.

Once the permit(s) are approved, the LSSA will implement restoration on a portion of the beaver meadows identified for restoration. The first construction phase of the project will consist of restoring ten to fifteen impacted sites with trees to reestablish the riparian tree canopy. The tree species that will be planted will be varied consisting of both coniferous and deciduous trees. The proposed tree species will consist of various arrangements of one gallon to five gallon potted white spruce, black spruce, tamarack, red pine, silver maple, red maple, willows and speckled alder. The trees will be matted to limit overgrowth from invasive grasses and deciduous trees and will be tubed to limit deer, rabbit and rodent predations. The tree canopy riparian zone will ultimately be a mix of fast growing shrub and smaller tree species intermixed with slower growing larger tree species. The shrub species will provide an immediate canopy that will eventually be replaced by a large tree species.

Phase II Knife River Watershed Black Ash Stand Replacement Planting

Black Ash stands currently comprise a large percentage of the riparian forest community in sections of the Knife River watershed, notably in the headwaters where young fish are reared. The State of Minnesota and the Minnesota DNR expect that all ash stands in the state will eventually experience high to total mortality due to an infestation of the emerald ash borer. This project aims to attempt to retain shade cover for the upper Knife River watershed by planting additional tree species to diversify the forest within the riparian corridor, specifically in locations where black ash trees are a primary forest component.

According to GIS data provided by Paul Sandstrom of the Laurentian RC & D, nearly 10 miles of major tributary riparian forest stands are comprised primarily of ash that have already been identified in the watershed. This component of the riparian rehabilitation project on the Knife River will target stands located on public land along the West Branch of the Knife River in St Louis County. The proposed plan will plant a wide variety of trees that will be selected for each location based on site conditions. Preemptive understory tree plant is proposed to utilize tree species including tamarack, silver maple, white spruce, white cedar, white pine, red pine, basswood, etc. Additional GIS work will help select specific stands and locations, as well as target additional locations within the watershed for future plantings.

Tree planting in the remote headwaters of the Knife River watershed is not easy. A variety of different planting techniques will be attempted in this first phase of the black ash stand replacement project. These techniques include planting larger trees, using a variety of bare root, containerized, and locally harvested trees, using matting to keep weed growth down, and using both caging and tree tubes to inhibit browsing. The success of different techniques will be evaluated to aid in planting additional ash stands during future projects.

Tree Planting

The LSSA anticipates using the Minnesota Conservation Corps. (MCC) labor for the majority of the tree planting. However, the LSSA and Trout Unlimited (TU) will also provide some donated labor for tree planting.

Project's Compatibility with Existing Management Plans

This project has been designed and is consistent with the DNR's Lake Superior Management Plan and the DNR's Rainbow Trout Plan. Both of these DNR management plans place a high priority in habitat conservation and rehabilitation. This plan has also received approval from the Lake Superior Watershed Cold Water Coalition, which is a group of conservation organizations and governmental entities that identify and recommend coldwater fishery conservation projects for funding. This coalition consists of the Minnesota Department of Natural Resources (DNR), Minnesota Pollution Control Agency (MPCA), South St. Louis County Soil and Water Conservation District (SWCD), Unitied States Department of Agriculture (USDA), Lake Superior Steelhead Association (LSSA), Trout Unlimited (TU) and Arrowhead Fly Fishers.

Projects Benefits

The project's success will be measured by evaluating the short-term and long-term benefits. These objectives are:

Short-Term Benefits

- High survival rate of planted trees.
- Stabilization of the stream bank.
- Decreased erosion.

Long-Term Benefits

- Reestablish a coniferous tree stream canopy corridor.
- Decrease in the summertime water temperature.
- Decrease beaver activity.
- Increase in summertime stream flows.
- Decrease in early smolt emigration.
- Increase in adult steelhead population.

Long-Term Project Maintenance

The long term viablity of this project will be maintained by the DNR. The DNR has annually flown the Knife River watershed to determine if beaver dams are present. When a beaver dam(s) is located, its coordinates are marked with a GPS and a federal trapper is contracted to trap the beaver and remove the dam. The DNR has been the primary source of funding for this survey, but the LSSA has assisted with partial funding of the aerial survey, beaver trapping and beaver dam removal as requested. These maintenance steps should insure the riparian restoration is not reflooded and killed.

Proposed Project Partners

This project is an unprecedented cooperative venture between the Lake Superior Steelhead Association, Trout Unlimited (TU), Minnesota Department of Natural Resource Fisheries (MN DNR Fisheries), Minnesota Department of Natural Resource Coastal Management Program (Coastal Program), USDA - Laurentian RC & D (USDA), the St. Louis County Soil and Water Conservation District (SWCD), MPCA/City of Duluth Community Action and Knife River Citizen Group and Knife River Citizen Group.

The LSSA will be the project manager and fiscal agent for this project. However, we will work jointly with TU on Phase II of this proposed project. The LSSA will provide a cash donation for beaver dam identification and removal and in-kind labor for tree planting. TU will act as a coproject manager for Phase II and provide a grant from their Embrace a Stream Fund and in-kind labor for tree planting. The MN DNR Fisheries will provide technical review and approval of the project and provide three aerial surveys of the upper Knife River watershed so beaver dam/meadow GPS coordinance locations can be obtained. The Coastal program will provide funding for the site review and restoration project design and funding for trees. The USDA will donate project coordination staff time. The SWCD will be applying for money through the TMDL to assist with bank stabilization and tree planting. These funds are not known at this time and have not been compiled as matching funds for this grant. MPCA/City of Duluth Community Action has applied for Federal Stimulus money for tree planting as part of a putting people to work program. The Knife River Citizens Committee will provide a building for stakeholder meetings.

Site Location Map



Knife River Watershed Map



Temperature Comparison Graph



Temperature Comparison Above and Below Beaver Dams

Knife River - TMDL

Knife River Total Maximum Daily Load

Listed: 2002

Impairment(s): Turbidity and pH (will be delisted).

Current Status: Physical and chemical monitoring is complete. Preliminary data quality checks have been completed, and the actual document is partially complete. The draft TMDL document will be submitted to the Minnesota Pollution Control Agency (MPCA) by December 31st, 2007. It will then be submitted to the Environmental Protection Agency (EPA) for approval.



The Process: First all existing data was gathered and put in to a uniform format. Then monitoring commenced (3 years of monitoring) and that data along with any other available data (no previous data in this case) is used to find current load. Using water quality standard for a Type 2A

Stream (Cold Water Fishery) a target load will be

calculated. In this case the turbidity standard for a Cold Water Fishery is 10 NTU (measurement of light dispersion), which is essentially water clarity.

Preliminary analysis has indicated that the target load is around 205,000 kg/water year. The water year used in this instance is 195 days long.

2004 and 2005 loads were around 1,256,000, which means to reach our target we would need a 82% reduction in turbidity. We may find that certain branches of the Knife may be naturally "murky" and this would cause us to increase the target load.

After the monitoring and analysis is done a TMDL is sent to the MPCA and the EPA for approval, and an implementation plan will be designed.¹

¹ http://www.southstlouisswcd.org/knife_TMDL.html

Knife River Beaver Impacts Map



Past Watershed Damage from Beaver Activity



Aerial Photograph of Beaver Meadow



Beaver Meadow Prior to Rehabilitation



Beaver Meadow Prior to Restoration



Remnant Beaver Dam

Conservation Partners Legacy Grant Project Budget and Match Worksheet, Application Requirement

Project name:	Knife River Habitat	
	Restoration	
Organization:	Lake Superior Steelhead	
	Association	
Organization conta	act person (Project Manager):	Craig Wilson and Kevin Bovee

Please complete all sections and be as detailed as possible for all descriptions under the Details sections. Limit entries in large tables to numbers only, **round to the nearest dollar**. Do not edit table categories, only enter values or text into the table. The tables will adjust to accommodate additional text in each box. If all categories are not needed, please leave those fields blank.

BUDGET: amounts being requested **Note: FY refers to State Fiscal Year: July 1- June 30, with the year reflecting the year that June falls in. For example: if today were September 3rd, 2009 it would be FY2010; December 3rd 2010= FY2011; May 2012= FY2012

Budget Item	Fiscal Year 2010	Fiscal Year 2011	Fiscal Year 2012	Total
Personnel				
Contracts	\$225,000.00	\$341,500.00	\$110,750.00	\$677,750.00
Grant Administration				
Administration/				
Environmental Compliance				
Fee Acquisition				
Easement Acquisition				
Easement Stewardship				
Equipment/Tools/Supplies				
Travel				
Additional Budget items				
Total	\$225,000.00	\$341,500.00	\$110,750.00	\$677,750.00

DETAILS: detail the amounts listed in the above table.

Personnel Details:

Name	Title	Amount
N/A		

Contract Details:

Contractor Name	Contracted Work	Amount
Habitat Consultant To be	Stream Assessment and Habitat Restoration	\$210,000.00
Determined	Design	
Contractors to be Determined	Laborer and Supervision for Tree	\$341,500.00
	Transportation, Site Prep, Tree Planting,	
	Matting and Tubing	

Total \$551,500.00		
	Total	\$551,500.00

Grant Administration:

Administrative Activity	Description/ Amount	Amount
N/A		

Administration/ Environmental Compliance

Activity	Description	Amount
N/A		

Fee Acquisition/ Easement Acquisition/ Easement Stewardship Details:

N/A

Equipment/Tools/Supplies Details:

Item	Use	Amount
Trees/Stakes/Mats/Staples/Tubes	RePlant the Riparian Zone	\$125,750.00
to Site		

Travel Details:

Miles	Purpose	Amount
N/A		

Additional Budget Items Details:

MATCH: Required 10% of total project funds, to be fulfilled by end of Fiscal Year 2012. Use provided rate sheet to determine unit rate and total value of in-kind services to be used as matching funds if applicable.

Source	Description	Units	Unit Rate	Total Value
Federal	MN Coastal Grant Program - Stream	1	\$25,000.00	\$25,000.00
	Assessment/Design Cost Share			
Federal	MN Coastal Grant Program Stream - Tree	1	\$15,000.00	\$15,000.00
	Cost Share			
LSSA	Cash - DNR ID and Site Recon Cost Share	1	\$2,000.00	\$2,000.00
LSSA	In-Kind Volunteer Labor - Tree Planting Cost	1	\$8,000.00	\$8,000.00
	Share			
MN State	Cash - MN DNR Fly Over Site ID Cost Share	3	\$3,333.33	\$10,000.00
MN State	Lessard-Sams Conservation Partner Legacy	1	\$295,750.00	\$292,750.00
	Grant - Proposed Cost Share			
TU	Enhance Stream Fund/In-kind labor -	1	\$10,000.00	\$10,000.00
	Proposed Grant Match			
Federal	MPCA/Duluth Community Action Fund - Tree	1	\$300,000.00	\$300,000.00
	Planting			
USDA	Donated Staff Time Project	300	\$50.00	\$15,000.00
	Coordination/field work			

Matching description/ comments: if needed





CPL100-125 Knife River Habitat Restoration

St. Louis County, LSOHC Northern Forest Planning Section



Created by J.Gangaware, 11/2009

