



Environment and Natural Resources Trust Fund (ENRTF)

M.L. 2015 Work Plan

Date of Report: November 24, 2014

Date of Next Status Update Report: January 1, 2016

Date of Work Plan Approval:

Project Completion Date: June 30, 2017

Does this submission include an amendment request? NO

PROJECT TITLE: Flood Recovery on Sargent Creek Duluth Habitat Restoration

Project Manager: Chris Kleist

Organization: City of Duluth, MN

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Location: Southern St Louis County

Total ENRTF Project Budget:

ENRTF Appropriation: \$300,000

Amount Spent: \$0

Balance: \$300,000

Legal Citation: M.L. 2015, Chp. 76, Sec. 2, Subd. 08i

Appropriation Language:

\$300,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the City of Duluth to re-establish stable and natural streambanks with riparian and aquatic habitat restoration on at least 5,400 linear feet of Sargent Creek in Duluth destroyed during the flood of 2012.

I. PROJECT TITLE: Flood Recovery on Sargent Creek Duluth Habitat Restoration

II. PROJECT STATEMENT:

Two years ago, the City of Duluth experienced a 500 year rain event which created an unprecedented flow of water down Duluth’s steep escarpment. It caused over \$100 million in damage to area roads, bridges, and storm sewer infrastructure. This rain event prompted a Presidential Disaster Declaration and the extensive damage gained national attention. One area that suffered heavy damage are Duluth’s sixteen designated trout streams, particularly Sargent Creek in West Duluth. This beautiful creek sustained damage to its streambanks, riparian habitat, and lost some floodplain connectivity.

The geomorphology of these trout streams and their riparian areas changed tremendously in the flood. During the Disaster Declaration, most State and Federal funding focused on infrastructure related projects, leaving this severely damaged stream reach ineligible for most funding as it is relatively remote with little infrastructure adjacent to the stream and most of the restoration needs relate to improvement of habitat. There is a tremendous need for habitat restoration projects of this type within the City of Duluth’s numerous trout stream corridors, and Sargent Creek is of the highest priority.

The City has worked in partnership with area resource agencies including the Department of Natural Resources (DNR), Minnesota Pollution Control Agency (MPCA), Board of Water and Soil Resources (BWSR), Natural Resources Conservation Service (NRCS), Federal Emergency Management Authority (FEMA), and other stakeholders. We’ve used these partnerships to identify, prioritize, and seek funding for the highest priority stream damage sites. To date, the City has received approximately 7.2 million dollars in stream-related funding from State and Federal sources. However, the funding received thus far is focused heavily on stabilizing streambanks and removing debris near existing infrastructure with very little funding for habitat restoration. This project shall reestablish high-quality stream habitat on the highest priority reach of Sargent Creek to improve aquatic and riparian habitat and protect downstream infrastructure.

Following the June 2012 flood, our stream assessments generally showed that stream reaches with strong vegetative growth and stable natural channels withstood the extreme flows of the flood better than confined and embanked stream channel segments. As a result, we will utilize native vegetation plantings and minor channel re-alignment to re-create a strong, sustainable stream corridor with improved terrestrial and aquatic habitat.

We will utilize proven techniques such as toe wood, root wads, and coir lifts enhanced with live stakes to create a stable, natural streambank that is more resilient to future floods and increased flows from climate change trends.

III. OVERALL PROJECT STATUS UPDATES:

Project Status as of January 1, 2016:

Project Status as of July 1, 2016:

Project Status as of January 1, 2017:

Overall Project Outcomes and Results:

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Produce plans and specifications

Description: The City will issue an RFP to select a qualified engineer for professional services to design the project. This will entail site survey, permitting, production of plans and specifications, as well as site visits and meetings with partner agencies and stakeholders. We will seek a consultant with a strong background in stream restoration.

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 50,000
Amount Spent: \$ 0
Balance: \$ 50,000

Outcome	Completion Date
1. Produce Request for Proposals (RFP) and select design engineer	August 1, 2015
2. Survey site, complete preliminary plans, submit early permit applications	December 1, 2015
3. Final plans, permits, and bid documents "in hand"	March 1, 2016

Activity Status as of January 1, 2016:

Activity Status as of July 1, 2016:

Activity Status as of January 1, 2017:

Final Report Summary:

ACTIVITY 2: Select contractor and construct project

Description: In winter/spring of 2016 the City will publically bid the plans and construction documents produced in Activity 1 and award the project construction to the lowest responsible bidder with the best stream restoration experience. Construction will begin shortly afterwards accounting for access issues and DNR work-in-waters timelines. Construction is expected to take approximately three weeks.

All efforts will be made to minimize disturbance to existing streambanks, healthy existing vegetation, and in-stream habitat. We will work closely with local DNR staff to ensure that their stream expertise is utilized as much as possible. Contractor experience in performing similar work and design engineer oversight will be critical in the construction process.

Summary Budget Information for Activity 2:

ENRTF Budget: \$ 250,000
Amount Spent: \$ 0
Balance: \$ 250,000

Outcome	Completion Date
1. Publically bid construction plans, award construction contract	June 1, 2016
2. Complete construction on 5400 lineal feet of stream	October 1, 2016
3. Final inspection and invoicing complete	December 31, 2016

Activity Status as of January 1, 2016:

Activity Status as of July 1, 2016:

Activity Status as of January 1, 2017:

Final Report Summary:

V. DISSEMINATION:

Description: The City of Duluth has a very strong outreach and education program relating to stormwater pollution prevention, with dozens of presentations given annually at community groups, public meetings, schools, fairs, and festivals. Stream habitat restoration projects such as this one are highlights of these talks and we will feature it in many of these presentations.

Additionally, the City of Duluth frequently hosts tours of environmental projects for community members and professional organizations. This project will be included in these as often as possible.

Finally, the City also utilizes social media and other web-based outreach methods such as facebook, instagram, and twitter. This project will be an excellent highlight for these methods and as construction progresses we will update our followers as often as possible.

Status as of January 1, 2016:

Status as of July 1, 2016:

Status as of January 1, 2017:

Final Report Summary:

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Overview Explanation
Professional/Technical/Service Contracts:	\$300,000	\$50K Design and \$250K Construction
Use of classified staff		N/A
Other:	\$0	
TOTAL ENRTF BUDGET:	\$300,000	

Number of Full-time Equivalent (FTE) Estimated to Be Funded through Contracts with this ENRTF

Appropriation: 4 FTEs (during construction)

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state	\$	\$	
City of Duluth	\$10,000	\$0	In-Kind match, 200 hrs (City staff)
State	\$	\$	
TOTAL OTHER FUNDS:	\$10,000	\$0	

VII. PROJECT STRATEGY:

A. Project Partners:

- a. Minnesota DNR- Will not receive funding from this project, however, DNR is an important partner in any stream restoration project and we will certainly utilize their stream experts for knowledge, advice, and direction during design consideration.

- b. Board of Water and Soil Resources- Will not receive funding from this project, however, BWSR has been a key partner in funding other stream restoration projects within the City of Duluth, along with preparing watershed-wide planning efforts. BWSR staff will be kept up to date on this project and its potential connections to other projects in the area.
- c. MN Trout Unlimited – Will not receive funding from this project, however, Trout Unlimited has been an important partner in other stream restoration projects and we will utilize their knowledge, expertise, and funding to potentially enhance this project.

B. Project Impact and Long-term Strategy: The long-term goal is to create a stable, natural stream channel that is more resilient to future floods and high-flow vents. Additional benefits include in-stream and riparian habitat, along with reduced sediment input from exposed, bare, steep, clay streambanks. Reducing the sediment input will also protect downstream infrastructure and other federally funded projects.

C. Funding History:

Funding Source and Use of Funds	Funding Timeframe	\$ Amount
City/FEMA Repair of downstream culvert	Summer/fall 2012	\$ 3,505.50

VIII. FEE TITLE ACQUISITION/CONSERVATION EASEMENT/RESTORATION REQUIREMENTS:

A. Parcel List: Single parcel, list attached

B. Acquisition/Restoration Information:

Conservation Easement Acquisition

1. **Describe the selection process for identifying and including proposed parcels on the parcel list, including explanation of the criteria and decision-making process used to rank and prioritize parcels.**

The parcel is owned by the City of Duluth and in preservation status

Restoration

1. **Provide a statement confirming that all restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.**

The land is owned by the City of Duluth and is zoned permanent preservation, and is listed as permanent preservation in Duluth’s Comprehensive Land Use Plan.

2. **Summarize the components and expected outcomes of restoration and management plans for the parcels to be restored by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation.**

As-built drawings are filed electronically and on paper by our Engineering Department and stored permanently.

3. **Describe how restoration efforts will utilize and follow the Board of Soil and Water Resources “Native Vegetation Establishment and Enhancement Guidelines” in order to ensure ecological integrity and pollinator enhancement.**

The use of native vegetation shall be specified in the plans.

4. Describe how the long-term maintenance and management needs of the parcel being restored with these funds will be met and financed into the future.

The intent of a stable, natural stream channel is that future maintenance needs will be minimal. The project will grow stronger over time as roots and vegetation establish and grow.

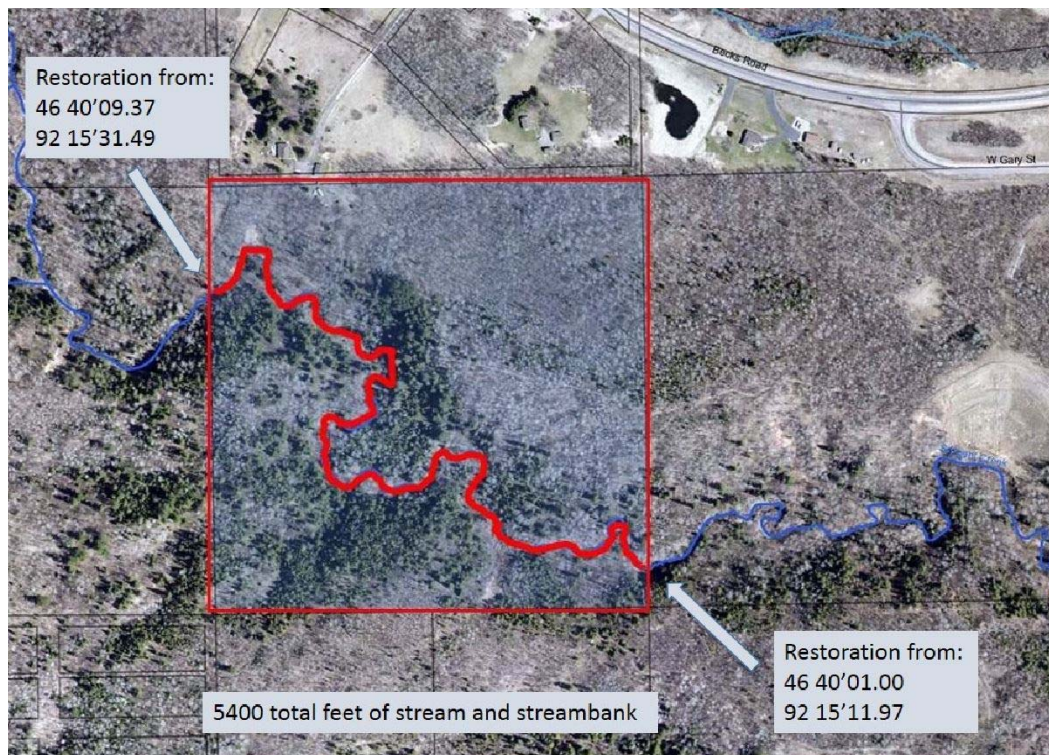
5. Describe how consideration will be given to contracting with Conservation Corps of Minnesota for any restoration activities.

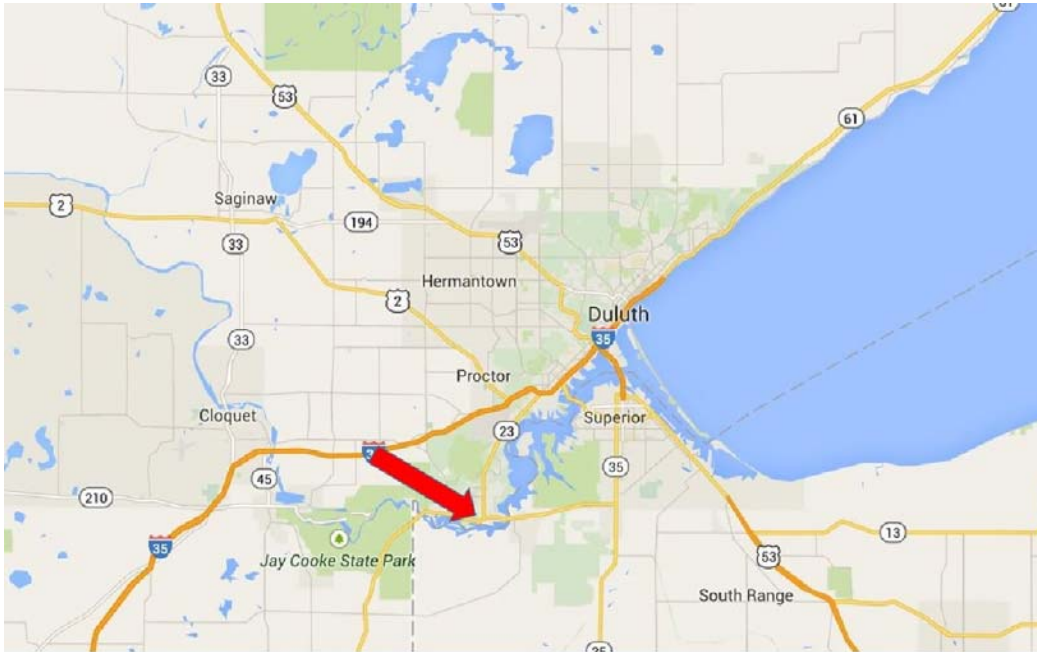
We will request that respondents utilize MCC crews if possible in their project. The City of Duluth has used MCC in the past and have found them to be excellent to work with.

6. Provide a statement indicating that evaluations will be completed on parcels where activities were implemented both 1) initially after activity completion and 2) three years later as a follow-up. Evaluations should analyze improvements to the parcel and whether goals have been met, identify any problems with the implementation, and identify any findings that can be used to improve implementation of future restoration efforts at the site or elsewhere.

The City of Duluth is constantly evaluating the success of all of our projects based on multiple parameters. This site shall be re-inspected at least annually and if failures or deviations are noted we will fund follow-up action.

IX. VISUAL COMPONENT or MAP(S):





X. RESEARCH ADDENDUM:

XI. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted no later than January 1, 2015, January 1, 2016, and January 1, 2017. A final report and associated products will be submitted between June 30 and August 15, 2017.



**Environment and Natural Resources Trust Fund
M.L. 2015 Project Budget**

Project Title: Flood Recovery on Sargent Creek Duluth Habitat Restoration

Legal Citation:

Project Manager: Engineering Department

Organization: City of Duluth

M.L. 2015 ENRTF Appropriation: \$300,000

Project Length and Completion Date: Anticipated Date of Completion, December 2016.

Date of Report: November 24, 2014, Work Plan Submittal

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	Activity 2 Budget	Amount Spent	Activity 2 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	<i>Engineering Design and Survey</i>			<i>Construction</i>				
Professional/Technical/Service Contracts								
Step One: City of Duluth will write a Request for Proposals for contract professional design services of a consultant for survey, design, permitting, and preparation of bid documents for construction of approximately 5400 lineal feet of streambank.	\$50,000	\$0	\$50,000				\$50,000	\$50,000
Step Two: City of Duluth shall use the design prepared in Step One for public bidding of construction documents. Construction contractor(s) shall complete the work in 2016.				\$250,000	\$0	\$250,000	\$250,000	\$250,000
COLUMN TOTAL	\$50,000	\$0	\$50,000	\$250,000	\$0	\$250,000	\$300,000	\$300,000

Environment and Natural Resources Trust Fund

M.L. 2015 Parcel List

Project Title: Flood Recovery on Sargent Creek Duluth Habitat Restoration

Legal Citation:

Project Manager: Chris Kleist

Organization: City of Duluth

M.L. 2015 ENRTF Appropriation: \$300,000

Project Length and Completion Date: 2 years, completion by December 31, 2016

Date of Report: October 15, 2014

#	Acquisition or Restoration Parcel Name	Geographic Coordinates Format: [Deg.]° [Min.]' [Sec.]" [Hemis.]		Estimated Cost	Estimated Annual PILT Liabilities	County	Site Significance	Activity Description	# of Acres	# of Shoreline Miles	Type of Landowner	Proposed Fee Title or Easement Holder (if applicable)	Status
		Latitude	Longitude										
1	273000470	46 40'02.34N	92 15'08.96W	\$0	N/A	St Louis	City owned, Sargent Creek runs through, flood damage	Natural channel stream, bank stabilization, habitat improvement	38.9	1.1	Municipality	N/A	Preservation
NOTES:													

