

Environment and Natural Resources Trust Fund  
2014 Request for Proposals (RFP)

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**Project Title:**

Duluth Post-Flood Trout Stream Riparian Habitat Restoration

**Category:** F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

**Total Project Budget:** \$ 250,000

**Proposed Project Time Period for the Funding Requested:** 2 Years, July 2014 - November 2016

**Other Non-State Funds:** \$ 0

**Summary:**

Restore 10 miles of native riparian habitat on public land along 16 coldwater trout streams within the City of Duluth that were damaged by the unprecedented June 2012 flood.

**Name:** Brooke Tapp

**Sponsoring Organization:** Community Action Duluth

**Address:** 2424 W 5th Street, Ste 102

Duluth MN 55806

**Telephone Number:** (218) 726-1665 x30

**Email:** brooke@communityactionduluth.org

**Web Address:** <http://www.communityactionduluth.org/streamcorps/index.html>

**Location**

**Region:** Northeast

**County Name:** St. Louis

**City / Township:** Duluth

**MP:** 0613-2-260-proposa

**Budget:** 0613-2-260-bud

**Qual:** 0613-2-260-qualifi

**Map:** 0613-2-260-map-M

**Resolution:** 0613-2-26

**List:** 0613-2-260-list-201

	_____	Funding Priorities	_____	Multiple Benefits	_____	Outcomes	_____	Knowledge
Base								
	_____	Extent of Impact	_____	Innovation	_____	Scientific/Tech Basis	_____	Urgency
	_____	Capacity Readiness	_____	Leverage	_____	Employment	_____	TOTAL



## Environment and Natural Resources Trust Fund (ENRTF)

### 2014 Main Proposal

Project Title: *Duluth Post-Flood Trout Stream Riparian Habitat Restoration*

#### PROJECT TITLE: Duluth Post-Flood Trout Stream Riparian Habitat Restoration

#### I. PROJECT STATEMENT

**GOAL.** Duluth Stream Corps, a program of Community Action Duluth (CAD), with its partner, seek funding to restore 10 miles of native stream riparian habitat on public land along 16 coldwater trout streams within the City of Duluth that were damaged by the unprecedented June 2012 flood. Restoration will be to conditions that equal or exceed pre-flood conditions.

**WHY.** Duluth experienced a 500-year flood event in June 2012, which exacerbated damage to already compromised riparian habitat along these streams. The streams drain into the St. Louis River Area of Concern (AOC), an internationally designated area of severe environmental degradation. Duluth's trout streams were greatly affected by the flood; some being rerouted or blocked due to the record high flows and flooding. Stream banks in many areas now have significant zones of exposed, unstable soils, increasing their susceptibility to additional erosion and colonization by invasive plants, and contributing to impairments in wildlife habitat, sediment quality, and water-quality identified for the AOC. Although the City received MN Recovers Task Force (MRTF) funds to address watershed protection, and FEMA funds to address emergency work and infrastructure repair, these funds are not available to repair damage to riparian habitat as the funds are specific to either in-stream restoration or designated for specific site locations needing advanced infrastructure repair, unlike the riparian restoration we are proposing. LCCMR funds will enhance the efforts flood funding is accomplishing.

**OUTCOMES.** Expected **outcomes** include:

- a) Restore 100 acres of riparian forests, which will provide habitat for birds, mammals and other wildlife and reconnect segmented wildlife corridors;
- b) Decrease water temperatures via shading and increased water infiltration;
- c) Improve water quality, increase dissolved oxygen levels, reduce nutrient loads, stabilize stream channels and banks, reduce sedimentation, increase resistance to high flows;
- d) Slow the spread of exotic plant species; and
- e) Establish source habitats for individuals that will in turn fill habitat niches in forest patches elsewhere.

**HOW.** Restoration sites will be selected from the inventory of damaged sites along all 16 coldwater trout streams that the City prepared post-flood to kick off its overall trout stream restoration effort. Sites that had incurred damage as a result of the June 2012 flood were cataloged and photo documented using a mobile Global Positioning System unit. Impacts to aquatic habitat, stream channel stability, and floodplains were documented at each site.

Duluth Stream Corps members will do the hands-on labor to restore the riparian habitat including: invasive species removal, planting trees and other native vegetation near and along stream banks (particularly in areas lacking vegetative cover as a result of severe flooding), and installing erosion control materials. Well-vegetated stream banks better resist erosion, dissipate stream energy during high flows, maintain or lower water temperatures by shading streams, reduce the potential for invasive plants infestations, and provide valuable upland wildlife habitat.

#### II. DESCRIPTION OF PROJECT ACTIVITIES

##### **Activity 1:** *Riparian habitat restoration activities*

**Budget: \$250,000**

The Duluth Stream Corps will conduct riparian corridor restoration activities at specific sites selected by the City based upon its inventory work, described above. Worksites will be prioritized based upon the following criteria: (1) condition of stream banks, including the presence of eroded banks, landslides and slumps which increase susceptibility to further erosion and colonization by invasive plants;



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- (2) quality and extent of existing vegetative cover (e.g. presence of ash or declining poplar and birch stands will be given higher priority);
- (3) potential to build upon the efforts starting by other funding;
- (4) degree of increasing habitat connectivity; and
- (5) impaired waters will be given higher priority.

Duluth Stream Corps is able to cost-effectively undertake the hand labor necessary to achieve the below activities utilizing the successful model and experience gained from our current Great Lakes Restoration Initiative-funded program. By hiring un- and underemployed people to conduct habitat restoration work, the Duluth Stream Corps provides skills training and workforce development that advances and empowers its members through the experience gained through this employment while developing future land stewards.

<b>Outcome</b>	<b>Completion Date</b>
<i>1. Restore 100 acres of riparian corridors at numerous sites along 16 coldwater streams</i>	<i>October 2016</i>
<i>2. Restore 10 stream miles at numerous sites along 16 coldwater streams</i>	<i>October 2016</i>
<i>3. Plant 20,000 native trees and shrubs on these sites within 100 feet on either side of stream</i>	<i>October 2016</i>
<i>4. Supplement tree and shrub planting with willow wattles, live staking, bio-roll and/or erosion control blanket to help anchor soil, particularly within flood plain</i>	<i>October 2016</i>
<i>5. Remove invasive species on at least 50 acres identified in the City's Invasive Species Control Plan; species such as: common buckthorn, glossy buckthorn, common tansy, valerian, Canada thistle, Japanese knotweed, and exotic honeysuckle</i>	<i>October 2016</i>

**III. PROJECT STRATEGY**

**A. Project Team/Partners**

**Community Action Duluth, Duluth Stream Corps** - recipient of Environment and Natural Resources Trust Fund  
 Proposed activities: hire and manage labor force; complete hands-on riparian corridor restoration activities.

**Chris Kleist, Program Coordinator City of Duluth, MN**

Proposed activities: Prioritize and select sites for riparian habitat restoration; provide Duluth Stream Corps with insight and design for restoration activities.

**B. Timeline Requirements**

<b>Task</b>	<b>Timeframe</b>	<b>Activity</b>
Hire Program Manager for crew specific to this funding	July 2014-October 2014	Work with City of Duluth identifying worksites; order materials needed; supervise DSC members
Hire 5 Members	August 2014-October 2014	Site visits and planning
Field Season	May 2015-October 2015	Perform riparian habitat restoration
Field Season	May 2016-October 2016	Perform riparian habitat restoration

**C. Long-Term Strategy and Future Funding Needs**

LCCMR funding will expand a US Environmental Protection Agency (EPA) Great Lakes Restoration Initiative-funded program begun in 2010 that focused on the need to protect and restore upland riparian zones. Also, LCCMR funding will contribute to the implementation of the plans conducted by the City of the restoration efforts needed for the increased health, better habitat, and restoration of Duluth's coldwater trout streams.

## 2014 Detailed Project Budget

Project Title: Duluth Post-Flood Trout Stream Riparian Habitat Restoration

### IV. TOTAL ENRTF REQUEST BUDGET 2 years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
<b>Personnel:</b>	\$ -
Program Manager of crew (1FTE/12mths; .75FTE/12mths): 2 years salary with benefits (health insurance, dental, 403(b) match after year 1)	\$ 77,050
Crew Members (5): 6 months for 2 field seasons @ \$10/hour plus fringe	\$ 111,715
<b>Equipment/Tools/Supplies:</b>	\$ -
Personal Protective Equipment (gloves, helmets, safety glasses)	\$ 250
Shovels, tree bars, loppers, etc.	\$ 2,625
Tree deer browse protection (fencing, t-posts, tree tubes, fencing clips, matts)	\$ 29,000
Trees	\$ 11,876
Wildlife plantings (native shrubs, grasses, and wildflowers)	\$ 6,534
Landscaping soil, ground cover/wood chips, bio-roll, erosion control matt	\$ 7,750
<b>Travel:</b> mileage to and from office to work project locations within Duluth/Metropolitan area	\$ 2,200
<b>Additional Budget Items:</b> vehicle, trailer and tool maintenance (\$500/year x 2 years)	\$ 1,000
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 250,000</b>

### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
<b>In-kind Services During Project Period:</b> City of Duluth staff, providing expertise and guidance into selecting project sites based upon the 2012 inventory of damaged trout streams post-flood	\$ 5,000	<i>Pending</i>
<b>Funding History:</b> Environmental Protection Agency, Great Lakes Restoration Initiative received 2010 for restoration for riparian areas of coldwater streams in the St. Louis River Area of Concern (AOC). *Note this work was prior to flood of 2012	\$ 636,000	Spent

**Environment and Natural Resources Trust Fund  
2014 Proposed Acquisition/Restoration List**

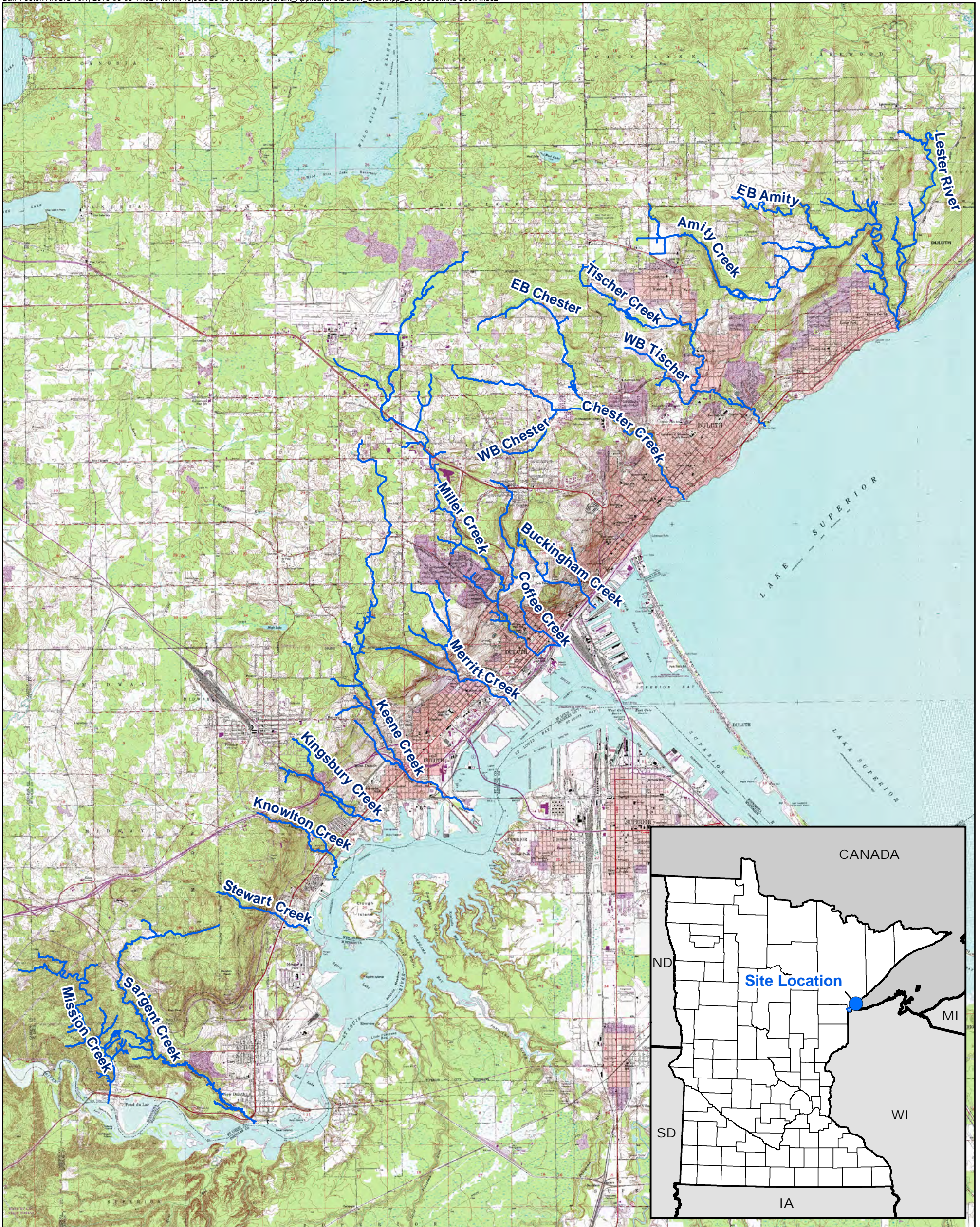
**Project Title:** Duluth Post-Flood Trout Stream Riparian Habitat Restoration

**Project Manager Name:** Brooke Tapp



**ENRTF \$ Request:** \$250,000

Creek #	Acquisition or Restoration Parcel Name	Geographic Coordinates Format: [Deg.]° [Min.]' [Sec.]" [Hemis.]		County	Estimated Cost	Ecological Significance	Activity Description	# of Acres	# of Shoreline Miles	Type of Landowner	Proposed Fee Title or Easement Holder (if applicable)
		Latitude	Longitude								
1	Amity Creek	92° 0' 38.487" W	46° 50' 44.784" N	St. Louis		Riparian; impaired (turbidity)	habitat restoration via tree & shrub plantings, seeding, invasive species removal, installing erosion control	0.71	0.56	Public	
2	East Branch Amity Creek	92° 2' 6.387" W	46° 51' 36.450" N	St. Louis		Riparian		0	0	Public	
3	Buckingham Creek	92° 7' 16.898" W	46° 46' 42.585" N	St. Louis		Riparian		0.31	0.17	Public	
4	Chester Creek	92° 5' 20.125" W	46° 48' 32.633" N	St. Louis		Riparian		0.49	0.26	Public	
5	East Branch Chester Creek	92° 6' 56.871" W	46° 49' 34.079" N	St. Louis		Riparian		0	0	Public	
6	Coffee Creek	92° 8' 5.665" W	46° 46' 24.313" N	St. Louis		Riparian		0.05	0.11	Public	
7	Keene Creek	92° 10' 53.743" W	46° 44' 31.502" N	St. Louis		Riparian; impaired (E. coli)		0.18	0.15	Public	
8	Kingsbury Creek	92° 11' 33.099" W	46° 43' 36.108" N	St. Louis		Riparian; impaired (aquatic inverts & fish)		0.11	0.09	Public	
9	Knowlton Creek	92° 12' 22.792" W	46° 43' 0.840" N	St. Louis		Riparian		0	0	Public	
10	Lester River	92° 0' 17.320" W	46° 50' 54.501" N	St. Louis		Riparian; impaired (excessive suspended sediment)		0	0.06	Public	
11	Merritt Creek	92° 9' 25.533" W	46° 45' 27.050" N	St. Louis		Riparian		0	0	Public	
12	Miller Creek	92° 8' 14.825" W	46° 46' 1.496" N	St. Louis		Riparian; impaired (lack of coldwater assemblage & temperature, E. coli, aquatic inverts)		0.06	0.17	Public	
13	Mission Creek	92° 16' 33.525" W	46° 40' 10.209" N	St. Louis		Riparian		0.23	0.19	Public	
14	Sargent Creek	92° 14' 52.442" W	46° 39' 59.142" N	St. Louis		Riparian		0	0	Public	
15	Stewart Creek	92° 13' 13.833" W	46° 42' 8.603" N	St. Louis		Riparian; impaired (E. coli)		0	0	Public	
16	Tischer Creek	92° 3' 49.197" W	46° 49' 10.986" N	St. Louis		Riparian		0.04	0.09	Public	

**NOTES:** Restoration sites will be selected from the inventory of damaged sites along all 16 trout streams that the City prepared in 2012 to kick off its overall trout stream restoration effort; therefore specific work locations have not been selected but some have been identified above – site selection is part of this proposal. Costs were not estimated at this point due to sites not be selected.



**Legend**

-  Trout Stream to be Restored
-  Example Stream Label



Miles

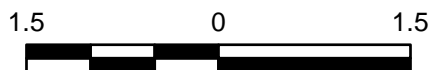


Figure 1

LOCATIONS OF TROUT  
STREAMS TO BE RESTORED  
Duluth Stream Corps.  
Community Action Duluth  
Duluth, Minnesota



## **Environment and Natural Resources Trust Fund (ENRTF)**

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#### **Organization Statement.**

Community Action Duluth is a 40 year old organization that traces its roots back to President Johnson's War on Poverty. Duluth Stream Corps is one of two Green Jobs initiatives developed by Community Action Duluth to further its mission to employ innovative strategies that will mobilize low-income people and communities. Duluth Stream Corps provides marketable job skills to the un- and underemployed, while simultaneously restoring trout stream riparian habitat adjacent to the 42 streams that pass through Duluth on the way to Lake Superior. Building on the successful conservation corps model developed in the 1930s with the Civilian Conservation Corps, Duluth Stream Corps completes necessary natural resource work while strengthening individuals and our communities.

Community Action Duluth is a 501(c)3 organization with an extensive history of managing foundation, federal, state, and local grants totaling \$1,584,032 in FY2012.

#### **Position Qualifications.**

Brooke Tapp is the Duluth Stream Corps program manager. Brooke received a Bachelors Degree in Resource, Recreation & Tourism from University of Idaho, Moscow in 2005. Recently, Brooke worked for Conservation Corps Minnesota for 4 years, gaining experience in conservation work and field supervision.

The program manager will supervise the Duluth Stream Corps employees and work closely with the City to plan and implement restoration projects. The program manager is responsible for the successful implementation of the LCCMR funds and will develop progress reports that will be submitted quarterly to LCCMR.

#### **Position Duties:**

- Collaborate with City for work project locations and project designs
- Schedule work projects
- Supervise crew of 5 Duluth Stream Corps members
- Manage the Duluth Stream Corps budget
- Approve and document all program expenditures and procurements
- Work with the LCCMR program officer to ensure project outcomes are met
- Recruit and coordinate volunteers as needed
- Report project progress to Community Action Duluth executive director
- Coordinate and implement Community Action Duluth's safety policy

#### **Position Qualifications:**

- A minimum of a bachelors degree
- At least two years of supervisory experience in a conservation or environmental field
- One year of grant management experience
- Conservation corps experience is preferred