

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2018 Accomplishment Plan



Date: October 12, 2017

Program or Project Title: Buffalo River Watershed Stream Habitat Program – Phase 1

Funds Recommended: \$ 1,195,000

Manager's Name: Bruce Albright

Title: Administrator

Organization: Buffalo-Red River Watershed District

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Legislative Citation: ML 2018, Ch. X, Art. 1, Sec. 2, subd XX

Appropriation Language:

County Locations: Clay, and Wilkin.

Regions in which work will take place:

- Prairie

Activity types:

- Enhance
- Restore

Priority resources addressed by activity:

- Habitat
- Prairie

Abstract:

Over a century ago, the construction of Judicial Ditch No. 3 resulted in the rerouting of the South Branch of the Buffalo River, completely changing its flow characteristics. In the first phase of this multi-phase project, the Buffalo-Red River Watershed District (BRRWD) in partnership with landowners, federal, state, and local agencies, will put much of the rerouted channel back restoring up to 4.6 miles of the South Branch with up to 100 acres of associated riparian habitat corridor. Additional restorations of straightened stream and river channels along the South Branch and Whisky Creek will be completed as funding permits.

Design and scope of work:

The construction of several legal ditch systems and other channel straightening efforts eliminated hundreds of acres of quality of stream habitat within the BRRWD. In some cases, the channelization simply straightened the stream channel and in others the constructed ditch diverted water away from the natural stream. Straightened channels create homogenous habitats, they no longer have the shallow riffles and deeper pools that are required by fish at various stages in their life cycle. The straightened reaches also tend to lose access to their floodplains which increases erosion in the channel and causes downstream flooding. In addition, aggradation of the downstream channel due to increased sediment loading reduces habitat quality and makes flooding worse. Over the last several years, the BRRWD, with input and in partnership with landowners, federal, state, and local agencies, designed

comprehensive subwatershed restoration plans and intends to implement these plans over the next several years. A component of these plans includes the restoration of numerous reaches of straightened and abandoned creek and river channels throughout the Watershed District. Prioritization of projects is largely based on ecological benefits, being shovel-ready and having landowner and other stakeholder support.

In the first phase of this multi-phase project, the BRRWD plans to restore up to 4.6 miles of perennial stream with up to 100 plus acres of associated riparian corridor habitat along the South Branch of the Buffalo River. The project will divert water from Wilkin County Ditch No. 44 (formerly called Judicial Ditch 3) back into the abandoned South Branch channel. The South Branch will be restored using natural channel design principles. The river restoration has been designed with direct input from the MN DNR Stream Habitat Program as well as the MN Board of Water & Soil Resources (BWSR). A sinuous riffle-pool natural channel design is proposed to recreate the aquatic habitat diversity that was lost in the straightened ditch. The naturally stable restored channel will not only recreate lost habitat, but will reduce the current erosion that is overloading downstream reaches of the South Branch. This project is being completed in conjunction with a Reinvest in Minnesota project being implemented by the MN BWSR.

As part of their comprehensive subwatershed planning process, the District has completed planning and design on three additional stream reaches which are included as part of this application package. These include the restoration of Whisky Creek, its tributary, and the South Branch of the Buffalo River and their associated riparian corridors. Additional stream restoration enhancement along the South Branch of the Buffalo River and Whisky Creek will be completed as funding permits when and if additional sources of match funding become available. Combined, these comprehensive projects have the potential to restore and enhance more than 38 miles of natural prairie stream. Ultimately, over 1400 acres of floodplain wetland and grassland habitat along these restoration reaches will be protected and restored.

How does the request address MN habitats that have: historical value to fish and wildlife, wildlife species of greatest conservation need, MN County Biological Survey data, and/or rare, threatened and endangered species inventories:

This project will restore up to 4.6 miles of stream and 100 acres of riparian habitat for associated fish and wildlife communities. This project is the first phase of a long-term effort within the BRRWD. This project will also benefit mussel and insect populations along and downstream of the South Branch of the Buffalo River by improving water quality. Pollinator seed mixes will be used along the habitat corridor. The project will provide a continuous wildlife corridor from the Rothsay Wildlife Management Area downstream to MN Highway 9. The South Branch downstream of the restoration reach will benefit from a reduced sediment loading due to the project. Acquisition and restoration of the stream channel corridor will also improve habitat for Channel Catfish, Northern Pike, and another 70+ fish species present in Red River Basin. Some species of fish will also benefit from the project as a result of a larger quantity of better quality spawning habitat. Less than one mile away, Lawndale Creek is a designated trout stream. DNR studies show that throughout the year, the trout migrate to the South Branch. Restoration of the nearby channel will increase fish usage of this perennial stream. Greater Prairie Chicken are one upland species that will also benefit from the permanent protection.

Describe the science based planning and evaluation model used:

The BRRWD uses a science-based planning model for the selection of stream projects. The targeted projects involve straightened reaches that have lost much of their habitat diversity. Reference stream reaches set the geometry for all of the proposed stream restorations based on survey work completed by the MN Department of Natural Resources (DNR). Geometry used is characteristic of Rosgen E-channel streams.

The project is located in the vicinity of the Rothsay WMA (2 miles east), Manston WMA (2 miles southwest), Atherton WMA (1 mile north) and a designated trout stream. In addition, RIM easements, an SNA, and a number of WRP projects in the project area connect the project in a continuous habitat corridor directly to the Rothsay WMA. This project would be adjacent to the Rothsay Prairie which is identified in the MN Prairie Conservation Plan as a core area.

The Minnesota Prairie Plan also lists restoration of channelized prairie river segments and cultivation of lands immediately adjacent to streams and ditches as "critical challenges". In addition, the BRRWD has completed GIS-based terrain analysis to identify, prioritize, and target conservation best management practices in the contributing agricultural watershed. Many of these best management practices have been implemented, with more planned.

Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this program:

- H2 Protect critical shoreland of streams and lakes
- H6 Protect and restore critical in-water habitat of lakes and streams

Which other plans are addressed in this program:

- National Fish Habitat Action Plan

- Red River of the North Fisheries Management Plan

Which LSOHC section priorities are addressed in this program:

Prairie:

- Restore or enhance habitat on public lands

Relationship to other funds:

- Clean Water Fund

Describe the relationship of the funds:

The BRRWD was awarded \$336,000 in a Clean Water Fund grant which has been used to implement agricultural sediment best management practices with in the South Branch of the Buffalo River watershed. This grant will continue to be used to address sediment sources in the watershed but will be expended by the end of 2017.

How does this program include leverage in funds or other effort to supplement any OHF appropriation:

The BRRWD is coordinating with BWSR and landowners to utilize programs (CRP, CREP, RIM) to implement the project to the extent possible. These programs require landowners to apply and it is expected that landowners will participate. Recently, BWSR just acquired a RIM easement on three quarters in the project area that will be used as part of the BRRWD's restoration.

Per MS 97A.056, Subd. 24, Any state agency or organization requesting a direct appropriation from the OHF must inform the LSOHC at the time of the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose:

This funding does not supplant or substitute for any previous funding. This funding will accelerate conservation delivery.

Describe the source and amount of non-OHF money spent for this work in the past:

Appropriation Year	Source	Amount
2010	MN BWSR - RIM	478094.83
2013	Clean Water Fund	336000
2013-2017	Local Tax Levy	100000
2016	MN BWSR - RIM	1063106.25

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

In accordance with Minnesota Watershed Law and the Red River Basin Flood Damage Reduction Work Group Mediation agreement, projects implemented under this grant will be monitored to ensure they are working as intended. It is expected that there will be some maintenance in the first few years to ensure native vegetation is established. The stream restoration projects are designed following natural channel design principles and are expected to be largely self-sustaining. Significant long-term maintenance costs are not expected, however, the BRRWD will set up a local tax levy that will provide long-term maintenance funding for this project. The locally raised levy will provide an annual revenue stream for maintenance. Post-project monitoring will be conducted by the BRRWD and the Barnesville Riverwatch Program.

Explain the things you will do in the future to maintain project outcomes:

Year	Source of Funds	Step 1	Step 2	Step 3
Annual	Watershed District – Local Tax Levy	Monitoring and Maintenance of Channel Restoration		
Annual	Watershed District – Local Tax Levy	Monitoring and Maintenance of the Habitat Corridor		
Annual	Watershed District – Local Tax Levy	Conservation BMP Promotion throughout the project watershed		

Activity Details:

If funded, this program will meet all applicable criteria set forth in MS 97A.056 - **Yes**

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program - **Yes**

Is the activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (Private Land)**

Accomplishment Timeline:

Activity	Approximate Date Completed
Formally Contact Landowners along Stream Restoration – Begin Easement Process	October 2017
Finalize South Branch Restoration Project Construction Plans (Pre-grant)	March 2018
Establish Local Funding Source (Pre-grant)	June 2018
Complete Land Acquisition Process	August 2018
Begin Construction	September 2018
Complete Construction (South Branch Phase 1)	July 2019

Date of Final Report Submission: 11/1/2023

Federal Funding:

Do you anticipate federal funds as a match for this program - **Yes**

Are the funds confirmed - **No**

What is the approximate date you anticipate receiving confirmation of the federal funds - **3/31/2018**

Outcomes:

Programs in prairie region:

- Protected, restored, and enhanced habitat for migratory and unique Minnesota species *The outcome of the Buffalo River Watershed Stream Restoration Program will be up to 4.6 miles of restoration (currently estimated at 3 miles based on reduced funding) of the South Branch of the Buffalo River into a stable prairie stream with expanded and enhanced permanently protected habitat corridor. This will provide significantly improved terrestrial and aquatic habitat for fish and wildlife, such as prairie chickens, using the stream corridor. Improvements in water quality are also expected.*

Budget Spreadsheet

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount

The appropriation recommendation reduction will reduce the length of restored stream from an estimated 4.6 to 3 miles. The restored stream will be completed in Section 11 and then 9 and then 10, as funding permits. Actual restored length will depend on additional outside funding and contractor bids.

Total Amount of Request: \$ 1195000

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$0	\$0		\$0
Contracts	\$1,100,000	\$0		\$1,100,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$300,000	CREP, RIM, Local Tax Levy	\$300,000
Easement Stewardship	\$0	\$0		\$0
Travel	\$0	\$0		\$0
Professional Services	\$95,000	\$55,000	Local Tax Levy	\$150,000
Direct Support Services	\$0	\$0		\$0
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$0	\$0		\$0
DNR IDP	\$0	\$0		\$0
Total	\$1,195,000	\$355,000		\$1,550,000

Amount of Request: \$1,195,000

Amount of Leverage: \$355,000

Leverage as a percent of the Request: 29.71%

DSS + Personnel: \$0

As a % of the total request: 0.00%

Does the amount in the contract line include R/E work?

All of the contract amount is for Restoration and enhancement work.

Describe and explain leverage source and confirmation of funds:

Sources of leverage for project construction come from locally levied funds (confirmed). Land acquisition is expected to utilize other programs such as CREP and RIM (not confirmed, but in process).

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	36	36
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	0	42	0	0	42
Total	0	42	0	36	78

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

Type	Native Prairie
Restore	0
Protect in Fee with State PILT Liability	0
Protect in Fee W/O State PILT Liability	0
Protect in Easement	0
Enhance	0
Total	0

Table 2. Total Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$1,105,000	\$1,105,000
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$90,000	\$0	\$0	\$90,000
Total	\$0	\$90,000	\$0	\$1,105,000	\$1,195,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	ForestPrairie	SE Forest	Prairie	N Forest	Total
Restore	0	0	0	36	0	36
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	42	0	42
Total	0	0	0	78	0	78

Table 4. Total Funding within each Ecological Section

Type	Metro Urban	ForestPrairie	SE Forest	Prairie	N Forest	Total
Restore	\$0	\$0	\$0	\$1,105,000	\$0	\$1,105,000
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$90,000	\$0	\$90,000
Total	\$0	\$0	\$0	\$1,195,000	\$0	\$1,195,000

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$30694
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$0	\$2143	\$0	\$0

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$30694	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$2143	\$0

Target Lake/Stream/River Feet or Miles

Parcel List

For restoration and enhancement programs ONLY: 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 parcel list.

Section 1 - Restore / Enhance Parcel List

Clay

Name	TRDS	Acres	EstCost	Existing Protection?
01.010.3770	13747210	0	\$0	No
01.010.4001	13747210	0	\$0	No
01.014.3000	13747214	0	\$0	No
01.015.0300	13747215	0	\$0	Yes
01.015.1000	13747215	0	\$0	No
01.015.2000	13747215	0	\$0	No
01.023.0100	13747223	0	\$0	No
01.023.2201	13747223	0	\$0	No
01.023.4000	13747223	0	\$0	No
01.023.4002	13747223	0	\$0	No
01.024.0000	13747224	0	\$0	No
01.024.4000	13747224	0	\$0	No
01.025.1000	13747225	0	\$0	No
01.025.4000	13747225	0	\$0	No
01.036.0100	13747236	0	\$0	No
01.036.1100	13747236	0	\$0	No
02.018.3000	13746218	0	\$0	No
02.019.0200	13746219	0	\$0	No
02.019.1101	13746219	0	\$0	No
02.019.1500	13746219	0	\$0	No
02.020.1000	13746220	0	\$0	No
02.020.1101	13746220	0	\$0	No
02.020.2000	13746220	0	\$0	No
02.020.2201	13746220	0	\$0	No
02.021.1800	13746221	0	\$0	No
02.021.2000	13746221	0	\$0	No
02.021.4000	13746221	0	\$0	No
02.021.4330	13746221	0	\$0	No
02.022.3000	13746222	0	\$0	No
02.022.4400	13746222	0	\$0	Yes
02.022.4600	13746222	0	\$0	No
02.023.3001	13746223	0	\$0	No
02.023.3301	13746223	0	\$0	No
02.023.3701	13746223	0	\$0	No
02.030.0300	13746230	0	\$0	No
02.031.0400	13746231	0	\$0	No
02.031.2000	13746231	0	\$0	No
02.031.2001	13746231	0	\$0	No
02.031.3000	13746231	0	\$0	No
02.032.1000	13746232	0	\$0	No
02.032.2000	13746232	0	\$0	No

Name	T RDS	Acres	Est Cost	Existing Protection?
03-018-0100	13646218	0	\$0	Yes
03-018-0110	13646218	0	\$0	No
03-018-0200	13646218	0	\$0	Yes
03-018-0400	13646218	0	\$0	No
03-018-0500	13646218	0	\$0	No
03-019-0100	13646219	0	\$0	No
03-019-0115	13646219	0	\$0	No
03-019-0500	13646219	0	\$0	No
03-020-0200	13646220	0	\$0	Yes
03-020-0300	13646220	0	\$0	Yes
03-029-0300	13646229	0	\$0	No
03-029-0310	13646229	0	\$0	No
03-029-0400	13646229	0	\$0	No
03-029-0500	13646229	0	\$0	No
03-030-0100	13646230	0	\$0	No
03-030-0400	13646230	0	\$0	Yes
03-031-0100	13646231	0	\$0	Yes
03-031-0200	13646231	0	\$0	Yes
03-031-0400	13646231	0	\$0	Yes
03-031-0500	13646231	0	\$0	Yes
10-001-0300	13647201	0	\$0	No
10-001-0500	13647201	0	\$0	Yes
10-002-0100	13647202	0	\$0	No
10-002-0200	13647202	0	\$0	No
10-002-0400	13647202	0	\$0	No
10-011-0100	13647211	0	\$0	Yes
10-011-0300	13647211	0	\$0	No
10-012-0100	13647212	0	\$0	No
10-012-0200	13647212	0	\$0	Yes
10-012-0300	13647212	0	\$0	No
10-012-0400	13647212	0	\$0	Yes
10-013-0100	13647213	0	\$0	No
12-004-0400	13546204	0	\$0	Yes
12-005-0200	13546205	0	\$0	Yes
12-005-0300	13546205	0	\$0	Yes
12-005-0600	13546205	0	\$0	Yes
12-006-0100	13546206	0	\$0	Yes
12-009-0100	13546209	0	\$200,000	Yes
12-010-0100	13546210	0	\$95,000	No
12-011-0100	13546211	0	\$500,000	Yes
12-011-0200	13546211	0	\$400,000	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

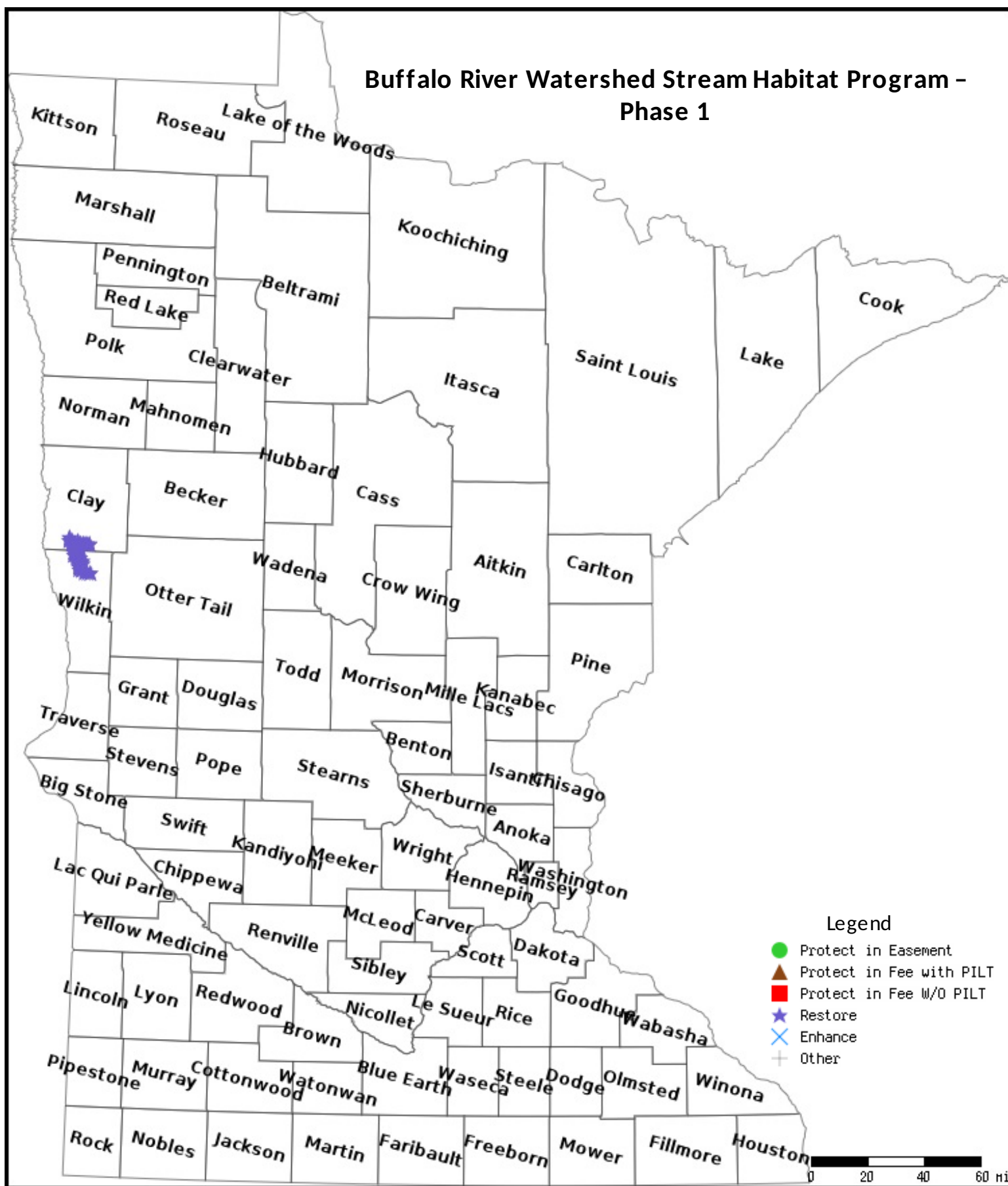
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

Buffalo River Watershed Stream Habitat Program - Phase 1



Data Generated From Parcel List

Lessard-Sams Outdoor Heritage Council

Comparison Report

Program Title: 2018 - Buffalo River Watershed Stream Habitat Program – Phase 1

Organization: Buffalo-Red River Watershed District

Manager: Bruce Albright

Budget

Requested Amount: \$1,700,000

Appropriated Amount: \$1,195,000

Percentage: 70.29%

Budget Item	Total Requested		Total Appropriated		Percentage of Request	
	LSOHC Request	Anticipated Leverage	Appropriated Amount	Anticipated Leverage	Percentage of Request	Percentage of Leverage
Personnel	\$0	\$0	\$0	\$0	-	-
Contracts	\$1,500,000	\$0	\$1,100,000	\$0	73.33%	-
Fee Acquisition w/ PILT	\$0	\$0	\$0	\$0	-	-
Fee Acquisition w/o PILT	\$0	\$0	\$0	\$0	-	-
Easement Acquisition	\$0	\$300,000	\$0	\$300,000	-	100.00%
Easement Stewardship	\$0	\$0	\$0	\$0	-	-
Travel	\$0	\$0	\$0	\$0	-	-
Professional Services	\$200,000	\$50,000	\$95,000	\$55,000	47.50%	110.00%
Direct Support Services	\$0	\$0	\$0	\$0	-	-
DNR Land Acquisition Costs	\$0	\$0	\$0	\$0	-	-
Capital Equipment	\$0	\$0	\$0	\$0	-	-
Other Equipment/Tools	\$0	\$0	\$0	\$0	-	-
Supplies/Materials	\$0	\$0	\$0	\$0	-	-
DNR IDP	\$0	\$0	\$0	\$0	-	-
Total	\$1,700,000	\$350,000	\$1,195,000	\$355,000	70.29%	101.43%

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?

The appropriation recommendation reduction will reduce the length of restored stream from an estimated 4.6 to 3 miles. The restored stream will be completed in Section 11 and then 9 and then 10, as funding permits. Actual restored length will depend on additional outside funding and contractor bids.

Output

Table 1a. Acres by Resource Type

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	55	36	65.45%
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	45	42	93.33%

Table 2. Total Funding by Resource Type

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	1,600,000	1,105,000	69.06%
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	100,000	90,000	90.00%

Table 3. Acres within each Ecological Section

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	55	36	65.45%
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	45	42	93.33%

Table 4. Total Funding within each Ecological Section

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	1,600,000	1,105,000	69.06%
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	100,000	90,000	90.00%