

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2018 / ML 2017 Request for Funding



Date: May 26, 2016

Program or Project Title: Wolverton Creek Habitat Restoration (HRE07)

Funds Requested: \$3,015,000

Manager's Name: Bruce Albright
Title: District Administrator
Organization: Buffalo-Red River Watershed District
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County Locations: Clay, and Wilkin.

Regions in which work will take place:

- Prairie

Activity types:

- Protect in Easement
- Restore
- Enhance
- Protect in Fee

Priority resources addressed by activity:

- Prairie
- Habitat

Abstract:

Over the next six years, the Buffalo-Red River Watershed District (BRRWD), in partnership with landowners, federal, state, and local agencies, intends to implement a long-term comprehensive plan to restore the Wolverton Creek and its riparian corridor. This comprehensive project will turn 20 channelized stream miles to 26.2 miles of restored natural prairie stream channel. It will also protect, enhance, and restore over 740 acres of floodplain wetland and grassland habitat along the Wolverton Creek. The project will provide connectivity for wildlife and fisheries between the Lake Agassiz beach ridge region and the Red River.

Design and scope of work:

For the past century, streams in the Red River Basin have been straightened, ditched, cleared and snagged with the goal of improving farmland drainage. Wolverton Creek, a Red River tributary, was among these streams that experienced straightening decades ago. Along with the straightening, soil leaving the contributing agricultural fields filled many of these waterways, leaving them choked with sediment. Combined, these activities destroyed miles of aquatic habitat along these vital natural resource corridors. These losses have had a direct effect of reducing fish and wildlife habitat not only within the channelized reaches of these streams but downstream areas as well.

The BRRWD, in partnership with federal, state, and local agencies is leading implementation of a long term plan to restore Wolverton Creek. Phase 1 of this project includes the overall project land acquisition for the full stream restoration and the physical stream restoration in the middle third of Wolverton Creek (Reach B). This portion of the Wolverton Creek is the most severely impacted.

Ultimately, this project will restore 26.2 miles of natural prairie stream on over 740 acres of riparian wetland and prairie habitat. The long-term vision for the project includes establishment of a permanently protected habitat corridor along this prairie stream, expansion of riparian buffers, installation of sediment best management practices along the waterway, construction of natural river habitat, and restoration of perennial wetland and prairie plant communities. The stream rehabilitation will be based on the principles of natural channel design with an understanding of the hydrology and fluvial geomorphology at the site. The enhanced stream and associated riparian wetlands will improve habitat for Channel Catfish, Northern Pike, and another 70+ fish species documented in the Red River.

In addition to the fish habitat directly provided in the restored prairie stream, the associated floodplain wetland, and grassland habitat will provide critical wildlife habitat. The Minnesota Prairie Conservation Plan lists restoration of channelized prairie river segments and cultivation of lands immediately adjacent to streams and ditches as critical challenges. This project addresses both of these concerns. Currently, 35% of the 740 acres within the primary Wolverton Creek land acquisition area is classified as cropland. The remaining acreage is non-crop and consists of a mix of mainly non-native species, such as cattail and reed canary grass.

The BRRWD will lead this project. Numerous partners will be needed to ensure success. In the land acquisition process of the project, the local Soil and Water Conservation District and Natural Resources Conservation Service will be critical. The largest impediment to acquiring land in this corridor is limited landowner options for easements. LSOHC funding will strengthen the number of options available for the BRRWD to acquire land in this targeted corridor.

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

- 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 proposal:

- Long Range Plan for Fisheries Management
- Red River of the North Fisheries Management Plan

Describe how your program will advance the indicators identified in the plans selected:

The Long Range Plan for Fisheries Management lists Outcome 1. Maintain and improve habitats so that they sustain healthy systems and fish populations for recreational and commercial users with indicators of "Miles of habitat improvement/maintenance completed". This project would ultimately address 26.2 miles of stream channel. The Red River of the North Fisheries Management Plan lists the applicable goals "Protect and/or rehabilitate within-channel, riparian, and upland habitat on Red River and in its watershed in order to sustain or enhance components necessary for a healthy and stable riverine ecosystem." and lists the following Habitat Objectives: 1. Establish and maintain stable stream channels, and 4. Provide heterogeneous and complex physical habitat components consistent with the physiographic setting and important to aquatic species in the Red River basin. The Wolverton Creek Restoration project shares these goals.

Which LSOHC section priorities are addressed in this proposal:

Prairie:

- Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes

Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:

All land along the Wolverton Creek corridor will be permanently protected through this project. At the present time, none of the land is permanently protected. Through restoration of the channel, retirement of marginal agricultural land along the channel, and reestablishment of prairie vegetation, the project will enhance and expand habitat along Wolverton Creek.

Describe how the proposal uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

Reference stream reaches set the geometry for the Wolverton Channel Restoration based on survey work completed by the MN Department of Natural Resources. Geometry used is characteristic of Rosgen E-channels in low gradient streams. Stream channel survey work was leveraged to complete hydraulic modeling. Hydraulic Modeling to determine the 10-year floodplain of Wolverton Creek was used to establish the extents of the expanded vegetative buffers. 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.

How does the proposal address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species:

This project is the first phase of a long term project that will restore 26.2 miles of stream and over 740 acres of habitat for associated fish and wildlife communities. This project will also benefit mussel and insect populations along and downstream of Wolverton Creek by improving water quality. Pollinator seed mixes will be used along the habitat corridor. The project will provide a continuous wildlife corridor from a Wetland Reserve Program site and the Manston Slough Restoration project at the upper end of the project to the Red River. Native mussel beds are located downstream of Reach A in the lowest reach of Wolverton Creek and the Red River which will benefit from a reduced sediment loading to the creek resulting from 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.

Identify indicator species and associated quantities this habitat will typically support:

Several species of fish are expected to utilize the restored stream. Northern pike would be a likely fish species to utilize the restored segment for spring spawning along the stream. Meandering of the stream will provide an additional 6.2 miles of stream length which will provide 30% more aquatic in-stream habitat. In addition, the stream habitat will be of higher quality than currently exists due to the stream restoration efforts and the expanded buffers. Amphibians such as the Canada Toad, Great Plains Toad, Leopard Frog, Cope Toad, Western Chorus Frog and Spotted Salamander, would also benefit, especially with the expanded riparian buffer area. 740 acres of prairie habitat would be expected to support 150 nesting pairs of each upland species such as Ring-necked Pheasant and Meadowlark. Pollinator seed mixes are proposed for the buffer to enhance opportunities for honey bees, native bees, and butterflies.

Outcomes:

Programs in prairie region:

- Key core parcels are protected for fish, game and other wildlife *The outcome of the Wolverton Creek Restoration will be a stable prairie stream with an expanded and enhanced permanently protected habitat corridor. This will provide significantly improved terrestrial and aquatic habitat to fish and wildlife using the stream corridor. Improvements in water quality are also expected. Biological assessment by MPCA at three sites on Wolverton Creek is planned on a 10 -year cycle (2008, 2018, etc.) as part of their Intensive Watershed Monitoring Program which will assess after project biology. In addition, the BRRWD monitors water quality trends on Wolverton Creek through their Regional Assessment Location (RAL) system.*

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

The BRRWD is setting up a Water Management District (local tax levy) that will provide long-term funding for this project. The Water Management District will provide an annual revenue stream for maintenance. The BRRWD is in the process of setting this assessment process up at this time. Post-project monitoring will be conducted by the BRRWD. Water samples will be collected and analyzed through the BRRWD's Regional Assessment Locations (water quality monitoring network) and River Watch process.

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		

What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible:

The Wolverton Creek has been degraded for some time. What has changed is that landowners are ready to implement the proposed project. Funding for the restoration is the issue. Locally raised funding will be part of the overall project funding package. However, without outside funding to help defray the local implementation cost, the project may not happen. The existing stream function is degraded and restoration will return the functions of the stream which will have many ecological benefits. The BRRWD was recently awarded Enbridge Ecofootprint grant funds through the MN Association of Resource Conservation and Development Councils and Target Watershed Clean Water Funds from the Board of Water and Soil Resources to help make this project a reality. This will cover some of the restoration construction costs, but additional funding is needed, especially for land acquisition. These grants have limited

time frames for implementation.

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

The BRRWD is coordinating with NRCS and landowners to utilize federal Farm Bill programs (ACEP) and Wetland Restoration Enhancement (WRE) to implement the project to the extent possible. These programs require landowners to sign up and through many meetings with landowners, it is expected that most landowners should participate. Through meetings with NRCS, they have indicated to expect that some landowners may not qualify. The proposal estimates that 30% of land acquisition (\$811,000) will be obtained through NRCS programs.

Relationship to other funds:

- Clean Water Fund

Describe the relationship of the funds:

The BRRWD was recently awarded \$2.8 Million in Targeted Watershed Program Clean Water Funds from the MN Board of Water and Soil Resources for this project. These funds are largely directed toward stream restoration construction. This grant agreement will expire on December 31, 2020. Currently, there is a shortfall of funding for the construction and additional funding is needed for the land acquisition.

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

Appropriation Year	Source	Amount
2007	Clean Water Legacy (through the Clay SWCD)	\$289,000
2011	Clean Water Fund	\$253,229
2011-2015	Local Tax Levy	\$300,000

Activity Details

Requirements:

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

Will local government approval be sought prior to acquisition - **Yes**

Is the land you plan to acquire free of any other permanent protection - **Yes**

Is the land you plan to acquire free of any other permanent protection - **Yes**

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, Public Waters)**

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 - **12/31/2016**

Land Use:

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

Is this land currently open for hunting and fishing - **No**

Will the land be open for hunting and fishing after completion - **Yes**

Public waters will be open for fishing. Any land purchased in fee by the BRRWD will be open to hunting. Land with easement

acquisitions will likely be open to hunting through the Walk-in-Access (WIA) program (voluntary participation).

Will the eased land be open for public use - **Yes**

Land with easement acquisitions will likely be open to hunting through the Walk-in-Access (WIA) program.

Are there currently trails or roads on any of the acquisitions on the parcel list - **Yes**

Describe the types of trails or roads and the allowable uses:

These are typical Township and County roads open to public traffic.

Will the trails or roads remain and uses continue to be allowed after OHF acquisition - **Yes**

How will maintenance and monitoring be accomplished:

These are typical county and township roads that will remain in their current condition for the foreseeable future.

Will new trails or roads be developed as a result of the OHF acquisition - **No**

Accomplishment Timeline

Activity	Approximate Date Completed
Finalize Restoration Project Construction Plans (Pre-grant)	September 2016
Establish Local Funding Source for Project (Pre-grant)	September 2016
Finalize Acquisition and Marketing Plan with Partners	July 2017
Contact Landowners along Stream Restoration - Begin Land Acquisition	August 2017
Complete Land Acquisition	March 2018
Begin Construction	May 2018
Complete Construction (Phase 1)	December 2019

Budget Spreadsheet

Total Amount of Request: \$3,015,000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$0	\$0		\$0
Contracts	\$728,000	\$2,648,000	Watershed District Levy Funds, Clean Water Fund Target Watershed Grant, Enbridge Eco footprint Grant	\$3,376,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$142,000	\$0		\$142,000
Easement Acquisition	\$1,892,000	\$811,000	NRCS, Watershed District Levy Funds	\$2,703,000
Easement Stewardship	\$0	\$0		\$0
Travel	\$0	\$0		\$0
Professional Services	\$248,000	\$252,000	Watershed District Levy Funds, Clean Water Fund Target Watershed Grant	\$500,000
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	\$5,000	\$0		\$5,000
DNR IDP	\$0	\$0		\$0
Total	\$3,015,000	\$3,711,000		-\$6,726,000

Amount of Request: \$3,015,000
 Amount of Leverage: \$3,711,000
 Leverage as a percent of the Request: 123.08%
 DSS + Personnel: \$0
 As a % of the total request: 0.00%
 Easement Stewardship: \$0
 As a % of the Easement Acquisition: -%

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

All of the costs in contracts are for Restoration/Enhancement work.

Describe and explain leverage source and confirmation of funds:

Ecofootprint Grant funds were awarded in July 2015, Clean Water Funds were awarded in May 2016. NRCS funding is yet to be determined and will depend on landowner participation and eligibility.

Does this proposal have the ability to be scalable? - Yes

Tell us how this project would be scaled and how administrative costs are affected, describe the “economy of scale” and how outputs would change with reduced funding, if applicable:

If less funding is provided, the land acquisition for areas outside of the initial restoration reach would be eliminated first. If necessary, the length of initial restored channel reach could also be reduced. Most of the administrative grant reporting requirements will be there regardless of the size of the project.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	260	0	73	333
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	37	0	0	37
Protect in Easement	0	258	0	112	370
Enhance	0	0	0	0	0
Total	0	555	0	185	740

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 Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$837,900	\$0	\$760,000	\$1,597,900
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$261,200	\$0	\$0	\$261,200
Protect in Easement	\$0	\$831,300	\$0	\$324,600	\$1,155,900
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$1,930,400	\$0	\$1,084,600	\$3,015,000

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	333	0	333
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	37	0	37
Protect in Easement	0	0	0	370	0	370
Enhance	0	0	0	0	0	0
Total	0	0	0	740	0	740

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$1,597,900	\$0	\$1,597,900
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$261,200	\$0	\$261,200
Protect in Easement	\$0	\$0	\$0	\$1,155,900	\$0	\$1,155,900
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$3,015,000	\$0	\$3,015,000

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$3,223	\$0	\$10,411
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$7,059	\$0	\$0
Protect in Easement	\$0	\$3,222	\$0	\$2,898
Enhance	\$0	\$0	\$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	\$4,798	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$7,059	\$0
Protect in Easement	\$0	\$0	\$0	\$3,124	\$0
Enhance	\$0	\$0	\$0	\$0	\$0

Target Lake/Stream/River Feet or Miles

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I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

Parcel List

Explain the process used to select, rank and prioritize the parcels:

The parcels in the list were identified using hydraulic modeling of the stream to identify all parcels along Wolverton Creek within the 10-year floodplain or a minimum of at least a 200 foot buffer centered on the channel.

Section 1 - Restore / Enhance Parcel List

Wilkin

Name	TRDS	Acres	Est Cost	Existing Protection?
22-004-0600	13648204	18	\$70,176	No
22-004-0700	13648204	5	\$17,418	No
22-009-0100	13648209	22	\$85,856	No
22-009-0600	13648209	21	\$77,371	No
22-010-0500	13648210	11	\$42,446	No
22-014-0300	13648214	16	\$60,070	No
22-014-0400	13648214	12	\$45,408	No
22-015-0200	13648215	24	\$98,215	No
22-015-0210	13648215	3	\$8,672	No
22-015-0300	13648215	34	\$137,962	No
22-015-0400	13648215	13	\$49,995	No
22-015-0500	13648215	8	\$30,896	No
22-023-0100	13648223	2	\$5,015	No
22-023-0200	13648223	21	\$72,654	No
22-023-0300	13648223	1	\$6,301	No
22-023-0400	13648223	31	\$103,987	No
22-023-0500	13648223	0	\$178	No
22-026-0100	13648226	29	\$103,241	No
22-026-0600	13648226	16	\$56,904	No
22-026-0700	13648226	0	\$1,307	No

Section 2 - Protect Parcel List

Clay

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
15.000.0050	13748216	0	\$986	No	Limited	Full
15.009.3301	13748209	0	\$1,082	No	Limited	Full
15.009.3700	13748209	7	\$27,660	No	Limited	Full
15.016.1600	13748216	20	\$83,825	No	Limited	Full
15.016.1800	13748216	8	\$33,799	No	Limited	Full
15.016.2600	13748216	7	\$27,144	No	Limited	Full
15.016.4000	13748216	16	\$57,959	No	Limited	Full
15.021.1000	13748221	9	\$34,760	No	Limited	Full
15.021.3500	13748221	2	\$5,836	No	Limited	Full
15.022.0200	13748222	32	\$133,252	No	Limited	Full
15.022.0201	13748227	0	\$2	No	Limited	Full
15.027.2000	13748227	20	\$86,834	No	Limited	Full
15.027.2001	13748227	0	\$1,176	No	Limited	Full
15.027.3000	13748234	18	\$82,371	No	Limited	Full
15.034.1000	13748234	1	\$5,697	No	Limited	Full
15.034.2000	13748234	19	\$77,567	No	Limited	Full
15.034.3001	13748234	4	\$16,761	No	Limited	Full
15.034.4000	13748234	23	\$95,235	No	Limited	Full
15.034.4301	13748234	1	\$2,341	No	Limited	Full

Wilkin

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
15-007-0300	13547207	13	\$47,073	No	Limited	Full
15-007-0310	13547217	2	\$7,164	No	Limited	Full
15-017-0100	13547217	5	\$20,558	No	Limited	Full
15-017-0200	13547217	9	\$38,497	No	Limited	Full
15-017-0300	13547218	17	\$67,918	No	Limited	Full
15-018-0100	13547218	9	\$37,492	No	Limited	Full
15-018-0200	13547218	11	\$43,009	No	Limited	Full
15-018-0600	13548201	5	\$23,210	No	Limited	Full
19-001-0500	13548212	9	\$29,715	No	Limited	Full
19-002-0100	13548202	17	\$56,693	No	Limited	Full
19-002-0210	13548202	15	\$56,376	No	Limited	Full
19-002-0500	13548202	15	\$51,801	No	Limited	Full
19-002-0510	13548202	0	\$40	No	Limited	Full
19-012-0200	13548212	2	\$6,655	No	Limited	Full
19-012-0300	13548212	25	\$81,441	No	Limited	Full
19-012-0500	13548212	31	\$100,313	No	Limited	Full
22-004-0100	13648204	14	\$53,794	No	Limited	Full
22-004-0200	13648204	5	\$14,833	No	Limited	Full
22-035-0100	13648235	7	\$33,078	No	Limited	Full
22-035-0200	13648235	24	\$108,875	No	Limited	Full
22-035-0210	13648235	2	\$8,794	No	Limited	Full
22-035-0300	13648235	0	\$834	No	Limited	Full
22-035-0305	13648235	12	\$53,639	No	Limited	Full
22-035-0310	13648235	13	\$56,239	No	Limited	Full

Section 2a - Protect Parcel with Bldgs

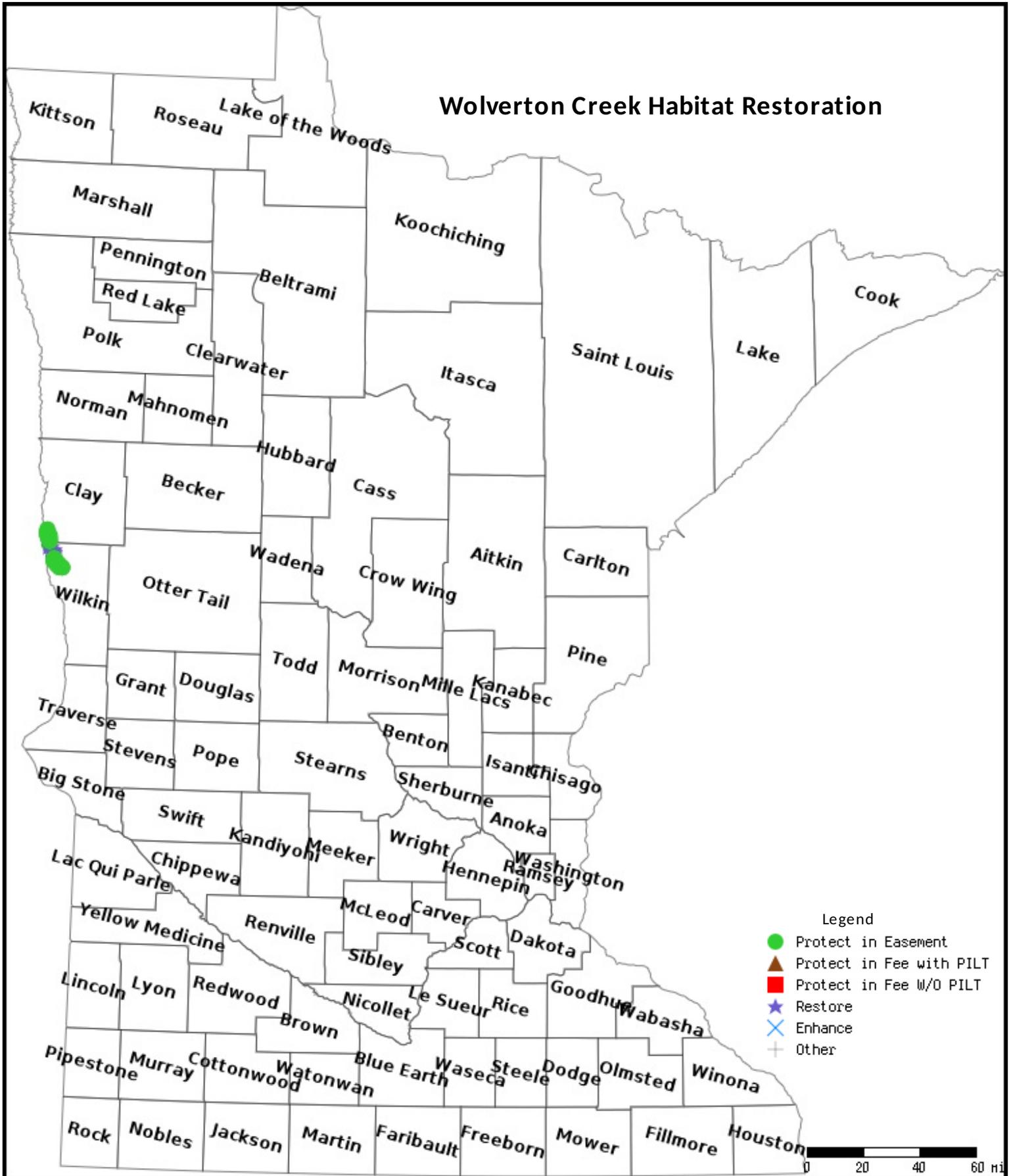
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

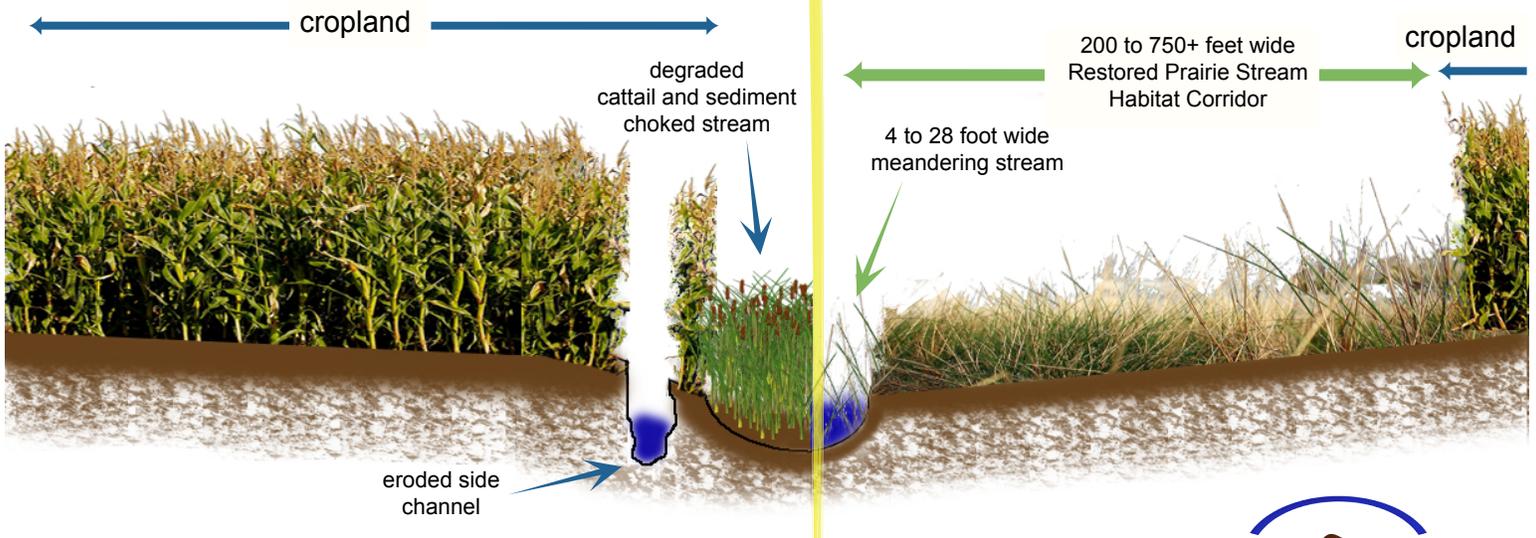
Wolverton Creek Habitat Restoration



Data Generated From Parcel List

Existing

Proposed



Wolverton Creek Habitat Restoration



Project Background

Beginning over a century ago, many streams in the Red River Basin were straightened, ditched, cleared and snagged with the goal of improving agricultural drainage. Wolverton Creek, a Red River tributary, with a 104 square mile watershed was among these streams that experienced this degradation. Along with the straightening, soil leaving the contributing agricultural fields filled many of these waterways leaving them choked with sediment.

Combined, these activities destroyed miles of aquatic habitat and eliminated grassland and wetlands along this vital wildlife corridor. Habitat losses have had the direct effect of reducing fish and wildlife not only within the channelized reaches of these streams but both upstream and downstream as well.

The Buffalo-Red River Watershed District (BRRWD), in partnership with federal, state, and local agencies has developed a long-term comprehensive plan to restore the Wolverton Creek. The outlet reach of Wolverton Creek downstream of Trunk Highway 75 (about 2 miles) has already been restored by the BRRWD through the installation of a series of rock riffles, vegetated buffers, and sediment best management practices. Other previous BRRWD work in the project area includes installation of vegetated buffers and sediment best management practices on some tributaries to Wolverton Creek. In addition, the BRRWD installed additional vegetated buffer strips and erosion control on the tributary legal drainage systems in the Fall of 2015.

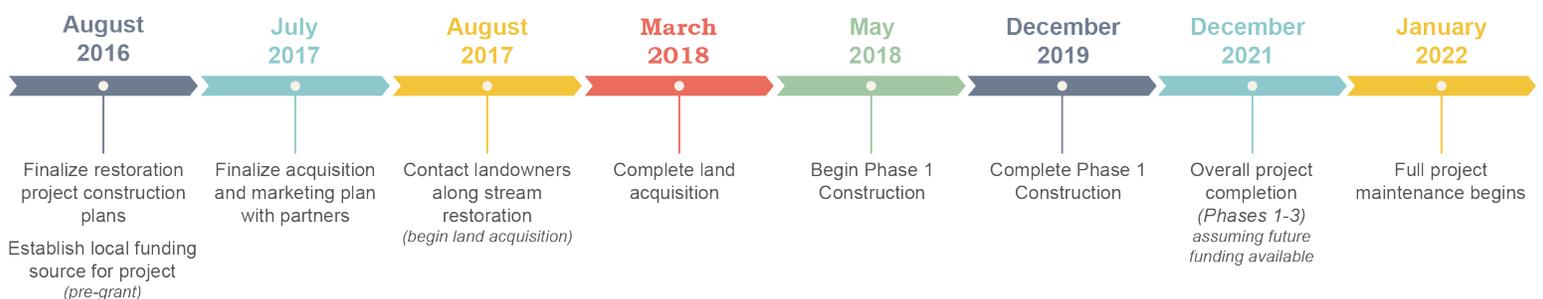
The portion of Wolverton Creek upstream of Trunk Highway 75 has been broken into three restoration reaches (A,B,and C). Acquisition of the entire

habitat corridor and restoration of Reach B of Wolverton Creek is the next phase (Phase 1) of this long-term project. Phase 1 is expected to cost \$6.73 million. The BRRWD has \$2.9 million in leverage funds already committed to the project through the Clean Water Fund and Ecofootprint grant programs. The BRRWD is requesting \$3.02 million from the Lessard-Sams Outdoor Heritage Council. Phases 2 and 3 are envisioned to finish the channel restoration.

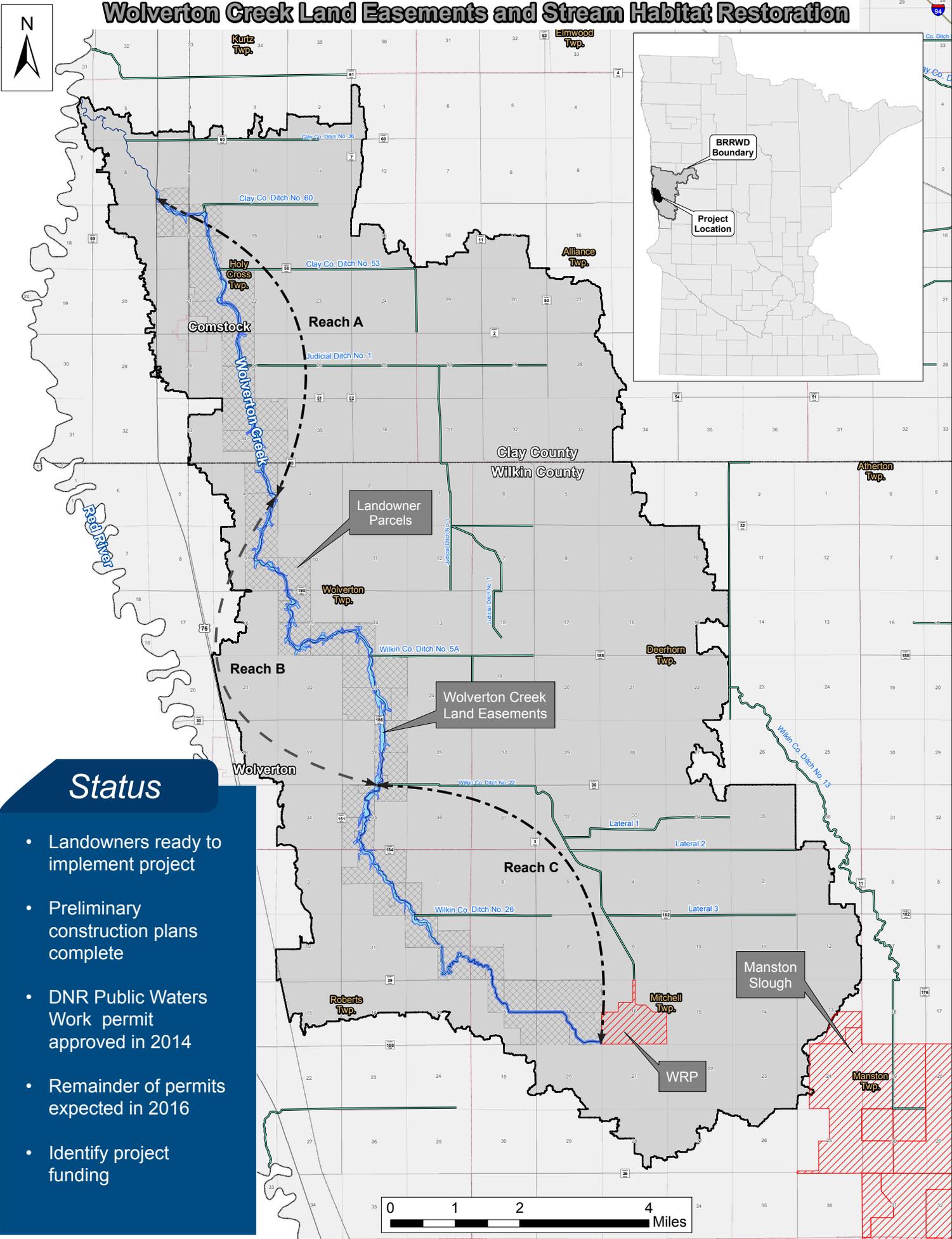
Outcomes/Benefits

1. 26.2 miles of restored stable natural meandering stream with functional floodplain to replace 20 miles of channelized degraded stream
2. Habitat Connectivity Corridor provided between Red River riparian area and larger blocks of wetland and prairie habitat in WRP site, the Manston Slough WMA, and Manston Marsh WPA
3. Runoff reduction
4. Improved water quality
5. Pollinator habitat buffers
6. Over 740 acres of permanently protected, restored, and enhanced riparian prairie habitat:
 - 260 acres currently cropland
 - 480 acres currently non-crop

Timeline



Wolverton Creek Land Easements and Stream Habitat Restoration



Status

- Landowners ready to implement project
- Preliminary construction plans complete
- DNR Public Waters Work permit approved in 2014
- Remainder of permits expected in 2016
- Identify project funding



Clay Soil and Water Conservation District

1615 30th Avenue South ❖ Moorhead MN 56560

Phone: (218)287-2255

Fax: (218)287-1787

Our 70th Anniversary

1945 - 2015

May 19, 2015

Board of Managers
Buffalo-Red River Watershed District
1303 4th Avenue NE
Barnesville, MN 56514-0341

RE: Wolverton Creek Restoration Project Letter of Support

Dear Watershed District Board of Managers:

Please accept this letter acknowledging Clay Soil and Water Conservation District's (SWCD) support for the Lessard-Sams Outdoor Heritage Council "Wolverton Creek Restoration Project" as proposed by Bruce Albright, Administrator – Buffalo-Red River Watershed District (BRRWD).

Through sound resource planning, this project provides for returning the creek to a more natural state. Numerous environmental benefits such as reduced impacts of annual flooding, enhanced wildlife habitat, and improved water quality will be realized for those downstream and those who live and farm next to it.

The Clay SWCD looks forward to discussions and working with your Board and staff on how to implement your restoration project. The Council's funding will be an essential component to restoring the creek and improving the riparian corridor.

Sincerely,

A handwritten signature in blue ink that reads "Kevin Kassenborg". The signature is written in a cursive, flowing style.

Kevin Kassenborg
Clay SWCD Manager



1150 Hwy 75 North, Breckenridge, MN 56520 (218) 643-2933

May 15, 2015

Board of Managers
Buffalo Red River Watershed District
1303 4th Ave NE
Barnesville, MN 56514

RE: Support for Lessard-Sams Outdoor Heritage Council "Wolverton Creek Restoration and Sediment Reduction Project"

Dear Board of Managers:

The Wilkin Soil and Water Conservation District would like to offer support for this stream restoration project to enhance wildlife habitat and improve water quality.

Restoring the creek to a more natural state will reduce flooding, improve water quality and enhance riparian health and wildlife habitat. The two-stage channel will restore sinuosity, create pools and riffles and a stable flood plain. Together these features will benefit aquatic life.

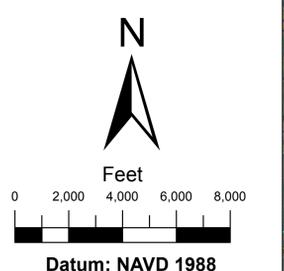
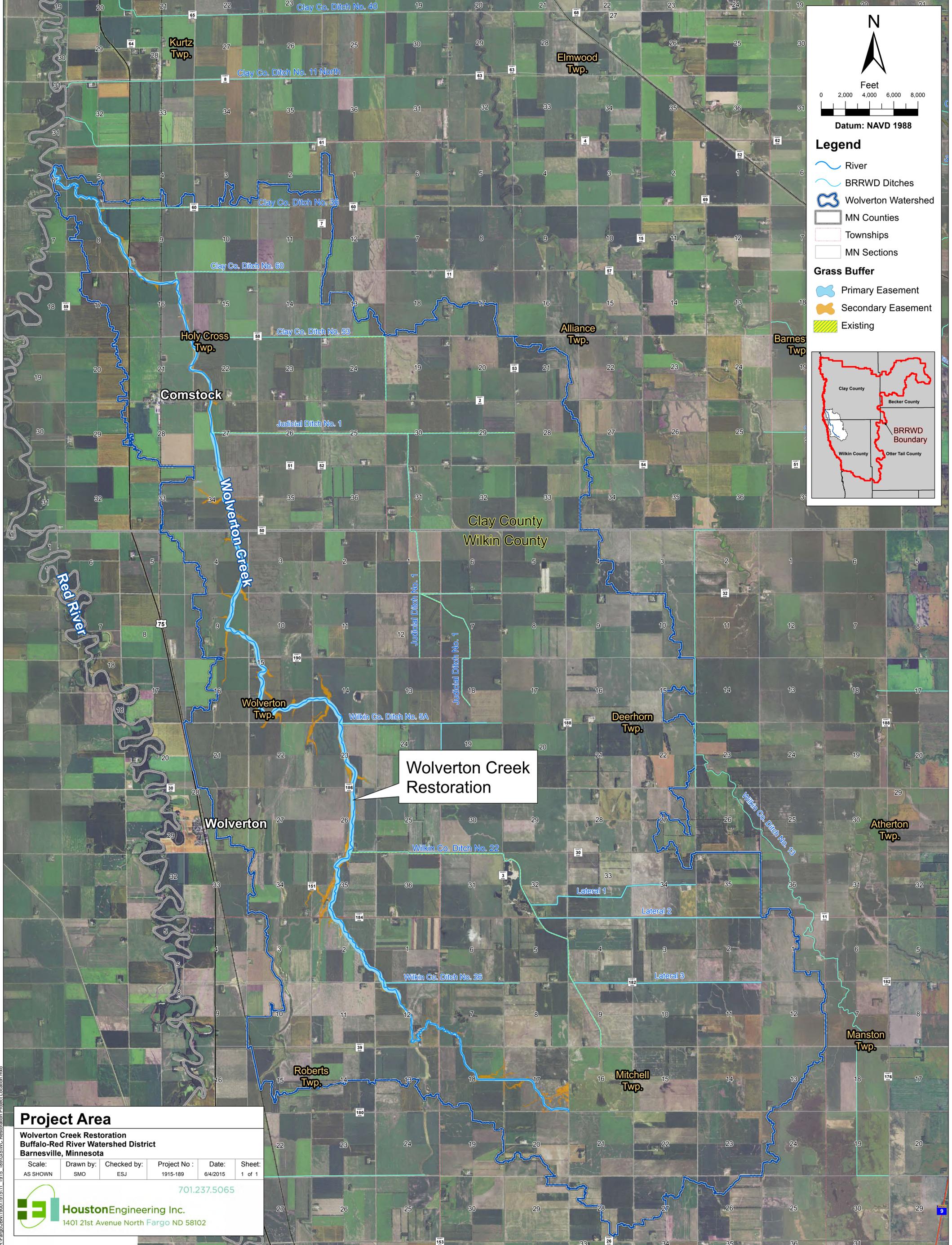
Permanent buffers will be planted to a variety of native grasses and forbs and will be designed to adequately protect floodplains in the project area. These permanent buffers will vary from 200 to 400 feet in width depending on location providing valuable wildlife habitat and connectivity within the riparian corridors.

We hope the Lessard-Sams Outdoor Heritage Council can see the merits and funds your project. We fully support this application for funding. We believe this project addresses local resource problems with a comprehensive watershed-wide solution. When completed this project will improve wildlife habitat, improve water quality, reduce flooding and provide enhancements to our natural resources.

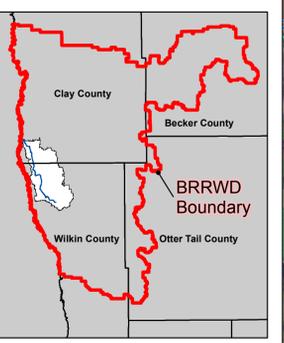
Sincerely,

Don Bajumpaa
District Manager
Wilkin Soil and Water Conservation District

It is the mission of the Wilkin Soil and Water Conservation District to provide local leadership in the conservation of soil, water, and related natural resources through programs and partnerships with individuals, businesses, organizations and government.



- Legend**
- River
 - BRRWD Ditches
 - Wolverton Watershed
 - MN Counties
 - Townships
 - MN Sections
- Grass Buffer**
- Primary Easement
 - Secondary Easement
 - Existing



Project Area

Wolverton Creek Restoration
Buffalo-Red River Watershed District
Barnesville, Minnesota

Scale: AS SHOWN	Drawn by: SMO	Checked by: ESJ	Project No : 1915-189	Date: 6/4/2015	Sheet: 1 of 1
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701.237.5065

HoustonEngineering Inc.
1401 21st Avenue North Fargo ND 58102

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