



## Lessard-Sams Outdoor Heritage Council

Shakopee Creek: Headwaters Restored, Species and Land Protected  
ML 2024 Request for Funding

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### General Information

**Date:** 06/23/2023

**Proposal Title:** Shakopee Creek: Headwaters Restored, Species and Land Protected

**Funds Requested:** \$1,190,000

**Confirmed Leverage Funds:** \$37,200

**Is this proposal Scalable?:** No

### Manager Information

**Manager's Name:** Margaret Johnson

**Title:** District Manager

**Organization:** Kandiyohi Soil and Water Conservation

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**City:** Willmar, MN 56201

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### Location Information

**County Location(s):** Kandiyohi.

**Eco regions in which work will take place:**

- Prairie

**Activity types:**

- Enhance
- Protect in Easement
- Restore

**Priority resources addressed by activity:**

- Habitat
- Wetlands

- Prairie

## Narrative

### Abstract

Led by the Kandiyohi Soil and Water Conservation District, the proposed project aims to restore and conserve vital habitats for fish, game, and wildlife in the deteriorated headwaters of Shakopee Creek. This includes repairing the lack of connectivity to the natural floodplain, eroding banks, and incised channelization. The program will restore and protect 29 acres of wetland and 1,500 feet of deteriorating streambank, resulting in significant and long-term conservation accomplishments. The program's actions will center on habitat restoration and conservation to boost ecological resilience and encourage species recovery of the Pugnose Shiner, Forster's Tern, and Lark Sparrow.

### Design and Scope of Work

The scope of work includes habitat restoration and protection measures in the headwaters of Shakopee Creek to solve the existing issues.

**The Problem:** The problem is that essential habitats are being reduced and fragmented, resulting in biodiversity loss, species population reductions, and ecological imbalance. The proposed project focuses on the restoration, enhancement, and protection of prairies, wetlands, and fish, game, and animal habitats to address the critical issue of habitat degradation and loss and to protect threatened species like the Pugnose Shiner, Forster's Tern, and Lark Sparrow.

This involves initiatives such as reestablishing natural vegetation, reconstructing wildlife corridors, preserving essential biological characteristics, and implementing management practices that promote habitat relevance. The initiative intends to restore ecosystem health, aid species recovery, and improve habitat long-term resilience by addressing these critical variables.

**Prioritizing Implementation:** The project's priorities were determined after a thorough evaluation of various factors, including the ecological significance of the target habitats, the presence of threatened or endangered species, like the Pugnose Shiner, Forster's Tern, and Lark Sparrow, the potential for habitat connectivity, and the opportunities for partnerships and stakeholder involvement. Furthermore, feedback from scientific experts, local communities, and other stakeholders contributed to the selection process.

The planned project's urgency arises from the habitats' precarious state and the pressing need to avert further degradation. The ongoing loss of aquatic habitats for northern pike, golden shiner and walleye jeopardizes ecosystem function, biodiversity, and natural system health. By responding quickly, we can prevent lasting damage, aid in habitat regeneration, and provide immediate relief.

**Community Conservation:** It gives an opportunity for a wide range of stakeholders, including landowners, community groups, conservation organizations, and government agencies, to work together to restore and conserve ecosystems. Stakeholder participation is crucial to the project's success since their knowledge, resources, and expertise contribute to good planning, execution, and long-term care of the restored ecosystems. Collaboration with local communities, conservation organizations, and government agencies ensures that conservation efforts are multidimensional. These alliances foster shared accountability, allow access to additional resources and funding, and boost the project's overall impact.

**The Solution:** The proposed project, in essence, addresses the issue of habitat degradation and loss, with a focus on prairie, wetlands, and fish, game, and animal habitat restoration, enhancement, and protection. Habitat restoration

and conservation strategies are prioritized based on ecological relevance, stakeholder involvement, and scientific input. The project's urgency originates from the fragile state of ecosystems and the need for immediate intervention. The project gives an opportunity to engage stakeholders, form partnerships, and ensure a collaborative approach to long-term conservation outcomes.

### **Explain how the proposal addresses habitat protection, restoration, and/or enhancement for fish, game & wildlife, including threatened or endangered species conservation**

To achieve habitat protection, the restoration program will focus implementing measures to reduce pollution and sedimentation. This will create a healthier environment for aquatic life and enhance the overall habitat quality of the creek. Additionally, efforts will be made to restore and preserve the natural vegetation along the creek banks, providing essential cover and food sources for various wildlife species. The restoration program will immediately enhance fish populations in Shakopee Creek by improving habitat conditions. Better breeding and spawning habitats, more food availability, and enhanced oxygen levels all contribute to healthier and more plentiful fish populations of northern pike, golden shiner and walleye. The restoration efforts will also consider the needs of game species, such as waterfowl or game birds, by restoring 29 acres of wetlands and other suitable habitats that support their life cycles. Furthermore, the restoration initiative will focus on conserving and assisting threatened or endangered species that rely on Shakopee Creek for existence like the Pugnose Shiner, Forster's Tern, and Lark Sparrow. This may entail putting specialized conservation measures in place, restoring vital habitats, and working with necessary authorities and conservation organizations to secure the survival of these fragile species. Overall, the rehabilitation idea for Shakopee Creek comprises habitat conservation, fish population enhancement, animal habitat restoration, and the preservation of threatened or endangered species. These actions will improve the creek's overall ecological health and provide a healthy ecosystem for wildlife and fish.

### **What are the elements of this proposal that are critical from a timing perspective?**

Community engagement and collaboration must begin immediately to generate meaningful participation, instill ownership, and gather support. Landowners are already excited to complete the projects required to restore Shakopee Creek and avoid further environmental harm and costly repairs. Rapid intervention is critical for conserving species that rely on the creek and lowering the risk of species reductions. Implementing restoration measures now generates suitable habitat for these species and gives immediate support. Climate change must be addressed urgently by increasing ecosystem resilience through techniques such as growing climate-adapted plants and safeguarding key ecosystems. In summary, the proposed project necessitates immediate action to prevent additional degradation, protect threatened species like the Pugnose Shiner, Forster's Tern, and Lark Sparrow, address the effects of climate change, and engage stakeholders. Prompt action enables effective restoration, protects species, boosts resilience, and optimizes participation for long-term success.

### **Describe how the proposal expands habitat corridors or complexes and/or addresses habitat fragmentation:**

Shakopee Creek restoration provides a chance to extend habitat corridors or complexes and alleviate habitat fragmentation, both of which are key components of maintaining healthy ecosystems and supporting biodiversity. Here is a thorough explanation of how the restoration effort intends to accomplish these objectives.

**Expanding Habitat Corridors:** Habitat corridors are passageways that unite fragmented ecosystems, allowing animals to travel and succeed. The restoration operation will create a continuous and contiguous habitat corridor by recovering the natural vegetation along the creek banks and neighboring areas. This will allow numerous wildlife species, including mammals, birds, and insects, to roam about, fostering genetic variety and maintaining their normal life cycles.

**Enhancing Connectivity:** In addition to constructing habitat corridors, the restoration project will focus on

improving ecosystem connectivity. This will entail reducing impediments to fish and other aquatic species migration, such as culverts. The project will allow fish to access spawning areas and ease the migration of other aquatic organisms by restoring the creek's natural flow and enhancing communication between different portions. Addressing Habitat Fragmentation: Habitat fragmentation occurs when natural habitats are split into smaller, isolated sections, reducing biodiversity and restricting species' capacity to survive. This problem will be addressed by re-establishing and enhancing the amount of existing habitat patches along Shakopee Creek. The project will generate more suitable and resilient habitats for a variety of plant and animal species by repairing degraded areas and building larger contiguous habitats.

Promoting Ecological Resilience: Ecological resilience is enhanced by habitat corridors and reduced fragmentation, which allow species to adapt and respond to environmental changes. Shakopee Creek restoration will provide a broad range of habitats, including riparian zones, wetlands, and upland areas, which will support a variety of species with varying ecological requirements. This enhanced habitat diversity improves the ecosystem's overall resilience, allowing it to tolerate shocks and adapt to future environmental problems.

Collaboration and Planning: The restoration effort will require collaboration with local communities, landowners, and relevant stakeholders to effectively increase habitat corridors and alleviate fragmentation.

### **Which Conservation Plans referenced in MS97A.056, subd. 3a are most applicable to this project?**

- Minnesota Prairie Conservation Plan
- Minnesota Statewide Conservation & Preservation Plan

### **Explain how this proposal will uniquely address habitat resilience to climate change and its anticipated effects on game, fish & wildlife species utilizing the protected or restored/enhanced habitat this proposal targets.**

This proposal uniquely addresses habitat resilience to climate change and its anticipated effects on game, fish, and wildlife species through several key strategies.

Firstly, the project focuses on restoring and enhancing habitats that are specifically designed to withstand and adapt to changing climatic conditions.

Secondly, the proposal emphasizes the conservation and restoration of critical ecosystems, such as wetlands and forests, which act as natural buffers against climate impacts.

Furthermore, the project incorporates scientific research and monitoring to inform adaptive management practices. By continuously assessing the impacts of climate change on habitats and species, adjustments can be made to conservation strategies and actions to ensure their effectiveness in the face of changing conditions.

Finally, the concept emphasizes the significance of developing habitat connectivity. Creating habitat corridors and improving connectivity allows species to travel, allowing them to adjust and adapt to changes in climate patterns.

### **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 this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife, and if not permanent outcomes, why it is important to undertake at this time:**

This project is designed to produce and demonstrate a significant and permanent conservation legacy and outcomes for fish, game, and wildlife. Here's how this project will achieve that:

**Habitat Restoration and Protection:** The project focuses on restoring and protecting critical habitats for fish, game, and wildlife. This leads to increased population sizes, enhanced biodiversity, and improved ecological resilience, resulting in permanent positive outcomes for fish--northern pike, golden shiner and walleye, game, and wildlife.

**Species Recovery and Conservation:** The project specifically targets the recovery and conservation of threatened species like the Pugnose Shiner, Forster’s Tern, and Lark Sparrow or endangered species. The successful recovery of these species will have a lasting impact on their populations.

**Ecosystem Health and Function:** The efforts improve the overall health and functioning of the ecosystem. A healthy ecosystem supports the interconnected web of life, including fish, game, and wildlife. By enhancing ecosystem health, we create a foundation for long-term conservation outcomes.

**Educational and Awareness Building:** The project incorporates educational and awareness-building components. Increased awareness and knowledge empower individuals to take action and make informed decisions in their own lives, contributing to long-term conservation outcomes.

Furthermore, the project serves as a catalyst for broader conservation initiatives. It raises awareness, builds partnerships, and mobilizes resources that can have a ripple effect on future conservation efforts.

Undertaking this effort now is essential to leave a lasting conservation legacy, prevent further habitat degradation, and inspire future conservation actions.

## Outcomes

### **Programs in prairie region:**

- Remnant native prairies are part of large complexes of restored prairies, grasslands, and large and small wetlands ~ *Regular visual surveys of streambank condition along Shakopee creek will evaluate the success and longevity of the streambank restorations. Wetland and riparian vegetation surveys will track community changes over time and inform when and where vegetation management is needed. Stream fish and macroinvertebrate surveys following MPCA protocols can evaluate the health of the stream. Visual and call surveys of birds will evaluate the impact the restoration has on waterfowl.*

### **What other dedicated funds may collaborate with or contribute to this proposal?**

- Clean Water Fund

### **Per MS 97A.056, Subd. 24, Please explain 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 project proposed by Kandiyohi Soil and Water Conservation District does not replace traditional financing or existing programs; completion of the proposed project would be impossible without dollars provided by the Outdoor Heritage Fund.

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

It is critical to ensure the long-term viability and maintenance of the restoration effort beyond the use of Outdoor Heritage Funds. Several ways can be used to do this:

**Collaborative Partnerships:** It is critical to form collaborative partnerships with local communities, conservation organizations, government agencies, and landowners. Collaboration fosters shared accountability and maximizes conservation activities' joint impact.

**Adoption of Adaptive Management:** Using an adaptive management method enables for continual monitoring and evaluation of the functioning of the restored habitat. Adaptive management encourages learning and progress, allowing the restoration operation to be successful in the long run.

**Education and Community Engagement:** Investing in educational programs and community engagement projects

promotes awareness of the importance of habitat conservation and encourages active participation.

Establishment of Stewardship Programs: Developing stewardship initiatives with local volunteers and citizen scientists develops a sense of ownership and responsibility for the restored ecosystem. Engaging the community in hands-on conservation initiatives ensures that the environment is cared for even after the funds are depleted.

The property owner is solely responsible for the project's upkeep, which includes channel maintenance, modest bank repairs, and vegetation management. Large failures are not predicted along this stretch of Shakopee Creek.

**Actions to Maintain Project Outcomes**

Year	Source of Funds	Step 1	Step 2	Step 3
2023 and beyond	Local Match	Maintain existing relationships with landowners.	Plant the ideas of additional work in the Shakopee headwaters to further expand and increase local conservation.	Work with landowner on questions regarding maintenance.
2024 and beyond	Local Match	Work with additional landowners to complete similar conservation work in the headwaters of Shakopee.	-	-

**Provide an assessment of how your program may celebrate cultural diversity or reach diverse communities in Minnesota, including reaching low- and moderate-income households:**

Our program is dedicated to actively participating, engaging, and helping diverse communities. We acknowledge the significance of inclusivity and equity in conservation initiatives. Here are some of the primary ways in which our program may directly address and involve diverse communities:

Outreach and Representation: We will prioritize outreach efforts with diverse populations, ensuring that they are aware of the restoration project and have opportunity to participate. In planning, decision-making, and project implementation, we will seek representation and input from these populations. Community gatherings, partnerships with local organizations, and focused communication tactics will be used to accomplish this.

Culturally Relevant Education and Outreach: We recognize the need of offering culturally relevant and accessible education and outreach resources. We will adjust our messaging, resources, and events to appeal to a wide range of populations, considering different languages, cultural values, and points of view. This will promote inclusivity and encourage community members to actively engage in and profit from the restoration effort.

Collaborative Partnerships: Our strategy includes forming alliances with organizations, community groups, and local leaders. We ensure that their knowledge, thoughts, and needs are incorporated into the project by engaging with these groups. This collaborative approach will foster ownership, trust, and shared decision-making, resulting in a more equitable and community-driven restoration process.

Environmental Justice Considerations: We will address environmental justice problems directly related to the restoration project. This entails identifying and correcting any existing imbalances in environmental quality and access to natural spaces.

Community Benefits: The rehabilitation initiative will seek to directly benefit the communities concerned. This could include increased access to recreational opportunities and the enhancement of ecosystem services that benefit inhabitants' health and well-being.

By incorporating these approaches, our program will foster inclusivity and provide equitable opportunities for diverse communities to be actively involved in and benefit from the restoration project.

**Activity Details**

**Requirements**

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

Yes

**Is the land you plan to acquire (easement) 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 restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 or on lands to be acquired in this program?**

Yes

**Where does the activity take place?**

- Public Waters

**Land Use**

**Will there be planting of any crop on OHF land purchased or restored in this program?**

No

**Will neonicotinoid pesticide products be used within any activities of this proposal?**

No

**Will the eased land be open for public use?**

No

**Are there currently trails or roads on any of the proposed acquisitions?**

No

**Will new trails or roads be developed or improved as a result of the OHF acquisition?**

No

**Will the land that you acquire (fee or easement) be restored or enhanced within this proposal's funding and availability?**

Yes

**Other OHF Appropriation Awards**

**Have you received OHF dollars in the past through LSOHC that are current OPEN appropriations?**

No

**Timeline**

<b>Activity Name</b>	<b>Estimated Completion Date</b>
Easement Acquisition	07/31/2024
Restore Creek - natural channel construction	09/30/2025
Restore Wetland - construction	09/30/2025
Native prairie and riparian plantings	5/1/2026

Vegetation maintenance	ongoing
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**Budget**

**Totals**

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	-	\$37,200	Local	\$37,200
Contracts	\$900,000	-	-	\$900,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$90,000	-	-	\$90,000
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	\$200,000	-	-	\$200,000
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
<b>Grand Total</b>	<b>\$1,190,000</b>	<b>\$37,200</b>	-	<b>\$1,227,200</b>

**Personnel**

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Manager	0.25	3.0	-	\$37,200	Local	\$37,200

**Amount of Request:** \$1,190,000

**Amount of Leverage:** \$37,200

**Leverage as a percent of the Request:** 3.13%

**DSS + Personnel:** -

**As a % of the total request:** 0.0%

**Easement Stewardship:** -

**As a % of the Easement Acquisition:** -

Total Leverage (from above)	Amount Confirmed	% of Total Leverage	Amount Anticipated	% of Total Leverage
\$37,200	\$37,200	100.0%	-	0.0%

**Detail leverage sources and confirmation of funds:**

The leverage described above is Kandiyohi SWCD full-time staff resources. We assume the proposed project planning, coordination, and management will require up to 25% of the SWCD manager's time.

**Does this proposal have the ability to be scalable?**

No

**Please explain why this project can NOT be scaled:**

This project is not scalable and the full requested amount is needed to ensure the wetland, prairie, and streambank benefits described in the application are achieved.

## **Contracts**

### **What is included in the contracts line?**

Contracts include mobilization, site preparation, materials (J-hooks, boulders, toewood), bank repair, culvert removal, and native prairie and streambank seed mixes and plants associated with the stream and wetland restoration construction.

## **Professional Services**

### **What is included in the Professional Services line?**

- Design/Engineering
- Surveys

## **Federal Funds**

### **Do you anticipate federal funds as a match for this program?**

No

## Output Tables

### Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	18	-	0	12	30
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	18	-	0	12	30
Enhance	-	-	0	-	0
<b>Total</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>60</b>

### Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	\$550,000	-	-	\$550,000	\$1,100,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	\$45,000	-	-	\$45,000	\$90,000
Enhance	-	-	-	-	-
<b>Total</b>	<b>\$595,000</b>	<b>-</b>	<b>-</b>	<b>\$595,000</b>	<b>\$1,190,000</b>

### Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	30	0	30
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	30	0	30
Enhance	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>60</b>

### Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	\$1,100,000	-	\$1,100,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	\$90,000	-	\$90,000
Enhance	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$1,190,000</b>	<b>-</b>	<b>\$1,190,000</b>

### Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	\$30,555	-	-	\$45,833
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	\$2,500	-	-	\$3,750
Enhance	-	-	-	-

### Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	\$36,666	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	\$3,000	-
Enhance	-	-	-	-	-

**Target Lake/Stream/River Feet or Miles**

5200 ft

Parcels

**Sign-up Criteria?**

No

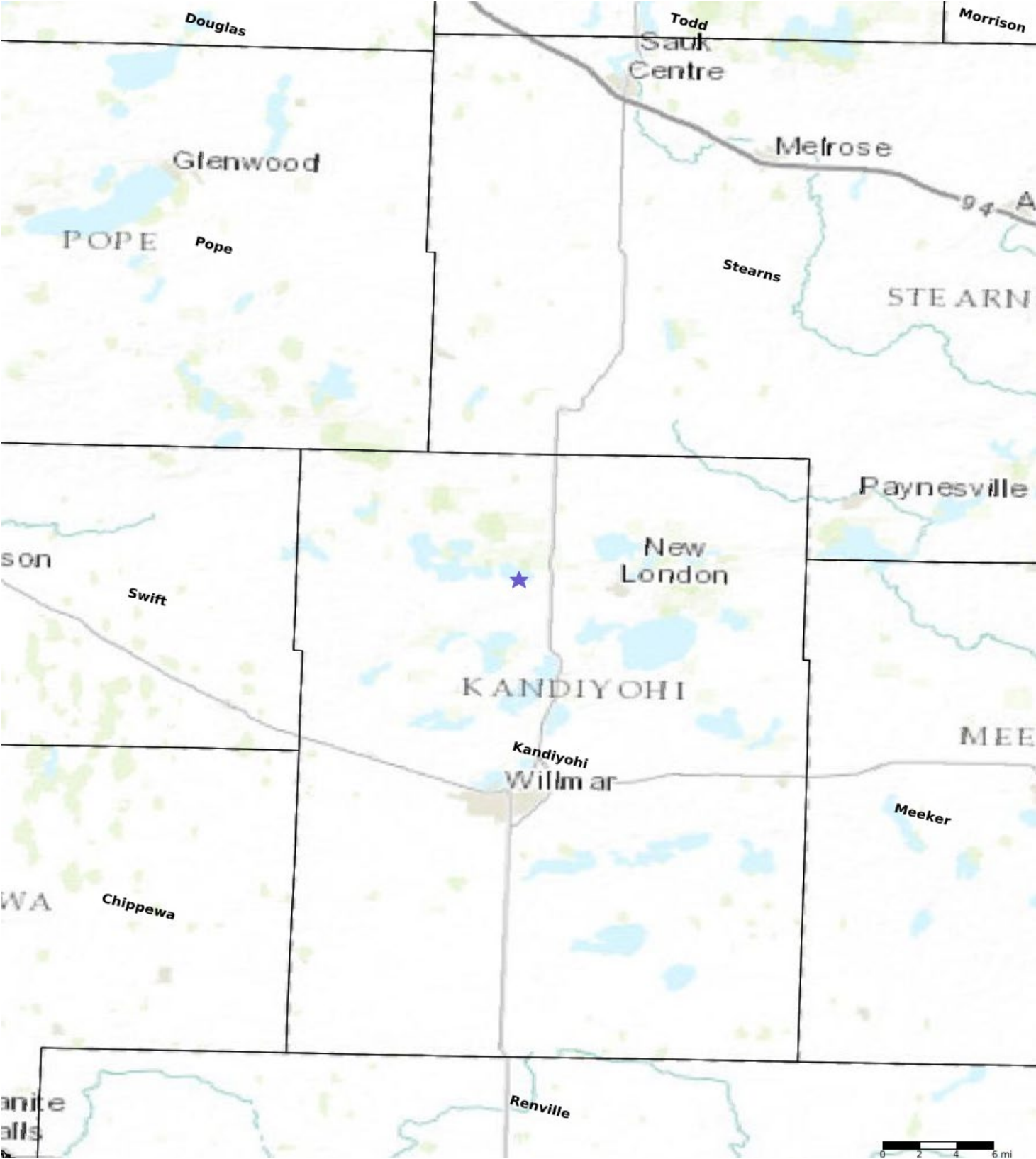
**Explain the process used to identify, prioritize, and select the parcels on your list:**

The project's priorities were determined after a thorough evaluation of various factors, including the ecological significance of the target habitats, the presence of threatened or endangered species, like the Pugnose Shiner, Forster's Tern, and Lark Sparrow, the potential for habitat connectivity, and the opportunities for partnerships and stakeholder involvement. Furthermore, feedback from scientific experts, local communities, and other stakeholders contributed to the selection process.

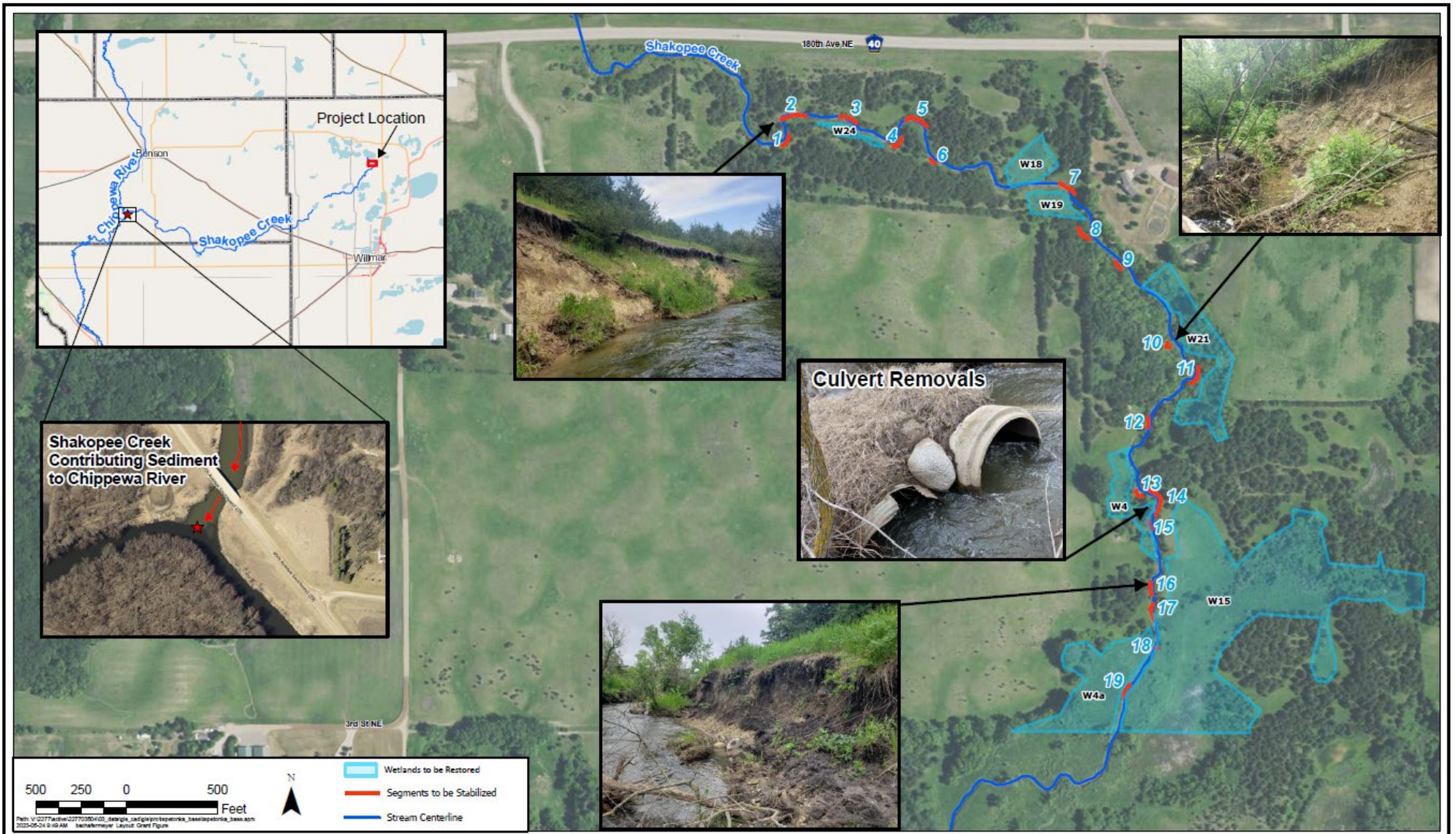
**Restore / Enhance Parcels**

Name	County	TRDS	Acres	Est Cost	Existing Protection
TEPETONKA CLUB, LLC	Kandiyohi	1213511	1	\$100,000	No
CEDAR HILLS CENTURY FARM INC	Kandiyohi	1213511	5	\$256,000	No
CEDAR HILLS CENTURY FARM INC	Kandiyohi	1213511	20	\$714,000	No
TEPETONKA CLUB, LLC	Kandiyohi	1213511	4	\$120,000	No

Parcel Map



- Protect in Easement
- ▲ Protect in Fee with PILT
- Protect in Fee W/O PILT
- ★ Restore
- ✕ Enhance
- ⊕ Other



KANDIYOHI SWCD

Shakopee Creek: Reclaiming a Critical Resource while Protecting Fish and Wildlife



MAY 2023

Figure 1

## Shakopee Creek Threatened & Endangered species:

Pugnose Shiner – Photo credit: Mn DNR



The Pugnose Shiner is a small slender minnow with large eyes.

Forster's Tern – Photo credit: Mn DNR



The Forster's Tern has an orange colored bill and legs.



Photo by Laurie Wachholz

