



Lessard-Sams Outdoor Heritage Council

Riparian Habitat Protection in the Kettle and Snake River Watersheds Laws of Minnesota 2021 Accomplishment Plan

General Information

Date: 11/08/2023

Project Title: Riparian Habitat Protection in the Kettle and Snake River Watersheds

Funds Recommended: \$1,435,000

Legislative Citation: ML 2021, First Sp. Session, Ch. 1, Art. 1, Sec. 2, subd. 5(g)

Appropriation Language: \$1,435,000 the first year is to the Board of Water and Soil Resources to acquire and restore land in permanent conservation easements of high-quality forest, wetland, and shoreline habitat in the Kettle and Snake River watersheds. Of this amount, \$31,000 is for an agreement with the Pine County Soil and Water Conservation District. Up to \$72,000 of the total amount is for establishing a monitoring and enforcement fund as approved in the accomplishment plan and subject to Minnesota Statutes, section 97A.056, subdivision 17. A list of permanent conservation easements must be provided as part of the final report.

Manager Information

Manager's Name: Paul Swanson

Title: District Manager

Organization: Pine County Soil and Water Conservation District

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Location Information

County Location(s): Pine, Kanabec and Carlton.

Eco regions in which work will take place:

- Northern Forest

Activity types:

- Protect in Easement

Priority resources addressed by activity:

- Wetlands
- Forest

Narrative**Abstract**

We will utilize BWSR RIM conservation easements to protect approximately 660 acres of high-quality private forests, wetlands, and shoreline in the Northern Forest Ecological Section. Sites will be selected utilizing minor watershed/RAQ scoring and an integrative ranking process developed through a collaborative process. By using this methodology, not only will we be stacking public benefits but also maximizing conservation benefits per dollar (return on investment). Development trends pose a serious threat to Lake Sturgeon, four-toed and spotted salamanders, Gilt Darter, Northern Long-eared Bat, Blanding's Turtles, and over 128 unique, rare, endangered, and threaten species that live in these watersheds.

Design and Scope of Work

Watersheds in northern Minnesota benefit from public lands since they are mostly forested. The primary risk to habitat and water quality is on private lands. Private forestlands are key because they are more likely to be developed resulting in habitat fragmentation, loss of connectivity, increased pollution and stormwater runoff, and siltation or sedimentation of water bodies. Conversion of private forestlands to more intense land uses place negative impacts on both wildlife habitat and water quality. Both the Kettle and Snake river watersheds have experienced an increase in development and land use conversion in recent years. Since most of the prime lakeshore in the counties is developed, present and future development of river shoreland is expected.

The DNR Hinckley Area Fisheries Office has been tagging and monitoring Lake Sturgeon in the Kettle, St. Croix, and Snake rivers since the early 1990's. Populations appear to be stable and small sturgeon are recruiting into the fishery. While Lake Sturgeon populations appear to be healthy in the Kettle and Snake Rivers, their future relies on clean water. Healthy forests, wetlands, and shorelines in watersheds are vital to the water quality downstream. Thus, protecting private riparian forestland is critical to fish and wildlife habitat.

In 2016, the MN DNR and BWSR, working with SWCDs and partners developed a protection framework based on research developed by MN DNR Fisheries. The MN DNR identified a strong correlation between water quality and habitat that sustains fish populations and maintaining 75 percent forest cover in the watershed. The process works as follows: 1) Prioritize minor watersheds that have less than 75% protected watersheds, 2) Target specific parcels using RAQ scores and 3) over time, measure progress toward 75% forestland protection goal on watershed basis. We periodically measure the percent of the watersheds with permanent forest protection to illustrate this transformation on graphic dial like a speedometer. We call this moving the needle towards watershed protection.

To move the needle in Kettle and Snake watersheds, this program will utilize BWSR's Reinvest in Minnesota (RIM) conservation easements. To maximize the conservation benefit per dollar ("return on investment") the SWCDs will select parcels with the greatest conservation value. To accomplish this, we will use the methodology developed by BWSR and Mitch Brinks, a mapping specialist. The methodology applies RAQ scoring system (Riparian, Adjacent, Quality), each private forested parcel is scored on a 0-10 scale based on the parcel proximity to water ("Riparian") or protected lands ("Adjacency") and various local defined features ("Quality"), such as wild rice, trout, and biodiversity. In short, the RAQ tool prioritizes parcels with benefits overlapping – habitat, biodiversity, cost, water quality, and resiliency to create and protect extensive habitat complexes. Therefore, using the minor

watershed/RAQ methodology we are stacking public benefits and maximizing the conservation benefits per dollar. We will protect approximately 660 acres (about 4 miles of shoreline) of high-quality private forests, wetlands, and shoreline habitat important for Lake Sturgeon and another 128 Species in Greatest Conservation Need that are known to occur within these watersheds.

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

Most of the project area falls within the Mille Lacs Uplands Subsections. 128 Species in Greatest Conservation Need (SGCN) are known or predicted to occur within the Mille Lacs Uplands, the third most of all subsections in Minnesota. According to the species problem analysis in the Tomorrow's Habitat for the Wild and Rare: An Action Plan for Minnesota Wildlife, habitat loss and degradation is the most significant challenge facing SGCN populations in this subsection. This project seeks to address this challenge by protecting the healthy riparian lands from the threat of development, habitat loss or degradation through the use of RIM conservation easements.

The project area has a mixed representation of extensive forest lands and riparian habitats that are home to many Species of Greatest Conservation Need including: Lake Sturgeon, Blanding's turtle, wood turtles, gray wolves, bald eagles, ospreys, sandhill cranes, trumpeter swans, and yellow rails. The St. Croix River Basin is also globally-recognized for its mussel diversity, over 40 known mussels occur within the St. Croix River Basin, including 5 federally endangered, and 20 state-listed species such as rare mussels like the winged mapleleaf, spike, and round pigtoe.

The Kettle and Snake Rivers are also home to populations of Lake Sturgeon (*Acipenser fulvescens*). These bony-plated, ancient-looking fish prefer moderately clear, large rivers and lakes, where they can migrate long distances to spawning areas and foraging for the invertebrates and small fish that make up their diet. Their large sizes and fighting qualities make them a favorite among catch and release anglers. Sturgeons are long-lived, slow growing, and can take many years to mature and be able to reproduce. They are vulnerable to degraded water quality and over exploitation, as well as to dams which block fish passage. Therefore, protecting high-quality private forests, wetlands, and shoreline is critical to maintain fish and wildlife habitat.

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

This project will utilize the Landscape Stewardship Plans minor watershed science-based targeting to expand important habitat corridors and complexes on private lands. The RAQ tool scores each private forested parcel on a 0-3 scale for each of common characteristics; "Riparian"--the parcels proximity to water, "Adjacency"--the parcels location in relation to contiguous tracts of existing state, county, or federal land in preference to parcels scattered across the landscape, knowing that a forest community is healthier and more diverse with less fragmentation, and "Quality"-- is the locally determined value of the land (1-3 Points), which can include a number of criteria, such as biodiversity from the MN County Biological Survey, trout/cisco, wild rice, old growth forests, rare species, and groundwater recharge and sensitive areas.

The RAQ tool has been developed for the entire Kettle River Watershed and includes a series of RAQ maps for each major HUC-10 subwatershed. The RAQ tool will be a helpful tool to target areas where public investments will have the most benefit. To date, the RAQ tool has not been developed for the Snake River Watershed, but will be if funded. 9,720 RAQ scores for all private parcels greater than 20 acres, RAQ score maps, databases, landowner outreach tables and percent of protected land for each subwatershed. This data targets RIM easements to the parcel level and this allows us to hand select the best parcels for habitat value and prevent future fragmentation in the entire watershed. The following additional factors are considered to ensure site selection reflects current science-based measures for riparian habitat protection: feet of shoreline protected, development potential of site, depth from shore, watershed considerations, and easement size relative to the parcel. This 2-step methodology is proven through Environmental Natural Resource Trust Fund and Clean Water Fund RIM easement programs. The Aitkin and Carlton SWCDs have utilized this methodology and have protected over 21 miles of shoreline and 2,742 acres of habitat. The BWSR RIM is one of the most efficient and effective easement programs in Minnesota.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H2 Protect critical shoreland of streams and lakes
- H7 Keep water on the landscape

Which two other plans are addressed in this program?

- Minnesota Forest Resource Council Landscape Plans
- Outdoor Heritage Fund: A 25 Year Framework

Which LSOHC section priorities are addressed in this program?

Northern Forest

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Outcomes

Programs in the northern forest region:

- Forestlands are protected from development and fragmentation ~ *Forestlands are protected from development and fragmentation This project will measure the number acres of forestland and wetland habitat enrolled into RIM easements. We also will measure the number of miles of shoreline protected and the individual minor watershed percent protection goal.*

Does this program include leveraged funding?

No

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 funding request is not supplanting existing funding or a substitution for any previous funding.

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

Once a RIM easement is acquired, BWSR is responsible for monitoring and enforcement into perpetuity. The BWSR partners with local SWCDs to carry-out oversight, monitoring and inspection of its conservation easements.

Easements are inspected for the first five consecutive years beginning in the year after the easement is recorded. Thereafter, on-site inspections are performed every three years and compliance checks are performed in the other two years. SWCDs report to BWSR on each site inspection conducted and partners’ staff document findings. A non-compliance procedure is implemented when potential violations or problems are identified. Perpetual monitoring and enforcement costs have been calculated at \$6,545 per easement. This value is based on using local SWCD staff for monitoring and landowner relations and existing enforcement authorities. The amount listed for Easement Stewardship cover costs of the SWCD regular monitoring, BWSR oversight, and any enforcement necessary.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2024 and beyond	RIM Stewardship Fees	Monitoring	Enforcement as necessary	-

Activity Details

Requirements

If funded, this program 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

Who will manage the easement?

The MN Board of Water and Soil Resources (BWSR) will manage the easement with the appropriate SWCD conducting annual monitoring of the easements for BWSR.

Who will be the easement holder?

The MN Board of Water & Soil Resources (BWSR).

What is the anticipated number of easements (range is fine) you plan to accomplish with this appropriation?

11

Land Use

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

No

Will the eased land be open for public use?

No

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

Yes

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

This appropriation is funding a program that will have a parcel list identified at a later time. Roads or trails are typically excluded from the easement area if they serve no beneficial purpose to easement maintenance, monitoring, or enforcement. Existing trails and roads are identified during the easement acquisition process. Some roads and trails, such as agricultural field accesses, are allowed to remain.

Will the trails or roads remain and uses continue to be allowed after OHF acquisition?

Yes

How will maintenance and monitoring be accomplished?

The easements secured under this project will be managed as part of the BWSR RIM Reserve Program that has over 7,000 easements currently in place. Easements are monitored annually for each of the first 5 years and then every 3rd year after that. BWSR, in cooperation with SWCD, implement a stewardship process to track, monitor quality and assure compliance with easement terms. Under the terms of the RIM Easement Program, landowners are required to maintain compliance with the easement. A conservation plan is developed with the landowner and maintained as part of each easement. Basic easement compliance costs are borne by the landowner, periodic enhancements may be cost shared from a variety of sources.

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

Yes

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

Though uncommon, there could be a potential for new minimal use trails, if they contribute to easement maintenance or benefit the easement site (e.g. firebreaks, berm maintenance, etc). Unauthorized trails identified during the monitoring process are in violation of the easement

How will maintenance and monitoring be accomplished?

The easements secured under this project will be managed as part of the BWSR RIM Reserve Program that has over 7,000 easements currently in place. Easements are monitored annually for each of the first 5 years and then every 3rd year after that. BWSR, in cooperation with SWCD, implement a stewardship process to track, monitor quality and assure compliance with easement terms. Under the terms of the RIM Easement Program, landowners are required to maintain compliance with the easement. A conservation plan is developed with the landowner and maintained as part of each easement. Basic easement compliance costs are borne by the landowner, periodic enhancements may be cost shared from a variety of sources.

Will the acquired parcels be restored or enhanced within this appropriation?

No

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

Yes

Timeline

Activity Name	Estimated Completion Date
Minor Watershed Assessment and RAQ work for the Snake watershed	August 01, 2021
RIM easements secured on 660 acres	June 30, 2024
Final Report Submitted	November 1, 2024

Date of Final Report Submission: 11/01/2024

Availability of Appropriation: Subd. 7. Availability of Appropriation

Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. For acquiring real

property, the amounts in this section are available until June 30, 2025. Money for restoration or enhancement is available until June 30, 2026. Money for restoration and enhancement of land acquired with an appropriation in this article is available for four years after the acquisition date with a maximum end date of June 30, 2029. If a project receives at least 15 percent of its funding from federal funds, the time of the appropriation may be extended to equal the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan. Money appropriated for acquiring land in fee title may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.

Budget

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

Grand Totals Across All Partnerships

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$135,800	-	-	\$135,800
Contracts	\$28,100	-	-	\$28,100
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$1,178,000	-	-	\$1,178,000
Easement Stewardship	\$72,000	-	-	\$72,000
Travel	\$2,500	-	-	\$2,500
Professional Services	-	-	-	-
Direct Support Services	\$14,000	-	-	\$14,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$3,500	-	-	\$3,500
Supplies/Materials	\$1,100	-	-	\$1,100
DNR IDP	-	-	-	-
Grand Total	\$1,435,000	-	-	\$1,435,000

Partner: BWSR

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$109,500	-	-	\$109,500
Contracts	\$23,100	-	-	\$23,100
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$1,178,000	-	-	\$1,178,000
Easement Stewardship	\$72,000	-	-	\$72,000
Travel	\$2,500	-	-	\$2,500
Professional Services	-	-	-	-
Direct Support Services	\$14,000	-	-	\$14,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$3,500	-	-	\$3,500
Supplies/Materials	\$1,100	-	-	\$1,100
DNR IDP	-	-	-	-
Grand Total	\$1,403,700	-	-	\$1,403,700

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Program Management	0.1	3.0	\$36,000	-	-	\$36,000
Easement Processing	0.3	3.0	\$73,500	-	-	\$73,500

Partner: Pine SWCD**Totals**

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$26,300	-	-	\$26,300
Contracts	\$5,000	-	-	\$5,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	-	-	-	-
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	\$31,300	-	-	\$31,300

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Program Administration	0.1	3.0	\$26,300	-	-	\$26,300

Amount of Request: \$1,435,000

Amount of Leverage: -

Leverage as a percent of the Request: 0.0%

DSS + Personnel: \$149,800

As a % of the total request: 10.44%

Easement Stewardship: \$72,000

As a % of the Easement Acquisition: 6.11%

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

The SWCD Budget remains the same. A reduction in funding has reduced outputs. Program management costs are the exception, due to program management & oversight remaining consistent regardless of appropriation amount.

Personnel

Has funding for these positions been requested in the past?

No

Contracts

What is included in the contracts line?

The contract line includes costs covered under the SWCD MJPA, \$2000 for staff time per easement acquisition. It also covers the cost for Mitch Brinks to develop RAQ scoring in the Snake River Watershed.

Easement Stewardship

What is the number of easements anticipated, cost per easement for stewardship, and explain how that amount is calculated?

11 easements with perpetual monitoring and enforcement costs that have been calculated at \$6,545 per easement. This value is based on using local SWCD staff for monitoring and landowner relations and existing enforcement authorities. The amount listed for Easement Stewardship cover costs of the SWCD regular monitoring, BWSR oversight, and any enforcement necessary.

Travel

Does the amount in the travel line include equipment/vehicle rental?

No

Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging

The travel line will only be used for traditional travel costs for mileage and food.

I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

Yes

Direct Support Services

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?

BWSR calculates direct support services costs that are directly related to and necessary for each request based on the type of work being done.

Other Equipment/Tools

Give examples of the types of Equipment and Tools that will be purchased?

Signs and posts.

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	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	110	-	550	-	660
Enhance	-	-	-	-	-
Total	110	-	550	-	660

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	\$239,000	-	\$1,196,000	-	\$1,435,000
Enhance	-	-	-	-	-
Total	\$239,000	-	\$1,196,000	-	\$1,435,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	660	660
Enhance	-	-	-	-	-	-
Total	-	-	-	-	660	660

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	\$1,435,000	\$1,435,000
Enhance	-	-	-	-	-	-
Total	-	-	-	-	\$1,435,000	\$1,435,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	\$2,172	-	\$2,174	-
Enhance	-	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	\$2,174
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

4

Parcels

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.

Parcel Information

Sign-up Criteria?

[Yes - Sign up criteria is attached](#)

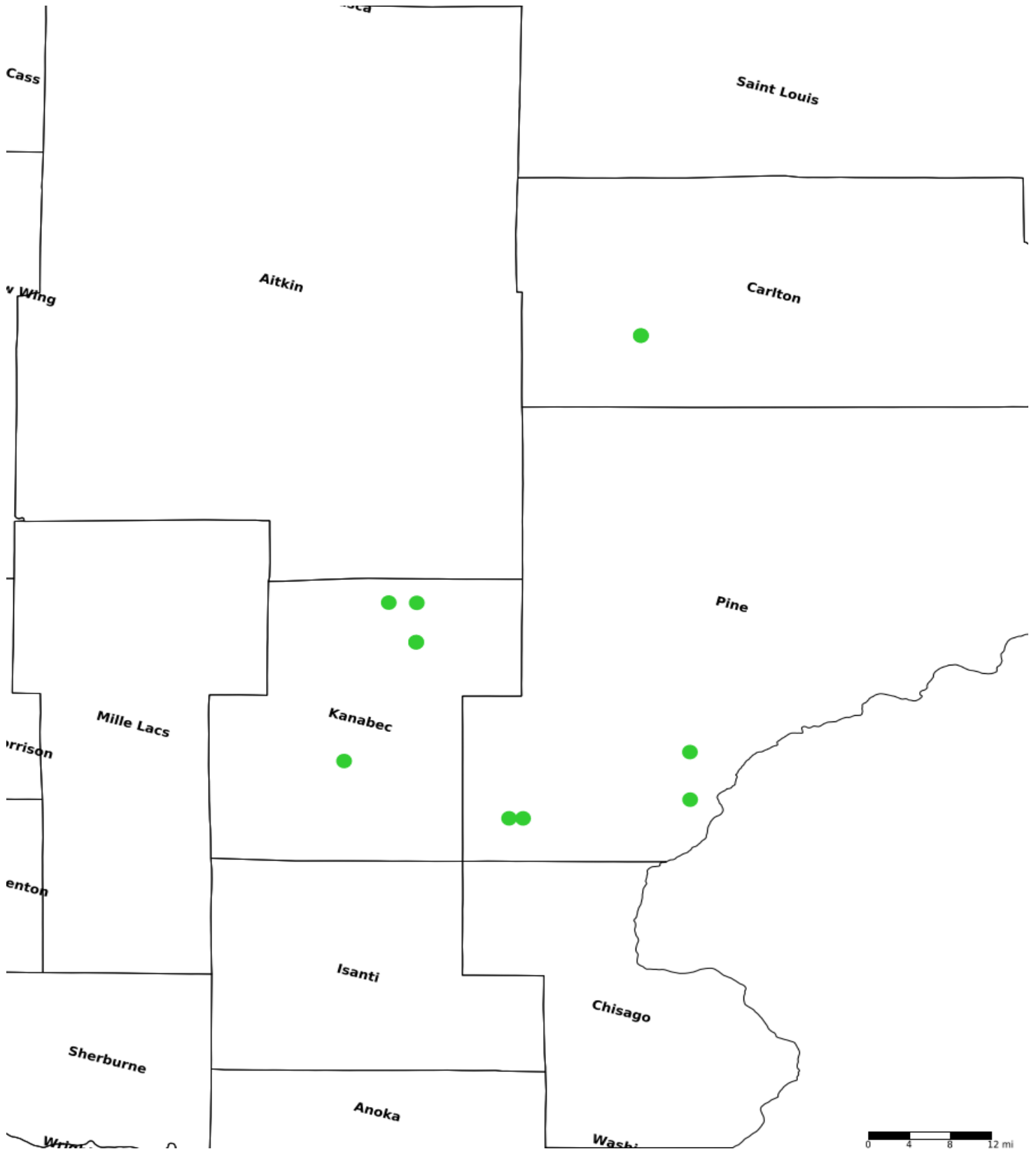
Explain the process used to identify, prioritize, and select the parcels on your list:

The SWCDs will mail letters to eligible landowners utilizing RAQ scoring. Once the SWCD has an interested landowner the easement will be ranked using the integrative ranking process. The Kettle and Snake RIM Easement ranking sheet is attached as an example of the scoring sheet that will be used to rank RIM Easements. The SWCD then brings the parcel to the project technical committee for comments and recommendations. This committee reviews easement proposals and sorts through them for the parcels that provide the greatest public benefit possible. We always look for areas with high quality habitat, where a limited public investment can leverage a larger area of public benefit. The result is an increase in resiliency to the habitat base. The parcels that rank the highest tend to be adjacent to public lands, in a river corridor, or both.

Easement Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
09-02-22-22- -	Carlton	04720228	21	\$38,600	No
09-01-22-22- -	Carlton	04720228	26	\$40,300	No
33-04-23-22- -	Kanabec	03924210	15	\$78,500	No
33-03-23-22- -	Kanabec	04123202	38	\$79,600	No
33-05-23-22- -	Kanabec	04123202	67	\$139,300	No
33-02-23-22- -	Kanabec	04223216	112	\$198,300	No
33-01-23-22- -	Kanabec	04223214	32	\$81,800	No
58-03-22-22- -	Pine	03822210	33	\$75,000	No
58-01-22-22- -	Pine	03822211	13	\$36,500	No
58-04-22-22- -	Pine	03920235	106	\$71,700	No
58-02-22-22- -	Pine	03920202	76	\$80,700	No

Parcel Map



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