

CAMP RIPLEY SENTINEL LANDSCAPE



Camp Ripley Sentinel Landscape Strategic Plan 2024-2034



Where Missions Meet

Acknowledgements

This plan update was led by the Leadership Team from October 2023 - June 2024. Camp Ripley Sentinel Landscape (CRSL) partners (Appendix A) met at the beginning and end of the plan update to provide data, comments, and guidance. Individual goals, objectives, and policies in this plan will be reviewed biennially. Major revisions will be formally reviewed every five years.

Leadership Team

Todd Holman, The Nature Conservancy (TNC), CRSL Coordinator

Kayli Overland, TNC

Shannon Wettstein, Morrison Soil and Water Conservation District (SWCD)

Destiny McDonald, Morrison SWCD

Lance Chisholm, Morrison SWCD

Lew Noska, Morrison SWCD

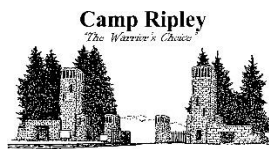
Josh Pennington, MN Department of Military Affairs (DMA)

Jay Brezinka, MN DMA

Katie Retka, MN DMA

Jake Kitzmann, MN DMA

Court Smith, Legacy Works Group



Plan update completed by:

Moriya Rufer



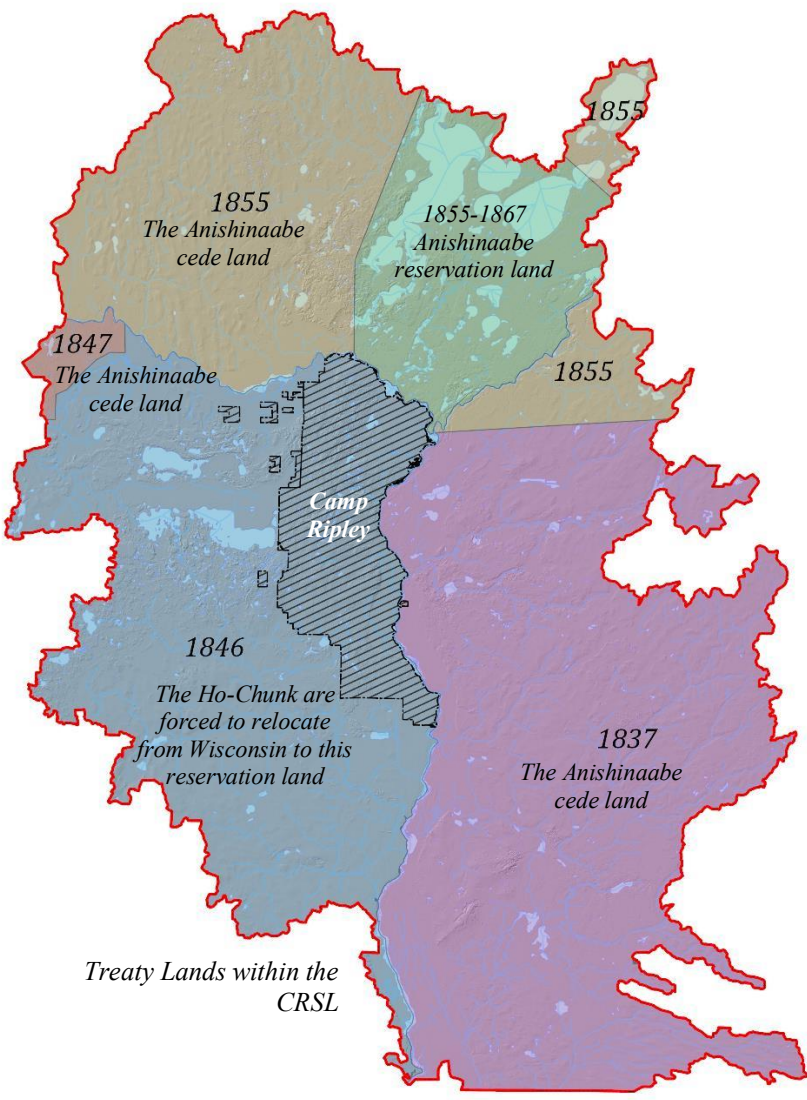
7550 Meridian Circle North, Suite 120

Maple Grove, MN 55369



Acknowledgement of Ancestral Lands

The CRSL includes traditional, ancestral, and contemporary lands of the Očhéthi Šakówiŋ (Dakota Sioux) and Anishinaabe (Ojibwe/Chippewa). We acknowledge these peoples are the original caretakers of the land comprising the CRSL. With this acknowledgement we hope to highlight the legacy of Euro-American’s ongoing effects on modern indigenous communities and end the erasure of Native American peoples from the public discourse. Land relationships between these groups had long been contentious. Euro-Americans eventually began offering Land Treaties and reservation lands; heavily favoring themselves. In the project area, this began in 1837 and continued through 1867 (see map). We also acknowledge the Dakota peoples never ceded their lands within the project area, and it was instead signed away for them. This land acknowledgement is intended to help educate the community about this history.



Source: Nienow Cultural Consultants. 2022. Many Layers to the Land: A Cultural and Environmental Geodatabase Build for the Camp Ripley Sentinel Landscape. Funded by the Clean Water Land and Legacy Amendment.



Table of Contents

Executive Summary	4
Section 1. Introduction	5
Background	5
Program History.....	6
Developing the Sentinel Landscape Boundary	10
Purpose	13
Coordination with other Conservation Efforts	13
Resilience	14
Cultural Resources	14
Recreation & Education	14
Source Water Protection	15
Conservation Focus Areas.....	15
U.S. Fish and Wildlife Service Programs.....	15
Section 2. CRSL Program Development	16
Sentinel Landscape Strategies.....	17
Coordination.....	18
Partnership Structure and Roles	19
Section 3. Strategies & Objectives (Implementation Plan)	22
Strategy 1. Land Protection in the ACUB Agreement Area	23
Strategy 2. Land Management & Protection in the CRSL.....	26
Strategy 3. Outreach & Coordination	30
Alignment with the Camp Ripley Training Center.....	32
Section 4. Operationalizing the Plan.....	33
Appendices	
Appendix A. Partners and Collaborators.....	34
Appendix B. CRSL Partner Integration Table	35
Appendix C. Glossary of Terms and Acronyms	38
Appendix D. References.....	40
Appendix E. Partner Contacts.....	41
Appendix F. At Risk Species.....	42
Appendix G. One Watershed, One Plan Integration	45
Appendix H. Goal and Benefit Calculations	47
Appendix I. Additional Maps	50
Appendix J. Sentinel Landscape Planning Framework Alignment.....	53



Executive Summary

Sentinel Landscapes are working or natural lands important to the Nation’s defense mission - places where preserving the rural character of key landscapes strengthens the economies of farms, ranches, and forests; conserves habitat and natural resources; and protects vital testing and training missions conducted on those military installations that anchor such landscapes. The Sentinel Landscape partnership is a federal, local, and private collaboration dedicated to promoting natural resource sustainability and the preservation of agricultural and conservation land uses in areas surrounding military installations nationwide.

The Sentinel Landscape partnership seeks to recognize and incentivize landowners to continue to maintain these landscapes in ways that contribute to the Nation’s defense and climate resiliency. Where shared interests can be identified within a landscape, the partnership coordinates mutually beneficial programs and strategies to preserve, enhance or protect habitats for at risk species, working lands, and promote climate resilience near military installations to reduce, prevent or eliminate restrictions due to incompatible development or climate related impacts that may inhibit military testing and training.

The CRSL Mission is to protect the current and future military training mission of Camp Ripley while protecting and enhancing natural and cultural resources and preserving the rural character and economies of the landscape.

The CRSL focuses on the needs of communities and common interests in a defined geographical landscape. Successful landscape stewardship builds agency and organizational and community capacity, increases landowner trust through streamlined management and communications by partners, motivates landowners using messages and activities suited to their needs and supports the application of science and knowledge through well informed policies and practices.

This Strategic Plan is the implementing document for the CRSL Program during the period 2024 - 2034. The three main strategies for implementation include:



The planning process used in developing the CRSL Strategic Plan focused on using Minnesota Statue 190.33, partners and other landscape key stakeholders including: the Department of Defense’s Readiness and Environmental Protection Integration (REPI) Program, National Guard Bureau (NGB), U.S. Department of Agriculture (USDA), U.S. Department of the Interior (USDO I), Minnesota Army National Guard (MNARNG), Minnesota Department of Agriculture (MDA), Minnesota DMA, Minnesota Department of Natural Resources (DNR), Minnesota Board of Water and Soil Resources (BWSR), Mississippi Headwaters Board (MHB), CRSL Coordinator, TNC, Great River Greening (GRG), The Conservation Fund (TCF), SWCDs, and Counties. Together, these stakeholders represent the CRSL Partnership (Appendix A).



Section 1. Introduction

This Strategic Plan provides articulated goals and objectives that promote and sustain compatible land uses for military operations while providing tangible benefits to conservation, climate resilience, and working lands within the defined landscape. The CRSL is an outgrowth of Camp Ripley’s Army Compatible Use Buffer (ACUB) Program (nationally known as Army REPI) to limit rural residential land development within the ACUB Agreement Area (Figure 2, page 7) which undulates approximately three miles around the Camp’s boundaries to reduce land uses incompatible with military operations. Since the ACUB Program’s inception in 2004, approximately 35,000 acres of privately-owned land have been permanently protected through perpetual easements by BWSR and 2,000 acres have been protected through fee title acquisitions by the DNR to create a compatible land use buffer around the Camp. ACUB transactions, combined with lands permanently protected acres by nonprofits and government partners, now provide over 43,000 acres within the ACUB Agreement Area surrounding Camp Ripley.

Background

Camp Ripley, located in the heart of central Minnesota, is approximately 100 miles northwest of the Minneapolis/St. Paul metropolitan area (Figure 1). Camp Ripley occupies a total area of 53,000 acres (approximately 82 square miles) within the posted limits of the installation, and approximately 1,700 acres off post.

The primary mission of MNARNG is to provide a readily accessible training area to the U.S. Department of Defense and other civilian agencies to enhance the MNARNG’s readiness for its federal, state and community missions. Those missions are

respectively: respond with active service as directed by the President of the United States in times of national emergency; assist local law enforcement agencies during state emergencies at the direction of the governor; and add value to local communities.

Camp Ripley Training Center (CRTC) is a state-owned National Guard installation administered by the DMA. An Integrated Natural Resource Management Plan (INRMP) is prepared and implemented in coordination with the DNR and U.S. Fish and Wildlife Service (USFWS) to guide natural resource management activities while enhancing military readiness through improved stewardship of the installation. The INRMP is a comprehensive five-year



Figure 1: Location of Camp Ripley Training Center Minnesota.



plan for the MNARNG's military installations to ensure preparedness of the Armed Forces; conserve or rehabilitate installation natural resources; maintain or improve military installation resilience using natural or nature-based features; provide for sustainable multipurpose use of natural resources, including hunting and fishing; and facilitate public access, subject to ensuring safety and military security. Both the INRMP and CRSL SP are intended to promote shared information and connectivity that will enhance climate resilience, and target threatened, endangered, and at-risk species habitats. INRMP goals and objectives are reviewed and updated annually to ensure ecosystem-based management is achieved through the application of adaptive management practices.

Program History

In 2004, the Department of the Army approved moving forward with the ACUB Program between the NGB and the DNR. In 2006, this formal cooperative agreement expanded to include BWSR integrating the Reinvest in MN (RIM) easement program, locally delivered by the Morrison SWCD.

The ACUB initiative is intended to maximize the compatibility of land use adjacent to Camp Ripley and thereby sustain not only the military mission but also the natural environment that Camp Ripley has been nationally recognized for. One of the largest threats to both the mission of Camp Ripley and the surrounding natural landscape is caused by external encroachment from incompatible development and internal encroachment resulting from significant land conversion from current natural state to other non-habitat compatible state. If significant lands are converted to a non-habitat state, Camp Ripley may become the only refuge for threatened and endangered species, at risk species, and species of special concern resulting in mission training impacts. Central Minnesota's population has grown by 6.5% between 2010 and 2022 (ruralmn.org). The population in Crow Wing County is projected to increase by about 29% to over 80,000 by 2035 (City of Baxter Comprehensive Plan 2015).

A ten-mile buffer was originally selected as the study area for the ACUB Agreement Area based on documented noise complaints. Noise is a significant encroachment issue; the projected noise contours are attributable to blast and airfield noise. The ACUB Agreement Area was narrowed to lands that lie within unacceptable noise contour zones (zone 1 and 2) that extend beyond the boundary of Camp Ripley. The noise contours were developed through a noise model prepared by the U.S. Army Public Health Command as part of Camp Ripley's Environmental Noise Management Plan. The approved ACUB Agreement Area allows for fee title and easement acquisitions and encompasses 131,459 acres in two priority areas. Priority Area 1 is comprised of 54,246 acres, and Priority Area 2 is comprised of 77,213 acres. The desired end state for the ACUB Program is to achieve 75% compatible land use within Priority Area 1 (40,685 acres), and 50% compatible land use within Priority Area 2 (38,607 acres) (60% overall). Compatible land use within the ACUB Agreement Area includes completed conservation easements and fee title acquisitions that are subject to the rights of

the Army under the provisions of 10 USC 2684a; federal and state-owned lands, or county lands (Figure 2).

In 2011, ACUB Program partners BWSR and Morrison SWCD were awarded funding from the Minnesota Outdoor Heritage Fund by the Lessard-Sams Outdoor Heritage Council (LSOHC). This state funding is available in a five-mile buffer around Camp Ripley for permanent conservation easements (BWSR RIM) to preserve open space and provide protection of habitat corridors and buffers around public lands, and enhancement and restoration practices that protect soil and water quality and habitat corridor connectivity (Figure 6, page 12). This five-mile buffer encompasses 252,637 acres of land. In addition, the Crow Wing SWCD received funding through a Legislative-Citizen Commission on Minnesota Resources (LCCMR) grant from the Environment and Natural Resources Trust Fund (ENRTF) for forest stewardship plans, Sustainable Forest Incentive Act enrollment, and ecological restoration in the CRSL.

In 2013, The U.S. Departments of Defense, Agriculture and Interior announced an initiative titled "The Sentinel Landscape Partnership." This created a federal, local, and private collaboration dedicated to promoting natural resource sustainability in areas surrounding military installations nationwide. In Minnesota, working lands for agriculture and forestry and other natural lands provide many important public benefits; source and surface water protection, recreational opportunities for hunting and fishing, habitats for species of greatest conservation need, threatened and endangered species, shoreline protection of the Mississippi River, open space, commodity production, and maintaining the rural character of Minnesota. The ACUB

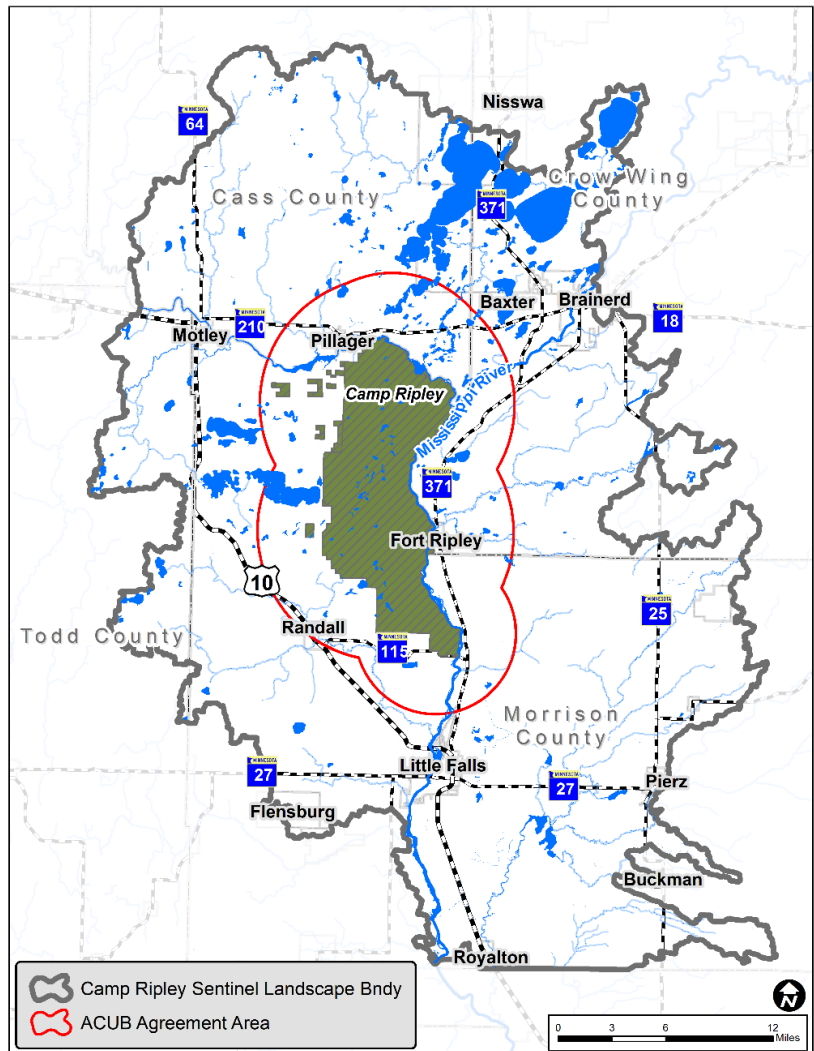


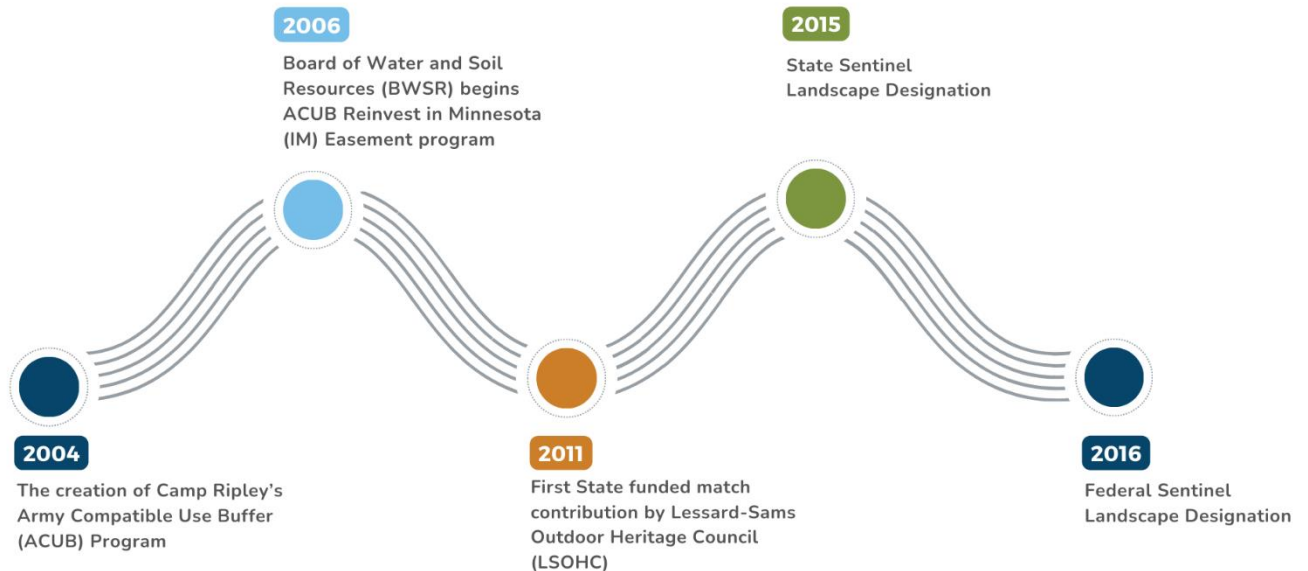
Figure 2: Camp Ripley ACUB Agreement Area and Sentinel Landscape boundary.

Program partners wished to expand services to private landowners within the ACUB Agreement Area and out to a 10-mile radius around Camp Ripley (Figure 2, page 7). Working in cooperation with the Minnesota Forest Resources Council (MFRC), a U.S. Forest Service (USFS) grant was awarded to develop a Landscape Stewardship Plan (LSP) to guide development of strategies to foster private forest management (PFM), working forests and technical support to landowners. An outcome of the LSP process was a watershed-based map intended to bring forest management goals and objectives into other statewide watershed plans currently underway (Minnesota Pollution Control Agency [MPCA] Watershed Restoration and Protection Plans; BWSR One Watershed, One Plan [1W1P]; and local county water plans.)

In May 2015, Camp Ripley, through state law (Minnesota Statue 190.33), was designated as the first state Sentinel Landscape in the nation. The designation established a state coordinating committee in March 2016. The group is comprised of state commissioners from BWSR, DMA, DNR, and MDA. This legislation allows the MNARNG to compete for federal funding more effectively from agencies beyond just the Department of Defense and to better align federal, state, and local programs that could support private landowners in a Sentinel Landscape. Federal agencies such as the Natural Resources Conservation Service (NRCS), USFS, and USFWS, who envision enhancing their program priorities and interests that are complementary to the CRSL, joined at the table. Reference Appendix 1, Partners.

In 2016, Camp Ripley was designated as a federal Sentinel Landscape representing the formal partnership agreement between the U.S. Departments of Defense, Agriculture, and Interior. A timeline summarizing major milestones is illustrated below.

Our Story



Federal Steps to Addressing Climate Resilience

The U.S. Congress has addressed climate resilience chronologically (John Cagner 2021 presentation). These steps are illustrated below.

2017

RESPONSE

- In 2017, the U.S. Congress declared climate change as a direct threat to national security.
- This led to reports on the ten most-vulnerable bases per service.

1

2018

DEFINITIONS

- Facility criteria were required to include climate change.
- New floodplain standards were developed.
- "Resilience" was formally defined, which includes climate change impacts.

2

2018

EXPANDED AUTHORITIES

Congress:

- Expanded authority for REPI to use funds for resilience.
- Expanded authority to use economic adjustment funds for resilience.
- Expanded authority to use Defense Access Roads funding for resilience.

3

2019-2020

REQUIREMENTS

New requirements were developed to mitigate flood damage:

- Requirement for Military Installation Resilience Plans to be incorporated into Installation Master Plans
- Requirement for Army/AF counterparts for NAVFAC Adaptation Handbook
- New resilience requirements in UFCs/Building codes
- Requirement for new Climate Change Adaption Roadmap

4



Developing the Sentinel Landscape Boundary

The CRSL boundary establishment began by evaluating Camp Ripley’s priorities for protecting against encroachment. Camp Ripley identified noise contours, aviation routes, the fly neighborly program and regulated airspace as priority features (Figure 3). To leverage and expand on the conservation being implemented as part of the ACUB Program and on other public lands around Camp Ripley, the area for this project was expanded to incorporate consolidated priorities from the DNR, MDA, MHB, NRCS, and USFWS (Figure 4).

Watersheds were used to further define the project area boundary. Subwatersheds (Hydrologic Unit Code (HUC) 12), a local subwatershed level that encompasses tributary systems, were selected that were within ten miles of Camp Ripley and that had hydrologic connections within the 10-mile boundary. These 40 subwatersheds represent 804,557 acres (Figure 5). **There are 748 miles of streams, 243 miles of rivers, 50 miles of the Mississippi River, and 3,997 lakes and ponds.**

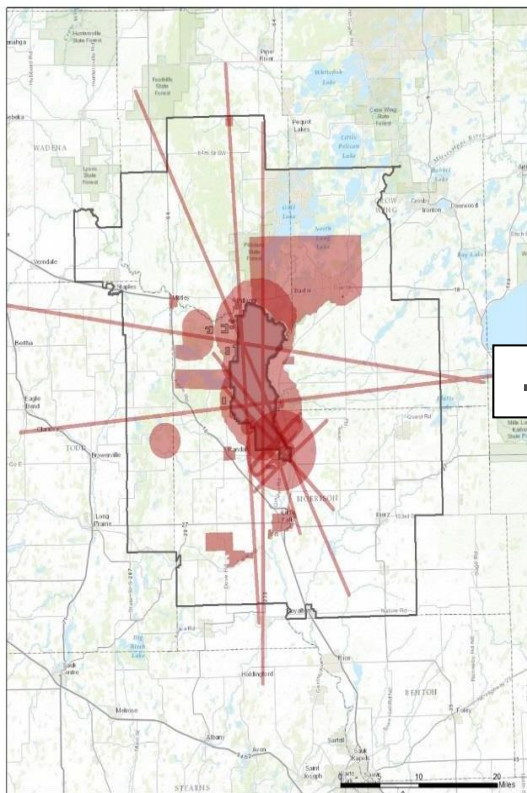


Figure 3: MNARNG agency priorities.

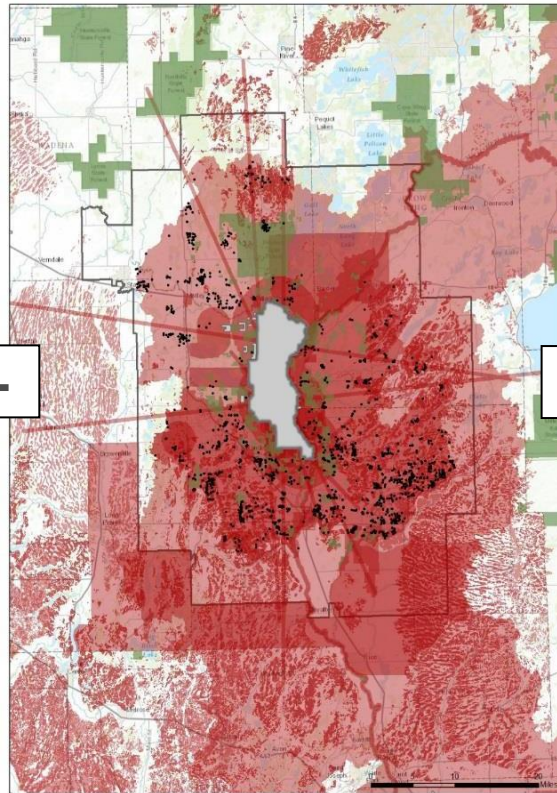


Figure 4: Consolidated partner priorities.

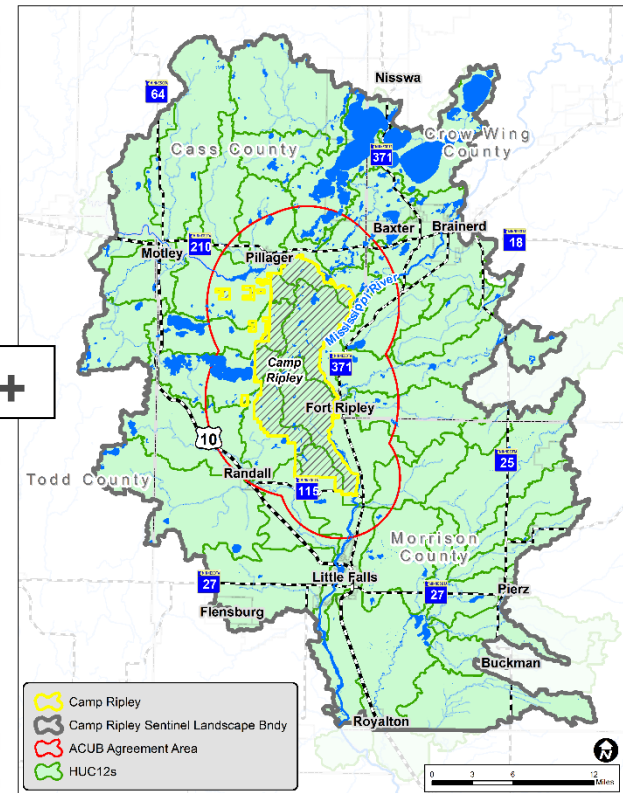


Figure 5: Subwatersheds (HUC12).

To achieve consensus developing the CRSL Program goals, all partner organizations shared their specific goals within the CRSL boundary that are compatible with Camp Ripley's military training mission. DNR's multi-divisional priorities, BWSR watersheds and local county water plan priorities, MDA nutrient reduction and soil health goals, USFWS habitat restoration and protection priorities, National Park Service (NPS) cultural and recreational goals and NRCS resource protection goals led to a multi-agency commitment to prioritize resources that advance shared goals within the CRSL. Priorities and metrics were developed for protection (fee title/easement acquisition) and land production (nutrient reduction via practices, program enrollment, restoration, and enhancement).

The priorities of the agencies and organizations described above validate the diversity of the landscape, which sits at a convergence of several high-quality water features, including two major continental ecological transitions zones and thousands of acres of public and private conservation lands that could be connected by conservation corridors. This landscape is also one of Minnesota's most important source water protection areas for drinking water. This provides an excellent opportunity to protect, maintain, and restore natural and cultural resources within the CRSL boundary, providing multiple benefits for military, ecological, social, and economic interests achieved through coordinated conservation efforts. Watersheds are not confined to political boundaries, thus collaborative efforts across this landscape are critical to protect, maintain, and restore these lands resulting in cleaner water, less erosion, better fish and wildlife habitat and more recreational opportunities.



Mississippi River



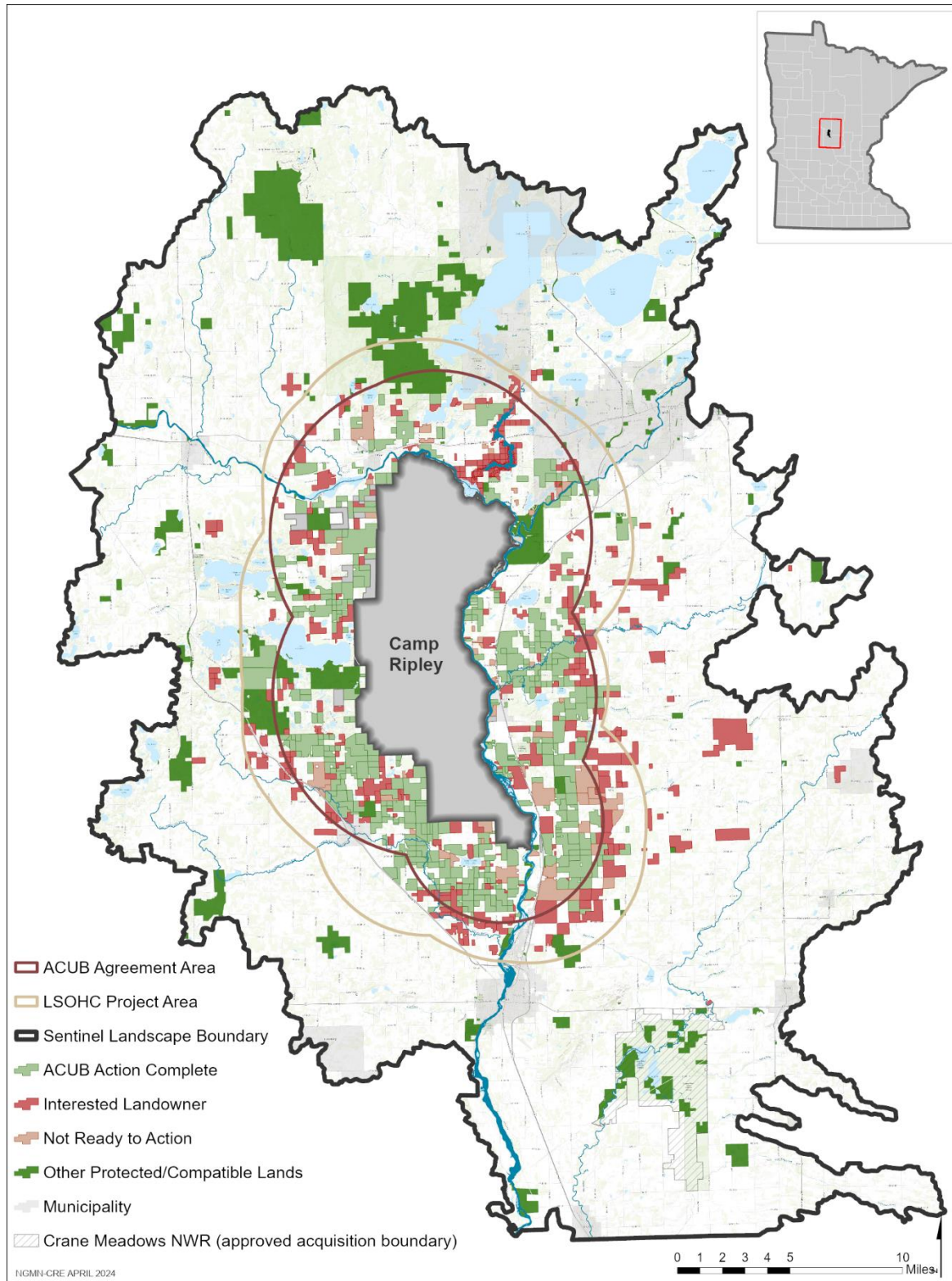


Figure 6: CRSL boundary with highlighted ACUB, LSOHC, and CRSL priorities, and individual parcel status as of 2024. The individual parcel status is tracked as landowners enroll in land protection programs or are contacted for future enrollment.

Purpose

The purpose of the CRSL Program is to identify and develop programs that provide land protection, restoration, cultural resource, and climate resilience strategies that benefit the military mission of Camp Ripley, working lands and local communities within the landscape.

Improved coordination and collaboration across different resource priorities within a Sentinel Landscape provides an opportunity for participating agencies and organizations to better target their collective resources and possibly develop new technical and financial assistance options that are specifically tailored to local needs.

Coordination with Other Conservation Efforts

The following data and plan inputs used to develop the CRSL Program include resource assessment, partner program priorities assessment, internal and external opportunities, and program sustainability:

- Anoka Sand Plain Partnership 10 Year Strategic Plan
- Arden Hills Army Training Site
- BWSR: Comprehensive Watershed Management Plans (Appendix G)
- BWSR: Landscape Stewardship Plans
- CRSL Strategic Plan
- CRSL Climate Resilience Analysis and Strategic Plan Amendments (NRRI 2023)
- CRTC INRMP
- Camp Ripley training noise analysis map and flight routes
- Crane Meadows National Wildlife Refuge: Comprehensive Conservation Plan
- DNR Forest Inventory Resource Assessment Plot Based Inventory
- DNR State Wildlife Action Plan: Brainerd Lakes Conservation Focus Area
- DNR Parks and Trails Legacy Plan
- Existing land cover data, forestry and agricultural production data
- Local land use plans and local county water plans
- Many Layers to the Land: A Cultural and Environmental Geodatabase Build for the CRSL (2022)
- Minnesota Biological Survey and Natural Heritage Information System database
- Minnesota Nitrogen Fertilizer Management Plan 2015
- MPCA: Minnesota Nutrient Reduction Strategy 2022
- MPCA: Watershed Restoration and Protection Plans
- Minnesota Statewide Conservation and Preservation Plan (2008)
- MHB Comprehensive Plan
- Recreation Map (Camp Ripley Veterans State Trail (CRVST), Paul Bunyan State Trail (PBST), Soo Line trail, Mississippi River Trail (MRT), DNR water trail, Crow Wing and Lindbergh State Parks, Wildlife Management Area's (WMA), NPS and Crane Meadows National Wildlife Refuge)
- TNC: Multiple Benefits for People and Nature
- TNC: Resilient and Connected Network 2021
- USFS data
- USFS: Forests, Water and People analysis (2009)
- USFWS R3 Partners for Fish and Wildlife Program Strategic Plan 2022-2026



Resilience

In 2019, TNC released its Resilient and Connected Network report and resilient corridors data set for the lower 48 states in the U.S. This data was used to develop a REPI Challenge proposal to protect resilient lands (Figure 10). Resilient lands are a priority for implementing the three strategies in the CRSL. The Natural Resources Research Institute (NRRI) CRSL Climate Resiliency Analysis and Strategic Plan Amendments technical report includes detailed maps for enhancing climate resilience and at-risk species habitat.

Cultural Resources

In 2020, Sylvan Township was awarded the CRSL Comprehensive Literature Assessment grant from the Minnesota Historical and Cultural Heritage Grants program. The purpose of this grant was to fund a comprehensive literature review of cultural and environmental resources within the CRSL, with an ultimate product of storing all this information in a Geographic Information Systems (GIS) geodatabase for management use by the CRSL Program. This work was completed in 2022. Tribal offices were contacted for input including Bois Fort, Fond du Lac, Lower Sioux, Grand Portage, Leech Lake, Mille Lacs, Prairie Island, Red Lake, Shakopee, White Earth, and Upper Sioux. Cultural resources identified included archaeological sites, historical structures, historic districts, tribally informed potential traditional cultural property, and unrecorded burial sites.



Culturally important lands are a priority for implementing the three strategies in the CRSL and can be used as prioritization criteria for scoring parcels for protection.

Recreation and Education

The benefit of all the protected and public land in the CRSL provides for excellent recreational opportunities, including two state parks, a state forest, a National Wildlife Refuge, the Mississippi River State Water Trail, and numerous other trails. In addition, the City of Baxter and Sylvan have protected lands for the public. A map of recreational opportunities can be found in Appendix G.

In addition, with strong, bipartisan support, the Minnesota State Legislature provided \$32 million for the design and construction of a new military and veterans museum at Camp Ripley, including an environmental learning center. This represents a considerable expansion of and increased access to the museum, which has been on-post for nearly 50 years. Construction will begin the spring of 2024 with construction expected to be completed by Veterans Day of the following year. The grand opening is planned for 2026.



Source Water Protection

The CRSL contains aquifers that are highly vulnerable to pollution from the land's surface, in addition to vulnerable Drinking Water Supply Management (DWSM) areas (Appendix I, Figure I.3). Land protection and management protect drinking water in the CRSL as well as downstream communities. The MDA tracks nitrates in private wells through the township testing program. Communities along the Mississippi River corridor, including St. Cloud, Minneapolis, and St. Paul are dependent on the quality of the water maintained in the Mississippi Headwaters for their drinking water. In all, the Mississippi Headwaters provides drinking water for 2.5 million Minnesotans - more than 44% of the state's residents (TNC).

In addition, numerous cities downstream from Minnesota also use the Mississippi River as a drinking water source, from Wisconsin to Louisiana. As a result, the significance of protecting and enhancing the Mississippi River corridor impacts the drinking water of more than 20 million people in 50 cities (American Rivers).

Conservation Focus Areas

In 2019 DNR Ecological and Water Resources Division staff approached a regional collaboration of resource professionals called the North Central Conservation Roundtable, convened by TNC. Many NGO's, local, state, federal and tribal partners participate in this group covering the Upper Mississippi Headwaters geography. Camp Ripley environmental staff and CRSL Coordinator also participate in this group. The task was to consider development of a Conservation Focus Area (CFA) for the Brainerd Lakes area that would be amended and included in the State Wildlife Action Plan (SWAP). This was completed to include the CRSL Program area in addition to the Brainerd Lakes and Mississippi River corridor (Appendix I, Figure I.1) The CRSL Program included the SWAP and CFA as information to direct private land program opportunities and overlay USFWS Partners for Fish and Wildlife program goals.

US Fish and Wildlife Programs

The Crane Meadows National Wildlife Refuge sits within the CRSL boundary and has the option of acquiring additional units for the National Wildlife Refuge System (Appendix I, Figure I.2). In the future, this could include CRSL boundary expansion. The USFWS Partners for Fish & Wildlife program has strong connections with over 100 private landowners in the area, with whom they are in the process of implementing numerous water/wetland-focused projects. USFWS program area data and models are used extensively by partners to prioritize and target the conservation and management of lands and waters for migratory birds and breeding waterfowl. The USFWS will work along with plan partners to achieve their shared goals and strategies.



Section 2. CRSL Program Development

The primary purpose of the CRSL Strategic Plan is to communicate the direction and strategies of partner organizations under one philosophy: *“Where Missions Meet”*. Each organization has their own mission statement and enabling programs. These missions will be accomplished by using a holistic approach toward managing a landscape where all parties have an opportunity to provide input in management decisions.

Each agency will have the opportunity to target their priorities, programs, and initiatives in one or more of the three strategy areas:



Within the three strategies, actions include acres protected or enrolled in programs, best management practices (BMPs), restoration acres, and nutrient reduction. These metrics are tracked to achieve a goal of 60% of the land protected in the ACUB Agreement Area and 45% conservation care (protection or management) in the CRSL boundary. The next page shows the continuum of practices in the Sentinel Landscape Strategy. Outreach and Coordination strategies are lower cost and less permanent while Land Protection strategies have higher costs but are also more permanent. This variety of programs gives the landowner a choice of what will work best on their property.

The goals, objectives and projects defined in the CRSL Strategic Plan will be accomplished by following the guidelines in the plan; all management actions will be monitored by a team approach through the CRSL coordinator and Camp Ripley environmental supervisor; program management will be adapted according to metric results annually. For example, event attendees, signed landowner interest forms, and Forest Stewardship Plans can be used track outreach efforts and the effectiveness of that outreach. The Scenario Application Manager/Hydrological Simulation Program Fortran (SAM/HSPF) was used to help determine different combinations of agricultural BMPs, land protection and restoration strategies needed to achieve nitrogen, phosphorus, and sediment reductions as secondary benefits.



Mississippi River, Photo credit: Grizzly Creek Farms



Sentinel Landscape Strategies

CRSL Strategy					ACUB Strategy		
Outreach & Coordination		Land Management			Land Protection		
<p>#1</p> <p>General Advice & Assistance</p> <ul style="list-style-type: none"> • Events • Factsheets • Posters • Mailers • Workshops • Website • Social Media <p><u>Funding:</u></p> <ul style="list-style-type: none"> • Readiness & Environmental Protection Integration • One Watershed One Plan 	<p>#2</p> <p>Specific Advice & Assistance</p> <ul style="list-style-type: none"> • Site visits • Project Plans • Technical Assistance <p><u>Funding:</u></p> <ul style="list-style-type: none"> • Environmental Protection Integration • One Watershed One Plan 	<p>#3</p> <p>Grants/ Cost-Share Projects</p> <ul style="list-style-type: none"> • Clean Water Fund • Environmental Quality Incentives Program • Conservation Stewardship Program • Regional Conservation Partnership Program 	<p>#4</p> <p>Land Use Controls</p> <ul style="list-style-type: none"> • Storm water • Buffers • Best Management Practices • County zoning • Mississippi Headwaters Board 	<p>#5</p> <p>Incentive Programs to Enroll Land</p> <ul style="list-style-type: none"> • Sustainable Forest Incentive Act • Conservation Reserve Program • Coops • Forest Banks • Carbon Programs • Environment and Natural Resources Trust Fund 	<p>#6</p> <p>Donated Land & Easements</p> <ul style="list-style-type: none"> • Non-governmental Organizations • Public • Agencies 	<p>#7</p> <p>Purchased Easements</p> <ul style="list-style-type: none"> • Lessard Sams Outdoor Heritage Fund • Army Compatible Use Buffer • Reinvest in Minnesota • Forests for the Future • Non-governmental Organizations • Agricultural Conservation Easement Program 	<p>#8</p> <p>Fee Title Acquisition</p> <ul style="list-style-type: none"> • Lessard Sams Outdoor Heritage Fund • Army Compatible Use Buffer • Public • Agencies



Lower Costs
Less Permanent



Higher Costs
More Permanent



Section 3 of this plan outlines the implementation strategy and represents a distinct step in the planning process, marking the end of planning and the beginning of action. For implementation to be successful it is imperative that the CRSL Committee address the following activities with goals and objectives:

- Staffing
- Education and outreach
- Improve/manage
- Acquire
- Funding
- Provisions for updating/revising the CRSL Strategic Plan

Coordination

Successful implementation requires timely and purposeful coordination. Coordination, before implementation, is one of the most overlooked and underestimated cost-saving management efforts in resource management. This section provides guidance on a range of coordinative and administrative topics that need close consideration by partners working in the CRSL.

One of the primary goals of the CRSL is to provide seamless service to a far greater number of private landowners while at the same time coordinating efforts with public land managers over large geographic areas to create a more sustainable landscape. To attain this goal, increased levels of coordination by multiple state and federal agencies, local units of governments (LUG), and organizations working within a landscape are needed.

The narrative in this section provides guidance on four areas of coordination that resource managers and their landscape partners should address before the implementation of the CRSL Strategic plan:

- Partners and partnerships
- Implementation programs and priorities
- Training and funding
- Engaging communities and landowners
- Effectiveness monitoring of program delivery

New ways of thinking and working together will be required to move from a paradigm of preparing and implementing single forest stewardship plans and projects for individual landowners to a landscape approach involving hundreds, perhaps thousands, of landowners and their communities.



Partnership Structure and Roles

There is no one entity solely responsible for the management of forest and water resources within the CRSL. Rather, there are numerous agencies and organizations with varying and sometimes overlapping roles and authorities. Identifying partners and clarifying roles is important to the successful implementation of this plan especially since there is no one governing entity.

Partner agencies listed below have been involved in the development of this plan (Figure 7, Appendix A). Agencies and organizations that have not been involved in the planning process are welcomed and encouraged to get involved in implementing this plan.



Figure 7: CRSL Partnership.



Partners are encouraged to be active through the coordination, implementation, and monitoring phases of this plan. They should all work to complement each other's efforts to increase the successful implementation of this plan. The goals and objectives outlined in this plan are attainable but will be accomplished only if the people and the organizations that work within the CRSL can develop the collective will to do what is necessary to make the plan's goals a reality.

The Camp Ripley environmental office has assumed the primary responsibility for ACUB and CRSL within the MNARNG. Currently the DMA does not have funding to hire staff dedicated to the coordination and implementation of the ACUB or CRSL Programs. Since federal designation as a Sentinel Landscape in 2016, partial funding support from REPI for convening and coordinating the CRSL Program has been awarded to TNC through cooperative agreement agents.

There are four different teams that make up the partnership structure of the CRSL. Each team is illustrated below.

CRSL Leadership Team



Team Purpose: Communication within Camp Ripley/DMA/MNARNG/REPI, coordinate public relations on post and via media, oversee contracts and cooperative agreement relationships, facilities coordination for CRSL related events, GIS/IT support.




Team Members: CRSL Coordinator, DMA, Morrison SWCD.




Meeting Frequency:
Monthly

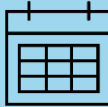
CRSL Protection Team (fee title/easement)



Team Purpose: To coordinate fee and easement acquisition, fund sourcing development, public engagement and outreach, reporting to funders.



Team Members: BWSR, CRSL Coordinator, DMA, DNR, local government, NGO, NRCS, and SWCD.



Meeting Frequency:
Quarterly



CRSL Practices, Restoration, and Program Enrollment Team



Team Purpose: To coordinate grant and program funding, working partnerships for restoration, landowner outreach, and reporting to funders.



Team Members: BWSR, DMA, DNR, MDA, NPS, NRCS, USFWS, and NGO partners with restoration, program enrollment or cost-share practices goals within the CRSL boundary.



Meeting Frequency:
Quarterly

CRSL Coordinating Committee



Team Purpose: Develop program policy and priorities, act as a communication liaison to representative agencies, internally advance CRSL mission and objectives, network across division and agency constructs to advance CRSL mission and objectives and share new and emerging programs that are relevant to the CRSL program.



Team Members: BWSR, DMA, DNR, MDA, MPCA, NPS, NRCS, USFS, USFWS, CRSL Leadership Team, CRSL Coordinator, local government leadership, NGO leadership, Camp Ripley Garrison Commander.



Meeting Frequency:
Quarterly



Section 3. Strategies and Objectives

Figure 8 spatially illustrates where the following three strategies would be focused and implemented. An important nuance of the map is that federal funds awarded to the ACUB Program may only be used within the approved ACUB Agreement Area, however those funds can be used to leverage other state and federal funds throughout the CRSL Program area. The USDA’s NRCS Agricultural Conservation Easement Program (ACEP) includes a category of easement called Agricultural Land Easements (ALE) that intends to keep farms permanently protected as production working lands. The map representation shows that future CRSL Program implementation could deliver this program across the CRSL landscape.

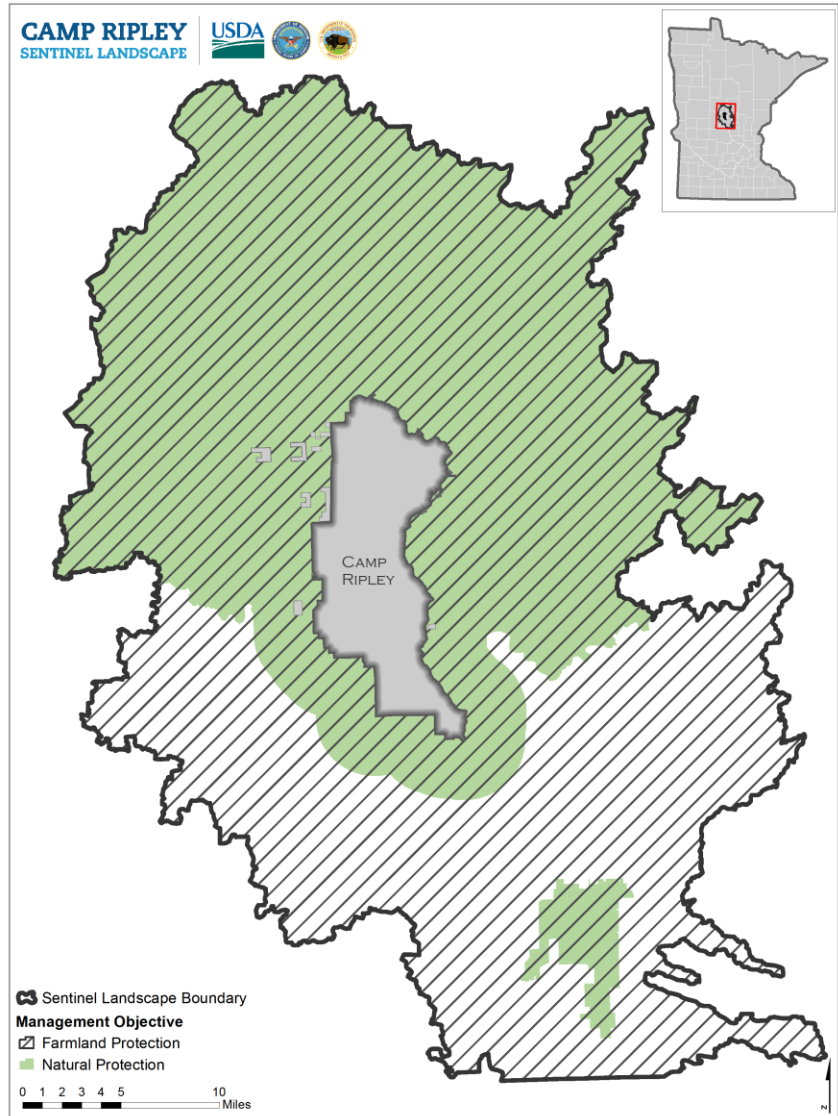


Figure 8: Focused areas for the three CRSL strategies.

The following pages provide goals and objectives grouped by the type of strategy to achieve desired future conditions. As the plan is implemented and partnerships for action formed, additional strategies and actions may be identified, and the plan will be modified. There are three primary strategies within the CRSL, as shown below.

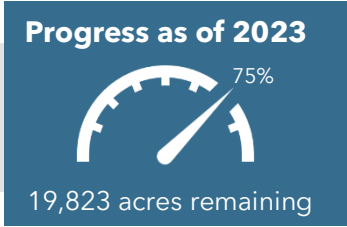
Outreach & Coordination
Landowners, Partnerships

CRSL Protection & Management
*Easements & Acquisitions
Best Management Practices*

ACUB Land Protection
Easements & Acquisitions



Strategy 1: ACUB Land Protection





Measurable Goal: Protect **79,291 acres** (60%) within the ACUB Agreement Area to meet the military mission of Camp Ripley and preserve natural resources (Figure 9).

Description

The main goal of the ACUB Program is to protect lands for the military mission of Camp Ripley while also protecting and enhancing working lands, natural resources, and habitat. Keeping protective land covers such as forests and wetlands provides secondary benefits including military installation resilience to changing environmental conditions or extreme weather events, habitat for at risk species, water storage, carbon storage, and water quality. Land protection (protecting forests from conversion to other land uses) can be accomplished with tax incentives, conservation easements, or land acquisition.

Outcomes

-  Increased landscape resilience to climate change.
-  Camp Ripley Installation Resilience is enhanced.
-  Natural Resources and at-risk species and natural habitat are protected (G1/G2 & S1/S2 Native Plant Communities*, old-growth forests).
-  Agricultural land is protected.

Primary Metrics

 Acres protected.

Secondary Metrics

 Stacked benefits below.

Stacking Additional Benefits

Work toward this goal also stores water in the soil, enhances habitat for at risk species, and enhances climate resiliency. Protected water storage and carbon storage reflect the current benefits of the forested and protected lands. This quantity of water and carbon storage would be lost if these forests weren't protected and were instead converted to a different land use. For details see Appendices F and H. These secondary benefits will be integrated into scoring process for targeting implementation.

At-Risk Species (Appendix F)	Habitat Benefits	Climate Resiliency Benefits (Appendix H)
State T&E** Species: 7 State Special Concern: 28	Habitat = 79,291 acres	Protected Water Storage = 11,600 - 14,000 acre-feet
Federal T&E* Species: 3		Protected Carbon Storage = 6,006,690 metric tons
Species in Greatest Conservation Need: 101		Resilient Land = 80,967 acres

*G1/G2 indicate species a very high and high risk of extinction. S1/S2 indicate a very high or high risk of extirpation in the jurisdiction. For more information, visit: <https://explorer.natureserve.org/AboutTheData/DataTypes/ConservationStatusCategories>

**T&E = Threatened & Endangered



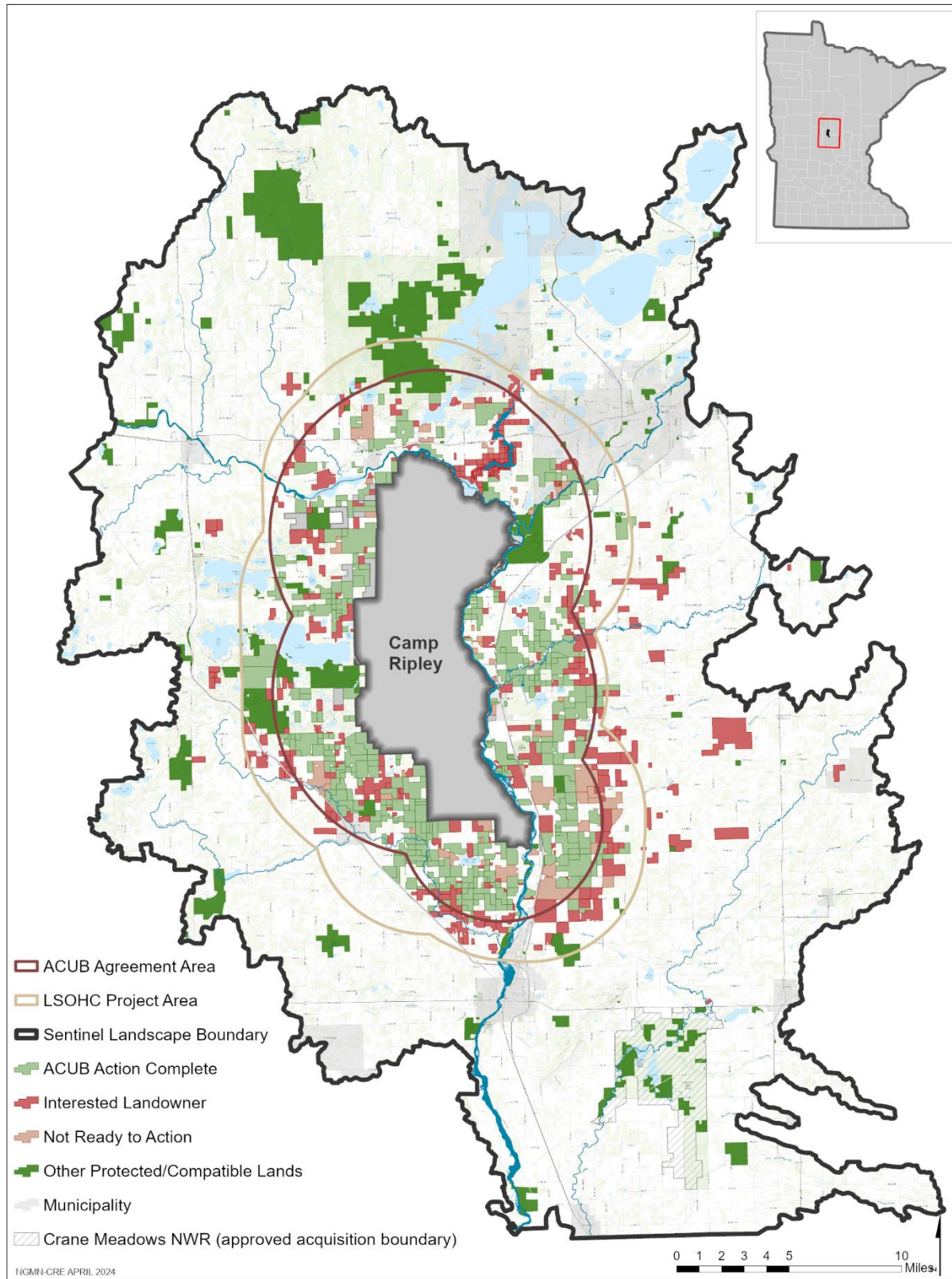


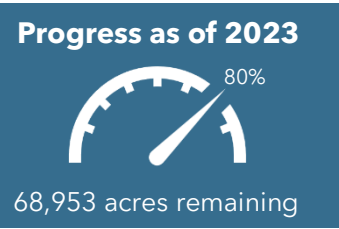
Figure 9: ACUB Program actions and priorities.

Actions

Objectives/Actions	Lead and Supporting Entities
Facilitate enrollment of 19,823 acres (3,000 acres a year) into fee title and conservation easement acquisition within the ACUB Agreement Area.	DMA, BWSR, NGO, NRCS, MHB, SWCD
Maintain a criterion ranking system for prioritization of lands within the ACUB Agreement Area.	DMA, BWSR, MHB, SWCD
Support the maintenance and enhancement of public and private forest lands.	USFS, DNR, BWSR, SWCD, NRCS
Protect forested corridors identified in the LSP.	USFS, DNR, BWSR, SWCD, NRCS
Support the development of trail and water trail networks: CRVST, Cuyuna Lakes State Trail, National Water Trail, MRT (See Appendix I, Figure I.2).	CRSL, NPS, CRVST, Baxter, Brainerd, counties, townships
Support the acquisition of land to be used for public recreation (WMAs, Scientific & Natural Areas (SNA), Parks etc.) (See Appendix I, Figure I.2).	DNR, CRSL, NPS, NGO, LUG, MHB, counties
Focus protection on species of greatest need and areas of highest terrestrial and aquatic resilience (Figure 10).	DMA, BWSR, NGO, NRCS, MHB, SWCD
Prioritize protection of cultural resources identified in the Cultural and Environmental Geodatabase Build for the CRSL.	DMA, BWSR, NGO, NRCS, MHB, SWCD, MHS
Protect and enhance DWSM Areas and lands that are sensitive to groundwater pollution (Appendix I, Figure I.3).	DMA, BWSR, Minnesota Department of Health (MDH), SWCD
Implement climate resilient ecological enhancement and restoration on public lands.	GHG, TNC, USFWS



Strategy 2: CRSL Protection & Management



Measurable Goal: Manage/Improve/Protect 362,051 acres (45%) in the CRSL (Figure 10).

Description

Within the CRSL, there are working lands for agriculture and forestry that provide many important benefits including food production, local economy support, habitat, and maintaining the rural character of Minnesota. There are also forested lands that provide habitat for at risk species, and protection for resilient corridors and groundwater. The CRSL aims to “keep farms farms and forests forests”, and work with partner agencies to implement BMPs in working lands and permanent protection of forested and sensitive lands to benefit surface water, groundwater, and habitat quality (S1/S2/G1/G2* Native Plant Communities and old-growth forests).

Outcomes

- Increased landscape resilience to climate change.
- Camp Ripley Installation Resilience is enhanced.
- Partnerships with agencies to foster implementation of Agricultural BMPs.
- Partnerships with agencies to foster implementation of forest management plans, SFIA, and 2c tax incentive programs.
- Partnerships with agencies to foster implementation of grazing management plans to support working grasslands.

Primary Metrics

- Acres of permanent protection and/or best management practices.

Secondary Metrics

- Stacked benefits below.

Stacking Additional Benefits

Work toward this goal also makes progress towards reductions in phosphorus, sediment, and nitrogen to surface and groundwater; stores water in the soil; sequesters carbon, enhances habitat for at-risk species, and enhances climate resiliency. For calculation details see Appendix H. These secondary benefits will be integrated into scoring process for targeting implementation.

Surface Water Quality Benefits (Appendix H)	Habitat Benefits & At Risk Species (Appendix F)	Climate Resiliency Benefits (Appendix H)
Phosphorus = 5,058 lbs/yr	Habitat = 227,697 acres	Protected Water Storage = 33,000 - 40,000 acre-feet
Nitrogen = 92,820 lbs/yr	State T&E** Species: 58	Protected Carbon Storage = 17,250,000 metric tons
Sediment = 671 tons/yr	Federal T&E** Species: 3	Carbon Sequestration = 11,000 metric tons
		Resilient Land*** = 231,546 acres

*G1/G2, S1/S2: see next page.

**T&E: see next page.

***Resilient Land: Network of connected biodiverse lands (TNC). See Figure 10 on page 28.



Summary of Additional Benefits and Real-World Equivalents

Surface Water Quality Benefits (Appendix H)	Phosphorus: the pounds of phosphorus reduced by implementing all plan goals.	5,058 pounds/year; equivalent to: 2,529,000 pounds of algae
	Sediment: the tons of phosphorus reduced by implementing all plan goals.	671 tons/year; equivalent to: 67 dump trucks of sediment
	Nitrogen: the pounds of nitrogen reduced by implementing all plan goals.	92,820 lbs/year; equivalent to: 23,205 bags of nitrogen fertilizer
Climate Resiliency Benefits (Appendix H)	Storage: the amount of new water storage on the landscape or in the soil by implementing all plan goals.	40,000 acre-feet; equivalent to: 40,000 football fields covered in 1 foot of water
	Protected Carbon Storage: the amount of carbon currently stored in the forest that would be protected by implementing plan goals.	17,250,000 metric tons; equivalent to: Removing 15,053,615 gas vehicles driven for one year
	Carbon Sequestration: the amount of new carbon sequestered by implementing agricultural best management practices.	11,000 tons; equivalent to: Removing 9,599 gas vehicles driven for one year

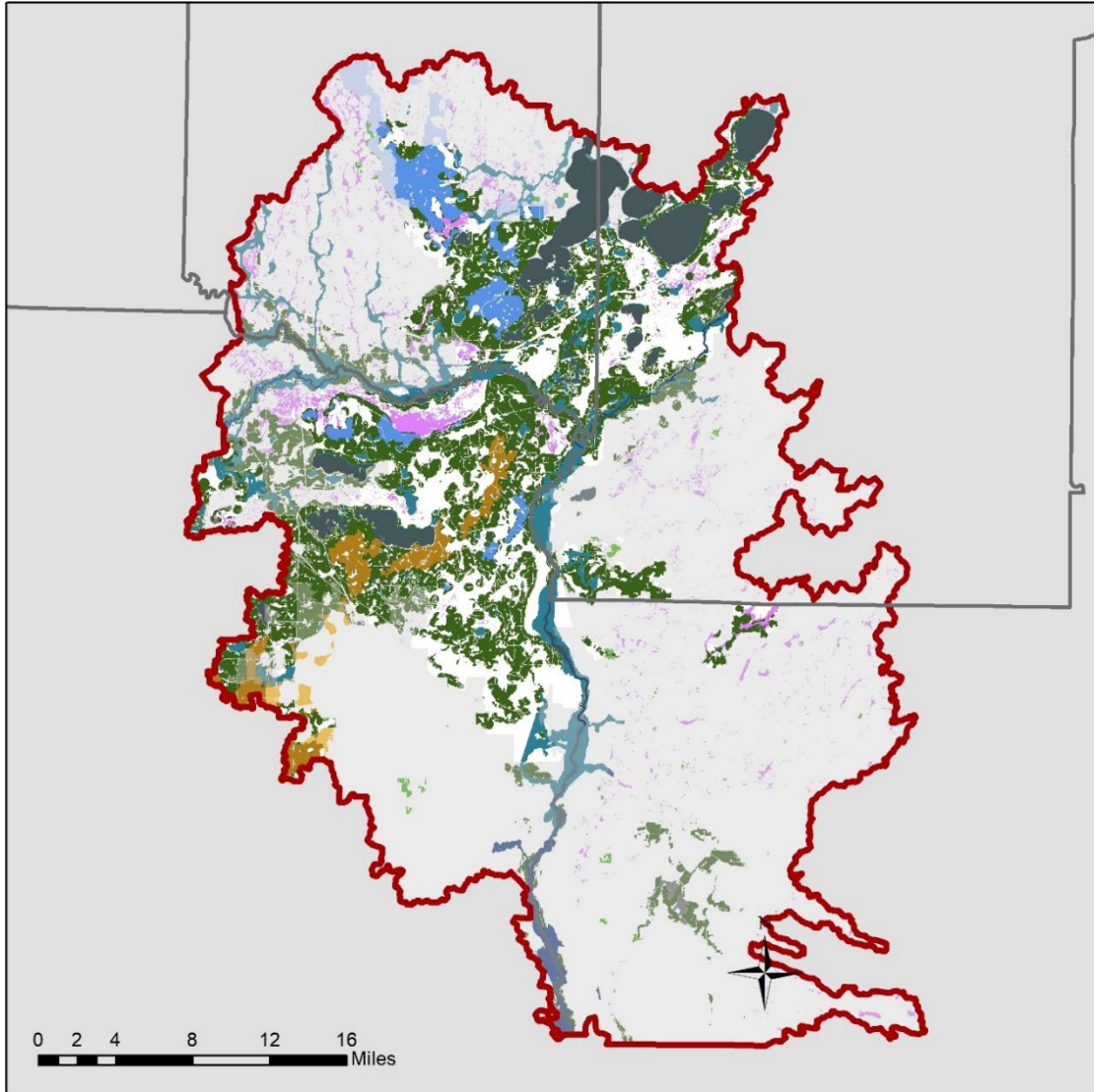
Species Conservation Status Ranks Definitions

Rank	Definition
G1	Critically Imperiled – At very high risk of extinction or collapse due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
G2	Imperiled – At high risk of extinction or collapse due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S1	Critically Imperiled– At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
S2	Imperiled– At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
Endangered	A species is in danger of extinction throughout all or a significant portion of its range.
Threatened	A species is likely to become endangered within the foreseeable future

Source: <https://explorer.natureserve.org/AboutTheData/DataTypes/ConservationStatusCategories>



Actions will be targeted to the most resilient areas shown in Figure 10. The **Resilient and Connected Network (RCN)** is a network of resilient, connected, and biodiverse lands. This is different than the climate resiliency benefits on the previous page. To learn more or use the online tool, visit: <https://www.maps.tnc.org/resilientland/#/explore>.



TNC Resilient and Connected Lands portfolio
Areas identified as priorities during the 2015 Wildlife Action Network update highlighted (brighter color).

Resilient and Connected Lands (terrestrial)

- Resilient Land with Confirmed Biodiversity
- Resilient Land: Secured
- Climate Flow Zone
- Climate Flow Zone with Confirmed Diversity
- Climate Corridor
- Climate Corridor with Confirmed Diversity
- Lakes & rivers

Great Plains Division Draft

Freshwater resilience class

- High Biodiversity - High Natural Landcover
- High Biodiversity - Medium Natural Landcover
- High Biodiversity - Low Natural Landcover
- Medium Biodiversity - High Natural Landcover
- Medium Biodiversity - Medium Natural Landcover
- Medium Biodiversity - Low Natural Landcover
- Low Biodiversity - High Natural Landcover
- Low Biodiversity - Medium Natural Landcover
- Low Biodiversity - Low Natural Landcover
- MNFO Additions



Figure 10: Resilient and connected network in the CRSL (TNC).

Actions

Objectives/Actions	Lead and Supporting Entities
Achieve protection or management on 45% of the land within the Sentinel Landscape boundary (add 68,953 acres).	SWCD, NRCS, MDA, DNR, USFWS, BWSR, MHB, ENTRF, LCCMR
Achieve permanent protection on 60% of the land within the 5 mile LSOHC buffer (add 28,370 acres).	SWCD, BWSR
Minnesota’s Farmland Protection Toolbox: Work with local counties toward relevant implementation.	MDA, SWCD, NRCS
Minnesota Agricultural Water Quality Certification Program (MAWQCP): Maximize certification of agricultural land within the CRSL.	MAWQCP, SWCD
Support programs that target private landowners in the development of forest management plans and foster private enrollment in SFIA and 2c tax incentive programs.	DNR, SWCD, MFRC, NRCS
CRSL partnership support working grasslands where applicable to develop grazing management plans in areas identified for highest water quality benefit (ground and surface water).	MDA, SWCD, MPCA, MDH, BWSR, NRCS
Focus programs on species of greatest need and areas of highest terrestrial and aquatic resilience, including native prairies, old-growth forests, and rare native plant communities (Figure 10).	SWCD, NRCS, MDA, DNR, USFWS
Prioritize protection of cultural resources identified in the Cultural and Environmental Geodatabase Build for the CRSL.	DMA, BWSR, NGO, NRCS, MHB, SWCD
Protect and enhance DWSM Areas and lands that are sensitive to groundwater pollution (Appendix I, Figure 1.3).	DMA, BWSR, MDH, SWCD
Implement climate resilient ecological enhancement and restoration on public lands.	GHG, TNC, USFWS
Determine how many acres of farmland are protected and develop a goal for future protection.	MDA, TNC, SWCD



Strategy 3: Outreach & Coordination



Description

Coordination between CRSL partners and landowner outreach are essential to implementing Strategies 1 and 2, which are targeted to privately owned lands. CRSL partners coordinate outreach about the program options available for landowners to choose from. In addition, funding from numerous sources, including local, state, and federal agencies is leveraged and matched to achieve Strategies 1 and 2.

Overall Outcomes



Ensure adequate staffing and resources to coordinate CRSL partner objectives.



Leverage Sentinel Landscape partnership funding.



Develop programmatic prioritization to implement federal, state, and local priority implementation strategies in the CRSL.



Advance knowledge of natural resource concerns and management programs available to private landowners.



Actions

Objectives/Actions	Lead/Supporting Entities
Maintain cooperative agreements with NGB and ACUB partners.	DMA, BWSR, The Conservation Fund (TCF), Morrison SWCD
Maintain administrative ACUB requirements and continue to seek and execute funding for implementation.	DMA, BWSR, Morrison SWCD, TCF
Identify funding and mechanisms to continue staff capacity to implement CRSL coordinator responsibilities.	DMA, TNC
Encourage and develop local and state policies and programs to leverage the Sentinel Landscape partnership.	DMA, TNC
Coordinate and communicate CRSL Programs up into the state agencies.	DMA, SWCDs, TNC
Work with partners and stakeholders to link citizens and businesses in the area to support organizations actively working to protect, restore and improve forest and water resources in the watershed.	MAWQCP, CRSL, BWSR, SWCD, DNR, MPCA, NRCS, USFWS, TNC, MLT
Review, track, and develop funding proposals that leverage Federal-Federal and Federal-State matching dollars for program implementation.	DMA, TNC, SWCD, BWSR, TCF, DNR, MAWQCP
Proactively educate landowners through coordinated partner outreach.	CRSL, MAWQCP, NRCS, SWCD, DNR, MPCA, MHBd
Implement public outreach programs to build community stakeholder involvement (tours, events).	Great River Greening (GRG)



Alignment with the Camp Ripley Training Center

Many of the CRSL Strategies align with Camp Ripley Training Center (CRTC) program areas and strategies. The table below illustrates these connections.

CRTC Program Area	CRTC Integrated Natural Resource Management Plan Strategy	CRSL Strategy
Land Use Management	7. Minimize land use conflicts off the installation. 8. Maintain an operational noise management program.	O&C ACUB
Forestry	10. Implement forestry management practices. 11. Implement BMPs for species that are listed as threatened or endangered	CRSL
Grasslands	13. Restore and manage the grassland communities.	CRSL
Education, Outreach, & Recreation	20. Provide educational opportunities about natural resources at Camp Ripley. 21. Identify and develop recreation opportunities for the public.	O&C
Wildlife	23. Educate users. 36. Protect populations and habitats of special concern and other rare nongame wildlife species.	O&C CRSL



Section 4. Operationalizing the Plan

Organizing for Effective Implementation

Implementing a proactive outreach strategy (both internal and external) to expand the current understanding about the ACUB and CRSL Programs will be critical to the success of the CRSL Strategic Plan. Strategies will be developed with clear, consistent, and compelling messages and materials about the CRSL and how it can help maintain the rural character of the area, protect drinking water, and provide economic, environmental, and societal benefits to local people, their communities, and other Minnesota residents. The desired outcomes are to help more agricultural producers and forest landowners install conservation practices on their land and accelerate the protection and restoration of important wildlife habitat and the conservation of clean drinking water and other natural resources including the Mississippi River.

Provisions for Updating/Revising the CRSL Strategic Plan

The MNARNG will maintain administration of the CRSL Strategic Plan development, implementation, and updating through the state CRSL Coordinating Committee and continue to solicit participation from federal, state, local, non-governmental partners, and private landowners in updating the Strategic Plan for the CRSL. Individual goals, objectives, and policies will be reviewed bi-annually. Major revisions will be formally reviewed every five years.



Mississippi River



Appendix A. Partners and Collaborators

- U.S. Department of Agriculture:
 - Natural Resources Conservation Service
 - U.S. Forest Service
- U.S. Department of Interior:
 - U.S. Fish and Wildlife Service
 - National Park Service
- U.S. Department of Defense: REPI
- National Guard Bureau
 - ACUB
- Minnesota Department of Military Affairs
 - Camp Ripley
- Minnesota Department of Natural Resources
- Minnesota Pollution Control Agency
- Minnesota Department of Agriculture
- Minnesota Board of Water and Soil Resources
- Morrison Soil and Water Conservation District
- Crow Wing Soil and Water Conservation District
- Cass County
- Morrison County
- Crow Wing County
- City of Baxter
- Mississippi Headwaters Board
- The Nature Conservancy
- The Conservation Fund
- Great River Greening



Appendix B. CRSL Partner Integration Table

Partner CRSL Integration Table 2024 - 2034			
Strategy	Partner	Role	Fund Sources
Protection	DNR	Forest Legacy, Minnesota Forests for the Future (MFF), F&W, Aquatic Management Area (AMA), SNA, Parks & Trails, EWR	Fed. Forest Legacy, OHF, CWF
	BWSR	RIM easements, CWF practices/cost-share	OHF, CWF, bonding
	NGOs	Transaction capacity and private fund leverage	TNC MN, TPL, TCF, MLT, Headwaters Fund
	REPI	Federal funding leverage, advocacy, program support	Federal appropriation
	MNARNG	State funding leverage, advocacy, program support	Federal appropriation
	MHB	Fee/easement coordination in project area	OHF, SWCDs
	CRSL Partnership	Convene and coordinate programs and leverage, tracking	REPI Challenge, MNARNG
	NRCS	NRCS Easements	NRCS
	USFWS	private land easement program, acquisitions w/in boundary	Land and Water Conservation Fund (LWCF), North American Wetlands Conservation Act (NAWCA)
Restoration	CRSL	Convene and coordinate programs, fund sourcing	Outdoor Heritage Fund - Conservation Partners Legacy (OHF-CPL), BWSR
	SWCD	SWCD program targeted to priority minor watersheds in CRSL	Bonding, OHF, capacity dollars
	DNR	WMA, SNA, Parks, F&W restoration public lands	OHF-CPL, other legacy, bonding
	USFWS	Federal and private land restoration programs	LWCF, PFW
	NGOs, TNC, GRG	Legacy fund sourcing, stewardship admin., crew logistics, low intensity burns, high diversity seeding, accelerated migration, biochar	Legacy- OHF/CWF, private funds
	Camp Ripley	fund sourcing, partner support letters, on post restorations	NA
	USFS	Public engagement, TA, Forest Legacy advocacy	Forest Legacy



Partner CRSL Integration Table 2024 - 2034

Strategy	Partner	Role	Fund Sources
Nutrient Reduction	NRCS	RCPP support, CSP, EQIP, and TA support	Farm bill RCPP
	MDA	MAWQCP, Ag BMP loan program, research, partner linkage, best practices	bonding and CWF
	MPCA	Intensive Watershed Monitoring, Watershed Restoration and Protection Strategy	CWF
	NRCS	NRCS Farm Bill Programs	NRCS
	SWCD	SWCD program targeted to priority minor watersheds in CRSL	Capacity, BWSR CWF, NRCS
Ag/Forestry Practices	NRCS	CSP, EQIP, Healthy Forest Reserve Program (HFRP), forestry TA,	Farm bill RCPP, other
	DNR	CFM/PFM, public land resto	bonding, OHF
Program Enrollment	MDA	MN Ag Water Quality Certification	Legacy CWF, bonding
	DNR/SWCD	SFIA, 2c	state bonding and local levy
	NRCS	NRCS Farm Bill Programs	NRCS
	FSA	Conservation Reserve Program (CRP)	Farm bill
Cultural Resources	CRSL	Convene coordinate, fund sourcing	MNARNG
	Camp Ripley	Tribal Consultation	MNARNG
	NPS	Convene coordinate NPS recreation and cultural division leads	
	MN Historical Society	Support grant oversight, fund sourcing, research coordination	
	State Historic Preservation Office (SHPO)	Support grant oversight, fund sourcing, research coordination	
	Local Historical Society	Support grant oversight, fund sourcing, research coordination	
	Tribe representation	Support grant oversight, fund sourcing, research coordination	present and ongoing
	St. Cloud State Univ.	Support grant oversight, fund sourcing, research coordination	



Partner CRSL Integration Table 2024 - 2034

Strategy	Partner	Role	Fund Sources
Community Engagement	CRSL	Coordinate, promote events, newsletters, website	
	GRG	Host restoration and enhancement events for public, civic, school, and private groups to build community stakeholder investment	
	All partners	Participate in public events, intra-agency messaging, logos	



Appendix C. Glossary of Terms and Acronyms

1W1P: One Watershed, One Plan

ACEP: Agricultural Conservation Easement Program

ACUB: Army Compatible Use Buffer

ALE: Agricultural Land Easements

AMA: Aquatic Management Area

BMP: Best Management Practice

BWSR: Board of Water and Soil Resources

CFA: Conservation Focus Area

Camp Ripley Installation Resilience:

The term “military installation resilience” means the capability of a military installation to avoid, prepare for, minimize the effect of, adapt to, and recover from extreme weather events, or from anticipated or unanticipated changes in environmental conditions, that do, or have the potential to, adversely affect the military installation or essential transportation, logistical, or other necessary resources outside of the military installation that are necessary in order to maintain, improve, or rapidly reestablish installation mission assurance and mission-essential functions

Climate Resiliency:

The capacity of individuals, communities, businesses, buildings, infrastructure or the natural environment to prevent, withstand, respond to, and recover from disruptive events and continue to perform despite persistent stresses imposed by climate change. Both mitigation and adaptation are necessary for long-term resilience.

CRP: Conservation Reserve Program

CRSL: Camp Ripley Sentinel Landscape

CRTC: Camp Ripley Training Center

CRVST: Camp Ripley Veterans State Trail

CSP: Conservation Stewardship Program

CWF: Clean Water Fund

DMA: Department of Military Affairs

DNR: Department of Natural Resources

DWSM: Drinking Water Supply Management

ENRTF: Environment & Natural Resources Trust Fund

EQIP: Environmental Quality Incentives Program

FMO-E: Facilities Management Office-Environmental

GIS: Geographic Information Systems

GRG: Great River Greening

HFRP: Healthy Forest Reserve Program

HSPF: Hydrological Simulation Program Fortran

HUC: Hydrologic Unit Code

INRMP: Integrated Natural Resource Management Plan

LCCMR: Legislative-Citizen Commission on Minnesota Resources

LSOHC: Lessard-Sams Outdoor Heritage Council

LSP: Land Stewardship Plan

LUG: Local units of government

LWCF: Land and Water Conservation Fund

MAWQCP: Minnesota Agricultural Water Quality Certification Program

MDA: Minnesota Department of Agriculture

MDH: Minnesota Department of Health



MFF: Minnesota Forests for the Future

MFRC: Minnesota Forest Resources Council

MHB: Mississippi Headwaters Board

MNARNG: Minnesota Army National Guard

MPCA: Minnesota Pollution Control Agency

MRT: Mississippi River Trail

NAWCA: North American Wetlands Conservation Act

NGB: National Guard Bureau

NGO: Non-governmental organization

NPS: National Park Service

NRCS: Natural Resource Conservation Service

NRRI: Natural Resources Research Institute

OHF: Outdoor Heritage Fund

OHF-CPL: Outdoor Heritage Fund - Conservation Partners Legacy

PBST: Paul Bunyan State Trail

PFM: Private Forest Management

PFW: Partners for Fish and Wildlife Program

RCPP: Regional Conservation Protection Partnership

REPI: Readiness and Environmental Protection Integration

RIM: Reinvest in Minnesota

SAM/HSPF: Scenario Application Manager/Hydrological Simulation Program Fortran

SFIA: Sustainable Forest Initiative Act

SHPO: State Historic Preservation Office

SNA: Scientific & Natural Area

SWAP: State Wildlife Action Plan

SWCD: Soil and Water Conservation District

TCF: The Conservation Fund

TNC: The Nature Conservancy

USDA: United States Department of Agriculture

USDOI: United States Department of the Interior

USFWS: United States Fish and Wildlife Service

USFS: United States Forest Service

WMA: Wildlife management area



Appendix D. References

Al-Saffar, M. & G. Soulliere. 2017. Targeting conservation for waterfowl and people in the Upper Mississippi River and Great Lakes Joint Venture Region. Technical Report No. 2017-1.

10 U.S. Code § 101. <https://www.law.cornell.edu/uscode/text/10/101>

Camp Ripley Landscape Stewardship Plan, Minnesota Forest Resource Council, 2014

Sentinel Landscapes: <http://sentinellandscapes.org/>

Crane Meadows National Wildlife Refuge:

http://www.fws.gov/refuge/Crane_Meadows/what_we_do/conservation.html

U.S. Forest Service: <http://www.fs.usda.gov/treearch/pubs/15257>

Minnesota Nitrogen Fertilizer Management Plan 2015:

<http://www.mda.state.mn.us/~media/Files/chemicals/nfmp/nfmp2015.pdf>

Minnesota Pollution Control Agency: Minnesota Nutrient Reduction Strategy 2014:

<http://www.pca.state.mn.us/sites/default/files/wq-sl-80.pdf>

<http://www.pca.state.mn.us/featured/report-nitrogen-surface-water>

USDA references: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/mn/soils/health/>

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/mn/technical/?cid=nrcs142p2_023693

Environmental Protection Agency: Gulf Hypoxia Action Plan 2008:

[http://www.epa.gov/sites/production/files/2015-](http://www.epa.gov/sites/production/files/2015-03/documents/2008_8_28_msbasin_ghap2008_update082608.pdf)

[03/documents/2008_8_28_msbasin_ghap2008_update082608.pdf](http://www.epa.gov/sites/production/files/2015-03/documents/2008_8_28_msbasin_ghap2008_update082608.pdf)

Department of Natural Resources: <http://www.dnr.state.mn.us/mnwap/index.html>

<http://www.dnr.state.mn.us/eco/wetlands/index.html>

<http://files.dnr.state.mn.us/forestry/certification/Forest-Certification-Forest-Management-Plan.pdf>

http://www.dnr.state.mn.us/input/mgmtplans/strategic_plan/system_plan.html

<http://mn.gov/frc/regional-landscapes-plans.html>

City of Baxter Comprehensive Plan 2015:

<file:///C:/Users/kayli.skinner/Downloads/2015%20Comprehensive%20Plan.pdf>

The Nature Conservancy: Multiple Benefits for People and Nature; Kristen Blann, Ph.D.

MinnPost: Why Central Minnesota's population has exploded over the last few decades:

<http://www.minnpost.com/economy-0/2018/02/why-central-minnesota-s-population-has-exploded-over-last-few-decades>

USFWS Partners for Fish and Wildlife Program. <https://www.fws.gov/program/partners-fish-and-wildlife>



Appendix E. Partner Contacts

Josh Pennington

Camp Ripley Environmental Supervisor
joshua.a.pennington4.nfg@army.mil
320-616-2720

Todd Holman

Camp Ripley Sentinel Landscape Coordinator
tholman@tnc.org
612-867-3140

Shannon Wettstein

Morrison Soil and Water Conservation District Manager
shannon.wettstein@morrisonswcd.org
320-631-3553

Melissa Barrick

Crow Wing Soil and Water Conservation District Manager
melissa.barrick@crowwingswcd.org
218-828-4255

Josh Hanson

District Conservationist
Joshua.Hanson@mn.usda.gov
320-632-6606, Ext. 102



Appendix F. At Risk Species

END= Endangered THR = Threatened SPC= Species of Concern P=Present

Table F-1. At Risk species in the Camp Ripley Installation.

Taxa	Scientific name	Common name	State status	Federal status	CRTC record
Jumping spiders	<i>Paradamoetas fontanus</i>	a species of jumping spider	SPC		P
Caddisflies	<i>Anabolia ozburni</i>	a species of northern caddisfly	SPC		P
Birds	<i>Pelecanus erythrorhynchos</i>	American White Pelican	SPC		P
Mammals	<i>Eptesicus fuscus</i>	Big Brown Bat	SPC		P
Mussels	<i>Ligumia recta</i>	Black Sandshell	SPC		P
Reptiles	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		P
Birds	<i>Setophaga cerulea</i>	Cerulean Warbler	SPC		P
Birds	<i>Calcarius ornatus</i>	Chestnut-collared Longspur	END		P
Mussels	<i>Lasmigona compressa</i>	Creek Heelsplitter	SPC		P
Mussels	<i>Lasmigona costata</i>	Fluted-shell	THR		P
Birds	<i>Sterna forsteri</i>	Forster's Tern	SPC		P
Tiger Beetles	<i>Cicindela lepida</i>	Ghost Tiger Beetle	THR		P
Mammals	<i>Canis lupus</i>	Gray Wolf	DELISTED	THR	P
Birds	<i>Setophaga citrina</i>	Hooded Warbler	SPC		P
Birds	<i>Podiceps auritus</i>	Horned Grebe	END		P
Birds	<i>Chondestes grammacus</i>	Lark Sparrow	SPC		P
Butterflies & moths	<i>Hesperia leonardus</i>	Leonard's Skipper	SPC		P
Mammals	<i>Myotis lucifugus</i>	Little Brown Myotis	SPC		P
Vascular Plants	<i>Carex muskingumensis</i>	Muskingum sedge	SPC		P
Birds	<i>Ammodramus nelsoni</i>	Nelson's Sparrow	SPC		P
Tiger Beetles	<i>Cicindela patruela patruela</i>	Northern Barrens Tiger Beetle	SPC		P
Birds	<i>Accipiter atricapillus</i>	Northern Goshawk	SPC		P
Mammals	<i>Myotis septentrionalis</i>	Northern long-eared bat	SPC	END	P
Birds	<i>Falco peregrinus</i>	Peregrine Falcon	SPC		P
Mammals	<i>Microtus ochrogaster</i>	Prairie Vole	SPC		P
Birds	<i>Progne subis</i>	Purple Martin	SPC		P
Birds	<i>Buteo lineatus</i>	Red-shouldered Hawk	SPC		P
Mammals	<i>Perimyotis subflavus</i>	Tri-colored bat	SPC		P
Birds	<i>Cygnus buccinator</i>	Trumpeter Swan	SPC		P
Birds	<i>Phalaropus tricolor</i>	Wilson's Phalarope	THR		P
Birds	<i>Coturnicops noveboracensis</i>	Yellow Rail	SPC		P

Federal Endangered= 1
Federal Threatened= 1
State Endangered= 2
State Threatened= 4
State Special Concern= 24
Species in Greatest Conservation Need= 101



END= Endangered THR = Threatened SPC= Species of Concern P=Present

Table F-2. At Risk Species in the CRSL.

Common Name	Scientific Name	State Status	Federal Status
A bristle-berry	<i>Rubus fulleri</i>	THR	
A Caddisfly	<i>Agapetus tomus</i>	SPC	
A Jumping Spider	<i>Habronattus viridipes</i>	SPC	
Autumn Fimbry	<i>Fimbristylis autumnalis</i>	SPC	
Beach Heather	<i>Hudsonia tomentosa</i>	THR	
Big Brown Bat	<i>Eptesicus fuscus</i>	SPC	
Black Sandshell	<i>Ligumia recta</i>	SPC	
Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	
Blunt Sedge	<i>Carex obtusata</i>	SPC	
Bog Bluegrass	<i>Poa paludigena</i>	THR	
Butternut	<i>Juglans cinerea</i>	END	
Cerulean Warbler	<i>Setophaga cerulea</i>	SPC	
Clinton's Bulrush	<i>Trichophorum clintonii</i>	THR	
Creek Heelsplitter	<i>Lasmigona compressa</i>	SPC	
Drummond's Campion	<i>Silene drummondii ssp. drummondii</i>	SPC	
Few-flowered Spikerush	<i>Eleocharis quinqueflora</i>	SPC	
Ghost Tiger Beetle	<i>Cicindela lepida</i>	THR	
Gray Wolf	<i>Canis Lupus</i>	DELISTED	THR
Greater Prairie-chicken	<i>Tympanuchus cupido</i>	SPC	
Hill's Thistle	<i>Cirsium pumilum var. hillii</i>	SPC	
Hooded Warbler	<i>Setophaga citrina</i>	SPC	
Kitten-tails	<i>Besseyia bullii</i>	THR	
Lark Sparrow	<i>Chondestes grammacus</i>	SPC	
Least Darter	<i>Etheostoma microperca</i>	SPC	
Least Moonwort	<i>Botrychium simplex</i>	SPC	
Leonard's Skipper	<i>Hesperia leonardus leonardus</i>	SPC	
Little Brown Myotis	<i>Myotis lucifugus</i>	SPC	
Loggerhead Shrike	<i>Lanius ludovicianus</i>	END	
Marginated Rush	<i>Juncus marginatus</i>	END	
Mucket	<i>Actinonaias ligamentina</i>	THR	
Muskingum Sedge	<i>Carex muskingumensis</i>	SPC	
Narrow-leaved Water Plantain	<i>Alisma gramineum</i>	SPC	
Nelson's Sparrow	<i>Ammodramus nelsoni</i>	SPC	
Northern Barrens Tiger Beetle	<i>Cicindela patruela patruela</i>	SPC	
Northern Goshawk	<i>Accipiter gentilis</i>	SPC	
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	SPC	END
Oakes' Pondweed	<i>Potamogeton oakesianus</i>	END	
Olivaceous Spikerush	<i>Eleocharis flavescens var. olivacea</i>	THR	
Olive-colored Southern Naiad	<i>Najas guadalupensis ssp. olivacea</i>	SPC	
Plains Hog-nosed Snake	<i>Heterodon nasicus</i>	SPC	
Prairie Moonwort	<i>Botrychium campestre</i>	SPC	
Prairie Vole	<i>Microtus ochrogaster</i>	SPC	
Pugnose Shiner	<i>Notropis anogenus</i>	THR	
Purple Martin	<i>Progne subis</i>	SPC	
Red-shouldered Hawk	<i>Buteo lineatus</i>	SPC	
Short-eared Owl	<i>Asio flammeus</i>	SPC	
Slender Naiad	<i>Najas gracillima</i>	SPC	
Spotted Pondweed	<i>Potamogeton pulcher</i>	END	
St. Lawrence Grapefern	<i>Botrychium rugulosum</i>	SPC	
Swamp Blackberry	<i>Rubus semisetosus</i>	THR	
Trumpeter Swan	<i>Cygnus buccinator</i>	SPC	



Common Name	Scientific Name	State Status	Federal Status
Tuberclad Rein Orchid	<i>Platanthera flava var. herbiola</i>	THR	
Twig Rush	<i>Cladium mariscoides</i>	SPC	
Wilson's Phalarope	<i>Phalaropus tricolor</i>	THR	
Wolf's Spikerush	<i>Eleocharis wolfii</i>	END	
Yellow Rail	<i>Coturnicops noveboracensis</i>	SPC	

Federal Endangered= 1
Federal Threatened= 1
State Endangered= 6
State Threatened= 13
State Special Concern= 36



Appendix G. 1W1P Integration

1W1P is a program administered by BWSR following Minnesota Statute §103B.801. The purpose of the 1W1P program is to develop comprehensive watershed management plans that align local water planning along watershed boundaries using existing governmental structure and capacity. The plan is developed through a multi-stakeholder process soliciting input and engaging experts from agencies, citizens, and stakeholder groups. Progress is tracked through measurable goals and implementation is funded by the Clean Water Land & Legacy Amendment. To read more about the 1W1P program see:

<https://bwsr.state.mn.us/one-watershed-one-plan>.

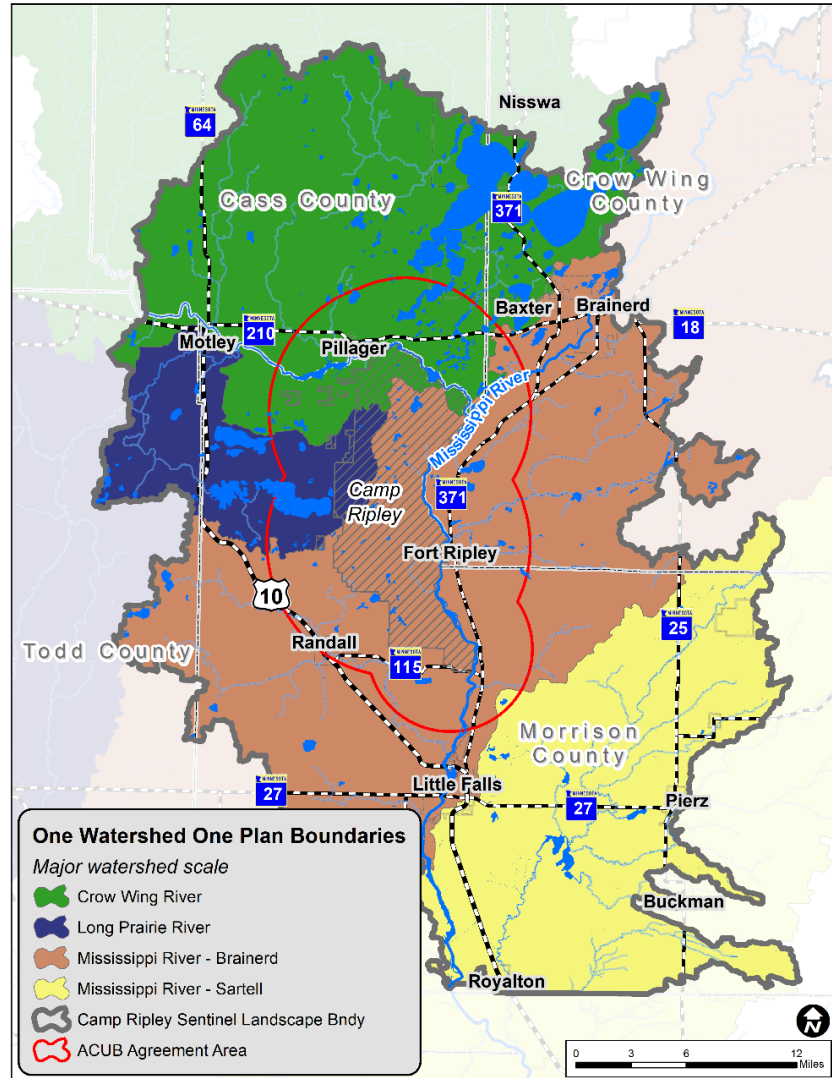


Figure G.1: 1W1P boundaries in the CRSL.

There are four 1W1Ps in the CRSL (Figure G.1. and Table G.1).

Table G.1: 1W1P areas in the CRSL and current status.

Major Watershed	% of the CRSL	Status as of 2024
Crow Wing River	29%	Projected approval in Dec 2024
Long Prairie River	8%	Approved
Mississippi River - Brainerd	40%	Approved
Mississippi River - Sartell	23%	Start in 2025?

Common 1W1P goals in the CRSL.

These comprehensive watershed management plans all have common goals that overlap with the goals of the CRSL, especially Land Protection and Agricultural Lands Management. Outreach to landowners and local stakeholders about land protection and land management practices is also a large part of implementing these plans. Watershed-based implementation funding from the state of Minnesota can be used to implement the goals of the CRSL and/or cost share with federal REPI funding. Therefore, completing work in the CRSL can be tracked towards both CRSL and 1W1P goals.

	Land Protection	<ul style="list-style-type: none"> •Protect land with conservation easements and acquisitions
	Wetland Protection	<ul style="list-style-type: none"> •Implement and enforce the Wetland Conservation Act.
	Lake Water Quality Enhancement	<ul style="list-style-type: none"> •Reduce phosphorus loading in lakes with declining trends
	Shoreline Protection and Restoration	<ul style="list-style-type: none"> •Protect sensitive and undeveloped shoreline, restore developed shoreline.
	Drinking Water Protection	<ul style="list-style-type: none"> •Seal unused wells, protect wellheads and sensitive areas.
	Hydrologic Connectivity	<ul style="list-style-type: none"> •Restore natural hydrology of streams including dam modification, culverts, road crossings, and flood plain connection.
	Agricultural Lands Management	<ul style="list-style-type: none"> •Implement agricultural BMPs (no till, cover crops, pasture management, erosion control)



Appendix H. Goal and Benefit Calculations

This plan includes acre goals and secondary benefits. This appendix describes how these goals and benefits were calculated.

CRSL Goals

In order to calculate the CRSL Goals, first it was important to determine current progress. Enrollment data from multiple protection and management programs were gathered including SFIA, Easements, CRP, Woodland Stewardship Plans, and RCPP. It was determined that 233,313 acres (29% of the CRSL) was currently protected, and 59,785 acres (7.4% of the CRSL) had management programs, for a total of 293,098 acres (36.4%) of Conservation Care (Protection + Management).

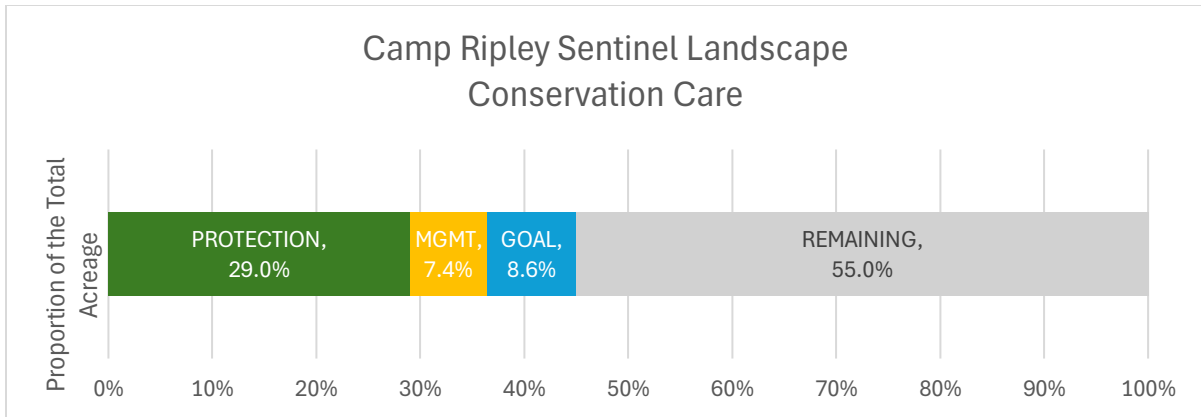
It is important to note that SFIA is counted as protection but is not permanent. It is a covenant on the land for 8, 20, or 50 years. The SFIA acres in Table H.1 are what is currently actively enrolled as of 12/31/2023. In addition, the RCPP Practices are estimated from the NRCS dataset but are not exact because they are not tracked by the individual parcel.

A goal was set to double the Management Programs in the watershed to 15% of the CRSL area total in the next five years. This will reach a total of 45% of the CRSL in Conservation Care (Protection + Management).

Table H.1: CRSL Goal Calculations.

Camp Ripley Sentinel Landscape Program/Land Type	2024		2024	5-Year Goal
	Acres		Percentage	
Public Land	115,891	Protection		
Public Water	52,670	Protection		
NGO	2,063	Protection		
Easements	42,583	Protection		
SFIA	18,943	Protection		
TOTAL PROTECTION	232,150		29.0%	30%
CRP	3,140	Management		3,140
RCPP Practices	33,118	Management		33,118
Woodland Stewardship Plans (not SFIA)	23,527	Management		23,527
TOTAL MANAGEMENT	59,785		7.4%	15%
TOTAL CONSERVATION CARE	291,935	acres	36.4%	45.0%
CRSL GOAL	362,051		45.0%	
ACRES NEEDED TO ACHIEVE GOAL	70,116	acres	8.7%	
TOTAL ACRES IN CRSL	804,557			





Secondary Benefits

Phosphorus, Sediment, Nitrogen Benefits

As Agricultural Land Management Practices are implemented, benefits can be tracked with this BMP Benefits Calculator developed from the Hydrological Simulation Program - Fortran (HSPF) model developed by the MPCA.

Benefits Calculator: Estimated reductions from Agricultural BMPs.			
BMP	Sediment tons/acre/yr	Nitrogen lbs/acre/year	Phosphorus lbs/acre/year
Nutrient Management	0	0.35	0.031
Pasture Management	0.014	2.63	0.121
Reduced Tillage	0.009	1.16	0.068
Cover Crop	0.014	0.98	0.059
Water and Sediment Control Basin	0.017	2.88	0.174

*from MPCA HSPF data viewer, Data specific to the Mississippi River – Brainerd Major Watershed (HUC8)

Carbon Benefits

Carbon benefits were calculated as additional stacked benefits from implementing plan goals.

Forests

Using the plan’s Protection and Management Goals, the carbon stored in the existing forests was quantified. Because this storage already exists, it was called “protected carbon storage” in the plan.

Reference:

USFS Forest Inventory and Analysis. EVALIDator tool:

<https://www.fs.usda.gov/ccrc/tool/forest-inventory-data-online-fido-and-evalidator>



Agricultural BMPs

The number of acres that currently have Ag BMPs and the goal number of increased BMPs was used to quantify carbon sequestration gained from those practices as this would be new carbon capture.

Reference:

The goal of 4224 acres of agricultural BMPs was modeled in COMET-Planner as half cover crops and half no till to get a county-scale CO₂e annual sequestration estimate.

Reference:

COMET-Planner tool. Carbon and Greenhouse Gas Evaluation for NRCS Conservation Practice Planning. USDA and Colorado State University. Available at: <http://www.comet-planner.com/>

Water Storage Benefits

Water storage benefits were calculated as additional stacked benefits from implementing plan goals.

Forests

Using the plan's Protection and Management Goals, the amount of storage was quantified that would be lost if existing forests were cleared for agricultural production or subdivisions for development. Therefore, it was called "protected water storage" in the plan.

Reference:

Senay, G. B. and Kagone, S., 2019, Daily SSEBop Evapotranspiration: U. S. Geological Survey Data Release, <https://doi.org/10.5066/P9L2YMV>



Appendix I. Additional Maps

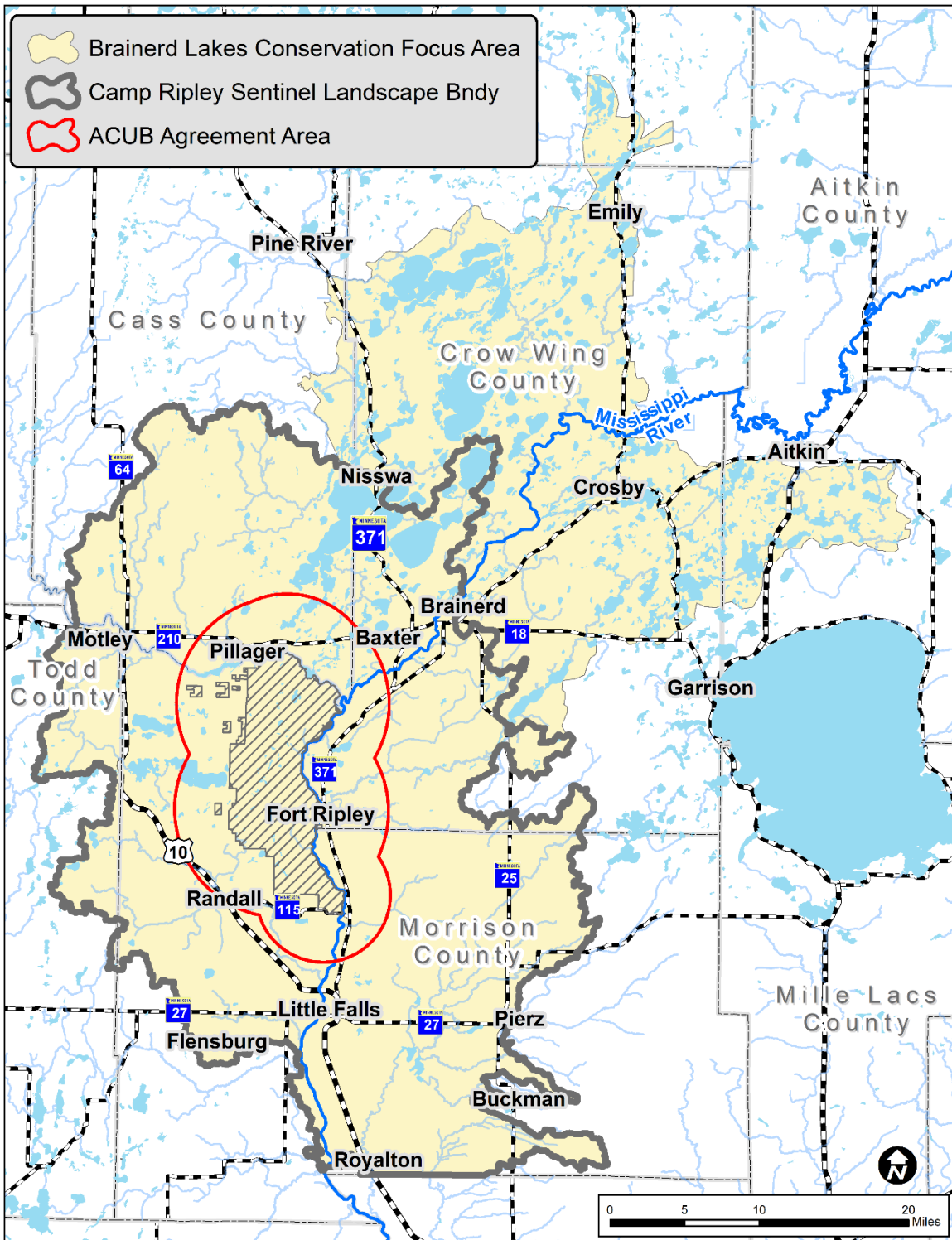


Figure I.1: Conservation Focus Areas and the CRSL.

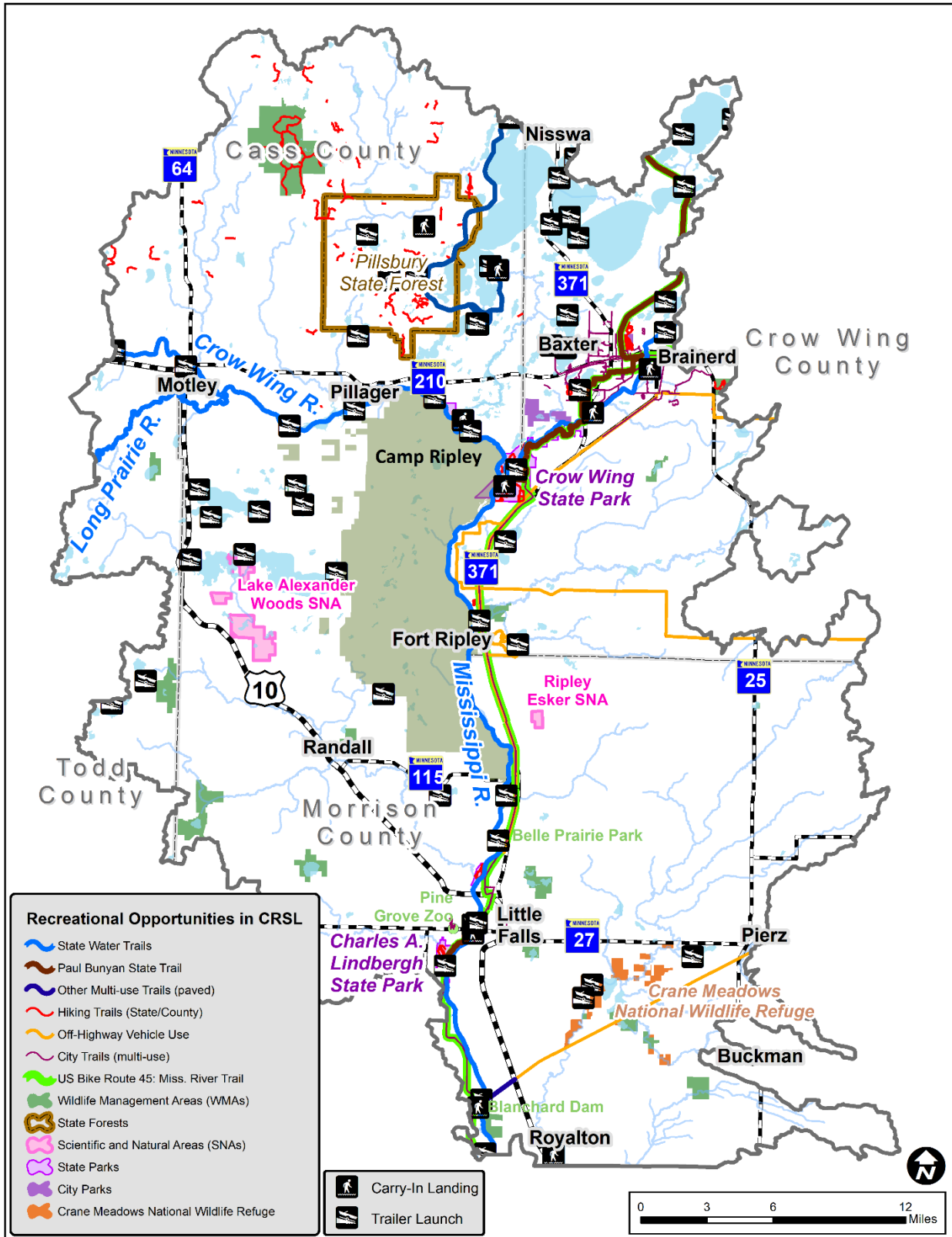


Figure I.2: Recreational opportunities in the CRSL.

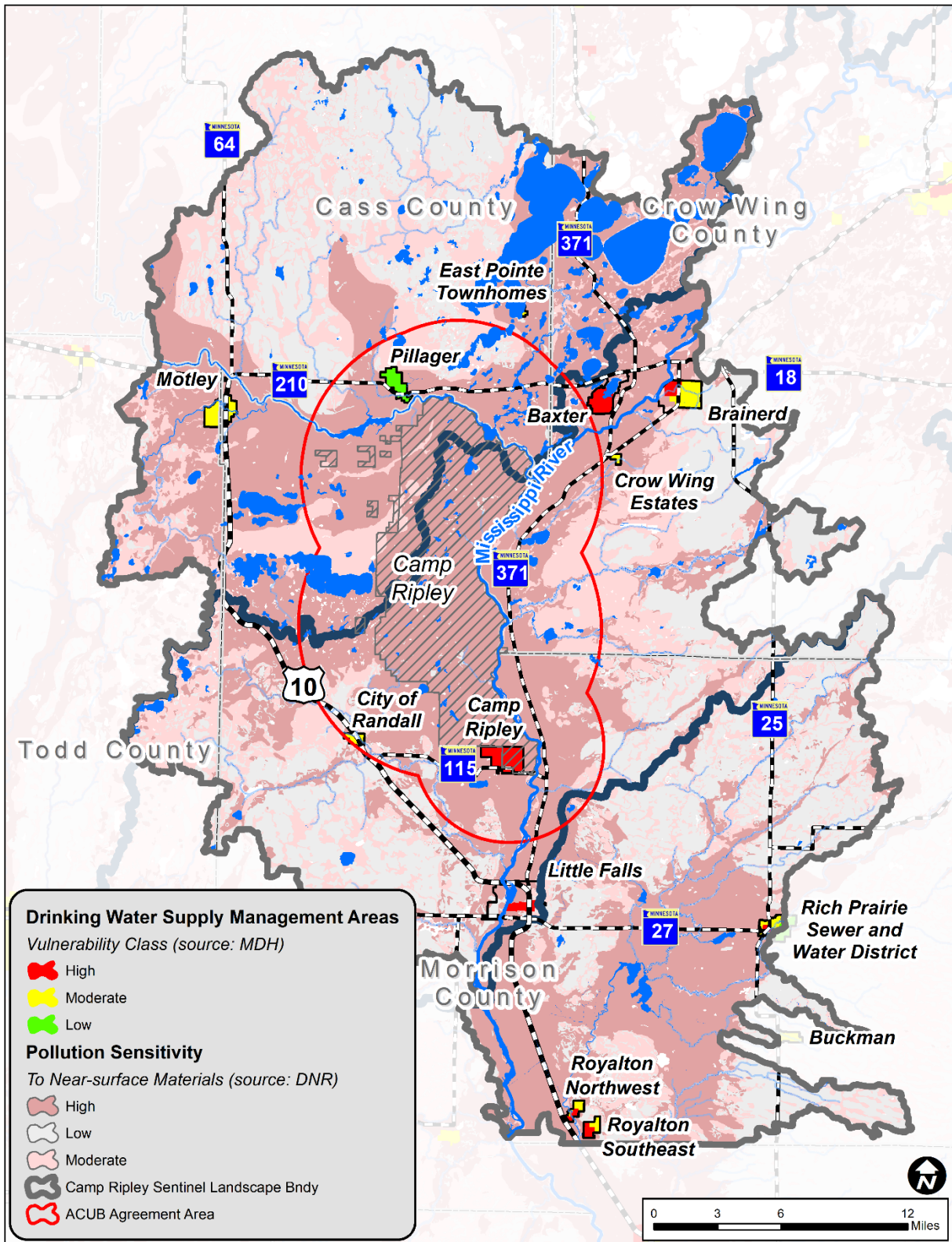


Figure I.3: Groundwater and drinking water sensitivity in the CRSL.

Appendix J. Sentinel Landscape Planning Framework Alignment

Vision:

The Camp Ripley Sentinel Landscape vision is to protect the current and future military training mission of Camp Ripley while protecting and enhancing natural and cultural resources, resilience, and preserving the rural character and economies of the landscape.

Purpose:

To identify and develop programs that provide land protection, restoration, cultural resources, and climate resilience strategies that benefit the military mission of Camp Ripley, working lands and local communities within the landscape.

Principles/Philosophy

There is no one entity solely responsible for the management of forest and water resources within the CRSL. Rather, there are numerous agencies and organizations with varying and sometimes overlapping roles and authorities. Identifying partners and clarifying roles is important to the successful implementation of this plan especially since there is no one governing entity.

Partners are encouraged to be active through the coordination, implementation and monitoring phases of this plan. They should all work to complement each other's efforts to increase the successful implementation of this plan. The goals and objectives outlined in this plan are attainable but will be accomplished only if the people and the organizations that work within the CRSL can develop the collective will to do what is necessary to make the plan's goals a reality.

Priorities

- Camp Ripley Installation Resilience Protection
- Permanent Land Protection
- Land Management and Restoration
- Coordination with other conservation efforts
- Resilience
- Cultural Resources
- Recreation and Education
- Source Water Protection
- At Risk Species Habitat Protection



Goals, Strategies, and Actions

Goal 1. Protect 79,291 acres (60%) within the ACUB Agreement Area, at a rate of 3,000 acres per year, to meet the military mission of Camp Ripley and preserve natural resources (add 28,370 acres).

Strategy 1A - Support the acquisition of land to be used for public recreation and the development of trail and water networks

Action: Acquire priority lands for WMA's, SNA's, Parks, the Camp Ripley Veterans State Trail, Cuyuna Lakes State Trail, National Water Trail, and Mississippi River Trail

Strategy 1B - Support the acquisition of habitat for species of greatest need and areas of highest terrestrial and aquatic resilience.

Action: Acquire forested corridors and resilient lands identified in the LSP.

Strategy 1C - Support the acquisition of Drinking Water Supply Management Areas.

Action: Acquire lands that are sensitive to groundwater pollution

Strategy 1D - Support the protection of cultural resources

Action: Acquire cultural resource lands identified in the Cultural and Environmental Geodatabase built for the CRSL.

Strategy 1E - Maintain a criterion ranking system for prioritization of lands for protection within the ACUB Agreement Area.

Action: Develop or utilize existing ranking criteria for each acquisition project type.

Goal 2. Manage/Improve 362,051 acres (45%) in the Camp Ripley Sentinel Landscape (add 68,953 acres).

Strategy 2A - Support the maintenance and enhancement of public and private forest lands.

Action: Support programs that target private landowners in the development of forest management plans.

Action: Foster private enrollment in Sustainable Forest Incentive Act (SFIA) and 2c tax incentive programs.

Strategy 2B - Support the maintenance and enhancement of agricultural lands.

Action: Maximize certification of agricultural land within the CRSL through the Minnesota Agricultural Water Quality Certification Program

Action: Work with local counties to implement Minnesota's Farmland Protection Toolbox on priority agricultural lands.

Action: Support development of grazing management plans in areas identified as working grasslands with the highest water quality benefit (ground and surface water).



Goal 3. Maintain and enhance existing working relationships, partner coordination, and community outreach.

Strategy 3A - Maintain formal SL partnership agreements

Action: Maintain cooperative agreements with National Guard Bureau and ACUB partners.

Action: Maintain administrative ACUB requirements and continue to seek and execute funding for implementation.

Action: Identify funding and mechanisms to continue staff capacity to implement CRSL coordinator responsibilities.

Strategy 3B - Ensure alignment of agency actions and policy priorities at multiple levels of government.

Action: Encourage and develop local and state policies and programs to leverage the Sentinel Landscape partnership.

Action: Coordinate and communicate CRSL Programs up into the state agencies.

Strategy 3C - Develop an internal communication strategy to help maintain the health of the partnership.

Action: Work with partners and stakeholders to link citizens and businesses in the area to support organizations actively working to protect, restore and improve forest and water resources in the watershed.

Action: Review, track, and develop funding proposals that leverage Federal-Federal and Federal-State matching dollars for program implementation.

Action: Proactively educate landowners through coordinated partner outreach.

Action: Implement public outreach programs to build community stakeholder involvement (tours, events).

