



**NATURE**  
**CONSERVANCY**  
**CANADA**

# Tall Grass Prairie

Natural Area Conservation Plan Summary  
2015-2025

# Tall Grass Prairie II Natural Area Conservation Plan Summary

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Cover Photo: Tall-grass prairie in the Tall Grass Prairie Natural Area. Photo Credit: NCC

# The Nature Conservancy of Canada

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The Nature Conservancy of Canada (NCC) is Canada's leading national land conservation organization. As a private, non-profit organization, we partner with individuals, corporations, other non-profit organizations, and governments at all levels to protect our most important natural treasures — the natural areas that sustain Canada's plants and wildlife. We secure properties (through donation, purchase, conservation agreement and the relinquishment of other legal interests in land) and manage them for the long term.

Since 1962, NCC and our partners have helped to conserve more than 2.8 million acres (1.1 million hectares) of ecologically significant land from coast to coast. In Manitoba, we have conserved and protected over 65,000 acres (26,305 hectares) across nine natural areas critical to biodiversity across the province.

## **Our Mission Statement:**

The Nature Conservancy of Canada leads and inspires others to join us in creating a legacy for future generations by conserving important natural areas and biological diversity across all regions of Canada.

## **Our Vision:**

We envision a world in which Canadians conserve nature in all its diversity, and safeguard the lands and waters that sustain life.

## Natural Area Conservation Planning

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Guided by the best-available conservation science, the Nature Conservancy of Canada (NCC) seeks to protect areas of natural diversity for their intrinsic value, and for the benefit of our children and those after them. We focus our work on specific landscapes throughout Canada that have been identified as important to biodiversity conservation, often through ecoregional-scale Conservation Blueprints and Ecoregional Assessments. Specific focal landscapes are referred to as Natural Areas (NA), and a Natural Area Conservation Plan (NACP) is developed for each. The purpose of these plans is to act as strategic plans for conservation implementation and support decision making at inception and throughout the implementation period, so that limited conservation resources are used most efficiently. Through these plans, we seek to identify desired conservation results; develop, prioritize, and implement activities that will lead to these results; track their progress; and adapt based on what we have learned. The scope of each plan encompasses the long-term conservation of all biodiversity in each NA. Conservation planning requires recognition of the shifting nature of landscapes and our knowledge of them. This planning process is viewed as an iterative and ongoing, rather than a once-a-decade exercise.

**This public summary document provides the intended approach at the time of writing. Given NCC's adaptive management-based approach, there will be regular revisions to the NACP, based on new information, perspectives and experience. These revisions may not be reflected in this document.**

## Natural Area Vision Statement

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The Tall Grass Prairie Natural Area (TGPNA) represents one of the largest and last remaining tall-grass prairie landscapes in North America. The TGPNA forms the northern end of an international conservation corridor comprised of protected and managed prairies, wetlands, forests and streams. The local community takes pride in the area, and their actions contribute to its conservation. The local economy benefits through sustainable grazing and haying of natural lands, employment in the conservation sector, and by hosting an increasing number of ecotourists and researchers.

## Implementation Period

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Start date: 07/01/2015

End date: 06/30/2023

## Location

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The Tall Grass Prairie Natural Area (TGPNA/the NA) is a 445,628 hectare (1,101,173 acre) landscape abutting the international border in southeastern Manitoba. Portions of seven Rural Municipalities fall within the Natural Area, as does all of the Manitoba Tall Grass Prairie Preserve (MTGPP). The Natural Area is part of the larger Tallgrass Aspen Parkland international conservation landscape that extends from near Red Lake Falls, Minnesota, to Steinbach, Manitoba, extending over 878,000 hectares (2,170,000 acres). Most of the Natural Area lies within the Northern Tallgrass Prairie Ecoregion, although the easternmost portions extend into the Superior Mixed Forest Ecoregion.

To the west and north of the Natural Area lies the rich open cropland of the Red River Valley bottom. Mixed coniferous-deciduous forest and peatlands characterize the area to the east. Natural landcover connects the east side of the conservation area to the vast Agassiz and Northwest Angle Provincial Forests in Manitoba, and to the rest of the Tallgrass Aspen Parkland in Minnesota.

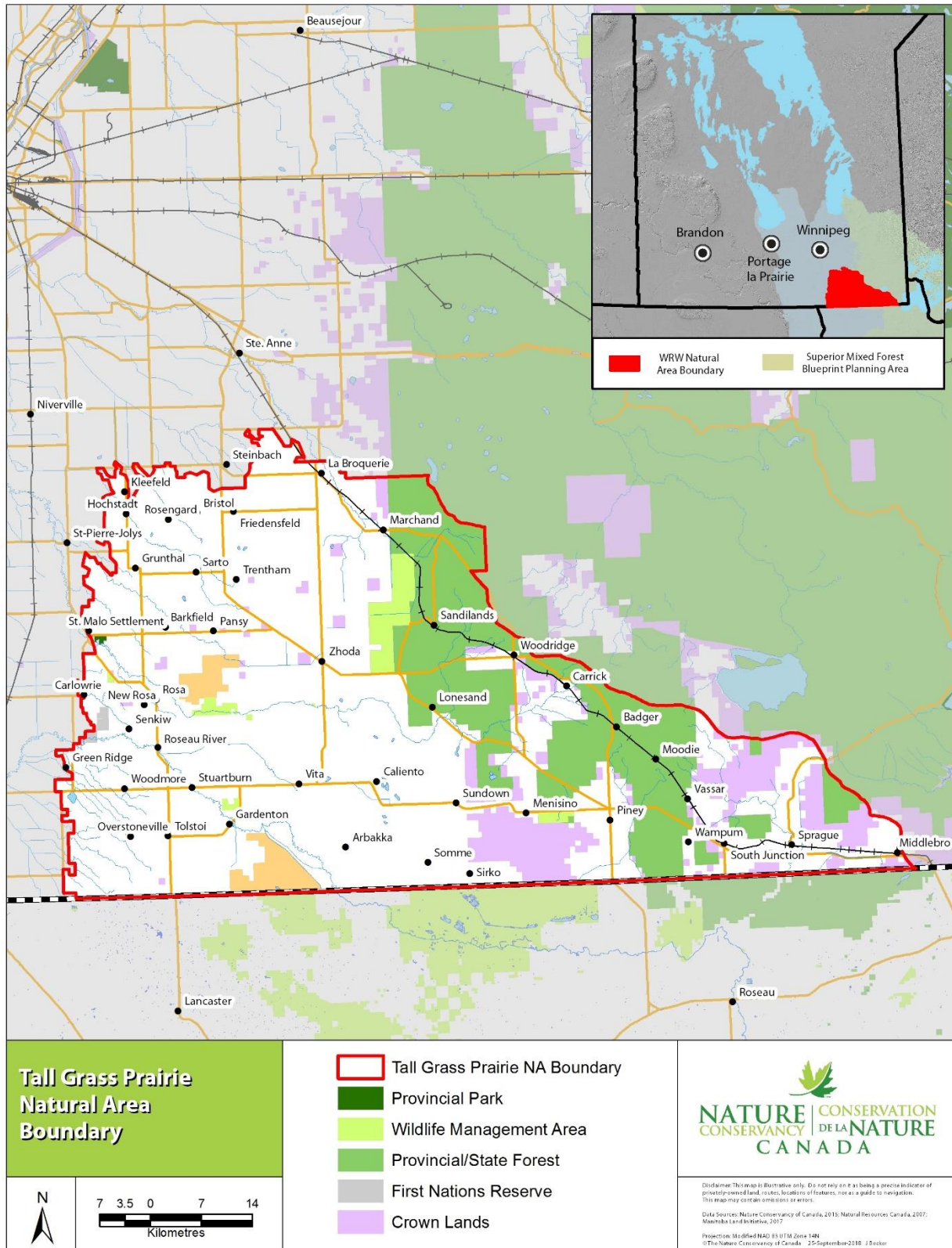
The TGPNA , represents a gradation from the largely open Northern Tallgrass Prairie ecoregion to the continuously wooded Superior Mixed Forest ecoregion to the east, making the delineation of a distinct boundary difficult and ecologically meaningless. Biological aspects of both ecoregions can be observed well inside the boundaries of adjoining ecoregions. Boundaries are critical, however, to conservation planning and allow resources to be focused on tracts of land that have the best chance at being ecologically-sustaining. The Tall Grass Prairie boundary, as initially designed at the ecoregional planning stage (under the name 'Tallgrass Aspen Parkland'), captured an area of similar character, and driven by similar ecological processes. The conservation planning team made two adjustments to this initial boundary. Additional lands on the north and northeastern edge were added. These lands lie within the Superior Mixed Forest Ecoregion, but have character more similar to that



of the TGPNA (largely peat-dominated willow-brush sedge meadow, Quaking Aspen (*Populus tremuloides*, locally known as Aspen or Trembling Aspen) woodland, and Bur Oak (*Quercus macrocarpa*, locally known as Oak)-dominated ancient beach ridges). Two high-priority sites identified through the Superior Mixed Forest ecoregional planning process fall within the expanded TGPNA boundary; the Rat River Bur Oaks and the Rat River Swamp (Superior Mixed Forest Ecoregional Planning Team 2002).

The boundary of the TGPNA presented herein represents a further refinement of the Canadian boundaries of the Tallgrass Aspen Parkland. Fine-scale adjustments were made to include nearby element occurrences of endangered, threatened or special concern tallgrass prairie species. Where the boundary passed through a discrete, publicly managed land unit (e.g. community pasture, Wildlife Management Area, other Crown land), the boundary was expanded to include the entire property. The boundary was extended east to encompass the entire Rat River, Roseau River, and Joubert Creek watersheds.

Much of the eastern boundary is contiguous with NCC's Whitemouth River Watershed NACP. The eastern-most boundary abuts the Lake of the Woods Watershed (Ontario region's Rainy River to Lake of the Woods NACP extends to the Manitoba border, but does not include the Manitoba portion of the Lake of the Woods watershed). The southern boundary is congruent with the U.S. border.



**Map 1. Tall Grass Prairie Natural Area Boundary**

## Conservation Context

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The size, intactness, connectivity and ecological diversity of the 445,628 hectare (1,101,173 acre) TGPNA support an exceptional diversity of species. Over 1,000 species have been identified at the Manitoba Tall Grass Prairie Preserve alone. Seven globally imperilled species make their home in the natural area, including Canada's only populations of Powesheik Skipperling (*Oarisma powesheik*), and Western Prairie White-fringed Orchid (*Platanthera praeclara*). Twenty-nine species listed on national endangered species lists occur in the Natural Area, and



Powesheik skipperling  
Photo: Jordan Becker, NCC

20 species listed provincially. The natural area supports over 100 provincially rare or uncommon species, 20 nationally rare or uncommon species and 8 globally rare or uncommon plant communities. Several rivers and streams wind through the area, providing important habitat for over 50 species of fish and several molluscan species. Large mammals such as Elk (*Cervus elaphus*) and Wolves (*Canis lupus*) still roam across the landscape. Not surprisingly, ecoregional planning identified the area as a high priority site for conservation action.

Tall-grass prairie and other habitats continue to be lost in the TGPNA. The biodiversity of natural areas across the landscape is being reduced due to the alteration and disruption of natural fire and hydrological cycles. Additional threats include cultivation of natural areas, gravel extraction, the spread of invasive species and woody encroachment. 3.4% (14,937 hectares, 36,911 acres) of the natural area is protected (IUCN category I-IV, mining, logging, hydro-development prohibited). An additional 21.5% (95,908 hectares, 236,993 acres) of the TGPNA lies within a variety of land ownership types pertinent to conservation but not necessarily protected from development (e.g. Provincial Forest, Community Pasture). (See Appendix for information on IUCN protected area categories.)

Much of the local economy is agriculturally based, but ecotourism is increasing. The stony, wet, and flood-prone soils that characterize much of the southern and eastern portions of the natural area support grazing and haying, while the western and northern portions are largely characterized by annual cropland. Nearly 60% of the TGPNA is privately owned.



Fall aspen  
Photo: NCC

NCC has been active in the area since 1994.

Moderate to good progress was made towards the goals outlined in NACP I. Strategic securement, a robust stewardship program, a strong research and monitoring program, establishment of an interpretive centre, and improved engagement of local community members all served to further the long-term vision.

Several challenges in implementing NACP I can be linked to the need for a comprehensive and measurably effective communication plan that incorporates messaging in support of securement, stewardship, outreach, community relations, government relations, marketing and fundraising. Invasive species and woody encroachment appear to have increased through NACP I, suggesting the need for a more intensive and systematic landscape-scale approach.

This NACP builds upon the successes and lessons learned of the previous plan – if successfully implemented this plan is expected to:

- Increase NCCs ability to implement NACPs and PMPs through increased local support due to increasing local economic dependence on healthy natural areas that support agriculture, ecotourism, and research
- Increase NCCs ability to implement NACPs and PMPs through increased local support through well-planned, coordinated, and measurably-effective community relations
- Improve the viability of fire-dependent ecosystems, such as tall-grass prairie
- Influence improved water management and wetland health across the natural area
- Increase compatible land use through leverage of NCC lands and direct support of private landowners
- Improve viability of core Tall Grass Prairie Preserve lands by measurably reducing invasive species on and near conservation lands,
- Increase the viability of existing conservation areas through increased and strategic securement and maintenance of existing connections and corridors, increasing lands protected from development from 3.4% to 4% of the natural area



Western Ironweed along the  
Rat River  
Photo: Cary Hamel/NCC



# Biodiversity Targets

<b>Target:</b> Beach Ridge Wetlands	<b>Current status:</b> GOOD	<b>Desired future status:</b> GOOD
<b>Goals</b> <ul style="list-style-type: none"> <li>By 2025, &gt; 90% of macrosites<sup>1</sup> continue to support pre-1880 wetland coverage.</li> </ul>		
<b>Target:</b> Lake Plain Wetlands	<b>Current status:</b> GOOD	<b>Desired future status:</b> GOOD
<b>Goals</b> <ul style="list-style-type: none"> <li>By 2050, at least 33% of lake plain wetlands are unaffected by drains and elevated barriers such as roads at 90% of macrosites<sup>1</sup>.</li> <li>By 2025, 50% of management units burn at least once within 2x natural fire return interval<sup>2</sup>.</li> </ul>		
<b>Target:</b> Matrix Upland Forest	<b>Current status:</b> FAIR	<b>Desired future status:</b> GOOD
<b>Goals</b> <ul style="list-style-type: none"> <li>By 2025, 50% of management units burn at least once within 2x natural fire return interval<sup>2</sup>.</li> </ul>		
<b>Target:</b> Mobile Mammals	<b>Current status:</b> GOOD	<b>Desired future status:</b> GOOD
<b>Goals</b> <ul style="list-style-type: none"> <li>By 2025, natural area adult elk population remains at a minimum of 200.</li> <li>By 2025, all tall-grass aspen parkland macrosites<sup>1</sup> remain suitably connected and are connected to major conservation areas east of the tall-grass aspen parkland.</li> </ul>		
<b>Target:</b> Rivers/Riparian Systems	<b>Current status:</b> FAIR	<b>Desired future status:</b> GOOD
<b>Goals</b> <ul style="list-style-type: none"> <li>By 2035, maintain natural size<sup>3</sup> of Rat River at 100% and improve Roseau River to &gt; 80%.</li> </ul>		
<b>Target:</b> Tall-Grass Prairie and Savanna	<b>Current status:</b> FAIR	<b>Desired future status:</b> GOOD
<b>Goals</b> <ul style="list-style-type: none"> <li>By 2025, 50% of management units burn at least once within 2x natural fire return interval<sup>2</sup>.</li> <li>By 2035, Poweshiek Skipperling persist at &gt; 15 sites within the Natural Area.</li> </ul>		
<b>Overall target viability for the Natural Area:</b>	<b>Current status:</b> GOOD	<b>Desired future status:</b> GOOD

<sup>1</sup> Macrosites are core conservation blocks within the NA ranging from 4,000-21,000 hectares in size. There are 10 macrosites identified in TGPNA.

<sup>2</sup>Historic fire interval in the late 1800s is estimated at once every three years.

<sup>3</sup> Natural size as determined by historic amount of river miles. River miles can be reduced by channelization.

## Threats

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The table below includes only those threats assessed as medium or higher. This assessment is based the threats and their expected impact on the viability of the target over the course of the NACP. See the Appendix for more information on how threats are identified and assessed.

IUCN Classification*	Threat	Overall magnitude
7.1 Fire and Fire Suppression	Incompatible fire management	High
7.2 Dams & water Management/Use	Channelization of natural rivers or streams and creation/operation of drainage ditch network	High
2.1 Annual & Perennial Non-Timber Crops	Incompatible conversion to annual cropland	Medium
3.2 Mining and Quarrying	Incompatible gravel extraction practices	Medium
8.1 Invasive Non-Native/Alien Species	Invasive/alien species	Medium
8.2 Problematic Native Species	Woody vegetation encroachment	Medium
<b>Overall Threat Status for the Natural Area</b>		High

\*See Appendix for information on IUCN Classifications

# Strategic Plan


## 1.1 Site/Area Protection

### Permanent protection of key land parcels

*Importance: Necessary*

- Secure Priority 1 or 2 lands through fee simple purchase and conservation agreement by June 2025, including parcels supporting xeric prairie
- Consider the opportunistic securement of ecologically significant Priority 1,2 or 3 lands through donation or purchase of easements or land to provide connections between Priority 1 or 2 parcels, improve hydrology/restore wetlands, increase grassland or savanna block size, and protect exceptional areas
- Annually submit list of newly-acquired NCC lands to the Government of Manitoba's Protected Areas Initiative (PAI) for inclusion in Manitoba's Protected Areas Network.
- Maintain NCC representation on Manitoba Community Pastures Management Committee

Objectives:

-  By 2025, proportion of Natural Area that is protected by NCC and other organizations (IUCN Categories IV or higher) has increased from 3.4% to 4%



## 1.3 Conservation Science and Planning

### Address key knowledge gaps

*Importance: Necessary*

- Determine Status of Red-tailed Leafhopper
- Determine the perceptions & attitudes of RM of Stuartburn residents regarding conservation initiatives, conservation agencies and opportunities for future socio-economic-environmental development
- Determine desired future condition of native grasslands in the Natural Area

### Conservation planning

*Importance: Necessary*

- Complete progress reports for the NACP bi-annually
- Review and update the Tall Grass Prairie NACP by July 2025
- By July 2017, update climate change adaptation of NACP. Revise NACP actions, if necessary


## 2.1 Site/Area Management

### Temporary securement and management of key land parcels

*Importance: Necessary*

- Secure Priority 1 or 2 lands through 5 year lease agreements by June 2025

Objectives:

-  By 2025, at least one lease has been converted to perpetual securement

### Purchase key equipment for prescribed fire by April 2017

*Importance: Necessary*

**Implement status and effectiveness monitoring protocols as scheduled in NACP monitoring plan**

*Importance: Necessary*

**Prepare Interim Stewardship Statements (ISS) and Baseline Inventories for fee-simple properties within one year of acquisition and Property Management Plans (PMPs) following NCC's approved Stewardship Performance Standards**

*Importance: Necessary*

**Conduct stewardship actions on acquired properties as required (short-term stewardship action outlined in CPSs, longer term as outlined in Property Management Plans). Annually satisfy taxation and other legal obligations for all fee-simple properties**

*Importance: Critical*

**Monitor all easement properties annually as required**

*Importance: Necessary*



## **2.2 Invasive/Problematic Species Control**

**Establish invasive species monitoring and control program for core conservation area**

*Importance: Critical*

- Establish working group to determine invasive species project scope, boundary and goals
- Bi-annually report on state of invasive species in core conservation area
- Support working group partner efforts to control invasive species in core conservation area

Objectives:

-  By July 2019 there are funded, organized entities (with plans) responsible for key invasive species on private lands, road allowances, and conservation lands in the core conservation area
-  Core conservation area is free of spotted knapweed and exhibits a 50% reduction in leafy spurge by 2025


## **2.3 Habitat and Natural Process Restoration**

**Restore Prairie and Savanna**

*Importance: Necessary*

- Develop natural area prairie restoration strategy encompassing site selection, consideration of alternative methods, resourcing and funding considerations

Objectives:

-  By July 2017, all prairie and savanna restoration activity is linked to natural area prairie and savanna restoration plan

**Develop & maintain fire-oriented coordination and communications with Office of Manitoba Fire Commissioner, Rural Municipal Fire Departments and Manitoba Conservation and Water Stewardship and other fire practitioners**



*Importance: Critical*

Objectives

- 🌱 By 2016, all NCC prescribed fire operations are coordinated with local fire departments
- 🌱 By 2018, at least one partner provides NCC with prescribed fire operation assistance
- 🌱 Every management unit in the North and South Blocks of the Tall Grass Prairie Preserve treated at least once by 2025

**Gain a better understanding of hydrology of Lake Plain Wetlands**

*Importance: Necessary*

Objectives:

- 🌱 At least one comprehensive scientific report outlining current understanding of Lake Plain hydrology is produced by June 2017

**Restore hydrology at key sites**

*Importance: Critical*

Objectives:

- 🌱 Hydrological flow is restored a minimum of three sites by 2025

**Develop & implement hydrology communications plan to influence local decision making, utilizing restored sites and science products as demonstrations**

*Importance: Necessary*

Objectives:

- 🌱 Key local decision makers engaged at least three times, consistently, with communications plan by 2020

**Study connectivity/barriers to fish movement on entire length of Rat River & share results**

*Importance: Necessary*

Objectives:

- 🌱 At least one comprehensive scientific report outlining findings of Rat River connectivity study is produced by June 2019

**3.2 Species Recovery**

**Multi-species and ecosystem at risk recovery, management and research**

*Importance: Necessary*

- Develop Multi-SAR workbooks for all Management Units, update annually
- Work with Manitoba Conservation & Water Stewardship & Environment Canada to formalize use of workbooks to recover species and ecosystems at risk

Objectives:

- 🌱 By June 2016, multi-SAR workbooks are utilized and perceived as useful by NCC land managers

- 🌱 By June 2017, the implementation of stewardship actions as guided by multi-SAR workbooks has been formally accepted by Manitoba Sustainable Development as best practice in guiding the recovery of multiple at-risk species and ecosystems

**Annually submit rare species & species at risk monitoring findings to the Manitoba Conservation Data Centre**

*Importance: Necessary*

**4.3 Awareness and Communications**

**Develop Communications Plan and Implement**

*Importance: Necessary*

- Develop communications plan
- Implement communications plan & review every two years as part of NACP progress report

Objectives:

- 🌱 By July 2016, all natural area communications by NCC staff are consistent with communications plan
- 🌱 Increase Natural Area community support
- 🌱 Increase RM of Stuartburn community support
- 🌱 Visitors demonstrate increased understanding and support of NCC and tall-grass prairie
- 🌱 Number of local residents employed in tourism/ecotourism increases by 2025
- 🌱 Youth education programming offered annually

**6.4 Conservation Payments**

**Establish Stewardship Credit Program**

*Importance: Necessary*

- Conduct feasibility study to determine program requirements, establish pilot project details
- Implement pilot project on one forage harvest unit and one grazing unit
- Report on progress/findings of pilot project
- Invite local landowners who have worked with NCC in the past (and open invitation to community) to showcase Stewardship Credit Program
- Implement program (6 grazing projects, 8 haying projects)
- Determine effectiveness of program

Objectives:



- 🌱 By 2018, at least one project has been enrolled, and by 2025, 14 projects have been enrolled
- 🌱 By 2025, over 90% of participants enrolled in the program report a decrease in farm production costs

**Support Off-site Watering Program**

*Importance: Necessary*

- Meet with Conservation District to refine and formalize project components and delivery
- Support landowners enrolled in Conservation District Off-site Watering Program in Rat & Roseau River midstream and headwaters areas

Objectives:

-  Cattle excluded from headwater or midstream access at minimum of five locations by 2025
-  NCC and Conservation District partner on at least one initiative by 2020, and at least two initiatives by 2025

\*Strategies are ranked on their relative importance to achieving the biodiversity goals of the plan. These rankings are defined as follows.

**Critical:** Conservation strategies that, without implementation, would clearly result in the reduction of viability of a biodiversity target or the increase in magnitude of a critical threat within the next 5-10 years. Also includes information that requires research before important decisions can be made on the management of biodiversity targets.

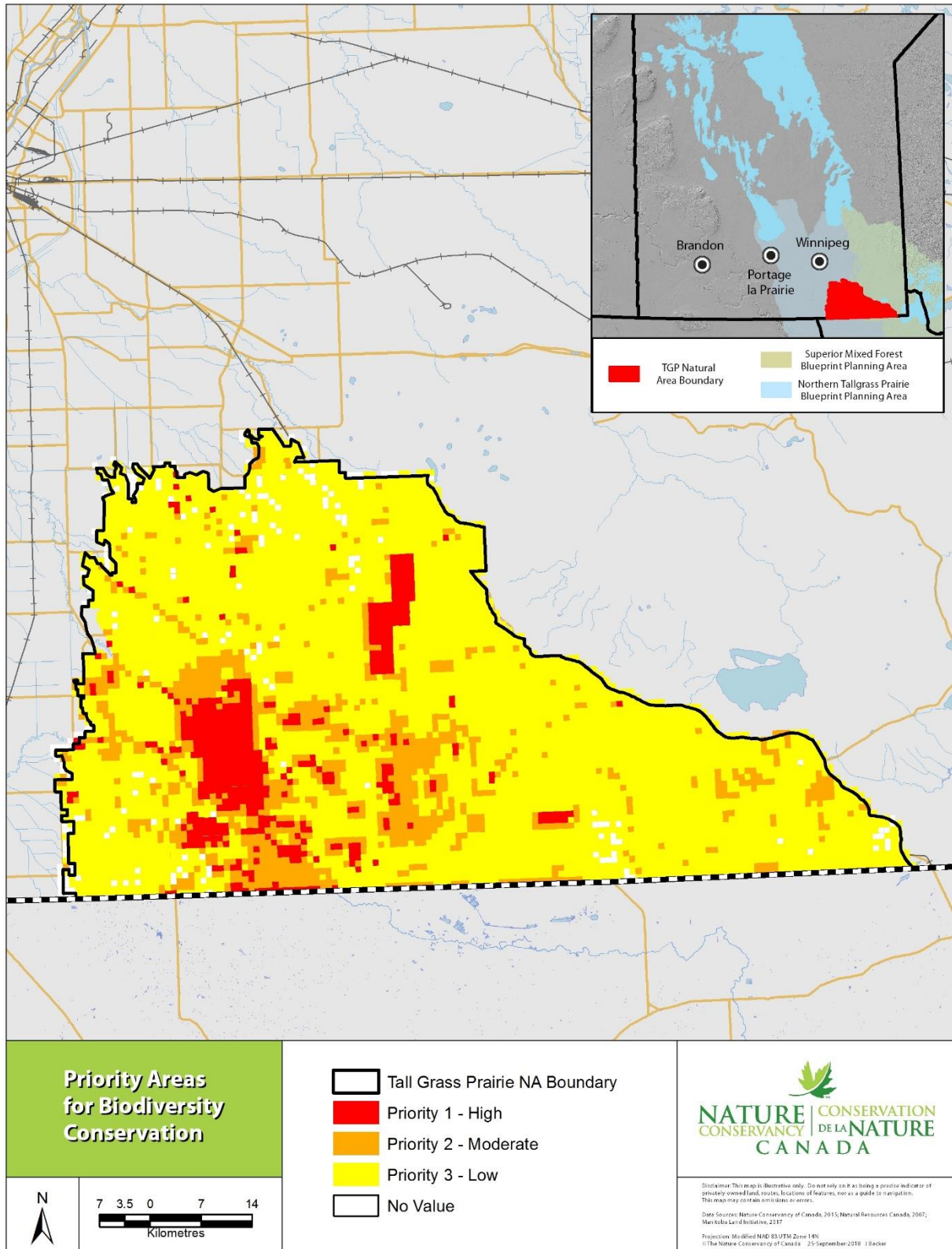
**Necessary:** Conservation strategies that are needed to maintain or enhance the viability of biodiversity targets or reduce critical threats. Also includes research that will inform decisions regarding management of biodiversity targets.

**Beneficial:** Conservation strategies that will assist in maintaining or enhancing viability of biodiversity targets and reducing threats.

## Priority Areas for Biodiversity Conservation

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In order to focus conservation efforts and ensure the most efficient and effective use of resources, NCC conducts an analysis to identify priority areas within the Natural Area landscape. This analysis considers the presence, distribution, and relative abundance of biodiversity targets, Species at Risk, and existing conservation lands within the Natural Area. By using this prioritization to guide the delivery of activities and programming, NCC strives to obtain the best possible impact on defined biodiversity targets while minimizing threats to those targets.



**Map 2. Priority areas for delivering conservation programming**



## Project Team

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Primary Author: Cary Hamel, Nature Conservancy of Canada

Planning Team:

<b>Name</b>	<b>Organization</b>	<b>Role</b>
Michelle Ammeter	Manitoba Weed Supervisors Association	Project advisor
Jordan Becker	NCC	Team member
Ryan Brook	University of Saskatchewan	Project advisor
Christine Chilton	NCC	Team member
Jenny Dupas	Eastman Tourism Association	Project advisor
Jonathan Eerkes	The Nature Conservancy	Project advisor
Phil Gerla	University of North Dakota	Project advisor
Stephen Gietz	NCC	Team member
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Melissa Grantham	NCC	Project advisor
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Kevin Teneycke	NCC	Team member

## Acknowledgements

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A conservation plan for the Tall Grass Prairie Natural Area was developed 2003-2006 by the Nature Conservancy of Canada (NCC) in collaboration with The Nature Conservancy (TNC), Manitoba Conservation Data Centre (CDC), Minnesota Department of Natural Resources, Manitoba Tall Grass Prairie Preserve, and Manitoba Conservation. It was published under the title: "Conservation Area Plan for the Tallgrass Aspen Parkland" (Hamel et al. 2006). Tall Grass Prairie NACP I represented an adaptation of Hamel et al., modified to fit the NACP template and updated, where possible, with the newest available information. Hamel et al. identified a set of conservation actions to be applied in both the US and Canadian portions of Tallgrass Aspen Parkland Conservation Area. The actions in NACP I focussed on the Canadian portion of the landscape. This second generation NACP represents a further refinement and evolution of the planning process begun in 2003, and incorporates lessons learned during implementation of the both the Tallgrass Aspen Parkland Conservation Area Plan and the Tall Grass Prairie NACP.

Funding for the development of the Tallgrass Aspen Parkland Conservation Area Plan was provided by TNC and NCC, with significant in-kind support from the

Manitoba CDC and administrative support by the Manitoba Museum. Planning team participation in TNC's Efroymsen Fellowship workshop series was supported by a gift to TNC by Dan and Lori Efroymsen. The project benefited from the expertise and experience of dozens of researchers, government staff, land owners, land managers, and conservation practitioners. The advice and assistance of Dr. Phil Gerla, Jennifer Hall, Dr. Meredith Cornett, Dr. Jenny Brown and Greg Low of TNC, Christie Borkowsky and Laura Reeves of the Manitoba Tall Grass Prairie Preserve, Jason Greenall and Peggy Westhorpe of Manitoba Conservation, the TNC Wetland Learning Network, and fellow Efroymsen workshop teams was critical to the plan's success. A number of conservation experts provided valuable advice and/or information through the course of this planning exercise, including Dr. Jim Duncan, Bill Watkins, Dr. Vince Crichton, Glen Suggett, Lindsay Donnelly, Doug Pastuck (retired) and Alan Meyers of Manitoba Conservation, Bill Berg (retired) of the Minnesota Department of Natural Resources, Brian Winter of The Nature Conservancy, Christine Reisz of the Minnesota Department of Natural Resources, Marty Johannesson and Shelley Matkowski of Manitoba Water Stewardship, Dr. Stephane McLachlan and Ryan Brook of the University of Manitoba, Dr. Eva Pip of the University of Winnipeg, Ed Ledohowski of Manitoba Culture, Heritage and Tourism, Dr. Lee Manske of North Dakota State University, Robert Dana of the Minnesota Natural Heritage Information Centre, and Gary Huschle of the Agassiz National Wildlife Refuge.

A number of reviewers made valuable comments and editorial suggestions on the Conservation Area Plan for the Tallgrass Aspen Parkland manuscript: including Dr. Meredith Cornett and Dr. Jenny Brown of TNC, Helios Hernandez, Peggy Westhorpe and Jason Greenall of Manitoba Conservation, Christie Borkowsky and Laura Reeves of the Manitoba Tall Grass Prairie Preserve, Dr. Bob Wrigley and Elizabeth Punter of NCC Manitoba's Scientific Advisory Committee, and Janet Hamel. Preparation of appended species lists was aided by Carine Deland and Nadira Cardzic, a volunteer with the Manitoba Conservation Data Centre. Initial acquisition and processing of Dominion land survey maps was completed by Charles Fregeau and Richard Lebedynski.

Subsequent to the development of NACP I, the Tallgrass Aspen Parklands/Tall Grass Prairie NACP underwent a critical analysis and revision as part of a TNC-led climate change adaptation exercise. Members of the climate change adaptation team included Meredith Cornett (TNC), Phil Gerla (University of North Dakota), Russ Reisz (TNC), Jon Eerkes (TNC), Julie Pelc (NCC), Marissa Ahlering (TNC), Melanie Dubois (Agriculture Canada), Mae Elsinger (Agriculture Canada), and Jaimee Dupont (NCC).

Intern Eugenia Druyet advanced the Situation Analysis of this NACP through a detailed examination of partner and community perceptions and conflicts as they pertain to conservation approaches.

NCC Manitoba's Scientific Advisory Committee provided advice through engagement in a review of status and effectiveness monitoring results and scoping researcher engagement considerations as part of developing NACP II.

NACP development was supported by the Government of Canada's Natural Areas Conservation Program and a grant from the Province of Manitoba.

## References

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Superior Mixed Forest Eco-regional Planning Team. 2002. The Superior Mixed Forest Eco-region: A Conservation Plan. The Nature Conservancy, Madison, Wisconsin. 75 pp. + appendices.

# Appendix

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## **Conservation Planning Approach**

NCC has committed to examining the effectiveness of conservation activities using an adaptive management approach. To do so, NCC adopted the Conservation Measure's Partnership (CMP)'s *Open Standards for the Practices of Conservation* as an adaptive and results based planning method. For more information on this approach and the methods used in the development of this NACP visit:

<http://cmp-openstandards.org/>

## **IUCN Protected Areas Categories**

<https://www.iucn.org/theme/protected-areas/about/protected-area-categories>

## **Threat and Conservation Actions Classifications**

Threat and Conservation Action Class and Nomenclature are based on the International Union for Conservation of Nature (IUCN) Classification Schemes:

Conservation Actions:

<http://www.iucnredlist.org/technical-documents/classification-schemes/conservation-actions-classification-scheme-ver2>

Threats:

<http://www.iucnredlist.org/technical-documents/classification-schemes/threats-classification-scheme>