

Meewasin Valley-wide Resource Management Plan (RMP) 2017 - 2027

MEEWASIN

Meewasin is a conservation agency dedicated to conserving the cultural and natural resources of the South Saskatchewan River valley. Meewasin's mandate is to ensure a healthy and vibrant river valley, with a balance between human use and conservation by:

- Providing leadership in the management of its resources;
- Promoting understanding, conservation and beneficial use of the Valley; and
- Undertaking programs and projects in river valley development and conservation, for the benefit of present and future generations.



Prescribed burning at Beaver Creek Conservation Area (2016)



Northern Leopard Frog (*Lithobates pipiens*) in the South Saskatchewan River



Prairie Crocus (*Anemone patens*) at Wanuskewin Heritage Park

Methodology

In 2015, Meewasin received funding from Environment and Climate Change Canada through the Habitat Stewardship Program to develop a Meewasin Valley-wide Resource Management Plan. Meewasin partnered with the Nature Conservancy of Canada - Saskatchewan Region (NCC), who were simultaneously developing a plan for the same region, to use their method of regional conservation planning called Open Standards for the Practice of Conservation.



Using Miradi, a software program for conservation practitioners, we were able to go through the 5 steps of the Open Standards model: 1) conceptualize; 2) plan actions and monitoring; 3) implement actions and monitoring; 4) analyze, use, adapt; and 5) capture and share learning (Conservation Measures Partnership 2013)

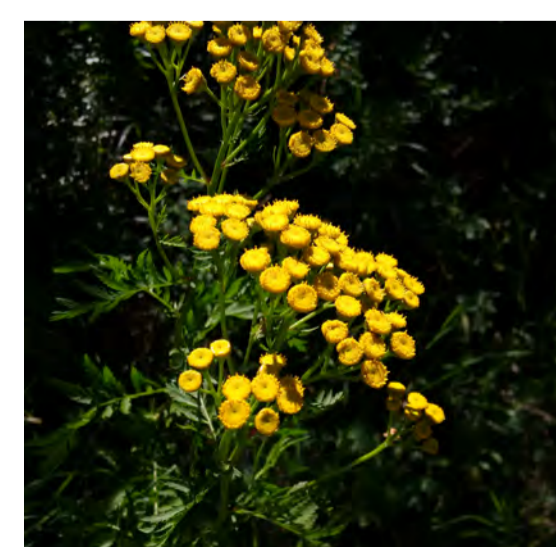
Over 60 people (representatives from over 30 agencies) attended two workshops led by Meewasin and NCC in fall 2015 to develop a series of targets, threats and indicators for the project.

Vision Statement for the Meewasin Valley-wide RMP



Native wildflower Dotted Blazing-star (*Liatris punctata*) is found in native grasslands

Meewasin is the premier conservation agency and land trust in the region. Meewasin is a leader in the active conservation and enhancement of biodiversity, native species, habitats, and ecosystems through a strong and integrated resource management program. Awareness is created to recognize the physical and mental health benefits provided through the conservation of natural areas. These areas also provide increased opportunities for the citizens and visitors of the Meewasin Valley to connect with nature. Meewasin successfully partners with all jurisdictions, agencies, non-government organizations, volunteer groups, landowners, and the general public through a shared vision and united goal to enhance and maintain these ecologically connected landscapes. Meewasin's resource management program is regionally, provincially, nationally and internationally recognized for its success in conserving the Meewasin Valley.

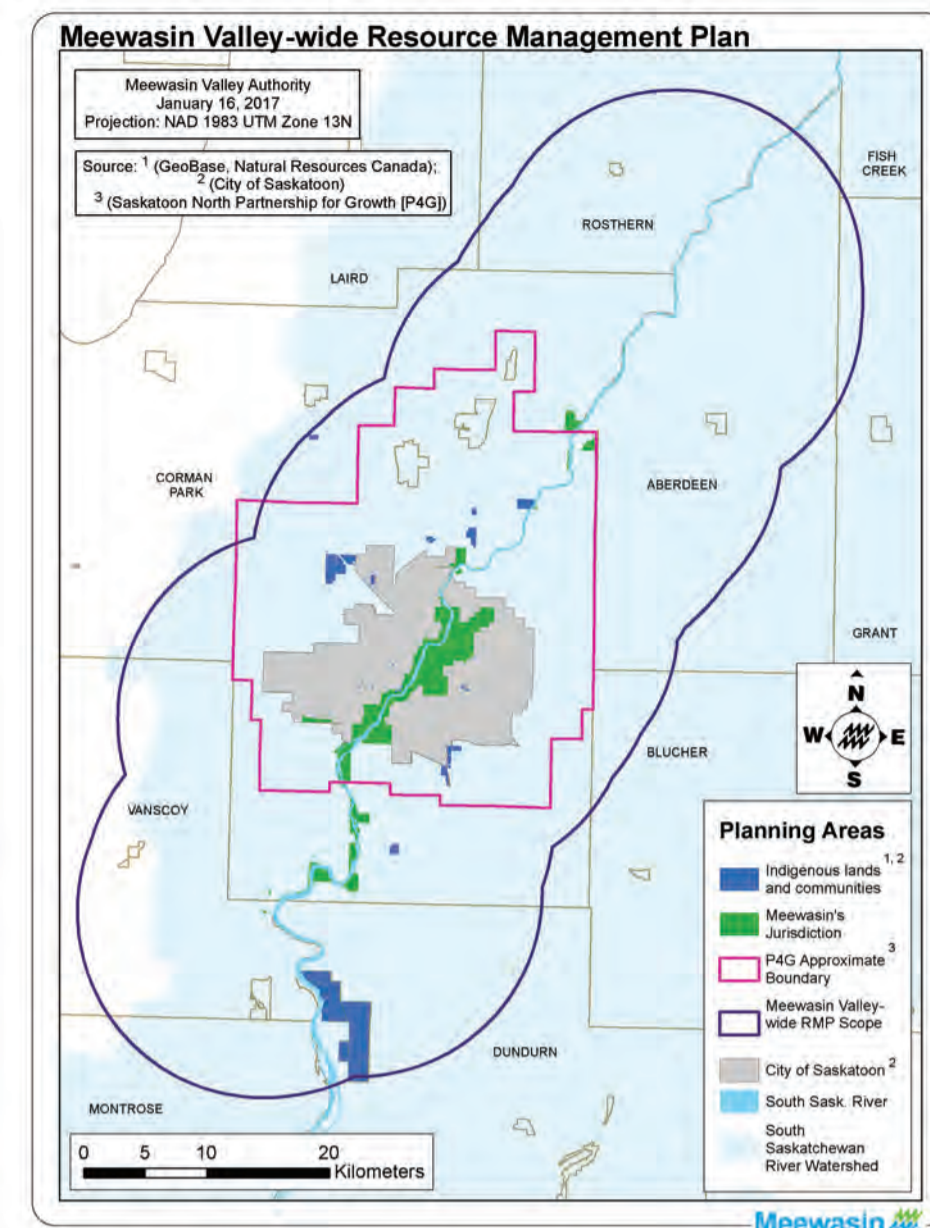


Invasive species Common Tansy (*Tanacetum vulgare*)

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Project Scope



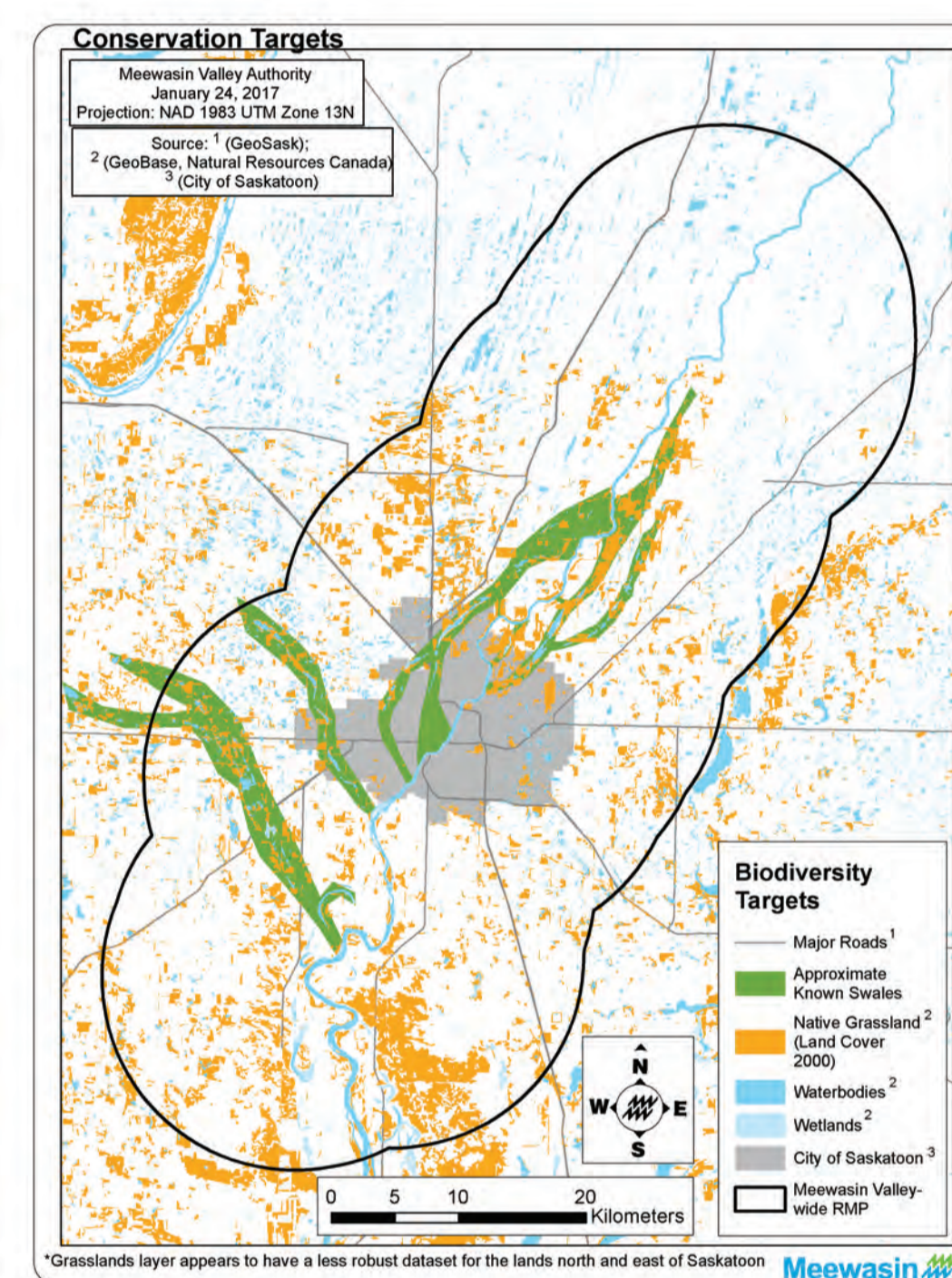
Meewasin's Valley-wide Resource Management Plan is based on a 15 kilometre buffer of Meewasin's jurisdiction. Meewasin's jurisdiction is approximately 6,700 hectares, but with the buffer, this brings the area of the planning scope to 294,184 hectares. Meewasin's jurisdiction is centered in the City of Saskatoon and stretching outwards into the Rural Municipality of Corman Park.

The Meewasin Valley-wide RMP is a 10 year conservation plan for the area encompassing the Meewasin Valley. This plan is a living document that allows updates and new information to be added as it is acquired.

Conservation Targets

The conservation targets of hydro-riparian areas (rivers, creeks and the riparian vegetation surrounding them), post-glacial channel scars (swales), native grasslands and wetlands make up most of the complex ecosystems within the Meewasin Valley-wide Resource Management planning area.

Targets	Summary Viability Rating
Hydro-riparian Areas	Fair
Native Grasslands	Fair
Swales	Fair
Wetlands	Fair



Viability Assessment

Target	Key Ecological Attribute	Indicator	Status (Poor, Fair, Good, or Very Good)
Hydro-riparian Areas	Connectivity	Average length of undisturbed riparian areas	Fair
	Ecosystem health	Percent buffer in permanent cover	Fair
		Riparian health assessment	Poor
		Fish population	Fair
Native Grassland	Water Quality	Water Quality Index	Good
	Connectivity	Fragmentation of landscape with linear disturbances	Fair
	Ecosystem health	Percent change in population of grassland birds	Unknown
Post-Glacial Channel Scars (Swales)		Range health	Fair
	Natural disturbance regime	Annual extent of burning on agency land	Poor
	Connectivity	Fragmentation of swales with linear disturbances	Fair
Wetlands		Percent of swales with healthy amounts of permanent cover	Fair
	Ecosystem Health	Percent of land cover in native habitat	Poor
	Density of wetlands	Annual rate of wetland area loss	Fair
	Diversity of wetland types	Expected distribution of types of wetlands	Unknown
	Ecosystem health	Percent of wetlands with healthy amounts of permanent cover	Poor
	Wetland health assessment	Poor	

To determine the current status or health of the conservation targets, a viability assessment was conducted. The identification of key ecological attributes (KEAs), defined as the "aspect of a target's biology or ecology that if present, define a healthy target and if missing or altered, would lead to the outright loss or extreme degradation of that target over time" (Conservation Measures Partnership 2013), allowed Meewasin and NCC to develop a list of indicators to measure the status of the KEAs. In the viability assessment indicators, KEAs and targets have their status ranked as poor, fair, good or very good.

Threats

Threats to the conservation targets were ranked based on scope, severity and irreversibility within the context of the project area. The threats were many and varied, with invasive species standing out as the greatest threat to conservation within the planning area (very high threat). Other high threats include climate change, dams and water management, runoff of pesticides and fertilizers, trespass issues, stormwater, and fire and fire suppression.

Threats	Hydro-riparian Areas	Post-Glacial Channel Scars (Swales)	Native Grassland	Wetlands	Summary Threat Rating
Invasive Species	Very High	High	High	High	Very High
Climate Change (Regional)	Very High	Low	Low	Medium	High
Dams and Water Management	Very High	High	Low	High	High
Fire and fire suppression	Low	High	High	Low	High
Runoff of pesticides and fertilizers	High	High	Low	High	High
Stormwater	High	High	Low	Low	High
Suburban Development	Medium	Very High	Medium	Low	High
Trespass Issues	High	High	Medium	Medium	High

Goals

Goals are a "formal statement detailing a desired impact of a project such as the desired future status of a target" (Conservation Measures Partnership 2013).

Goal	Targets
Awareness of conservation targets, threats and resource management activities is increased within the Saskatoon Region and provincially through successful completion of outreach activities	Hydro-riparian Areas, Native Prairie, Swales, Wetlands, Connection to Nature, Physical Health
Continue to mitigate the impact development has on conservation targets through the Meewasin Valley Authority Act's Development Review Process	Hydro-riparian Areas, Native Prairie, Swales, Wetlands, Physical Health
Ecological health of conservation targets on Meewasin Conservation sites have improved by 20%, as determined through ecological health assessments, with progress underway in the Meewasin Conservation Zone	Hydro-riparian Areas, Native Prairie, Swales, Wetlands, Physical Health
Invasive species on Meewasin Conservation sites have significant reduction in cover and density (10%-50%, depending on invasive species type), with progress underway in the Meewasin Conservation Zone	Hydro-riparian Areas, Native Prairie, Swales, Wetlands, Physical Health
Natural disturbance regimes including fire and grazing are employed on key Meewasin Conservation sites with a minimal goal of 15% disturbance / site / year	Native Prairie, Swales, Connection to Nature
Public access to nature and conservation of biodiversity habitat is improved with the addition of Conservation sites (5 additional sites, one site expanded) and an expanded Meewasin Conservation Zone	Hydro-riparian Areas, Native Prairie, Swales, Wetlands, Connection to Nature, Physical Health
Restoration of ecological integrity on Meewasin Conservation sites is underway with the development and implementation of site-specific restoration plans to address historically degraded conservation targets	Hydro-riparian Areas, Native Prairie, Swales, Wetlands, Connection to Nature, Physical Health

Actions

Actions are the activities or tasks that conservation practitioners use to achieve their conservation planning objectives and goals and are a very important component of a project as this is the on-the-ground work that moves the conservation practitioner towards their goals to improve the status of their conservation targets.

The Meewasin Valley-wide Resource Management Plan includes a list of over 180 recommended actions to be carried out over the next 10 years (2017-2027). These will form the basis of the annual work plan for Meewasin and involves many partnerships, which are the key to success of this plan. Not only do these partnerships include other agencies, but also include inter-departmental cooperation within Meewasin to carry out the various actions.



Monitoring for aquatic invasive species is identified as an action in the Meewasin Valley-wide RMP

To view the report, visit the Downloads page on www.meewasin.com

References
Conservation Measures Partnership. (2013, April). Open standards for the practice of conservation. In The Open Standards for the Practice of Conservation. Retrieved January 31, 2018, from <http://cmp-openstandards.org/wp-content/uploads/2014/03/CMP-OS-V3-0-Final.pdf>
Meewasin Valley Authority. (2017, March). Meewasin valley-wide resource management plan. Retrieved January 31, 2018, from https://meewasin.com/assets/upload/resources/Meewasin%20Valley-Wide%20Resource%20Management%20Plan_March2017.pdf