

RAN SASKATCHEWAN REPRESENTATIVE AREAS NETWORK

PROGRESS REPORT 2005

Saskatchewan Environment is leading development of a government-wide plan to support an economy that is both prosperous and green. The Green Policy will place greater emphasis on integrating environmental and economic considerations, implementing best practices and promoting shared responsibility for environmental stewardship.

A Green Policy Framework has been developed from discussions with a cross-section of sectors in the province. The document is intended to frame formal consultations on how to move the province forward to a sustainable future. This framework supports ongoing programs such as the Representative Areas Network, a program that has been actively expanding its network of representative examples of Saskatchewan landscapes for nearly a decade.

BACKGROUND



The Saskatchewan Representative Areas Network Program was launched in 1997 with approval of the Representative Areas Network Final Action Plan. The Plan sought to conserve representative and unique examples of Saskatchewan's varied and diverse landscapes. Since the beginning of the network's launch, more than two million hectares of both Crown and privately owned land has been added to the nearly three million hectares of lands that were already protected as parks, ecological reserves and other protected areas. When the network is complete, nearly 7.8 million hectares or 12 per cent of the province will be recognized as contributing to the goals of the Representative Areas Network. This 12 per cent target is a commitment included in Saskatchewan's Biodiversity Action Plan.

The Saskatchewan Representative Areas Network is intended to conserve representative and unique landscapes in each of Saskatchewan's 11 ecoregions (Figure 1). Sites have been selected that can help to conserve Saskatchewan's native biological diversity and can also be used as benchmarks or control areas when assessing ecological health in areas outside of the Representative Areas Network. The network consists of a series of lands and waters representing the natural landscape diversity of the province and are protected and managed to retain that diversity. Protected areas have also proved to be valuable for recreation, cultural and/or heritage purposes, although this has not been the primary selection criteria used to identify potential sites.

The Representative Areas Network is based on assessing and gaining representation of enduring features. Enduring features are specific rock, soil and landform types that are very stable over long periods of time (Appendix 1). They are therefore likely to support characteristic plant and animal communities and influence the development and characteristics of aquatic systems in the watersheds associated with the enduring features. The concept of enduring features is used as the primary criteria for deciding whether a native habitat or area should be added to the network.

Other factors such as size, isolation (free from roads and trails) and habitat diversity are also considered when selecting and designating representative areas. Whenever possible, sites of cultural or heritage importance or having other "fine filter" attributes are incorporated into representative area sites initially identified for their needed or under-represented enduring feature combinations.



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LAND STATUS

The Representative Areas Network is very flexible in the tools that can be used to ensure ecological values within each ecoregion are conserved. In general, protection and management protocols depend on ownership of the lands being conserved.

Crown Lands: Lands administered by Saskatchewan Environment may be managed according to any one of a number of legislative options. Representative areas on Crown land may be formally designated pursuant to *The Ecological Reserves Act*, *The Parks Act*, or *The Wildlife Act*. Designation usually includes protection for mineral resources through enactment of a Crown Mineral Reserve and protection of forest resources through withdrawal from active forest harvesting activity.

Private Lands and Lands Not Administered by Saskatchewan Environment: Lands not directly under the control of Saskatchewan Environment are also important to the network. By entering into joint partnerships, Memoranda of Understanding or conservation easements, the department is able to work closely with its partners to help guide management of these lands in a way that will ensure maintenance of the long-term health of the soil, water, plants, animals and other organisms that make up the ecosystem. In return, the department benefits by having access to these lands and resources for research, monitoring and education purposes. Overall responsibility for the land remains with the land-owning agency or individual. Usually, mineral resources underlying private lands and lands not administered by Saskatchewan Environment are not afforded any special protection measures.

PROGRESS TO DATE

Starting from a base of just under 3 million hectares in mid-1997 when Representative Areas Network Action Plan implementation began, the network has grown to 5.9 million hectares. Since 2002, when the last progress report was released, 33 Representative Area Ecological Reserves totaling 445,536 hectares have been designated as part of the network. These diverse areas include the Great Sand Hills in the south, forested ecosystems within the Porcupine Hills in the north and the Caribou Flats area north of Dore Lake in the north-central part of the province. Additional lands have also been added through conservation easements and as special management areas (Appendix 3).

A draft set of operational guidelines and targets has been established for Saskatchewan Environment staff to use when securing land and water areas for various conservation initiatives. Over the next year, these targets will be refined. They will direct future land acquisitions to areas where "gaps" in the network exist. To date, recommendations indicate that attention should be paid to large core representative areas and to areas that connect the larger sites. This connectivity enhances the movement of species and their genetic material across the landscape.

APPENDIX I

The definition of enduring features is based on four specific factors:

soil development: how soils were formed through various factors such as climate, soil organisms, the nature of the parent material, the topography of an area and time;

origin of the parent material: the method by which material such as soil, gravel or rocks was deposited (i.e. wind, water, glacial melt water);

surface form: physical landscape features such as eskers or potholes; and

slope: the steepness or grade of the surface terrain.



THE PATH FORWARD

Designation Activity:

Saskatchewan continues to work towards completing the Representative Areas Network. Living up to provincial and national commitments to contribute to the preservation of ecological diversity remains a high priority for the Province of Saskatchewan. One of the fundamental cornerstones of the Representative Areas Network program has been to seek out meaningful public involvement and input into finalizing site boundaries and confirming appropriate activities and uses for each site.

While much has been accomplished, further progress needs to be made before adequate representation of each of the province's ecoregions is achieved. Appendix 2 provides a summary of representation by natural ecoregion. Figure 1 illustrates the location of designated areas within the province. In total, approximately nine per cent of Saskatchewan's area is included within the Representative Areas Network. An additional 1.8 million hectares is still required to meet the 12 per cent target. Most of the "gaps" in representation are in the settled or agricultural portion of the province and are found within the Mixed Grassland, Moist Mixed Grassland and Aspen Parkland Ecoregions. There are also "gaps" in the more northerly portions of the province, most notably in the Athabasca Plain Ecoregion.

For the most part, once sites have been generally identified for their enduring feature values and their contribution to the overall objectives of the Representative Areas Network, consultation with a broad range of interest groups, stakeholders and area residents ensues. Through this consultation, "finer filter" features such as cultural or heritage values can be ascertained and incorporated into final site boundaries. Typically, potential sites are discussed in the context of a regional integrated resource and land use management plan. While this comprehensive approach is very effective in building consensus-based support for site selection and management concepts, it is costly and takes considerable time to conclude.

Site Management Plans:

Management of individual sites within the Representative Areas Network is another important challenge that must be addressed. Initial concept management planning has been undertaken for Representative Area Ecological Reserves, although detailed management planning and implementation of those plans on a site-by-site basis remains incomplete. Sites are intended to serve as long-term reference points to measure the impact of management practices being applied outside of the network. While management activities within representative areas need to be implemented that support this objective, activities that emulate natural disturbance regimes such as prescribed burning or selective timber harvesting may also be considered.

In some areas, human activities and access may be limited in order to ensure threatened or endangered species or fragile features can be protected. In most representative areas however, multiple land use objectives are applied. In general, this means that activities such as hunting, fishing, trapping or hiking continue. As well, grazing of prairie grasslands is acceptable as long as sustainable grazing rates are developed and adhered to. Traditional Aboriginal uses are unaffected by site designation, having taken place sustainably for generations.

Long-term ecological disruption caused by other human activities such as road building, commercial forest harvesting and mineral development are less well understood at this point in time. Ideally, new sites selected as representative areas do not include these kinds of activities, and lands with known economic development potential and/or poor ecological values are not considered as candidate representative areas. Sometimes however, mineral exploration or logging are already occurring in areas that are important to include in the network. In these cases, the activity may be "grandfathered" into the new site and carefully monitored in order to assess and minimize its overall effect on the ecology of the area.

To ensure sites are recognized for their importance and that long-term management is sustainable, local users and community residents must understand and support the values being protected within each area. The best way to generate this support and long-term commitment for site preservation is to work closely with the stakeholders who have a primary interest in the individual sites under consideration. The department currently uses integrated resource and land use planning processes as the public forum to discuss and pursue designation of potential new representative sites.

Many people may ask what effect completion of the Representative Areas Network will have on them. The network will make an important contribution to the provincial Green Strategy that supports the long-term economic and social development of the province. A healthy environment will help to support a healthy economy, which will benefit each of us. More importantly, the Representative Areas Network will help to secure a healthy future for our children and grandchildren - a future that includes open spaces and the peace and richness natural wilderness areas can provide.



CHALLENGES AND CONSTRAINTS

When discussions are initiated about potential new representative areas, many stakeholders do not understand or support the program's conservation principles and objectives. In particular, Aboriginal people express concern that "protection" equates to "off-limits". In order to assure unrestricted continuation of cultural lifestyle practices, they sometimes do not support site designation within traditional territories. In these cases, education, information sharing and engagement of local people in development of preliminary management plans is helpful, although does not always overcome the uncertainty about site designation and long-term management.

Relying upon established integrated resource and land use planning processes to pursue representative area site designation is an efficient use of limited department resources to accomplish multiple objectives. However, these planning processes often involve public discussion and resolution of many complex issues that require significant time, staff and financial resources to conclude. Nesting representative area site-specific discussions within these processes makes the designation effort dependent on the larger process timeline.

Ecological and economic values are not necessarily fully known when a potential representative area is identified. Attempts are made to improve the information base prior to finalization of site boundaries, particularly with regard to mineral potential and resource-based economic values. Obtaining full, complete information about any particular area is not feasible however, and decisions to proceed are made based on what is known about a site at the time of designation. It is possible that representative area site designations occurring today may limit future economic or ecological opportunities we are not yet aware of, but which may become important as new information and technology advances.

Securing representative areas in the Moist Mixed Grassland and Mixed Grassland Ecoregions is made more difficult by the impact agriculture has had on these landscapes since the early 1900s. More than 80% of the Moist Mixed Grassland Ecoregion is under cultivation and about 50% of the Mixed Grassland Ecoregion in the southwest corner of the province is also cultivated. The vast majority of the land within both ecoregions is privately owned or if Crown owned, subject to long-term lease agreements. With a focus on preserving natural, undisturbed examples of these landscapes, achieving the 12% protection target within these two ecoregions may not be possible.

APPENDIX 2

Representation by Ecoregion

Ecoregion	Size of Ecoregion as a % of Province's Area	% of Ecoregion included in RAN
Selwyn Lake Upland	4.4	11.7
Tazin Lake Upland	2.8	14.8
Athabasca Plain	11.3	2.9
Churchill River Upland	17.3	4.9
Mid-Boreal Upland	15.6	13.2
Mid-Boreal Lowland	3.3	10.3
Boreal Transition	8.3	8.5
Aspen Parkland	12.5	5.6
Moist Mixed Grassland	10.4	5.9
Mixed Grassland	13.3	14.8
Cypress Upland	0.8	20.7

APPENDIX 3

List of Lands Contributing to the RAN

Updated as of September 1, 2005

Land Ownership/Type	Number	Area (ha)
PROVINCIAL ADMINISTRATION		
Saskatchewan Agriculture and Food Crown Land		
Provincial Community Pastures	56	258,760
Wildlife Habitat Protection Act Lands	24,000	1,437,562
RAN Ecological Reserve (Great Sand Hills)	1	36,585
Saskatchewan Environment Crown Land		
Ecological Reserves	5	159,678
FWDFund Lands	1,486	78,277
Parkland Reserves	2	29,969
Protected Areas	24	4,998
Provincial Parks	34	1,172,512
Recreation Sites	130	36,723
RAN Ecological Reserves	32	408,951
Special Management Areas	3	601,983
Wildlife Refuges	24	54,596
Saskatchewan Watershed Authority Lands	361	910
FEDERAL ADMINISTRATION		
CFD Dundurn	1	23,209
Migratory Bird Sanctuaries	15	57,702
National Parks	2	487,056
National Wildlife Areas	34	37,225
PFRA Community Pastures	64	696,870
CORPORATE LANDS		
PCS Rocanville	1	1,552
NON-GOVERNMENT ORGANIZATIONS		
Ducks Unlimited Canada	*	355,875
PRIVATE LANDS		
Conservation Easements	195	23,772
TOTAL LANDS CONTRIBUTING TO RAN	26,470	5,964,765

* Ducks Unlimited Canada tracks land area but not number of parcels



AN IMPORTANT CROSS-ROAD

Your input is required! As we look at allocating limited financial and human resources towards Representative Areas Network designation and management activities, we want to ensure that we are proceeding in the right direction - a direction that you support. The Green Strategy Forum scheduled for October 2005 will seek feedback about future directions for the Representative Areas Network initiative. Areas to consider include activities involving both designation and long-term site management.

1. Saskatchewan has committed to protecting 12 per cent of its lands and waters. Currently about 9 per cent has protection with additional sites identified that will bring the total to 10 per cent.

- What priorities do stakeholders and the public place on completing designation of representative areas?

- Should sites be pursued for protection in the absence of complete information or analysis of resources that may be contained within them? If yes, why? If no, why not?

- What role should stakeholders and interest groups play in determining site boundaries?

- Is the comprehensive public consultation process offered through integrated resource and land use management planning desirable and appropriate?

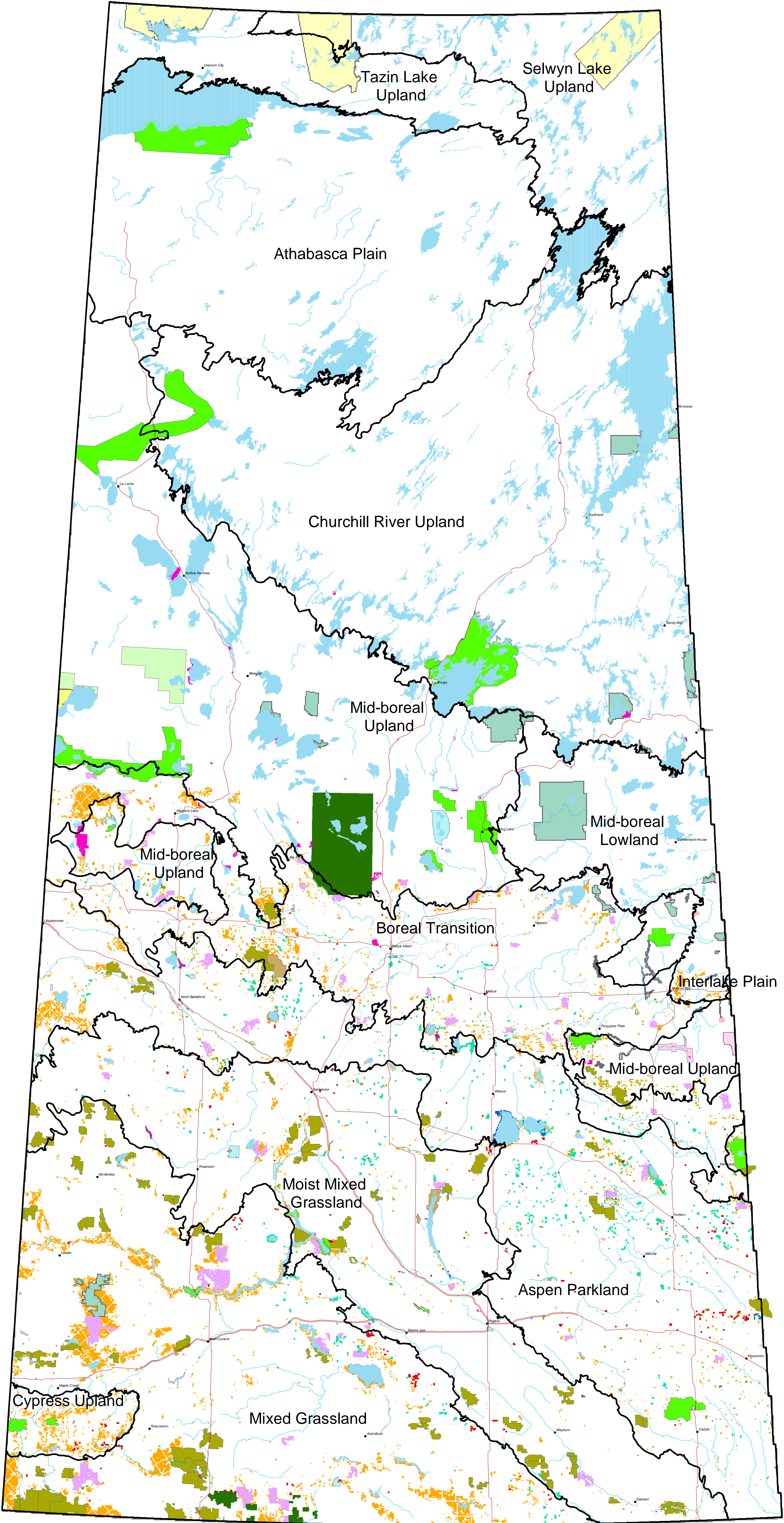
2. Through the public consultation process leading to new site designation, Saskatchewan Environment receives general instruction on activities deemed to be acceptable within that site. Typically, activities like hunting, fishing or trapping are continued while more "intrusive" activities like mineral development or commercial forest harvesting are excluded. Designated sites are managed according to these general instructions, without more detailed management or monitoring plans prepared for each site.

- What priorities do stakeholders and the public place on management of representative areas? Should site management plans be completed for sites that have already been acquired before more sites are added to the network?

- Should sites be accessible for multiple uses or should they be "off-limits" for certain uses? If they are to be accessible, what types of uses are acceptable?

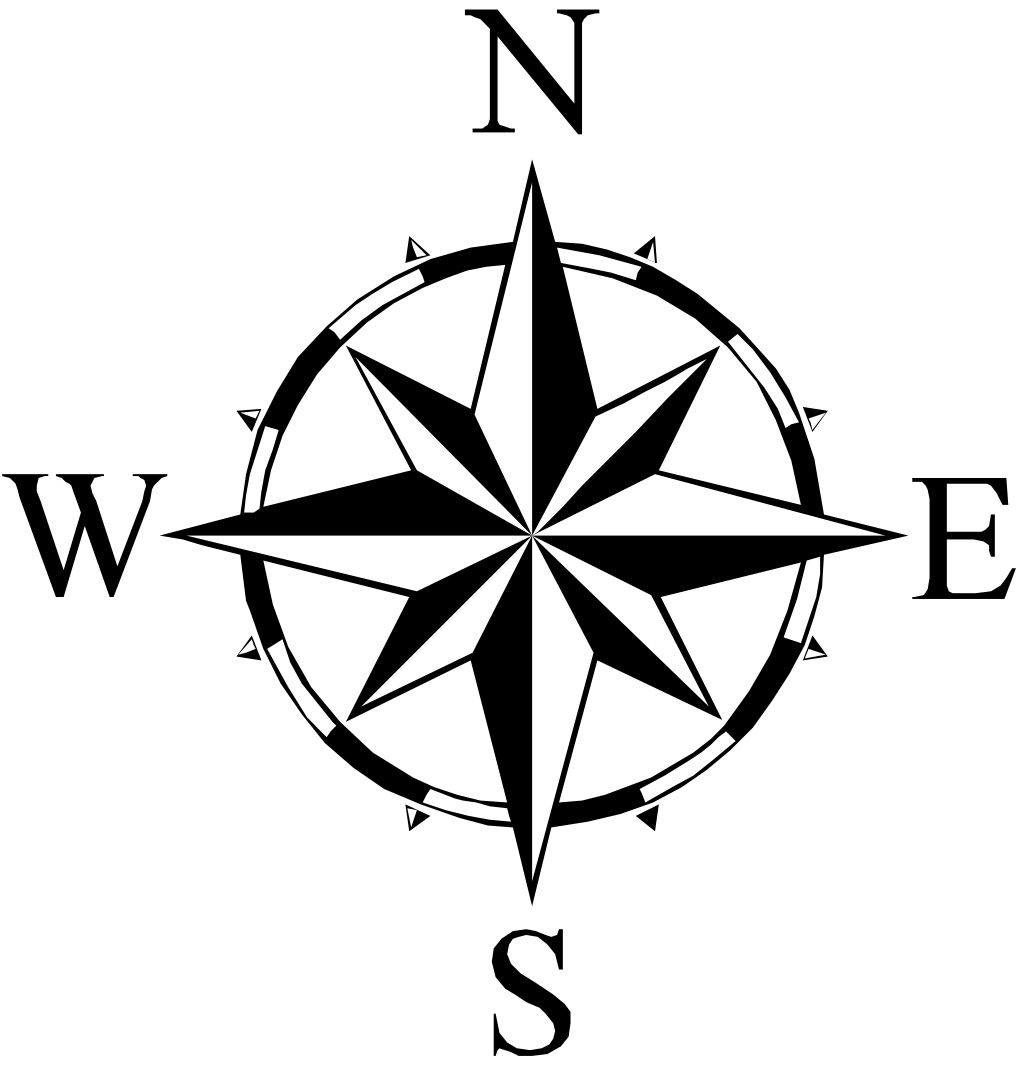
- What role do stakeholders and industry desire in determining, implementing and monitoring site management?

Saskatchewan Representative Areas Network



Land Designations

- Wildlife Habitat Protection Act Lands
- Conservation Easements
- Ducks Unlimited Lands
- Sask Watershed Authority Lands
- Ecological Reserves
- Fish & Wildlife Development Fund Lands
- Game Preserves
- Migratory Bird Sanctuaries
- National Parks
- National Wildlife Areas
- PFRA Community Pastures
- Proposed Recreation Sites
- Protected Areas
- Provincial Community Pastures
- Provincial Parks
- RA Ecological Reserves
- Recreation Sites
- Special Management Areas
- Wildlife Refuges
- Natural Ecoregions
- Waterbodies
- Cities/Towns



Data Sources:
Conservation Easements, WDF Lands, WHPA Lands
- Sask Environment, F&W (quarter section)

Ducks Unlimited
- Ducks Unlimited (quarter section)

SWA Lands
- Sask Watershed Authority (quarter section)

Ecological Reserves, Game Preserves, Migratory Bird Sanctuaries, National Wildlife Areas, Wildlife Refuges
- Canadian Plains Research Centre (1:50,000)
- some merged updates, SE, (1:250,000)

Natural Ecoregions
- G Padbury, D Acton, Agriculture & Agri-Food Canada (1:250,000)

PCS Rocanville site,
- SE, F&W draft lines (1:20,000)

Provincial Community Pastures
- Sask Agriculture, Food and Rural Revitalization (1:20,000)

Provincial/Federal Parks, Protected Areas, Recreation Sites
- Information Services Corp (1:20,000)

PFRA Pastures
- Prairie Farm Rehabilitation Administration

RA Ecological Reserves, Proposed Recreation Sites
- Sask Environment, FEB (1:12,500)

Special Management Areas
- Sask Environment, F&W (1:250,000)

Cities/Towns, Highways, Waterbodies
- Information Services Corp (1:1,000,000)



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Figure 1

100 50 0 100 Kms

Map represented in Universal Transverse Mercator projection. Extended Zone 13, NAD 27 NTv2

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