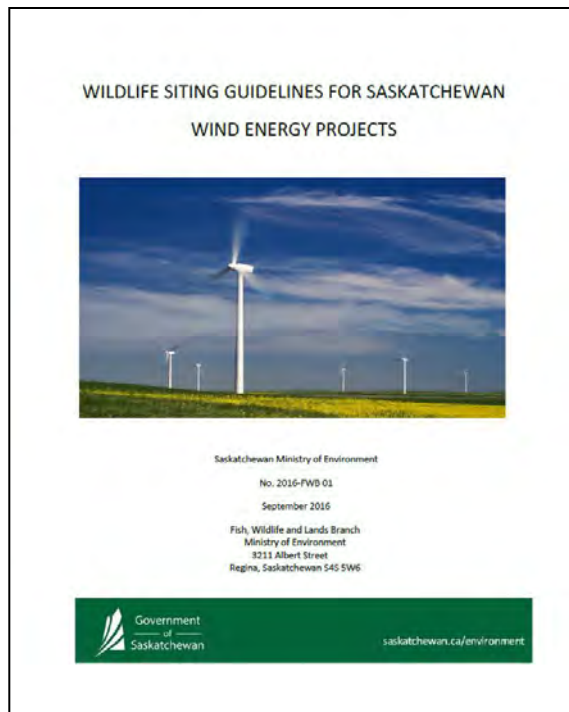
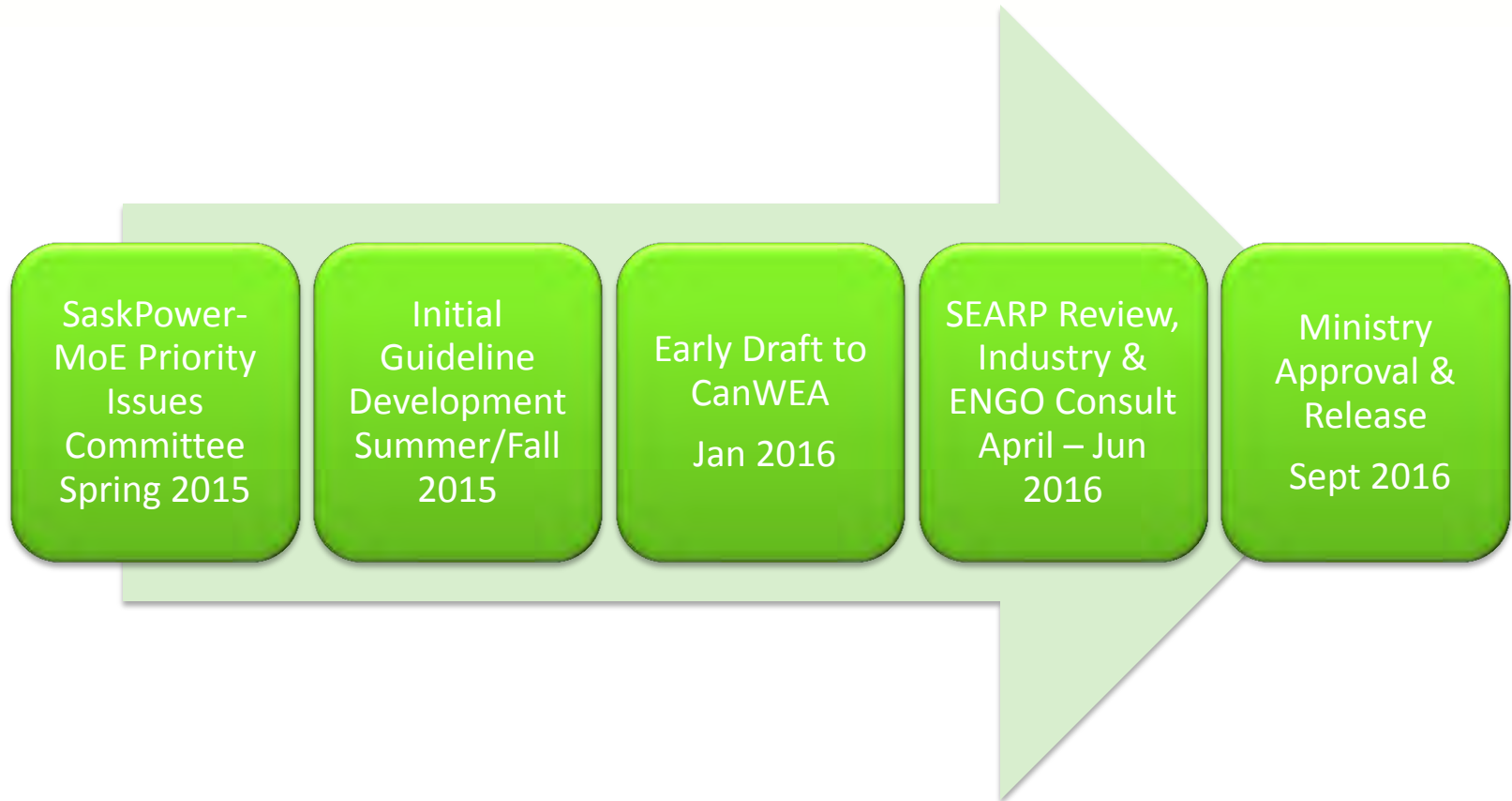


Wildlife Siting Guideline for Wind Energy Projects



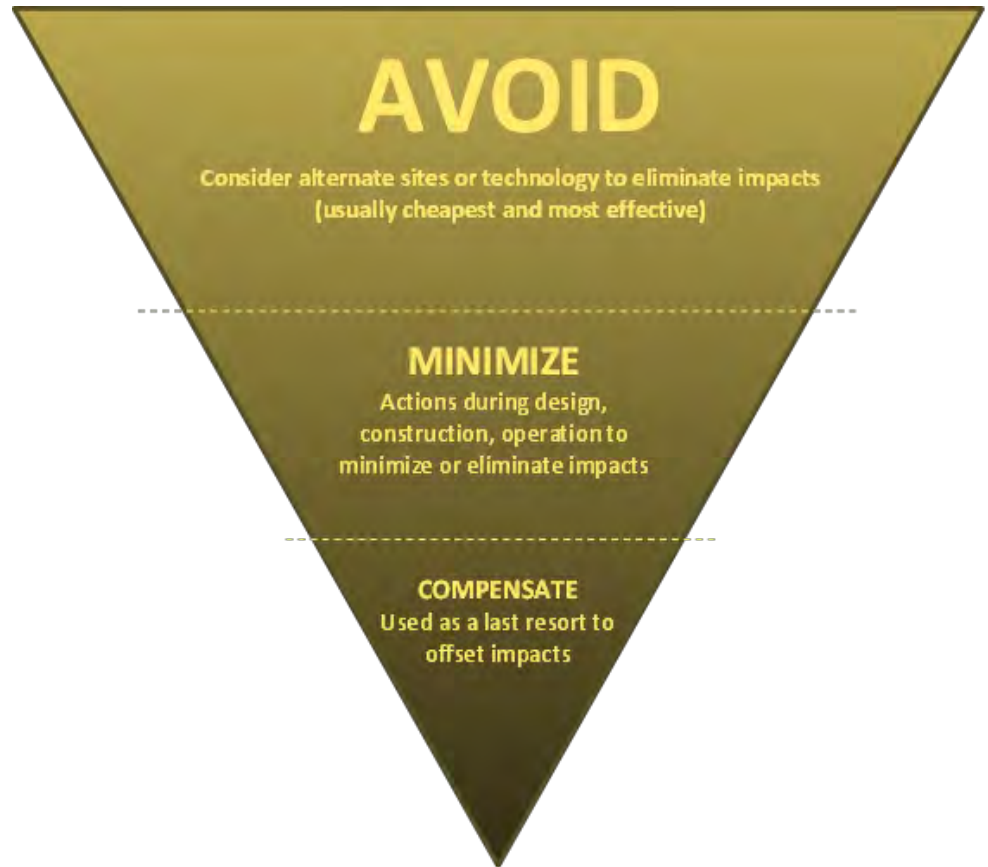
Peter Joyce
Strategic Conservation Specialist
Ministry of Environment
Fish, Wildlife and Lands Branch

Guideline development process



Focus on avoidance...

“Mitigation is ***a process for managing development impacts*** through the application of a step-wise progression of actions ***to avoid, minimize and offset adverse effects***, followed by monitoring, to ensure goals are met over time.”



Policy Intent of Wind Guideline

- Help WEP developers:
 - enhance environmental performance
 - **avoid** environmental risks and liabilities
 - expedite environmental approvals
 - reduce costs of operational restrictions
- Help government:
 - optimize the benefits of wind power development
 - provide more efficient EIA screening
 - encourage investment in wind power projects
 - avoid public concern over WEP siting choices

Principles

- Outcomes (or risk) based approach to development approvals
 - encouraging proponent innovation and informed business decisions based on environmental risk
- Mitigation based on tiered avoidance, minimization and offset measures
 - optimizing project economics and environmental outcomes
- Precautionary adaptive management
 - approve based on best current information, monitor, adjust based on documented experience

Main elements of Guideline

- Avoidance zones (high risk areas)
- Siting and design advice to further avoid and minimize potential impacts
- Pre-construction species assessment process

Proponents still required to follow usual EA process and receive ministry approval before proceeding with a development.

Site selection (avoidance)

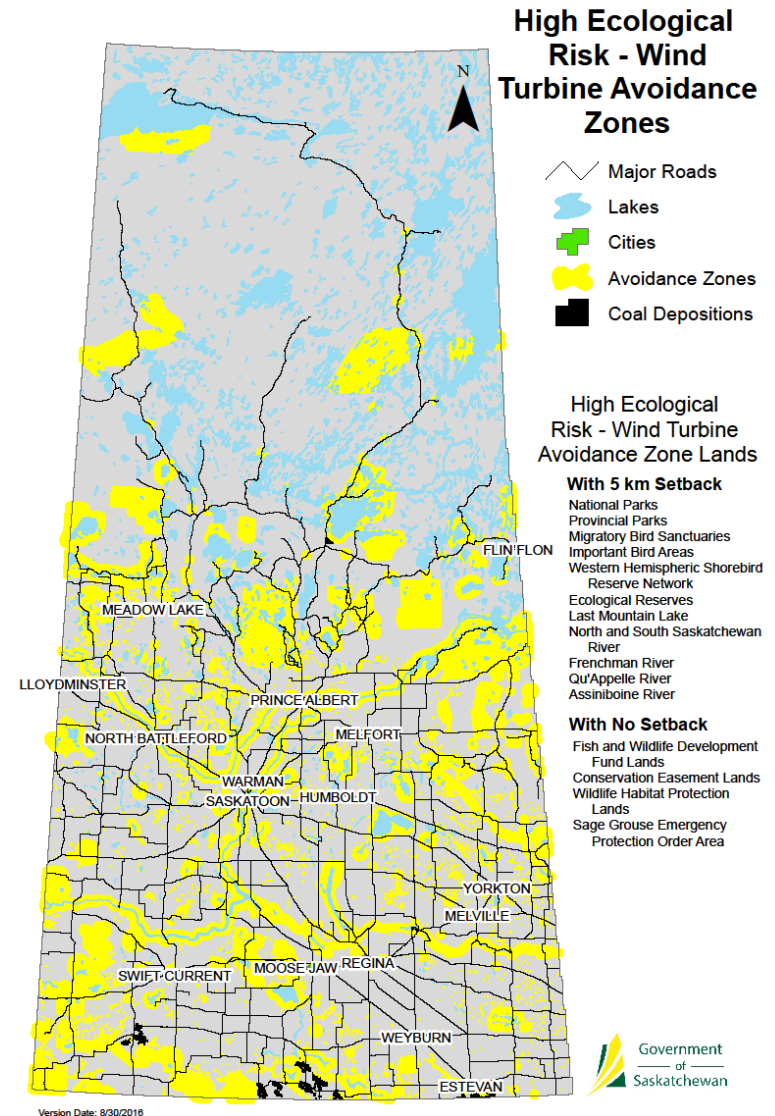
Set back of 5 km (avoidance zones) based on ecological risk and public concern on:

- National & Provincial Parks
- Migratory Bird Sanctuaries
- Important Bird Areas
- WHRN sites
- Ecological Reserves
- Major Rivers
- Last Mountain Lake

Avoidance areas without setbacks:

- FWDF lands
- Conservation easement areas
- WHPA lands
- Critical Habitat for SAR

**Site-specific avoidance of native land cover
“strongly encouraged”**



Guideline is Silent on...

- Post-construction monitoring and reporting
- Adaptive management
- Compensatory mitigation
- Mortality thresholds

Supplementary guidance to be developed in these areas in consultation with industry and other stakeholders...

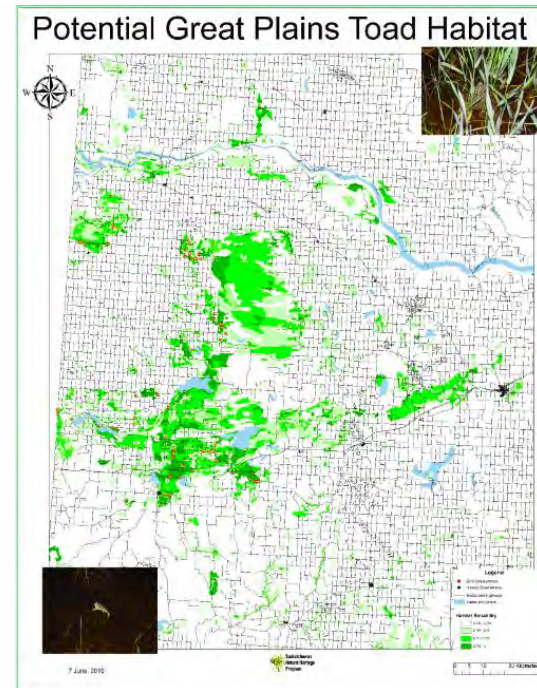
Looking ahead:

- Siting Guideline is an “evergreen” document
- Effectiveness of avoidance zones will be assessed and criteria may be adjusted as new evidence is gathered
- Planning info (e.g. critical habitat mapping, predictive species modelling results, and prairie and wetland inventory results) updated as available

Questions?

Planning Information and Resources

- New client-centred, online mapping application that consolidates data and existing applications to provide clients with “one-stop” hunting, angling and biodiversity map information.
- Target users: Hunters, anglers, naturalists and consultants/industry
- Coming soon:
 - Adding modeled at-risk species distribution map layers and SAR habitat suitability map layers
 - Archaeological information
 - WSA Wetland Inventory
 - Forest Ecosite Classification
 - Saskatchewan Breeding Bird Atlas (new version)
 - Prairie Land Inventory
- Functionality enhancements based on:
 - User/Client demand
 - Platform improvements



<https://gisappl.saskatchewan.ca/Html5Ext/?viewer=habisask>

Conservation Standards Program (CSP):

“Environmental Data is Our Currency”

- Recent amendment of Wildlife Act & Regulations require:
 - Research permit for commercial projects
 - Use of approved species detection protocols
 - Submission of data to MOE using standard Submission Summary Forms and Loadforms
- Goal is high quality data to inform approval decisions and future planning processes

Conservation Standards Program (CSP): “Environmental Data is Our Currency”



Plant and Wildlife Pre-Construction Survey Interim Guidelines for Renewable Energy Projects (REP)

These interim guidelines have been adapted from [Wildlife Guidelines for Alberta Wind Energy Projects \(2011\)](#) and the Draft Wildlife Directive for Alberta Wind Energy Projects (September 2016).

Please note the following standards regarding Species Detection Surveys for REPs:

- A Research Permit is required for all Species Detection Surveys.
- [Conservation Standards Terms and Conditions](#) apply to all of the survey types listed in Table 1.
- If a ministry Species Detection Survey Protocol doesn't exist, the proposed methodology must be submitted for approval, using the [Species Detection Survey Protocol Template](#).
- The required setbacks and timing restrictions must be adhered to for all species and habitat features detected according to the [Saskatchewan Activity Restriction Guidelines for Sensitive Species \(ARGs\)](#).
- Wildlife surveys must be conducted for a minimum of one year and must be considered current until the project is commissioned.
- Surveys for Burrowing Owl, Sensitive Raptors, Sharp-tailed Grouse, Swift Fox and Ord's Kangaroo Rat must be kept current until construction begins. Surveys are considered current within two years of the last survey date.
- Projects for which construction has not begun within 2 years of completion of surveys will need to be repeated to ensure accuracy of information. Discussions will then need to be re-initiated with the Conservation Standards Specialist to determine which additional surveys are required.

Table 1. Recommended Pre-Construction Species Detection Surveys for Renewable Energy Projects

#	SURVEY TYPE	MINISTRY PROTOCOL	TIMING	DETAILS
HABITAT INVENTORY - Quantify land cover types according to dominant upland and wetland habitat codes contained in the Species Detection Loadform. A map illustrating land cover and a corresponding table (ha/%) is required for EA documents. Information must be updated to reflect current cover types.				
1	Habitat Mapping			
2	Wetland Surveys	Stewart and Kantrud		
WINTER OCCUPANCY – The need for winter surveys will be determined based on available regional information. If required, incidental observations of wildlife and sign must be submitted on the Loadform.				
3	Birds	Protocol must be approved by FWL.	2 Surveys: Early (Dec 1 to Jan 15); Late (Jan 16 to Feb 28).	Conduct surveys between one hour after sunrise and one hour before sunset.
4	Mammals	Protocol must be approved by FWL. Use ENV F&W 19.0 (Snow Track), plus other surveys. Other Survey Protocol must be approved by FWL.	2 Surveys: Early (Dec 1 to Jan 31); Late (Feb 1 to Mar 31).	

This document is titled as: Ministry of Environment, Fish, Wildlife and Lands Branch, November 2016. Plant and Wildlife Pre-Construction Survey Interim Guidelines for Renewable Energy Projects, Regina, Saskatchewan.

Plant and Wildlife Pre-Construction Survey Interim Guidelines for Renewable Energy Projects (REP)

Contact the Conservation Standards Specialist for more information

Karyn.scalise@gov.sk.ca

<http://www.saskatchewan.ca/business/environmental-protection-and-sustainability/wildlife-and-conservation/wildlife-research-permitting>

Activity Restriction Guidelines

- Assist proponents during project planning
- Pre-planning and avoidance of key habitats of sensitive species during sensitive periods is preferred
- Contact the Ministry of Environment at centre.inquiry@gov.sk.ca early in the planning stage to minimize any impacts to sensitive species.

Saskatchewan.ca Publications Centre

<http://publications.gov.sk.ca/documents/66/92181-Saskatchewan%20Activity%20Restriction%20Guidelines%20for%20Sensitive%20Species%20-%20September%202015-1.pdf>

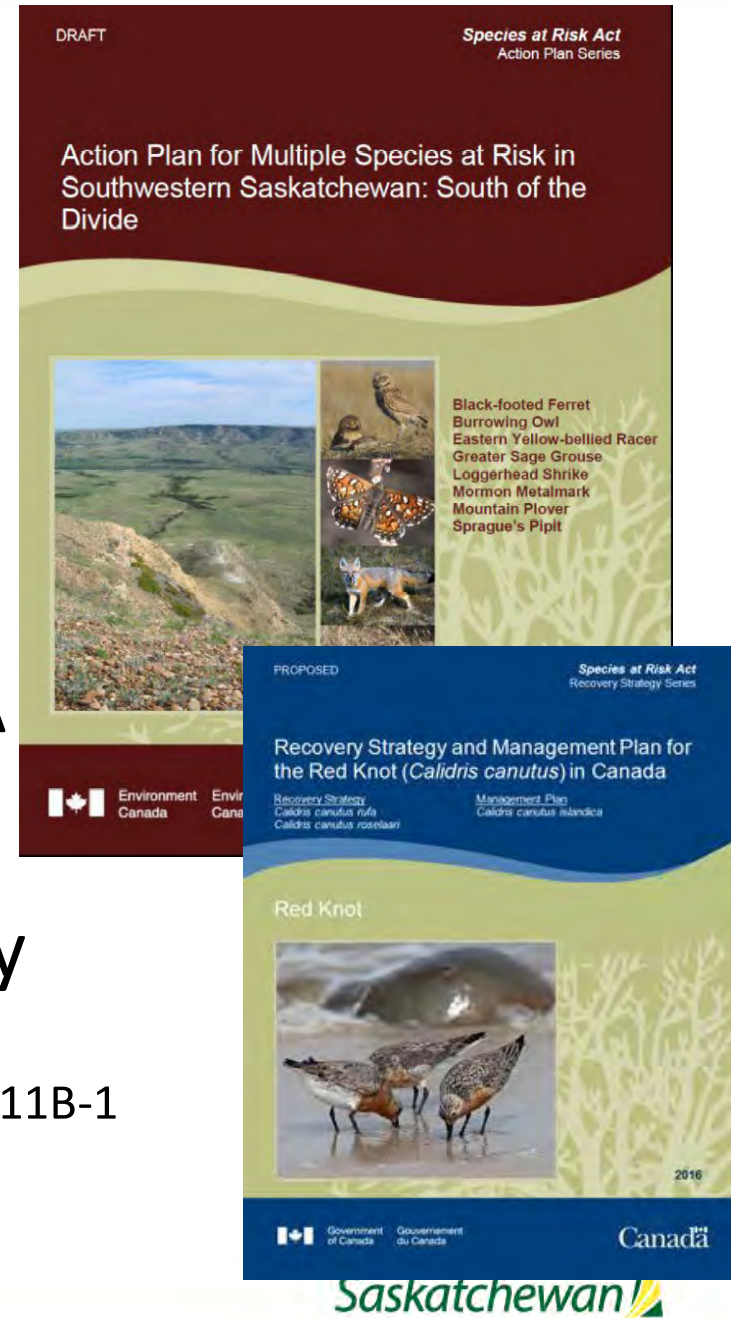
Managing for Species at Risk

SAR News

- SOD Action Plan (designation of CH)
- New recovery strategies
- New ECCC policies RE: SARA

Species at Risk Public Registry

<https://www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1>



Ongoing Initiatives

Saskatchewan Prairie Landcover

Goals:

1. Update Sask landcover/landuse
2. Distinguish between native and tame grasslands



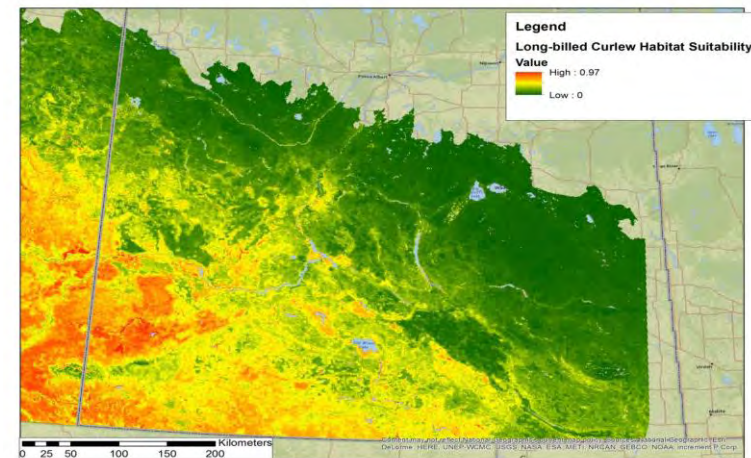
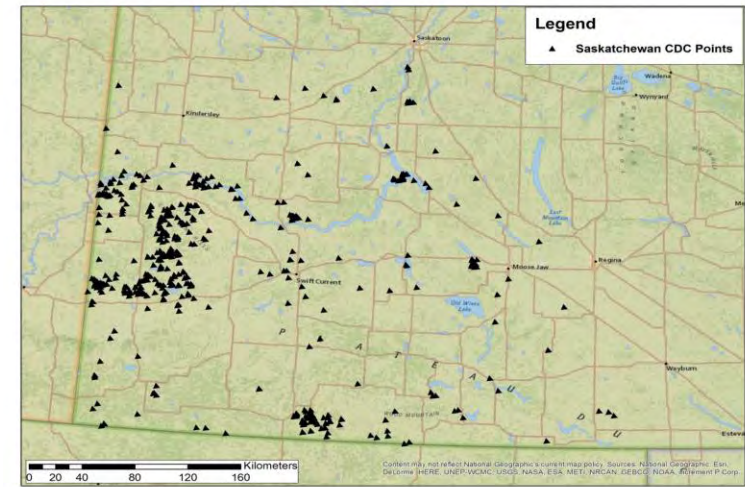
Assessing cost and feasibility of 3 methods for landcover & landuse mapping:

1. Remote sensing
2. Heads-up digitizing using aerial photographs
3. LiDAR

Species-habitat modelling

Goals:

1. Industrial planning purposes
 - Take point data and convert into border-to-border predictive maps of occurrence
2. Models will be updated
3. Served up on HABISask
 - GIS.Saskatchewan.ca



Saskatchewan Bird Atlas

Goal: Assessment of the Distribution and Relative Abundance of All Populations of Breeding Birds within Saskatchewan

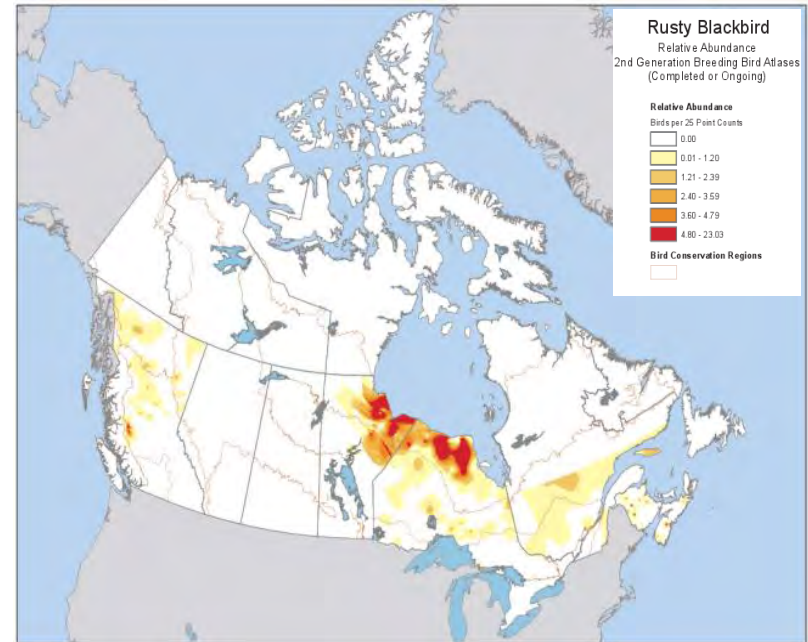
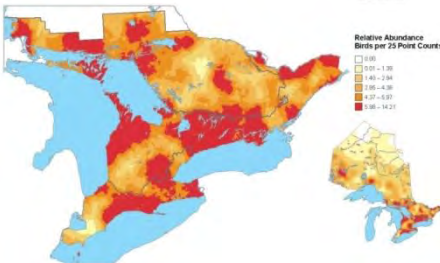
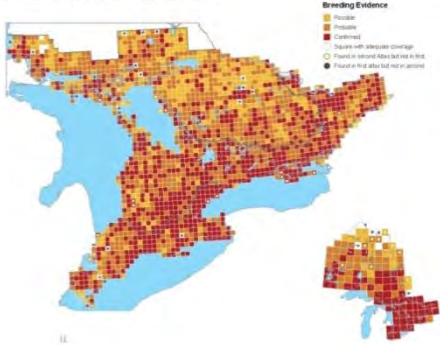
Cedar Waxwing
Bonasa asper
Boirella asper

The Cedar Waxwing is one of Ontario's most familiar songbirds. Found in a variety of habitats from urban parks to boreal forest, it was among the most frequently recorded species during both atlases. Its distinctive appearance readily distinguishes it from all other Ontario birds except the much rarer Bohemian Waxwing, and its call is equally characteristic. It breeds across the southern half of Canada and the northern half of the US (Wimmer et al. 1997).

Distribution and population status Both atlases show that the Cedar Waxwing ranged across the province and occurred in almost every square in the south and most blocks in the north. Interestingly the few gaps in its Ontario range are in the Hudson Bay Lowlands, where its breeding range overlaps that of the Bohemian Waxwing.

Although the Cedar Waxwing is still widespread, its probability of observation declined significantly between atlases in the Lake Simcoe-Belton and Southern Shield regions, by 3% and 5%, respectively. These decreases may be related to broad declines across the continent in recent years. BBS data indicate that the species increased between 1968 and 1980 but has declined continentally in the period between atlases. Since 1981, it has experienced significant declines of 1.1% per year across North America (Sauer et al. 2005b), 1.3% per year in Canada, and 3.3% per year in Ontario.

Reasons for the recent declines are uncertain. They appear to be part of a wide-ranging phenomenon, as many other shrubland species are experiencing declines. Losses in parts of the Southern Shield and the Lake Simcoe-Belton region may be due to natural succession from marginal farmland through shrubby old fields to forest, destruction of hedgerows and other shrubby habitat as a result of agricultural intensification.



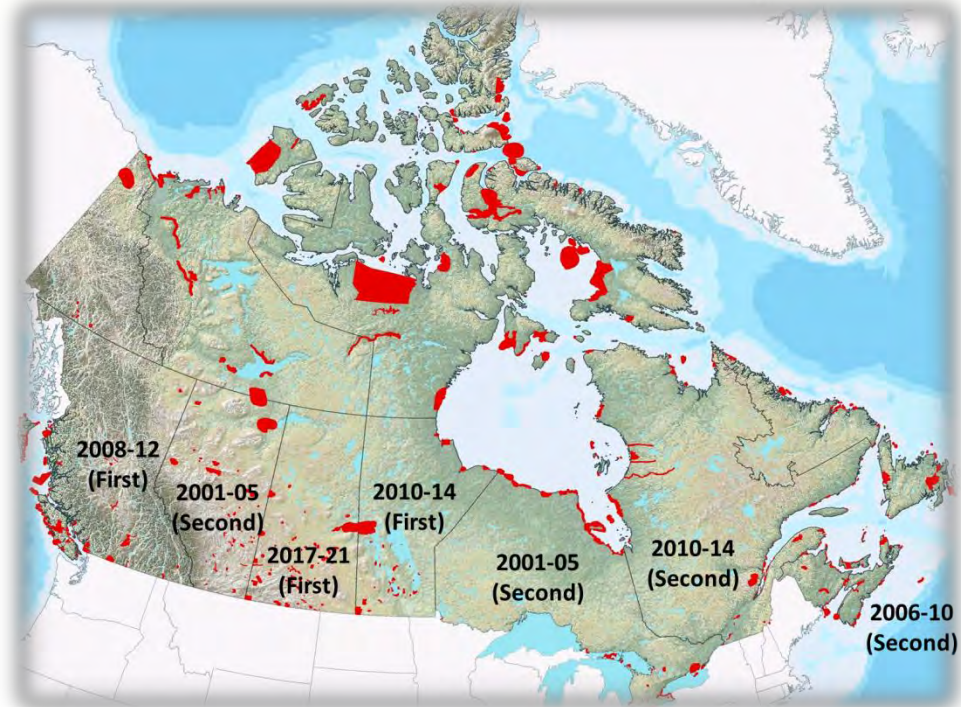
Atlas Applications

- Documenting species range and population changes
- Environmental impact assessment
- Landscape use & strategic conservation planning
- Assessment of bird-environment associations

Saskatchewan Bird Atlas

- Part of Canada's National Atlas Program led by Bird Studies Canada
- Partnership: ECCC, BSC, Provincial Gov't, private sector, natural history organizations

Saskatchewan will be surveyed 2017-21

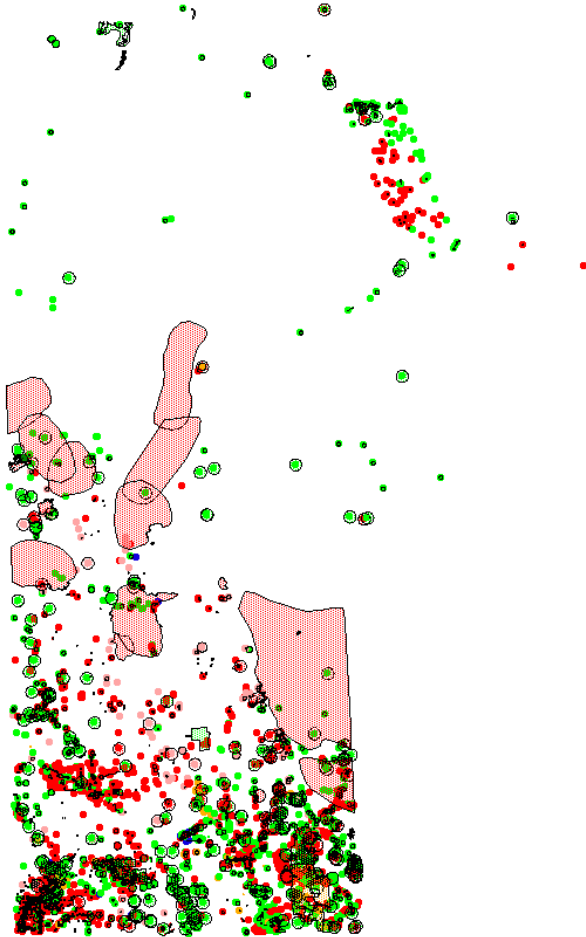


Kiel Drake

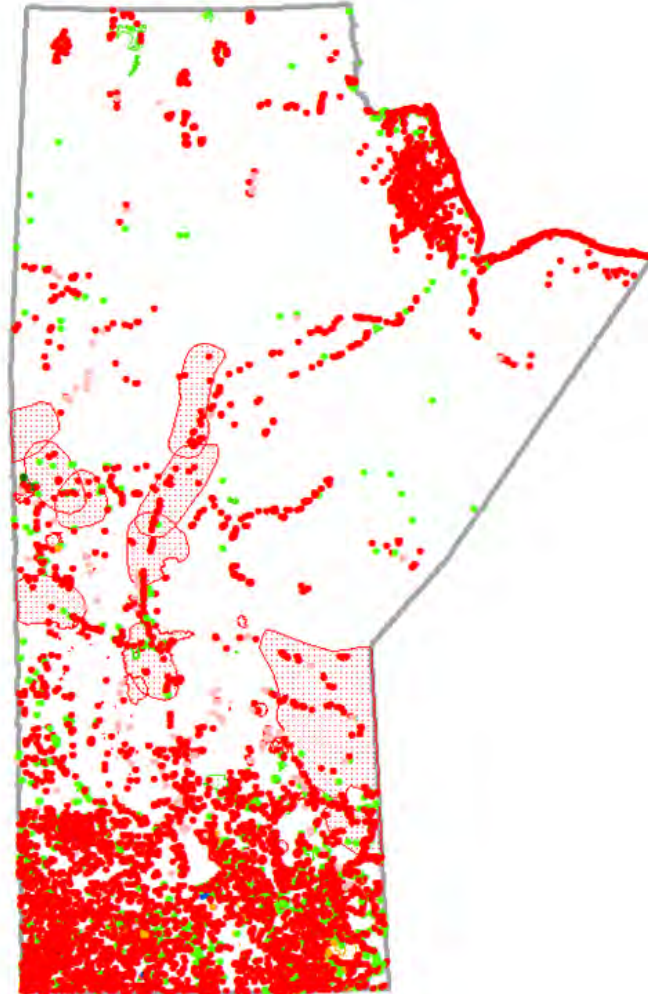
Saskatchewan Program Manager

kdrake@birdscanada.org

Contribution to the conservation planning data set



April 2010



April 2013

saskatchewan.ca

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