Multi-stakeholder Approach to Piloting a Conservation Offset Tool in Southeastern Alberta
Outline

- Pilot Opportunity
- Process
- Pilot Area
- Engaging Partners
- Pilot Objectives
  - Results and Discussion
- Conclusions
Opportunity

Request to lead a voluntary offset pilot in the South Saskatchewan Region of Alberta to support the implementation of market based instruments enabled under the Alberta Land Stewardship Act (ALSA)

Offset Definition:

- Compensatory actions that address the **unavoidable** ecological losses arising from development
- The third step after avoidance, and onsite mitigation.
**Process**

- **Literature Review**
- **Department project team**
- **Local contacts and potential partners**
  - Cross-Ministry government updates
  - Presentations to local & regional groups
- **Industry stakeholder engagement**
  - Oil, gas, wind, utilities
  - Other jurisdictions using offsets
- **Agriculture stakeholder engagement**
- **Technical subgroups**
  - Metrics, Contracts
- **Conservation Offset approach**
- **Pilot Team**
- **Presentations to provincial, International groups**
Offset Pilot Area

- Approximately 47% of the Dry Mixedgrass remains as native prairie
- 80% of Alberta’s species at risk rely on this habitat

Photos courtesy of Kevin France
Offset Pilot Area

- Complementary to existing efforts ongoing in area
- Area where land prices are lower and industrial activity present
- Opportunity for compatible land use changes with landowners
- Industry and landowner familiarity and involvement with species at risk issues
- Availability of spatial data

Photos courtesy of Joel Nicholson
Engaging Partners

- Within Government of Alberta
  - Alberta Conservation Association
  - Alberta Innovates Technology Futures
  - Alberta Innovates Bio Solutions
  - Alberta Biodiversity Monitoring Institute
- Industry (Oil & Gas, Utilities, Wind energy)
- Landowners
- University of Calgary
- University of Alberta
- LandWise Inc.

Collaborative dialogue and decision making
Conservation Offset Approach

Voluntary Offset for any new industry impacts on native prairie within the Dry Mixedgrass region.

Agricultural offsets to incent conversion of marginal cropland to native species mix within high priority areas.
Pilot Objectives

- Develop **an approach to quantify offset requirements** for industrial developments.

- Develop **an approach to target voluntary offsets** on private agricultural land parcels with the best potential to improve landscape level native wildlife habitat.

- Determine **agricultural landowner willingness to provide verifiable offset** through third party contracts, including costs and barriers to participation.

- Determine the **roles and costs for a qualified third-party** to facilitate agricultural landowner project development and associated conservation offset obligations (including planning, validation, contracting, verification and monitoring).
1. Quantifying Offset Requirements

Disposition size (acres) including roads

X

Multiple species conservation value ratio

+

Grassland Vegetation Inventory site type restoration risk factor

= Habitat Acre

Develop a workable, but scientifically defensible approach that largely includes all potentially adverse impacts

Ensure fairness across industries
1. Quantifying Offset Requirements

Multiple Species Conservation Value
- Used to reflect importance of habitat for multiple species and as a proxy for “other” impacts
- 4 categories with associated values/ratios
Grassland vegetation inventory (GVI) factors.
- Utilizing the upland range site types to characterize impacts to soils and vegetation

Restoration risk ratings
- low - moderate - high - extreme
- based on limiting factors related to:
  - Landscape
  - Soil
  - degradation potential
  - key plant indicator species.

“Offset Ratios in the Dry Mixedgrass and Mixedgrass Natural Subregions of Alberta”
K. France ESRD and Ron McNeil LandWise Inc.
2. Targeting Voluntary Offsets

Quantifying Offset Provision Factors

- Size of land parcel (acres) ×
- Offset suitability index factor ×
- Length of contract factor ×
  risk of failure factor built in

= Habitat Acres

(Bid price per habitat acre)
2. Targeting Voluntary Offsets

Offset Suitability Index

**Purpose:**
To identify and prioritize key potential habitat in the target area for offset provision in a consistent, objective way

**Method:**
- Multi-stakeholder Workshop
- Delphi Process & Analytical Hierarchy Process

**Results:**
- Offset suitability index - 17 ranked criteria
  - Land Use Intensity
  - Native Prairie
  - Native Prairie Block
  - Proximity to critical habitat
  - Riparian, Lentic and Lotic
  - Ungulate winter range
  - Movement corridors
  - Ecologically sensitive areas
  - Parks & Protected areas
  - Proximity to critical sage grouse habitat
3. Landowner Provision of Offsets

- Appreciated involvement in the development stages
- Preference for contracts vs easements
  - 5-10 years preferred with option to extend
  - Clear direction and requirements
  - Flexible options for payment
  - Clearly stated repayment option
- Preference for in-person meetings with third party
- Need to retain management control and opportunities for the future
- Sustainable grazing part of offset
- Costs were estimated, not tested
4. Third Party Role

Provide a quality standard for offset transactions and management to reduce risk and increase beneficial outcomes.

- Facilitate transactions - buyers and sellers
- Evaluate offset site
- Provide expertise and quality control for project development
- Manage offset contractual obligations
  - hold contracts
  - track management costs
  - manage onsite monitoring and documentation for verification
Conclusions

- The team and engagement process worked well: Meeting regularly and incorporating input from all stakeholders is key.

- Ensuring a diverse group of stakeholders representing all aspects of the offset system and expertise are included to increase buy-in and better outcomes.

- New tools developed by all stakeholders that complemented existing tools and supported a comprehensive offset approach.

- Worked with current data, found inexpensive and effective solutions for gaps and deficiencies which yielded a pragmatic and science-based system to ensure credibility and minimize transaction costs.

- Challenges occurred with ensuring credit for early action for industry stakeholders and consequently landowner participation.
Project Documents

‘Southeast Alberta Conservation Offset’ - web page:
http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/sag14846

- Offset Factors in the Dry Mixedgrass and Mixedgrass Natural Subregion
- Development of an Offset Suitability Index to prioritize cultivated lands for the SE Alberta Conservation Offset Pilot
- SEACOP Linking Decisions and Assumptions with Generally Agreed Offset Principles
- Final Report

karen.raven@gov.ab.ca