
Dave Stepnisky
Director, Fish and Wildlife Habitat,
Policy Division, Alberta Environment and Parks
Potential Impacts of Wind Facilities on Wildlife and Wildlife Habitats

- Direct fatalities – birds, bats
- Indirect impacts – habitat loss, degradation
- Disturbance – avoidance
Alberta Utilities Commission Rule 007: Alberta Environment and Parks role

• AUC Rule 007 outlines requirement for applicant to review project with AEP biologist

FOR MORE INFO GOOGLE: “ALBERTA UTILITIES COMMISSION RULE 007” AND “ALBERTA WILDLIFE LANDUSE GUIDELINES”
Process to create a revised (“New”) Wildlife Directive for AB Wind Energy

• Conducted a literature review
• Gathered latest information from experts in field (including a jurisdictional review)
• Tested concepts with stakeholders:  
  – Information session in early 2016  
  – Active engagement with CANWEA throughout 2016
• Updated Directive released in late January 2017
What are other Jurisdictions doing?

Common Themes

- ‘No Go’ areas
- Guidance on avoiding key habitat features
- Pre construction survey requirements (varying from 6 months to 2 years)
- Post construction monitoring with mitigation suggestions
Scope of the Wildlife Directives
What and Where

**IN SCOPE**: issues affecting wildlife and wildlife habitat.

**OUT OF SCOPE**: other environmental issues (i.e. soil compaction, water and contaminants)*

This Directive applies to all private land in Alberta.

* Other legislation may apply

- Organization of the Directive follows a staged approach
  - Proceed logically along a risk assessment pathway
  - Identifies wildlife/habitat concerns at each stage
  - Identifies strategies, standards or recommendations to avoid or mitigate the effects of wind energy projects on wildlife or wildlife habitat
- Follows the outline of the US Fish and Wildlife Service Wind Power Guidelines (2011)

• **STAGE 1:** Site Selection
  – Avoidance of Important Wildlife Habitats

• **STAGE 2:** Turbine Location, Pre Planning and Surveys
  – Surveys to inform turbine location

• **STAGE 3:** Construction and Operation Mitigation

• **STAGE 4:** Post Construction Wildlife Monitoring and Adaptive Management
  – Mitigation plans if high mortality found
Wildlife Directive for Alberta
Wind Energy Projects: STAGE 1

• SITE SELECTION
  – Avoid Key Habitats such as grasslands
  – Avoid features that ‘funnel’ bids and bats (such as ridges)
  – Avoid mapped areas of higher wildlife sensitivity (such as buffered areas around known Trumpeter Swan lakes)

Projects that are sited to avoid important wildlife habitats will significantly reduce the need for further mitigation measures.
Risk Maps

• Increased interest from several agencies in developing/using risk maps in pre-planning
• Can assist in initial planning discussions to avoid higher risk areas
• Use of risk maps is not a substitute to ensure alignment with Directives and other regulatory requirements
Wildlife Directive for Alberta
Wind Energy Projects: STAGE 2

• TURBINE LOCATION, PRE PLANNING AND SURVEYS
  – Review data within 1 km buffer zone
  – Pre-development surveys (migratory bird, breeding bird, bat, nests, grassland habitat)
  – Additional surveys if within sensitive species zones (i.e. burrowing owl)

Surveys are Key to ensure proper placement of turbines to avoid site level impacts
Wildlife Directive for Alberta
Wind Energy Projects: STAGE 2

• TURBINE LOCATION, PRE PLANNING AND SURVEYS
  – A minimum of 1 year of pre-development surveys is required
  – Surveys will inform setbacks from key features and areas to avoid for turbine siting
Wildlife Directive for Alberta
Wind Energy Projects: STAGE 3

• CONSTRUCTION AND OPERATION MITIGATION’
  – Considerations can include timing, use of road mats, wildlife monitor in areas of higher wildlife sensitivity, minimizing on-site personnel

Minimizing any negative impacts on wildlife or habitat during construction
Wildlife Directive for Alberta
Wind Energy Projects: STAGE 3

• POST CONSTRUCTION WILDLIFE MONITORING AND ADAPTIVE MANAGEMENT
  – Wildlife monitoring required for 3 years minimum
  – Wildlife monitoring includes:
    • Carcas collections for all species
    • 20 turbines of 1/3 of tubines, whichever is greater
    • Weekly collections
    • Between Mach 1 – October 30th
  – Results to be reported annually
  – Mitigation triggered if thresholds exceeded (use of bat mitigation framework)

Post Construction monitoring assists in pinpointing areas of higher mortality and ensuring proper mitigation
Other important legislation

- South Saskatchewan Regional Plan and associated sub-regional plans
  - May identify areas to avoid for development
- Water Act
  - Where wetlands/water potentially impacted
- Migratory Birds Convention Act
  - Protection of birds/nests
- Wildlife Act
  - Protection of nests/dens/other wildlife habituations
- Public Lands Act
  - Will be important legislation if/when applications accepted on public lands