SaskPower Linear Developments: Environmental Screening and Mitigation

2017 Native Prairie Restoration & Reclamation Workshop

Regina, Saskatchewan
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OUR KEY CHALLENGES

• Growing demand for power

• Aging system requires significant investment

• Emissions regulations eliminate one of our primary baseload power sources: coal without carbon capture

• Adding more renewable (but intermittent) generation sources
SASKATCHEWAN’S PRIMARY ELECTRICITY SUPPLIER

520,000 CUSTOMERS
(9,800 new in 2015-16)

4,400 MW CAPACITY

3,747 MW NEW PEAK LOAD (2017)

157,000 KM OF POWER LINES
ENVIRONMENTAL SCREENING

• Planners and designers use tools to ‘screen’ projects for potential risk.

• Low risk projects are allowed to proceed through the planning process.

• Projects with potential risks are reviewed by environmental personnel.

• Environmental personnel determine legislative requirements and/or mitigations required.
RISK-BASED APPROACH

• In 2016, approximately 4300 projects were screened.

• The system determined that approximately 2300 required more detailed review.

• SaskPower has to meet regulatory requirements, balance environmental, financial and social expectations while providing reliable service to the people of Saskatchewan.

• Efficient tools and processes are essential in order to meet both responsibilities.
ENVIRONMENTAL SCREENING: PAST

Environmental/Archaeological Map for Regina Region

2017/02/02
Early 2003–2005

- Use of digital maps
- Databases provided tabular lists of concerns in an area. Compared project area to a series of lists to determine if there were any potential concerns.

Use of multiple sources and formats

ENVIRONMENTAL SCREENING: PAST
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ENVIRONMENTAL SCREENING: CURRENT

- Continue to use a GIS platform
  - Project planners/designers are able to import their design drawing.
  - The system screens their design against the environmental data.
  - Forms were integrated into a workflow which streamlines the process while maintaining environmental protection and risk mitigation.
  - Records retained by the system.

- Improvements removed opportunities for human error.
SaskPower continually reviews its processes and tools.

Future tools may include:

• Direct connection to SaskPower’s design tools;

• Mobility applications to make environmental data available in the field;

• ‘Live’ connection to source data to ensure most current data is available.
ENVIRONMENTAL MITIGATION

Implementation of mitigation measures (pre 2015):
• Inconsistent
• Project by project
• Driven by permits

In 2015, Environmental Best Management Practices (BMPs):
• Standardized mitigation measures – even on low risk projects
• Training provided to all employees and contractors involved in the development of linear infrastructure (i.e. powerlines)
• Improved consistency
• Improved environmental results
Currently, SaskPower has ten BMPs developed

- Surface Water
- Wildlife and Habitat
- Birds
- Native Grassland, Agricultural Land, and Sandhill Environments
- Soil
- Heritage Resources
- Tree and Shrub Clearing, Salvage and Disposal
- Weeds
- Disposal and Storage of Nonhazardous and Hazardous Waste
- Spills and Releases
Questions & Discussion