

Environmental Protection Program (EPP) overview

- Developed from a comprehensive review
- Implementation, management and monitoring of mitigation measures
- Components that interact and adapt from each other
- Who, what, where and how aspects of protecting the environment in all phases of the project

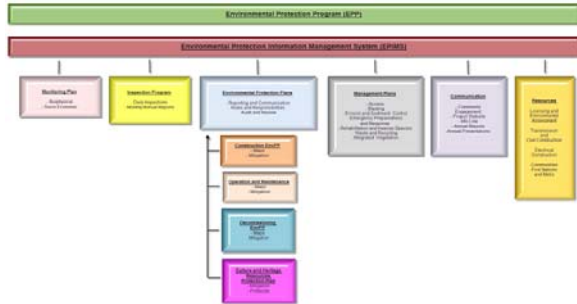
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Lessons learned

- Include Environmental Protection Program documents in EIS for review.
- Development of clearing plan
- Mitigation measure improvements
- Language improvements for clarity
- Packaging and format of documents
- Experimentation with new mechanisms of community involvement

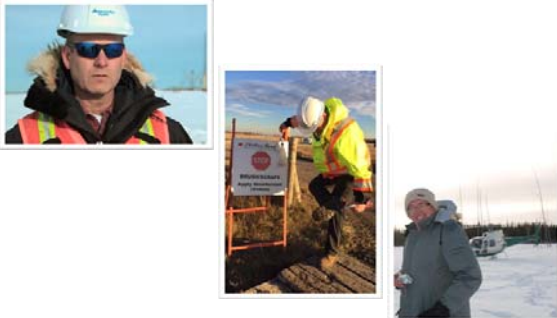
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Components



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Senior transmission management team



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Draft Construction Environmental Protection Plan (CEnvPP)



- Almost 100 specific mitigation measures
- Over 400 general mitigation measures
- Setbacks and buffers
- Reduced Risk Timing windows
- Biosecurity standard operating procedure
- Frameworks for contractor management plans

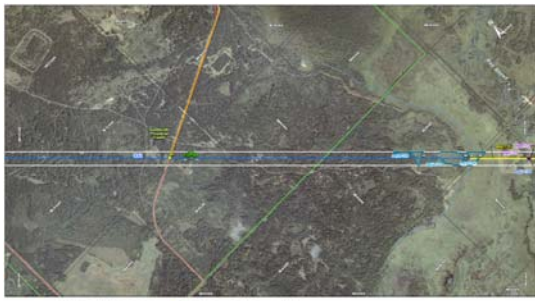
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General mitigation measures

- Access Roads and Trails
- Agricultural Areas
- Aircraft Use
- Blasting
- Borrow Pits
- Built Up Areas
- Burning
- Clearing
- Concrete wash water
- Demobilizing
- Draining
- Drilling
- Emergency Response
- Erosion Protection
- Fish Protection
- Grading
- Groundwater
- Grubbing
- Hazardous Materials
- Marshalling Yards
- Petroleum Products
- Rehabilitation and re-vegetation
- Rights of way
- Safety and Health
- Soil Contamination
- Staging Areas
- Stream Crossings
- Stripping
- Transmission Towers
- Treated Wood
- Vehicle and Equipment Maintenance
- Waste Management
- Wetlands
- Wildlife Protection

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Draft CEnvPP map



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Management plans

- Access management
- Blasting
- Emergency preparedness and response
- Erosion protection and sediment control
- Rehabilitation and invasive species
- Waste/recycling
- Integrated vegetation
- Golden-winged warbler habitat
- Clearing

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Golden-winged warbler Habitat Management Plan



- Developed in response to threatened species mitigation
- ROW selectively cleared and maintained through integrated vegetation management
- Safe operation and maintenance of project

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Access Management Plan



- Communication protocols
- Utilize existing access
- Firearms restrictions
- Access rehabilitation

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Clearing Management Plan

- Under development
- Meeting with landowners
- Investigating secondary uses of wood products
- Mulching, chipping, firewood, salvage, biofuels, burning



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Ongoing First Nations and Metis Engagement Process

- Community meetings
 - Share plans and EIS findings
 - Identify new ESS and/or refine existing info
 - Share info and address EPP related community concerns
 - Identification of new mitigation measures



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Indigenous community monitoring working group

- Terms of Reference to be developed (1 field trip and meeting to date)
- Guiding objectives:
 - Awareness of the project and EPP;
 - Manitoba Hydro awareness of community concerns and communication back on how they are being addressed;
 - "Boots on the ground" field experiences;
 - Multiple First Nations, MMF and Indigenous organizations working together; and
 - A youth and Elder component.
- Environmental monitor

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Environmental Protection Information Management System

- Modules
 - Inspection
 - Monitoring
 - Reporting
 - Communication
- Combination of document management, workflows, reporting, spatial awareness, and communication tools

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Communication

- Environmental protection team meetings
- Ongoing liaison with local communities, landowners, First Nations and Metis
- Project website updates
- Annual/seasonal
 - Pre and post construction meetings
 - CEnvPP reviews
 - Annual reports and presentations

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Adaptive management approach

- Structured and iterative learning tool that incorporates frequent review of decisions and feedback from monitoring
- Involves alternative planning to avoid reactive management
- Involves affected parties throughout project development
- Fosters a transparent decision making processes that provides good documentation
- Focuses on ongoing experimentation that will benefit the pursuit and development of "best practice"

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Adaptive management approach

- **Planning stage**- EIS development
- **Doing stage**- construction activities
- **Evaluation and learning stage**- during construction (compliance monitoring) and post-construction (environmental monitoring)
- **Adjustment stage**- at any point during the process



Figure Source: The Adaptive Management cycle for the Tasmanian Wilderness World Heritage Area (Jones, 2009, P237)

Adaptive management enhancements

- Increased application and documentation of adaptive management
- Increased community, stakeholder and landowner involvement in decision making
- Enhancement of monitoring programs toward the “active” form of adaptive management
- Introspective approach to EPP improvements utilizing adaptive management
- Further development of user targeted EPP documents

MANITOBA-MINNESOTA TRANSMISSION PROJECT

We have reached the end of our journey