

**MANITOBA-MINNESOTA
TRANSMISSION PROJECT**

Clean Environment Commission Hearing



Introduction & Project Description	Sarah Coughlin, Manitoba Hydro Jim Howell, Stantec
Engagement	
Routing	Regulatory Requirements Approach to Assessment Lessons Learned Engagement Aboriginal Traditional Knowledge Assessing Effects Confidence & Monitoring
Construction, Operations & Property	
Methods	
EMF	
Socio-Economic Environment	
Biophysical Environment	
Environmental Protection Program & Conclusion	

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Regulatory

- *The Environment Act*, Manitoba
- Guidelines and requirements set out in the National Energy Board Filing Manual
- *Canadian Environmental Assessment Act, 2012*

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Approach to assessment

How to assess effects of the project on people and the environment

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Approach to assessment

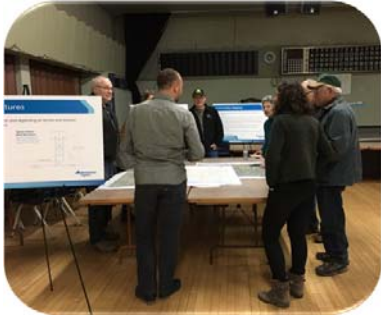
- Learn from past projects and assessments
- Broad, adaptive engagement
- Aboriginal Traditional Knowledge
- Assessed effects to valued components
 - Clear pathways of effect
 - Defined thresholds and criteria
 - Iterative scoping, assessing and monitoring
 - Recognize linkages
- Considerate of the principles of sustainable development

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Lessons from past projects and experiences

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Broad, adaptive engagement



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Clear, accessible information

Manitoba-Minnesota Transmission Project
Quick Facts

What is the Manitoba-Minnesota Transmission Project?
An urgent and critical investment in the west and central United States.

Why do we need it?
The transmission line will allow Manitoba Hydro to send electricity to markets in the United States and allow Manitoba Hydro to increase electricity selling opportunities in power markets across the region.

Where is it?
The transmission line will start at Roseau, Manitoba and will go around the south of Winnipeg. The line will then travel to the Manitoba-Minnesota border south of the town of Fargo. From the Project end point south of Fargo, the line will travel to the Roseau-Minnesota Transmission Line, which will connect to the Minnesota-Minnesota Transmission Project.

What will it look like?
Towers will be 200 feet tall to 300 feet tall (60 to 90 meters tall) and will have a span of 400 to 500 feet (120 to 150 meters). The design shows what the tower will look like.

How much will it cost?
The Manitoba-Minnesota Transmission Project will cost approximately \$1.5 billion.

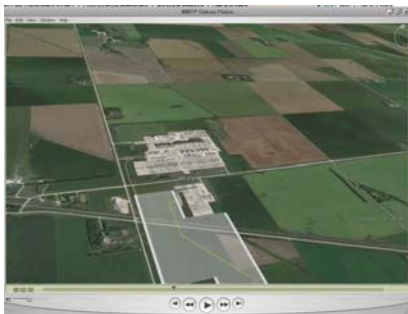
When will it be built?
Manitoba Hydro plans to start construction in 2017 and finish the work in 2020.

MANIT Summary
2015-2017-2018

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Manitoba Hydro

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Clear, accessible information



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Assessing effects

- Understanding the existing environment
- Listening to concerns
- Valued Component selection
- Boundaries
- Thresholds

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Scoping

Understanding existing environment:

- Desktop review
- Considerate of past effects (trends in health, drivers of change)
- Key Person Interviews
- Engagement outcomes
- Field surveys

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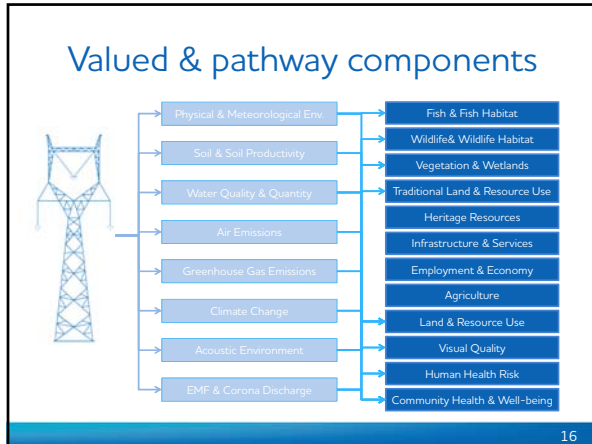
Scoping

Valued Component

- Broad ecosystem component of the project
- are a part of Metis or a traditional
- are of scientific importance
- have been identified as important

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- ### Boundaries
- Spatial Boundaries
 - Project development area (PDA)
 - Local assessment area (LAA)
 - Regional assessment area (RAA)
 - Temporal boundaries
 - Valued component-specific
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Assessing effects

- The existing environment was described
- How the project interacts with biophysical and human environment components
- Pathway of effect
- Measurable parameters
- Mitigation
- Residual effects

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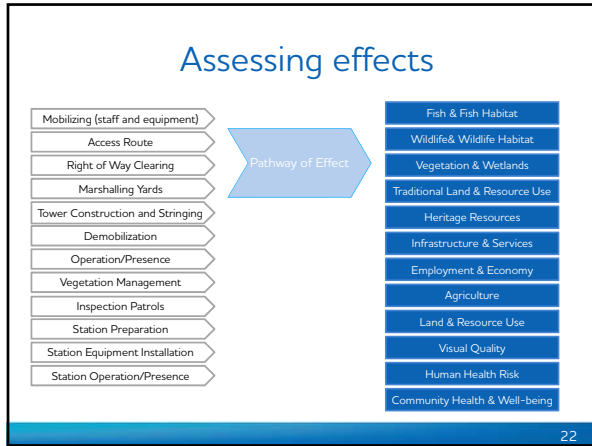
Assessing effects

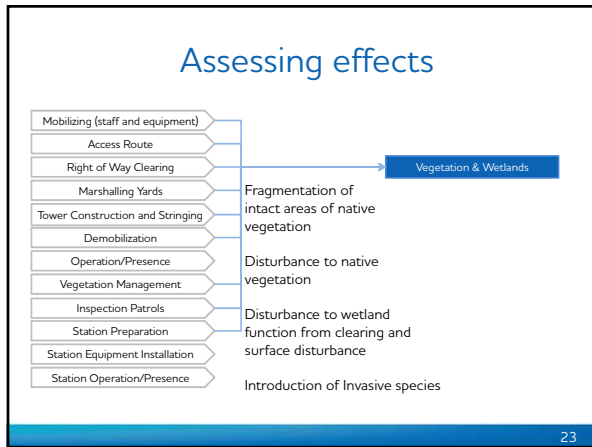
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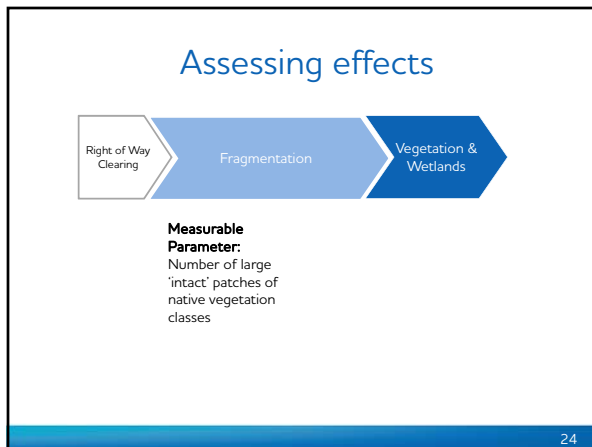
Assessing effects

- Mobilizing (staff and equipment)
- Access Route
- Right of Way Clearing
- Marshalling Yards
- Tower Construction and Stringing
- Demobilization
- Operation/Presence
- Vegetation Management
- Inspection Patrols
- Station Preparation
- Station Equipment Installation
- Station Operation/Presence

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Mitigation



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Assessing effects

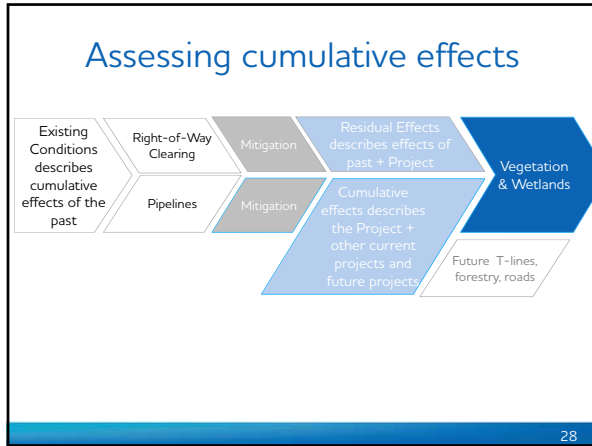


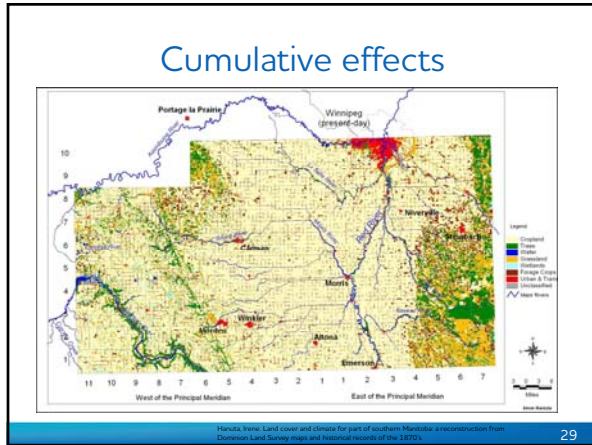
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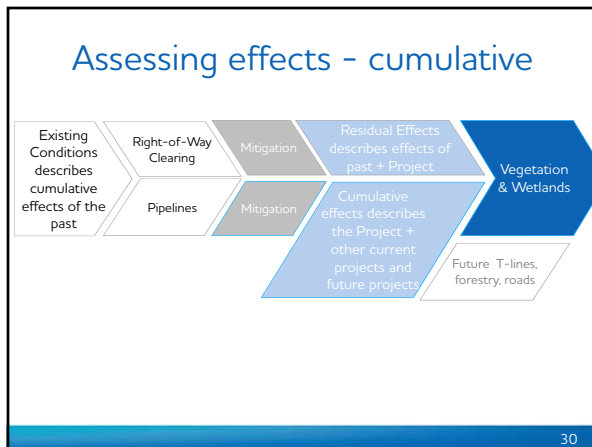
Criteria to describe residual effects

- Direction
- Magnitude
- Geographical extent
- Frequency
- Duration
- Reversibility
- Ecological or socio-economic context

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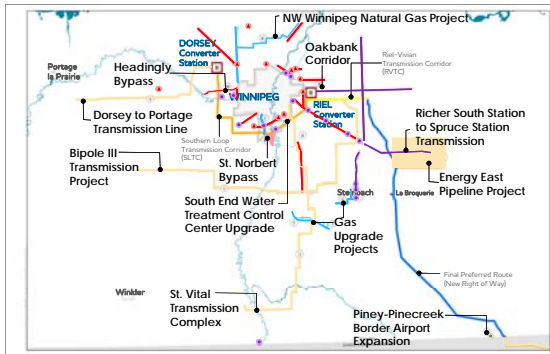


Past, present and future projects

- Agriculture
- Residential developments
- Roads, airports and the Floodway
- Recreational activities
- Domestic and commercial resource use activities
- Pipelines
- Transmission lines

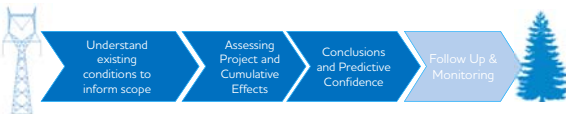
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Reasonably Foreseeable Future Physical Activities



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Assessing effects



- Determining significance
- Reconsidering conclusions
- Prediction confidence
- Climate change

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Determining significance

- Criteria
- Thresholds
- Professional judgment
- Other worldviews

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Reconsideration of conclusions

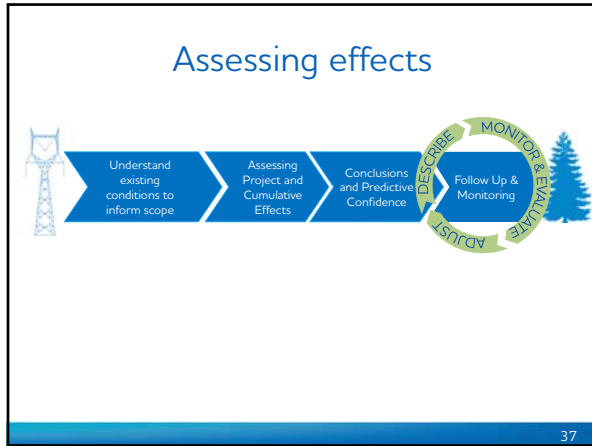
- Sagkeeng First Nation
- Dakota Plains Wahpeton First Nation
- Dakota Tipi First Nation
- Manitoba Metis Federation

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Prediction confidence

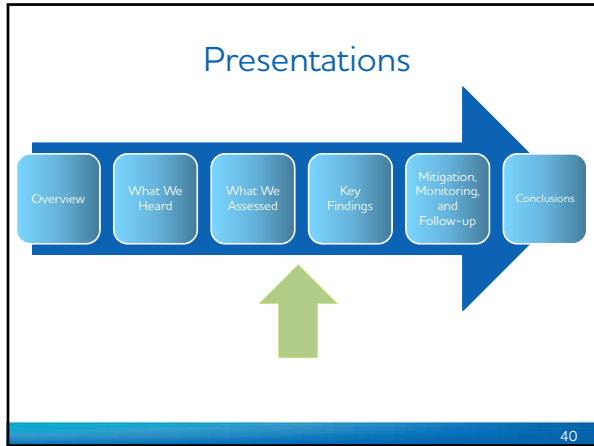
- Predictions
 - Confidence
 - To future climate change scenarios, using global climate model projections
 - Mean monthly temperatures
 - Wind speed
 - Precipitation
 - Other potential accidents or events are assessed in Effects of the Environment on the Project

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- ### Follow up & monitoring
- Construction Environmental Protection Plan
 - How to implement mitigation measures
 - Describes monitoring initiatives, the Environmental Monitoring Plan
 - Adaptive
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- ### Sustainability
- Manitoba Hydro's Sustainable Development Policy and Principles
 - Consistency of the project with
 - Principles and Guidelines of Sustainable Development of Manitoba's *The Sustainable Development Act, C.C.S.M. c. S270*;
 - *Sustainable Development Act* (Canada, 2008)
 - Federal Sustainable Development Themes set out in the 2013 Federal Sustainable Development Strategy (FSDS) (Environment Canada 2013).
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