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EcoNomics™

Review of the Bipole III EIS - Wildlife

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1. General EIS Process for Wildlife
2. Potential Effects of Linear Features
3. Positive Aspects of the EIS
4. Concerns
5. Conclusions
6. Recommendations



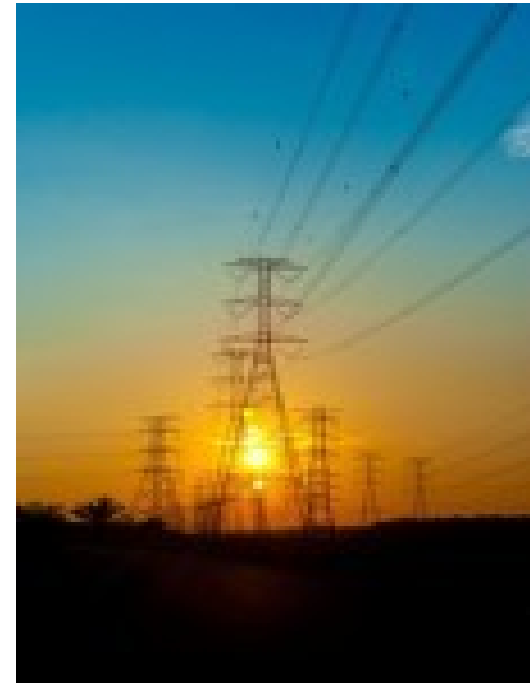
EIS Process

- Review project drawings, plans, and maps
- Select representative wildlife species
- Collect information about wildlife
- Describe potential wildlife/project interactions
- Develop mitigation measures
- Define impact criteria (e.g., magnitude, duration, etc.)
- Assess residual impacts
- Classify residual impacts using impact criteria
- Develop additional mitigation for significant impacts
- ***Note: Criteria determines level of significance***



Effects of Linear Features

- Direct habitat loss
- Habitat alienation
- Habitat fragmentation
- Altered wildlife movements
- Increased predation
- Increased human access





Positive Aspects

- Selection of the FPR – Proactive approach.
- FPR alignment was modified in response to MCWB concerns.
- EIS and supporting documents are well written.
- Methods used for wildlife studies are appropriate.



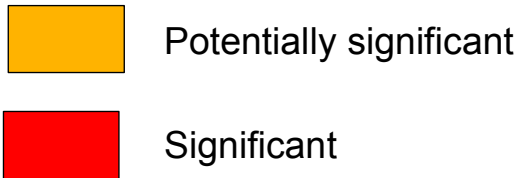
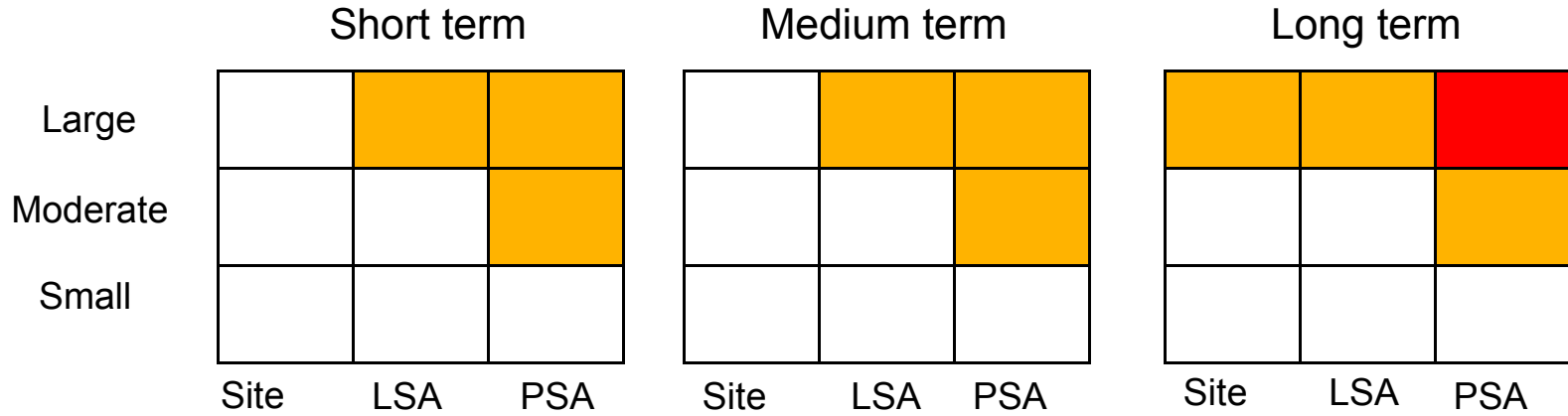


Impact Definitions

Impact Criterion	Definition/Description
Direction	Positive, neutral, negative.
Magnitude	The degree to which an impact affects wildlife.
Geographic Extent	The area that will be affected
Duration	The length of time over which an impact will occur.
Frequency	The frequency at which an impact will occur.
Reversibility	Describes whether or not an impact can be reversed.



Concerns



Important Points

- Probability of a *significant* impact = 4% (1/27)
- Probability of a *potentially significant* impact = 33% (9/27)
- Probability of a *not significant* impact = 63% (17/27)
- Only long-term impacts (>50 yr) are *significant*



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Woodland caribou

- Canadian Species at Risk Act, Schedule 1 (*i.e.*, officially “at risk” and protected)
- COSEWIC and MESA – “Threatened”

According to the Bipole III Criteria:

A severe caribou decline that occurred in most of the PSA and lasted for 40 yr would not be defined as *significant*.



Bipole III Definitions for impact *Duration*

- Short term: 0 – 5 yr
- Medium term: ≤ 50 yr
- Long term: > 50 yr

Important Points

- No *Long term* impacts were identified for wildlife.
- The Bipole III transmission line may last for up to 100 yr and habitat function may take many years to recover following decommissioning.
- Even *Medium term* impacts (≤ 50 yr) can affect many generations of wildlife.
- *Long term* duration in other EISs often begins at 10 or 20 yr.



Duration	Bipole III	Northern Gateway	Long Lake South	Suncor Voyager	Muskeg River
Immediate			<2 days		
Short term	0 to 5 yr	<3 yr	≥2 days to <1 yr	<5 yr	<3 yr
Medium term	≤50 yr	2 to 10 yr	1 to <10 yr	5 to 20 yr	3 to 20 yr
Long term	>50 yr	>10 to ≤30 yr after decommissioning	≥10 yr	>20 yr	>20 yr
Permanent		>30 yr after decommissioning			



“No net habitat loss”

- Manitoba Hydro should consider adopting a policy of **“no net habitat loss”**
- Conservation or enhancement of wildlife habitat to compensate for habitat losses from development.



Conclusions About Impact Criteria

- The common set of impact criteria developed for the Bipole III EIS are not appropriate for wildlife.
 - Even *Medium term* impacts would affect many generations of wildlife.
 - Habitat may be affected >100 yrs; impacts are therefore *Long term* or *Permanent* rather than *Medium term*.
 - Although impacts will likely be reversed at some point in the far future, they could reasonably be considered *Not reversible* because of the long period involved.
- The use of these criteria make it almost impossible to define an impact as *Significant* for wildlife.

Note: Some other assessments use discipline-specific assessment criteria.



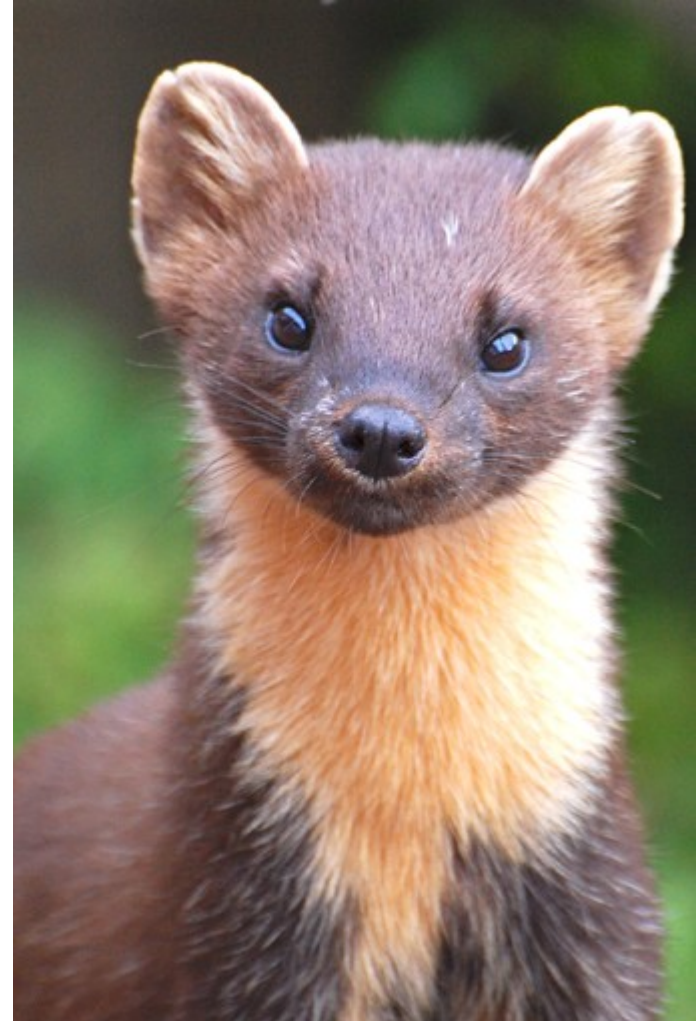
Other Concerns

- There is little discussion about animal movements.
- The assessment is largely qualitative; numerical and quantitative data are not presented to facilitate an understanding of the conclusions.
- The effects assessment does not provide enough detail to allow the rationale for impact ratings to be determined.
- Some of the impact conclusions appear to be unsupported (e.g., wolverine abundance).



Conclusions

- The proactive approach to selecting the FPR is a potentially effective method for reducing impacts to wildlife.
- *Not significant* impact ratings for all wildlife species and groups (>30) may not be accurate because of inappropriate impact criteria for wildlife.
- The rationale for assigning impact ratings is unclear (little use of numerical data).





- Develop specific and realistic impact criteria for wildlife
- Where possible, provide comparative data to justify conclusions (e.g., relative abundance)
- Use quantitative data to:
 - justify conclusions about abundance and habitat importance
 - facilitate an understanding of project effects and impact ratings
- Consider developing habitat compensation and enhancement programs as partial mitigation for habitat losses.



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Thank You

