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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.



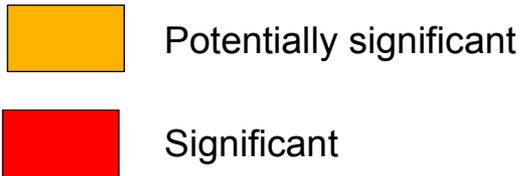
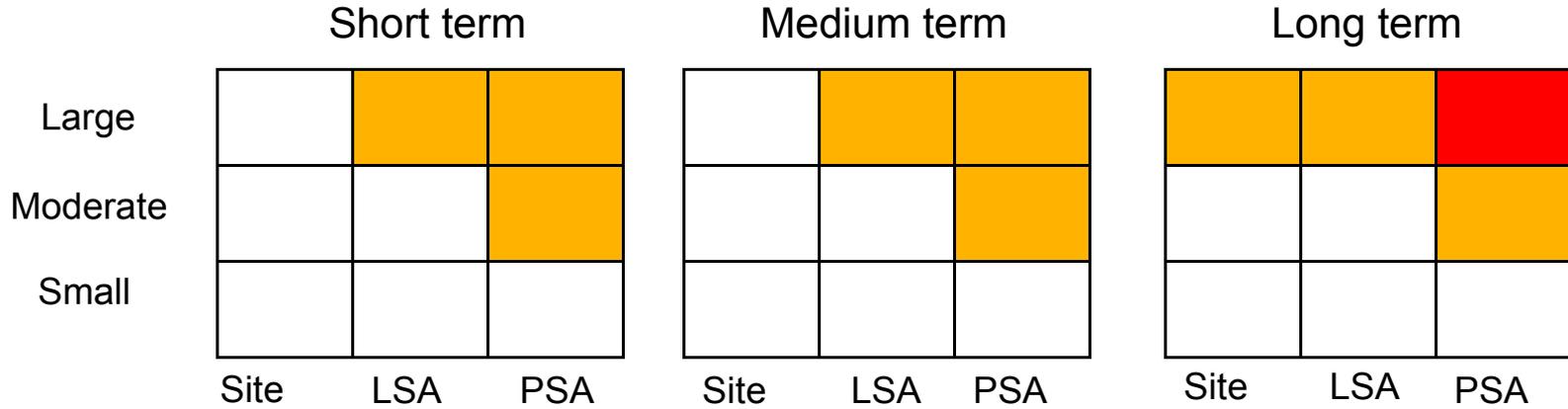


Impact Definitions

| 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.



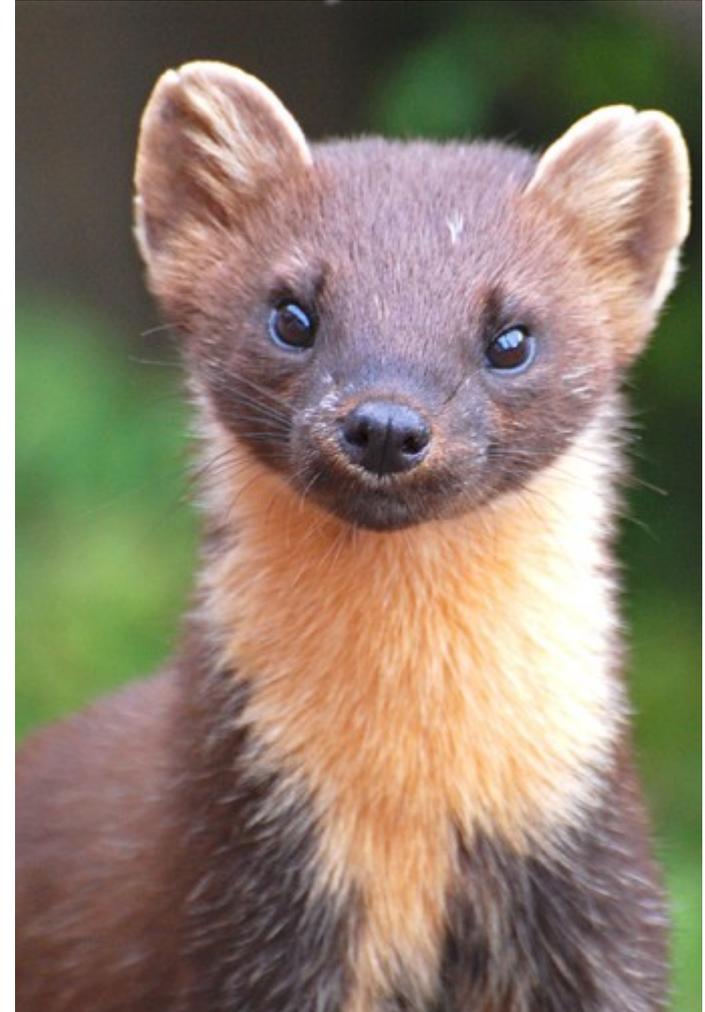
Other Concerns

- 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

