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## EXECUTIVE SUMMARY

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In general, regulators expect that disturbed sites in the boreal forest will undergo complete reclamation (recontouring, soil replacement and revegetation) with the goal of returning the site to pre-disturbance condition and land use (equivalent land capability). Legislation and policies provide opportunities to vary from these expectations with written approval from a specified decision maker (Director, Regulator, or Land Manager). Alberta's Wetland Policy requires replacement of wetlands lost due to industrial development, but recognizes that the relative value of a wetland (used to calculate replacement ratios) is based, in part, on the relative abundance of wetlands in the region. In areas of high abundance (such as northeast Alberta) and low historical loss, the concept of *relative abundance* will facilitate a considered approach to wetland management, balancing environmental, social, and economic priorities in the execution of management decisions.

The two specific instances of relevance to this project where a regulatory decision is needed are: (1) a request for a variance based on a site having natural vegetation encroachment rather than complete reclamation; and, (2) a request to leave well pads in peatlands in place.

The following key observations were made from this phase of the project:

- It is clear in the wellsite criteria and SED 002 that the Land Manager (AEP) must approve a change in land use from peatland to upland; it is less clear if the Land Manager or the AER must approve the variance for a vegetation override where a site has natural vegetation encroachment. Furthermore, when a pad in a peatland is partially removed it is unclear if a change in land use approval is required for the remaining upland portion (and if so, if there is a size of remaining upland below which an approval is not required). **Clarity of roles must be provided.**
- There is limited guidance on how decisions are being made to accept or reject requests for change in land use and variances. There are perceptions within the government/regulator and industry/consultant worlds about the "real" reason for applications and the willingness to make the decisions in a timely manner. **These perceptions must be addressed before meaningful change can occur.**
- There is limited scientific information available to support applications and decisions related to requests for variances and changes in land use. Some information is coming to light from various field-based research and demonstration trials but awareness of, access to, the information is not widespread. **A compilation of existing experience in an easily accessible and continuously updated location would be very helpful for practitioners and regulators.**
- Several interview respondents defaulted to the criteria when asked about reclamation expectations; however, **the issues at hand (request for variance and change in land use) are, by definition, exceptions to the criteria therefore a new way of thinking is required to address these requests.**
- During the reclamation certification process, professional justification is required for sites requiring a change in land use and/or a variance to criteria for one or more reclamation

deficiencies according to the applicable wellsite criteria. It is clear from the interviews that **there is a need for clear direction on what information is required to support professional justification** which describes why the specific deficiencies will not have long term adverse environmental impacts and/or ultimately influence equivalent land capability.

- **Clarity is required on the relative priority that should be placed on the core components of the reclamation criteria (soils, landscape and vegetation) when evaluating a request for a variance to the criteria** (i.e., what are the minimum parameters that must be met). There was considerable variability in the interview responses regarding which parameters were most important, especially when it came to vegetation; the variability appeared to be correlated to the specific area of expertise and interest of the respondent.
- **Clarity is required on the application of the Wetland Policy to requests for a change in land use, as well as the extent to which local and regional implications of site-specific land use changes will be considered.**
- The concept of net environmental benefit (environmental and economic) arising from regulatory decisions was often raised in the context of removing pads in peatlands. **Clear guidance on the environmental and economic factors to be considered when making the decision to grant or refuse a request for change in land use is required.**
- **Care is required in discussing policy and practice approaches using generic terms like *peatland*** – there is information to suggest that different peatland types may respond to reclamation differently. More research, and documentation of existing practices and results, is required to ensure the appropriate policies and practices are developed.
- Similarly, while some general policy guidance may be provided, **site-specific factors (e.g., caribou habitat, location, access, etc.) will still need to be incorporated into final decisions to grant a variance or request for change in land use.**
- **One or more decision support tools are required to guide practitioners and regulators through the application, review and decision process;** these tools should be designed to remove subjectivity from the decision process.
- This document has focused primarily on well pads; however, access roads, particularly in peatland sites, will also face similar concerns and be subject to request for variances and/or changes in land use. **Once a final set of recommendations is made for well pads the rules for access roads can be addressed.**