Conclusion

7.0 CONCLUSION

Based on the results of this EIA, and TransAlta's history and experience with the construction and operation of the existing Kent Hills Wind Farm, the Project is not expected to significant adverse environmental effects including cumulative effects.

Installation of the proposed Kent Hills 3 Wind Project will be completed in approximately five to seven months of on-site time, limiting the period of construction disturbance to residents and wildlife associated with increased vehicle traffic and human activity. Remediation of disturbed surface areas will be undertaken as soon as possible after construction is complete.

Operation of the facility will result in sound levels at residences that will be within acceptable standards. Under normal operation, human activity at turbines will be limited to monthly visits by maintenance personnel, and periodic visits by other individuals associated with specific studies.

Turbines present a potential collision hazard to birds and bats. Bird and bat collisions are expected to be infrequent considering the observed flying patterns, distribution of habitat, and low collision rates documented at other wind farms in the United States and Canada, and more specifically at the existing Kent Hills Wind Farm. The existing Kent Hills Wind Farm has been in operation with 32 turbines since 2008 and an additional 18 turbines since 2010. Post-construction monitoring was conducted during the first four years of operation, with carcass searches conducted at representative turbines twice per week over six months from 2009 to 2012. The monitoring results confirmed low mortality rates, as was predicted following preconstruction surveys conducted over two spring monitoring and two fall monitoring periods between 2006 and 2009. Bird and bat migration surveys in progress during fall are expected to support past studies and monitoring. Post-construction monitoring will also be conducted for Kent Hills 3 to verify predictions.

Socio-economic effects of the Project are anticipated to be low. Any cultural resource activities, Aboriginal use, and recreational use of the WFSA can continue during operation of the wind farm. A number of positive effects will be realised. The Project will offer employment and revenue to local workers, and tourism may actually increase as a result of the operation of the wind farm, as appears to have been the case following the construction of Kent Hills 1 and 2.

The WFSA demonstrates elevated potential for the existence of prehistoric and historic period archaeological resources; however the PDA has been surveyed the preferred turbine locations are not considered high potential for archeological resources.

The visual landscape of the region has already been altered by the presence of wind turbines, joining other structures in the area (e.g., existing communications towers) and the existing forestry activities. The visibility of additional turbines will be limited within the WFSA and the adjacent lands. While some receptors will have a clear view of the additional turbines, notably the alternate turbine locations T1, T2 and T6, many of the homes close to the viewshed will be unable to see the new preferred turbines (T3, T4, T5, T7, T9) due to topography and forest cover in the region surrounding the wind farm. Lighting will



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Conclusion

meet the requirements of Transport Canada. To date there have been no recorded complaints regarding the visibility of turbines of the existing wind farm.

The facility is expected to have a lifetime of at least 25 years. Necessary maintenance will be limited, requiring on-site inspection by existing TransAlta Wind staff on a quarterly basis for the first year and annually in subsequent years.

The Project will be entirely on forested land. The expanded wind farm will have a relatively small footprint on the landscape, using less than 2% of the 61 km² of the WFSA. Wind farm development will not impair existing forestry operations, or recreational activities.

Mitigation measures have been proposed for the Project to reduce or eliminate adverse effects. Any residual adverse environmental effects are not likely to be significant. This conclusion, is based, in part, on the environmental record of the construction and operation of the two previous phases of the Kent Hills Wind Farm.

The expanded wind farm will provide additional economic benefit to the province and construction contractors. The positive effects of the Kent Hills 3 Wind Project through displacement of burning fossil fuel are expected to be incremental, with an expected avoidance of greenhouse gas emissions likely to be in the order of 30,000 tonnes of carbon dioxide annually, as well as tonnes of sulphur dioxide and nitrogen oxide.

