

7.0 GLOSSARY

Alpha diversity: The diversity within a particular area or ecosystem, and is usually expressed by the number of species (*i.e.*, species richness) in that ecosystem.

Alternative route evaluation corridor: A 400 m corridor centered on an alternative transmission line route and used to evaluate the potential direct and indirect effects on terrestrial habitat, ecosystems and plants. The corridor is wider than the anticipated extent of effects to identify nearby potential issues of high concern and to provide some flexibility in routing should the alternative be selected.

Benchmark: A reference value or range that is used to identify increasing degrees of concern regarding a potential effect on a VEC.

Broad habitat type: The third coarsest level in the **hierarchical habitat classification** used for the terrestrial assessment. From coarsest to finest, the levels in the habitat classification system are land cover, coarse habitat type, broad habitat type and fine habitat type.

Cause-effect linkage: The relationship between an event (the cause) and a second event (the effect) or subsequent event (an indirect effect), where the second event or subsequent event is a consequence of the first.

Coarse habitat type: The second coarsest level in the hierarchical habitat classification used for the terrestrial assessment. From coarsest to finest, the levels in the habitat classification system are land cover, coarse habitat type, broad habitat type and fine habitat type used for the terrestrial assessment.

Core area: A natural area that meets a minimum size criteria after applying an edge buffer on human features. Two minimum sizes (200 ha, 1,000 ha) after applying a 500 m buffer on human features were used in the fragmentation effects assessment.

Danger trees: Trees located outside a cleared transmission line right-of-way but which may pose a risk of contact or short circuit with the line or structures.

Deposit type: Mode of surface material deposition. Refers to the dominant form of development in the case of organic deposits developed in situ.

Disturbance regime: The frequency, size, intensity, severity, patchiness, seasonality and sub-type of a particular type of disturbance or continual fluctuation.

Ecological land classification: A process of delineating and classifying ecologically distinctive areas of the earth's surface based on surficial geology, landforms, soils, vegetation, climate, wildlife, water and human features. The dominance of any one or more of these factors varies with the given ecological land unit. This holistic approach to land classification can be applied incrementally on a scale-related basis from site-specific ecosystems to very broad ecosystems.

Ecosite type: A classification of site conditions that have important influences on ecosystem patterns and processes. Site attributes that were directly or indirectly used for terrestrial habitat classification included moisture regime, drainage regime, nutrient regime, surface organic layer thickness, organic **deposit type**, mineral soil conditions and permafrost conditions.

Ecosystem: A functional unit comprised of the living and the non-living things in a geographic area, as well as the relationships between all of these things (Aber and Melillo 1991). An ecosystem has patterns (e.g., a habitat mosaic), structures (e.g., food web, trophic structure), dynamics (e.g., cycling of energy, nutrients and matter) and performs functions (e.g., converts carbon dioxide into plant material, creates soil, provides wildlife habitat). Ecosystems occur at various levels (e.g., a log, a forest stand, a region, the biosphere), with boundaries being defined by substantial differences in the rates or frequencies of change in the key ecosystem drivers.

Ecosystem diversity: The number of different ecosystem types and the distribution of area amongst them, at various ecosystem levels.

Ecosystem function: The outcomes of ecosystem patterns and processes viewed in terms of ecosystem services or benefits. Examples include producing oxygen to breathe, habitat for animals, purifying water and storing carbon.

Ecozone: A classification system that defines different parts of the environment with similar land features (geology and geography), climate (precipitation, temperature, and latitude), and organisms.

Edge effect: The effect of an abrupt transition between two different adjoining ecological communities on the numbers and kinds of organisms in the transition between communities as well as the effects on organisms and environmental conditions adjacent to the abrupt transition.

Effect: Any change that the Project may cause in the environment. More specifically, a direct or indirect consequence of a particular Project impact [ref]. The impact-effect terminology is a statement of a cause-effect relationship (see **Cause-effect linkage**). A terrestrial habitat example would be 10 ha of vegetation clearing (*i.e.*,

the impact) leads to habitat loss, permafrost melting, soil conversion, edge effects, *etc.* (*i.e.*, the direct and indirect effects).

Fine habitat type: The most detailed level in the hierarchical habitat classification used for the terrestrial assessment. From coarsest to finest, the levels in the habitat classification system are land cover, coarse habitat type, broad habitat type and fine habitat type.

Fire regime: The frequency, size, intensity, severity, patchiness, seasonality and type (*e.g.*, ground versus canopy) of fires in the Regional Study Area.

Fragmentation: Refers to the extent to which an area is broken up into smaller areas by human features and how easy it is for animals, plant propagules and other ecological flows such as surface water to move from one area to another. Fragmentation can isolate habitat and create edges, which reduces habitat for interior species and may reduce habitat effectiveness for other species. *OR* The breaking up of contiguous blocks of habitat into increasingly smaller blocks as a result of direct loss and/or sensory disturbance (*i.e.*, habitat alienation). Eventually, remaining blocks may be too small to provide usable or effective habitat for a species.

Generalist: A species that is able to thrive in a wide variety of environmental conditions and can make use of a variety of different resources.

Glaciofluvial: Pertaining to streams fed by melting glaciers, or to the deposits and landforms produced by such streams.

Glaciolacustrine: Pertaining to lakes fed by melting glaciers, or to the deposits forming therein

Habitat: The place where an organism or a population lives. Because all natural areas are habitat for something, the term “habitat” is used to refer to terrestrial habitat for all species. Habitat for a particular species is identified with a species prefix, such as moose habitat.

Habitat alteration: Regarding terrestrial habitat, occurs when changes in one or more habitat attributes are large enough to convert a habitat patch to a different fine habitat type.

Habitat disturbance: Regarding terrestrial habitat, changes to a habitat patch that are not so large that they convert the patch to a different fine habitat type.

Habitat effect: Regarding terrestrial habitat, any change in a habitat attribute that results from the Project.

Habitat loss: Conversion of terrestrial habitat into human features or aquatic areas.

Habitat type: A classification of terrestrial habitats into ecologically meaningful categories. The habitat classes used in this report are combinations of vegetation type and ecosite type.

Habitat zone of influence: Spatial extent of direct and indirect Project effects on terrestrial habitat outside of the Project Footprint.

Hierarchical habitat classification: A habitat classification in which the categories at each level are subdivisions of the categories at the next more general level.

Impact: Essentially, a statement of what the Project is in terms of the ecosystem component of interest while a project effect is a direct or indirect consequence of that impact (i.e., a statement of the cause-effect relationship). A terrestrial habitat example would be 10 ha of vegetation clearing (i.e., the impact) leads to habitat loss, permafrost melting, soil conversion, edge effects, etc. (i.e., the direct and indirect effects). Note that while Canadian Environmental Assessment Act requires the proponent to assess project effects, Manitoba legislation uses the terms impact and effect interchangeably. See also Effect.

Invasive plant: A plant species that is growing outside of its country or region of origin and is out-competing or even replacing native organisms.

Land cover type: The most general level in the hierarchical habitat classification used for the terrestrial assessment. From coarsest to finest, the levels in the habitat classification system are land cover, coarse habitat type, broad habitat type and fine habitat type.

Landscape level: The level in the mappable ecosystem hierarchy that is between the stand and the sub-region.

Local study area: The spatial area within which potential Project effects on individual organisms, or individual elements in the case of ecosystem attributes, may occur. Effects on the populations to which the individual organisms belong to, or the broader entity in the case of ecosystem attributes, were assessed using a larger regional study area; the spatial area in which local effects are assessed (i.e., within close proximity to the action where direct effects are anticipated).

Mitigation: A means of reducing adverse Project effects. Under the *Canadian Environmental Assessment Act*, and in relation to a project, mitigation is "the elimination, reduction or control of the adverse environmental effects of the project, and

includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means."

- Model:** A description or analogy used to help visualize something that cannot be directly observed. Model types range from a simple set of linkage statements or a conceptual diagram to complex mathematical and/or computer model.
- Moraine:** An accumulation of boulders, stones, or other debris carried and deposited by the toe of a glacier.
- Peatland:** A type of wetland where organic material has accumulated at the surface.
- Priority habitat type:** A native broad habitat type that is regionally rare or uncommon, highly diverse (*i.e.*, species rich and/or structurally complex), highly sensitive to disturbance, highly valued by people and/or has high potential to support rare plant species.
- Priority plants:** Native plant species that is rare, plays a highly disproportionate role in ecosystem function, is highly sensitive to Project features, or is highly valued by people.
- Project footprint:** The maximum potential spatial extent of clearing, flooding and physical disturbances due to construction activities and operation of the Project, including areas unlikely to be used.
- Rare habitat type:** A broad habitat type that covers less than 1% of land area in the regional study area. See also **uncommon habitat type**.
- Regime:** The frequency, size, intensity, severity, patchiness, seasonality and sub-type of a periodic event or continual fluctuation.
- Regional study area:** The regional comparison area used for a particular key topic. Alternatively, the spatial area within which cumulative effects are assessed (*i.e.* extending a distance from the project footprint in which both direct and indirect effects are anticipated to occur).
- Residual effect:** An actual or anticipated Project effect that remains after considering mitigation and the combined effects of other past and existing developments and activities.
- Shallow peatland:** A broad ecosite type which includes peatlands that typically have peat that is at least 100 cm thick, lack continuous or extensive discontinuous ground ice and have a water table that is typically more than 20 cm below the surface.

- Site type:** A plot or smaller area classification of site conditions that have important influences on ecosystem patterns and processes. Site attributes that were directly or indirectly used for habitat classification included moisture regime, drainage regime, nutrient regime, surface organic layer thickness, organic deposit type, mineral soil conditions and permafrost conditions.
- Threshold:** A limit or level which if exceeded likely results in a noticeable, detectable or measurable change or environmental effect that may be significant. Example thresholds include water-quality guidelines, acute toxicity levels, critical population levels and wilderness criteria. See also benchmark.
- Uncommon habitat type:** A broad habitat type that covers between 1% and 10% of land area in the regional study area. See also rare habitat type.
- Upland:** A land ecosystem where water saturation at or near the soil surface is not sufficiently prolonged to promote the development of wetland soils and vegetation.
- Valued environmental component:** Any part of the environment that is considered important by the proponent, public, scientists and government involved in the assessment process. Importance may be determined on the basis of cultural values or scientific concern.
- Vascular plant:** Any plant which has specialized tissues for transporting sugar, water and minerals within the plant.
- Wetland:** A land ecosystem where periodic or prolonged water saturation at or near the soil surface is the dominant driving factor shaping soil attributes and vegetation composition and distribution. **Peatlands** are a type of wetland.