LAKE MANITOBA
LAKE ST. MARTIN
OUTLET CHANNELS PROJECT

VEGETATION

Includes landscape, community, and species diversity of plants, and wetland function

Environmental Impact Statement—Summary by Valued Component (VC)

Why is Vegetation a VC?

Vegetation directly supports ecosystem functions such as wildlife habitat, environmental cycles, converting carbon in gases (e.g., CO_2) that could add to climate change to vegetation material, and is valued for cultural, spiritual and aesthetic benefits.

What is the current state of Vegetation?

The Project area consists of a variety of plant communities dominated by water, wetlands, forests, hayland, and grassland. There are patches of native vegetation of various sizes, in forested, grassland and wetland areas. Areas west and south of Lake St. Martin have largely been converted to agricultural use. Vegetation structure and species composition have been affected by fire.

Plant species of interest to Indigenous groups in the area include both upland and wetland species and several of the species were observed during field surveys. Ten non-native invasive species were observed, with dandelion and absinthe the most common.

Valued components (VCs) are components of the natural and human environment that are considered by the proponent, public, Indigenous Peoples, scientists and other technical specialists and government agencies involved in the assessment process to have scientific, ecological, economic, social, cultural, archaeological, historical, or other importance.

What effects might the Project have on Vegetation?

The Project may change the number and locations of plant species of conservation concern, native vegetation communities, and wetland functions.

Landscape diversity may be affected by clearing activities during construction. Reclamation following construction may consist of grass and shrub landcover instead of forest. Effects to landscape diversity are not expected during operations.

Vegetation community diversity will be affected by the clearing of vegetation during construction, by reducing the number of older trees and reducing the area of native vegetation communities. However, community diversity will be positively affected from reduced flooding during operation.

Species diversity may be affected due to the direct loss of important species such as sweet grass, saline shooting star, annual sunflower and dragon's mouth orchid from vegetation clearing as well as vehicle and heavy equipment use during construction.

Plant species of interest to Indigenous Groups, including berries, may benefit from the operation of the Project due to reduced flooding in gathering areas; however, during construction areas of native vegetation supporting plant species of interest will be removed and other areas may be affected by dust from vehicle traffic, weed control and vegetation management.

Wetland area and function may be affected due to direct loss of wetland/catchment area which could permanently reduce wetland water depth, duration of flooding, flood frequency, and number of wetland plants.

Manitoba

How will effects to Vegetation be addressed?

Potential Project effects have been reduced by routing the channels to avoid large wetland complexes where possible and following an existing road for the PR 239 realignment. Effects cannot be avoided on the Lake St. Martin Outlet Channel due to the abundance of native vegetation in the region. Potential Project effects will be reduced by implementing standard Manitoba Infrastructure management plans and the following mitigation measures during construction and operation:

- Prior to clearing or grubbing, clearly mark the work area where disturbance will occur
- Machinery will arrive on site in a clean condition free of fuel, oil or fluid leaks
- Restrict construction-related traffic to the Project right-of-way and associated access routes
- Project right-of-way will not be accessible to the public
- Monitor wetland water levels following construction in areas where shallow ground water is intersected and either re-direct water into affected wetlands or to an outside drainage ditch designed to reduce changes to water levels in nearby wetlands
- Unmitigated wetland loss will be compensated
- Rock, aggregate and limestone will be obtained from existing quarries where possible
- Clearing and excavating in wetlands will occur during dry or frozen conditions whenever possible
- Temporary camp sites and staging areas will be located in currently disturbed areas and/or using existing facilities wherever possible
- Applicable setback distances will be used for all known occurrences of species of conservation concern
- Designated areas will be established for fuelling and equipment maintenance away from any waterbody or wetland
- Where seeding is not required, natural re-vegetation will be promoted

FOLLOW-UP AND MONITORING

Follow-up and monitoring of Project effects on vegetation will be implemented to determine the effectiveness of mitigation measures and define additional actions that may be needed if mitigation measures are not effective. The program will assess the success of reclamation measures and determine whether unexpected effects are occurring that require mitigation.

Conclusions

Landscape Diversity

While the construction of the Project will reduce the size of the patches of native vegetation in the region, including large forest and wetland patches during construction, no large native vegetation patches will be lost. Effects are not expected during Project operations.

Vegetation Community Diversity

While Project construction will result in some losses in areas of native upland (including shrubland and forests, and wetland vegetation communities) some areas of native upland vegetation communities may experience long-term benefits from reduced flooding including forest or grassland. Direct effects from changes in drainage on native upland or wetland communities may extend up to 1,600 m from the Project site. Temporary indirect effects from dust and nonnative invasive species is likely to spread into the local area.

Species Diversity

The Project construction will remove the known occurrences of some plant species of conservation concern within the Project footprint, and changes in wetland areas will alter the availability of plant species of interest to Indigenous groups. However, the numbers of some plant species of interest to Indigenous groups that have historically been negatively affected by flooding may increase within the local area.

Wetland Functions

Residual effects on wetland functions will reduce the number of wetland areas and potentially alter hydrology during construction and operations. Following construction, effects could potentially alter remaining wetland areas' water quality and ability to convert carbon in gases (e.g., CO_2) that could add to climate change to vegetation material. The area of changes should be reduced with mitigation and offset with wetland compensation.

For more information or if you would like to share your concerns:

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