

EA REPORT SECTION 1

INTRODUCTION

LAKE ST. MARTIN ACCESS ROAD

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1.0 INTRODUCTION AND BACKGROUND

1.1 PURPOSE OF THE DOCUMENT

This Environmental Assessment (EA) Report for the proposed Lake St. Martin (LSM) Access Road Project (the Project) is being provided to the Environmental Approvals Branch of Manitoba Sustainable Development to obtain a license for a Class 2 development under The Environment Act of Manitoba. The Canadian Environmental Assessment Agency has reviewed pertinent information and made a determination that the Project is neither an incidental activity to the Lake Manitoba and Lake St. Martin Outlet Channel Project nor considered a designated activity under CEAA 2012.

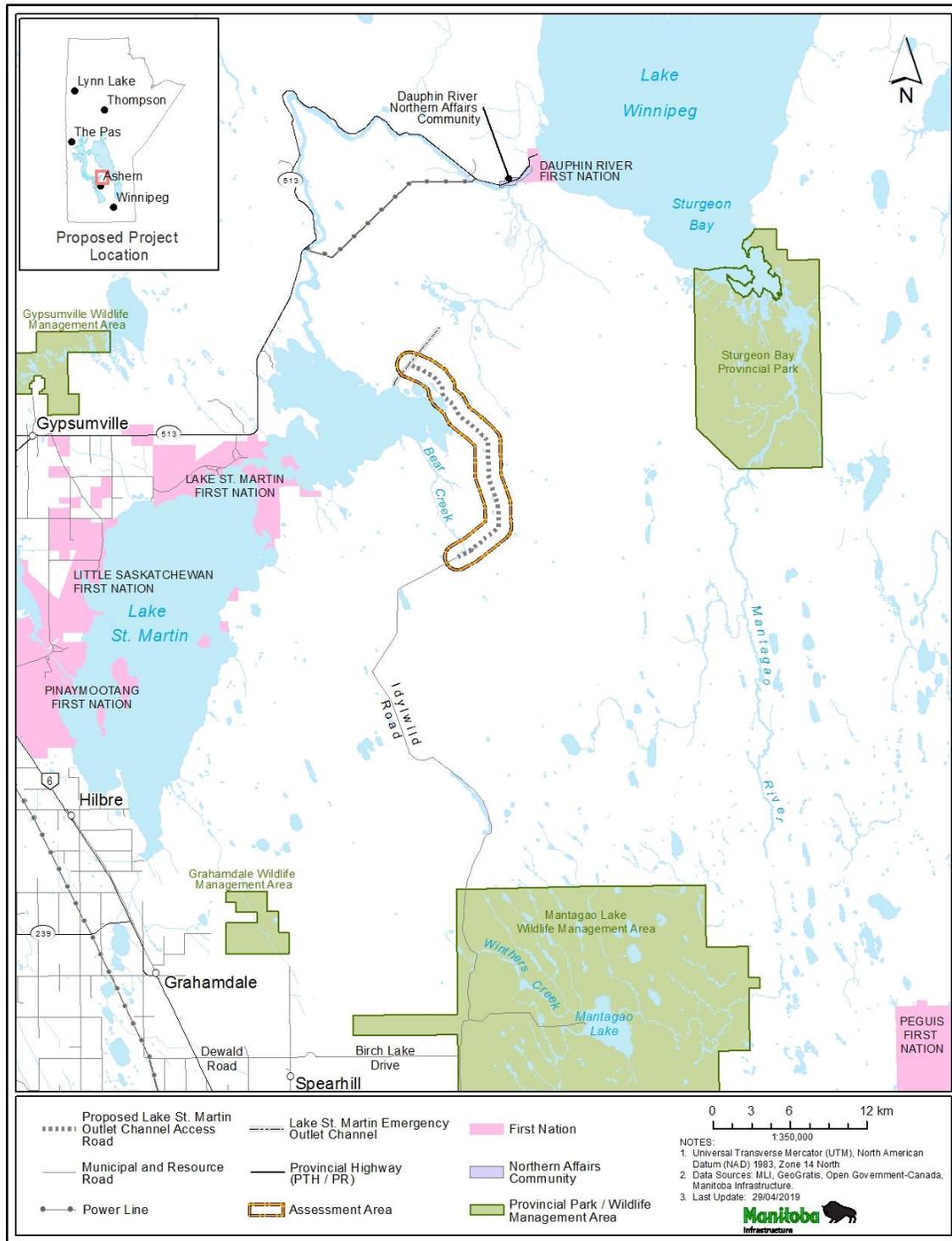
The Project refers to the proposed development of 19.5 km all season road (ASR) northeast of Lake St. Martin in Manitoba's Interlake. This Project EA Report describes the proposed development, public consultation (hereafter referred to as public engagement) that has occurred to date, assesses potential environmental effects on the existing environment and human health, proposes effective mitigations measures, evaluates and describes any follow-up plans including monitoring and reporting.

In addition to the public engagement information for the LSM Access Road Project outlined in this EA Report, information specific to Indigenous people and communities was gained through a separate Crown Consultation process. An initial assessment of potential impacts of the LSM Access Road on Aboriginal and Treaty Rights identified 9 communities that were subsequently consulted. The results of these Crown Consultation efforts are described in a separate document being developed by the Crown Consultation Steering Committee (MI 2019).

This report is accompanied by an Environment Act Proposal Form (EAPF), which is required as a component of the approval and licensing process. Upon receipt of an Environment Act Licence, MI will proceed with the Project in a manner described in the EA Report and summarized in the EAPF.

1.2 PROJECT SCOPE AND LOCATION

The proposed Project is a 19.5 km, two lane all season road (ASR) that would follow an existing winter road alignment that would extend from the northern terminus of the Idylwild Road to the Lake St. Martin Emergency Outlet Channel (Map 1-1). Associated works would also include the development and operation of temporary quarries, borrow pits and access roads (as required). The Project is located on previously cleared and developed Crown Land northeast of Lake St. Martin in Manitoba's Interlake.



Map 1-1. Proposed Project Location

1.3 NEED AND RATIONALE FOR DEVELOPMENT

The Lake St. Martin Emergency Outlet Channel (EOC) was constructed by the Province of Manitoba in 2011 as an emergency measure to alleviate flooding in the vicinity of Lake St. Martin in the Interlake region of Manitoba. Due to the semi-remote location of the EOC, a winter road was required to extend the pre-existing Idylwild Road to the construction site (Map 1-1). This winter road was first cleared and constructed in the winter of 2011/2012 and has been used every year since to mobilize and maintain equipment at the site (Photograph 1-1).



Photograph 1-1. Winter Road Currently Used to Access the Lake St. Martin Emergency Outlet Channel

Having been built as an emergency measure under extenuating circumstances, the EOC does not use a mechanical water control structure system to move water. Rather, the EOC uses a clay and aggregate berm, or plug, to prevent outflows when not operational (Photograph 1-2). Therefore, operation of the EOC relies on heavy equipment to mechanically remove the clay and aggregate berm and thereby permit the outflow of floodwaters from Lake St. Martin.



Photograph 1-2. Lake St. Martin Emergency Outlet Channel Clay and Aggregate Berm

Access to the EOC is currently comprised of: 20.8 km of municipal road (Dewald Road and Birch Lake Drive), 48.1 km of resource/forestry road (the Idylwild Road), and 19.5 km of winter road. The existing winter road has been instrumental in hauling materials and/or equipment in preparation for potential spring/summer operation and/or for ongoing maintenance of the EOC. Unfortunately, operation of the EOC, if required, occurs during the open water seasons when the winter road is not in use, i.e., the EOC is inaccessible by ground during non-frozen conditions. Continued reliance on the existing winter road is therefore problematic due to its limited and seasonal utility, which subsequently affects MI's ability to effectively and efficiently respond to flood events.

The structure of the current winter road is also substandard, with sharp turns and limited sightlines that create substantial safety concerns and, as such, will not accommodate large construction equipment or transport trucks. The current winter road is illustrated in Photograph 1-2. The availability of unimpeded site access is an important issue associated with effectively maintaining and operating the EOC. The existing access network is limited in use by the seasonal nature of the winter road segment. This seasonal restriction limits opportunities for conducting operational and maintenance activities on the EOC, which is currently a critical piece of emergency flood protection infrastructure for Manitoba and the region.

In addition to providing access to the EOC, the Project will also provide access to the site of the control structure channel associated with the proposed Lake St. Martin Outlet Channel; it will thus assist in the construction, operation and maintenance of future works in the area if they receive the necessary approvals and licence to proceed.

To address these access-related issues, Manitoba Infrastructure (MI) is proposing to upgrade 19.5 km of the current winter road to an all season road (ASR) standard to permit all season access to the EOC (Map 1-1). Upgrading the winter road to an ASR standard will allow for year-round vehicle and equipment access to the EOC, facilitating maintenance and operation of existing infrastructure and improving flood response. It will also provide the added benefit of facilitating access to the other potential future flood protection works proposed to occur between Lake St. Martin and Lake Winnipeg.

1.4 PROJECT ALTERNATIVES

Prior to selecting the preferred LSM Access Road alignment that is assessed in this EA Report, consideration was given to various alternative means of providing year-round access to the EOC while permitting access to the potential future water control structure site and associated Lake St. Martin Outlet Channel works, including:

- Crossing Lake St. Martin by use of a barge in summer months;
- Creating a new access route from Provincial Road (PR) 513, west of the Dauphin River;
- Creating alternative alignments from the terminus of the Idylwild Road; and,
- Using the existing winter road alignment in developing all season access.

The following sections provide an overview of the evaluation of potential Project alternatives leading to the selection of a preferred option. These potential alternatives were evaluated on the basis of engineering, estimated cost, and implications on the environment and people.

1.4.1 Crossing Lake St. Martin by Barge

This access option was employed for a portion of the EOC construction period during summer months in 2011. During this period, two barges were used to mobilize equipment to the EOC to initiate construction. However, the use of barges proved to be slow and costly and was only technically feasible due to the high water levels at that time. Use of a barge is therefore limited to summer months and largely dependent on daily weather conditions and water levels. For example, barges are typically not used on very windy days. As well, barges cannot be used on Lake St. Martin under normal or low water conditions without first conducting substantial additional work, i.e., dredging an approach channel to docking sites. This option was subsequently dismissed as it was deemed to be costly, not technically feasible and has issues pertaining to potential aquatic environment effects and associated requirements for approvals.

1.4.2 Access from PR 513

As a Provincial Road that is relatively close to the EOC and potential future works, creating a new access route from PR 513 was evaluated. The most likely routing option off of PR 513 is located approximately 15 km northwest of the EOC, on the opposite side of the Dauphin River. The road extension would need to travel through some wet peatlands comprised largely of black spruce muskeg (*Picea mariana*). Additionally, the need to cross the Dauphin River would require a bridge, which is very costly and presents additional environmental implications.

While this option provides the shortest routing alternative, being approximately 15 km from PR 513 to the EOC, it would increase the potential long-term environmental effects associated with providing unfettered access from a public highway across a bridge to the area north of Lake St. Martin. This option was dismissed largely due to the associated costs, as well as environmental and maintenance-related implications.

1.4.3 Creating Alternative Alignments from the Terminus of the Idylwild Road

Consideration was given to other alternatives involving development of an all season road that extends from the terminus of the Idylwild Road, but which does not follow the winter road to the EOC that was constructed in 2011. These alternative options were considered for a number of reasons. One option included constructing an access route that would travel further east and north of the existing winter road. Other options considered involved the development of an ASR that extends parallel to the current winter road, with a minor realignment where necessary.

However, these alternate routes would have been longer, with some requiring the clearing of new corridors without substantially improving the routing. These alternative routing options were thus dismissed largely on the basis of the environmental effects of clearing and constructing on previously undeveloped lands, in combination with projected costs. Additionally, the needs of the proposed Project do not require these additional road extensions/network(s). Substandard conditions crossed by these alternatives would also lead to increased challenges in engineering design.

1.4.4 Using the Existing Winter Road Alignment

The existing winter road alignment that was cleared in the winter of 2011/2012 for construction was assessed to be shorter than those alternative routes evaluated in Section 1.4.3 and did not require any substantial additional clearing. A key factor in the selection process is that developing the winter road option minimized the amount and distance of wetlands crossed; for engineering design and environmental reason, the best approach is to traverse wetlands at a 90° angle – using 19.5 Km of the existing winter road will best meet this criteria when considering that most wetlands immediately north of Lake St. Martin are long, narrow features that extend southeast to northwest and are unavoidable without greatly extending road length.

This is the preferred option as it involves developing an ASR along an existing winter road alignment, is comparatively shorter than most other ASR options, and it minimizes wetland crossings. Subsequently, further developing the existing winter road is expected to have the lowest environmental effects, the lowest associated costs and fewer engineering design-related issues than other alternatives. This alternative was therefore selected as the preferred all-season road option.