Table of Contents

ABBREVIATIONS AND ACRONYMS II

QUESTION IAAC-56 1

Abbreviations and Acronyms

IBA	important bird area
LAA	local assessment area
LMOC	Lake Manitoba outlet channel
LSMOC	Lake St. Martin outlet channel

QUESTION IAAC-56

EIS Guideline Reference: 7.2.3 Changes to riparian, wetland and terrestrial environments; 7.3.2 Migratory birds; 7.3.4 Other valued components; 7.3.5 Species at risk

EIS Reference: 8.2.1.2 Influence of Engagement on the Identification of Issues and the Assessment Process; 8.2.4.5 Change in Wetland Function; 8.3.3 Migratory Birds; 8.3.6.2 Change in Habitat; 6.4.2 Existing Conditions for Groundwater

Context and Rationale

The EIS Guidelines state that the proponent must assess changes to the habitat of migratory birds including changes to shorelines and riparian areas (e.g. due to erosion; vegetation changes).

The EIS provides a limited description of how Project changes to shoreline habitats, including shorelines of the Lake St. Martin Important Bird Area and federal lands may affect migratory habitat type, or breeding, and chick-rearing activities. The EIS does not fully assess how the Project effects to shoreline habitat type will effect migratory birds.

Information Requests

a) Describe the potential effects of the Project on shoreline habitats, including on federal lands within the LAA and RAA. Include a discussion of the seasonal timing of operational disturbance to these habitat types due to water level controls in relation to species breeding, nesting, and rearing of young activities.

Response IAAC-56

a) Changes in regional flow and water levels will occur as a result of the operation of the Lake Manitoba Outlet Channel (LMOC) and Lake St. Martin Outlet Channel (LSMOC), which is a desired positive outcome and objective of the Project. In general, operation of the LMOC and LSMOC will reduce disturbance to riparian and shoreline migratory bird habitat by reducing the severity and duration of seasonal flooding events in the wildlife local assessment area (LAA; see Volume 2, Section 6.4.7.2 and Figures 6G-2 and 3; Manitoba Infrastructure 2019). With the Project, lakes (and adjacent wetlands) will continue to experience normal water level fluctuations (and inundation); however, peaks and flooding extent will be reduced (see Volume 2, Table 6E-2).

   Migratory bird species that inhabit shoreline or riparian habitats within the LAA, including those located on federal lands (i.e., reserve lands; Volume 3, Figure 8.3B-1) and the Lake St. Martin Important Bird Area (IBA; Volume 3, Figure 8.3B-8), are expected to benefit from an increased availability of habitat and reduced mortality risk (i.e., nest loss during flood events) during active operation of the outlet channels (Volume 3, Section 8.3.11.1). Birds benefiting from reduced flooding are terns, gulls, cormorants, and pelicans that are known to nest on islands in the Lake St. Martin IBA (Volume 3, Sections 8.3.2.2 and 8.3.3.1) and songbirds, waterfowl and marsh birds that would use

the shorelines or riparian areas of Lake St. Martin. Without the Project, these habitats would be inundated or degraded by high water levels during flood years. For example, if the LMOC and LSMOC were in operation during the 2011 flood, 27.5 km^2 of potential migratory bird riparian and upland habitat would not have been inundated at Lake St. Martin (Volume 2, Section 6.3.2.4).

Based on the operational guidelines, the opening of the LMOC and LSMOC outlet structures could occur after April 30 and extend for months or years until desired water levels are reached in Lake Manitoba and Lake St. Martin (Volume 1, Section 3.5.3, Appendix 3D, and Volume 2, Appendix 6K). During regular operations, the water control structures are expected to remain closed 70% to 87% of the time, depending on the month (see Volume 1, Section 3.5.3.1 for Operating Guidelines) but the overall effect will result in reduced flood water levels in the LAA. While operation of the outlet channels is likely to overlap the migratory bird breeding season, including nesting and chick-rearing periods, effects are anticipated to be positive due to reduced flooding of shoreline and riparian habitats (Volume 3, Section 8.3.6.2). Overall water levels and maximum flood levels are expected to be reduced on Lake St. Martin, which will reduce flooding of islands, shorelines, and areas supporting overwater nests. Additionally, reduced water levels may improve the conditions of the riparian and shallow marsh habitats located along the shore of Lake St. Martin, including on federal lands, which would benefit breeding and staging waterbirds (see Volume 3, Section 8.3.6.2). Without the Project, the severity and duration of flood events would continue to have a greater negative impact on shoreline and riparian habitats for migratory birds (see Volume 2, Figure 6G-2 and 6G-3).

References

Manitoba Infrastructure. 2019. Lake Manitoba and Lake St. Martin Outlet Channels Impacts on Lake Manitoba and Lake St. Martin. Technical Memorandum. Prepared by Manitoba Infrastructure Hydrologic Operations Section. Dated June 14, 2019