

9.0 SUMMARY

9.1 ENVIRONMENTAL ASSESSMENT

The environmental assessment of the proposed Fishing Lake flood control berm upgrades was prepared based on project information and results from field studies provided by the proponent and design information for the berm upgrades provided by MDH Engineered Solutions. Environmental assessment specifications outlined in the “Guidelines for the Preparation of a Project Proposal” were followed. Requirements of Saskatchewan’s *Environment Act* and regulations, the *Canadian Environmental Assessment Act* and regulations and relevant guides and operational policy statements were considered in the environmental assessment of the proposed berm upgrade project. Best practice methods and professional judgment were also employed in the environmental assessment.

9.2 INFORMATION ANALYSIS

The environmental assessment was carried out using available biophysical, social and economic information for the regional study area. The information was acquired from field studies provided by the proponent, literature and internet searches, publications by Saskatchewan MOE, a screening by the Saskatchewan Heritage Resources Branch, contacts with federal and provincial government representatives and consultation with stakeholders. Additional information was provided by field studies conducted during 2007 and 2008 following construction of the temporary berms by Clifton Associates Ltd. and the proponent. MDH Engineered Solutions conducted a preliminary stability analysis as part of the first phase, the feasibility design report, for the berm upgrade project. The cumulative information base was determined to be adequate for the purpose of the environmental assessment and no significant data gaps were identified.

9.3 ENVIRONMENTAL EFFECTS

Potential environmental effects of the proposed project were identified using scoping methods, interaction matrix and linkage diagram techniques, public comments, advice from specialists and professional judgment. Direct biophysical effects and indirect socio-economic effects were

identified in accordance with the *Canadian Environmental Assessment Act*. Effects of accidents and malfunctions, effects of the environment on the project and cumulative environmental effects were also determined. Mitigation measures were identified to eliminate, reduce and control environmental effects determined to be adverse. Follow-up was proposed to verify accuracy of the assessment and determine effectiveness of the mitigation measures. Significance of the residual environmental effects remaining after mitigation was then evaluated.

The top 10 potential environmental effects of the proposed berm upgrades addressed in this environmental assessment report were determined to be as follows:

1. Loss or disruption of fish habitat
2. Impact to fish and other aquatic species
3. Modified drainage pattern/surface water run-off
4. Elevated suspended sediment levels in the lake
5. Increased noise levels
6. Contamination of surface water
7. Contamination of soils
8. Contamination of groundwater
9. Impacts on human health from environmental contamination
10. Loss of agricultural land

9.4 PUBLIC CONCERNS

Public consultation for the Fishing Lake berm project, as noted in Section 5.0, has been ongoing since just prior to the spring flood of 2007. Specifically a public meeting was held on April 18, 2008 in Kuroki to discuss permanent flood control measures for Fishing Lake. Additionally, the SWA met representatives of the local governments on February 17, 2009 to discuss any suggestions or concerns that they may have regarding upgrading the existing berms to provide permanent long-term flood protection. The public has expressed a number of concerns at the various public open house and meetings, through correspondence received by the proponents and in newspaper articles. The main concerns expressed by the public in relation to upgrading the existing berms to provide permanent long-term flood protection included the following:

1. Portions of the berms on both public and residential land are not at the required elevation of 531.6 masl or areas do not have protective berming at all, therefore undermining the corresponding community's flood protection.
2. Lowering sections of the berms higher than the proposed elevation of 531.6 masl.

3. There are still land issues that need to be settled as portions of the berms are placed on private lots.
4. Some areas behind the berms have standing water due to blocked internal drainage or because drainage was left unfinished; these areas between the berm and residents' properties requires fill to address the drainage.
5. The lake is not easily accessible at this time because of the rip rap material; residents would like construction information so that communities can begin planning and rebuilding boat launches and beach access.
6. Some finishing details on the berms are still necessary including flattening steep slopes, fixing erosion control issues and providing gates to prevent traffic from driving on the berms.
7. Once upgrading is completed remnants of the turbidity curtains and their posts need to be removed and any remaining stockpile should be relocated to a more suitable location.

The Fishing Lake First Nation wishes to create some positive momentum and early success in working with the SWA on this project. The concerns of Fishing Lake First Nation, as understood by the SWA, include the following:

- Ensure a healthy environment able to support their peoples' lives and provide them with opportunities.
- Uphold a healthy, respectful and productive working relationship with outside agencies and people.
- Ensure the Fishing Lake First Nation's opinions are heard and their concerns and interests are respected and meaningfully considered.
- Ensure a level playing field by providing the Fishing Lake First Nation with access to science based knowledge and resources for legal costs and consultants.

9.5 CONCLUSION

Based on the available information on the project and the environment, the assessment of environmental effects outlined in this environmental assessment report, and the application of proposed mitigation measures and the conduct of required follow-up, the proposed Fishing Lake berm upgrade project will not likely result in significant adverse environmental effects. Similarly, the cumulative environmental effects of the project in combination with the effects of other projects or activities in the regional study area that have been and will likely be carried out in the reasonably foreseeable future were determined to be insignificant.