April, 2023

The Kashwakamak Lake Dam was built in 1910 and has reached its useful lifespan. The dam is one of six major dams managed to mitigate flooding along the Mississippi River, protecting people, property, infrastructure, and natural ecosystems both upstream and downstream of the dam.

Outflow from Kashwakamak Lake Dam is directed to the downstream river channel and eventually discharges to Farm Lake. Recreational development along the shoreline of Kashwakamak Lake includes over 500 residences/cottages and at least five marinas/resorts. There are also several wetlands around the perimeter of the lake and manòmin (wild rice) crops downstream of the dam.

The Kashwakamak Lake Dam consists of two structures, the main control dam and a secondary saddle dam. These two structures are separated by an earth island. The main structure consists of two bulkhead walls, three concrete piers forming the two sluiceways, and a broad crested concrete weir.

The dam has undergone major repairs over the years to fix major structural and seepage issues. These repairs are now showing age and deterioration and major improvements are needed at this structure.

In 2021-22, a comprehensive Dam Safety Review (DSR) was carried out for the dam in accordance with the Canadian Dam Association (CDA) dam safety guidelines and best practices summarized in the technical bulletins of the Ministry of Natural Resources' Lakes and Rivers Improvement Act. The DSR concluded that the dam concrete structures are in poor condition and did not meet the current dam safety standards. The structures were determined to have inadequate freeboard under both Normal and Inflow Design Flood (IDF) conditions. The 2022 DSR study also increased the Hazard Potential Classification (HPC) for the Kashwakamak Lake Dam to HIGH.

In response, MVCA has initiated the multi-year, multi-phase dam replacement project for the Kashwakamak Lake Dam. The new dam will mitigate flood and drought risks to downstream communities, safeguard natural heritage features, and ensure recreational opportunities on Kashwakamak Lake are maintained under a changing climate.

The first phase of this project is a comprehensive Class Environmental Assessment (Class EA) that will prepare baseline environmental inventory, develop alternatives and complete detailed environmental impact analysis. The Class EA will identify the preferred replacement alternative on the basis of cost, safety, environmental considerations, operational requirements, and service life. The Class EA will also develop a conceptual design of the preferred alternative.

In March 2023, MVCA has retained McIntosh Perry Ltd. to conduct the Class Environmental Assessment. The Class EA project is being carried out with support from Infrastructure Canada’s Disaster Mitigation and Adaptation Fund (DMAF) with anticipated completion date in March 2024.