Attachment A
Lake Geraldine Dam Safety Deficiency Action Plan

Location	Priority	Defect	Recommended Mitigation	City of Iqaluit Actions and Schedule
Instrumentation	Very High	Instrumentation installed in 2019 is not being monitored	Initiate a plan to immediately start collecting data from the installed instrumentation devices	The City is currently collecting information from the thermistors and plans to monitor the piezometers by the end of 2026, subject to favourable site conditions and accessible roads. This timeline will allow the City to ensure that the appropriate equipment is available for accurate data collection.
Intake Valve	Very High	Intake valve is not regularly operated and may not work on demand	Current plans to relocate the intake valve chamber downstream should be completed	The City currently has a contract in place with a third-party contractor to replace the intake valve chamber, including replacement of the intake valve, in order to improve access, operability, and long-term reliability. The work is scheduled to be completed before December 2026. Future reports will provide updates on the status on the construction progress.
Spillway	Very High	Planned CCTV instrumentation at the spillway is not installed	Complete plans to install remote observation post using CCTV camera	The City is currently in discussions with its IT Department and is actively exploring the installation of CCTV, including the procurement of the required camera equipment. This work is tentatively scheduled for completion by October 2026, and future reports will provide updates on procurement, installation, and overall progress.
North and Centre Rockfill Berm Upstream Rockfill	High	The rockfill forming the upstream slope is small and likely does not provide suitable erosion protection	Install a riprap protection zone on the upstream slope	The current riprap zone is considered sufficient. The area will continue to be monitored during inspections, and if slope instability or deterioration is identified through visual inspection, additional riprap will be installed as required.
Concrete Joint Sealant	High	Sealant material is missing	Replace sealant material, as necessary, and install a solid cover to prevent future wildlife damage	The City plans to complete the sealant repairs by August 2027 to allow sufficient time to assess the affected areas, determine the appropriate repair approach, and procure the necessary materials for replacement. Missing or deteriorated sealant will be replaced as required. Future reports will provide updates on the mitigation measures implemented, and the status of completion.
All Structures	High	Currently there is no public safety around dams (PSAD) plan	Complete a PSAD risk assessment and develop a public safety plan (PSP) for Lake Geraldine Dam	The City is currently in the process of procuring a firm to carry out a dam safety program, which will include completion of the Public Safety Around Dam (PSAD) risk assessment for Lake Geraldine Dam. This work will include identifying public hazards, assessing risk areas, and establishing appropriate safety measures, such as warning signage, access control, and public communication requirements. Future reports will provide updates on the procurement status, development of the PSAD assessment and plan, and implementation of the recommended safety measures.
Instrumentation Collars	Medium	Crushed stone placed at the base on new collars are eroding	Replace crushed stone with a geotextile fabric below the stone to prevent drop-out	The City will monitor the condition of the crushed stone placed at the base of the instrumentation collars during inspections. If signs of erosion or deterioration are observed, remedial work will be undertaken as required. Future reports will document the observed condition and performance of the collars.
South Berm	Medium	Contaminated soil located at the base of the hydro pole	Removed the contaminated soil and the remnant pole anchor	This was completed in 2025
Spillway Channel	Low	Missing rock at the spillway toe may cause spillway instability	Rock stones in the spillway channel to be redistributed flush with the spillway apron	The City will continue to monitor the spillway toe rockstones during the intake valve replacement work. If adjustment or reconfiguration is required, this will be carried out by the third-party contractor as part of the works
Concrete Spillway	Low	Hollow area downstream of South Concrete Gravity Dam	If spall occurs, repair area in accordance with ACI standard repair methodology	The hollow area located downstream of the South Concrete Gravity Dam will continue to be monitored during inspections. If spalling or further deterioration is observed, the City will assess the condition and undertake appropriate remedial work as required.
South Berm	Low	Displaced rockfill results in a gap in the rockfill parapet	Replace rockfill parapet in area of displacement	The area where displaced rockfill has resulted in a gap in the rockfill parapet will be monitored during inspections. If further movement or deterioration is observed, the City will arrange for the rockfill to be reinstated and repaired as required.