Attachment 1 – Breakdown of Critical Assets in Poor and Very Poor Condition

The following tables provide a detailed overview of our critical asset classes in poor and very poor condition. Each table summarizes current risks, planned mitigation strategies, and the budget and resource requirements necessary to ensure long-term reliability and performance.

- Table 1 – Severe Consequence of Failure Assets: Massive system failure causing extensive damage, severe economic, environmental, health, safety and/or social consequences. Critical service to a large number of customers is compromised (e.g. city-wide).
- Table 2 – High Consequence of Failure Assets: Loss of system capacity, major consequences or cost. Critical service to a significant number of customers is compromised (e.g. community or local level).

Table 1 – Severe Consequence of Failure Assets

Asset Class	Comments and Risk Mitigation	Budget and Resource Required
Water Treatment Plants	"Single point of failure" assets within the plants without recent condition data. Emergency Response Plan being developed with various asset assessments planned for 2026-2027, and asset replacement as possible.	$590M Capital over 10 years, plus additional operational FTEs for condition assessment, delivery and operations.
Water Transmission Mains	Bearspaw South Feeder Main with known issues. Approx 120 km of other transmission mains without redundancy and recent condition data (approximately 25% of transmission main network). Condition assessment and redundancy upgrades by end of 2029. Emergency response plans in development.	$1.2B Capital over 10 years, plus additional operational FTEs for condition assessment, delivery and operations.
Wastewater River Crossings	9 large crossings with unknown condition. Implementation of additional redundancies to allow for condition inspection of existing pipes by end of 2030. Emergency response and bypass plans in development for most severe consequence assets.	$400M Capital over 10 years, plus additional operational FTEs for condition assessment, delivery and operations.
Reclaimed Wastewater service to ENMAX Shepard Energy Centre	There was an asset failure in summer 2024 due to corroded metal fittings. Emergency response plan in place to mitigate future asset failure. City working with ENMAX to coordinate condition assessment with Shepard Energy Centre plant outage.	$3M Capital in 2026-2027.
Stormwater Dams/Glenmore Dam	Discovery Ridge Dam assessed with lower than required safety factor in 2024. Emergency response plan in place. Water level reduced, dam to be removed. Other dams to be reviewed – Dam safety plan submitted to the Province.	$44M over 10 years

Table 2 – High Consequence of Failure Assets,

Asset Class	Comments and Risk Mitigation	Budget and Resource Required
Pavements	Pavement quality level of service presented to Council October 2024 (IP2024-1043): Reduced desired pavement quality level of service target for lower consequence local roads to maintain a moderate level of service for arterial roads. Overall pavement rehabilitation program is underfunded compared to other municipalities.	Annual investment required: approximately $100M in 2026, $140M per year in 2027 and beyond. 2026 budget is $90M.
Streetlights	Critical Pole Program – Steel streetlights are rusting. Poles that are identified as being at risk of failure are removed immediately but not replaced. The program has funding to replace 3,000-4,000 poles per year. The current remaining number of poles to be replaced is approximately 10,000, but this number increases as the assets get older.	$5M in 2026
Bridges	Macleod Tr / 63 AV pedestrian bridge - has reached the end of its service life and has become a continuous maintenance burden due to encampments and biohazardous cleanups. Demolition scheduled for April 2026. Cushing Bridge (17 Ave SE/Bow River) - approaching the end of its service life. It is currently being inspected and evaluated by a consultant. There is also functional study for this major route. Based on these evaluations, the intervention scope will be determined. MacDonald Bridge (12 Ave SE/Elbow River) - bridge is 115 years old and has exceeded its estimated useful service life. It exhibits severe corrosion, significant deterioration, and cracking at several steel connections. The structure is load restricted to 10 tonnes; however, some overloaded vehicles continue to use it illegally. 9 Ave SW/Greyhound Terminal pedestrian bridge - The bridge has severe deterioration of the underlying deck. The loose delaminated concrete is being continuously removed, but there is risk of concrete falling on underlying vehicles. There is severe concrete deterioration of the overall structure, and the bridge has reached the end of its life. The structure needs to be replaced.	funding available $70M (likely 2031-2035 budget cycle) $35M (likely 2027-2030 budget cycle) $10M (likely 2027-2030 budget cycle)

Asset Class	Comments and Risk Mitigation	Budget and Resource Required
Stairs and Retaining Walls	Under investigation.	TBD
Transit	Assets at the end of expected service life include some light rail vehicles, specialized transit shuttles, signal system components and various facility systems (e.g. roofing, heating and ventilation units, etc.). Transit vehicles are experiencing high breakdown rates and undergoing mid-life refurbishments to keep older vehicles in service with higher operating costs and risk to service. Infrastructure and buildings undergoing condition assessments to prioritize lifecycle investment and repairs that are required to maintain public safety and critical asset failure. Original light rail track and way is at end of life and requires major rehabilitation, but some redundancy is in place for track, track switches and signals to mitigate deficiency risk with moderate service impacts. Power systems are at high risk of LRT service disruption. Budget required includes $100M to address current poor/very poor condition assets, and $130M to address the declining condition of assets towards poor/very poor in the coming 10 years.	$230M Capital over 10 years
Facilities	Current data indicates that 7% of buildings and 12% of components are in poor/very poor condition. Facilities invests in building lifecycle and has focused on addressing the most critical building needs, mostly related to safety, the electrical and mechanical systems and building code requirements. The approach applied to low-consequence, low-risk assets whose function, cost profile, and impact on service delivery allow for a more pragmatic, use-based lifecycle strategy. Rather than investing in proactive replacement based solely on age or condition decline, these assets are operated to the full extent of their useful life, with repairs or replacements performed only when a functional issue arises. This ensures that resources are directed toward assets with higher safety, operational, or customer-impact risk. The methodology is not applied as a whole-building strategy, nor is it used where safety, regulatory compliance, or business continuity could be compromised. It is selectively applied for components where criticality is low, redundancy exists, failure is predictable, and consequences	TBD

Asset Class	Comments and Risk Mitigation	Budget and Resource Required
	of disruption are limited. Assets under this approach continue to receive inspections and basic care to ensure safe operation and compliance.	
Plus 15s	Based on 2020-21 inspections data, 8% of the Plus 15 network is rated as poor or very poor. Similar to building assets, these ratings often reflect deterioration in non-critical components (windows, finishes) rather than the structural integrity of the bridges. Full Plus 15 structures do not run under a "Run to Failure" strategy due to life safety. However, we apply this approach to specific non-critical components to maximize useful life and reduce premature capital spend. This applies to low-risk elements such as lighting, sound systems, and architectural finishes (e.g. drywall, tile flooring).	$4M per year through lifecycle investment, operating budget shortfall = $1M per year.