Climate & Environment
10-Year Capital Infrastructure Needs Assessment

April 2026

1. Service Overview

Calgarians rely on The City to deliver reliable, sustainable infrastructure and essential services that are increasingly exposed to climate and environmental risks. How The City plans, builds, and operates its assets can also affect natural resources, creating regulatory, legal, financial, and service-delivery risks if not effectively managed.

The Climate & Environment Business Unit provides corporate leadership, strategic oversight, and technical expertise to identify, assess, and manage climate- and environmental-related issues, risks, opportunities, and trends associated with the delivery of public services. By integrating climate and environmental risk management into City processes and service delivery, Climate & Environment enables informed, consistent, and compliant decision-making across the organization.

Climate action focuses on reducing the impacts of severe climate events on infrastructure, people, and nature, improving energy management, and reducing operational costs and greenhouse gas emissions. Environmental sustainability focuses on protecting land, air, and water resources to support quality of life and human and ecological health. Climate & Environment supports internal City departments, Calgarians, and industrial, commercial, and institutional partners through technical guidance, regulatory expertise, and risk-based analysis that protects infrastructure and service delivery, safeguards public and worker health and safety, preserves the natural environment, and ensures compliance with environmental legislation.

The Capital Infrastructure Needs Assessment identifies investments required to address new and emerging regulatory and disclosure requirements, increasing physical climate risks (such as flooding, hail, and drought), ongoing environmental degradation, and contamination liabilities. Planned investments prioritize strengthening regulatory compliance, monitoring, data management, performance measurement and reporting, and the integration of energy efficiency and climate and environmental risks into asset management and capital planning.

2. Strategic Alignment

Climate & Environment's Capital Infrastructure Needs Assessment supports Calgary's long-term goals for operational efficiency and service reliability, strong asset stewardship, robust risk management practices, financial sustainability, and accountability and transparency. In addition to maintaining regulatory compliance, proposed investments are strategically aligned with several key Council and Corporate strategies and priorities:

1. **Municipal Development Plan and Transportation Plan:** Provides policy direction for decisions on land use and transportation planning.
2. **Calgary Environment Strategy (2021):** Outlines the long-term goals and outcomes for Calgary related to: nature and healthy ecosystems; watershed management; clean air; zero waste; sustainable transportation and land use; and climate change and energy management.

3. **Calgary Climate Strategy: Pathways to 2050 (2022):** Outlines the long-term strategic vision, principles, goals and targets for guiding Calgary's climate action through 2050. It includes a Mitigation Plan aimed at preparing for market transition risks and reducing emissions, and an Adaptation Plan to reduce physical climate risks and strengthen community resilience.
4. **Home is Here: The City of Calgary's Housing Strategy 2024-2030:** The City's comprehensive plan to ensure all Calgarians have an affordable place to call home.
5. **Stormwater Management Strategy (2023)**: Building stormwater systems that can withstand the impacts of climate change, such as increased frequency and intensity of storms.
6. **Enterprise Data Strategy (2025):** The Enterprise Data Strategy (EDS) establishes The City's framework for treating data as a strategic asset, ensuring that information is accurate, accessible, secure and used responsibly to inform decisions and improve services.
7. **Environmental Policy (2012)**: Outlines The City's commitment to environmental sustainability, climate resilience, and GHG emissions reductions and is applicable across all council functions, activities and decision-making.
8. **Sustainable Building Policy (2021) & Guidance Document (2026)**: Supports long-term operational efficiency, reliable service delivery, strong asset stewardship, effective risk management, financial sustainability, and accountability by embedding consistent, lifecycle-based performance requirements, climate-resilient design, and transparent governance into the planning, delivery, and operation of City-owned and City-funded buildings that ensures the health and wellness of occupants.
9. **Corporate Asset Management Plan (2026):** The Corporate Asset Management Plan (CAMP) is The City's unified plan for managing and maintaining existing City-owned infrastructure assets. The CAMP focuses on the maintenance, renewal and long-term sustainability of existing infrastructure assets as well as growth needs. This includes integrating climate and environment-related risks into assessments of asset condition.
10. **Drought Resilience Plan (2023)**: Coordinated action from Calgarians, industry and government and purposeful relationships with neighboring municipalities and license holders in the Bow River Basin to adapt to increasing drought and water supply risks.
11. **Flood Resilience Plan (2022)**: Adaptive plan to build resilience to flooding and reduce impact on the city, especially as a changing climate brings an increasing risk of more severe and frequent flooding in the future.
12. **Connect: Calgary's Park Plan (2025)**: Support the future improvement of Calgary's park system and create cherished places that connect us to nature, our heritage and one another.
13. **Food Resilience Strategy (2025)**: Addresses threats to Calgary's food systems, including addressing food insecurity, threats to food production, and building capacity when there are risks on the local food supply.

3. Service Risks

Climate & Environment's Capital Infrastructure Needs Assessment supports efforts to identify, assess, and address climate- and environmental-related risks and opportunities that may impact City assets, operations and service delivery. Key risk areas include:

- **Regulatory and Compliance Risks**: Risks associated with meeting current and evolving environmental and climate legislation, regulations, standards, and reporting requirements.
- **Physical Climate Risks**: Acute and chronic climate hazards that may directly impact City infrastructure and assets, services and communities, including:
    - Flooding, hailstorms, and intense rainfall
    - Extreme heat and cold events, ice, and freeze–thaw cycles
    - Drought and water scarcity
    - Wildfire smoke and extreme weather-related air quality impacts
- **Environmental Risks**: Risks related to the condition, performance, and protection of natural and environmental systems, including:
    - Degradation of natural assets and ecosystem services
    - Biodiversity loss and invasive species
    - Soil erosion and land instability
    - Water quality degradation
    - Waste, pollution, and contaminated sites
- **Transition Risks**: Risks arising from the global transition to a lower-carbon economy, including:
    - Political, policy and legal drivers
    - Technological change and innovation
    - Market and economic shifts
    - Reputational considerations

Initiatives put forward in the Climate and Environment's Capital 10-year Infrastructure Needs Assessment largely relate to services to improve the management of these risks.

4. Service Objectives

Objective 1 – Enable Operational Efficiency and Savings Across The Corporation

Integrate solutions across The Corporation to increase operational efficiency and lower operational expenses. Investments needed to meet this objective include Civic Partners Energy Efficiency and Climate Risk Reduction program; the Sustainable Building Investment Fund; and retro-commissioning of City Facilities support this objective.

Targets and Measures

- Decrease annual operating energy costs in City Facilities.

Objective 2 – Reduce Climate and Environmental Risk to Infrastructure

Provide tools, information, expertise, and implementation methods to reduce environmental and climate impacts on infrastructure and service delivery. Investments needed to meet this objective include Civic Partners Energy Efficiency and Climate Risk Reduction program and technology tools to support reducing physical climate risk on infrastructure and assets.

Objective 3 – Protect and Enhance the Condition of Natural Areas and Natural Infrastructure

Invest in natural assets and natural areas to reduce climate risks through the provision of ecosystem services such as managing stormwater, providing cooling, storing carbon, and supporting Calgarians' health and wellbeing. Investments needed to meet this objective include Natural Infrastructure Investments and Conservation Reserve funding.

Targets and Measures

- Increase the total area of protected or conserved environmentally significant areas.

Objective 4 – Ensure Data Reliability and Regulatory Compliance

Maintain highly available, secure and scalable climate and environmental data and technological solutions to support business continuity, transparency and regulatory compliance. Investments needed to meet this objective include technology tools to support reducing physical climate risk; technology solutions for tracking and reporting on cross-corporate risks and regulatory compliance, the Ecological Network geodatabase; and modernizing energy reporting.

5. Previously Approved and Capital Infrastructure Needs

Table 1: Previously Approved and Capital Infrastructure Needs ($ millions)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2035	Total
Previously approved	0	0	1	2	3	11	10	7	-	-	-	-	35
Capital Infrastructure Needs	-	-	-	-	-	-	-	5	6	6	6	10	32

A listing of previously approved investments has been provided in **Appendix A** for 2026+. A listing of capital infrastructure needs for 2027-2035+ has been provided as **Appendix B.** Note that programs have been broken down into projects where possible.

Figure 1: Summary of Capital Infrastructure Needs by Investment Driver

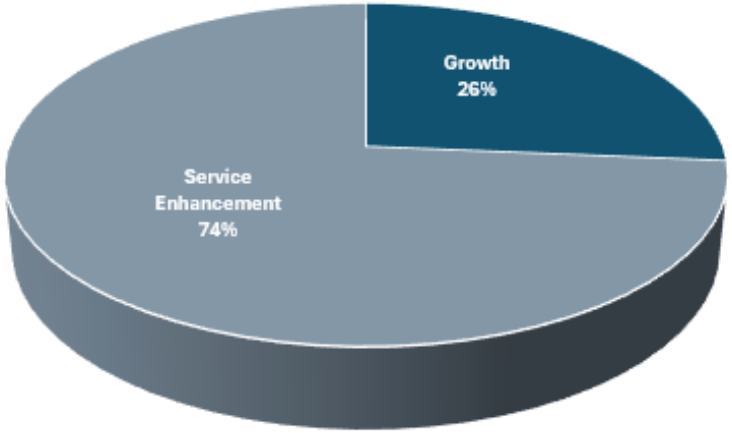


Table 2: Summary of Operating Cost of Capital for Capital Infrastructure Needs by Year ($ millions)

	2027	2028	2029	2030	2031-2035	Total
Total	0	0	0	0	1	2

Appendix A: Previously Approved Capital - Climate & Environment

Legend (% of capital $ per opportunity item)

1% ~ 10%	
11% ~ 25%	
25% +	

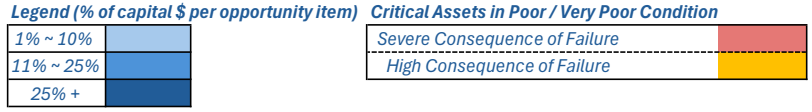
Appendix A: Approved Capital Projects & Programs
($millions)

	Total	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035+
Centralized Climate Fund	**17**										
Corporate Infrastructure Climate Mitigation Program	**0**										
Natural Infrastructure Investment Program	**0**										
Corporate Infrastructure Climate Risk & Resilience Program	**0**										
Total Previously Approved Capital - Climate & Environment	**17**										

Appendix B: Capital Infrastructure Needs - Climate & Enviroment

The values presented reflect identified capital needs and have been rounded to the nearest million for presentation purposes. These capital needs have not received approved budget and will be considered for future business cycles.

The majority of the 10-year capital investments are foundational in nature reflecting the essential funding required to sustain current service levels, meet regulatory and safety obligations, and manage core operational risks. These investments establish the baseline level of service and define the essential capital required to maintain system reliability over time. All values are presented in 2025 dollars, with estimates prepared as of January 2026. Further refinements and adjustments are expected through the development of the 2027–2030 Budget and the 10-Year Capital Infrastructure Plan.



Appendix B: Capital Infrastructure Needs ($ Millions)	Priority (H / M / L)	Total	2027	2028	2029	2030	2031	2032	2033	2034	2035+
Growth											
Sustainable Building Investment Fund	H	**9**									
Service Enhancement											
Civic Partners Energy Efficiency and Climate Risk Reduction Program.	H	**12**									
Energy Reporting: Enhancement and Modernization Project	H	**0**									
Environmentally Significant Areas (ESA) and Ecolgoical Network Geodatabase	H	**0**									
Implementing Operational Efficiency of City Facilities through retro-commissioning	H	**1**									
Natural Infrastructure Investments to reduce physical climate and environmental risk	H	**8**									
Technology tools to support reducing physical climate risk on infrastructure and assets, and enhancing transparency	H	**1**									
Technology to track and report on cross-corporate risks and regulatory compliance	H	**1**									
Total Capital Investment Needs-Climate & Enviroment		**32**									