

# Climate & Environmental Management

Led by: Director of Climate & Environment

## Service Description

Climate & Environmental Management provides leadership, strategies, programs, and support to plan for and manage climate and environmental issues, risks, opportunities and trends associated with the delivery of public services. Climate action aims to reduce the impacts of severe climate events on infrastructure, people and nature, reduce greenhouse gas (GHG) emissions, and improve energy management. Environmental sustainability aims to protect and reduce our impact on land, air and water resources to ensure quality of life, human and ecological health. We identify, assess and manage contamination risks of city-owned land to protect human health and the natural environment.

## Service Updates

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### Highlights

- Realignment and the creation of a new Service Line and three divisions within the newly formed business unit of Climate & Environment; Climate Mitigation, Environmental Management, Natural Environment & Adaptation.
- Mayor's Environment Expo featured 30+ online sessions and 100+ in person sessions this past June. 3,400 students and teachers attended in person and 10,600 virtually.
- Recognized with a 2023 Canadian Association of Municipal Administration (CAMA) Environment Leadership & Sustainability Award, for 'Determining the Value of Natural Assets'.
- Nose Creek Partnership and Source Water Protection Policy nominated for Policy prize at the Water Canada Award.
- Clean Energy Improvement Program (CEIP) has overwhelming interest from Calgarians resulting in high applications volumes.
- 2023 Flood Season preparations complete, including commemoration of the 10-year anniversary of 2013 flood.
- Calgary River Valleys Plan phase one public engagement and two Indigenous Summits

### Challenges

- Creation of new service line & business unit was done through the amalgamation of some functions & resources from multiple business units. This reconfiguration triggered the reassessment of preexisting priorities. Adjustments of resourcing to achieve those priorities is underway however challenges remain as the associated budgets and resourcing are housed in other Service Lines.
- Cross corporate Climate & Environmental governance is evolving as a critical piece of work supporting the outcomes related to Climate Resilience foundation. Resourcing has been prioritized to lead this project set to create an internal governance & accountability structure to support the successful corporate-wide implementation of our strategies and plans.
- Increased volume & complexity of development application reviews inhibiting resource capacity to support long range planning. Business cases have been advanced to manage risk.



# Measuring Our Performance

## Legend

— Actuals

■ Expected Future Performance

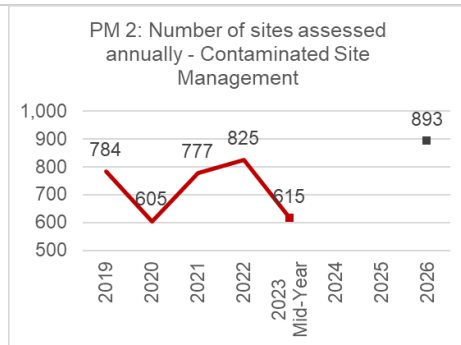
→ Progressing as planned

⊖ Not progressing as planned

## Performance Measures

## Story behind the numbers

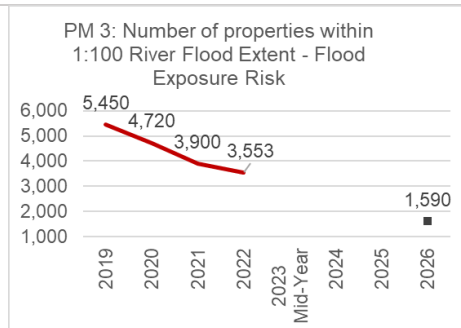
## Status



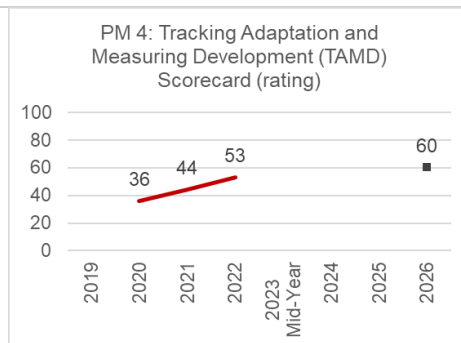
Number of sites assessed annually to identify potential contamination continues to increase year over year. By taking a proactive approach to identifying potential contamination concerns on City land assets and lands contemplated for future development, identified environmental risks can be responsibly managed to protect the environment and public health and safety.



The increase in the number of sites assessed annually has primarily been driven by an increased demand to assess City projects for potential contamination concerns and to support City land transactions.



Since 2013, Calgary's flood risk has been reduced by 55 per cent through strategic capital investments, continued enhancements in flood zone regulations, increased public education, and partnerships with multiple parties including government, industry, and non-government organizations. In 2023, progress continued on the downtown flood barrier, which extends protection through downtown from the Peace Bridge to the Reconciliation Bridge, and the Sunnyside barrier. Additionally, the Northwest Inner City Community Drainage Improvement Project continues to progress as planned.

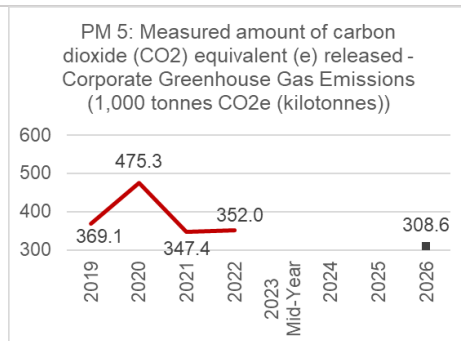


The Tracking Adaptation and Measuring Development Scorecard is an annual score that assesses the integration of climate adaptation across 80 actions, in eight categories at a government level.



The City has focused on improving the integration of climate adaptation across some of the lowest performing categories as key action areas in the Climate Adaptation Plan and are working to implement these actions through 2023-2024.

One key change that has improved this metrics performance is the creation of the new Climate & Environmental Management Service Line through corporate realignment.

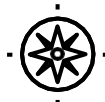


Corporate GHG emissions have been below 2005 levels since 2012, when The City began purchasing Renewable Electricity Certificates (RECs) for 100 per cent of its electricity consumption. While corporate emissions were reduced by the COVID-19 pandemic, in 2022 corporate GHG emissions were 4.9 per cent less than the pre-pandemic emissions. The 2020 emissions peak was due to the oversale of RECs back to the market not from an overall increase in energy consumption. Future performance is set to achieve 30 per cent below 2005 levels by 2026 to be on track to achieve our net zero target by 2050.



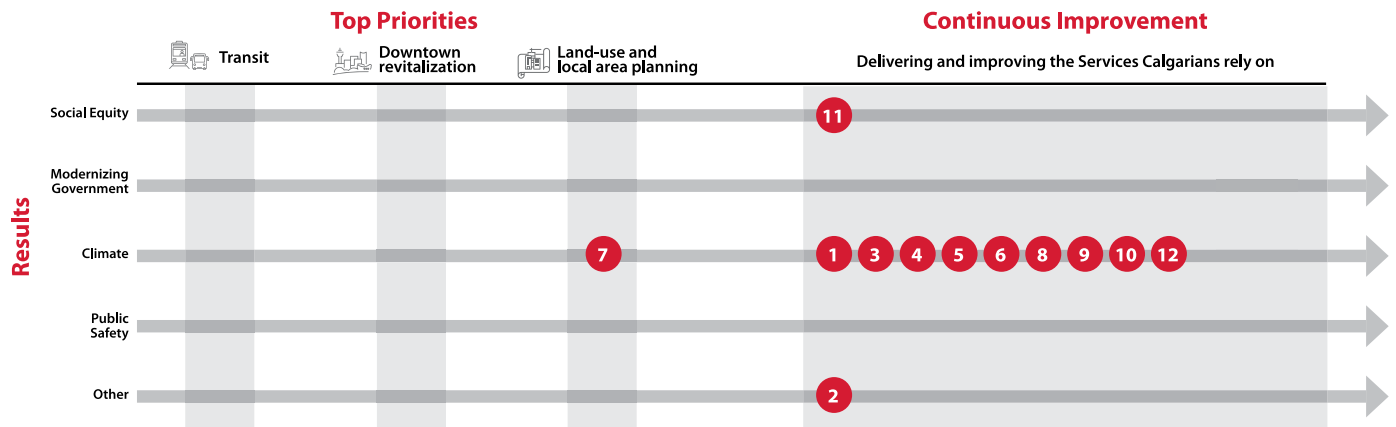
Note: Climate & Environmental Management typically reports changes to performance measures at year-end as some data required is unavailable at mid-year and/or calculations are only completed once annually. Not all performance measures were reported on for this report. To see the 2022 data for performance measures, please visit [Service plans and budgets \(calgary.ca\)](https://www.calgary.ca/service-plans-and-budgets). Additional measures that will be included in the 2023 year-end performance report include:

PM 1: Environmentally Significant Area protected and conserved in greenfield development (per cent of ESA protected or restored calculated at land use amendment/outline plan approval)



# Progress on Service Delivery




## Alignment with Council Refined Priorities and Result Areas




- Legend**
- Completed
  - Progressing as planned
  - Not progressing as planned
  - Initiative number

Initiative	Initiative Update	Status
1 Increase protection and conservation of Environmentally Significant Areas (ESA) in greenfield development by developing standard protocols for ESA identification in ecological inventories and biophysical impact assessments, by retaining identified ESAs using Environmental Reserve or other planning tools as part of Land Use Amendment/Outline Plan approvals and by updating ESA and Environmental Reserve policies and guidelines.	<ul style="list-style-type: none"> <li>Lack of staff capacity due to resources shifting to other areas in realignment and increased application complexity and volume continues to be a challenge.</li> <li>Planned projects currently on hold due to resourcing challenges include citywide ESA analysis and target setting, developing standard protocols for ESA identification in ecological inventories and biophysical impact assessments, and updating ESA and Environmental Reserve policies and guidelines.</li> <li>Advancing business case to mitigate resourcing challenges.</li> </ul>	
2 Protect the environment and public health and safety by providing corporate-level leadership and support to City services on identifying, assessing and managing contaminated lands. A proactive approach to identifying potential contamination concerns on City land assets and lands contemplated for development ensures that appropriate due diligence is performed and responsible management of environmental risk occurs.	Number of sites assessed for potential contamination is progressing as planned. To date, we have seen an increase in the number of sites assessed for contamination to support land transactions and Capital projects.	

Initiative	Initiative Update	Status
<p>3 Combine local and regional, structural and non-structural flood mitigation measures to optimize economic, social and environmental resilience to river floods. City-led, supported or advocated initiatives include: new upstream dams and reservoir operations; local flood barriers and infrastructure floodproofing; thoughtful flood hazard zone land use regulation and regulatory refinement; public engagement/education; enhanced flood forecasting; response planning and emergency response.</p>	<ul style="list-style-type: none"> <li>• Commemoration of the 10-year anniversary of the 2013 flood.</li> <li>• Calgary's Flood Resilience Plan &amp; the initiatives for watershed, community &amp; property level layers of mitigation is progressing.</li> <li>• The City is supporting the Land Use Advisory committees &amp; Joint Glenmore and Springbank Reservoirs Operating committee.</li> <li>• The Downtown flood barrier is now operational &amp; progress is being made on Sunnyside.</li> <li>• The Upper Plateau Separation project is advancing as scheduled.</li> <li>• Stage 1 engagement for the Calgary River Valleys Project completed.</li> <li>• Launch of the annual flood awareness and readiness campaign.</li> </ul>	
<p>4 Drive drought resilience in Calgary through a corporate-wide stance and significant collaboration involving Water Treatment &amp; Distribution Service Line by planning for local and regional water demand, water allocation and/or licensing, water treatment and distribution infrastructure and/or operations and emergency response. Shifting regional climate, utility and environmental equity and the provincial moratorium on new licenses from the Bow Basin make this initiative complex, timely &amp; important.</p>	<ul style="list-style-type: none"> <li>• Drought Resilience Plan completed and scheduled to be presented to Community Development Committee in Q3/Q4 2023.</li> <li>• Priorities to move forward from the Plan include updates to the Water Efficiency Plan, the Drought Corporate Financial Sustainability analysis and the Water Restrictions modernization study.</li> <li>• Alberta Innovates Grant of \$400,000 was received by Climate and Environment to support the development of a Water Security Roadmap and Water Reuse Assessment. This project will occur from 2023-2026 and will support &amp; guide decision &amp; investment in Water security to 2100.</li> </ul>	
<p>5 Guide effective corporate-wide environmental and climate management and performance through policy, frameworks, strategic plans, standards, procedures and tools. Includes assurance activities including audits, risk registers, compliance tracking and performance reporting on behalf of the corporation.</p>	<ul style="list-style-type: none"> <li>• Climate reporting framework approved by Council.</li> <li>• The second year of Climate-related Financial Disclosure included in the Annual Financial Report.</li> <li>• The planning phase of the Climate &amp; Environmental Analytics System project is complete. Will provide staff tools to monitor, report &amp; forecast through a corporate dashboard.</li> <li>• Corporate Environmental Management System (EMS): tool creation, training &amp; workshops to register the compliance obligations &amp; environmental impacts of City business units into centralized EnviroPortal database.</li> <li>• Environmental audits continue to be conducted.</li> </ul>	
<p>6 Develop, implement and manage outreach and education initiatives and partnerships aligned with environmental and climate outcomes of the community and the corporation. Key objectives include to educate and build awareness, as well as collaborate and partner to amplify efforts. Services are provided with equity considerations.</p>	<ul style="list-style-type: none"> <li>• The goal of the Climate Outreach, Education and Communication strategy is to guide implementation of outreach and education activities by The City of Calgary over the next four years helping to increase awareness and capacity within the community.</li> <li>• The 34th annual Mayor's Environmental Expo saw over 3,400 students and teachers in-person and 10,600 virtually.</li> <li>• Progress is being made in collaboration with Re.Climate, Canada's new centre for training, research and strategy on climate change communication and engagement.</li> </ul>	

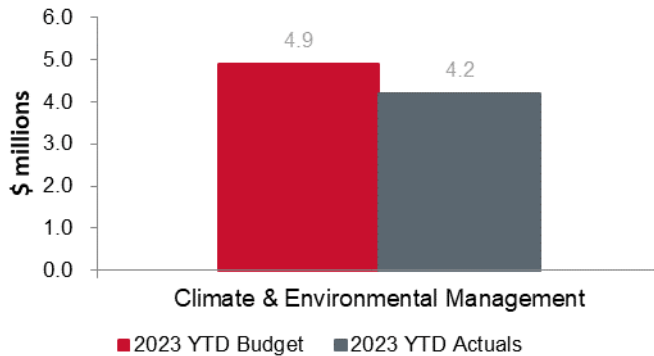
Initiative	Initiative Update	Status
<p>7 Integrate climate and environment considerations into planning and approvals continuum. Review and update existing planning and design policies, guidelines, regulations and processes to include net zero, climate resilience or environmental targets, recommendations and/or requirements; incentivize innovation and quality improvements for new developments to further climate or environment; research and analysis to support appropriate city growth targets and types.</p>	<ul style="list-style-type: none"> <li>• Council adopted changes to the Land Use Bylaw supporting building retrofits &amp; clarified The City's ability to consider climate adaptation &amp; mitigation during discretionary development permit reviews.</li> <li>• Newly approved local area plans include guidance around relaxations to enable energy efficient and climate resilient projects.</li> <li>• Green Building Priority Stream Program launched.</li> <li>• Planning processes, training &amp; implementation. Climate specialist &amp; standardized comments on development permits introduced to planning reviews.</li> <li>• Home Energy Labeling Program pilot actively underway.</li> </ul>	
<p>8 Improve climate resilience of Calgary's people, communities, food systems, buildings, infrastructure and natural assets. Use engagement, data analysis and policy to address climate risk/vulnerability of Calgary communities; advance emergency preparedness and business/service continuity planning for climate-driven events; develop relationships (industry, builders, civic partners), incentives, operational improvements, assessment tools to support climate-resilient built and natural infrastructure.</p>	<ul style="list-style-type: none"> <li>• Three Climate Risk and Resilience Assessments completed on City projects and facility sites. Climate adaptive measures have been embedded in these projects.</li> <li>• The Calgary Urban Heat Map was released for internal use. It will be supported on an external platform later this year.</li> <li>• Food resilience plan continues to be a collaborative effort between the City Planning &amp; Policy Service Line and Climate &amp; Environmental Management Service Line. This program supports food security for all Calgarians by developing a Council-approved plan.</li> </ul>	
<p>9 Support Calgary's transition to a net-zero City. Improve energy efficiency and reduce emissions from new and existing buildings and transportation systems through training and capacity building, financing, incentives and regulatory / policy improvements.</p>	<ul style="list-style-type: none"> <li>• Launched Clean Energy Improvement Program.</li> <li>• Launched Home Energy Labelling pilot program education campaign encouraging voluntary submissions.</li> <li>• Launched the Home Upgrades Program targeting low-income households.</li> <li>• Year 3 of the Commercial Building Benchmarking program closed with 20 participants benchmarking 344 buildings.</li> <li>• Launched the Downtown Retrofit Climate Challenge.</li> <li>• Workshops to co-create the Calgary Building Information Exchange completed. Input from key partners such as BILD Calgary, Calgary Construction Association, and industry will inform the design of the exchange.</li> </ul>	
<p>10 Lead by example by improving the energy efficiency and reducing emissions from City-owned and operated assets and services, including buildings, vehicles, facilities, land, and City operations. Support the transition of City fleet to low-carbon alternatives; manage greenhouse gas emissions from waste; include climate considerations in new capital projects; explore offsets to drive further energy efficiency projects and improvements.</p>	<ul style="list-style-type: none"> <li>• Completed Corporate Building Retrofit Opportunity Prospectus evaluating energy and GHG reduction opportunities in the City's largest facilities which identified an estimated \$81 million of short-term (to 2025) and \$150 million in long-term retrofit opportunities (2025 to 2040).</li> <li>• Finalization of the Renfrew Solar Carport at Telus Spark and Calgary Parking Authority Impound Lot Parkade renewable energy projects, which combined will produce an estimated 1.4WWh annually.</li> <li>• Stewarding 20+ major capital projects toward compliance with The City's Sustainable Building Policy.</li> </ul>	

Initiative	Initiative Update	Status
11 Ensure our policies and services support The City's commitment to building and maintaining a respectful, inclusive, and equitable workplace that is representative of the community we serve.	<ul style="list-style-type: none"><li>• Planning &amp; Development Services has formally recognized the importance of supporting its people as a foundational goal in our strategic blueprint document, Making Places for People.</li><li>• This includes engaging and integrating staff feedback, expanding professional and personal development opportunities, and enabling health, wellness, and safety amongst staff.</li><li>• The PDS People and Culture Oversight Committee has been re-envisioned as the People Experience Committee, with supporting working groups to action focus areas like celebration &amp; recognition and health &amp; wellness.</li></ul>	



## Service Updates on Financial Performance

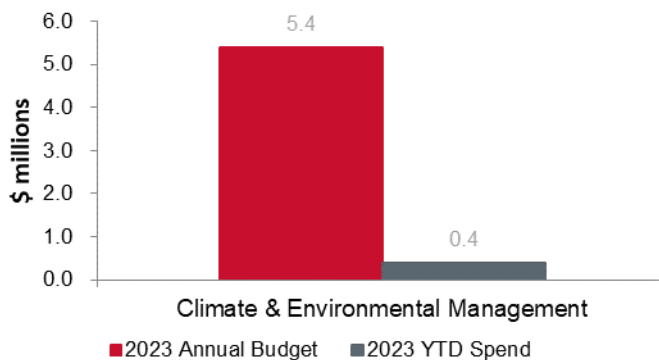
### Net Operating Budget and Actuals as of June 30, 2023



### Operating Budget Updates - 2023 YTD net operating budget vs actuals:

Climate & Environmental Management service has a favourable year-to-date operating variance of (\$0.8 million). The main reasons that have contributed to the variance are salary & wage due to vacancies and intentionally managing the workforce, and consulting and contract services due to project phasing.

### Capital Budget and Spend as of June 30, 2023



### Capital Budget Updates - 2023 total capital budget vs 2023 YTD spend:

Year- to date, the capital expenditures have been used to deliver the following: Energy Poverty and Home Upgrades Program, Environmental management system and other various climate and environment related projects. Climate & Environmental Management capital expenditure is expected to increase towards end of year as project plans are finalized and project execution ramps up. The Centralized Climate Fund 2023 capital budget is currently 78 per cent committed.