



2025 Update

STORMWATER MANAGEMENT STRATEGY

STORMWATER STRATEGY

A FRAMEWORK FOR ACTION

Vision – The City of Calgary promotes healthy, resilient communities and waterbodies through proactive and collaborative stormwater management.

SUPPORTING PRINCIPLES

- Stormwater risks are adaptively managed to prioritize public health and safety.
- Stormwater is valued as a sustainable resource and its management is integrated within city building to contribute to vibrant neighbourhoods.
- Stormwater management protects the environment and enhances the health of receiving waterbodies.
- Stormwater services and investments maximize social, economic and environmental values, at optimal lifecycle costs.
- Stormwater management is a shared responsibility.
- The City leads by example to promote innovation and foster collaboration.
- Stormwater management is resilient to a changing climate.
- The City will partner with industry and other interested parties to align growth, development and stormwater management practices.

TARGETS

- Decrease the percentage of properties at risk within communities at risk of pluvial flooding.
- Reduce the average annual damages (AAD) from pluvial flooding.
- Increase the area (m²) of greened stormwater practices.
- Maintain Total Suspended Solids (TSS) and Total Phosphorous (TP) loadings to the Bow River.
- Establish stormwater rate, volume and contaminant loading targets to the Bow River and tributaries.
- Increase the city-wide average riparian health score.
- Increase the Triple Bottom Line (TBL) score of stormwater infrastructure.
- Decrease the number of stormwater customer concerns.
- Increase the number of Calgarians who agree that stormwater service in their community is of good value.

CORNERSTONES TO ACHIEVE GOALS

Cornerstone 1: Making established communities more resilient.

Cornerstone 2: Proactively managing and maintaining our assets.

Cornerstone 3: Utilizing low impact development.

Cornerstone 4: Setting stormwater performance measures.

GOALS AND OUTCOMES

Create safe and vibrant neighbourhoods, while striving for equitable service for all Calgarians.

1. The livability and vibrancy of our communities, the protection of public health and safety, and the protection of natural and urban ecosystems is being positively transformed and enhanced by innovative, practical and achievable stormwater solutions.
2. Stormwater management systems are resilient to climate change.
3. The level of service among communities has been made more equitable through investment in established areas.

Share responsibilities with Calgarians and with the surrounding regions for being good stewards of our communities and environment.

4. Stormwater is managed at the sub-watershed level to enhance and protect Calgary's waterbodies.
5. Calgarians share in the responsibility of stormwater management and in the protection of the environment, and they value stormwater management solutions in the community.
6. Calgarians are empowered with the information they need to understand their impacts and take action.
7. The City is collaborating with strategic partners to leverage ideas, knowledge and expertise for the design and delivery of innovative and effective stormwater management solutions.
8. Surface water quality regulatory standards are being met or exceeded.

Promote and attain healthy and resilient watersheds.

9. The City is leading by example, investing in grey, green and natural infrastructure to reduce the risk of flooding impacts and to enhance the health of our watersheds.

Provide infrastructure and services that maximize value for Calgarians.

10. The City's planning, operation and maintenance of grey, green and natural infrastructure is more efficient and effective.
11. The City's strengthened governance and business processes overcome competing city-building priorities and support the implementation of practical, affordable, adaptive and innovative solutions.
12. Decision-making is informed by evidence-based data, including social, economic and environmental benefits with performance indicators to measure progress.

2025 UPDATE

SETTING THE CORNERSTONES

In the two years since City Council approved the Stormwater Strategy, The City has been making progress to implement the strategy across the organization. The Strategy is a framework for action to promote healthy, resilient communities and waterbodies through proactive and collaborative stormwater management.

Implementation is focused across four themes (Cornerstones) identified in the Strategy. Stormwater management as a service line is facing new pressures and opportunities associated with rapid community growth, evolving technologies and a changing climate. Working across the corporation and with external partners, Administration and the Cornerstone Teams were able to achieve valuable advancements in 2025 that are foundational to Cornerstone work through the remainder of this and the next business cycle (2027-30).

The following summary outlines 2025 progress.



Soil cells being installed in Inglewood/Ramsay, which was supported by the Stormwater Redevelopment Fund.

CORNERSTONE 1

MAKING ESTABLISHED COMMUNITIES MORE RESILIENT

- Advanced stormwater modelling that, when completed, will document the spatial extent of pluvial flooding in all established communities in Calgary for a range of events. Teams completed the West Zone analysis, which includes the area bound by the Bow and Elbow Rivers and the West Calgary Ring Road. This analysis will be reviewed in 2026.
- Used the Stormwater Redevelopment Fund to enhance performance of existing projects by allowing for incremental stormwater-focused design improvements and to prepare the locations for any impact of future densification. In 2025, the fund supported the installation of soil cells as part of the Stephen Avenue/8 Avenue S.W. Public Realm project, as well as the initial work on the installation of soil cells in Inglewood/Ramsay and along 8 Street S.W. in the downtown core.
- Delivered stormwater utility pilot programs through the Housing Accelerator Fund, including the On-site Stormwater Funding Pilot and the Storm Extension Pilot, fully allocating available funding to incentivize enhanced on-site stormwater storage and improve system conveyance in established areas.
- Completed the Northwest Inner City Community Drainage Improvement (CDI) Upper Plateau Separation and Kensington CDI Phase II, which reduced flood risk to the Sunnyside and Kensington communities. Design work continues on several CDI projects in North and South Calgary to further reduce flood risk across Calgary communities.

CORNERSTONE 2

PROACTIVELY MANAGING AND MAINTAINING OUR ASSETS

- Completed the stormwater asset class memo, which defined different asset classes (e.g. pipes, treatment & storage assets, etc.) for use in the Strategic Asset Management Plan (SAMP), Asset Management Plan (AMP) and for future use in the 2026 Data Management Strategy.
- Completed the Strategic Asset Management Plan for proactive stormwater asset management.
- Drafted the Asset Management Plan for Level 5 Consequence Pipe assets to guide prioritization for inspection and replacements, and to identify lifecycle investments based on design life and industry information.
- Finalized seven dam safety reviews at stormwater management facilities and a Request for Standing Offer (RFSO) is in place for future engineering consulting work, including future dam safety reviews.
- Identified four stormwater lift stations along Ninth Avenue for critical infrastructure upgrades to reduce flooding risk and improve community resilience. Work will proceed by a contractor pending finalization of the Request for Proposal process.



Riverside Park bioretention asset.

CORNERSTONE 3

UTILIZING LOW IMPACT DEVELOPMENT

- Developed best practice guidelines for the operation and maintenance of bioretention assets, intended for use by contractors responsible for asset upkeep.
- Completed research and interviews to create a comprehensive picture of Low Impact Development (LID) experiences, perceptions, challenges and successes in Calgary.
- Completed the Phase 1 report of the Triple Bottom Line (TBL) tool, which summarized the existing understanding of Green Stormwater Infrastructure assets in Calgary.
- Finalized the scope of work to design Low Impact Development stormwater management solutions for multi-unit residential developments.

CORNERSTONE 4

SETTING STORMWATER PERFORMANCE MEASURES

- Began to explore setting stormwater quality targets aligned with the carrying capacity of creeks and rivers on a sub-watershed basis.
- The five-year update of the Total Loading Management Plan (TLMP), a planning tool that helps manage impacts from stormwater and wastewater loadings on the Bow River, was accepted by the Government of Alberta.
- Updated the City-wide Stormwater Loading Model with 2024 data and evaluated climate change scenarios to make recommendations on how to reduce total suspended solids and total phosphorus loading from stormwater.
- Received technical memo for the Nose Creek Hydrological Assessment and Mitigation Options Report, showing opportunities to implement mitigation strategies to bring Low Energy Release (LER) exceedances closer to LER criteria in the upper Nose Creek watershed.

CITY BUILDING

- Provided policy language to the draft Calgary Plan to support consideration of stormwater risks and opportunities in future planning decisions in a comprehensive approach to guide Calgary's growth and evolution over the next 30 years.
- Provided ongoing stormwater requirements clarification into the corresponding Street Design Manual and Land Use Bylaw updates that are also underway.

EDUCATION AND OUTREACH

- Partnered with Mobility to create awareness of the stormwater benefits associated with the spring street sweeping campaign.
- Developed a stormwater education communications campaign to raise community understanding of stormwater management and its impacts on watershed health.
- Conducted internal employee education aimed at key internal interested parties (focus on stormwater, stormwater management and stormwater pollution prevention).
- Enhanced stormwater information available at calgary.ca/stormwater.
- Initiated a partnership with Green Calgary to deliver "Stormwater in the City" classroom programming in 2026.



Stormwater awareness messaging on a street sweeping vehicle.



Stormwater awareness messaging on a street sweeping vehicle.

Implementation of the 2023 Stormwater Management Strategy continues through 2026. We are actively managing implementation challenges including key staff being diverted to respond to critical infrastructure priorities, constraints in project delivery capacity and dependence on a limited pool of subject matter experts.

Looking forward, there will be a focus on addressing gaps to inform implementation asks for the 2027-2030 business cycle. Other priorities include the identification of scientifically valid and operationally grounded stormwater quality targets, the continual development of asset management categories and robust systems for the maintenance and operation of LID infrastructure, integration of stormwater flood risk assessment data into capital budget planning and communicating the findings from the LID research and interviews to internal and external audiences to paint a comprehensive picture of LID in Calgary.