

Growth Infrastructure Continuous Improvement Implementation Plan

Off-site levies help fund the 10 home and business essentials that Calgarians rely on for their day-to-day living and high quality of life. As service delivery evolves and The City's policies and plans change, the cost to deliver the essentials will also change. Administration will periodically review and adjust levy rates to remain in alignment with legislative requirements and The City's current policies and plans. Initiatives are planned or underway that may impact delivery of the essentials. Council directed Administration to report back in 2024 Q2 to the Infrastructure and Planning Committee with a detailed implementation plan, including specifics on deliverables, scope of work, who will undertake the work, resourcing and timing. Administration was tasked with addressing the following topics:

- a. An update to The City's Water Efficiency Plan including new water efficiency targets, policies, programs and tools for achieving targets.
- b. Geographic analysis for measuring water usage (including maximum daily demand) and leakage, including new and established areas, and specifically progressing to a smart metering approach.
- c. Request data from the development industry that shows empirical evidence of which water saving measures are being leveraged in new community development and home construction, to inform the work on maximum water demand.
- d. Reporting on RouteAhead strategies and actions relating to transit service introduction and adjustments, including On Demand, in new and actively developing communities.
- e. Supplement annual off-site levy reporting for transit buses to include the new service implemented as buses are purchased using levy funds.
- f. Infrastructure plans and inputs including scale and cost, including rightsizing infrastructure in the updated and consolidated Municipal Development Plan and Calgary Transportation Plan.
- g. Identify risks and costs of operating and maintenance issues arising from under-utilized infrastructure due to slower pace of growth.
- h. Alternative means, including developer-led and/or provincial government to fund new growth-related infrastructure in active Area Structure Plans outside currently Approved Area as opposed to passing the financial burden to The City of Calgary and existing taxpayers and utility rate payers.

This attachment provides an overview of the detailed implementation plans, as directed by Council.

Figure 1: Timelines for actions/deliverables identified in the Amendment to the Off-site Levies Bylaw 1H2024









Amendment	Action	2024				2025				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	a. Water Efficiency Plan	[Blue bar from Q1 to Q4]								
	b. Geographic water use	[Blue bar from Q1 to Q4]				[Blue bar from Q1 to Q4]				2030
	Water Distribution Technology Strategy	[Blue bar from Q1 to Q4]								
	c. Industry data - water	[Blue oval in Q1]								
	d. RouteAhead – new communities	[Blue oval in Q1]				[Blue oval in Q1]				
	e. Buses - annual levy report					[Blue oval in Q1]				
	f. Right size infrastructure	[Blue bar from Q1 to Q4]								
	The Street Manual	[Blue bar from Q1 to Q4]								
	Southeast Network Study	[Blue bar from Q1 to Q4]								
	Biannual Infrastructure Insights Report	[Blue oval in Q1]		[Blue oval in Q3]		[Blue oval in Q1]		[Blue oval in Q3]		
	g. Slow growth costs	[Blue bar from Q1 to Q4]								
	h. Alternative funding contingency	[Blue bar from Q1 to Q4]				[Blue bar from Q1 to Q4]				TBD

Table 1: Summary of actions/deliverables identified in the amendment to the Off-site Levies Bylaw 1H2024.

a. An update to The City’s Water Efficiency Plan including new water efficiency targets, policies, programs, and tools for achieving targets.		
Water Efficiency Plan		
Status:	Resourced, in progress	Scope of Work: Administration will present the updated Water Efficiency Plan to Council and will include updated targets for water efficiency that align to new growth, water availability and climate projections. The non-statutory plan will also identify a suite of policies, programs and tools for achieving targets. It will also map out an implementation plan, including budget, resourcing, reporting metrics, evaluation criteria and alignment to utility infrastructure planning projects underway.
Deliverable:	Water Efficiency Plan	
Timing:	Q1 2025	
		Resourcing:
		Lead: Climate and Environment
		Support: Water Services and Capital Priorities and Investment
b. Geographic analysis for measuring water usage (including maximum daily demand) and leakage, including new and established areas, and specifically progressing to a smart metering approach.		
Advanced Meter Infrastructure		
Status:	Resourced, in progress.	Scope of Work: Administration is designing the Advanced Metering Infrastructure (AMI) program to replace the existing water meter reading system with an advanced system that provides accurate and near real-time data on water consumption. The program will include the procurement and installation of water meters and AMI technology radio transmitters at all residential and commercial properties throughout Calgary. The City will connect the radio transmitters to data collectors using a citywide AMI network. The program will also implement a Meter Data Management software solution integrated with AMI Headend software, for the collection and analysis of meter data. Scope of work also includes development of business processes to support the new system.
Deliverable:	Selection of technology, planning for proof of concept, initiate procurement of Meter Data Management and installation vendor	
Timing:	Now to 2030	
		Resourcing:
		Lead: Water Services
		Support: Capital Priorities and Investment

Water Distribution Technology Strategy

<p>Status: Resourced, in progress.</p> <p>Deliverable: Water Distribution Technology Strategy Phase 1A: Water Quantity (Flow) Monitoring Report</p> <p>Timing: Q4 2024</p>	<p>Scope of Work: Utility Project Development initiated a project in 2023 to develop an implementation plan for improved monitoring in the potable water distribution system. The project will recommend suitable locations for monitoring technology to understand flow provided to greenfield and established areas as well as locations that will most effectively support water loss identification and reduction efforts. The scope of work will include a high-level communication and control strategy to ensure compatibility with existing and planned systems such as AMI and/or other networks and recommendations for analytical tools to utilize the data. High-level cost estimates for the implementation of the recommended approach, including costs for capital, operations, and maintenance will be prepared for each proposed monitoring location. Further phases of this work will include advancing the design and construction of facilities.</p> <p>Resourcing: Lead: Capital Priorities and Investment Support: Water Services, Information Technology</p>
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c. Request data from the development industry that shows empirical evidence of which water saving measures are being leveraged in new community development and home construction, to inform the work on maximum water demand.

Verbal and written request to industry

<p>Status: Resourced, complete.</p> <p>Deliverable: Letters attached to report IP2024-0573.</p> <p>Timing: Q2 2024</p>	<p>Scope of Work: Administration has sent a request to the Building Industry and Land Development Association (BILD), the Commercial Real Estate Development Association (NAIOP) and the Calgary Inner City Builders Association (CICBA) as representatives of the development industry for empirical evidence of water conservation measures in place in the construction of new homes and communities. The City will review any data provided in response and compare with City of Calgary water consumption data to inform the planning of water infrastructure, including maximum water demand.</p> <p>Resourcing: Lead: City and Regional Planning Support: Finance</p>
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d. Reporting on RouteAhead strategies and actions relating to transit service introduction and adjustments, including On Demand, in new and actively developing communities.

RouteAhead Annual Update

Status:	Resourced, in progress.	Scope of Work: Administration reports to Council in the second quarter of each year on the RouteAhead strategic plan with updates on operating investments, capital investments, status indicator updates, and transit service changes “RouteAhead 2023 Annual Status Report” (IP2024-0581) was on the 2024 May 15 agenda. The annual status update includes updates on operating and capital investments, as well as an overview of all non-seasonal bus route changes in the previous year. It will also include status indicator updates for each of the 159 strategies contained in RouteAhead. The City is expanding On Demand service to six new communities in 2024.
Deliverable:	Report to Council.	
Timing:	Q2 2024	

Resourcing:
Lead: Calgary Transit
Support: Finance, Green Line, City and Regional Planning, Capital Priorities and Investment, Public Spaces Delivery, Emergency Management and Community Safety

e. Supplement annual off-site levy reporting for transit buses to include the new service implemented as buses are purchased using levy funds.

Off-site Levies Annual Report

Status:	Resourced, in progress.	Scope of Work: The Off-site Levies and Centre City Levy Annual Reports provide information on levy collection and spend for the benefit of interested parties, and as required under the Municipal Government Act. These reports ensure ongoing accountability for the levy funds used to deliver infrastructure that supports growth and development in Calgary.
Deliverable:	Off-site Levies Annual Report.	
Timing:	Q2 2025	

The new Off-site Levies Bylaw was implemented March 1, 2024. Subsequent to the changes introduced in the new bylaw, Administration is redesigning the Off-site Levy Annual Report, and will publish the updated version in the second quarter of 2025. The City will integrate new transit bus reporting as part of the report redesign and implement it when The City purchases additional buses under the 2024 Off-site Levies Bylaw.

Resourcing:
Lead: City and Regional Planning
Support: Calgary Transit, Finance

f. Infrastructure plans and inputs including scale and cost, including rightsizing infrastructure in the updated and consolidated Municipal Development Plan and Calgary Transportation Plan.

Calgary Plan

<p>Status: Resourced, in progress.</p> <p>Deliverable: Statutory Policy</p> <p>Timing: Q4 2024</p>	<p>Scope of Work: As part of the City Building Program, the Calgary Plan will be a consolidation and update of the Municipal Development Plan and Calgary Transportation Plan. This statutory policy will strengthen Calgary’s planning direction to grow in a way that maximizes the use of existing infrastructure, which may reduce the need for The City and developers to build new infrastructure in the first place. The Calgary Plan will emphasize the importance of enabling more housing and business opportunities in areas well-served by the Primary Transit Network, 5A Network and walkable daily amenities. In addition to supporting affordability for Calgarians, this helps reduce dependence on building new road and utility infrastructure.</p> <p>Resourcing: Lead: City and Regional Planning Support: Consultants, as well as internal collaboration across Administration including Climate and Environmental Management, Community Planning, Downtown Strategy, Capital Priorities and Investment, Public Spaces Delivery, Real Estate and Development Services, Calgary Transit, Mobility Operations, Parks and Open Spaces, Anti-Racism, Calgary Fire, Community Strategies, Partnerships, Collaboration, and Analytics and Innovation.</p>
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Street Manual

<p>Status: Resourced, in progress.</p> <p>Deliverable: Design Guideline.</p> <p>Timing: Q2 2025</p>	<p>Scope of Work: The Street Manual will consolidate and update the Complete Streets Policy and Guide and the Design Guidelines for Subdivision Servicing Section II: Roads. Rightsizing is a key consideration in the Street Manual’s approach to modern design guidelines, cross sections and intersection designs. Improved street design direction will prioritize safety, make more efficient use of land, better integrate with surrounding development and enable more Calgarians to choose walking, wheeling and transit. These are all opportunities to minimize long-term costs for The City and, where possible, immediate costs for developers.</p> <p>Resourcing: Lead: City and Regional Planning Support: Consultants, as well as internal collaboration across Administration including Community Planning, Capital Priorities and Investment, Public Spaces Delivery, Parks and Open Spaces, Calgary Transit, Mobility Operations, and Calgary Fire.</p>
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Southeast Network Study

Status: Resourced, in progress
Deliverable: Report.
Timing: Q1 2025

Scope of Work: The Southeast Calgary Network Study is part of an iterative process to review road classification, sequence and prioritize long range infrastructure plans to inform investment and city building decisions. It will holistically assess the mobility network to define modal priorities along each corridor to identify and prioritize near, medium, and long-term infrastructure improvements (size and scale) for each mode. It will also identify locations where The City should refresh functional planning studies to ensure that capital plans align with the Calgary Plan. Administration will undertake network studies for other city quadrants.

Resourcing:

Lead: City and Regional Planning

Support: Consultants, as well as internal collaboration across Administration including Climate and Environmental Management, Community Planning, Capital Priorities and Investment, Public Spaces Delivery, Calgary Transit, and Mobility Operations.

Biannual Infrastructure Insights Report

Status: Resourced, in progress
Deliverable: Report.
Timing: Q1 2024

Scope of Work: The Biannual Infrastructure Insights Report provides a highlight of ongoing and completed infrastructure projects and shares how Administration is mitigating industry challenges and optimizing service delivery and value for Calgarians. “*Biannual Infrastructure Insights Report – Q1 2024*” (IP2024-0020) was on the 2024 March 13 agenda. The reports provide with a lens on affordability, by appropriately sizing infrastructure to meet needs and delivering more accessible services for all Calgarians.

Resourcing:

Lead: Infrastructure Services

Support: Planning and Development Services, Corporate Planning and Financial Services

g. Identify risks and costs of operating and maintenance issues arising from under-utilized infrastructure due to slower pace of growth.

Study on the risks and costs of under-utilized infrastructure resulting from a slower pace of growth

Status:	Resourced, in progress.	Scope of Work: Administration is undertaking an analysis of any operating and maintenance costs incurred on utility infrastructure due to slow pace of growth, such as potable water flushing and power flushing to address wastewater odor concerns. This analysis will evaluate the scale of risk if no action or if mitigation measures are in place. The results of this analysis will inform engineering solutions and potential changes to the sizing, design, and construction sequence of utility infrastructure. Administration will use this information to revise infrastructure evaluation during Growth Application review and Areas Structure Plan development processes as needed.
Deliverable:	Report.	
Timing:	Q2 2025	
		Resourcing:
		Lead: City and Regional Planning
		Support: Utilities Delivery, Water Services

h. Alternative means, including developer-led and/or provincial government to fund new growth-related infrastructure in active Area Structure Plans outside currently Approved Area as opposed to passing the financial burden to the City of Calgary and existing taxpayers.

Alternative Funding Contingency Plan

Status:	Resourced, in progress.	Scope of Work: Research alternative funding contingency sources that could mitigate the risk that the Off-Site Levies framework, which is a robust, transparent, and reliable funding source, is challenged. Emphasis of this work will focus on growth to pay for its share for growth while maintaining or reducing The City's financial risk profile. This will include exploration of how developers or other levels of government can fund and deliver infrastructure that The City currently funds and delivers. Additional detail is provided in Attachment 5 - Alternative Funding Contingency Plan.
Deliverable:	Report and action plan.	
Timing:	Phase 1 Q2 2025 Implementation TBD	
Deliverable:	Report and action plan.	Resourcing:
Timing:	Phase 1 Q2 2025 Implementation TBD	