



EPCOR WATER SERVICES

2025 Operational Plan



Introduction

This document is an overview of EPCOR Water Services' (EWS) 2025 Operational Plan, covering priorities for the Water Treatment, Distribution and Transmission and Wastewater Treatment and Collection Services utilities.

The development of this plan is an annual exercise through which EWS leadership seeks to confirm and identify its priorities related to six key focus areas, while ensuring it aligns with EPCOR's long-term plan.







For each focus area, EWS identified the vision, objectives and initiatives to be achieved over the next five-year period. EWS' vision, and associated focus areas, are as follows:

Vision

EWS' vision is to be an industry leader in providing safe and reliable water and wastewater services, recognized as an environmental steward and trusted by our customers, partners and communities.

Focus Areas

This report highlights the key initiatives that will be advanced over the coming year across the following focus areas. A cross-section of objectives and initiatives for each focus area are included in Appendix I.

	Health and Safety: Always put safety first
	Public Health and the Environment: Fulfill our commitment to the environment and public health
	People: Foster an environment where employees are accountable, resilient and support each other
	Operational Excellence: Improve operational performance and cost reductions through process improvement, innovation and systems thinking
	Customer and Partners: Customers and partners trust and value services we deliver
	Shareholder Value: Financial performance consistently achieves allowed returns while meeting performance expectations and targets

Highlights

Pursing Refinements to EWS' Integrated Organizational Design

Implementing a “One Water” approach to managing operations across the entire water cycle was a key aspect and commitment as part of the transfer of the City's Drainage operations to EPCOR in 2017. One Water refers to an integrated planning and implementation approach to manage finite water resources for long-term resilience and reliability, meeting both community and ecosystem needs.

As part of implementing an effective One Water approach, EWS redesigned its organization in 2023, moving towards a more functional structure. This saw most functions centralized to provide opportunities to more closely align business processes across the former standalone water and drainage utilities. Specialized operations and maintenance activities remained separate based on asset type (water distribution and transmission, water treatment, wastewater treatment and collection services) due to the specialized skills and experience required to efficiently operate and maintain these assets.

This organizational structure advances a One Water approach to managing the entire water cycle and supports the implementation of EPCOR's Utility of the Future initiatives. These structural changes continue to provide the basis for improved performance in the areas of employee health and safety, environmental protection and safe and reliable water and drainage service delivery for EWS' customers.

As part of EWS' focus on continuous improvement, additional refinements are planned to its organizational structure to further realize efficiencies in how EWS plans and executes work. A key focus area for EWS in 2025 will be the implementation of the linear asset integration. The linear asset integration will bring together employees from the Water Distribution and Transmission, Wastewater Collection, Construction, and Customer Operations areas based on the type of work they perform, enabling EWS to better optimize its resources. This re-alignment will continue to recognize the unique characteristics of the water and wastewater assets and teams while improving efficiency through the standardization of processes and work practices within these areas. It is also a critical step ahead of standing up the Integrated Operations Centre (IOC), a central mechanism to enhance service delivery and more customer-focused outcomes.

Integrated Operations Centre

EWS continues to evolve to meet the needs of our customers, partners, shareholder and employees, while seeking to grow our position as a leading utility. The linear asset integration represents an important organizational change that underpins the development of the Integrated Operations Centre (IOC). Supported by the linear assets integration, the IOC will support a customer-focused organization dedicated to managing distribution and collection system issues, optimizing restoration of services during unforeseen events, and proactively identifying and addressing issues that impact customers.

Following the completion of a roadmap in 2024, EWS will continue its multi-year Situational Awareness initiative to enhance visibility and insight into our operations. This initiative will deliver positive outcomes

for EWS customers by expanding on mature water treatment, water transmission and wastewater treatment control and monitoring systems by adding sensors and increasing the monitoring and control of the water distribution, sewage collection, and stormwater collection and stormwater management facilities. Through the use of asset and facility visualization, application of artificial intelligence, and improved access to data across the full water cycle, EWS will optimize the operation of its facilities and ensure an increasingly proactive, efficient response for our customers when facing operational upsets, such as main breaks and sewer main blockages. The initiative will also support EPCOR's long-term climate goals through optimization of chemical usage, reduction in water losses and optimized pumping operations to reduce energy consumption.

Flood Resiliency

In 2025, EWS will continue advancing its flood resiliency plans to protect the water supply for Edmonton and more than 90 surrounding communities in the event of a major flood, while also partnering with local communities on flood resilience.

The Water Treatment Plants (WTP) Flood Mitigation project was approved as part of EWS' 2022-2026 PBR application and construction has commenced at both the E.L. Smith WTP and the Rossdale WTP.

The goal of the project is to manage the risk associated with flooding and ensure that customers receive drinking water service as soon as possible after a flood event. The project will protect the WTPs during a major flood event by:

- Developing flood barriers to protect from inundation and severe damage of water treatment equipment such as transformers and pumps, and from damage or contamination of below-grade treated water reservoirs at both sites.
- Preventing river water from backing up into the plants through drainage pipes that discharge to the river.
- Increasing protection for critical assets or relocating them to higher ground within the water treatment plants.

EWS' 2025-2027 Wastewater PBR application included various capital programs to mitigate and reduce flood risk in high-risk communities. This requires slowing the entry of stormwater into the water collection network and also advancing the monitoring and control of stormwater facilities to optimize their storage. This includes building new dry ponds to capture large volumes of stormwater within a neighbourhood during storm events so it can be slowly released back into the existing piped storm trunk network. Construction is underway and continuing for dry ponds in Kenilworth, Parkdale, Lauderdale and Ottewell and design work has started for dry ponds in Forest Heights and Cloverdale.

In addition, EWS will commence pre-design work for flood mitigation at the Gold Bar Wastewater Treatment Plant.

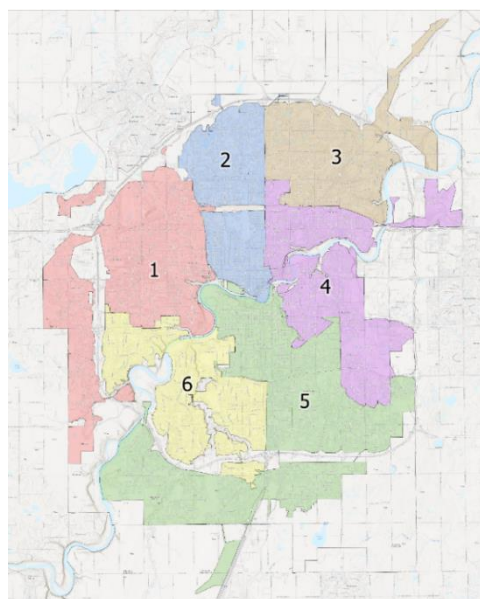
Advanced Metering Infrastructure (AMI)

EWS has made significant progress in its Advanced Metering Infrastructure (AMI) project, which will improve monthly bills and offer customers more information to make timely decisions about water use. This technology will replace the majority of water meter reading technology throughout the City of Edmonton.

After starting in November 2023, EWS continues to install this technology, in a clockwise direction, by zone across the city. Approximately 174,000 AMI devices have been installed as of the end of 2024. This phase is focused on the physical installation of the AMI devices, verification of device functionality for all installations, and verification of integration with EPCOR's billing system. All installations are planned to be completed by the end of 2025. The zones and estimated completion dates are included in the map below.

This year, EWS will also continue its work on the development of automated software tools to identify and notify customers of higher-than-normal consumption. This additional functionality will allow customers to address high water consumption in a timelier manner, potentially avoiding a negative impact to their bills. EWS is currently conducting a Leak Detection Pilot with employees who have an AMI device installed. Given the complexity and size of the AMI installation, it is expected this additional functionality will be available to customers in late 2025 or early 2026. In the interim, EPCOR continues to notify customers of higher-than-normal consumption prior to a bill being sent out based on monthly meter readings.

Zone	Scheduled Dates
1	November 2023 - July 2024
2	February 2024 - November 2024
3	March 2024 - November 2024
4	August 2024 - February 2025
5	September 2024 - April 2025
6	December 2024 - June 2025
All	Up to December 2025



Integrated Resource Planning

Integrated Resource Planning (IRP) is the long-term planning process used by EWS. The purpose of the IRP is to inform capital planning in both the short-term and long-term and is an important step in the development of the capital plans that will be reflected in future rate applications presented to Utility Committee. In addition to the traditional factors of forecasted demand and treatment capacity, the IRP considers external factors such as community impacts, health, safety and environmental (HSE) impacts, regulatory requirements, corporate goals, and new or disruptive technologies. The IRP also addresses reliability and lifecycle requirements for existing assets.

The IRPs ensure that EWS has identified the needs of a growing community and can support the objectives outlined in the City Plan.

Although the development of EWS' IRPs is a continuous process, these plans are updated every five years. In 2025, EWS will be focused on the update of both its Water IRP and its Clover Bar IRP.

Stormwater Rebate Program

In 2025, EWS will launch an updated Stormwater Rebate Program, which will expand its current rebate program that is focused on backwater valve installations. The proposed Stormwater Management Rebate Program is intended to help incentivize stormwater management practices on private properties, as well as support customers in mitigating the potential for a sewer backup and flood-related damage.

The expanded rebate program is to support additional private side property modifications to reduce the impact of stormwater runoff from parcels on the overall system and reduce risks of overland flooding. Eligible customers would apply for rebates for stormwater management installations, including low impact development features and on-site stormwater storage, along with the rebate for backwater valve installation. Single-family residential homes are eligible for up to a combined maximum of \$2,000/property; \$5,000/property for multi-family residential homes; and \$10,000/property for Industrial, Commercial and Institutional properties.

Demand Management Measures

This past year, EWS initiated a review of its existing Demand Management Measures in response to the water supply interruption experienced at EWS' E.L. Smith Water Treatment Plant in January 2024.

These updated measures are based on a review of plant capacities, reservoir volumes and water flows in both winter and summer conditions. Other factors contributing to the updated measures include customer feedback, consultation with industry and a review of practices in other jurisdictions. In 2025, EWS will finalize the proposed changes to its Demand Management Measures and adapt its communications to reflect input from various groups, including the City of Edmonton and regional customers.

City Planning - Coordinated Initiatives

EWS continues to work closely with the City of Edmonton's Urban Planning team to implement the City Plan objectives.

EWS will support the substantial completion standard review, in addition to providing support for the planning study for development south of 41 Avenue SW. EWS will continue to be active in setting up new processes to support the Infill Instructure Fund as part of the Housing Accelerator Grant and will work closely with the City to identify new projects for potential funding from the Canadian Housing Infrastructure Fund grant. Design standard modernization work continues as a collaborative effort between EWS, the City of Edmonton and the development community with a focus on stormwater and green infrastructure opportunities.

Performance Based Regulation (PBR) Applications

In 2024, EWS filed its 2025-2027 Wastewater Services PBR Application, which Utility Committee had recommended City Council approve. Pending City Council approval in early 2025, the Wastewater Services PBR will expire December 31, 2027.

As part of EWS' plan to consolidate its Water and Wastewater Services PBR Applications into a single PBR Application, EWS will develop and file its formal plans for the renewal/extension of the Water PBR to December 31, 2027 this year. The current Water PBR is scheduled to expire March 31, 2027 and renewal/extension of the PBR is required to allow EWS to file a consolidated PBR, which will be effective January 1, 2028.

In addition to the filing of the Water PBR extension, EWS will commence the work required to file the consolidated PBR Application. This work will be informed by Utility Committee's recommendations as part of its review of the 2025-2027 Wastewater Services PBR Application.

As part of the development of its consolidated PBR Application, EWS will complete consultation activities, review rate design options, and bring forward items for discussion to Utility Committee that would then be reflected in the final application. The proposed timeline for the PBR application and review is still in development and will be coordinated with City Administration.

Energy Efficiency

EWS continues to work on various projects to improve the energy efficiency of its operations and to reduce greenhouse gas emissions. Two projects in particular highlight opportunities to both optimize existing assets and to develop new projects to meet our sustainability objectives.

EPCOR commissioned the kīsikāw pīsim solar farm at the E.L. Smith Water Treatment Plant in early 2023. The solar farm also included a battery energy storage system (BESS). The BESS, in combination with the solar farm, provides numerous opportunities to optimize energy usage, protect electrical equipment and learn more about how future distributed energy networks will function. In 2025, work will continue to optimize the functioning of the smart grid system, including with the use of machine learning or artificial intelligence models.

Secondly, EWS has been looking for opportunities to fully utilize the biogas produced at the Gold Bar Wastewater Treatment Plant (WWTP) that is not already used for plant and process heating. Based on an analysis completed in 2024, a Combined Heat and Power (CHP), or cogeneration system, will be further developed in 2025. This proposed project will convert biogas produced at the WWTP to electricity, thereby reducing the reliance on the electrical grid. This will also recover waste heat for use in buildings and processes. The project would reduce GHG emissions at the plant and fully utilize the biogas that is produced from the anaerobic digestion process.

Additionally in 2025, we will continue to develop an integrated net zero roadmap for EWS, consistent with EPCOR's commitment to achieve net zero emissions by 2050.

Appendix I – EWS 2025 Objectives & Initiatives

Health and Safety	
Always put safety first	
Focus Area	Initiatives
Employee Health & Safety	<ul style="list-style-type: none"> • Implement the new Safe Work Planning tool set • Trial a "Failing Safely" model to support continued improvement in accountability for safety for each individual • Implement physical security recommendations from facility assessments • Roll out competency assessments for all high-risk tasks • Implement an expanded metrics program for high-risk focused inspections and observations for field activities • Identify and align priority safety procedures as part of Linear Asset Integration • Develop enhanced Utility Awareness Training (working around both water and wastewater infrastructure)
Contractor Health & Safety	<ul style="list-style-type: none"> • Align the onboarding process for contractors for water and wastewater • Develop and implement a system to track contractor high-risk/high energy inspections • Focus planned contractor inspections on high-risk/high energy activities
Community Health & Safety	<ul style="list-style-type: none"> • Establish a process to enhance public safety protections at all construction sites • Continue Implementation of safety improvements at stormwater management facilities based on outcomes of 2024 pilot • Adapt stormwater management facility safety campaign for year-round impact • Conduct targeted awareness activities in conjunction with City of Edmonton to encourage preparedness among customers at risk of a river flooding event

Public Health and Environment	
Fulfill our commitment to the environment and public health	
Focus Area	Initiatives
Public Health & Environment	<ul style="list-style-type: none"> • Develop the next phase of the Lead Management Program for consolidated PBR • Complete an emergency response exercise for alternative drinking water emergency supply protocols and communication plans • Support and enable the City of Edmonton's environmental policy changes through active participation in City review processes • Obtain approval from Alberta Environment & Protected Areas (AEPA) for Edmonton wastewater system for 2025-2035 and implement new requirements
Energy & Resource Efficiency	<ul style="list-style-type: none"> • Complete economic business case and project scoping for a biogas utilization project at Gold Bar • Develop and execute an operational plan for enhanced optimization of the Kísikāw pīsim Solar Farm • Develop an enhanced strategy to optimize the offset credits received from the Hilda Wind Farm • Identify further opportunities for greenhouse gas (GHG) reduction
Watershed Management	<ul style="list-style-type: none"> • Continue enhancement of the urban creeks watershed management strategy • Update the public-facing integrated watershed management plan for sharing on EPCOR's website

People	
Foster an environment where employees are accountable, resilient and support each other	
Focus Area	Initiatives
Professional Growth & Development	<ul style="list-style-type: none"> • Finalize a strategy to manage AEPA Operator Certification program across linear assets • Build and enhance leadership acumen to support cost and efficiency goals through continued rollout of Finance and Regulatory training modules and long-term plan process improvement initiatives • Streamline employee orientation and onboarding, and integrate all learning initiatives with the employee's learning journey • Determine requirements for physical learning infrastructure that supports competency training
Engagement & Cultural Alignment	<ul style="list-style-type: none"> • Continue to drive improvements in employee experience and belonging • Engage EWS leaders on rollout of updated respectful workplace and behavioural framework
Organizational Refinement	<ul style="list-style-type: none"> • Complete the design for the Integrated Operations Centre implementation • Implement Linear Asset Integration, including alignment of positions • Develop a long-term EWS facilities strategy to inform EPCOR's corporate direction on facilities

Operational Excellence	
Improve operational performance and cost reductions through process improvements, innovation, and systems thinking.	
Focus Area	Initiatives
Efficiency & Process Improvement	<ul style="list-style-type: none"> • Continue identification and implementation of process improvements across the organization as identified by the Workflow Project • Implement Asset Management Project recommendations to align asset management practices across the water cycle • Develop a plan to optimize utilization of Fleet Services • Implement an interim Clover Bar operations strategy
Data & Information Strategy	<ul style="list-style-type: none"> • Develop an improved mechanism to aggregate and share data across the business • Develop a technical roadmap for the Integrated Operations Centre (sensors, data, Advanced Metering Infrastructure (AMI) data, applications, and visualization) • Implement an artificial intelligence architecture for water treatment plants and wastewater treatment plants • Implement an EWS data governance structure that aligns across business initiatives and ensures data security, integrity and privacy are maintained
Integrated Planning	<ul style="list-style-type: none"> • Complete the Water Integrated Resource Plan (IRP) update • Complete the Clover Bar IRP • Implement recommendations from the Long-term Plan improvement project
Operational Resiliency	<ul style="list-style-type: none"> • Complete an updated Climate Adaptation Strategy for the entire One Water Cycle • Complete the pre-design work for the river flood mitigation project at Gold Bar • Develop a concept plan for a “2-train” solution at E.L. Smith WTP • Identify future system resiliency projects in the water transmission and sewer trunk systems • Complete assessments for odour reductions at remaining lift stations • Finalize water demand management protocols and communication plans

Customers and Partners	
Our customers and Partners trust and value the services we deliver	
Focus Area	Initiatives
Customer Experience	<ul style="list-style-type: none"> • Implement customer leak notification alerts process leveraging AMI metering data • Launch stormwater rebate program to support the installation of low impact development and downspout disconnections on private property • Develop a public awareness strategy to reduce risk of sewer blockages due to improper disposal of items to wastewater system
City & Community Relations	<ul style="list-style-type: none"> • Deliver on Indigenous procurement and engagement commitments • Initiate the Arrow Regional wastewater treatment plant swap agreement review • Continue participation and support Implementation changes arising from the Sanitary Servicing Strategy Fund transformation project • Support City Plan implementation through active participation in initiatives including substantial completion, complete streets and housing accelerator investments

Shareholder Value	
We earn our allowed returns and meet performance expectations and standards	
Focus Area	Initiatives
Financial Performance	<ul style="list-style-type: none"> • Develop an enhanced risk-based framework to drive capital investment prioritization/optimization across the entire One Water capital portfolio • Implement recommendations from the billing process improvement project
Regulatory	<ul style="list-style-type: none"> • Prepare submission for one-year extension of the Water PBR • Initiate work on the consolidated PBR application • Assess rate design opportunities for consolidated PBR with an affordability lens • Develop a coordinated process for identification and application for additional grant opportunities • Update and confirm PBR metrics for consolidated PBR