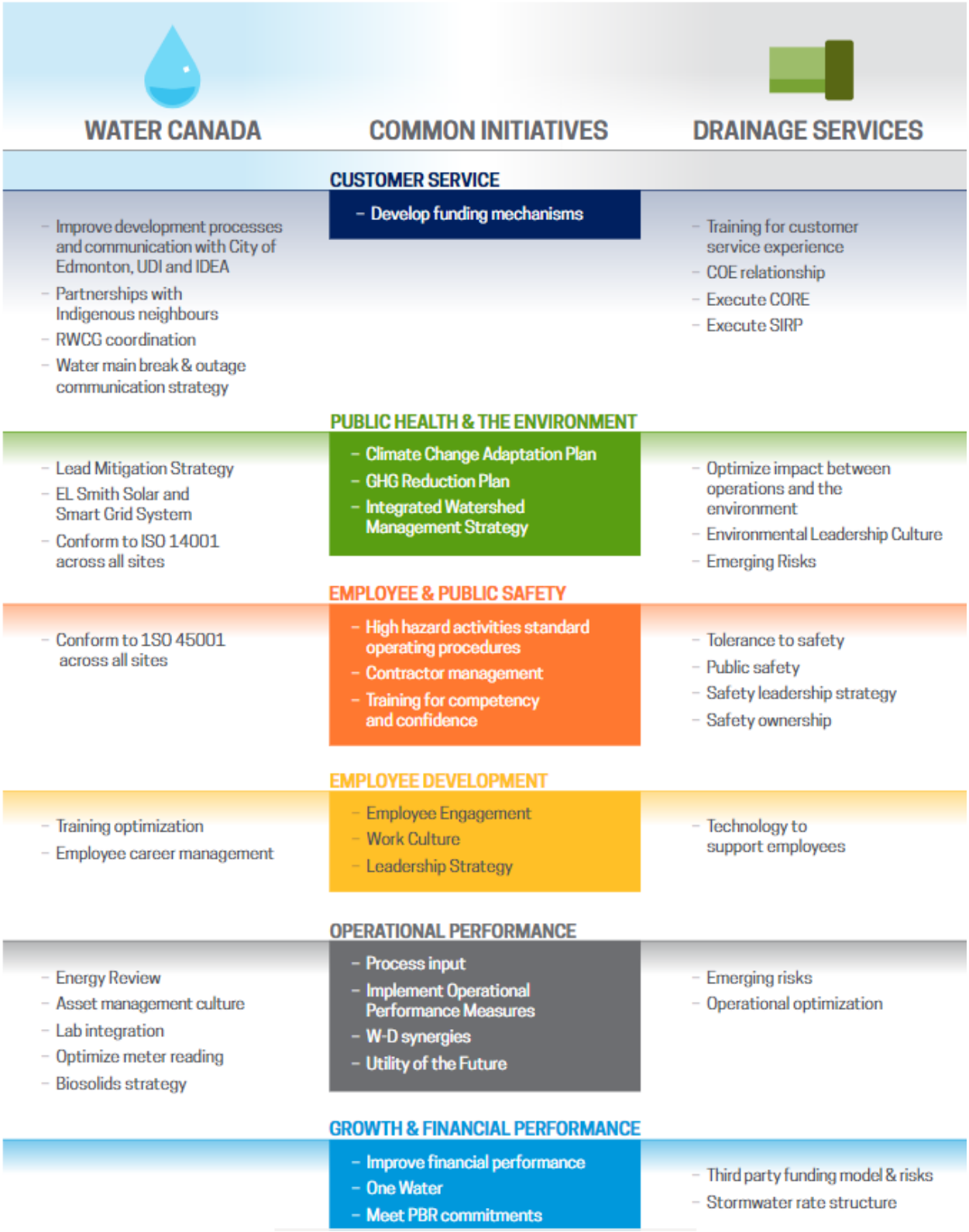
EPCOR

WATER & DRAINAGE SERVICES

2022 ANNUAL OPERATIONAL PLAN

Table of Contents

OVERVIEW


WATER CANADA
COMMON INITIATIVES
DRAINAGE SERVICES
CUSTOMER SERVICE
– Develop funding mechanisms
– Improve development processes and communication with City of Edmonton, UDI and IDEA
– Partnerships with Indigenous neighbours
– RWCG coordination
– Water main break & outage communication strategy
– Training for customer service experience
– COE relationship
– Execute CORE
– Execute SIRP
PUBLIC HEALTH & THE ENVIRONMENT
– Climate Change Adaptation Plan
– GHG Reduction Plan
– Integrated Watershed Management Strategy
– Lead Mitigation Strategy
– EL Smith Solar and Smart Grid System
– Conform to ISO 14001 across all sites
– Optimize impact between operations and the environment
– Environmental Leadership Culture
– Emerging Risks
EMPLOYEE & PUBLIC SAFETY
– High hazard activities standard operating procedures
– Contractor management
– Training for competency and confidence
– Conform to 1SO 45001 across all sites
– Tolerance to safety
– Public safety
– Safety leadership strategy
– Safety ownership
EMPLOYEE DEVELOPMENT
– Employee Engagement
– Work Culture
– Leadership Strategy
– Training optimization
– Employee career management
– Technology to support employees
OPERATIONAL PERFORMANCE
– Process input
– Implement Operational Performance Measures
– W-D synergies
– Utility of the Future
– Energy Review
– Asset management culture
– Lab integration
– Optimize meter reading
– Biosolids strategy
– Emerging risks
– Operational optimization
GROWTH & FINANCIAL PERFORMANCE
– Improve financial performance
– One Water
– Meet PBR commitments
– Third party funding model & risks
– Stormwater rate structure

INTRODUCTION

This document presents the 2022 Operational Plan for the Water Treatment, Distribution and Transmission, and Wastewater Treatment (collectively referred to as "Water Services") and the Drainage Services business units of EPCOR Water Services Inc. (EWSI). The purpose of this document is to provide Edmonton City Council, Utility Committee and stakeholders an overview of the various operational initiatives planned for the 2022 calendar year for both business units.

The overarching goal of Water Services is to provide customers with safe and reliable water and wastewater services while meeting or exceeding all environmental requirements, delivering value and achieving a fair return. This goal will be accomplished by a team of safe and accountable employees who are engaged in the operation of EPCOR Water Services.

Drainage Services' overarching goal is to provide safe and reliable stormwater and wastewater collection services to customers within the City of Edmonton. Drainage Services' vision is to be an industry leader valued by our customers and shareholder as environmental stewards who keep the public safe and the river healthy. This will be accomplished through effectively planning business requirements, focusing on excellence in engineering, managing our capital projects well, and pursuing proactive operational practices informed by a rigorous stakeholder engagement process.

While Water Services and Drainage Services are separate businesses units within EWSI, a significant number of initiatives are common to both. These initiatives are intended to drive synergies, gain efficiencies and to align the businesses operationally. As in prior years, this report is structured in three major sections: 1) Common Initiatives that are being pursued by Water Services and Drainage Services together, 2) Water Services' specific initiatives and 3) Drainage Services' specific initiatives.

Many of the initiatives are extensive in scope and cover a number of years and as a result may have been discussed in previous reports (and will likely be discussed in future reports). Further, the impact of the COVID pandemic delayed the original timelines for some initiatives.

All initiatives are presented within a common strategic framework comprised on six focus areas:

- Customer Service – we aim to serve customers better over time
- Public Health and the Environment – we aim to ensure all public health and environmental standards are met or exceeded
- Employee and Public Safety – we make safety a priority in all things we do
- Employee Development – we aim to develop a knowledgeable, capable and engaged team

- Operational Performance – we strive for excellence in the delivery of our services to ensure value for the customer
- Growth and Financial Performance – we aim to ensure the company maintains its level of profitability, and seizes business opportunities to grow

PART ONE: WATER AND DRAINAGE SERVICES – COMMON INITIATIVES

1 OVERVIEW

2022 initiatives common to both Water and Drainage Services are summarized below.

1.1 Customer Service

- Review developer funding mechanisms in order to align approaches across all business units.

1.2 Public Health and the Environment

- Enhance and implement the Climate Change Adaptation/River Flooding resiliency plan.
- Implement the GHG reduction plan.
- Implement the Integrated Watershed Management strategy for Edmonton.

1.3 Employee and Public Safety

- Develop and implement company-wide standard operating procedures for all high-hazard activities.
- Implement contractor management and incident response procedures.
- Train employees for competency and confidence.

1.4 Employee Development

- Improve employee engagement and build a respectful, inclusive, diverse, collaborative and safe work culture.
- Develop and implement leadership strategy.

1.5 Operational Performance

- Implement a standardized process improvement methodology supported by external benchmarks.
- Continue to implement the Organizational Project Management Office initiative.
- Develop and implement strategies for realizing synergies between Water Canada and Drainage Services.
- Continue to implement One Water.
- Advance the “Utility of the Future” initiative.

1.6 Growth and Financial Performance

- Continue to implement One Water.
- Deliver results in line with the approved PBR and prepare for the next PBR application.

2 CUSTOMER SERVICE

2.1 Review developer funding mechanisms to align approaches across business units

Capital investments required to support new development across the city are allocated between developers and ratepayers differently across EPCOR's various lines of business. For **water** infrastructure, costs are generally shared between developers and ratepayers with ratepayers paying for "backbone" assets such as treatment and transmission infrastructure as well as reservoirs. Developers are responsible for distribution level infrastructure that is generally added to real estate lot prices. For **drainage** assets, developers cover the majority of costs for new infrastructure. Conversely, ratepayers cover the majority of costs for **electricity** infrastructure.

EWSI is working with developers to understand the historic rationale for these differences as well as the challenges that any disparity in approaches causes. From that basis, guiding principles are being developed to ensure a consistent framework for allocating costs of new development between developers and ratepayers. Specifically, EWSI is drafting a white paper to establish cost minimization, cost allocation and regulatory principles to be applied in its approach to funding water and drainage infrastructure required to support growth. The common municipal goal of "growth pays for growth" must be balanced against the principle, commonly applied in utility settings, that utility rates must be non-discriminatory.

3 PUBLIC HEALTH AND THE ENVIRONMENT

3.1 Enhance the Climate Change/River Flooding resiliency plan to include drought, water quality, and freeze/thaw cycles.

In 2018, Water Services developed a Climate Change Adaptation action plan that identified 15 key risks for the Edmonton water treatment plants (WTP), water transmission and distribution systems and the Gold Bar Wastewater Treatment Plant (WWTP) that will be significantly affected by climate change. Initial risk mitigation strategies and specific actions were developed for each of these risks. River flooding was identified as the greatest of the sudden onset risks for the Edmonton facilities. Severe river flooding has the potential to impact both the Rossdale and E.L. Smith WTPs, causing damage to critical components and potentially disrupting production of treated drinking water to 1.3 million people Edmonton and the Capital Region. The Gold Bar WWTP would also be impacted by river flooding, potentially resulting in a significant environmental release.

Consequently, River Flood Resiliency Plans have been developed for the Edmonton WTPs and the Gold Bar WWTP, aimed at aligning with provincial recommendations of critical infrastructure protection for a 1:500 year return period event. These plans include the Edmonton WTP Flood

Protection capital program that involves critical asset protection or relocation, installation of backflow prevention devices, and construction of landscaped embankments that will take place over three phases between 2021 and 2027.

All of the risks associated with climate change on the Edmonton water and wastewater system operations are reviewed on an annual basis to determine the appropriate risk ranking. Additional climate related risks to be considered include: low water flow and availability in the river (water scarcity); localized drought; significant changes to water quality; major wildfire in the river basin that impacts water quality; changing ecology of the river with increased temperature; and the risk of increased main breaks, especially transmission main breaks, due to more freeze/thaw cycles.

So far, the Climate Change Adaptation Plan has been maintained as an internal Water Services document. An objective for 2022 is to produce an outward looking document that can be shared with key stakeholders such as the City of Edmonton Council and Administration, Alberta Environment and Parks, and others who are interested in the Climate Change Adaption Plan. It will be critical to ensure that the risks and the plans align with the City of Edmonton Climate Change Adaptation Plan that was finalized in 2018 and with EPCOR's overall Climate Change strategy and Environmental and Social Government reporting initiative.

3.2 Implement the GHG reduction plan

Environmental stewardship is at the core of EPCOR's purpose. Serving a number of communities beyond Edmonton in Canada and the United States, we are in a position to demonstrate climate leadership at the international scale. As such, our climate mitigation and adaptation strategies and goals are driven from our corporate aspirations.

EPCOR was a founding member of the Corporate Climate Leaders Program. This City-led program supports and empowers corporate members to make decarbonization commitments[1]. In 2021, EPCOR announced that it was expanding its commitments to all of its locations. Specifically, EPCOR commits to company-wide net GHG reductions of 50% in 2025, 85% in 2035 and 100% (net-zero) by 2050[2].

The largest source of greenhouse gas emissions within EWSI is from the consumption of electricity which is used in both water and wastewater treatment operations as well as in pumping water to final consumers. EWSI currently buys electricity sourced from the Alberta grid through competitive procurement. As part of EPCOR's commitment to reducing its environmental footprint, the company is moving towards utilizing 100% of its electricity

[1] https://www.edmonton.ca/programs_services/environmental/corporate-climate-leaders
[2] https://www.epcor.com/about/news-announcements/Pages/epcor-releases-esg-report-2020.aspx

consumption within Edmonton from a portfolio of renewable sources. The portfolio approach aligns with the City of Edmonton's Community Energy Transition Strategy, which sets targets for sourcing renewable electricity from new local sources, and for reducing Edmonton's overall greenhouse gas footprint.

This approach is being implemented through two projects:

i) Development of new, local renewable generation through the E.L. Smith Solar Project;

ii) Wind energy procurement - EPCOR Utilities Inc. has signed an agreement with Renewable Energy Systems Canada to develop and construct the Hilda wind farm in southern Alberta. EPCOR will acquire Renewable Electricity Certificates from the project for a 20 year term. The combination of this offtake agreement and the E.L. Smith Solar Farm will result in EPCOR Water utilizing 100% green electricity for all its operations within the City of Edmonton. Renewable Energy Systems Canada has obtained Alberta Utilities Commission (AUC) approval for the Hilda wind farm with rezoning activities underway. The Hilda wind farm is expected to be constructed in fall/winter 2022 with commercial operations commencing in Q1 2023.

3.3 Implement the Integrated Watershed Management Strategy for Edmonton.

The intent of the Integrated Watershed Management Strategy is to manage total loadings to the North Saskatchewan River from all EPCOR discharges in Edmonton and to ensure drinking water security and source water protection for the Edmonton water supply in one unified watershed management program.

Key Objectives of the IWMS
Alignment, optimization and enhancement of monitoring the North Saskatchewan River and its tributaries in Edmonton
Alignment of regulatory reporting
Alignment and prioritization of research, education and awareness partnership funding
Coordination of emergency response for spills/unauthorized releases to the North Saskatchewan River

Related ConnectEdmonton Goals
Ensure the safety and security of Edmonton's water supply, food systems and natural ecosystems to support long term resilience to flooding, droughts and extreme weather events
Manage storm water runoff and improve water quality by ensuring a high standard of design at the area, neighbourhood and site level
Improve community flood resilience through ongoing risk management, infrastructure planning and operation, financial analysis and stakeholder engagement
Manage and protect the watershed and water supply to maintain the quality of Edmonton's drinking water supply

Pillars of the Integrated Watershed Management Program
Implementation of the **SIRP Slow programs** to enhance source control to deter the release of sediment to Edmonton's storm system from urban development and/or construction. This is achieved through construction of widespread low impact development and dry ponds throughout the urban watershed with the dual purpose of improving stormwater runoff quality and for volume control. This includes additional activities aimed increasing awareness, monitoring and, if necessary, punitive corrective action. ;
Leveraging the Edmonton Metropolitan Region Board and partnership with the North Saskatchewan Watershed Alliance to facilitate discussion with **regional municipalities, counties, and First Nations** on regional watershed issues that impact Edmonton, such as urban creek erosion. Influence these interested parties to implement best management practice, design and construction standards to reduce storm water impacts on Edmonton's urban tributaries;
Adoption of the One Water approach for communications on the state of the Edmonton Watershed, including, revamping the **River for Life strategy document**, revisiting the strategy's expected outcomes and key performance indicators and consolidating source water protection plans, climate adaptation plans, and WTP residuals management objectives into an overall Strategy document for Edmonton; and
Initiation of high level discussion with Alberta Environment and Parks on integrated watershed management and total loadings planning and start setting the strategic objectives and upfront requirements for the **2025 renewal of the Edmonton wastewater system approval**.

In 2022, key focus will be on continued implementation of the strategy, including:

- develop a Regional Watershed Modelling Strategy with external partners;
- implement a residuals monitoring program for the Edmonton Water Treatment Plants;
- continue implementation of Low Impact Development and overall SIRP SLOW projects and identify opportunities for small scale monitoring for volume reduction and water quality improvements; and
- develop a stormwater characterization program in coordination with Alberta Environment and Parks.

4 EMPLOYEE AND PUBLIC SAFETY

4.1 Develop and implement company-wide standard operating procedures for all high-hazard activities.

EWSI will develop and implement company-wide assessments for six of the lifesaving rules as well as chemicals to review existing procedures to ensure conformance to the EPCOR Standards and provincial legislative requirements. The six lifesaving rules reviews will include Confined

Space, Work from Heights, Hazardous Energy Isolation, Lift Plans/Suspended Loads, Limits of Approach, Ground Disturbance and the addition of Chemicals.

Reviewing EWSI's existing standard operating procedures across Operations has significant benefits as it ensures hazards have been identified, controls have been implemented and reduces the organizational risk exposure for the Operational areas.

4.2 Implement contractor management tools to effectively oversee our contractor partners.

Having continuous improvement initiatives for contractor management processes enable our project teams to effectively oversee the contractors and work activities being performed. Establishing a compliance tracking tool and project evaluation processes empowers operations to effectively oversee our contractor partners in their completion of critical tasks.

4.3 Train employees for competency and confidence.

Ensuring employees have the knowledge, skills and competence to perform their job safely. Through appropriate training, skill development and on-the-job experience, Drainage Services will ensure employees have the knowledge, skills and competence to perform their job safely. We will do this by applying the appropriate level of training relative to the risk and complexity of the task. The plan is to ensure compliance and conformance training is maintained.

In order to achieve this, EWSI will:

- develop and implement company-wide competency based assessments for high hazard activities;
- support the development of training to ensure front line leaders understand our business, are effective at managing people issues, and create safe work environments;
- bring training outside the classroom by providing onsite training specific to the work of the employee.

5 EMPLOYEE DEVELOPMENT

5.1 Improve employee engagement and build a respectful, inclusive, diverse, equitable, collaborative and safe work culture.

This strategic initiative is comprised of efforts to develop both employee engagement and equity, diversity and inclusion at EPCOR.

i. Employee Engagement

The employee engagement survey is one of the primary ways EPCOR solicits feedback from employees to determine where we can improve and where we need to focus our efforts on our quest to ensure EPCOR is a great place to work. The Human Resources team will deliver the engagement survey in 2023 and work with leaders across our Business Units to review and interpret the survey results and implement action plans. Action plans will address the top key drivers and opportunities identified in the engagement survey results.

ii. Employee Diversity, Equity and Inclusion (DEI)

Great places to work are where people feel respected, valued and part of a team. Not only is it important to our employees, it's seen as critically important to EPCOR's leadership team and Board of Directors. In 2018 a Diversity Council was formed and their first task was to create an Equity, Diversity & Inclusion Framework, to guide our approach to this important area. In 2019, the Council, in concert with leaders across our Business Units, pursued a variety of activities and initiatives to drive this focus such as increasing awareness of diversity and inclusion at EPCOR and supporting employee resource groups (e.g. HerStory). In 2022, the focus will be to continue to drive towards an inclusive work culture and to identify and address areas where systemic bias has created barriers to inclusion and equal opportunity. EPCOR has established a number of working groups comprised of leaders across the business, supported by HR, to establish actions to support leaders, increase awareness and to imbed DEI plans within key processes and business plans.

5.2 Advance Leadership Strategy

Leaders must be extremely effective at building high performing teams that support employees to increase capability, collaboration, competency and knowledge. Ensuring employee and leadership behaviours align to EPCOR's behavioural and leadership competencies is paramount to providing a pipeline of high potential employees to support leadership succession and growth.

Employees will be supported by a series of activities, including completing core competency leadership training and knowledge transfer.

The knowledge base will be supported by identifying and providing knowledge transfer needs for succession and retirement planning, along with documenting practices for knowledge transfer.

Job rotation and succession planning will play an active role in this development. The Human Resources team will engage with business leaders and provide tools to assist with identifying suitable candidates for job-to-job or project-to-project opportunities.

6 OPERATIONAL PERFORMANCE

6.1 Implement a standardized process improvement methodology supported by external benchmarks.

In order to decrease costs, maintain reasonable rate increases and offset the impact of the PBR efficiency factor, it is necessary to ensure that EWSI maintains and increases productivity over time. The vision of this initiative is to develop a standardized process or continuous improvement program to support productivity increases and service quality improvements across all of Water and Drainage. The program would encompass methods, techniques and tools and be used to design, control and analyze both business and operational processes.

This initiative is seen as an extension of, and building upon, the innovation strategy developed over the past several years and is directed towards building a "tool kit" for all to use, rather than a specific department focused on process improvement. The long-term objective of this strategy will be to become an organization where process improvements occur systematically and in a sustainable manner.

6.2 Continue to implement the organizational project management initiative across all sites.

In order to improve the efficiency and effectiveness of our capital project management, EWSI is standardizing the way project managers across Water and Drainage plan, execute and monitor key aspects of their projects and programs. This initiative involves creation of one Project Management Methodology along with several processes, tools and templates. In addition to the creation of an overarching Project Management Standard, over the longer term, we will undergo a review and re-development of processes, procedures, templates, tools and systems which are currently in use to ensure the use of best practices and consistency for all users.

This initiative will be completed in conjunction with similar Project Management initiatives taking place across the rest of EPCOR. The benefits of this initiative include consistency and higher engagement, as well as potential cost savings through better project execution.

6.3 Develop and implement strategies for realizing synergies between Water Services and Drainage Services.

Since the transfer of Drainage to EPCOR, a focus has been on identifying, developing and implementing synergies to realize operating and capital efficiencies in both business units.

The focus for 2022 will be in pursuing synergies in the following areas:

- Growth and Development Planning
- Control and Dispatch (Tier 2 Trouble Customer Services)

- Fleet Dispatch and Fleet Coordination
- Inspections Related to Construction Activities
- Drafting and Design
- Project Management and Engineering
- Certified Safety Equipment
- Shops
- Site Restoration
- Pre-job Set Up
- System Monitoring
- On-premise Inspections
- Above Ground and Preventative Maintenance

6.4 Advance the "Utility of the Future" initiative.

The Utility of the Future is an ambitious path to modernize operations and reduce long term operating and capital costs by leveraging technology and processes used and refined by leading water utilities around the world. This Corporate initiative will provide a roadmap and framework identifying potential opportunities to implement emerging technology solutions and processes in the existing utilities operated by EPCOR, and the prioritization of those opportunities based on the highest potential return on investment. This will take a 10-year view of technology trends and O&M practices in the water and related industries and the current digital and operational maturity of EPCOR in relation to leading utilities. The review is focused on six key areas of potential optimization: Asset Optimization; Customer Engagement; Sustainability; Procurement, Partnerships and Supply Management; Advance Notification of Events; and Rate Pressure.

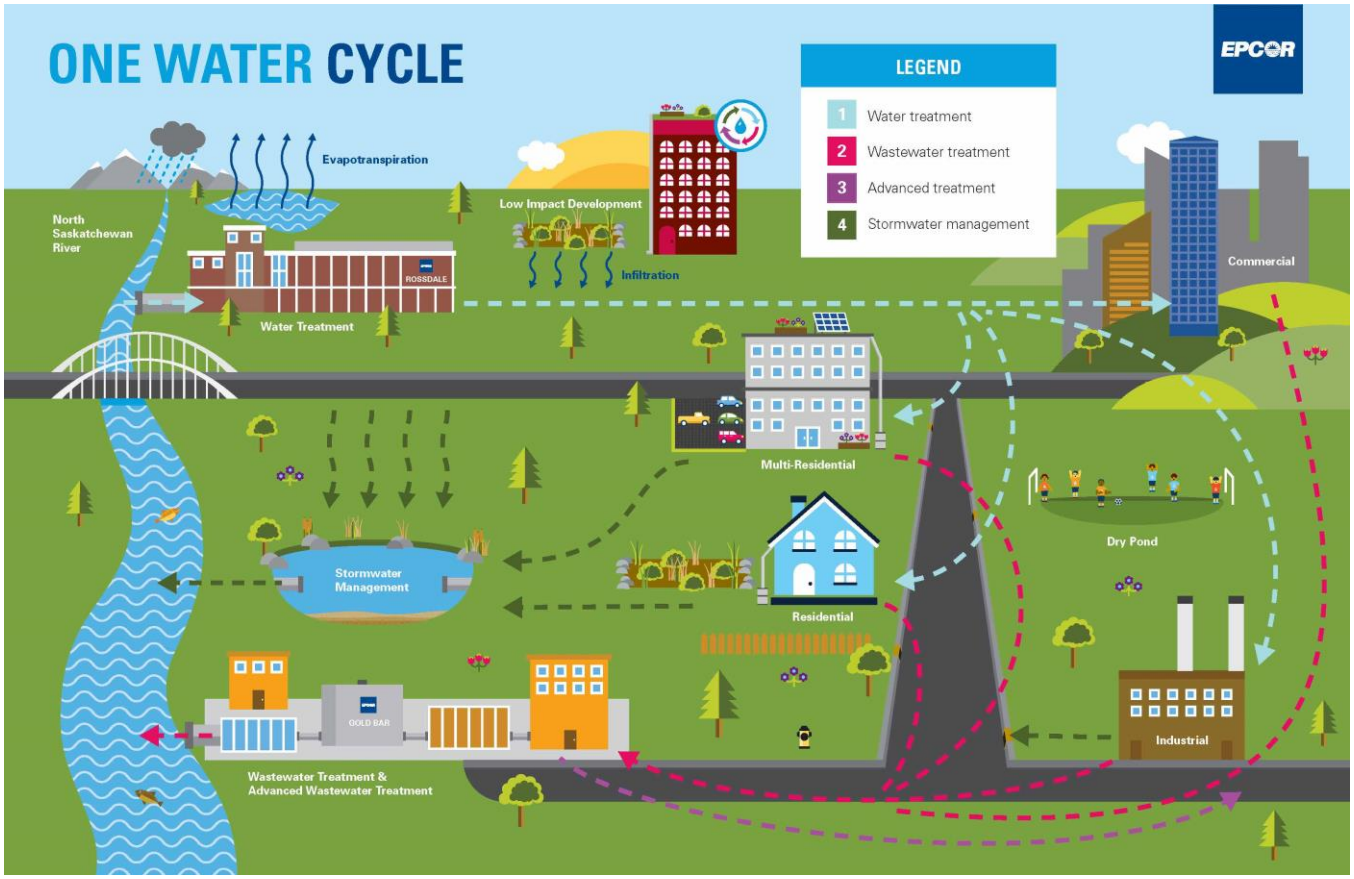
In 2022, the focus will be on two initiatives – "Advanced Notification of Events" – which we are calling situational awareness, and "Partnerships and Supply Management.

7 GROWTH AND FINANCIAL PERFORMANCE

7.1 One water – Continue the alignment of the integrated resource planning activities between the water and drainage utilities.

Water and Wastewater utilities around the world are enhancing their strategic planning by moving to a "One Water" approach to managing the entire Water cycle in their community. The One Water approach has been defined as a holistic approach to sustainable water management

that breaks down the traditional silos within the water utility sector and encourages collaboration between water utilities and other sectors.



With the integration of Drainage Services, EPCOR has taken the opportunity to leverage the One Water techniques to enhance the integrated resource plans that are in place in the different business units within EWSI. In addition, the recent approval of the City of Edmonton City Plan, the Edmonton Regional Municipal Board long range development plans, and the active Climate Change Adaptation initiatives, also support the movement towards a holistic integration of these strategies.

In 2021 and moving into 2022 the following areas will be a focus from a One Water Planning perspective.

i) **Consumption Patterns** – In 2021, the One Water Planning team completed the review of water consumption and sewer generation trends within the Edmonton region. This analysis has resulted in recommendation to lower the design assumptions across all

customer categories to reflect the success of water conservation in the region used for both greenfield and infill develop reducing the overall capital requirements to support growth. Consultations with the development community are underway to update the City Design and Construction Standards and assess the impact for developments in progress to take advantage of the new design assumptions.

ii) **Situational Awareness** – In 2021, the One Water Planning team led the implementation of the situational awareness dashboards for both the Water and Drainage operations. This dashboard integrates the monitoring systems across the utility with the GIS mapping tools available and external weather tracking systems to provide enhanced real time awareness for both the Drainage and Water operational and planning teams. The Stormwater Integrated Resource Plan (SIRP) and Corrosion and Odour Mitigation (CORe) Strategy program monitoring is also supported by this new tool. As EPCOR continues to explore the Utility of the Future (described previously) these tools are expected to continue to evolve.

iii) **SanIRP/ SSSF/ Future Wastewater Plants Expansions –** The Sanitary IRP (SanIRP) is currently in development within the One Water Planning team and is expected to have the first consolidated report available by the end of 2022. The SanIRP development is leveraging the consumption analysis mentioned above as well as the Inflow/Infiltration strategies prioritized in SIRP to reassess the large trunk network requirements considering CORe objectives and alignment with the City plan for growth in the region. The team is also working closely with the City of Edmonton and Urban Development Institute (UDI) Sanitary Servicing Strategy Fund (SSSF) committees as the movement to an IRP approach will impact the size and timing for the trunk segments funded through the SSSF development fees.

iv) **Growth Strategies for City and Region** – Plan Edmonton is targeting an additional 1 million population by 2065 with 1/3 to be through infill development. One Water Planning, in conjunction with Water (Distribution and Transmission) D&T and EPCOR Distribution &. Transmission Inc. (EDTI), has been collaborating with the City of Edmonton planning groups as they implement City Plan, update their infill strategies and update the zoning bylaws of the City. In 2021, the EPCOR groups participated in the priority nodes and corridors infrastructure needs assessments and the district planning pilot area assessments. Through this analysis the a number of infrastructure upgrades including new water and sewer pipes, new hydrants and opportunities for green

infrastructure and additional water conservation were identified to reduce overall costs to support the City Plan. EPCOR continues to work with City Planning to assess opportunities for targeted investments in the priority nodes and corridors. EPCOR is also supporting the region through analysis of the impacts on the Edmonton water system to support the Bremner growth node in County of Strathcona.

7.2 Deliver in line with the approved PBR

Water Services and Drainage Services are regulated by the City of Edmonton through a form of Performance Based Regulation (PBR).

The 2022-2024 PBR Applications for Drainage and Gold Bar, and the 2022-2026 PBR Application for Water were approved by Edmonton City Council on August 30, 2021. The approved rate and bylaw changes will come into effect April 1, 2022. The initiatives laid out in the 2022 Annual Plan align to or support the commitments laid out in those applications. These include infrastructure investment to ensure a robust, safe and reliable system, preparing for population growth within the city of Edmonton and achieving approved performance metrics.

After the approval of the PBR applications and associated bylaws, EWSI has the obligation to provide on-going reporting to City Council and the Utility Committee to facilitate their role as regulatory and to ensure that Utility Committee can exercise oversight of the execution of plans and projects defined within the PBR applications. In early February 2022, EWSI proposed a reporting framework and timeframe which would form the basis of future Utility Committee reporting for all EWSI entities. By establishing a standardized approach and timeframe, the form, adequacy and frequency of reporting could be confirmed.

The reporting framework, and the level of reporting provided, is intended to ensure transparency to operational and financial performance. Moreover, a formalized, structured approach has proven to facilitate a consistent and timely provision of information to allow all stakeholders to be aware of when specific information will be presented and discussed. The Reporting Framework is summarized as follows:

Report	Focus	Timeframe
PBR Application	• Provides the basis upon which Council approves rates and terms of service • Provides the baseline for all other reporting during the term	• Water Services (2022-2026) • Wastewater Treatment (2022-2024) • Drainage Services (2022-2024)
PBR Progress Report	• Detailed update of financial performance capital projects, metrics and operational initiatives	• 1 year – calendar year • Presented mid-year for the previous year
Utility Committee Motions	• EWSI's formal response to Utility Committee motions	• Based on EWSI operational requirements or as directed by Utility Committee
Annual Operational Plan	• Overview of the significant operational initiatives and activities planned for the year	• 1 year – calendar year • Presented in February (March in 2022)
PBR Application – Preparatory Initiatives	• Analysis and review of proposed structural changes to the PBR regulatory framework or its central components	• Based on EWSI operational requirements or as directed by Utility Committee
Initiative Specific Reporting	• Detailed plans or updates on major initiatives or responses to Utility Committee Requests (e.g. SIRP)	• Based on EWSI operational requirements or as directed by Utility Committee

The Reporting Framework is based on the premise that the PBR Application is the foundation upon which all other reporting is developed. As the PBR Applications are presented and approved only once every 5 (or 3) years, the Reporting Framework is structured with a series of annual reports which would provide more tactical plans and accomplishments based on the Application. The annual reporting consists of an Annual Operational Plan for a given year, and a comprehensive review of results achieved presented as part of the Annual PBR Progress Report. This PBR Progress Report is presented mid year and covers the previous calendar year's performance. The framework also allows specific detailed reporting and updates of significant initiatives or responses to Utility Committee motions or requests. This type of reporting is not based on a predefined schedule as it is dependent on the nature and circumstances of each initiative.

The reporting framework will be used as the basis of reporting for 2022.

PART TWO: WATER SERVICES - SPECIFIC INITIATIVES

8 OVERVIEW

2022 initiatives specific to Water Services are summarized below.

8.1 Customer Service

- Improve development processes and communication with City of Edmonton, UDI and IDEA.
- Foster partnerships with Indigenous neighbors, including Enoch Cree Nation and the Metis Nation of Alberta.
- Improve operational coordination with the Regional Water Customer Group (RWCG) customers.
- Develop a strategy for additional communications around water main breaks and outages.

8.2 Public Health and the Environment

- Execute the Enhanced Lead Mitigation Strategy in Edmonton and rollout to other communities.
- Complete the E.L. Smith Solar Project and Smart Grid System.
- Conform to ISO 14001 standards across all Water Canada sites.

8.3 Employee and Public Safety

- Conform to ISO 45001 standards across all Water Canada sites.

8.4 Employee Development

- Provide employees with the tools and information to manage their careers

8.5 Operational Performance

- Conduct an energy review across all areas to reduce costs and increase efficiency.
- Build a data-driven Asset Management culture; continue to develop a standardized approach to Asset Management by conforming to ISO 55000.
- Integrate Water and Wastewater Treatment laboratories for increased efficiency.
- Optimize meter reading function through introduction of AMI.
- Develop and implement a biosolids strategy.

8.6 Growth and Financial Performance

- Improve business sustainability

9 CUSTOMER SERVICE

9.1 Improve development processes and communication with City of Edmonton, UDI and IDEA.

Water D&T works closely with developers and City of Edmonton planners to address developers' needs and concerns. Infill development is represented by the Infill Development in Edmonton Association (IDEA). Greenfield development is represented by UDI. Continued coordination with the City of Edmonton and these developer groups provides Water Services the opportunity to serve its customers better through improved planning of work, management of construction impacts and realization of cost efficiencies. Water D&T has established various touchpoints with developer's vis-a-vis development processes, including pre-application meetings, land development applications, biweekly meetings with development engineering consultants, Servicing Agreements, and water servicing.

In particular, Water Services is focusing on improving the consistency of standards enforcement during inspections, coordinating efforts with the City of Edmonton Roadways department to ensure construction and maintenance activities have as minimal an impact to traffic flow as possible, reopening affected areas in a timely manner, and realizing road paving synergies in neighborhood rehabilitation and alley paving programs. EPCOR Utilities (water, power, and drainage) is also working with the City of Edmonton LRT group to discuss scope and schedule requirements for utility relocates needed for the upcoming Valley Line West and Metro North West Line route realignments.

In 2022 and beyond, Water D&T will continue to work to:

- Maintain positive and collaborative interactions with the City of Edmonton regarding surface restoration, traffic disruptions and development permitting processes;
- Continue / implement regular meetings with the City of Edmonton, UDI and IDEA to:
  - develop solutions to ongoing development-related challenges;
  - communicate results of the Infill Cost Share pilot project so that funding for PBR5 can be finalized in the upcoming PBR application;
  - Continue to engage UDI senior leadership through the development of a white paper that reviews regulatory information; infrastructure investment principles, and current / alternative funding approaches; and
- Improve overall processes and ensure proactive and timely communication with all interested parties. Programs under specific review in 2022 include:
  - Inspections Process
  - Developer and Industry Relationship Management

- Infill Water & Sewer Services

9.2 Foster partnerships with Indigenous neighbors, including Enoch Cree Nation and the Metis Nation of Alberta

Water Services will be working to continue to advance the principles and joint initiatives stated in the memorandum of understanding signed with Enoch Cree Nation in 2020. This includes finalizing an Indigenous name for the E.L. Smith water treatment plant solar farm site, a place that was former reserve lands for the Nation, and continuing our journey together exploring and showcasing the rich Indigenous history of the lands and waters where EPCOR operates.

Water Services, on behalf of EPCOR Utilities Inc., seeks to finalize a high-level relationship agreement with the Metis Nation of Alberta (MNA) before the end of 2022. Following engagement at the E.L. Smith water treatment plant with the MNA in 2021, discussions led to a request to begin working on how EPCOR Utilities Inc. can formalize its relationship with the MNA in order to ensure transparent communication and regular collaboration of mutual benefit.

9.3 Improve operational coordination with the Regional Water Customer Group (RWCG) customers.

The Edmonton water system operated by EPCOR and the water system in the surrounding region, which is operated by seven regional water service commissions (represented by the RWCG), is intended to operate as an integrated network. Decisions and changes made in one part of the network may result in an effect in another part of the network. This strategic initiative will further improve communication, planning and coordination of operational activities, and unplanned events, to ensure an effective and coordinated response to planned or unplanned events.

Water Services has had success coordinating communication strategies for emergency demand measures that can be instituted when plant shutdowns or main breaks interrupt service to regional water customers. A similar approach is now being taken when coordinating operational information between WTP Operations, Water D&T and the RWCG. A secure site has been set up where information such as reservoir levels, pressure data and other important operational information can be shared between all parties, which will improve Water Services' ability to service the regional customers and provide more up to date information of the status of both systems. Continued coordination with the RWCG provides opportunities to plan work, manage emergent work, and realize cost efficiencies for both parties.

9.4 Develop a strategy for additional communications for water main breaks and outages.

Currently planned outages are communicated by project managers or contractors in advance of an outage. Notice is typically hand delivered to each property. In the case of an unplanned

outage, notice is provided where possible in person or by leaving a notification at the customer's premise. Outage information is also available on epcor.com on an outage map.

To further improve outage communication, Water D&T will review the process for updating the outage map on epcor.com. This map will be updated to provide more real time information to customers. Water D&T and Public & Government Affairs will also evaluate additional means to notify customers of unplanned outages and updates.

10 PUBLIC HEALTH AND THE ENVIRONMENT

10.1 Execute the Enhanced Lead mitigation strategy in Edmonton and rollout to other communities.

In March 2019, Health Canada revised the Canadian Drinking Water Quality Guideline for lead in drinking water. The Maximum Acceptable Concentration for lead in drinking water was lowered from 10 µg/L to 5 µg/L and the point of compliance was moved to the tap. In late August 2019, Alberta Environment and Parks released guidance that requires municipal drinking water systems in Alberta to develop lead management plans within 5 years. Lead is usually found in drinking water as a result of leaching from either a lead water service line or from in-premise plumbing system components containing lead. About 1.4% of homes in Edmonton, mainly built prior to 1960, still have a water service line that is lead. The lead service line is comprised of two sections; the utility owned section that runs from the main to the property line and the privately-owned section that runs from the property line to the meter within the building. To be effective, both sections of the service line must be replaced from "main to meter".

On July 16, 2019, Water Services received approval from the City of Edmonton for a non-routine adjustment to initiate an Enhanced Lead Mitigation Strategy. The broad goals of this new program are to reduce public health risk due to exposure to lead in drinking water at the tap, proactively meet the intent of the proposed new Health Canada Guideline and be prepared for further lead regulations in 5 years. The goals of the Lead Mitigation Strategy will be achieved by:

- Addition of orthophosphate to the Edmonton drinking water at both WTPs to reduce lead leaching from all sources (lead service lines and plumbing);
- Accelerated replacement of high priority lead service lines where the lead concentration are expected to exceed the new guideline after orthophosphate addition;
- Elimination of the practice of partial lead service line replacements (i.e. utility-owned section only) by full utility funding of private portion replacements. This will apply to all lead service line replacements including high priority replacements and replacements during water main renewal work and emergency repairs; and.

- An enhanced customer care program that will provide an interim solution for lead exposure for customers with lead service lines until the corrosion control is implemented at the WTP's or the lead service line is replaced.

Design of the orthophosphate dosing systems at Rossdale and E.L. Smith WTPs continued in 2020 and 2021. Construction will be complete and addition of orthophosphate will begin in late 2022. Alberta Environment and Parks provided formal approval to add orthophosphate to the Edmonton water in early 2020 after receiving an environmental impact assessment from EPCOR. Broader communication plans and messaging related to the implementation of orthophosphate for our customers, specifically: residential; institutional, commercial, and industrial, as well as the RWCG and the Alberta Capital Region Wastewater Commission will continue in 2022. A long-term monitoring program starting in 2022 will be implemented to optimize and ensure the effectiveness of orthophosphate dosing across Edmonton.

After initial delays due to the impact of COVID-19 in early 2020, the program for full lead service line replacements (from "main to meter") started in mid-2020 focused on high priority lead service lines and those lead service lines associated with water main renewal projects. The goal is to complete the remaining 65 high priority lead service lines in 2022, essentially completing the accelerated program to replace the original 325 high priority lead service lines identified in the 2019 Enhanced Lead Mitigation Strategy.

10.2 Complete the E.L. Smith Solar project and Smart grid system.

In the 2017-2021 Performance Based Rate Application, Water Services included a Green Power Initiative which commits Water Services to obtaining approximately 10 per cent of its energy consumption from locally produced renewable sources starting in 2018. The inclusion of this initiative was to ensure alignment with the City of Edmonton's goals to become a sustainable and resilient city, to reduce Edmonton's greenhouse gas emissions through the development of new renewable energy projects in the Edmonton Region.

Based on the results of analyses of potential alternatives for achieving this green power initiative, Water Services determined that a solar project on the E.L. Smith site is the optimal approach. The E.L. Smith Solar Project is a solar farm that will provide the majority of its output directly to WTP operations. The original rate capacity of the solar farm was 12 MWac, but in January 2022, the AUC approved the capacity increase to 13.6 MWac based on the increased capacity of procured electrical equipment.

In conjunction with the E.L. Smith Solar project, a Smart Grid System which combines the solar power generation with a 4 MW / 9 MWh battery energy storage and intelligent management controls with a primary objective of reducing greenhouse gas emissions. The intelligent management controls are implemented in a "behind the meter" micro grid system at the E.L.

Smith water treatment plant site. The system is also key to exploring the potential of smart grids for increasing hosting capacity of renewables such as solar, stacked applications of storage, and the integration of a behind the meter microgrid into the EDTI electric distribution system with full visibility.

This project has received Natural Resources Canada funding contributions based on the entire scope of the solar farm, battery and smart grid project. The Smart Grid System includes three main components which will be implemented as separate capital projects within EPCOR. The solar and battery projects will be EWSI assets while the Distributed Energy Resource Management System will be an EDTI asset when implemented.

The project received final approval in October 2020 after considerable public and stakeholder consultation. The development permit from the City of Edmonton was received in May 2021 and construction commenced in June 2021. The pandemic, several worldwide storm events and supply chain issues have impacted the project schedule. The solar farm and Smart Grid System are planned to be in service in Q3 2022.

10.3 Conform to ISO 14001 across all Water Canada sites.

As part of its environmental regulatory requirements, EPCOR has obtained registration to the internationally recognized ISO 14001 environmental management system standard in its core Edmonton operations. The key benefit to an organization obtaining registration to ISO 14001 is to demonstrate to our customers, clients and regulators that EPCOR manages its environmental risks and seizes opportunities for improvement in environmental performance

Examples of planned continual improvement areas for 2022 include, enhancing the Climate Change Adaptation / River Flooding Resiliency Plan as well as progressing the E.L. Smith Solar Project and Smart Grid System.

11 EMPLOYEE AND PUBLIC SAFETY

11.1 Conform to ISO 45001 standards across all Water Canada sites.

Management systems require good document management, procedures and internal and external communication plans that set clear objectives, targets, programs and plans. Having this methodology consistent across Water Services has the benefit of improved health and safety performance.

For its core Edmonton operations, Water Services has obtained registration to ISO 45001 safety management system to support continued safety performance improvement.

There are several key benefits to an organization obtaining conformance to ISO 45001, these include demonstrating to our customers, clients and regulators that EWSI manages its health and safety risks, provides a level of due diligence on the management if safety incidents and may offer a competitive advantage to the organization when seeking new business opportunities.

12 EMPLOYEE DEVELOPMENT

12.1 Provide employees with the tools and information to manage their careers

There will be a continued focus on the development of our employees for the future through empowerment. Employees will be provided with the tools and information required to proactively manage their careers.

In 2022, Water Services will offer two career development opportunities for employees as per the Employee Engagement Action Plan.

13 OPERATIONAL PERFORMANCE

13.1 Conduct an energy efficiency review across all areas to reduce costs and increase efficiency.

Treating and delivering water to customers in Edmonton consumes a large amount of energy. While the water treatment process tends to be energy intensive, the most significant amount of energy is used in the delivery processes, including pumping water from the treatment plants to the consumers. EWSI has historically implemented a number of energy efficiency initiatives which focus on improving pumping efficiency at the water treatment plants, the field reservoirs, and the booster stations. The City of Edmonton has also defined energy goals and EWSI needs to ensure alignment.

This initiative will review energy utilization across all areas of the business with the intent of reducing overall energy use through increased efficiency.

13.2 Build a data-driven Asset Management culture; continue to develop a standardized approach to Asset Management by conforming to ISO 55000.

The Asset Management Framework outlines the approach, processes and tools required to ensure Water Services has accurate and comprehensive information about our assets to meet our goals. The framework aims to provide consistent mechanisms to identify the costs and risks associated with operating and maintaining assets, in addition to standardizing the approach to investing in our assets to manage both cost and risk.

The Asset Management Methods Office has expanded and adapted the current Asset Management Framework to allow greater consistency in how it is applied across various Business Units of Water Services by aligning with the international standard for asset management, ISO 55000. The benefits of this alignment include more efficient and effective implementation of Asset Management across Water Services, which enhances asset reliability as well as risk management, allowing us to provide reliable service in the most cost effective manner. . The focus for 2022 will be on updating Water Canada's Strategic Asset Management Plan to detail asset management objectives and activities for all areas, as well as updating Asset Management Plans across the business, ensuring accurate and complete life-cycle planning.

13.3 Integrate Water and Wastewater Treatment laboratories for increased efficiency.

EWSI continues to work on consolidating the wastewater lab at the WWTP and the water lab at Rossdale's Water Excellence Lab Building. Conceptual design work has commenced to rethink and reimagine a more efficient and integrated laboratory space and organizational structure. Co-location will facilitate synergies between the two laboratories by aligning testing functions under one roof, which will produce operational efficiencies, ensure efficacy of testing quality, and enhance employee engagement—ultimately creating a one-lab mentality.

To date a functional testing program review and preliminary design were completed in 2021. In 2022 detailed design will be initiated. The objective is to consolidate into a single lab by the end of 2024.

13.4 Optimize meter reading function through introduction of AMI.

The meter reading function will be optimized with the implementation of Advance Metering Infrastructure (AMI) deployment. AMI automatically collects consumption, diagnostic and status data from water meters and transfers that data to a central database for billing, troubleshooting and other uses. The data forms the basis of customer billing for water, wastewater and drainage customers.

In 2022, Water Services is completing all planning requirements in order to start installing AMI devices in 2023.

13.5 Develop and implement a biosolids strategy.

Between approximately 25,000 and 30,000 dry tonnes of digested biosolids are produced by the Gold Bar and Alberta Capital Region wastewater treatment facilities annually. Since the 1970's, biosolids have been sent to the Clover Bar lagoons for additional processing and disposal, mostly through composting, landfilling and agricultural land application. Over time, the inventory of biosolids in the lagoons have increased as disposal has not met production. Additionally, the City of Edmonton made a decision to close down composting operations, due to the integrity of the

facility. EPCOR contracts with the city to dewater a portion of the biosolids in a facility that is tied into the composting facility. It is anticipated that the dewatering facility will cease operation by the end of 2023.

In late 2019, the development of a biosolids management program was started, which builds upon past strategies. The objectives of the program are to continue to find ways to beneficially dispose of biosolids, in a financially and environmentally sustainable manner, while reducing the inventory of biosolids in the Clover Bar lagoons. A detailed long-term strategy will be further developed in 2022, which will include a detailed review of biosolids generation forecasts, regulatory and market changes, assessments of emerging technologies and quantification of environmental benefits, including from a GHG perspective.

14 GROWTH and FINANCIAL PERFORMANCE

(See common initiatives.)

PART THREE: DRAINAGE SERVICES – SPECIFIC INITIATIVES

15 OVERVIEW

2022 initiatives specific to Drainage Services are summarized below.

15.1 Customer Service

- Build programs, processes and training to provide a seamless customer experience.
- Enhance relationship with the City of Edmonton to collaboratively deliver services in the best interest of the customer.
- Execute the Corrosion and Odour Mitigation Strategy (CORe).
- Execute the Stormwater Integrated Resource Plan (SIRP).

15.2 Public Health and Environment

- Optimize the impact of our operations on the environment and the impact of the environment on our operations.
- Develop culture of environmental leadership.
- Identify and manage emerging environmental risks.

15.3 Employee and Public Safety

- Reduce tolerance towards safety related risks and cultivate a culture of safety.
- Ensure the public safely engages with drainage assets.
- Train staff for competency and confidence.

15.4 Employee Development

- Leverage advancements in technology to support our people and enable continuous improvement.

15.5 Operational Performance

- Identify and manage emerging risks.
- Optimization through a systems-based approach to planning and cross-departmental collaboration.

15.6 Growth and Financial Performance

- Evaluate third party funding model and risks.
- Develop stormwater rate structure.

16 CUSTOMER SERVICE

Drainage Services' customers and stakeholders include residents of Edmonton, business owners, City Council, and different areas of government. Our services, programs and projects directly or indirectly impact these stakeholders. We want to ensure open lines of communication and mutual understanding of our programs and projects. We want to demonstrate how we add value to our customers and stakeholders through five initiatives as follows:

16.1 Build programs, processes and training to provide a seamless customer experience.

We endeavor to be trusted by our customers and stakeholders when engaging with Drainage Services. We strive to engage in collaborative and transparent planning and meeting our commitments to the community. To that end, we will be focusing on the following primary objectives in 2022:

- Ensure a continued decrease in the number of escalations.
- Ensure 85% of customer calls are responded to within 2 business days.

16.2 Enhance relationship with the City of Edmonton to collaboratively deliver services in the best interest of the customer

EPCOR and the City of Edmonton are committed to collaboratively delivering services in the best interest of our customers. To achieve this goal, EPCOR and the City of Edmonton have stood up a multi-tiered information sharing and problem solving framework. EPCOR and the City's leadership team meet quarterly and intermediate managers meet monthly in targeted working groups focused on operations and maintenance, long range planning and growth/development, and capital program delivery. Customers are a key topic in each working group agenda. Each working group has additional initiatives that involve front line leaders working to collaboratively deliver services with minimal impact and maximum benefit to customers. Examples of initiatives at this level include flash flooding emergency response planning.

16.3 Execute the Corrosion and Odour Mitigation Strategy (CORe).

Over the past decade, residents of Edmonton have reported over 10,000 instances of odours related to the sanitary and combined sewer network. To develop a robust strategy to address odour issues, Drainage Services has conducted public consultation, engaged with community members across the City, conducted advanced sewer air monitoring campaigns and expanded its sewer asset inspections. Drainage Services has produced a CORe Strategy that focuses on preventing the formation of H_2S gas, which will reduce community odour impacts and lengthen the life of sewer network assets.

The CORe Strategy was presented to Utility Committee on June 24, 2019. The Strategy was developed using similar principles and approaches to EPCOR's SIRP to determine an optimized mix of operational and capital solutions to reduce corrosion and odour.

The capital projects and operating activities included in the strategy address three focus areas:

1. Prevent the formation of H2S gas in the sewer system
2. Control the release of air from the sewer system, and
3. Adapt the system using real-time monitoring technologies and improved inspection

2022 CORe STRATEGY ACTIONS	
PREVENT	- Continue the design and construction process on the Duggan bypass tunnel. The detailed design was completed in 2021 and contracting for construction is in progress. - Continue to construct access manholes and implement trunk inspection and cleaning activities throughout the City. - Continue to implement rehabilitation projects as deficiencies are identified through the trunk inspection program
OPTIMIZE	- Throughout 2021 H2S monitoring was completed at multiple pump stations along with an assessment for pumping operations and wet well management to understand the specific drivers of odour generation for each location. From this work there is a mix of chemical treatment additions, pump replacements and station configuration changes being implemented in 2022 and beyond to reduce odours in the system
MONITOR	- Continue to purchase additional odour monitoring equipment and explore additional synergies with SIRP Predict theme.
CONTROL	- Continue to modify existing drop structures throughout the City

16.4 Execute the Stormwater Integrated Resource Plan (SIRP).

SIRP, presented to the City of Edmonton Utility Committee and City Council in 2019, is a $1.6 billion system wide integrated approach over the next 20 to 30 years to mitigate flood risk by reducing the health and safety, financial and social risks of flooding with lower overall capital investment than compared to traditional engineering approaches, through the incorporation of green infrastructure and operational programs that support building community resiliency and leveraging advanced technologies to better manage storm water volumes during storm events.

2022 SIRP STRATEGY ACTIONS	
SLOW	- Continue to engage with the City of Edmonton on Phase 2 of the review process for each dry pond with completed conceptual design including Parkdale and Lauderdale in conjunction with the local community consultation activities that occur during this phase of the project - Implementation of LID in conjunction with planned projects with City departments including roadways and parks. LID installation with commercial developments and community leagues is also progressing.
MOVE	- Incorporation of the piping modifications required to accommodate the approved dry ponds identified in the SLOW theme including Kenilworth, Lauderdale and Parkdale.
SECURE	- Continue the implementation of the maintenance program for Inflow/Infiltration reduction through sealing of sanitary/combined sewer lines and manholes in the vicinity of topographical sag locations throughout the City - Develop the overall impacts and implementation plan for automatic gates in river valley outfalls in the Cloverdale neighbourhood - Implementation of the Enhanced Flood Proofing Program and targeted outreach to the higher risk properties to promote backwater valve installations and additional on premise flood proofing activities. Focus area for 2022 will be the River valley neighbourhoods
PREDICT	- Continue the implementation of the SIRP Dashboard project to enable improved situational awareness during flooding events through the consolidation in one interface the various monitoring systems used within the Drainage utility.
RESPOND	- Continue to support emergency response improvements in the higher risk areas, including working with property owners and the City of Edmonton to update emergency response plans for impacted areas.

17 PUBLIC HEALTH and the ENVIRONMENT

Drainage Services is an environmental company that protects the watershed and contributes to a healthy river. Environmental challenges include the impacts of flooding, responding to releases, monitoring the quality of the river water, and ensuring compliance, reporting and adherence to international ISO standards. Drainage Services has defined three strategies to realize this commitment:

17.1 Optimize the impact of our operations on the environment and the impact of the environment on our operations.

As an environmental steward in Edmonton, Drainage Services will minimize our environmental impact in all aspects of our operations. Drainage Services has been working with the City of Edmonton on the climate change initiative through the work on SIRP. The purpose of this plan is to identify work that needs to be accomplished to reduce the impact of stormwater flow on Edmonton residents and businesses. Drainage Services is also participating in the Flood Hazard Identification Program with Alberta Environment and Parks.

In 2022, Drainage Services will work towards ensuring that all environmental work is aligned with projects in Planning and Engineering so that all projects reflect considerations arising from the SIRP, our CORe, and our goals to reduce flow to the river.

17.2 Develop a culture of environmental leadership

Drainage Services continues to work towards further developing behaviours that support environmental stewardship for our customers and the communities we serve. Drainage Services will begin to identify and develop environmental criteria to be included in field activities, infrastructure inspections and related project and construction activity to support our employees in proactive identification of environmental impacts related to collection system construction, maintenance and operations. In 2022, environmental criteria will be developed and incorporated in to five inspection activities, and going forward Drainage Services will continue to develop criteria and associated resources to decrease the environmental impact of our activities.

17.3 Identify and manage emerging environmental risks

In order to further develop and create a culture of environmental leadership through the management of emerging environmental risks Drainage Services will continue to build on associated works related to climate change initiatives with the City of Edmonton:

- Continue to implement SIRP – Secure Inflow /Infiltration strategy, CORe odour monitoring and odour control strategy.
- Update Drainage Design and Construction Standards to incorporate adaptation measures for Urban Wildfire and Ice Accumulation.
- Develop vegetation management plans for at risk Drainage Services infrastructure to prevent impact from Urban Wildfire and Ice Accumulation.

18 EMPLOYEE and PUBLIC SAFETY

EPCOR puts safety first in everything we do and Drainage Services has emphasized this approach across its operations. We will ensure that employees and contractors have the required training

and support to ensure safety of everyone on the team. We will focus on providing strong safety leadership and improving our awareness of hazards and risks. In order to achieve our safety objective, we are focusing on four strategies.

18.1 Reduce tolerance towards safety related risks.

In order to reduce our tolerance towards safety related risks, Drainage Services is committed to developing appropriate plans and programs in order to shift our attitude about safety and the achievability of zero injuries. In order to achieve this, we have established the following objectives:

- develop customized safe work plans for each unique work area;
- implement a new Contractor Management Program including a framework and guidelines for managing prime contractor accountabilities;
- Analyze the Drainage Services risk register to identify and mitigate tasks with high residual risk;
- Explore technology and alternate work methods to eliminate or mitigate high risk activities;
- Contact all high risk properties identified in Stormwater Integrated Resource Plan.
- Reduce customer and community health and safety risk by completing SIRP ERPs for high risk basins.

18.2 Ensure the public safely engages with drainage assets

Currently EPCOR owns and operates approximately 240 Stormwater Management Facilities in Edmonton, with the majority being located in areas north of 137 Avenue, west of the Anthony Henday and south of Whitemud Drive. These facilities are primarily viewed as an amenity, a water feature or a pond by homeowners and developers and through the years have drawn customers to use these facilities for recreation. A top priority for EPCOR is to focus on educating the public as to the dangers of these facilities and how they perform an operational function for the overall drainage system. An extensive education campaign, along with physical facility improvements will be undertaken in 2022.

18.3 Cultivate a culture of safety leadership

A culture of safety leadership is required to ensure frontline employees will continue to have a strong focus on safety. Our leadership team will demonstrate employee support by ensuring that incidents are reported accurately within our Event Reporting System, investigations are completed in a timely manner, and learnings are shared with all employees. The main objective is to improve incident reporting throughout all of Drainage Services. Another objective is to have all senior managers and above completing safety training.

- Practice two Emergency Operations Center emergency response drills,
- Conduct 1 business unit wide safety meeting; and
- Use personal stories to connect with people about impacts of health and safety.

18.4 Encourage ownership of safety at all levels.

In addition to safety leadership, we will encourage employee ownership and involvement at all levels. A foundational piece of this will be to ensure that all staff have the skills to identify workplace hazards and implement controls to eliminate them. We will give staff a voice through field involvement in safety initiatives. Key objectives include:

- Continue to focus on hazard recognition and near miss reporting. Near miss reporting is a leading indicator of safety involvement. Reporting provides information and trends and it directly involves employees in the identification of work place hazards.
- Train all people leaders to lead an incident investigation. This includes analyzing root causes and determining the appropriate corrective action. All major incidents investigated by cross functional multi-level team. Ensure Event Report System event fields are populated with data that add value to analytics and trending.

19 EMPLOYEE DEVELOPMENT

19.1 Leverage advancements in technology to support our people and enable continuous improvement

Employee development is a strategically important priority that will ensure a strong supply of skilled workers and leaders in the coming years, and technology will be a critical tool used to drive this initiative.

Key activities scheduled for this upcoming year include the implementation of a digital learning platform to facilitate greater accessibility for learners by enabling any place, any pace and any time learning and the migration to online course delivery for all professional and leadership development products. A new online course for leaders relating to how to engage in effective career conversations will also roll out this year.

Frontline employee development activities will include a career development event that will incorporate virtual and in-person components, new online course delivery related to clarifying roles and accountability, respectful workplaces and continuous improvement and an online career development portal that provides information, resources, occupational profiles, and supplemental videos to assist employees in exploring and mapping out a career path.

20 OPERATIONAL PERFORMANCE

Drainage Services is focusing on the review and improvement of our processes. Continual review of processes, systems and tools will drive efficiencies and optimization. Key strategies include:

20.1 Identify and manage emerging risks.

Through this and previous planning processes, Drainage Services identifies business risks and then formulates/optimizes appropriate mitigation strategies. The on-going objectives include:

A key component of identifying and assessing emerging risks is to be plugged into industry networks. A "lunch and learn" program will be implemented for staff to present on, and share, industry knowledge. Operational excellence initiatives will be pursued that include a rationalization our inventory, rationalization of crew and equipment utilization, and optimization of preventative maintenance programs. The SANIRP will also be initiated, which will establish a risk based plan to address various system issues such as flooding, odour, asset condition and operational issues. An approach to prioritize capital projects will also be developed to manage within our approved PBR envelope.

20.2 Optimization through a systems-based approach to planning and cross-departmental collaboration

Starting in Q4 of 2021, Drainage Services has been undertaking a review of its internal processes in the context of how critical collection and storm water system asset condition assessments and risk rankings drive our ongoing maintenance and capital upgrade programs. This initiative is referred to as the Drainage Services "End to End Process Review". For each critical system asset type, a review of the processes and hand-offs from planning, engineering design, project management, construction and maintenance perspectives are undertaken to ensure there are no gaps and that hand-offs are seamless and transparent. It is anticipated these reviews will be completed by Q4 2022.

21 GROWTH AND FINANCIAL PERFORMANCE

Drainage Services is pursuing efficiencies through process improvement, the implementation of telematics, the development of a construction strategy and the identification of operational synergies with the Water business unit. In addition to these four primary strategies to improve our financial performance, we are also pursing the following initiatives:

21.1 Evaluate third party funding model and risks

Drainage Services has worked with the City of Edmonton Integrated Infrastructure Services department to develop a Cost Sharing Agreement that is used by the LRT Expansion & Renewal

and the Infrastructure Delivery Branches to jointly design and construct Drainage and City Assets using single contracts to engage a design consultant and contractor. This third-party model allows these capital projects to be delivered more efficiently and in a shorter time frame.

Drainage Services has also worked with the City of Edmonton Integrated Infrastructure Services department on a contributed asset model that allows the Infrastructure Delivery Branch to proceed with construction of Drainage Assets under a model using inspection and design criteria to determine the requirement for the asset replacement and a cost recovery model for the asset that is being replaced.

21.2 Develop stormwater rate structure

Prior to the next drainage PBR application, EWSI intends to review and potentially revise the rate structure for stormwater rates. In reviewing rate designs, consideration of both the level of the rates and the structure of the rates. Level refers to the total revenue to be collected from a rate design; while structure refers to how the revenue is collected, or how the customer is ultimately charged. Rate design can be used to achieve a number of goals, but the most paramount is fairness across customers. The rates and the rate structure needs to be based upon a fair allocation of total cost of service among the customer classes.

The current stormwater utility rate design consists of a single rate applied to the product of:

- The area of the property in square metres and, for multiple units sharing a single building, the proportion of the building lot area attributable to each unit;
- The development intensity factor, which measures the portion of lot being used for its intended development. The development intensity factor is set at 1.0, except for those properties where owners demonstrate that they contribute significantly less stormwater runoff per property area to EWSI's land drainage system during rainfalls than other similarly-zone properties through the use of retention/detention ponds or other stormwater best practices.
- The runoff coefficient, which measures the permeability of the lot's surface (i.e., grass versus concrete), based on land zoning. The runoff coefficient ranges from 0.20 (e.g., agricultural zone AG) to 0.95 (e.g., commercial business zone CB2). As point of reference, a single-detached residential home (Zone RF1) has a runoff coefficient of 0.50.

A number of factors, such as the recent SIRP and the associated changes to deal with flooding as well changing home lot sizes, were not considered when the current stormwater rate structure was determined. In addition, the City's Rezoning Bylaw initiative has to be reviewed as it may necessitate adjustments to the runoff coefficients. A review of the current stormwater rate structure is warranted to ensure that these changes are appropriately accounted for and rate payers continue to pay in accordance with their utilization of the stormwater system. This

initiative will require considerable stakeholder engagement to ensure that the proposed rate structure aligns with stakeholder expectations.

Drainage Services had initially contemplated making some changes to the stormwater billing system during the 2022-2024 term (e.g. moving all cemeteries and golf courses into billing). These changes have been place on hold pending the more comprehensive stormwater rate structure review.

PART FOUR: LIST OF ACRONYMS

AMI - Advance Metering Infrastructure

AUC – Alberta Utilities Commission

CORe - Corrosion and Odour Mitigation

DEI – Diversity, Equity and Inclusion

EDTI - EPCOR Distribution &. Transmission Inc.

EWSI – EPCOR Water Services Inc.

IDEA - Infill Development in Edmonton Association

MNA - Metis Nation of Alberta

PBR – Performance Based Regulation

RWCG - Regional Water Customer Group

SANIRP – Sanitary Integrated Resource Plan

SIRP – Stormwater Integrated Resource Plan

SSSF - Sanitary Servicing Strategy Fund

UDI – Urban Development Institute

WTP - water treatment plant

WWTP - Gold Bar Wastewater Treatment Plant

Water D&T - Water Distribution and Transmission