



2019 STRATHMORE PERFORMANCE REPORT

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Strathmore,
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EPCOR has been maintaining the Town of Strathmore's water and wastewater infrastructure for 20 years.

ABOUT US

EPCOR has been providing quality drinking water and essential wastewater services for more than 100 years. We serve more than two million people in over 85 communities and industrial sites across western Canada and the southwest United States.

Our full spectrum of services includes wastewater treatment, water distribution and wastewater and storm water collection. We recently renewed our fixed-price, performance-based utility management agreement with the Town to continue providing services until 2027. The Town sets the utility rates and retains ownership of the water works related assets on behalf of the citizens of Strathmore.

Managing the water and wastewater operations safely, reliably and efficiently requires certified frontline operators, specialized technical experts with in-depth knowledge of water and wastewater processes, and significant capital investment in research and development, as well as tools and technology.

EPCOR has consistently exceeded all operating requirements for the water distribution and wastewater collection and treatment system. We have quickly responded to operational upsets and utilized our utility management professionals and EPCOR's Southern Alberta resources to deliver innovative solutions for the Town of Strathmore.

We are accountable to deliver service that meets key measures for Environment, Customer Care, Safety, Quality Assurance, Operational Excellence and Capital Programs.

This report is part of our commitment to accountability and transparency.

EPCOR AND THE COMMUNITY

Our customers push us to achieve the highest customer standards possible. We understand the importance our customers place on reliable water and wastewater services. It's why we work hard to provide our customers with great service.

Extensive Water Quality Testing

At EPCOR, our employees are proud to deliver safe, clean and great tasting drinking water to the Strathmore community.

We monitor 75 water quality parameters and conduct more than 2,300 tests each year so we can provide our customers with the best drinking water for safety, colour, smell and taste.

Lead in Drinking Water

In March 2019, Health Canada reduced its maximum acceptable concentration (MAC) for lead in drinking water from 10 µg/L (micrograms per Litre) to 5 µg/L. Water quality in Strathmore continues to be safe to drink. The drinking water in Strathmore continues to meet the Health Canada Guideline standards for lead levels while it is in the distribution system prior to entering a residence or business.

In addition to reducing the MAC of lead, the new guideline shifted the point of compliance to the tap of a residence or building. Lead may be found in tap water in homes that have lead pipes on the residence's side or have household plumbing components or fixtures that contain lead.

To ensure we meet the new Guideline and Alberta Environment & Parks' (AEP) requirements, EPCOR and the Town have a plan in place to determine lead levels at the tap of representative single family and multi-residential dwellings. Due to the COVID-19 pandemic, testing will take place between May 1 and September 30, 2021.

Responding to Outages

Our crews work quickly and safely to restore service when an outage occurs. In 2019, EPCOR responded to one water outage and restored service within 24 hours.

Community Engagement

We endeavor to be neighbours of choice wherever we operate by proudly supporting local non-profit and charitable organizations through donations, sponsorships and employee participation in community events.

Last year, we continued to support and participate in the annual Strathmore Canada Day celebration, Emergency Services Pancake Breakfast and Strathmore Stampede. We contributed content to and sponsored the Town's Emergency Guide for residents and participated in the Emergency Preparedness Open House. Our operators also participated in local elementary school classroom programs and conducted tours for post-secondary institutions, as well as for non-profit and industry organizations.

We also ensured residents were notified of annual water main flushing and of the voluntary water reductions in August as a result of the City of Calgary conducting leak detection testing on the East Calgary Regional Water Line, which supplies water to Strathmore. Residents were notified by media releases and local advertising, as well as posts created for the Town's social media channels.

EPCOR also produced educational social media messaging throughout the year to inform customers about ways to conserve and use water more efficiently, as well as actions to protect the utility infrastructure and environment.

Proud Sponsor of Strathmore's New Sports Centre

In 2019, EPCOR was pleased to announce to local media, Mayor and Council our 15-year agreement to sponsor the Strathmore Motor Products Sports Centre. We attended the ribbon cutting ceremony with Mayor, Council and other title sponsors and welcomed attendees with EPCOR foldable, reusable water bottles.

As title sponsor, EPCOR has naming rights to the water stations and shower rooms in the facility. We have developed customized, dynamic messaging for the highly visible and easily accessible EPCOR Water Stations and EPCOR Shower Rooms to continue educating residents on the water cycle, sustainability measures and ways to reduce risk to the system infrastructure.

	2015	2016	2017	2018	2019
% Service Outages restored in <24 hours	100%	100%	100%	100%	100%
Community Events	8	8	8	8	8

EPCOR AND THE ENVIRONMENT

The health of our water supply affects us today and tomorrow. That's why EPCOR goes above and beyond to protect the environment while ensuring future generations have access to clean and safe water.

EPCOR's reputation for transparency and accurate, timely reporting to provincial and federal regulators brings peace of mind to the communities that we serve. In 2019, EPCOR had no contraventions or releases to report to regulators on behalf of the Town of Strathmore.

Attaining ISO 14001:2015 Certification

This past year, EPCOR's Strathmore team achieved a significant certification in our commitment to environmental management. The team attained ISO 14001:2015, which is the international standard developed by the International Organization for Standardization (ISO) for the implementation of an Environmental Management System (EMS). It acts as a comprehensive guide for performance, communication, auditing and review. ISO 14001 provides organizations with the elements of an effective EMS and can be integrated with other management requirements, to assist organizations in achieving environmental and economic goals.

Achieving certification was not part of EPCOR's contractual requirement with the Town of Strathmore. Instead, EPCOR committed to this as part of our efforts to drive continuous improvement, particularly in safety and environmental performance.

To obtain certification, the team had the extensive task of:

- Developing, reviewing and approving Operational Standard Operating Procedures (SOP), Maintenance SOPs, Standard Work Practices and an Environmental Aspects registry.
- Creating an integrated management system for both safety (Certificate of Recognition for Safety) and environmental systems (ISO) and establishing a SharePoint directory that housed all related Health, Safety & Environmental files, as well as all procedures, policies and regulations.

- Producing an ISO training presentation to prepare employees for the auditing interviews. They compiled sample audit questions into eight categories for training and delivered the presentation to staff two to three times. Everyone was eager to participate in the internal ISO training and did a great job during the interviews.
- Meeting regularly with EPCOR's Environmental group in Edmonton. Their support was instrumental in helping Strathmore get through the process so smoothly.

Since achieving certification, the team has noticed an improvement in tracking procedures and documents. They have also improved their onsite recycling program and now order compostable and recyclable products wherever possible.

	2015	2016	2017	2018	2019
Releases	0	0	0	0	0
Contraventions*	0	0	1	0	0
Regulatory Reporting	100%	100%	100%	100%	100%



We complete more than 2,400 tests annually on Strathmore's wastewater effluent.



EPCOR MAINTENANCE AND CAPITAL PROGRAM

Maintenance and capital programs are critical to delivering operational excellence for the water and wastewater systems in Strathmore.

We proactively manage the water and wastewater infrastructure through regular maintenance, evaluations and improvement programs. Capital programs are also identified by EPCOR's subject matter experts and executed to help ensure the utility can meet existing demand while growing to meet future demand.

Completed Capital Projects

Wastewater Treatment Plant UV system replacement – The ultraviolet (UV) system was beyond its useful life and was replaced. The UV system removes the ability of illness-causing microorganisms to reproduce by using lethal doses of UV light. Failure of the UV system could allow harmful bacteria and viruses to remain in the treated water.

Centrifuge Overhaul – This project extended the working life of critical components in the centrifuge, which if left unmaintained would cause the centrifuge to fail. The centrifuge dewateres sludge from the Thickened Waste Activated Sludge (TWAS) and primary clarifier. If failure occurred, repair would carry increased costs, and the unexpected downtime of the centrifuge would carry additional costs to haul the non-dewatered sludge.

Lift Station Condition Assessment

This project involved a condition assessment of six sanitary/storm lift stations. A condition assessment was required to determine the remaining useful life of system components and the estimated costs to replace or upgrade the facilities. As components of lift stations age, there is potential for various components such as pumps, blowers and heaters to breakdown at the lift station and cause damage.

Blower Rebuild

This project replaced an existing blower with a new one at the Wastewater Treatment Plant and repaired the existing one, which is now being used as a shelf spare. This ensured EPCOR has a spare blower in case of an emergency and reduces the potential downtime of an integral part of the treatment process that has no redundancy within the system.

Planned Capital Projects

Strathaven Lift Station Upgrade - The upgrades to the lift station will decrease future breakdowns, such as sewage backups, wet well overflows or damage to the lift station that results in increased operating costs and disruptions to residents.

Lift Station PLC upgrades

The current programmable logic controllers (PLC) at the lift stations are at the end of their life. If the PLCs fail, the entire lift station would need to be operated in manual mode, which would require additional operational assistance to operate the lift station continuously.

Lift Station Radio Communication Upgrades

The radio communication systems of lift stations are at the end of their life and resulting in poor communication performance. This creates the potential for lift stations to malfunction and result in increased operational costs, sewage backups, wet well overflows or disruptions to residents.

Sixth Avenue Water Loop

Looping the water main section along 6th Avenue will reduce complications for operations and maintenance and decrease the impact on water quality.

Bioreactor aeration system upgrades

As components of the aeration system age, there is a potential for breakdown of the aeration system and regulatory approval violations. In addition, end of life components such as membrane disks have reduced oxygen transfer efficiency, reducing the treatment efficiency of bacteria and in turn causing blowers and other components to work harder, reducing the length of their lifecycle. Replacing these key components reduces the risk of the aeration system failing, extends the life of other components and reduces the potential for regulatory approval violations.

We understand the environmental sensitivity of the Bow River and watershed, which is crucial to navigating changes in regulatory approvals. We also have an established emergency response approach with the ability to access additional regional resources for operations, communications and quality assurance.

EPCOR AND OUR EMPLOYEES

Our employees are at the heart of our operations in Strathmore. We are committed to ensuring their safety and providing them with opportunities for professional development.

Making sure our employees and contractors get home safely after work is a top priority for EPCOR.

Achieving Safety Milestones

In 2019, our team in Strathmore marked an important milestone: operating safely for five years without a recordable incident. Every member of the team has had a role to play in maintaining a safe workplace and ensuring everyone went home safely each night. Safety is a continuous process and attaining this milestone was the result of a shared commitment amongst the crew and maintaining a “Mind on Task” outlook so they focus on the task at hand to ensure the day, week, month and year are injury free.

This positive milestone also stems from our continual emphasis on safety training for existing staff, new employees and contractors.

Developing Water Professionals

In 2019, operations employees completed 57 training courses covering 120 training hours on various topics, including Cannabis Awareness, Mental Health, Safe Work Planning, Emergency Response and Arc Flash Prevention, just to name a few.

There were also 1,200 preventative activities carried out, including regular site safety inspections, safe work plans and hazardous energy isolation permits.

To ensure ongoing operational excellence, EPCOR works with our operators to maintain or expand upon their current level of certification. We continue to cross-train operators to provide them with the experience necessary to increase their certification levels in all four water disciplines.

Currently, all 10 operators are certified by AEP, including several operators who have obtained their first certification in 2019.

	2015	2016	2017	2018	2019
Training Hours	207	207	207	207	207
Prevention Activities	36	36	36	36	36
Lost Time Incidents	0	0	0	0	0

EPCOR ADVANTAGE

EPCOR provides the Town with support above and beyond the services performed by our qualified water and wastewater staff in Strathmore. As the largest private utility operator in Alberta, the depth of our expertise stretches beyond basic services.

EPCOR is not a Consultant but an Operator of Choice with a focus to drive the long term value for money, while ensuring the Town’s reputation and assets are upheld, public health is maintained and environmental watersheds are protected.

EPCOR supports the community with value-added programs including stakeholder engagement, community investment, integrated health & safety and supply chain management, among others.

As partners in delivery of essential services to the community, we utilize the critical resources required to ensure that customers in Strathmore are satisfied with their water and wastewater services. A complete look at our specialized resources in Western Canada is shown in the image below.

CORPORATE SUPPORT 10

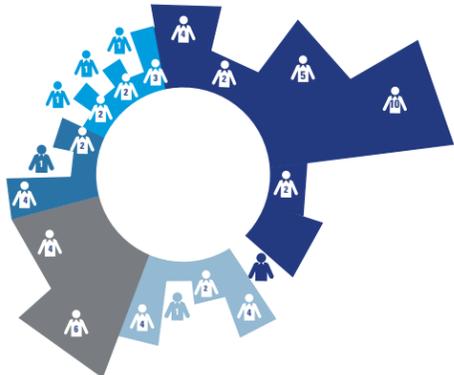
- Legal (1)
- Finance (2)
- Insurance (1)
- Risk Management (2)
- Operational Security (1)
- Human Resources (3)

ENTERPRISE SYSTEMS 7

- IT (4)
- IT Security (1)
- SCADA Control & Automation (2)

WATER QUALITY & ENVIRONMENT 10

- Environmental Services (6)
- Quality Assurance & Laboratory Services (4)



ASSET & PROJECT MANAGEMENT 10

- Asset Management Office (4)
- Project Management Office (2)
- Process & Technical Services (1)
- Distribution & Technical Services (3)

OPERATIONS 28

- Supply Chain (4)
- Senior Management (2)
- Maintenance Oversight (5)
- Operational Health & Safety (10)
- Cross Connection Control (2)
- Training & Development Team (2)
- Public & Government Affairs (3)
- Emergency Management (as needed)

SPECIALIZED SERVICES:

- TOTAL DEDICATED SUPPORT STAFF: **65**
- CERTIFIED WATER OPERATORS: **106**
- WATER PROFESSIONALS: **353**
- EPCOR WATER CANADA STAFF: **810**



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