

Consulting Engineers of Alberta

**2024 Partnering with Industry
Symposium** January 18, 2024

PRESENTERS:

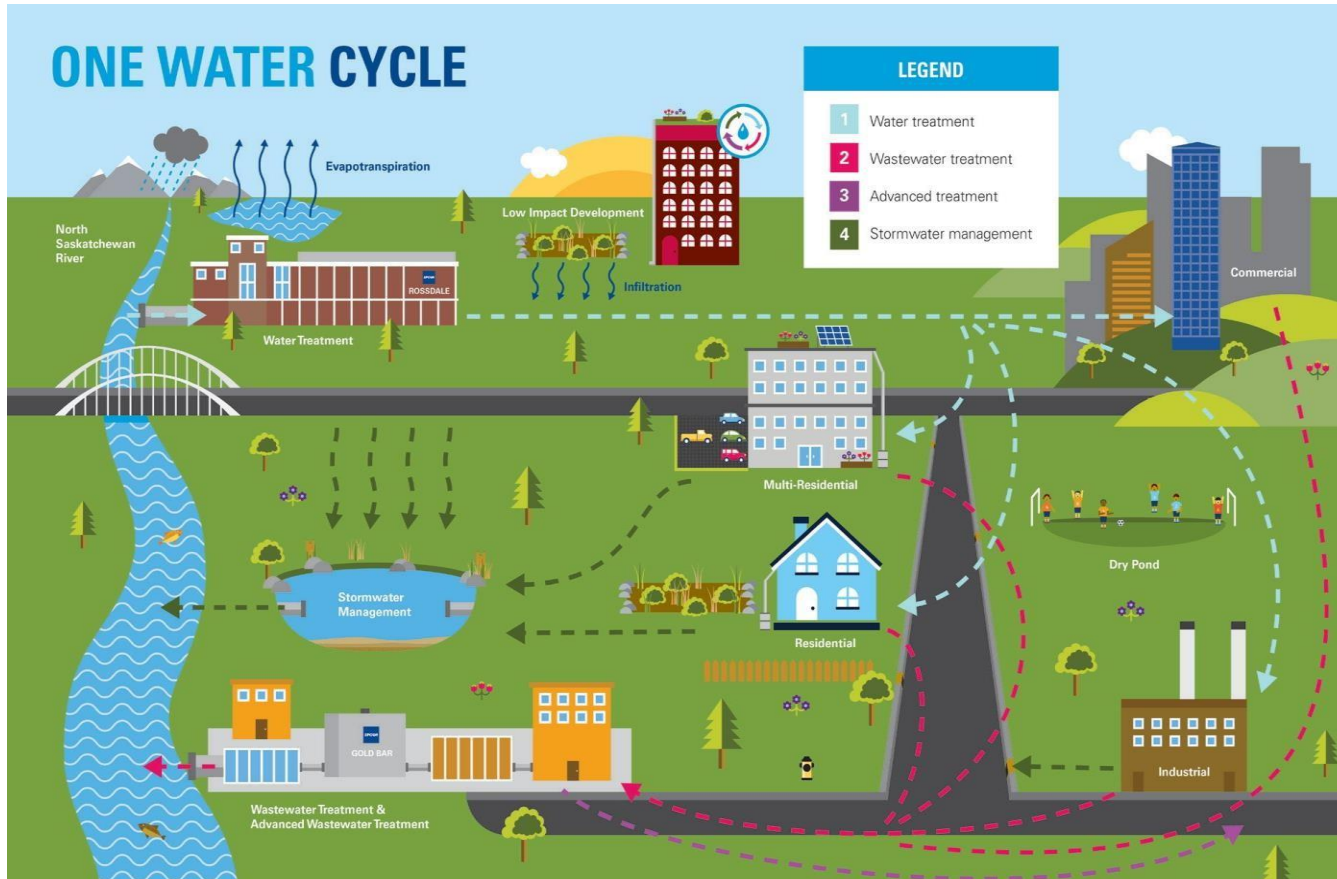
- Craig Bonneville, P.Eng. – Director, Engineering & Technical Services
- Don Hawkes, P.Eng. – Director, Project Management
- Albert Kwan, P.Eng. – Senior Manager, Engineering & Technical Services
- Shahan Shamim – Manager, Procurement

EPCOR



- Independent company, formed in 1996
- Sole Shareholder is City of Edmonton
- Water, Wastewater, Gas and Electric
- Operations in 4 provinces and 3 states

One Water Approach



What is One Water?

An integrated planning and implementation approach to manage finite water resources for long-term resilience and reliability meeting both community and ecosystem needs.

Water/Drainage Integration

Water Services



Plant Operations & Maintenance

System Operations & Maintenance

Functional Organizations

Customer Focus

Planning Centralized

Regulatory Focus

EPCOR Water Services	~1400 Direct and Embedded Employees		
	~1130 Operations	~110 Technical	~160 Support

Water Services Capital Plan

Water Distribution & Transmission

- Rehabilitate or replace existing assets at the end of their useful life. Relocates assets for utility coordination for City projects

WWC Rehabilitation

- Rehabilitate or replace existing assets at the end of their useful life and renew aging sanitary and storm water infrastructure in mature neighbourhoods

Environmental Quality Enhancement

- Address current and upcoming regulatory requirements

Water Treatment Plant (E.L. Smith & Rossdale)

- These projects aim to upgrade existing infrastructure and improve water quality, increase efficiency, and reduce environmental impact.

Flood Mitigation

- SIRP Dry Pond Program, Low Impact Development, Proactive Pipe Relining, Manhole Relining

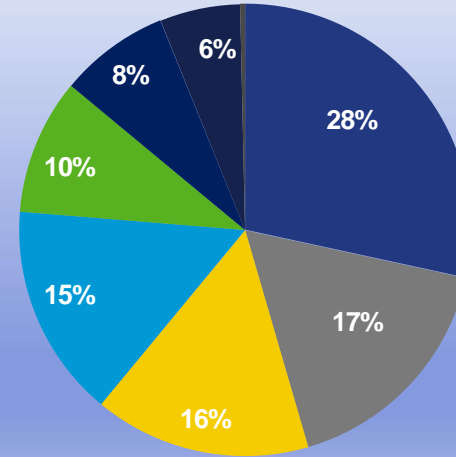
Edmonton Wastewater (Gold Bar)

- Upgrade existing infrastructure and implementing innovative solutions to meet regulatory requirements

WWC Expansion

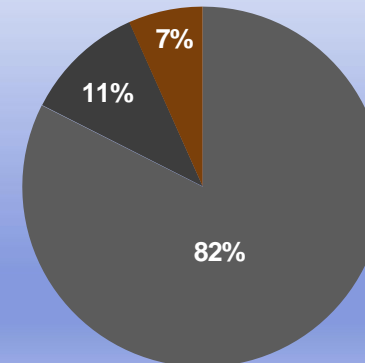
- Build new infrastructure to support growth and customer requirements. As well as build new sanitary trunks within the city to support growth, funded by customer contributions through the SSSF

Capital Plan
\$449M for 2024



Current PBR: 2024

Capital Plan
\$761M for 2025 to 2026



Current PBR: 2025 - 2026



EPCOR Wastewater Treatment Plant 2024-2025 Capital Program



2024-2025 Procurement Opportunities

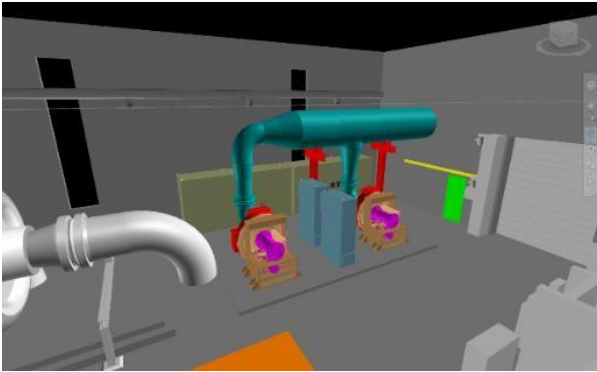
2024 Upcoming Expected Tenders over 1 Million



- **Q2 2024- Utility Pipe Rack**
 - Extending the utility rack network to the west section of the plant in order to facilitate the construction of several upcoming projects
 - Procurement will be design, bid, build
- **Q2 2024- Electrical Building 1 and Electrical Building 2 (EB-1 and EB-2)**
 - Relocation of existing major distribution equipment from high risk areas, including hazardous locations, corrosive locations, and locations which are at increased risk of flooding due to process upsets, into new dedicated electrical buildings designated as EB-1 and EB-2.
 - Both buildings will be designed at the same time with common equipment selected for both. While EB-1 is under construction we will complete EB-2 design.
 - Procurement will be design, bid, build

2024-2025 Procurement Opportunities

2024 Upcoming Expected Tenders over 1 Million



- **Q2 2024- Secondary Aeration Blower Upgrades**

- Addition of two new VFD turbo blowers in Blower Building 2 to serve the secondary aeration system
- Includes new foundations and piping adjustments
- Procurement will be design, bid, build



- **Q1/Q2 2024- Odour Control Improvements**

- To address odour emissions from the diversion structure and primaries 5-8
- Diversion structure will have new collection headers to a collection fan with duct routing over south ave (overhead)
- Primaries 5-8 will have new fabric covers and odour collection
- Will have pre-selection of vendor/equipment
- Procurement will be design, bid, build

2024-2025 Procurement Opportunities

2024 Upcoming Expected Tenders over 1 Million



- **Q1- Blend Tanks 1 and 2**
 - Addition of two new below grade access hatches to Blend Tanks 1 and 2
 - Mechanical valve changes for isolation



- **Q3- Fermenter Gallery Sump and Covers**
 - Relocation of piping out of trenches within the Fermenter Gallery and backfilling trench space

2024-2025 Procurement Opportunities

2024 Upcoming Expected Tenders under 1 Million

- Q1- Membrane Tank Recoating
- Q1- Replace Overhead Doors
- Q1- WAS Retention Tanks
- Q2- Screen Building 2/3 Roof Safety Improvements
- Q4- Site Exterior Lighting Upgrade

2024-2025 Procurement Opportunities

General GBWWTP Info

- Gold Bar Wastewater Treatment Plant will continue to be a busy site in 2024 and 2025
- Construction will have to be mindful of large scale projects impacting normal traffic flow and movement on site
 - Digester 4
 - Tunnel Ventilation Upgrades
 - PE Channel Upgrades
 - Expand Flare
 - EB-1/EB-2, Utility Pipe Rack and Odour Improvements at the west of the plant





EPCOR Wastewater Collection 2024-2025 Capital Program

2024-2025 Procurement Opportunities

Upcoming Expected Tenders for Q1 & Q2 (2024)

- Dry Ponds: Lauderdale (\$24.6M), Parkdale (\$5.6M)
- 2024 Open Cut Renewal Program (\$7M)

2024 Tender Postings

- Cumulative \$82.1M for the remaining postings of 2024, over approx. 19 additional tenders

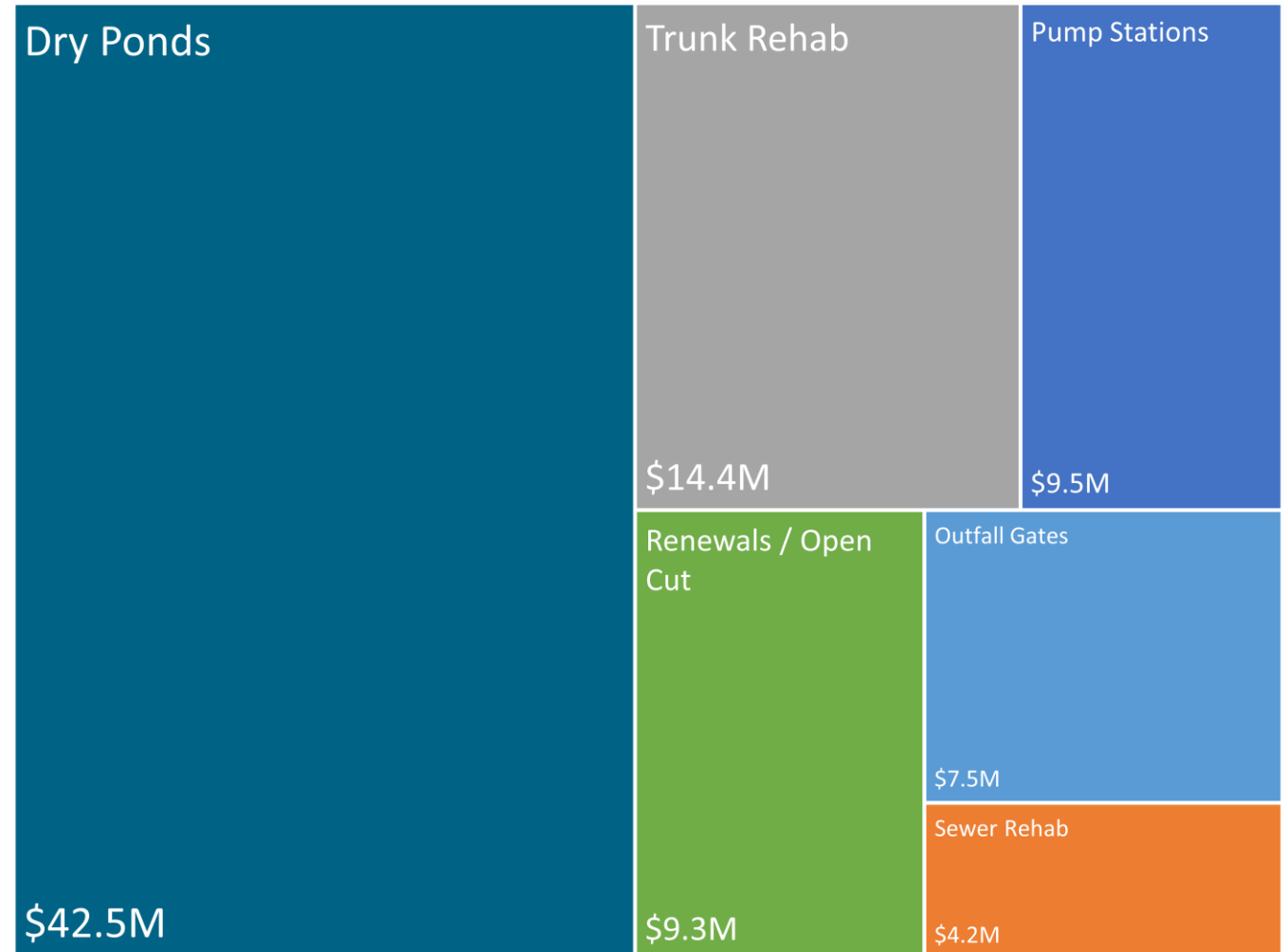
2025 Tender Postings

- Dry Ponds: Cloverdale (\$2.8M), Forest Heights (\$9.5M)
- 2024 Pump Station Enhancements Program (\$850K)
- Combined Trunk 94 Replacement (\$6.8M)
- Other opportunities planned, but not yet scheduled, pending PBR approval

Note – The bulk of the projects will be tendered through relevant MSAs, while Dry Ponds will be tendered publically

CEA Link: [GC CEA Presentation](#)

2024-2025 Procurement Funding





EPCOR Water Treatment Plant EPCOR Water Distribution & Transmission 2024-2025 Capital Program



2024-2025 Procurement Opportunities at Rossdale

- Rossdale Mechanical upgrades (Scopes to be done throughout 2024 and 2025)
 - Replacement of Surge Anticipator Valves at the Highlift Pumphouse
 - Potentially Spray Wash Pump Replacement
 - Check Valve Replacement on the River Crossing at Rossdale
 - Fish Return System addition of piping for debris removal
 - Might look to one contractor for the whole program
- Rossdale Carbon Tank upgrades (Spring/Summer 2024)
 - Pump replacements
 - Flow Meter Installs
 - Pinch Valve Installs
- Rossdale Chemspillupgrades (Spring/Summer 2024)
 - Isolation Valve Replacements



2024-2025 Reservoir Procurement Opportunities



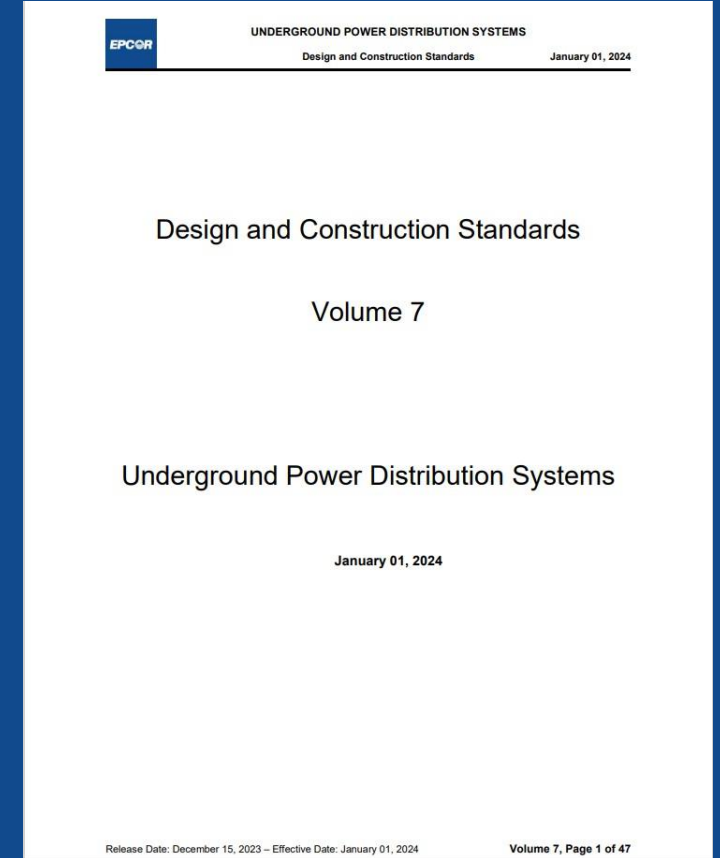
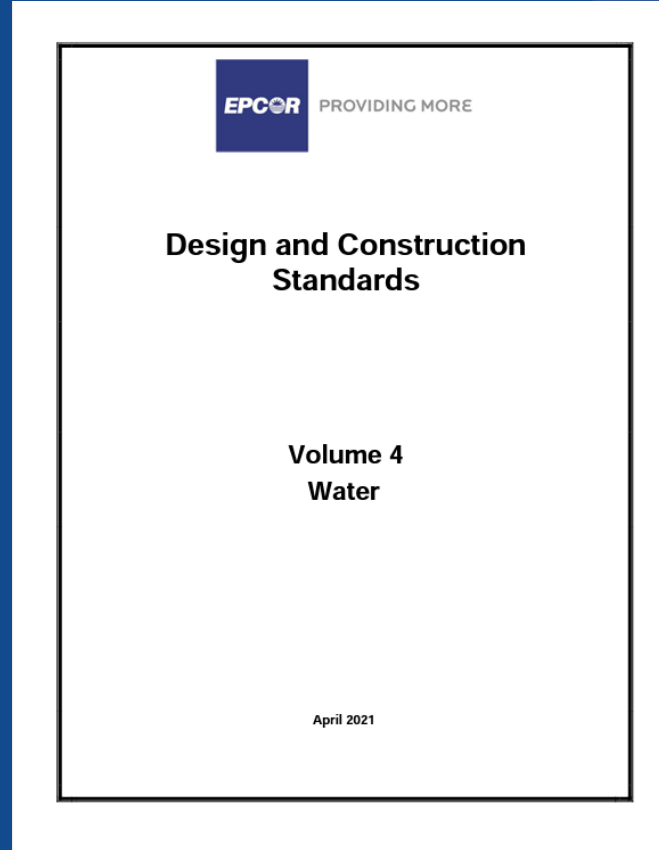
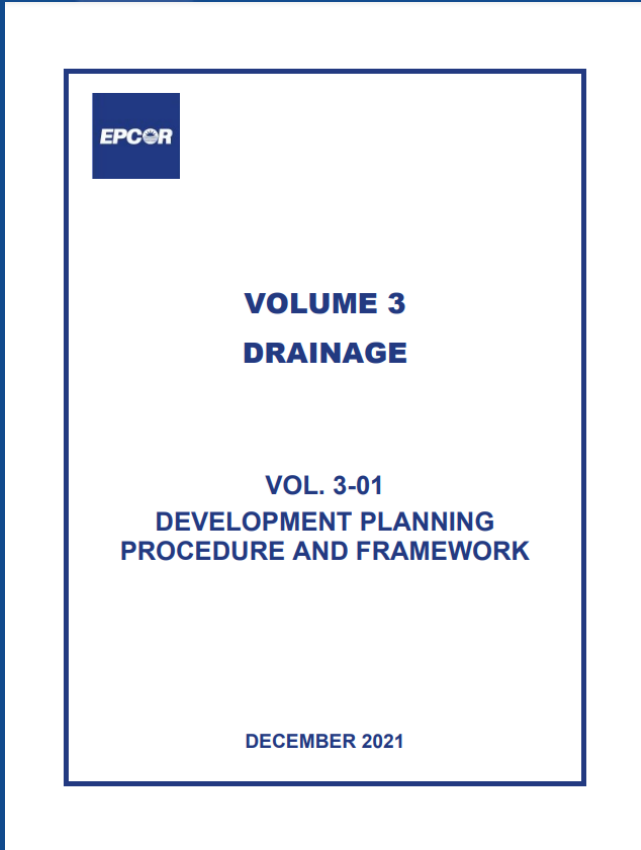
- Emergency Generator Install at the Ormsby Reservoir (Q2 2024)
 - The structure needs to be built
 - Generator installation and electrical feed
- Blackmud Creek Booster Station Electrical Upgrades (Q2 2024-2025)
 - VFD Installs
 - Relocation of the PLC cabinet
 - MCC and breaker replacements
 - Transformer replacement
 - Lighting upgrades
- Reservoir Mechanical Upgrades (Scopes to be done throughout 2024 and 2025)
 - Londonderry Sump Pumps
 - Castle Downs Air Compressor replacement
 - Rosslyn Fill Piping

Design Standards Update

Presenter – Albert Kwan

City Design and Construction Standards

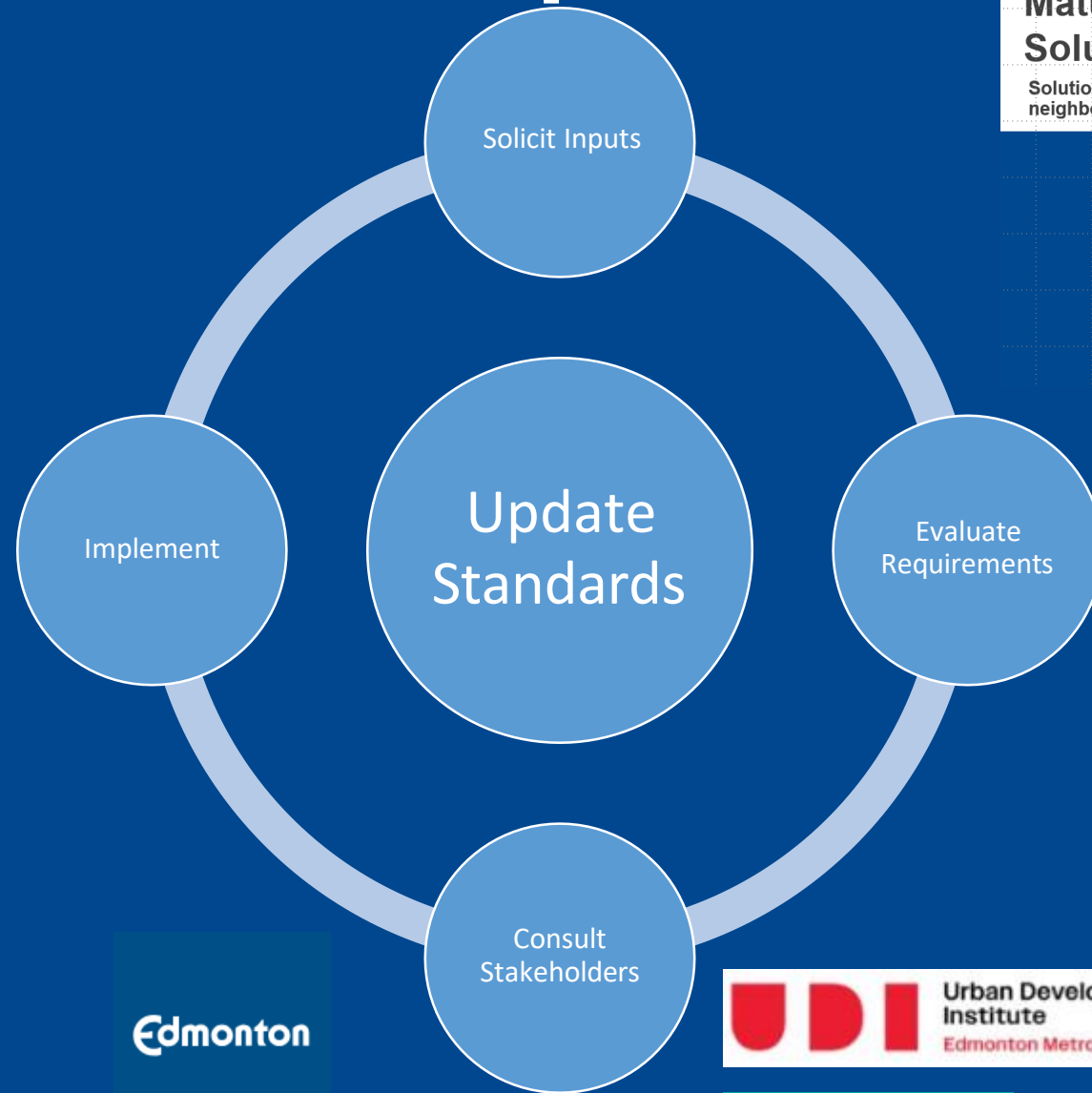
EPCOR manages:
Volume 3 – Drainage
Volume 4 – Water
Volume 7 – Power



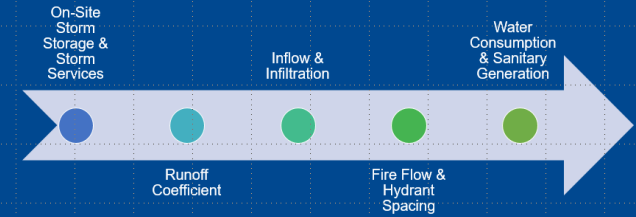
EPCOR Water Services manages Volumes 3 and 4
EPCOR Distribution and Transmission manages Volume 7

Water Cycle Standards Update Process

- Align process with City of Edmonton Standards Review & Update Committee
- Volume 3
 - Major updates every 5 years
 - Minor updates every 1-2 years
- Volume 4
 - Trend was every 4 years
 - Separate into sub-sections
 - Goal is to update annually or couple of years



Maturity of Analysis and Modernization Solutions
 Solutions must work for all development scales - single parcel, block, neighbourhood and area



Addenda to Volumes 3 & 4

Volume 3

- Sub-Section 3-02

#1: Update to Section 5.0 LID Facility Design

#2: ZBR Runoff Coefficient Update

- Sub-Section 3-03

#1: ZBR Consumption/Generation Update

Volume 4

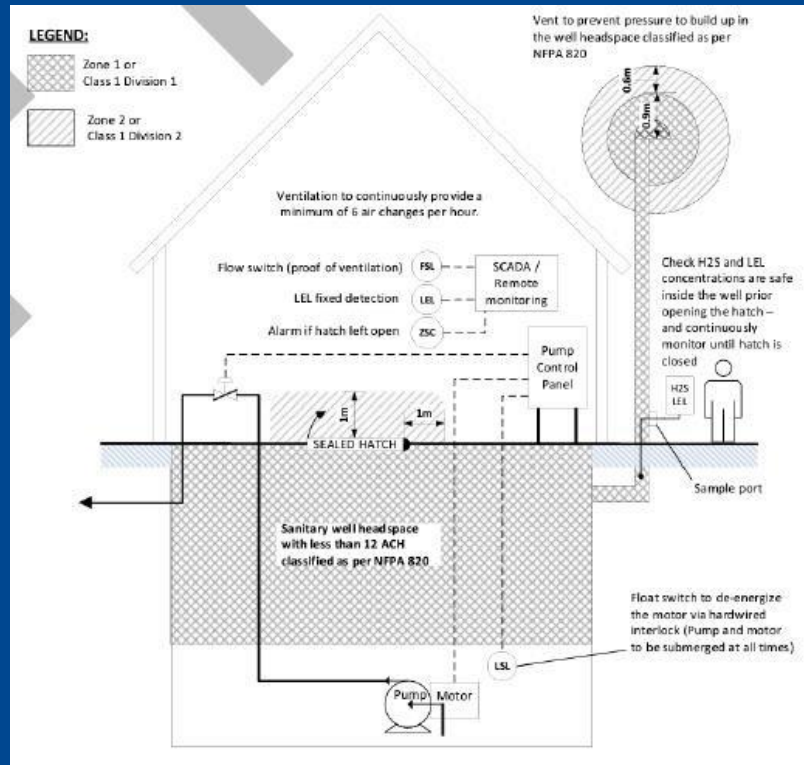
#1: ZBR Fire Flow Updates

Current Section:	Changes:										
1.12.4: Table 1.3	Updated Fire Flow based on Zoning: <table border="1"><thead><tr><th>Parameter</th><th>Value</th></tr></thead><tbody><tr><td>Fire Flow for RS, RSF, RR</td><td>100 L/s</td></tr><tr><td>Fire Flow for RSM, MUN, CN, CG, CB, IM, A, PS, PSN, PU, UF</td><td>180 L/s</td></tr><tr><td>Fire Flow for RM, RL, MU, BE, IH, UI, AJ</td><td>300 L/s</td></tr><tr><td>Fire Flow for NA</td><td>33 L/s</td></tr></tbody></table>	Parameter	Value	Fire Flow for RS, RSF, RR	100 L/s	Fire Flow for RSM, MUN, CN, CG, CB, IM, A, PS, PSN, PU, UF	180 L/s	Fire Flow for RM, RL, MU, BE, IH, UI, AJ	300 L/s	Fire Flow for NA	33 L/s
Parameter	Value										
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Fire Flow for RM, RL, MU, BE, IH, UI, AJ	300 L/s										
Fire Flow for NA	33 L/s										
1.12.4.5:	Replaced with " <i>For any zone not included in Table 1.3 above, the required fire flow shall be determined by calculation adhering to Fire Underwriters Survey "Water Supply for Public Fire Protection, A Guide to Recommended Practice in Canada, 2020" Part 2.</i> "										
1.7.15:	Replaced with " <i>The maximum allowable spacing between fire hydrants shall be 150 m where the required fire flow prescribed by Table 1.3 is not more than 100 L/s, and 90 m in all other areas.</i> "										

For collaborative approach to plan water & drainage infrastructure, please contact boundaryconditions@epcor.com

Volume 3-04 Updates: Ready for Review

- Pump Station & Forcemain Design Guidelines
- Appendix A: Design Guidelines for Electrical & Control Systems for Wastewater Pumping Stations
- Appendix B: Pump Station Hazardous Area Classification
- Appendix C: Typical Schematic Diagrams for Pump Stations



Water Cycle Standards Updates: 2024 Focus

- Volume 3 (Drainage)
 - Incorporate updates in the 3 addenda into the volume
 - Publish the updates on sub-section 3-04
 - Sub-sections 3-01, 3-02, 3-03, 3-05 & 3-06 updates
- Volume 4 (Water)
 - Separate into sub-sections
 - Incorporate updates from Addendum into volume
 - Other updates to various sub-sections

Procurement Updates

- Presenter – Shahan Shamim

Indigenous Procurement Strategy

- EPCOR has created a strategy for Indigenous businesses to identify themselves
- This strategy is to encourage continued engagement with Indigenous suppliers through both direct and indirect channels:
 - **Direct** – contract directly with Indigenous owned firms or subcontractor(s) are Indigenous owned companies
 - **Indirect** – Contractor has partnership / programs with Indigenous suppliers, businesses or communities. Or has certifications such as Progressive Aboriginal Relations (PAR) certification through the Canadian Council for Aboriginal Business (CCAB)
- Procurement templates/contracts have new language incorporated to identify Indigenous Contractors. Indigenous participation procurement language to be used in EPCOR competitive requirements (weighted criteria of 5% to 10%, or bonus points)

Engineering RFP Background

Engineering Services are vital to EPCOR operations, continued growth and support is used from over 150 employees and dozens of teams internally alone

EPCOR's engineering services pre-qualified list expired Dec 31, 2023. EPCOR had not re-competed the scope since 2018

Feedback from CEA was to utilize a Qualifications Based Assessment (QBS)

EPCOR respected this feedback; created a QBS procurement with minor emphasis (10%) on pricing methodology instead of actual rates

RFP Process and Structure

Nov 2022 - June 2023	Strategy and RFP developed
July 2023	Public RFP issued 134 registered suppliers. 39 responses received
Aug - Sept	Internal Evaluations Capital PMs, Engineering, HSE, Legal, Indigenous, Procurement
Sept - Dec	Negotiations with highest scoring Proponents
Dec 2023	21 MSAs executed Regrets Notifications
Jan 2024	Debriefs Lessons Learned

Criteria	%
Proposed Exceptions to EPCOR terms	10%
Health, Safety and Environment Assessment	15%
Staff Professional Qualifications	20%
Demonstrated Engineering Capabilities & Project Experience	25%
Value Add and Additional Criteria	10%
Price Methodology	10%
Indigenous Relations	5%
Quality of Reply	5%
Minimum overall score for award	67%



New Engineering MSA Holders

(Effective Jan 1, 2024)

- AECOM Canada Ltd.
- Allnorth Consultants Limited
- Al-Terra Engineering Ltd.
- Associated Engineering
- BBA Engineering Ltd.
- CIMA Canada Inc.
- Citra Industries Inc.
- Cybertech Automation Inc.
- DynaWest Engineering Ltd.
- GHD Limited
- ISL Engineering & Land Services
- Jacobs Consultancy Canada Inc.
- Kerr Wood Leidal Associates Ltd.
- Magna IV Engineering
- Northwest Hydraulic Consultants Ltd.
- Read Jones Christoffersen Ltd.
- Sameng Inc.
- Stantec Consulting Ltd.
- Tetra Tech Canada Inc.
- Thurber Engineering Ltd
- WSP Canada Inc.

Questions?

PROVIDING MORE

