



PROVIDING MORE

Water Services Guidelines

January 2017



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1. PURPOSE OF THE SERVICE GUIDELINES

The objective of the EWSI (EPCOR Water Services Inc.) Water Services Guidelines is to provide assistance to building owners, developers, engineering consultants, architects, plumbing contractors and water infrastructure contractors with the standards and requirements related to new water service connections.

The Service Guidelines are applicable to all water customers under the EPCOR Water Services and Wastewater Treatment Bylaw (Bylaw 17698), Schedule 2, Terms and Conditions of Water Service.

EPCOR Water's Terms and Conditions set out various rights and responsibilities of EPCOR Water and its customers with respect to service. Where there are any differences between these Service Standards and the Terms and Conditions, the Terms and Conditions will govern and prevail.

2. NEW SERVICE CONNECTIONS

All service connections must comply with the requirements of the City of Edmonton Design and Construction Standards. These standards are available on the City of Edmonton website in Section 02514 at:

http://www.edmonton.ca/city_government/documents/PDF/Design_and_Construction_Standards_Volume_4_Water.pdf

Private water service lines must comply with the requirements of the Alberta Safety Codes Act and the National Plumbing Code of Canada. It is the applicant's responsibility to ensure the service size is sufficient for its intended purpose.

Application for Service Connection:

A customer or a person acting as an agent for the customer may apply for a new service, or connection to an existing EPCOR Water service, through EPCOR:

EPCOR Water Services Inc.
Distribution Services
Rossdale Water Treatment Plant
9469 Rossdale Rd NW
Edmonton, AB T5K 3B1

Phone: 780-412-3955
Email: wtrdc@epcor.com

More information is also available on the EPCOR website at:

<http://www.epcor.com/NewWaterConnection>

Construction of a new EPCOR Water service connection will not begin until application and payment for such service has been completed, and EPCOR Water is satisfied that the customer has complied with all the conditions outlined in both the Service Standards and the Terms and Conditions.

Single Family and Duplex Servicing Procedures:

The applicant must provide the size and location of the service connections required for their building, along with the address and legal description of the property, directly to EPCOR.

EPCOR will:

- review the availability of service to the water mains in abutting streets or lanes;
- review conflicts with other utilities in relation to the property line locations and elevations;
- calculate or estimate a construction charge; and
- coordinate with the City of Edmonton - Drainage Services for Joint Trench Construction Projects.

Commercial, Industrial, Institutional and Multi-Family Servicing Procedures:

The applicant must provide a site mechanical plan directly to EPCOR. This plan of the on-site private water system must include:

- Signature and seal of a Professional Engineer of Alberta;
- Address and legal description of the parcel(s) of land to be serviced;
- Size, location and invert elevation for each of the new water services at the property line;
- Indication of existing water services to be re-used or to be abandoned;
- Design for backflow protection, if applicable, to prevent contamination of the waterworks system; and
- Water pressure and flow requirements for a service line 200mm or greater, or when requesting a service connection the same size as the water main.

EPCOR will:

- review the plans submitted;
- request revision and re-submission of the plans as required until they meet all requirements; and
- send an approval letter outlining specific costs and servicing conditions, along with an approved site plan.

General Requirements for Service Connections:

- It is the owner/developer's responsibility to make a request to EPCOR to install new water services, or modify existing services, at the owner's expense.

- It is the owner or developer's responsibility to determine the appropriate water service size for the proposed development. EPCOR is available for assistance in determining the appropriate water service size, including fireline requirements.
- EPCOR Water will construct, at the customer's cost, the water service from its water main in the street or alley to the property line.
- Only EPCOR Water crews and their authorized contractors may install EPCOR Water service lines.
- The EPCOR Water service line will be constructed to the property line at the location agreed to during the application process.
- The applicant shall be responsible for all costs of connecting the private service to EPCOR Water's service line, including costs which may arise as a result of the actual location of the service being different from the approved location of the service.
- If an applicant requests a new water service to a property which does not abut an existing water main, EPCOR Water may refuse to construct the new service, or approve the service application with conditions. Without limitation, the conditions may include:
 - The applicant shall pay all costs to extend the existing water main;
 - The applicant shall pay all costs of construction, repair and maintenance of the service line, notwithstanding anything contrary in the Terms and Conditions;
 - The service shall meet specifications determined by EPCOR Water.
- Construction charges are typically calculated based on the fee schedule for service connections of different sizes and configurations. Large diameter and non-standard service connections (extra deep service connections, construction within a City "no-cut" area, main/service extensions from non-abutting water mains, relocation of other utilities, etc.) will require a cost estimate.
- Existing lead services shall not be re-used for proposed/future developments. The existing lead service must be abandoned back to EPCOR's water main and a new service must be constructed. The applicant shall contact EPCOR Water for more information. Other non-approved materials will be evaluated on a case-by-case basis.
- Extra charges will be assessed to the applicant for changes required due to failure to comply with any of these conditions.
- Each self-contained unit of a side-by-side duplex must have a separate EPCOR Water service line.
- A water service within private property cannot be used to service another separately titled property, regardless of who owns the properties.
- On City right-of-way, services must adhere to the City of Edmonton Design and Construction Standards, including minimum clearances to other utilities.
- Each new private service line must be a minimum of 2.59 m to a maximum of 2.89 m below finished grade at the property line.
- Any party proposing construction involving ground disturbance to a depth exceeding 2.0m within 5.0m of the boundary of lands or Right-of-Way (ROW) containing EWSI facilities, is required to enter into a Facility Proximity Agreement with EWSI, prior to performing the ground disturbance. Crossing and Proximity Agreements can be requested through the EPCOR Water Land Admin group:

780-412-3514/780-969-8781
Waterlandadmin@epcor.com
- If the private service line is installed in a common trench, the maximum width of common trench is to be no greater than 1 m at the property line of the lot being serviced.
- EPCOR is to construct the service on public property prior to construction on private property. If the private service line is installed on private property prior to construction of the EPCOR Water service:
 - the private service line must be installed within 0.75 m horizontally of the alignments agreed to at the time of application; and
 - the customer shall construct the private service 300 mm on the City side of the property line and shall be responsible for adequately protecting the open end of the pipe to prevent the entry of foreign material.
- Where an excavation by the owner's contractor creates disturbed ground, at or near the connection to EPCOR Water's service at the property line, the owner shall make adequate provision to prevent damage to the EPCOR Water service line due to settlement of the surrounding soil or private structure.
- Water services that are no longer required or have been inactive for greater than 6 months should be abandoned prior to excavation in the vicinity of the water service. Water service abandonments are



provided by EPCOR at no charge to the developer/owner to eliminate the risks of contamination and potential property damage. Service abandonments can be requested at:

780-412-3955
wtrdc@epcor.com

Payment for Service Connection:

Payment of construction charges, and any other specific agreement or off-site charges, is required prior to scheduling and installation of the service(s) to the property line. Written construction quotes are valid for 90 days, unless otherwise stated.

The service connection charges must be paid in advance of construction scheduling by cheque only and payable to "The City of Edmonton".

3. WATER SERVICE TO AN UNSERVICED BUILDING ON A SERVICED LOT

A Customer may, at their own expense, provide water service to a new or previously unserviced building (ex. garage, workshop) on a serviced lot, in one of two ways: a new service connection or extension of the existing private service line.

New Service Connection:

The Customer may apply for a new service connection to the distribution system, as described in Section 2: New Service Connections. The new service will require a new meter and meter setting.

Each building must have its own meter and its own address. Each building must have a separate account with EPCOR Water, and will be billed separately.

The building must be adequately heated to prevent damage to the water meter caused by freezing. Refer to Section 5: Meters for more information.

Each service must supply its own private plumbing network which must not be connected on private property.

Extension of Existing Service:

The Customer may extend an existing private service line after the water meter to provide service to a new building. The water consumption for all the buildings on the lot will be measured through one meter, and billed together through a single account with EPCOR Water. Only one address is required.

The Customer shall not connect to a private service line before the water meter under any circumstances.

Private service lines must comply with the Alberta Safety Codes Act and the National Plumbing Code of Canada.

4. WATER SERVICE COMMISSIONING

All new or renewed private water service lines 40mm (1½ inches) in diameter or larger must be flushed and disinfected before EPCOR can turn the water on for construction use and/or public consumption.

EPCOR Water will not install a water meter until the customer has produced bacteriological test results for the service from a laboratory accredited to perform such tests by the Province of Alberta. The test results must be approved, signed and stamped by a professional engineer registered in the Province of Alberta.

EPCOR Water will turn off water supply if a development becomes occupied or used for its intended purpose prior to EPCOR Water receiving bacteriological test results and installing a water meter. Water supply will not be turned on until such time that the approved bacteriological test results are produced and a water meter is installed.

The National Plumbing Code of Canada 2010 (and any revision to this code) requires that any newly installed part of a potable water system get cleaned and then flushed with potable water before the system is put into operation.

Owner/Contractor Steps for Bacteriological Testing:

1. Contact EPCOR Water Dispatch (780-412-6800) to turn water on for flush and test, then off again.
2. Flush the water service with potable water to remove loose debris and dirt that may have entered during construction until the water runs clear.
3. After flushing, the engineer or contractor must take bacteriological samples for total coliforms before submitting it to an accredited provincial laboratory for analysis. Sampling bottles may be obtained from the laboratory.
4. Proof of satisfactory bacteriological test results for the exact service location must be certified, signed and stamped by the owner's Consulting Engineer or Professional Technologist. The test results must then be sent to EPCOR by email to mdispatch@epcor.com or by fax to 780-412-6840.
5. Once EPCOR receives the proper results, the contractor can request for the water service to be turned on for construction use by calling EPCOR



Water Dispatch at 780-412-6800. Please allow for 48 hours advanced notice.

No Contractor or private developer may operate any EPCOR valves. Only an EPCOR employee or authorized agent shall remove, operate or maintain EPCOR infrastructure. EPCOR will take corrective action in the event any unauthorized use of the service connection or water services and facilities occurs.

The owner/contractor is responsible for expenses related to all flushing, disinfecting and testing.

EPCOR's Cross Connection Control program requires premise isolation backflow protection on all industrial, commercial, multi-residential and institutional water services. For more information on Cross Connection Control, please visit www.epcor.com or call 780-412-7840.

Testing Private Service Lines:

When water is required to test plumbing before a meter is installed in the Meter Setting, a plumber shall temporarily install a meter piece or fill piece with an approved backflow prevention device as part of the installation. The plumber shall remove and take the fill piece from the meter setting immediately after the test of the fixtures is complete.

Water Service during Building Construction:

EPCOR Water may provide temporary water service to facilitate construction of a new development. This temporary water service is intended to facilitate building construction and testing for internal piping and plumbing systems. It is not intended for consumption or other potable water uses, and shall not be used for irrigation purposes.

Application for Water During Construction:

Water for construction is applied and paid for through the City of Edmonton, in conjunction with a Building Permit application, at:

Current Planning Service Centre
Sustainable Development
5th Floor, 10250 – 101 Street
Edmonton, AB T5J 3P4

Fees will be charged in accordance with EPCOR Water's Terms and Conditions. Estimated charges for temporary water service during construction can be provided by the Current Planning Service Centre.

5. METERS

At their expense, each Customer shall provide and install a Meter Setting suitable for the installation of

EPCOR's water meter or remote meter reading device(s), and in accordance with the City of Edmonton Design and Construction Standards – Volume 4: Water, Section 02520. Each meter setting must provide adequate support and anchoring on each side of the meter capable of keeping the pipe in alignment and supporting the weight of the meter, pipe and all other components.

The customer shall ensure the following:

- Every Private Service Line entering a building has a horizontal meter setting, and that the piping extends not less than 450 mm (18 inches) beyond the wall or floor of the building immediately before the meter position;
- The Meter Setting is positioned as close as possible to the point where the Private Service Line enters the building and has safe and convenient access;
- The water meter, as well as all control valves, by-pass valves, piping and other appurtenances of the meter setting, shall be maintained by the Customer in good working condition;
- The water meter and its appurtenances are protected against any damage, including but not limited to damage caused by physical disturbance, frost or freezing; and
- Safe access to the water meter and its appurtenances is maintained at all times.

Damaged water meters will be repaired or replaced by EPCOR Water at the Customer's expense. The Customer must report damaged water meters to EPCOR Water immediately.

Meter locations shall be designated by EPCOR Water based on the type of Service Connection required and convenience of access to the meter.

EPCOR Water may install a remote meter reading device wherever practicable. Where a remote meter reading device is installed in addition to the main meter, the main meter shall be the official reading. EPCOR Water shall own and maintain the remote reading device. The customer shall be responsible for any damages to the remote meter reading device.

Contact EPCOR's Water Meter Inspector at 780-412-6830 to schedule an appointment for a site inspection to get a meter installed or to obtain specifications for meter setting requirements.

6. PRIVATE SERVICE REPAIRS

The customer is responsible to maintain and repair the private service line, on the private side of the curb



cock or service valve. A customer may engage EPCOR Water to renew or repair a private service line at the customer's cost. Contact EPCOR Water Distribution Services for more information at:

780-412-3151
WaterCS@epcor.com

The Customer is responsible for thawing out a frozen service line on the private side of the curb cock or service valve. EWSI is responsible for thawing out a frozen service line on the public side of the curb cock or service valve. A customer may engage EPCOR Water to thaw a private service line at the customer's cost. No person shall thaw frozen pipes electrically or by using electrical welding equipment. Contact EPCOR Water Dispatch at 780-412-6800 for more information.

7. PRIVATE FIRE HYDRANTS

The customer is responsible to maintain and repair private fire hydrants in accordance with the Alberta Fire code and NFPA 25 (National Fire Protection Association), Standard for the Inspection, Testing and Maintenance of Water Based Fire Protection Systems. NFPA 25 requires dry barrel fire hydrants to be inspected annually and after each operation with the necessary corrective actions taken to restore adequate operating conditions. The customer may engage EPCOR to perform annual hydrant inspections and/or complete any required corrective actions, at the customer's cost.

8. FIRELINE SERVICE

A fireline service provides water for internal fire suppression systems and external private fire hydrants. These systems rely on EPCOR's water system for supply with the designed purpose of fire protection and suppression. The water fireline service is not metered and is billed at a flat monthly fee, based on the size of the water service at the property line.

If it is determined that a fireline exists at a property when new construction is taking place the EPCOR Water Customer Services Inspectors will conduct a site inspection to ensure that the contractor has followed the correct plumbing codes and specifications. Once the construction has been completed and approved by EPCOR, a fireline record is created and the customer is advised to apply through the Contact Center for the fireline service activation and billing to begin. The monthly fireline fees will appear on the customer's regular water utility bill.

9. SAFETY CODES COMPLIANCE

When a Safety Codes Officer gives notice to the customer that a private water system does not meet the requirements of the Safety Codes Act, the customer shall make the required changes within the time specified on the notice and at the customer's expense. EPCOR Water may turn off water supply to the property if the customer fails to comply with the notice.

10. HYDRANT USE PERMITS

An individual who needs to use water from any fire hydrant (private or public) must obtain a hydrant use permit. All hydrant use permit holders must comply with EPCOR Water's Terms and Conditions.

Application for Hydrant Use Permit:

Applications for Hydrant Use Permits must be made in person at EPCOR Water Services Inc:

EPCOR Water Services Inc.
12317 Mount Lawn Road
Edmonton, AB T5B 4J4

Phone: 780-412-3003

One meter is issued for each hydrant permit, however a customer may have more than one permit. A credit card imprint is required as proof of deposit at the time of application before a permit will be granted. An application fee per hydrant permit, per year, will be added to the customer's initial invoice. Accounts not paid within 90 days of the date of final invoice will be processed through the credit card provided by the customer.

Fees will be charged in accordance with EPCOR Water's Terms and Conditions.

Equipment:

The following equipment will be issued by EPCOR Water Services Inc.:

- 1 – Meter
- 1 – Flushing gate valve
- 1 – Blue disc
- 1 – 1.5m length of fire hose
- 1 – Hydrant wrench



Hydrant Use Requirements:

All hydrant users must operate fire hydrants in accordance to the current valid Hydrant Use Permit Information Package, in order to ensure operator and public safety; prevent damages to public/private property; and prevent damages to fire hydrants and other water infrastructure.

The customer must have a copy of the current valid hydrant permit and hydrant operating procedures with them at all times.

All hydrants (including private hydrants) must be called in to EPCOR Water Dispatch at 780-412-6800 before they are used.

EPCOR Water Services Inc. reserves the right to refuse the use of any specific hydrant. Hydrants in the area of 101 Ave – 109 Ave and 43 St – 84 St must not be used by hydrant permit holders. Hydrant permit holders must not operate any hydrant that has a disc of any colour installed on the hydrant nozzle, other than their own blue disc issued to them by EPCOR Water Services Inc.

Use of unauthorized hydrants, including failure to report all hydrants being used, may result in cancellation of hydrant permit privileges.

Meter Readings:

The customer shall provide EPCOR Water Services Inc. with a monthly meter reading due by the 15th of each month by phoning 780-412-3003 (if leaving a phone message please include company name, hydrant meter number and meter reading) OR by emailing readings to: hydrantreadings@epcor.com. Failure to provide a monthly reading may result in withdrawal of the permit.

Completion of Hydrant Use Requirement:

Upon completion of the hydrant usage requirement, but no later than Dec 15 of the year in which they were issued, the customer shall return the water meter and related equipment to EPCOR Water Services Inc.

Meters and equipment will be inspected for damages upon their return to EPCOR. Any charges resulting from the repair of damaged equipment will be added to the Final Invoice. The customer will be held responsible for lost or damaged equipment and hydrants, including damage by freezing.

To avoid additional labour charge of 1 hour, all equipment returned must be detached from the Hydrant Meter.

11. TRUCK FILLS

A customer may apply for access to bulk water at one of EPCOR Water Services' truck fill stations.

Application for Truck Fill User Account:

You must set up a secure pre-paid account with a PIN before accessing the bulk water stations. To apply for a truck fill user account, call 780-412-3003. Fees will be charged in accordance with EPCOR Water's Terms and Conditions.

Truck fill locations:

There are 6 bulk water stations in Edmonton available for truck fill users, listed below.

- Londonderry Reservoir
74 St – 144 Ave, 3" service
- Evergreen / North East Edmonton
501 – 167 Ave, 3" service
- West Edmonton
13240 – 142 St, 3" service
- Davies Yard
8729 – 58 Ave, 3" service
- Poundmaker
#18, 10708 – 187 St, 3" & 4" services
- Kaskitayo Reservoir
1851 – 111 St, 3" & 4" services

Customers must provide their own clean connection hose to protect the quality of the bulk water. Water hauling containers should not be used for other purposes.

12. WATER HAULING EQUIPMENT & BACKFLOW PREVENTION

Customers shall be responsible to have an air gap or appropriate backflow prevention device installed on all water hauling equipment to protect the quality of the public drinking supply.

An air gap is a vertical, physical separation between the outlet of the water fill pipe and the top of the tank, which must be at least twice the diameter of the water supply outlet. A representation of water hauling equipment with an air gap is shown in Figure 1.

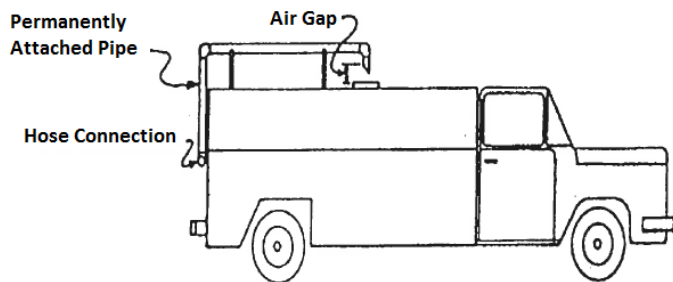


Figure 1: Water hauling equipment with an air gap

Other methods of backflow prevention may include double check valve assemblies (DCVA), or reduced pressure principle backflow preventers (RP). DVCAs and RPs must be tested in accordance with CSA B64.10 Standard. It is the customer's responsibility to ensure backflow prevention meets the appropriate standard and is certified. A representation of an RP is shown in Figure 2.

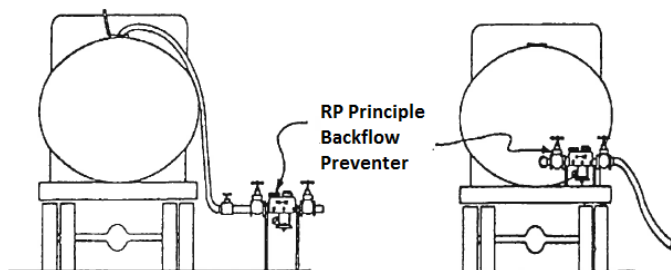


Figure 2: Water hauling equipment with reduced pressure principle backflow preventer (RP)

13. ADDITION OR MODIFICATION TO EXISTING WATER INFRASTRUCTURE

Addition or modification to EWSI's existing water infrastructure can be completed through EPCOR's New Water program or a Servicing Agreement with the City. At no time is any contractor allowed to cut, connect or change EPCOR Water infrastructure without signed EPCOR approved drawings.

EPCOR's New Water Program:

At the request of the Customer, and at the Customer's cost, the engineering design and construction of water infrastructure may be completed by EPCOR Water under the New Water Program.

EPCOR Water will design, construct, test and commission the project. The construction will be completed by an EPCOR crew or approved

contractor. Construction is weather dependent, and must occur during the months of May to October.

The customer is charged actual contractor costs plus corporate overhead and a design and engineering fee. If requested by EPCOR Water, the customer shall pay a portion of the estimated costs prior to the start of construction.

Once a design has been agreed upon and payments or deposits have been received, EPCOR Water will schedule the project based on timing and resources.

The New Water Program is intended for minor modifications and projects with limited scope, or that impact existing customers. EPCOR Water may refuse to complete a project under the New Water Program, at its discretion.

Complaints with regards to the location of water facilities shall be forwarded to EPCOR Water and will be dealt with on an individual basis. At EPCOR Water's discretion, relocation of water facilities may be completed at the Customer's expense under the New Water Program.

Servicing Agreement:

The engineering design and construction of the water infrastructure may be completed under a Servicing Agreement through the City of Edmonton, Sustainable Development Department, Development Coordination Section:

City of Edmonton, Sustainable Development
Development Coordination
Current Planning Service Centre
5th floor, 10250 - 101 Street
Edmonton, AB T5J 3P4

Phone: 780-442-5311

More information is also available on the City of Edmonton website:

http://www.edmonton.ca/city_government/urban_planning_and_design/servicing-agreement-and-drawing-approval-process.aspx

The design of the water infrastructure must be completed at the cost of the applicant, subject to the review and approval of EPCOR Water and other utilities and City departments. The engineering drawings must be approved and stamped by a Professional Engineer.

The construction, testing and commissioning of the water main may be constructed by a contractor of the applicant's choice. An EPCOR Water inspector must be present during water construction.



The Servicing Agreement outlines the responsibilities of the developer and the City, the scope of the project, warranty periods, and any fees or assessments that the applicant is required to pay. Additions and modifications to existing water infrastructure must adhere to the City of Edmonton Design and Construction Standards.

14. CONSTRUCTION IMPACTS ON EXISTING WATER INFRASTRUCTURE

Contractors must refer to the “Guidelines for working in close proximity to water infrastructure” for more information about the requirements on notifying, locating and working in close proximity to the existing water distribution and transmission system.

15. CUSTOMER INQUIRIES

Customers may use Web Self-Serve or contact EPCOR Water’s Customer Service Center during operational hours:

- to sign up, cancel, transfer or modify your service account;
- for general inquiries on your water service, including account information, billing, and water use; or
- to set up authorized payment withdrawal or make other payment arrangements.

EPCOR Water Customer Service
Phone: 780-310-4300
Toll Free: 1-800-667-2345
Email: custserv@epcor.com

Customers may contact EPCOR Water Dispatch, 24 hours a day:

- to report water related emergencies, including water main breaks, interruptions to tap water service, and water safety concerns;
- to report leaks, damages and other necessary repairs of EPCOR water infrastructure, such as lowering or raising valve casings, leaking hydrants or appurtenances, and missing nozzle caps;
- to report water quality concerns; or
- to report vandalism or misuse of fire hydrants or other water infrastructure.

EPCOR Water Dispatch
24 Hour Emergencies
Phone: 780-412-6800