

B.2 WATERMAINS

B.2.1 WATERMAIN CLASSIFICATION – REGION OF WATERLOO

B.2.1.1 General

Watermains within the Region of Waterloo are classified into 2 broad categories:

- Regional
- Local

Regional watermains are furthermore classified into four subcategories:

- i) Transmission
- ii) Trunk Dual-Purpose
- iii) Arterial Dual-Purpose
- iv) Non-Potable

The purpose of the classification is to aid in maintaining the reliability, integrity and flexibility of key components in the water supply and distribution system.

Within the Region of Waterloo, the Region, in consultation with the Municipality, will classify new watermains. The watermain is classified by use and not by size.

Dual-Purpose Watermains are those which qualify as Regional Watermains yet allow service connections. Non-potable watermains transfer water not fully treated as defined under provincial regulations.

B.2.1.2 Regional Watermains

Regional Watermains constitute the skeleton (supply lines and related ancillaries) of the distribution system and satisfy one or more of the following cases:

- Watermains which connect water sources, storage or pumping facilities;
- Watermains which cross pressure zone boundaries unless these watermains are controlled by special agreements with the Region and relevant area municipalities;
- Watermains that include controlling devices (pressure regulating valves, motorised valves, etc.) with the exception of devices that control a local watermain;
- Watermains that include bulk water meters used for wholesale water billing.

- Watermains that complete or will complete future major loops. A major loop is defined as watermains that branch from Regional watermains and "loop back" to Regional Watermains. The purpose of a major loop is to enhance the pressure and water supply in the looped area rather than to provide a ring distribution main;
- Watermains that include chlorine residual boosting facilities;
- Watermains which provide a focal supplying node to development areas.

B.2.1.3 Local Watermains

Local Watermains are those which do not satisfy the criteria for Regional Watermains. These watermains provide the majority of connections to customers.

B.2.1.4 Connection to Regional Watermains

B.2.1.4.1 Transmission Watermains

Private services and fire hydrants shall not be connected to Transmission Watermains. A parallel watermain, connection to other watermains, individual supply wells, etc. must be installed to service properties adjacent to Transmission Watermains. Only in very exceptional cases will these connections be allowed. Special arrangements must be made with the Region of Waterloo and it must be clearly demonstrated that an alternate supply is not available. In these cases the watermain will remain classified as a Transmission Watermain.

Watermains connecting to Transmission Watermains must utilise a suitable tee, cross fitting or anchor tee. An isolation valve must be installed as near as practical to the Transmission Watermain to minimise the likelihood that damage to the connecting main will interrupt the water supply in the Transmission Watermain. The Region of Waterloo must approve the interconnection locations, however, generally only up to two (2) connections (tee and/or cross) will be allowed per kilometre of Transmission Watermain.

Existing private service and fire hydrant connections made prior to the classification of the watermain will be grandfathered until the time that the roadway and/or the watermain system is reconstructed. At which time, the connection will be removed and suitably connected to another water source. The Region may also undertake to remove connections and will at that time provide an alternate water source.

Although connections may exist on a Transmission Watermain (grandfathered or special conditions), it in no way implies that future connections will be allowed to the watermain.

B.2.1.4.2 Trunk Dual-Purpose Watermains

One private service connection is permitted per 30m of watermain. There is no limitation on the connection of fire hydrants and adjacent watermains.