# APPENDIX 9

Excerpt from the Bolton Residential Expansion Area Options by Peel Region, dated September 24, 2020;
Bolton Option 3 Preliminary Water Modeling by RJ Burnside, dated June 1, 2020;

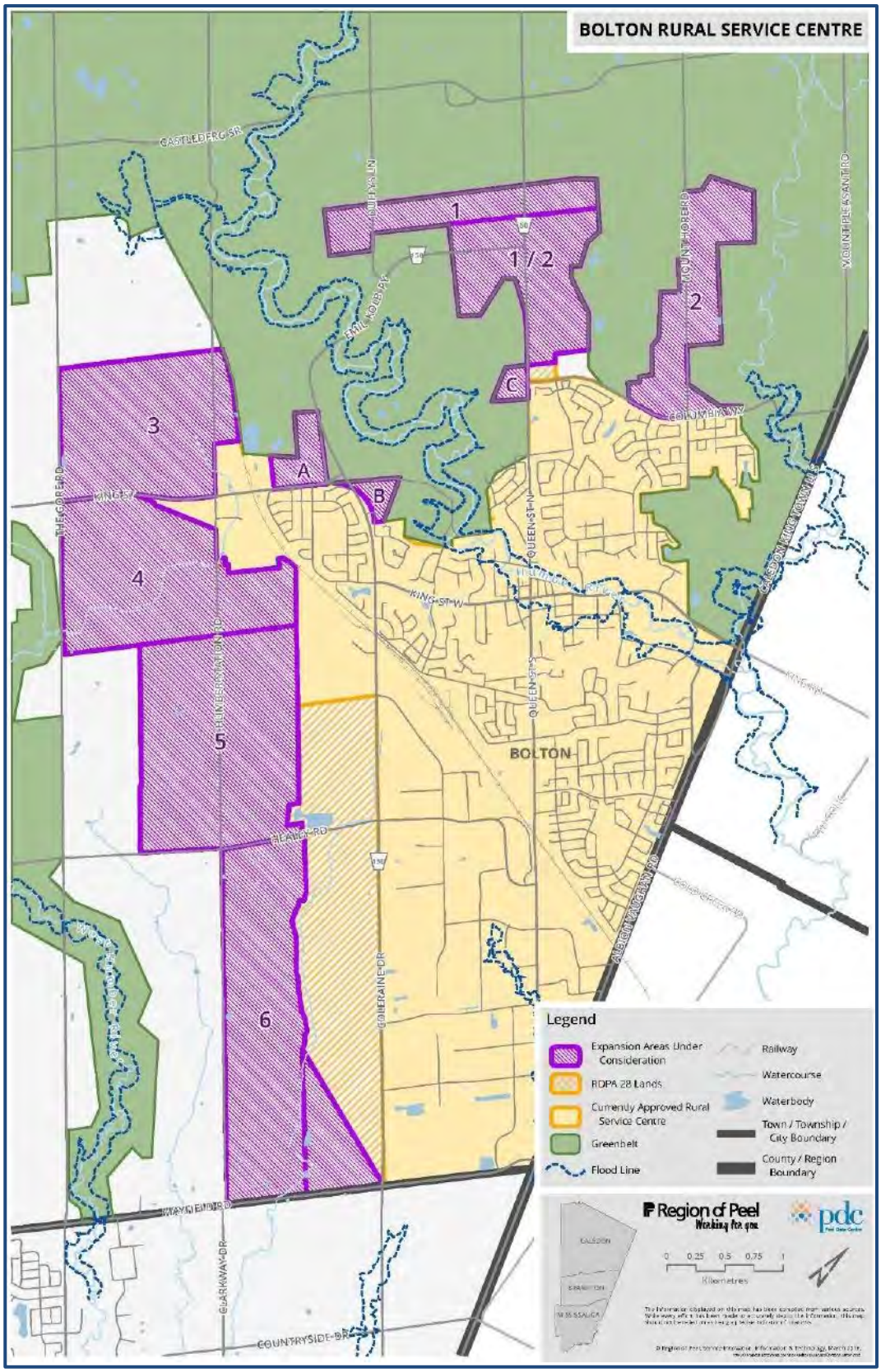


**FIGURE 1 BOLTON RESIDENTIAL EXPANSION AREA OPTIONS**

#### *3.4.3.6 Option 3*

Option 3 is located at the northwest corner of Humber Station Road and King Street. The ground elevations range between 265 m and 280 m, and as such fall in Zone 7. The top water level required to maintain adequate pressures is approximately 328 m.

Water servicing of Option 3 requires the creation of a new pressure zone system due to the range of elevations within the area. To achieve this, a new Zone 7 pumping station is required. Based on previous studies, it was confirmed that the preferred location for a new station is near the intersection of Chickadee Lane and Glasgow Road. An extension of the system through a 400 m (Zone 6) watermain from the 1050 mm watermain on Coleraine, would provide water to the station, from there, a new 400 mm (Zone 7) 19eedermain from the proposed Zone 7 pumping station along King Street and Emil Kolb Parkway to the proposed Option 3 storage facility is also required. The proposed location for the elevated tank is a site west of Gore Rd, one which appears to be farm land and has an elevation of 283 m.

A high level evaluation of the storage requirements was undertaken. Based on the ground elevations and environmental features around Option 3, an elevated floating storage facility was selected as the preferred storage servicing strategy. In-ground storage was also considered as an option for provision of storage; however, with a pumped system there must be sufficient pump capacity to supply peak hour demands or maximum day demands plus fire demands. This could result in a larger investment in a pumping facility and larger pipes servicing the area. Furthermore, standby power at the pumping station would also be required. These impacts were considered and it is recognized that elevated floating storage provides a more robust and reliable system and provides a better solution to long term requirements when considering the surrounding areas that could potentially develop.

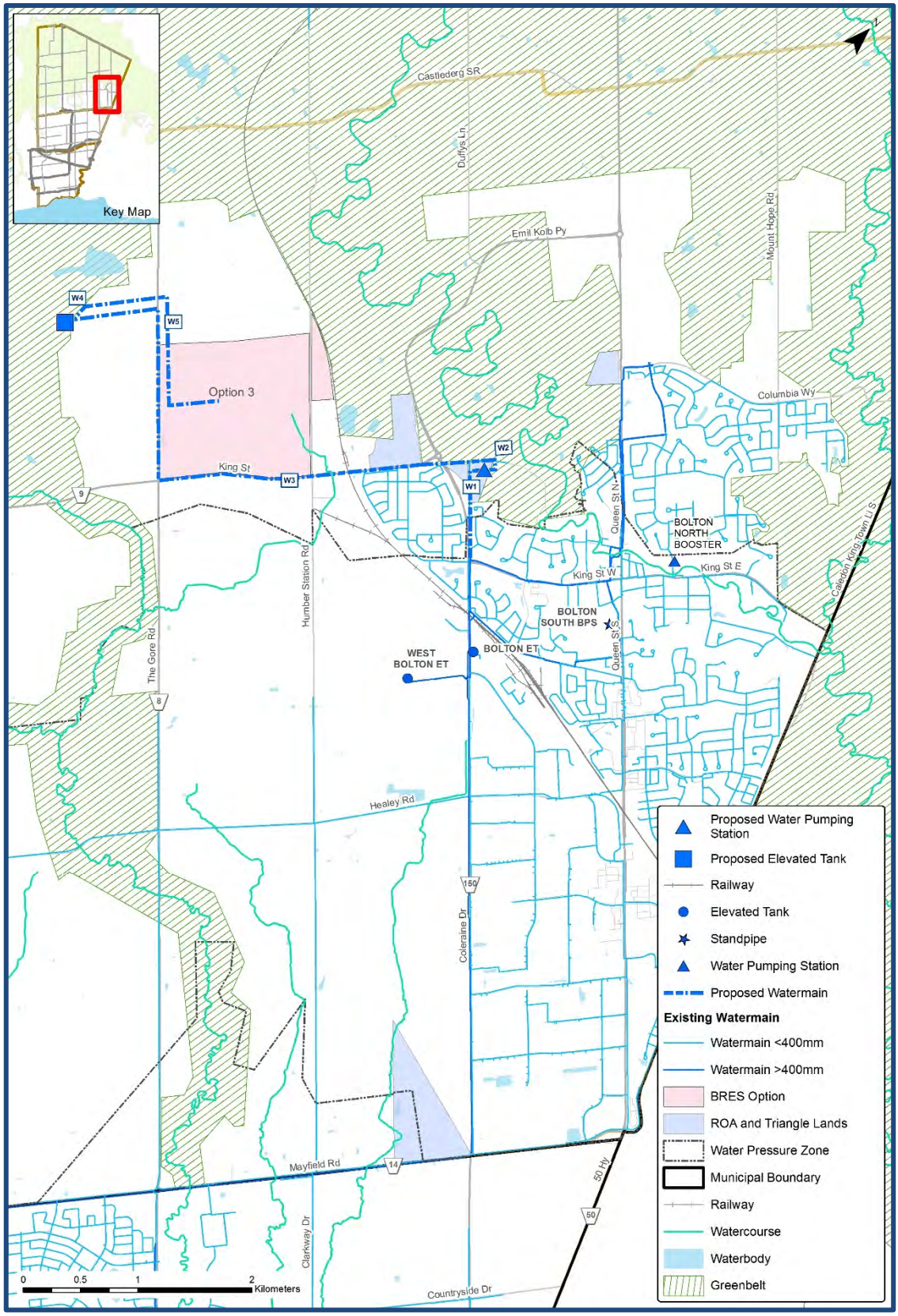


**FIGURE 6 WATER SERVICING OPTION 3**

The projects required as part of the water servicing strategy for Option 3 are presented in Table 6.

**TABLE 6 WATER PROJECTS FOR SERVICING OPTION 3**

| BRES ID | Description | Size/Capacity | Length (m) |
|---|---|---|---|
| Opt3 - W0 | Class EA for elevated tank and booster station | | |
| Opt3 - W1 | Z6 Feedermain, from ex. 1050 mm at Coleraine King, east to Future Z7 BPS | 400 mm | 1038 |
| Opt3 - W2 | Z7 BPS, at King and Coleraine (greenfield) | 79 L/s | |
| Opt3 - W3 | Z7 Feedermain on King/Gore, from Z7 BPS to E.T. outside | 400 mm | 5176 |
| Opt3 - W4 | E.T. for Option 3 (TWL=327.7m) | 5.1 ML | |
| Opt3 - W5 | Z7 Feedermain, from E.T. to distribution | 400 mm | 2165 |

It is anticipated that the crossing of the Humber River along Emil Kolb Parkway will require either extensive trenchless installation or could potentially be suspended from the future bridge. Either method of installation will incur additional costs for construction and permitting, as this section crosses TRCA lands.

Servicing Option 3 provides an opportunity to service the Rounding Out Areas A and B without additional infrastructure as well as the potential to re-align the pressure zone boundary to shift some of the existing Zone 6 properties which currently experience low pressures to Zone 7. It has been demonstrated that these properties would benefit from an enhanced Zone 7 service.

#### *3.4.3.7 Option 4*

Option 4 is located at the southeast corner of King Street and The Gore Road. Ground elevations range between 252 m and 262 m, and as such most of the land falls in Zone 6 with the top part of the area in Zone 7.

Option 4 falls between two zones, therefore the servicing strategy will involve two components:

*Zone 6 Servicing of Option 4:*

The lower part of Option 4 can be serviced through an extension of the existing Zone 6 infrastructure. A new 300 mm (Zone 6) watermain is required from the proposed 600 mm watermain on Holland Road Extension to Option 4. This watermain is a candidate for oversizing as it could serve as a feedermain to a larger service area in the future.

*Zone 7 Servicing of Option 4:*