SUBJECT:  Abandoning Fire Hall Well Servicing Three Residential Properties (PW09035) - (Ward 14)

RECOMMENDATION:

(a) That the Greensville Fire Hall well servicing three residential properties (676 Crooks Hollow Road, 335 and 339 Old Brock Road) be decommissioned pursuant to the *Ontario Water Resources Act* (O.Reg 903);

(b) That the three potentially affected residential properties be compensated to an upset limit of $10,000 per household for the cost of obtaining an alternative water supply (i.e. cistern) provided that such an alternative water supply is compliant with current drinking water standards, the Ontario Building Code and a release is obtained, in a form satisfactory to the City Solicitor, from the owner and any party having a legal interest in each of the properties releasing the City from any further obligations to provide such an alternative water supply, and that the expenses be funded from 3540541537 “Safe Drinking Water Act”;

(c) That the Mayor and the City Clerk be authorized and directed to execute any necessary documents, in a form satisfactory to the City Solicitor, and that any Legal Services Section expenses or other administrative expenses be charged to Account Number 52425 (Legal Fees), Department ID 3540541537.

EXECUTIVE SUMMARY:

The subject well is located at the Greensville Fire Station at 361 Old Brock Road, in the former Village of Greensville Ontario (see Appendix “A”), within the City of Hamilton.
municipal boundaries. The well historically was known to service the fire hall and at least three residential properties in the area. The fire hall is now serviced by a new drilled well at the other end of the property and, as such, this well now only services the residential properties. Historic testing of the well water by Public Health Services indicated that Escherichia coli (E. coli) and total coliform bacteria were present in the water being supplied to the residences, which is an indication that the water is unsafe for human consumption. On several occasions Public Health Services has informed and advised the users of the water from the old well at the Greensville Firehall to not drink the water or to use it for other purposes such as food preparation, brushing teeth, etc. It is believed that the former Township of West Flamborough agreed to service these properties under a 99-year ‘handshake’ agreement between the Township and the residents serviced; the only known agreement reviewed as part of the investigation is dated 1910. The original servicing arrangement and agreement has recently been questioned in light of the Safe Drinking Water Act and the responsibility of the City of Hamilton to ensure the quality of all municipal supplies.

The Safe Drinking Water Act (2000) and Ontario Regulation 170/03 were both evaluated in respect of this situation. The Regulation does not address residential systems with less than six (6) residences and, as such, does not appear to impose any statutory obligation on the City to provide an alternative source of potable water. However, the responsibility to abandon or decommission the well is not related to the number of residents served by the well and the City does have a statutory obligation to decommission the well as soon as possible.

The City of Hamilton retained Stantec Consulting Ltd. (Stantec) to investigate the existing well supply system to review relevant information and provide recommendations for an alternative servicing strategy.

Consequently, staff are recommending that the residents affected by the decommissioning of the Greensville Well be compensated to an upset limit of $10,000 per household provided they can produce a valid receipt for installation of their new cistern and/or new well, and that the new cistern/well can be shown to be compliant with current drinking water standards and Ontario Building Code. In addition, the residents will be asked to release the City of any further obligation with respect to the provision of an alternative drinking water supply.

**BACKGROUND:**

The information/recommendations contained within this report have Ward 14 implications.

A work program was developed by the City’s consultant, Stantec, in which they focused on four main tasks: obtaining background information, a telephone survey, a field survey of serviced properties, and a review of servicing alternatives. Stantec’s final report was issued in August 2008.

Background information was obtained from the Facilities Section’s report and other City of Hamilton resources. After all available background information was reviewed, and a telephone survey was conducted in May 2007, sixteen (16) residences on Old Brock Road and four (4) on Crooks Hollow Road were identified as potentially interested residents and were contacted by Stantec. They were asked to provide information about
their water supply and septic systems. The information gathered was recorded and summarized in a report which was submitted to the Facilities Section on August 2008. The property owners were well aware of the concern regarding the well water and were generally amenable to assisting in the study.

Representatives from Stantec met with several homeowners and were able to create a site map showing all wells and cisterns in the area (see Appendix “A”). As a result, Stantec was able to confirm that only three (3) properties continued to be served by the fire hall well. However, two of the homes (676 Crooks Hollow Road and 335 Old Brock) no longer use this supply. Thus, the only home currently using this water supply is 339 Old Brock Road.

Two (2) of the three (3) properties that are known to be serviced by the fire hall well were visited. The resident at 335 Old Brock Road, was unable to allow Stantec a site visit. However, her son was able to supply information regarding the water supply to her home. He informed Stantec that the property was in fact serviced by the fire hall well, but has experienced ongoing problems with the existing well (cistern). The well ran dry periodically and was deemed to be ‘unfit’ to drink. In times of high water supply the well would overflow to nearby Spencer Creek. As of June 5, 2007, a new 5,000 gallon cistern has been installed by a local contractor. The new cistern is located on the property at the end of the driveway, to the southwest of the house.

The residence at 339 Old Brock Road is supplied by the old fire hall well, via the well at the front of the property and a new storage cistern on the east side of the house. The supply from the fire hall well travels south down Old Brock Road by gravity via a 4” or 6” clay pipe and runs into the old well located at the north entrance to the property. This well acts as an overflow cistern, being directed to both a cistern installed by the owner located beside the home on the east side of the property, and to the well servicing 335 Old Brock Road, also located on the east side of the property (the property line was not clear, thus this well may be on 339 or 335, or possibly on a drainage easement lying between the properties). The resident confirmed that the water is not suitable to drink, and is only used for laundry and bathing. Bottled water is purchased for drinking water.

The owner at 676 Crooks Hollow Road, confirmed that the property was previously serviced by the fire hall well; however, the land is now serviced by a well located on the north side of the front yard. The new well was drilled, but then had to be fractured to obtain adequate water supply. The owner stated that this supply has chemical quality issues, but they could not be defined specifically. Water from the drilled well is treated in the home before use and the owner is not concerned with what happens to the old fire hall well.

ANALYSIS/RATIONALE:

The following conclusions have been made based on the information collected and the field research that was conducted by Stantec:

- The old Greensville Fire Hall Well originally serviced only 335 and 339 Old Brock Road, and 676 Crooks Hollow Road. However, this well now only supplies 339 Old Brock Road.

- The owner, at 676 Crooks Hollow Road is not presently interested in pursuing any compensation or servicing from the City of Hamilton.
• The owner’s representative, Mr. Bill Gunson, at 335 Old Brock Road has installed a new cistern to replace the well formerly serviced by the old fire hall well; they are not interested in replacing or upgrading this servicing but are interested in pursuing compensation.

• The owner, at 339 Old Brock Road continues to use the old fire hall well supply and has installed a new cistern beside the house to provide increased storage and reliability. They are not in favour of the cistern solution and decommissioning of the fire hall well. However, they agree that this supply is non-potable and that a private well is not likely to mitigate these problems.

• The old Greensville Fire Hall Well supply does not meet the prescribed drinking water requirements under the **Safe Drinking Water Act**, and the construction of this well and other wells serviced by this well do not meet the construction requirements under the Wells Regulation (Regulation 903) under the **Ontario Water Resources Act**. This water supply must therefore be considered unsafe for potable water applications, and thus presents a liability risk for the City of Hamilton, as owner of the well. The Owner is deemed to have a duty of care under the **Safe Drinking Water Act**.

• The preferred servicing option is to decommission the old Greensville Fire Hall Well, the supply wells at 335 and 339 Old Brock Road, and install a new potable water cistern at 339 Old Brock Road.

• Due to the low volumes of water being drawn from and flowing through the old Fire Hall Well, the high density of usage of this aquifer, and number of sump pumps and drainage pathways in the area, it is the opinion of Stantec that decommissioning of these wells will not result in any significant alteration of the existing groundwater condition.

### ALTERNATIVES FOR CONSIDERATION:

There are several servicing options that may be considered as a means of mitigating the current situation in compliance with current regulations:

1. Provide treated potable water supply meeting the prescribed standards to any affected parties.

2. Provide and install a new private individual well supply to any affected parties.

3. Provide and install a new cistern in compliance with current applicable standards to any affected parties.

4. Provide municipal residential water servicing in accordance with O. Reg. 170/03 to the entire settlement area, including any affected parties.

Each of the above options would include upgrading or decommissioning of any wells not currently in compliance with the current Wells Regulation 903 as amended under the **Ontario Water Resources Act**, and removal of any cisterns not in compliance with current applicable standards.

A cursory review of the above options shows that Option 3 (provision of cisterns) is the most feasible given that only one residential property would currently be affected by the decommissioning of the old fire hall well. The rationale is as follows:
Option 1 would require upgrading of the supply well, provision of disinfection and treatment of the raw water in accordance with the Groundwater Under the Direct Influence of surface water (GUDI) regime, and upgrading of the water supply distribution system to the affected property. Furthermore, the treatment system would need to be operated generally in accordance with O. Reg. 170/03 to meet the intent of the Safe Drinking Water Act, despite the fact that it is not technically regulated.

Option 2 is considered impractical given the known water quality and quantity issues in both the shallow overburden and bedrock aquifers. A drilled well cannot be guaranteed with any certainty to provide a safe and reliable water supply in this area, and would require disinfection treatment at a minimum to be used as a potable supply.

Option 3 is considered a safe and economical servicing alternative, and provides for a reliable potable water supply; however, the responsibility for filling and maintaining the system would fall to the homeowner. Cisterns utilizing transported water were found to be used by a significant portion of other residents in this community.

Option 4 is considered the preferred means of servicing in the long term for this community, as nearly every resident has an unsafe water supply, and most do not use groundwater for potable applications. Due to the high cost, extensive time requirement for environmental assessment, and engineering design to provide full municipal servicing, this option is not a feasible solution within the scope of this report.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

**Financial:**

Staff has recommended that the residences affected by the decommissioning of the Greensville Well be compensated to an upset limit of $10,000 per household provided they can produce a valid receipt for installation of their new cistern and/or new well, and that the new cistern/well can be shown to be compliant with current drinking water standards and Ontario Building Code. In addition, the residents will be asked to release the City of any further obligation with respect to the provision of an alternative drinking water supply.

**Staffing:**

None.

**Legal Implication:**

The City has a statutory obligation to decommission the Greensville Fire Hall well immediately as the well no longer provides a supply of potable drinking water in accordance with the standards set out in the Ontario Water Resources Act.

The Safe Drinking Water Act does not appear to impose a statutory obligation on the City to provide an alternative source of potable drinking water where the source being decommissioned services fewer than six or more private residences on one or more properties. However, a review of case law suggests that decisions in this area appear to be sympathetic to the private resident and, in addition, the Safe Drinking Water Act does provide a general clause under Section 11, and as defined in Section 10, that the owner of a municipal drinking water system shall ensure that all water provided by the system to the point where the system is connected to a user's plumbing must meet the prescribed drinking-water quality standards, and thus must be “potable”.
Appropriate notice of the decommissioning of the well should be provided to the neighbouring properties in the event that there are further legitimate concerns. In consideration of the proposed compensation, the City should obtain full and final releases from the owners and any other party having an interest in the three properties to mitigate against any potential further liability on the City’s part.

**POLICIES AFFECTING PROPOSAL:**

None.

**RELEVANT CONSULTATION:**

Public Health Services
Legal Services

**CITY STRATEGIC COMMITMENT:**

The recommendations in this report align with both the Public Work’s and City’s Strategic Plan whereby accountability to the community is essential. Accountability is moving towards the relationship between the Corporation and the people it serves. This means that the Corporation takes account of the needs, concerns and role of the community and explains its action and decision to them. Accountability to the community is often broken down into; participation, transparency, feedback and education.

By evaluating the “**Triple Bottom Line**”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

**Community Well-Being is enhanced.** ☑ Yes ☐ No

The rural settlement areas within our community rely on their municipal government to take appropriate steps to safeguard their drinking water. If the municipality can assist those to adopt a stewardship mentality to further enhance the level of protection by leveraging provincial and/or municipal funds, we are thereby enhancing the well-being of groundwater dependent population.

**Environmental Well-Being is enhanced.** ☑ Yes ☐ No

Moving away from the current well supply to a cistern is considered a safe and economical servicing alternative, and provides for a reliable potable water supply.

**Economic Well-Being is enhanced.** ☑ Yes ☐ No

Yes, only if financial assistance is granted to the three home owners. The future responsibility for filling and maintaining the system would fall to the homeowner. Cisterns utilizing transported water were found to be used by a significant portion of other residents in this community.

**Does the option you are recommending create value across all three bottom lines?** ☑ Yes ☐ No

As described above, the recommendations provide value across all three bottom lines without creating a financial burden to the residents of the community.

**Do the options you are recommending make Hamilton a City of choice for high performance public servants?** ☑ Yes ☐ No

This recommendation does not directly affect the perception of high performance public servants in terms of employment choices.
Greenville Site Map and Servicing Layout Schematic

Legend:
1. Old Fire Hall Well
2. New Fire Hall Well
3. Gowing Well (335 Old Brock)
4. Gowing Cistern (335 Old Brock)
5. Agle Well (335 Old Brock)
6. Agle Cistern (335 Old Brock)
7. Beonstra Well (676 Crooks Hollow)
8. McCarthy Well (357 Old Brock)
9. McCarthy Communal Well (357)
10. Abandoned Dundas Well (357)