#### BOH12002 Appendix A



# What is the report about?

- For rural residents of Hamilton who obtain their drinking water from a private water well.
- Focus is on health related factors; bacteria and chemical parameters that have been detected in well water at levels near or above the Provincial Drinking Water Standards.
- Information regarding well water quality; what tests well users should consider to assess their well water quality.
- Information regarding how to test well water quality, well maintenance, and a list of sources of well information.





### Where did we get our information?

- Test results for 50 drinking water systems regulated under the Safe Drinking Water Act;
- ~200 drinking water systems regulated under the Health Protection and Promotion Act;
- 14 wells in the Ministry of Environment's Provincial Groundwater Monitoring Network (PGMN).
- >31,000 well water samples tested for bacteria between 2004 and 2011.



# **Bacteria Testing**

- It's Free!
- Should be done several times per year.
- Sample bottles can be obtained at 16 locations.
- Samples can be dropped off at 10 locations.
- Between 2004 and 2011 >31,000 water samples tested for bacteria;
  - 1 out of 4 well water samples were unsafe for drinking.
  - 3% to 7% of well water samples had E.coli detected.











#### Chemicals

- All of the well-based drinking waster systems regulated under the Safe Drinking Water Act have been tested for at least 78 different chemicals.
- 14 wells in the Provincial Groundwater Monitoring Network have been tested for 204 different parameters.
- PHS tested ~100 wells for the chemicals detected near or above the Drinking Water Standards in the PGMN and Safe Drinking Water Act wells.



# Chemicals...continued

- Detection of health related chemical parameters above the ODWS is limited to; Sodium, Nitrates, Lead, Fluoride, and rarely Barium.
- Barium and Fluoride are naturally occurring.
- Lead can be naturally occurring or due to old lead pipes.
- Sodium and Nitrates can be naturally occurring, but it is suspected that the source is likely road salt (Sodium) and agriculture, fertilizer, and private sewage systems (Nitrates).



No other chemicals, pesticides or radiological parameters have been reported to PHS above the Drinking Water Standards.



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