

**TO:** CITY MANAGER **DATE:** 2003 08 19  
**FROM:** DIRECTOR ENGINEERING **FILE:** 39500-12  
**SUBJECT:** DRINKING WATER QUALITY MONITORING REPORT (2002)  
**PURPOSE:** To present Council with the City's Annual Drinking Water Quality Monitoring Report for 2002

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**RECOMMENDATION:**

1. **THAT** a copy of this report be forwarded to:
  - a) Mr. Rick Kwan, Manager Environmental Health Services, Fraser Health Authority, Suite 300 - 4946 Canada Way, Burnaby, B.C., V5G 4H7
  - b) the Environment Committee.

**R E P O R T**

Attached (under separate cover) is the City's annual Drinking Water Quality Monitoring Report for 2002. It is prepared to satisfy one of the conditions of the "Operating Permit for the Municipal Waterworks System" issued to the City by the Fraser Health Authority.

The report provides an overview of the regulatory context, outlines the drinking water quality program undertaken by staff in 2002 and associated sample results to provide the evidence of potability and compliance with the B.C. Safe Drinking Water Regulation.

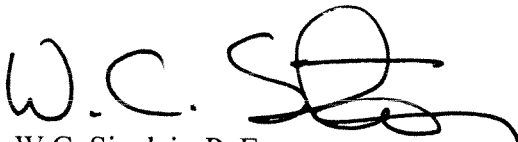
In summary, for 2002, there were 60 sample locations selected throughout the City's waterworks system. There were 2,195 drinking water samples obtained from City and GVRD water mains during the year (up from 1,900 in 2001) and submitted to the GVRD laboratory for analysis of total coliform, faecal coliform (indicator of faecal contamination), Heterotrophic Plate Count (HPC - early indicator of bacterial re-growth in the water mains), and turbidity. Free chlorine residual and temperature was also measured in the field at the time of sampling. In addition, there were selected sample locations used for monitoring disinfection by-products (trihalomethanes and haloacetic acid) bromate, chloride, sodium (total) and pH.

In reviewing the 2002 drinking water quality sample data, it was noted that overall, the water quality had greatly improved over previous years. A greater number of sampling stations achieved the objective of 0.2 mg/L in 2002. There was an ongoing reduction in HPC's over previous years and majority of samples had turbidity of less than 1 NTU. In addition, the disinfection by-products and physical/chemical parameters were in compliance with the Guidelines for Canadian Drinking Water Quality. There was, however, one sample that showed positive faecal coliform. Upon being informed of this, the City undertook immediate action by notifying the Fraser Health Authority and Council, flushing the watermain(s) in question and re-sampling water upstream, mid-stream and downstream of the sampling locations. Subsequent results were shown to be in conformance with the B.C. Safe Drinking Water Regulation. However, the initial cause of the contamination was not conclusively determined.

Staff are continuing to strive to improving the drinking water quality through ongoing replacement of ageing watermains, routine flushing of watermains, increased monitoring and vigilance to ensure compliance, and upgrading of staff skills and knowledge base. In addition, in 2002 staff also undertook a joint inspection of unidirectional flushing and reservoir cleaning program with Fraser Health Authority staff.

Copies of the City's Annual Drinking Water Quality Report (2002) are available to the public at the Engineering Department. Staff will also be providing a notice in the local newspaper informing the public regarding the availability of this report.

This is provided for Council's information.

  
W.C. Sinclair, P. Eng.  
DIRECTOR ENGINEERING

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