
TO: CITY MANAGER **DATE:** 2005 June 14
FROM: DIRECTOR ENGINEERING **FILE:** 39500-12
SUBJECT: **DRINKING WATER QUALITY MONITORING REPORT (2004)**
PURPOSE: To present Council with the City's Annual Drinking Water Quality Monitoring Report for 2004.

RECOMMENDATION:

1. **THAT** a copy of this report be forwarded to:
 - a) Dr. Nadine Loewen, Medical Health Officer / Drinking Water Officer, Fraser Health Authority, Suite 400 – 4946 Canada Way, Burnaby BC, V5G 4H7; and
 - b) Environment Committee.

REPORT

Since 1999, the City has been preparing and making public an annual report on drinking water quality monitoring results. Enclosed (under separate cover) is the City's annual Drinking Water Quality Monitoring Report for 2004. The report provides an overview of the regulatory context, outlines the drinking water quality program undertaken by staff in 2004 and associated sample results to provide the evidence of potability and compliance with the B.C. Drinking Water Protection Regulation.

In summary, there were 60 sample locations selected throughout the City's waterworks system in 2004. Approximately 2,140 drinking water samples were obtained from City and GVRD water main sample sites during the year and submitted to the GVRD laboratory for analysis of total coliform, faecal coliform (indicator of fecal 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, bromide, chlorate, chloride, sodium (total), pH, and metals.

In reviewing the 2004 drinking water quality sample data, it was noted that overall, the water quality continues to improve over previous years. The bacteriological water quality complied with the B.C. Drinking Water Protection Regulation. There were no fecal coliform bacteria detected in any of the potable water sampled. With respect to total coliforms, at no time did the percentage of samples tested positive for coliform exceed the 10% stipulated in the B.C.

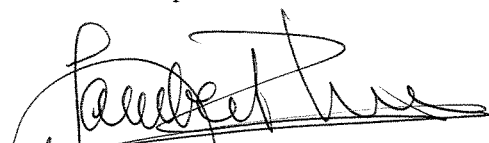
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Drinking Water Protection Regulation. Any samples with greater than 10 total coliforms resulted in a follow-up with the Fraser Health Authority and immediate flushing of applicable water mains and re-sampling. There was an ongoing reduction in HPC's over previous years and majority of samples had turbidity of less than 1 NTU. In addition, the disinfection by-products and physical/chemical parameters monitored were in compliance with the Guidelines for Canadian Drinking Water Quality. With the exception of one sampling station, all of the remaining sample stations met the objective of free chlorine residual of 0.2 mg/L in 2004.

Staff are continuing to strive to continue improving the drinking water quality through ongoing replacement of ageing water mains, routine flushing of water mains, increased monitoring and vigilance to ensure compliance, and upgrading of staff skills and knowledge base. In addition, staff have received approval from the Fraser Health Authority to implement a point of use ultra violet system at one of the sample station where the free chlorine residual is less than the objective of 0.2 mg/L. This work is anticipated to be undertaken in 2005.

Copies of the City's Annual Drinking Water Quality Report (2004) 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. Copies of the report will also be made available in public libraries in Burnaby.

This is provided for Council's information.



Craig Sinclair
DIRECTOR ENGINEERING

DD:

Enclosure (Under Separate Cover)