City of Burnaby
Office of the City Clerk

D. Back, City Clerk
K. O'Connell, Deputy City Clerk

INTER-OFFICE MEMORANDUM

TO: CHAIR AND MEMBERS
ENVIRONMENT COMMITTEE

DATE: 2016 JUNE 21

FROM: CITY CLERK

FILE: 02410-20

SUBJECT: ANNUAL DRINKING WATER QUALITY MONITORING REPORT (2015)
(ITEM NO. 7(01), MANAGER'S REPORTS, COUNCIL 2016 JUNE 20)

Burnaby City Council, at the Open Council meeting held on 2016 June 20, received the above noted report and adopted the following recommendations contained therein:

1. **THAT** this report be received for information purposes.

2. **THAT** a copy of this report be forwarded to:

   a. The Environment Committee; and

   b. Mr. Lloyd Struck, Environmental Health Officer, Fraser Health Authority, Unit #207 – 2776 Bourquin Crescent West, Abbotsford, BC V2S 6A4.

A copy of the staff report is *enclosed* for your information.

Dennis Back
City Clerk

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City of Burnaby

Item	
Meeting	2016 June 20

TO: CITY MANAGER **DATE:** 2016 June 06

FROM: DIRECTOR ENGINEERING **FILE:** 39500 12

SUBJECT: **ANNUAL DRINKING WATER QUALITY MONITORING REPORT (2015)**

PURPOSE: To present Council with the City's Annual Drinking Water Quality Monitoring Report for 2015.

RECOMMENDATIONS:

1. **THAT** this report be received for information purposes.

2. **THAT** a copy of this report be forwarded to:

a) The Environment Committee; and

b) Mr. Lloyd Struck, Environmental Health Officer, Fraser Health Authority, Unit #207 – 2776 Bourquin Crescent West, Abbotsford, BC V2S 6A4.

REPORT

Enclosed (under separate cover) is the City's Annual Drinking Water Quality Monitoring Report for 2015. The report provides an overview of the regulatory context, outlines the drinking water quality program undertaken by staff and includes associated sample results to provide evidence of potability and compliance with the *B.C Drinking Water Protection Regulation.*

In summary, in 2015 a total of 2,900 routine drinking water samples were obtained in Burnaby for bacteriological analysis. Of these, 1,617 samples were obtained by City staff from 63 dedicated sample locations selected throughout the City's waterworks system and 1,283 samples were collected by Metro Vancouver staff from 15 locations along its transmission mains located within the City boundary. The samples collected by City staff were submitted to Metro Vancouver laboratory for analysis of Total Coliform, E. Coli (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, a limited number of sample locations were also used for monitoring disinfection by-products (trihalomethanes, bromochloromethanes and haloacetic acid), pH, metals and vinyl chloride.

In reviewing the 2015 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 was no E. Coli 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. 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. HPC's has also shown to be reducing when compared to previous years.

Free chlorine residuals at sampling stations have also improved over the past years. In 2015, 93% of water samples obtained from the 63 sampling stations achieved the objective of 0.2 mg/L or above. Sampling stations that experience temporary lower residual free chlorine are largely due to low flow/use through the distribution system and the City maintains the residual free chlorine levels in these areas by frequent flushing of the water mains to enhance flow.

Physical/chemical, pH, vinyl chloride and the disinfection by-products measured as Trihalomethanes, Bromochloromethanes and Haloacetic Acids were found to be below the *Federal Guidelines for Canadian Drinking Water Quality.*

With respect to turbidity in drinking water, 99.6% of samples had turbidity of less than 1 NTU. For those samples where turbidity was greater than 1 NTU, these may be attributed to source water conditions or other transient activities such as water main flushing, water main breaks or fire fighting which cause a change in the water pressure or flow in the system. Samples with high turbidity readings were followed up with immediate flushing of applicable water main(s), and re-sampling.

Staff will be placing a notice in the local newspaper informing the public regarding the availability of this report. Limited copies of the City's Annual Drinking Water Quality Report (2015) will be available to the public at the Engineering Department and in public libraries in Burnaby. Alternately, the public can also access an electronic copy of the report or data for any of the specific sampling locations from the City's website.

This is provided for Council's information.

Leon A. Gous, P.Eng., MBA
Director Engineering

DD:cp

Enclosure (Under Separate Cover)