City of Burnaby

Meeting 2017 June 12

COUNCIL REPORT

SUSTAINABLE CITY ADVISORY COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

SUBJECT: ANNUAL DRINKING WATER QUALITY MONITORING REPORT (2016)

RECOMMENDATIONS:

1. THAT Council receive this report for information purposes.

2. THAT a copy of this report be forwarded to Mr. Lloyd Struck, Environmental Health Officer, Fraser Health Authority, Unit #207 – 2776 Bourquin Crescent West, Abbotsford, BC V2S 6A4.

REPORT

The Sustainable City Advisory Committee, at its meeting held on 2017 June 07, received and adopted the City's Annual Drinking Water Quality Monitoring Report for 2016 *(provided under separate cover)*. The full report will be available on the City's website at https://www.burnaby.ca/City-Services/Water---Sewers/Drinking-Water.html by June 30. It provides an overview of the regulatory context, outlines the drinking water quality program undertaken by staff in 2016 and includes associated sample results to provide evidence of potability and compliance with the *B.C. Drinking Water Protection Regulation*.

Respectfully submitted,

Councillor S. Dhaliwal
Chair

Councillor A. Kang
Vice Chair

Copy: City Manager
Dir. Engineering

City of Burnaby

Item	
Meeting	2017 June 07

TO:	CHAIR AND MEMBERS SUSTAINABLE CITY ADVISORY COMMITTEE	**DATE:**	2017 May 31
FROM:	DIRECTOR ENGINEERING	**FILE:**	39500 12

SUBJECT: **ANNUAL DRINKING WATER QUALITY MONITORING REPORT (2016)**

PURPOSE: To present the Committee and Council with the City's Annual Drinking Water Quality Monitoring Report for 2016.

RECOMMENDATIONS:

1. **THAT** the Committee recommend Council to:

   a) Receive this report for information purposes; and

   b) Forward a copy of this report to 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 2016. 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 2016 a total of 2,664 routine drinking water samples were obtained in Burnaby for bacteriological analysis. Of these, 1,605 samples were obtained by City staff from 63 dedicated sample locations selected throughout the City's waterworks system and 1,059 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 2016 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 would result in a follow-up with the Fraser Health Authority and immediate flushing of applicable water mains and re-sampling. HPC's have also shown to be reducing when compared to previous years.

Free chlorine residuals at sampling stations have also improved over the past years. In 2016, 99.0% 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, 99.9% 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 are 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 (2016) 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 the Committee and Council's information.

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

DD:ac

Enclosure (Under Separate Cover)

Copied to: City Manager