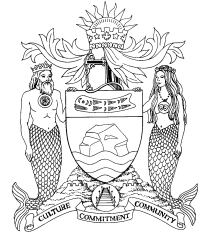


***Live Streaming/Telecast:** Please note that Standing Committees, Council Meetings, and Public Hearings held in the Council Chamber are being recorded and broadcasted as well included on the City's website at: www.whiterockcity.ca

Corporate Administration
E-mail

(604) 541-2212
clerksoffice@whiterockcity.ca

THE CORPORATION OF THE
CITY OF WHITE ROCK
15322 BUENA VISTA AVENUE, WHITE ROCK, B.C. V4B 1Y6



July 3, 2019

ON TABLE see page 155

A **REGULAR MEETING** of CITY COUNCIL will be held in the CITY HALL COUNCIL CHAMBERS located at 15322 Buena Vista Avenue, White Rock, BC, on **July 8, 2019** to begin at **7:00 p.m.** for the transaction of business as listed below.

T. Arthur, Director of Corporate Administration

A G E N D A

1. CALL MEETING TO ORDER

2. ADOPTION OF AGENDA

RECOMMENDATION

THAT the Corporation of the City of White Rock Council adopt the agenda for its regular meeting scheduled for July 8, 2019 as circulated.

3. ADOPTION OF MINUTES

a) June 24, 2019 – Regular Council

RECOMMENDATION

THAT the Corporation of the City of White Rock Council adopt the following meeting minutes as circulated:

a) June 24, 2019 – Regular Council

Page 8

4. QUESTION AND ANSWER PERIOD

Question and Answer period is an opportunity for the public to ask questions and make comments. There will be a Speaker's List available, each speaker will be given two (2) minutes and one (1) opportunity to ask a question(s) or make a comment. Question period shall be 15 minutes. Question and Answer Period is noted in the record and once the minutes are adopted, the questions and answers will be available on the [Question and Answer Period webpage](#).

Note: there are to be no questions or comments on a matter that will be the subject of a public hearing (time between the public hearing and final consideration of the bylaw).

4.1 CHAIRPERSON CALLS FOR SPEAKERS TO QUESTION AND ANSWER PERIOD

5. DELEGATIONS AND PETITIONS

5.1 DELEGATIONS

5.1.1 HANNAH NEWMAN: WHITE ROCK NEWEST PARK - 15463 BUENA VISTA AVENUE

H. Newman, resident, to appear as a delegation in regard “White Rock Newest Park – 15463 Buena Vista Avenue”.

5.1.2 SCOTT BROWN & BRIAN SHIGETOMI OF VANHOME PROPERTIES INC: 1453 STAYTE ROAD – COMMUNITY ENGAGEMENT REGARDING MODERATE DENSITY AND MORE AFFORDABLE HOUSING

S. Brown & B. Shigetomi of VanHome Properties Inc, to appear as a delegation in regard to community engagement with respect to moderate density and more affordable housing at 1453 Stayte Road.

5.1.3 SHELLY MARE & KERRY WRAY: VEGETATION ON THE HUMP

S. Mare & K. Wray, residents, to appear as a delegation in regard to vegetation on the hump.

5.1.4 SUE MCINTOSH, SENIORS COME SHARE SOCIETY: OVERVIEW OF SERVICES IN WHITE ROCK

S. McIntosh, Executive Director, Seniors Come Share Society, to appear as a delegation to provide an overview of services in White Rock.

5.2 PETITIONS

None

6. PRESENTATIONS AND CORPORATE REPORTS

6.1 PRESENTATIONS

6.1a RYAN WILLIAMS, TWI SURVEYS: 2019 EMPLOYEE SURVEY RESULTS

R. Williams, TWI Surveys, to provide a presentation regarding the 2019 City of White Rock Employee Survey Results.

6.1b DR. SAAD JASIM, MANAGER OF UTILITIES: 2018 WATER ANNUAL REPORT

Dr. Saad Jasim, Manager of Utilities, to provide a presentation regarding the City of White Rock’s 2018 Water Annual report.

6.2 CORPORATE REPORTS

6.2.1 ANNUAL WATER REPORT FOR 2018

Page 26

Corporate report dated July 8, 2019 from the Director of Engineering and Municipal Operations titled “Annual Water Report for 2018”.

RECOMMENDATION

THAT Council:

1. Receive for information the corporate report dated July 8, 2019 from the Director of Engineering & Municipal Operations titled “2018 Annual Water Report;” and
2. Endorse the “2018 Annual Water Report” attached to this Corporate Report as Appendix A.

- 6.2.2 OXFORD WATER FACILITY FENCING INSTALLATION, CONTRACT WR18-058**
Corporate report dated July 8, 2019 from the Director of Engineering and Municipal Operations titled “Oxford Water Facility Fencing Installation, Contract WR18-058”. **Page 102**

RECOMMENDATION

THAT Council

1. Receive for information the corporate report dated July 8, 2019, from the Director of Engineering & Municipal Operations titled “Oxford Water Facility Installation, Contract WR18-058”; and
2. Approve the award of a contract for construction of the perimeter fence around the Oxford Water facility to Streamline Fencing Ltd. for \$242,894.88 (excluding GST).

- 6.2.3 2019 SEWER CCTV INSPECTION AND SMOKE TESTING PROGRAM CONTRACT AWARD** **Page 105**
Corporate report dated July 8, 2019 from the Director of Engineering and Municipal Operations titled “2019 Sewer CCTV Inspection and Smoke Testing Program Contract Award”.

RECOMMENDATION

THAT Council

1. Receive for information the corporate report dated July 8, 2019 from the Director of Engineering and Municipal Operations Department titled “2019 Sewer CCTV Inspection and Smoke Testing Program Contract Award”; and
2. Approve the award of a contract for the 2019 Sewer CCTV Inspection and Smoke Testing Program to C3 Mainline Inspections Inc. for \$246,973.92 (excluding GST).

- 6.2.4 WATER SERVICES BYLAW, 2015, NO. 2117, AMENDMENT NO. 6, BYLAW, 2019, NO. 2302** **Page 108**
Corporate report dated July 8, 2019 from the Director of Financial Services titled “Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302”.

RECOMMENDATION

THAT Council receive for information the July 8, 2019 report from the Director of Financial Services, titled “*Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302*”.

***Note:** Bylaw No. 2302 is noted under the Bylaws section as Item 8.1.2 for consideration.*

- 6.2.5 MUSEUM FUNDING REQUEST** **Page 110**
Corporate report dated July 8, 2019 from the Director of Financial Services titled “Museum Funding Request”.

RECOMMENDATION

THAT Council receive for information the corporate report dated July 8, 2019 from the Director of Financial Services, titled “Museum Funding Request”.

7. MINUTES AND RECOMMENDATIONS OF COMMITTEES

7.1 STANDING AND SELECT COMMITTEE MINUTES

- | | |
|--|-----------------|
| - Governance and Legislation Committee – June 24, 2019 | Page 112 |
| - Grants-in-Aid Sub Committee – June 27, 2019 | Page 117 |
| - Marine Drive Task Force – June 18, 2019 | Page 119 |
| - Tour de White Rock Committee – June 20, 2019 | Page 125 |
| - Arts and Cultural Advisory Committee – June 25, 2019 | Page 131 |
| - Parking Task Force – June 27, 2019 | Page 135 |

RECOMMENDATION

THAT Council receive for information the following standing and select committee meeting minutes as circulated:

- a) Governance and Legislation Committee – June 24, 2019;
- b) Grants-in-Aid Sub-Committee – June 27, 2019;
- c) Marine Drive Task Force – June 18, 2019;
- d) Tour de White Rock Committee – June 20, 2019;
- e) Arts and Cultural Advisory Committee – June 25, 2019; and
- f) Parking Task Force – June 27, 2019.

7.2 STANDING AND SELECT COMMITTEE RECOMMENDATIONS

- 7.2.1** The following recommendations have been brought forward from the **Governance and Legislation Committee** meeting held on June 24, 2019:

RECOMMENDATION: HOUSING TASK FORCE

THAT the Governance and Legislation Committee recommends that Council endorse a:

1. Housing Task Force where all aspects of housing in the Community will be reviewed;
2. Community Forum regarding Affordable Housing be scheduled; and
3. Staff be directed to bring forward a draft Terms of Reference for the Housing Task Force.

Recommendations regarding Council Policy No. 106 were noted on the June 24, 2019 **regular agenda** and were deferred to the next meeting. They originated from the June 10, 2019 Governance and Legislation Committee meeting and are noted below for consideration.

COUNCIL POLICY NO. 106 – COUNCIL REMUNERATION AND EXPENSES Page 141

RECOMMENDATION #1:

THAT the Governance and Legislation Committee recommends that Council increase the Mayor and Council remuneration by 15%, enough to bring up the Council remuneration from what was lost with the new income tax act amendment that eliminated the nontaxable status of the non-accountable allowance for elected officials.

RECOMMENDATION #2:

THAT the Governance and Legislation Committee recommends that Council include in addition for 2019, the Canadian Price Index (CPI) rate to be added to the Mayor and Council Remuneration.

RECOMMENDATION #3:

THAT the Governance and Legislation Committee recommends that Council endorse Council Policy No. 106 – Council Remuneration and Expenses.

- 7.2.2 The following recommendation has been brought forward from the **Grants-in-Aid Sub Committee** meeting held on June 27, 2019:

RECOMMENDATION: DANCING AT THE PIER

THAT the Grants-in-Aid Committee recommends that Council approve an Arts and Cultural program Grant-in-Aid in the amount of \$5,000 to the Semiahmoo Rotary Club for the Dancing at the Pier event.

***Note:** The City’s policy requires that the applicant be a non-profit society. While the event organizers do not have this status, they have established a partnership with the Semiahmoo Rotary Club in order to qualify under the “non-profit society” requirement. It was noted that the partnership is a “one time only” relationship, and the event organizers will be required to have formed a non-profit society should they wish to be considered for a grant in the following years. The minutes are included in the agenda package as item 7.1b.*

- 7.2.3 The following recommendations have been brought forward from the **Parking Task Force** meeting held on June 27, 2019:

RECOMMENDATION:

THAT the Parking Task Force (the Task Force) recommends that Council consider that all development sites in the City of White Rock be mandated to prominently post their parking plan for all trades contractor staff.

8. BYLAWS AND PERMITS

8.1 BYLAWS

8.1.1 BYLAW 2299 – FEES AND CHARGES BYLAW, 2019, NO. 2298, AMENDMENT NO. 1, 2019, NO. 2299 **Page 146**

Bylaw 2299 proposes seasonal waterfront parking rates recommended by the Parking Task Force at its meetings to April 25, 2019. This bylaw was amended at the May 13, 2019 regular Council meeting and received three readings. This bylaw was scheduled for final reading at the May 27, 2019 regular meeting, where Council proposed the fees be amended further. Council referred the matter back to the Parking Task Force for their consideration and comment.

The Task Force reviewed Council’s proposed change on June 13, 2019, and supported the Bylaw moving forward as originally presented and it was placed on the May 27, 2019 agenda for final reading.

At the June 24, 2019 regular Council meeting, Council further discussed the proposal. Bylaw 2299 had the third reading rescinded, and was reconsidered and given a new third reading as amended.

This bylaw is now presented for consideration of final reading (as amended at the June 24, 2019 regular Council meeting).

RECOMMENDATION

THAT Council give final reading to “*Fees and Charges Bylaw, 2019, No. 2298, Amendment No. 1, 2019, No. 2299*”.

Note: The bylaw as presented now includes the following noted items:

- \$3.75 per hour in the High Demand Zones
- \$3.25 per hour in the Value Rate Parking Zones
- Free Monday – Friday parking on the waterfront during the months of November, December and January

The full schedule is attached to the bylaw noting all parking fees.

8.1.2 BYLAW 2302 – WATER SERVICES BYLAW, 2015, NO. 2117, AMENDMENT NO.6, BYLAW, 2019, NO. 2302 Page 148

Section 194 of the *Community Charter* authorizes Council, by bylaw, to establish municipal fees for services, for the use of municipal property or to exercise the authority to regulate, prohibit or impose requirements. Bylaw 2302 proposes an amendment to the Water Services, and is presented for first, second, and third reading.

RECOMMENDATION

THAT Council give first, second, and third reading to “*Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302*”.

8.2 PERMITS

None

9. CORRESPONDENCE

9.1 CORRESPONDENCE - RECEIVED FOR INFORMATION

Note: *Further action on the following correspondence items may be considered. Council may request that any item be brought forward for discussion, and may propose a motion of action on the matter.*

Note: *Council may wish to refer this matter to staff for consideration and response.*

9.1.1 Letter dated June 18, 2019 from S. Young, Secretary of the National Energy Board, regarding Trans Mountain Pipeline ULC (Trans Mountain), Trans Mountain Expansion Project (Project), Order in Council P.C. 2019-0820: Project Update Page 151

9.1.2 Letter dated June 27, 2019 from A. Singh, Union of British Columbia Municipalities (UBCM) President, acknowledging receipt of the City of White Rock’s June 24, 2019 resolution requesting a change to the *Community Charter* so that municipalities may impose a vacancy tax to residential and commercial properties Page 153

RECOMMENDATION

THAT Council receive for information correspondence **Items 9.1.1 and 9.1.2** as circulated.

10. MAYOR AND COUNCILLOR REPORTS

10.1 MAYOR’S REPORT

10.2 COUNCILLORS REPORTS

10.2.1 METRO VANCOUVER BOARD IN BRIEF

None

11. MOTIONS AND NOTICES OF MOTION

11.1 MOTIONS

11.1a PARKING ENFORCEMENT IN UPTOWN WHITE ROCK

Councillor Trevelyan served the following Notice of Motion at the June 24, 2019 regular Council meeting. It is noted on the agenda for Council’s consideration at this time:

WHEREAS the Parking Task Force is looking into parking issues Uptown;

WHEREAS the Parking Task Force is looking for an immediate stop-gap to the scenario;

THAT Council directs staff to increase parking enforcement, targeting the Uptown area, to fine those that illegally park past their time limit.

11.1 b RENAMING OF TOTEM PLAZA

Councillor Fathers brought forward the following Motion for Council’s consideration at this time:

WHEREAS the relationship with Semiahmoo First Nation is of the utmost of importance and it is with the deepest respect;

I SO MOVE THAT in honour of Grand Chief Charles that Totem Plaza be officially renamed as Grand Chief Bernard Robert Charles Plaza, and

THAT all corresponding signage be amended to reflect this.

11.2 NOTICES OF MOTION

None

12. RELEASE OF ITEMS FROM CLOSED COUNCIL MEETINGS

None

13. OTHER BUSINESS

14. CONCLUSION OF THE JULY 8, 2019 REGULAR COUNCIL MEETING

PRESENT: Mayor Walker
Councillor Johanson
Councillor Kristjanson
Councillor Chesney
Councillor Fathers (departed the meeting at 9:09 p.m.)
Councillor Manning
Councillor Trevelyan

STAFF: T. Arthur, Director of Corporate Administration
J. Gordon, Director of Engineering and Municipal Operations
J. Johnstone, Director of Human Resources
S. Kurylo, Director of Financial Services
C. Johannsen, Director of Planning and Development Services
P. Lemire, Fire Chief
E. Stepura, Director of Recreation and Culture
C. Isaak, Manager of Planning
C. Zota, Manager of Information Technology
S. Lam, Deputy Corporate Officer

Press: 1
Public: 29

1. CALL MEETING TO ORDER
The meeting was called to order at 7:00 p.m.

2. ADOPTION OF AGENDA

2019-247 **It was MOVED and SECONDED**

THAT the Corporation of the City of White Rock Council adopts the agenda for its regular meeting scheduled for June 24, 2019 as circulated.

CARRIED

3. ADOPTION OF MINUTES

- a) June 10, 2019 – Public Hearing (LL 19-003 for 15475 Marine Drive)
- b) June 10, 2019 – Regular Meeting

2019-248 **It was MOVED and SECONDED**

THAT the Corporation of the City of White Rock Council adopts the following meeting minutes as circulated:

- a) June 10, 2019 – Public Hearing (LL 19-003 for 15475 Marine Drive); and
- b) June 10, 2019 – Regular Meeting.

CARRIED

4. QUESTION AND ANSWER PERIOD

Question and Answer Period is noted in the record and once the minutes are adopted, the questions and answers will be available on the Question and Answer Period webpage.

4.1 CHAIRPERSON CALLS FOR SPEAKERS TO QUESTION AND ANSWER PERIOD

G. Gumley, White Rock, spoke in regards to Whistle Cessation and asked if it is necessary to wait for the Coldicutt ravine barriers to be in place prior to asking Transport Canada for relief. Can White Rock ask for whistle cessation now, and can these matters be looked at on a case by case basis such as Coldicutt?

The City advised that they have met with Transport Canada who advised that the Coldicutt Ravine fence needs to be completed, and that the City will continue to work with them on achieving whistle cessation. The City will send an additional letter to Burlington Northern Santa Fe (BNSF) requesting if whistle cessation can be addressed more urgently.

R. Louis, White Rock, spoke to TransLink's plans to cancel full-size bus services (with the exception of Monday to Friday rush hour traffic). Asked Council to express concerns regarding the cuts to TransLink, and to ask that they host an open forum to receive input from the public.

Mayor Walker advised he will meet with the CEO and Senior Operations Officers of TransLink to address the concerns and impact to the Community.

K. Jones, White Rock, expressed concerns regarding homes along the west side of Maple Street. Noted the houses are unsightly with tall grass and garbage. It was noted these homes were once occupied and are now empty as the tenants have been evicted. Asked the City to address issues / develop a policy that addresses renovations.

Staff advised that the *Residential Tenancy Act* holds the authority to address the protection rights and provisions of tenants. It was noted that permits must be in place prior to demolition, adding that tenants can appeal if they feel they have been wrongfully evicted.

5. DELEGATIONS AND PETITIONS

5.1 DELEGATIONS

**5.1.1 CHARLENE GARVEY, DEBBIE WARD, KARIN BJERKE-LISLE:
WHITE ROCK MUSEUM AND ARCHIVES: GRANT FUNDING.**

C. Garvey, D. Ward, K. Bjerke-Lisle from the White Rock Museum and Archives provided a PowerPoint presentation requesting additional grant funding to be directed towards the Executive Director role.

Council noted that the Museum and Archives building plays a very important role in the revitalization of the waterfront.

The delegation advised that the current funding does not allow for an Executive Director to properly lead/manage the facility which operates on a seven (7) day schedule. The current salary only allows for a 20 hour/week shift.

Council expressed interest in supporting the delegation; however, advised that they would need to have a better understanding of the funding source. In response to Council's question, staff reported that \$50,000 represents approximately a 0.02% increase.

2019-249

It was MOVED and SECONDED

THAT Council directs staff to identify the funding source for a potential \$50,000 grant increase to White Rock Museum and Archives.

CARRIED

**5.1.2 IONA WELDER, WHITE ROCK YOUTH AMBASSADORS:
INTRODUCTION OF THE 2019-2020 TEAM, AND REQUESTING
FEEDBACK ON WHAT AREA OF VOLUNTEER WORK THE CITY
WOULD LIKE THEM TO PARTICIPATE**

I. Welder, White Rock Youth Ambassadors, appeared as a delegation and introduced the 2019 - 2020 White Rock Youth Ambassadors team, and asked Council where they would like to see the Team volunteer within the City.

The delegation reported that they have been working to fundraise for the Pier as well as for underprivileged youth in the Community.

Council suggested the Youth Ambassadors engage with White Rock seniors, adding that civic facilities, such as Kent Street, have day programs.

Moving forward, it was noted that the annual White Rock Youth Ambassadors' gala falls on the weekend of the Sea Festival, and noted it would be helpful if the City could assist in securing a venue. The City will continue to work with the delegation.

2019-250

It was MOVED and SECONDED

THAT Council receives the information presented by I. Welder and the 2019-20 White Rock Youth Ambassadors.

CARRIED

5.2

PETITIONS

None

6.

PRESENTATIONS AND CORPORATE REPORTS

6.1

PRESENTATIONS

6.1a

DR. BRENDAN BYRNE, WELLNESS GARAGE: HEALTH IN A BLUE ZONE

Dr. Byrne, Wellness Garage, provided a presentation regarding Health in a Blue Zone. It was highlighted how a Blue Zone is defined, the studies, the locations, and the principals in action.

In response to Council's question, Dr. Byrne advised that he could be available to provide a further in depth workshop/seminar in a public forum for the community upon request.

2019-251

It was MOVED and SECONDED

THAT Council receives the presentation from Dr. Brendan Byrne titled "Wellness Garage: Health in a Blue Zone".

CARRIED

6.2

CORPORATE REPORTS

6.2.1

BLUE ZONES

Corporate report dated June 24, 2019 from the Director of Recreation and Culture titled "Blue Zones".

2019-252

It was MOVED and SECONDED

THAT Council:

1. Receives for information the corporate report dated June 24, 2019 from the Director of Recreation and Culture titled "Blue Zones".
2. Directs staff report back on options for what the City can do, logistically and financially, to designate White Rock with Blue Zone status.

CARRIED

6.2.2

2018 ANNUAL REPORT

Corporate report and PowerPoint presentation dated June 24, 2019 from the Director of Corporate Administration titled “2018 Annual Report”.

Mayor Walker invited speakers to provide comments and questions regarding the 2018 Annual Report.

R. Louis, White Rock, referred to his written submission provided “On Table” (Item C-1), requested the Annual Report be amended prior to approval, and posed the following comments:

- The words objectives and priorities are not the same term
- The annual report should describe, annually, a level of progress in terms of implementing the objectives and strategies
- The annual report should contain a brief summary that describes the City’s objectives for public transit services

K. Jones, White Rock, referred to the listed amounts for the 2018 Permissive Tax Exemptions, and requested that there be a summary total of the amounts granted at the bottom of the columns, noting that residents should be aware of how much tax is being exempt.

G. Wolgemuth, White Rock, provided the following comments:

- Waterfront Revitalization Resource Book and 2009 Economic Development Strategy were both well done
- Reference building facades, suggested that the City consider implementing a revitalization tax exemption
- When will the City be releasing closed meeting minutes?
Response: the City is releasing information as it becomes available, and are working towards releasing more information
- What are the fourteen (14) risk management claims?
Response: risk management claims can vary from trip & falls, to incidents at civic facilities. The City works with the Municipal Insurance Authority in addressing claims
- Has the City used Community Amenity Contributions (CAC) towards debt servicing costs, which is contrary to the *Local Government Act*?
Response: CACs have not been used to make debt servicing costs, nor is it in the current budget
- It was clarified that the “Semiahmoo Retaining Wall” refers to a retaining wall on Semiahmoo Avenue, and is not in relation to the Semiahmoo First Nation

G. Parkin, White Rock, provided the following questions/comments:

- The City appears to be 10% over budget
- When looking at general expenditures, what do we have in place in terms of self-controls to address this next year?
- What are the “one time” items, and is there a chance the fees will decrease?
Response: referencing page 101, the first column refers to the budget, and the second column refers to the actuals.
- Can the City invest funds in higher risk options?
Response: The City is restricted in terms of the *Community Charter* for the types of products the City can invest in. The City has some funds in the Municipal Finance Authority market fund, and that the City receives a preferred rate for monies in the bank account
- The \$4.8M referenced on page 111 of the agenda notes the entire/inclusive amount for the parkade (asset and land)

B. McGill, White Rock, spoke to environmental concerns and questioned why it is listed for both accomplishments and goals for next year.

Response: the Annual Report summarizes the City’s work on a high-level, and added that specific concerns regarding the environment will be addressed through the Environmental Advisory Committee.

Council noted that the Committee’s Terms of Reference outlines work and objectives for the year, adding that if there are any ideas or suggestions, that they may forward them to the Committee.

Mayor Walker called for further first time speakers. There was no response.

Speaking for a second time:

R. Louis, White Rock, referred to his “On Table” correspondence (Item C-1) and provided the following questions/comments:

- The City should be reviewing their strategic plans (eg; Economic, Transportation, etc) every five (5) years.
Response: the new Economic Development Committee will be reviewing previous plans and developing a new plan for the City. The City has also allocated funding for a new Strategic Transportation Master Plan
- The Annual Report should speak to wayfinding signage at various destinations, including the bus exchange
- The City should bring in car sharing programs.
Response: There are not many car sharing programs outside of Vancouver, adding that these services are made available in higher demand areas
- The City does not have public stations at popular tourist and visitor destinations for electric vehicles.
Response: there are multiple charging stations available in the new West

- Beach Parkade, it is something that we are addressing with new opportunities
- The City should host a public forum to obtain feedback regarding changes to the transit services.
Response: TransLink has held opportunities for public input in the past; however, they were not well attended this may be something that can be reviewed

In response to Council's questions, staff provided the following information:

- The *Community Charter* requires that the City adopt the Annual Report by June 30th
- The Council Strategic Priorities, that are noted in the annual report, are a living document that will continue to evolve and be updated throughout the Council term
- The City hosted two (2) public consultation sessions and conducted a survey in terms of developing the Council Strategic Priorities
- The City is working towards developing a scorecard to obtain metrics during the OCP review process
- The City is working with the Business Improvement Association (BIA) towards having wayfinding signage in the City
- Referring to page 72 "Internal Communications", it was noted that the City has been working on improving staff communications. Chief Administrative Officer (CAO) presentations were implemented quarterly, these presentations provide a peer to peer opportunity for staff to speak to their roles and work within the City
- Referring to page 80, the staff breakdown refers to full and part-time employees, temporary, and seasonal employees. Approximately 50% are full-time employees. The turnover rate of staff is at average across the region.

2019-253

It was MOVED and SECONDED
THAT Council:

1. Receives for information the June 24, 2019 corporate report from the Director of Corporate Administration, titled "2018 Annual Report"; and
2. Endorses the 2018 Annual Report as circulated.

CARRIED

It was noted that there were still some public who wanted to speak a second time:

K. Jones, White Rock, requested a complete breakdown of expenditures between the RCMP and the Fire Department.

Response: There is a third component to "protection services" expenditures with Bylaw Enforcement, which is considered a protection service under the Provincial Government. A breakdown of the graph is included in the audited financial statements. A further breakdown will be included on the City's website.

Is Rail Relocation is still a priority of the City?

Response: the City will be working with upper levels of government on this matter.

G. Wolgemuth, White Rock, referred to his initial question regarding debt servicing, and if the City had used Community Amenity Contributions (CACs) to address this.

Response: the City budgeted to use CACs to pay back money it was planning to borrow for the parkade (which is permitted); however, the loan was not needed so the money was not borrowed.

Mr. Wolgemuth continued and provided the following questions/comments:

- Referring to replacement costs on city assets, what are our tangible assets, and have they appreciated?
- What is the City's replacement costs for what we own, and what are they worth?
- When the City brings forward budgeting reports in the future, that they find a better way to track where the funds are going, and to explain why specific reserves are being transferred
- The City should be enforcing Air BnBs to ensure they are in compliance/registered

The following responses were given:

- The cost of the tangible capital assets are higher than the book value included in the financial statements
- In order to acquire a proper assessment, there would be a significant cost to conduct this report (roads, sewers, buildings, etc). This information can be brought forward at the request of Council
- Referring to page 114 of the agenda, a list of the City's reserves is noted, adding that it represents \$55M in reserves
- A follow-up report regarding accessory vacation rentals (eg: Air Bnb) will be coming in the near future
- The City responds to complaints as they come in

2019-254

It was MOVED and SECONDED

THAT Council directs staff to amend the 2018-2022 Strategic Priorities from this point to include rail relocation under Advocacy and it be placed as an addendum to the Annual Report.

CARRIED

2019-255

It was MOVED and SECONDED

THAT Council directs staff to bring forward a breakdown of "Protection Services" (RCMP, Fire, Bylaw Enforcement) and it be placed on the website as an addendum to the 2018 Annual Report.

CARRIED

Councillor Fathers departed the meeting at 9:09 p.m.

6.2.3

2018 DEVELOPMENT COST CHARGES REPORT

Corporate report dated June 24, 2019 from the Director of Financial Services titled “2018 Development Cost Charges Report”.

2019-256

It was MOVED and SECONDED

THAT Council receives for information the June 24, 2019 corporate report from the Director of Financial Services, titled “2018 Development Cost Charges Report”.

CARRIED

6.2.4

2018 STATEMENT OF FINANCIAL INFORMATION

Corporate report dated June 24, 2019 from the Director of Financial Services titled “2018 Statement of Financial Information”.

2019-257

It was MOVED and SECONDED

THAT Council:

1. Receives for information the June 24, 2019 corporate report from the Director of Financial Services, titled “2018 Statement of Financial Information;”
2. Approves the 2018 Statement of Financial Information attached as Appendix A; and
3. Authorizes the Mayor to sign the document as approved on behalf of City Council.

CARRIED

6.2.5

2018 REPORT OF CITY COUNCIL REMUNERATION, EXPENSES AND CONTRACTS

Corporate report dated June 24, 2019 from the Director of Financial Services titled “2018 Report of City Council Remuneration, Expenses and Contracts”.

It was clarified that seminars, such as orientation, or courses required by the City, are considered expenses.

2019-258

It was MOVED and SECONDED

THAT Council receives for information the June 24, 2019 corporate report from the Director of Financial Services, titled “2018 Report of City Council Remuneration, Expenses and Contracts.”

CARRIED

6.2.6

CAPITAL PROJECTS UPDATE – JUNE 18, 2019

Corporate report from the Director of Engineering and Municipal Operations titled “Capital Projects Update – June 18, 2019”.

It was suggested that a retrospective meeting be held where the project teams can reflect on the project and talk about what were the challenges, what can be improved and celebrate successes. It would also be a time to celebrate the successes.

Council recognized that there has been a shortage of Engineering and Municipal Operations staff, which have contributed to the use of consultants leading capital projects.

With respect to other projects, Council requested that the benches on Johnston Road be refurbished for the new season.

2019-259

It was MOVED and SECONDED

THAT Council directs staff to hold a retrospective meeting with respect to the West Beach Parkade and Memorial Park projects.

CARRIED

2019-260

It was MOVED and SECONDED

THAT Council receives for information the corporate report dated June 24, 2019 from the Director of Engineering & Municipal Operations titled “Capital Projects Update – June 18, 2019”.

CARRIED

6.2.7

WILCO CIVIL INC. – CONTRACT ADJUSTMENT FOR EAST BEACH RESTORATION

Corporate report from the Director of Engineering and Municipal Operations titled “Wilco Civil Inc. – Contract Adjustment for East Beach Restoration”.

Discussion ensued and the following comments were noted:

- There were environmental challenges with respect to installing a concrete ramp along the beach for those with mobility issues. As a result, a redesign took place and the projected completion date is now the end of July
- Council would like a further breakdown of costs when there is an unforeseen increase in expenditures for the projects
- Staff clarified that they are not asking for a budget increase, but for the amount assigned to the contractor be increased in anticipation of what is needed to be done to complete the East Beach project
- Up to 80% of the Pier Replacement Project could be eligible for reimbursement through the Provincial Disaster Funding Assistance program, noting that similar to insurance, monies may only be awarded to the cost of the pier’s condition prior to the storm
- The \$1M funding received by the Province may be used towards the Pier restoration, East Beach, or a combination of both
- Delays to Memorial Park occurred when mitten was discovered

- The City had to project a cost for the project in order to commence work. As the work moves towards completion, actual costs and totals are documented

2019-261

It was MOVED and SECONDED

THAT Council

1. Receives for information the corporate report dated June 10, 2019 from the Director of Engineering & Municipal Operations titled Capital Projects Update
2. Approves the change orders to Wilco Civil Inc. for up to \$960,000 (excluding GST) for additional works for the East Beach Promenade Restoration and Pedestrian Rail Crossings projects.

CARRIED

Councillor Kristjanson voted in the negative

7.

MINUTES AND RECOMMENDATIONS OF COMMITTEES

7.1

STANDING AND SELECT COMMITTEE MINUTES

- Governance and Legislation Committee – June 10, 2019
- Land Use and Planning Committee – June 10, 2019
- Seniors Advisory Committee – June 4, 2019
- Sea Festival Committee – June 6, 2019
- Water Community Advisory Panel – June 11, 2019
- Economic Investment Committee – June 12, 2019
- Parking Task Force – June 13, 2019

2019-262

It was MOVED and SECONDED

THAT Council receives for information the following standing and select committee meeting minutes as circulated:

- a) Governance and Legislation Committee – June 10, 2019;
- b) Land Use and Planning Committee – June 10, 2019;
- c) Seniors Advisory Committee – June 4, 2019;
- d) Sea Festival Committee – June 6, 2019;
- e) Water Community Advisory Panel – June 11, 2019;
- f) Economic Investment Committee – June 12, 2019; and
- g) Parking Task Force – June 13, 2019.

CARRIED

7.2

STANDING AND SELECT COMMITTEE RECOMMENDATIONS

- a) The following recommendations have been brought forward from the **Governance and Legislation Committee** meeting held on June 10, 2019:

COUNCIL POLICY NO. 106 – COUNCIL REMUNERATION AND EXPENSES

This matter was to be discussed earlier in the evening at the Governance and Legislation Committee meeting; however, due to time constraints was deferred to the next meeting. As such, these recommendations will be considered at the next meeting.

2019-263

It was MOVED and SECONDED

THAT Council defers consideration of the three (3) recommendations noted at Item 7.2a Council Policy No. 106 – Council remuneration and Expenses to the next scheduled Council meeting.

CARRIED

2019-264

It was MOVED and SECONDED

THAT Council endorses the following policies as circulated:

- a) Council Policy No. 162: Terms of Reference – Dogs on the Promenade Task Force;
- b) Council Policy No. 156: Terms of Reference – Parking Task Force; and
- c) Finance Policy No. 317: Municipal Tax Exemptions.

CARRIED

The following recommendation was brought forward from the **Governance and Legislation Committee** meeting held earlier in the evening (June 24, 2019):

2019-265

It was MOVED and SECONDED

THAT Council:

1. Introduces to this agenda the following resolution regarding Annual Vacancy Tax; and
2. Endorses the following to be forwarded to the Union of British Columbia of Municipalities (UBCM) for the 2019 convention:

WHEREAS The City of Vancouver has authority through the Vancouver Charter to implement an Annual Vacancy Tax

WHEREAS The City of White Rock is governed through the Community Charter where there is no current authority to implement a Vacancy Tax and it is believed that there are a number of vacant residential and commercial properties in the City of White Rock

THEREFORE BE IT RESOLVED THAT the City of White Rock request that UBCM work with the Province of British Columbia to amend the authority given to Local Governments through the Community Charter permitting municipalities the authority to impose, by bylaw, an annual vacancy tax on taxable residential and commercial properties, and that the criteria and administrative requirements be similar to those of the Vancouver Charter.

CARRIED

- b) The following recommendations have been brought forward from the **Sea Festival Committee** meeting held on June 6, 2019:

2019-266 **It was MOVED and SECONDED**
THAT Council directs staff to approach the Business Improvement Association (BIA) to conduct a survey on the value of the Sea Festival for their businesses members in order to assess the impact it has on sales.

CARRIED

2019-267 **It was MOVED and SECONDED**
THAT Council directs staff to work with Explore White Rock to conduct a survey with the attendees of the Sea Festival to measure the economic and social impact of the event.

CARRIED

- c) The following recommendations have been brought forward from the **Economic Investment Committee** meeting held on June 12, 2019:

2019-268 **It was MOVED and SECONDED**
THAT Council amends the name of the Economic Investment Committee to the Economic Development Advisory Committee.

CARRIED

2019-269 **It was MOVED and SECONDED**
THAT Council directs that a Business Forum with a Public Town Hall Meeting be scheduled for the fall, 2019.

CARRIED

Councillors Johanson and Kristjanson voted in the negative

2019-270 **It was MOVED and SECONDED**
THAT Council directs that an invitation to a member/ representative from the Semiahmoo First Nation be forwarded for their attendance at a future Economic Investment Committee to share their perspectives on their community, from a business standpoint.

CARRIED

8. BYLAWS AND PERMITS

8.1 BYLAWS

8.1.1 BYLAW 2299 – FEES AND CHARGES BYLAW, 2019, NO. 2298, AMENDMENT NO. 1, 2019, NO. 2299

Bylaw 2299 proposes seasonal waterfront parking rates recommended by the Parking Task Force at its meetings to April 25, 2019. This bylaw was amended at the May 13, 2019 Regular Council meeting and received three readings. This bylaw was scheduled for final reading at the May 27, 2019 regular meeting, where Council proposed the fees be amended further. Council referred the matter back to the Parking Task Force

for their consideration and comment. The Task Force reviewed Council's proposed change, and supported the Bylaw moving forward as originally presented; therefore, the bylaw included in the agenda package is as was presented on May 27, 2019. Bylaw 2299 is presented for consideration of final reading.

Director of Financial Services provided an update regarding the Parking Task Force's decision to support the proposed bylaw as presented, adding that based on an assumption of volume, felt the City would need to operate at a \$4 summer rate in order to cover the operating cost of the parkade.

Councillor Trevelyan, liaison to the Parking Task Force (PTF), provided the following comments:

- The Task Force felt that there was a risk of impacting property taxes if the rate was not increased to \$4
- Staff concur with the increase to \$4
- Canvassed the waterfront businesses, and the majority indicated they would not be in support of an increase to \$4

General discussion ensued and the following comments were noted:

- The City lost parking capacity/revenue due to the waterfront construction at approximately \$100k-\$200k
- The parkade provides more parking capacity at the waterfront. There are 119 extra spaces, which could generate a significant amount of revenue, and more than the operating cost of the facility. This is all dependent on where visitors choose to park
- Members of Council expressed concerns that the proposed cost of \$4 is too high for parking in comparison to our neighbouring municipalities, suggesting that pay parking is a deterrent for visiting the waterfront
- Estimates indicate that the impact of free parking is a potential loss of \$163K annually

It was MOVED and SECONDED

THAT Council give final reading to "*Fees and Charges Bylaw, 2019, No. 2298, Amendment No. 1, 2019, No. 2299*".

DEFEATED

Councillors Chesney, Johanson, Kristjanson, Manning, and Trevelyan voted in the negative

2019-271

It was MOVED and SECONDED

THAT Council:

1. Reconsiders and Rescinds third reading to "*Fees and Charges Bylaw, 2019, No. 2298, Amendment No. 1, 2019, No. 2299*" as circulated; and
2. Gives new third reading to *Fees and Charges Bylaw, 2019, No. 2298, Amendment No. 1, 2019, No. 2299* as follows:

Pay Parking	
<ul style="list-style-type: none"> • The following waterfront rates are per hour from 10:00 am – 12:00 midnight unless otherwise stated • A 4-hour maximum stay applies to the prime parking area (Oxford St. to Hump), with the exception of the Montecito and the West Beach Parkades. 	
<ul style="list-style-type: none"> • WINTER SEASON – November to January <ul style="list-style-type: none"> - Monday to Friday - Saturday and Sunday - Daily Weekend Rate for Montecito and West Beach Parkades 	FREE \$2.00 \$7.50
<ul style="list-style-type: none"> • SHOULDER SEASON – October, February and March <ul style="list-style-type: none"> - Daily Rate for Montecito and West Beach Parkades 	\$2.00 \$7.50
<ul style="list-style-type: none"> • SUMMER SEASON – April to September <ul style="list-style-type: none"> - High Demand Zones – all lot and on-street waterfront parking locations (including the parkades), except for locations west of Oxford Street - Value Priced Zone – all lot and on-street waterfront parking locations west of Oxford Street - Daily Rate for Montecito and West Beach Parkades 	\$3.75 \$3.25 \$15.00

CARRIED

Councillor Chesney voted in the negative

8.2

PERMITS

None

9. CORRESPONDENCE

9.1 CORRESPONDENCE - RECEIVED FOR INFORMATION

9.1.1 Letter dated May 24, 2019 from S. Dhaliwal, Chair of the Metro Vancouver Board, to inform regarding Transit-Oriented Affordable Housing Study Phase 2 – Key Findings

9.1.2 Letter dated June 11, 2019 from P. Kaur and C. Warner, Flights of Fantasy Festival, regarding the proposed Flights of Fantasy Festival

9.1.3 Letter dated June 10, 2019 from S. Dhaliwal, Chair of the Metro Vancouver Board, inviting the City of White Rock to provide written comments on the Metro 2040 Land Use Designation Amendment Request from the City of Delta (MK Delta Lands). The deadline to submit comments is September 6, 2019, and comments may be provided by Council resolution

2019-272 **It was MOVED and SECONDED**
THAT Council refers to staff for a corporate report the correspondence dated June 10, 2019 from Metro Vancouver regarding Metro 2040 Land Use Designation Amendment Request from the City of Delta (MK Delta Lands). **CARRIED**

2019-273 **It was MOVED and SECONDED**
THAT Council receives correspondence **Items 9.1 – 9.3** for information as noted on the agenda. **CARRIED**

9. MAYOR AND COUNCILLOR REPORTS

9.1 MAYOR'S REPORT

Mayor Walker noted the following community events/information:

- June 12, Nine and Dine Golf Tournament in memory of Cliff Annable
- June 13, TransLink Sub-Committee
- June 19, White Rock Museum and Archives opening reception for “Castles in your Mind – White Rock’s Sandcastle Phenomenon 1979-1987”
- June 20, Translink joint Finance and Governance Committee meeting
- June 20, “Friends of the Pier” fundraiser
- June 21, Inaugural National Indigenous Peoples’ Day Ceremony
- Announced that there will be a Community Forum to learn about Council’s priorities and the City’s accomplishments held at 6:30 p.m. on Wednesday, June 26, 2019 at the White Rock Community Centre

9.2

COUNCILLORS REPORTS

Councillor Kristjanson noted the following community events/information:

- June 12, Nine and Dine Golf Tournament in memory of Cliff Annable
- June 13, White Rock Outdoor Movie Night
- June 14, Healthy Community Steering Committee
- June 15, Opening of Indigenous Bloom Cannabis Dispensary
- June 17, Council to Council meeting with Semiahmoo First Nation
- June 19, White Rock Museum and Archives opening reception for “Castles in your Mind – White Rock’s Sandcastle Phenomenon 1979-1987”
- June 21, Inaugural National Indigenous Peoples’ Day Ceremony

Councillor Trevelyan noted the following community events/information:

- June 11, Water Community Advisory Panel
- June 13, Parking Task Force
- June 13, Closed Council Meeting
- June 17, Council to Council Meeting with Semiahmoo First Nation
- June 18, Marine Drive Task Force
- June 20, Surrey Teacher’s Association Event
- June 21, Inaugural National Indigenous Peoples’ Day Ceremony

Councillor Manning noted the following community events/information:

- June 12, Economic Investment Committee
- June 17, Council to Council meeting with Semiahmoo First Nation
- June 19, White Rock Museum and Archives opening reception for “Castles in your Mind – White Rock’s Sandcastle Phenomenon 1979-1987”

Councillor Johanson noted the following community events/information:

- June 14, Fraser Health Authority Meeting
- June 14, White Rock/South Surrey Baseball Association Wrap-up Party
- June 12, Economic Investment Committee
- June 17, Council to Council meeting with Semiahmoo First Nation
- June 19, White Rock Museum and Archives opening reception for “Castles in your Mind – White Rock’s Sandcastle Phenomenon 1979-1987”
- June 20, E-Comm 9-1-1 Annual General Meeting
- June 21, Inaugural National Indigenous Peoples’ Day Ceremony

Councillor Chesney noted the following community events/information:

- June 13, Tour de White Rock Committee
- June 6, White Rock Sea Festival Committee

9.2.1 METRO VANCOUVER BOARD IN BRIEF

METRO VANCOUVER BOARD IN BRIEF – MAY 24, 2019

2019-274

It was MOVED and SECONDED

THAT Council receives for information the May 24, 2019 Metro Vancouver Board in Brief document.

CARRIED

10. MOTIONS AND NOTICES OF MOTION

10.1 MOTIONS

None

10.2 NOTICES OF MOTION

Councillor Trevelyan announced the following notice of motion:

WHEREAS the Parking Task Force is looking into parking issues Uptown;

WHEREAS the Parking Task Force is looking for an immediate stop-gap to the scenario;

THAT Council directs staff to increase parking enforcement, targeting the Uptown area, to fine those that illegally park past their time limit.

11. RELEASE OF ITEMS FROM CLOSED COUNCIL MEETINGS

None

12. OTHER BUSINESS

None

13. CONCLUSION OF THE JUNE 24, 2019 REGULAR COUNCIL MEETING

Prior to the meeting conclusion the Mayor noted that the Governance and Legislation Committee meeting originally adjourned to be held following the conclusion of the regular Council meeting will now be held over until the next scheduled Governance and Legislation Committee meeting of July 8, 2019.

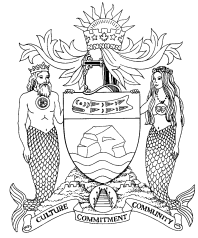
The Chairperson declared the meeting concluded at 10:44 p.m.

S. Alam

Mayor Walker

Stephanie Lam, Deputy
Corporate Officer

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: July 8, 2019
TO: Mayor and Council
FROM: Jim Gordon, P.Eng, Director of Engineering & Municipal Operations
SUBJECT: Annual Water Report for 2018

RECOMMENDATIONS

THAT Council:

1. Receive for information the corporate report dated July 8, 2019 from the Director of Engineering & Municipal Operations titled “2018 Annual Water Report;” and
 2. Endorse the “2018 Annual Water Report” attached to this Corporate Report as Appendix A.
-

INTRODUCTION

The 2018 Annual Water Report covers the period from January 1, 2018 to December 31, 2018. The annual report highlights 2018 accomplishments and activities during the third full year since the acquisition of the Water System. The annual report includes the capital projects and activities underway during that period.

PAST PRACTICE / POLICY / LEGISLATION

The City prepares an Annual Water Report each year in accordance with the operating license requirements of Fraser Health.

DISCUSSION

Since acquiring the water utility, the City has accomplished several substantial milestones, all of which reflect a commitment to delivering safe and clean drinking water to our residents.

The Guidelines for Canadian Drinking Water Quality (GCDWQ) established by Health Canada, sets the maximum acceptable concentrations of microbial, radiological and chemical contaminants found in water. They also address the aesthetic water quality considerations regarding colour and taste. These guidelines are the basis for work the City does to ensure the best quality drinking water for the community. Although White Rock met the GCDWQ before the recent completion of the Water Treatment Plant (WTP) in 2019, the test results with the new plant in operation far exceed the GCDWQ.

Fraser Health indicates that the City of White Rock’s water is safe and that the City is fulfilling its requirements under the *Drinking Water Protection Act and Regulation*. Fraser Health, as the regulatory agency for drinking water in this jurisdiction, advised that it has no public health concerns in regards to the City of White Rock's water safety or quality.

A hard copy of the 2018 Annual Water Report will be available at the front counter of City's civic facilities after July 8, 2019.

CONCLUSION

As the owner and operator of the water utility, the City of White Rock has taken the steps outlined in this report to ensure best practices in the delivery of drinking water to residents, businesses and visitors. These steps include increases to water capacity, improvements to water quality, as well as improved security and operational service delivery. The 2018 Annual Water Report highlights a number of those improvements carried out during the year and is presented to City Council for endorsement.

Respectfully submitted,



Jim Gordon, P.Eng.
Director, Engineering and Municipal Operations Department

Comments from the Chief Administrative Officer:

I concur with the recommendations of this report.



Dan Bottrill
Chief Administrative Officer

Appendix A: 2018 Annual Water Report

MY CITY



MY WATER



**City of White Rock
2018 Annual Water Report**

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Introduction

The City of White Rock is a unique, ocean-side community of nearly 20,000 citizens known for its sunny weather, expansive beach, historic pier, delightful restaurants, and sense of community. The City is located half an hour south of Vancouver on the shore of Semiahmoo Bay.

The City of White Rock's Water Services provide safe and clean drinking water to its residents. The Engineering and Municipal Operations Department is responsible for the maintenance, repair and upgrades of the water supply and distribution system.

The Conditions of the Permit are as follows:

1. The drinking water that you provide must be treated to provide an acceptable secondary disinfectant to the whole system that meets the requirements of the Guidelines for Canadian Drinking Water Quality and is acceptable to Fraser Health Authority. Reports on the levels of disinfectant in the system are to be provided to Fraser Health on a weekly basis.
2. Should arsenic levels exceed the Guidelines for Canadian Drinking Water Quality, the City must start operating a treatment system on or before December 31, 2018 to lower the arsenic level below the Guideline limit and to as low as reasonably achievable. Treatment requirements will be based on the results of the "Sampling and Reporting Protocol for the City of White Rock Water System," October 29, 2015.
3. Should the Guidelines for Canadian Drinking Water Quality deem manganese a health criteria, a treatment system must be operational one year after the date of the changes to the Guideline Limits.
4. A written update on the status of the City's plan to meet these conditions to Fraser Health Authority by March 31 of each calendar year.

The City is required to provide an annual report to provide information such as an explanation of water source, water test results, maintenance programs and improvements to the water system. The following document summarizes these requirements.

Overview: Water Quality Milestones

2018 was the City of White Rock's third full year of operating the water utility. Since acquiring the water utility less than four years ago, the City has accomplished some substantial milestones, all of which reflect our commitment to delivering safe and clean drinking water to our residents. While our water meets Canadian Drinking Water Guidelines, we are always striving to improve water quality beyond what is mandated, enhance the reliability and resiliency of our water infrastructure, and plan for our future.

Stay up to date with water related initiatives in White Rock at www.whiterockcity.ca/mywater

Source Water

Drinking water is obtained from the Sunnyside Uplands Aquifer, and distributed through six wells located throughout the City.

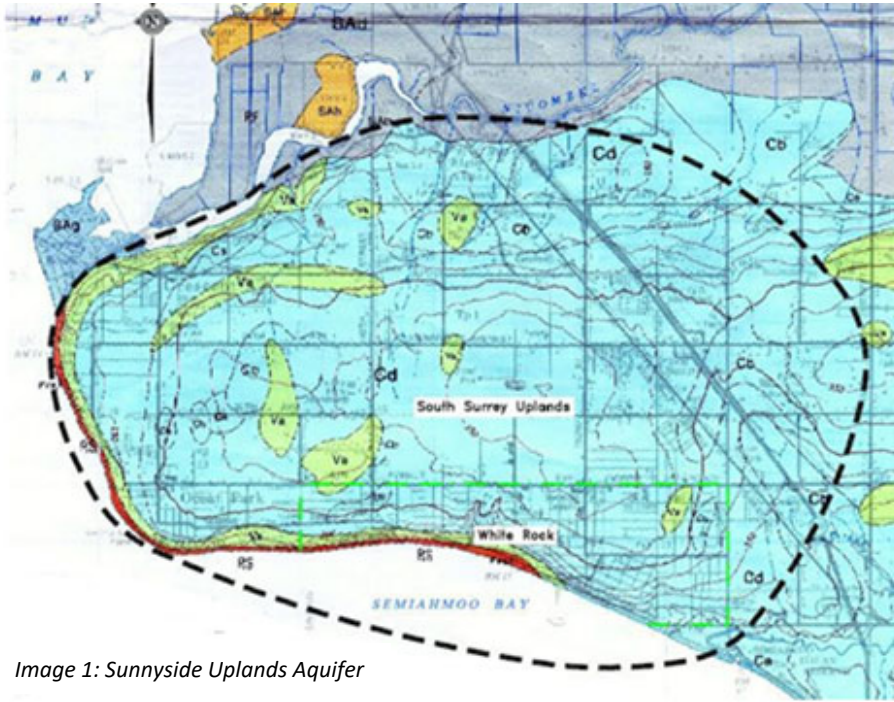


Image 1: Sunnyside Uplands Aquifer

Well Locations in White Rock

The wells range in depth from 60 meters to 150 meters and can provide a combined supply of approximately 15 ML per day. These wells provide an adequate water supply for the community even at peak consumption during the summer months, when consumption can typically rise to 10 ML per day. Wells 1, 2, 3, and 8 are located at the Oxford Site. Well 4 is a seasonal well utilized during the months of June, July and August and is located at High Street, Wells 6 and 7 are located at the Merklin Site. Well 5 was taken out of service on February 16th 2017.

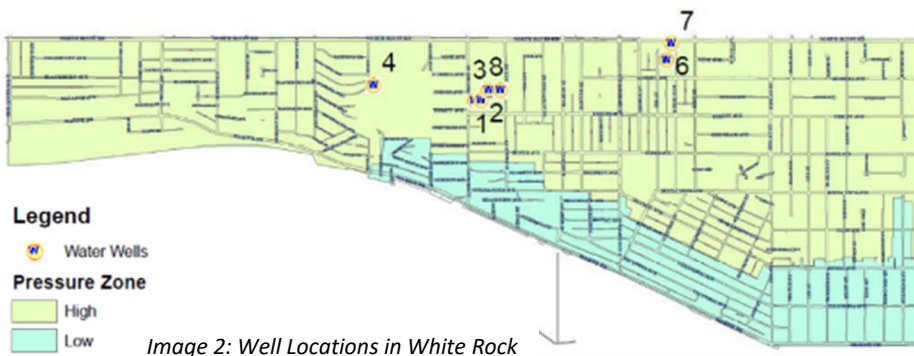


Image 2: Well Locations in White Rock

Well #8

The City of White Rock contracted Piteau Associates to conduct a hydrogeological assessment of aquifer conditions and well performance to identify a location for a new well. This study evaluated potential well sites and concluded that the eastern portion of the City's property at 1444 Oxford Street was a suitable site for a new production well.

The new well, Well 8, was put in service in July 2018 and is located near the intersection of Everall Street and Goggs Avenue. Wells 1, 2, and 3 are located on this same property, respectively 165, 140, and 95 m to the west of Well 8. Wells 2 and 3 are operated intermittently at instantaneous flow rates of about 25 and 29 L/s. Well 1 is operated at about 24 L/s, only when required to meet demand with wells 2 and 3 operating at capacity. Using hydraulic parameters estimated from pumping test data for Well 7 (which draws water from the same aquifer), Piteau's 2016 assessment estimated interference drawdowns that could occur when a new well at the Well 8 location is pumped at a rate of 31 L/s. Drawdowns of 0.8, 0.8, and 1.2 m were estimated for Wells 1, 2, and 3, respectively. Well 8 was set to provide flow of 25.3 L/s.

Well 8, and other production wells operated by the City, extract groundwater from the White Rock/Sunnyside Uplands Aquifer.

The potential for groundwater from Well 8 to be at risk of containing pathogens has been assessed using the BC Ministry of Health's "Guidance Document for Determining Ground Water at Risk of Containing Pathogens (GARP)" (BC Ministry of Health, 2015). These guidelines specify that water supply system wells should be considered potentially at risk of containing pathogens if they have:

- a) An intake depth less than 15 m-below ground level that is located within the natural boundary of surface water or a flood prone area;
- b) An intake depth between the high water mark and surface water bottom;
- c) If information is not available on surface water depth, 15m below the normal water level, and located within; and
- d) Less than 150 m outside the natural boundary of any surface water.

Since none of the conditions are met, in accordance with these criteria, the potential for groundwater from Well 8 to yield groundwater that is at risk of containing pathogens is low.

Field measurements of pH, turbidity and temperature recorded during the constant-rate test are listed in *Table II* (See Appendix B). The chemistry trends were generally stable during the 24-hour test.

With the exception of manganese, concentrations of all constituents tested were below Maximum Allowable Concentrations (MACs) and Aesthetic Objectives (AOs) in the Guidelines for Canadian Drinking Water Quality (GCDWQ; Health Canada, 2014). Total and dissolved manganese concentrations were 0.173 and 0.174 mg/L, respectively. Both concentrations exceed the AO of 0.05 mg/L. The total arsenic concentration of 0.0071 mg/L is below the GCDWQ MAC of 0.01 mg/L.

These water quality results are generally consistent with the results of previous water quality testing with Well 3 (2016 Water Annual Report), Well 6 (Piteau, 2010) and Well 7 (Piteau, 2012).

Total Water Quality Management Project (TWQMP)

The Total Water Quality Management Project (TWQMP) is necessary to treat the water supply and upgrade critical infrastructure in the White Rock water system so that customers consistently and reliably receive high quality drinking water that meets both Fraser Health's water quality requirements and Health Canada's guidelines for Canadian Drinking Water Quality.

The scope of the TWQMP entails water system upgrades including:

- disinfection
- infrastructure renewal
- storage capacity upgrades
- a modest level of system expansion for future growth

The project was split into two phases:

- Phase 1: Oxford Street site, which was completed in February of 2016, included upgraded facilities, the addition of a reservoir which previously did not exist, and installation of remote monitoring and control of the water system. The upgrade allows the City to comply with Fraser Health's mandate to treat the City's water supply through secondary disinfection.
- Phase 2: Merklin Pumping Station Facility was completed in April 2017. The City has removed the high tower and added a new reservoir to increase the water storage capacity for the city by 1.04 million liters. The increased capacity and seismic upgrades completed at this site provides an increased factor of safety for our water infrastructure.

Water Quality and Quality Assurance

The Guidelines for Canadian Drinking Water Quality (GCDWQ) set the maximum acceptable concentrations of microbial, radiological and chemical contaminants in drinking water. They also address the aesthetic water quality considerations regarding colour and taste. These guidelines are the basis for the work the City does to ensure the best quality drinking water for the community. City staff conducts ongoing water quality sampling and testing to ensure the high quality of the water.

Different water quality parameters are tested throughout the City. These include:

- Daily residual testing
 - Total chlorine, free chlorine, monochloramine, ammonia
- Weekly laboratory testing
 - Microbiological testing for Total Coliforms and Escherichia Coli
 - In-house testing for conductivity, pH, turbidity, free chlorine, total chlorine and temperature
- Monthly laboratory testing
 - Metal testing for naturally occurring arsenic and manganese at the Merklin Site only (Wells 6 and 7)

- Distribution metals (arsenic, copper, lead, iron, manganese, colour)
- Quarterly laboratory testing
 - Metal testing for arsenic, copper, lead, iron and manganese
 - Testing for Trihalomethane (THM) and Haloacetic Acids (HAA)
- Yearly laboratory testing
 - Inorganics including: antimony, arsenic, barium, boron, bromate, cadmium, chromium, cyanide, fluoride, lead, mercury, nitrate, nitrite, selenium, uranium, aluminum, ammonia, calcium, chloride, copper, hardness, iron, magnesium, silver, sodium, sulphate, sulphide, organic carbon, zinc.

All outside laboratory testing is carried out by accredited B.C. Laboratories (Element (formerly EXOVA) and BCCDC lab). The laboratory results are provided weekly to the City. Once the laboratory results are received by the City, they are reviewed and all of the test results uploaded to the City of White Rock website for public viewing. If there are unacceptable results, the City will notify Fraser Health; depending on the significance of the parameter of concern there are several actions the City may take from flushing the water mains to possibly issuing a “boil water” advisory or “do not use water” advisory. Public notices would be communicated through various media outlets and the City’s website.

The water quality sampling and testing provides a good depiction of water quality within the City’s mains. However, the sampling and testing does not provide a definitive picture of the drinking water quality within buildings, where water quality can change significantly due to pipe materials, standing times, temperature, and lack of required maintenance by STRATA and residents.

Other steps that are critical in maintaining water quality include:

- Cross Connection Control
Cross connection control addresses real or potential connections between the drinking water supply and any source of contaminant. For instance, improper plumbing or irrigation systems on private property can contaminate the public drinking water supply. The City has teamed up with BSI Online to implement an online registration, tracking and notification of out of compliance back flow devices (Bylaw 2117-Water Services Bylaw Consolidated December 2017).
- Backflow Prevention and Testing Program
The City has contracted BSI Online to maintain all backflow testing submissions and newly installed or previously unregistered backflow prevention devices. Testing will have to be completed by an individual who is certified by the British Columbia Water and Waste Association (BCWWA) and following the requirements in the City’s Bylaw 2117 (Bylaw 2117-Water Services Bylaw Consolidated December 2017).

Water Quality Testing

The City has been consolidating all the testing data from January to December 2018. This data is included in Appendix A: City of White Rock Water Quality Testing for 2018 – Raw Data. In addition, testing data is updated regularly on the City of White Rock’s website: <http://www.whiterockcity.ca/300/Water-Quality>

The City performed 108 sampling collections for total coliform and e-coli tests and 90 non-routine tests, all results were under the maximum allowable concentration (MAC) for the year of 2018.

The City conducted 1641 individual tests for arsenic, copper, iron, lead and manganese throughout 2018 for routine sampling and Oxford and Merklin chlorination sampling.

The City conducted 240 individual tests for Chloroform, Bromodichloromethane, Dibromochloromethane, Bromoform, Total THMs, Dibromofluoromethane, Toluene-d8, Bromofluorobenzene, Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Bromochloroacetic Acid, Dibromoacetic Acid, Trichloroacetic Acid and Total HAA6 throughout 2018.

Every year the City performs 644 individual tests for organic carbon, ammonia, aluminum, antimony, arsenic, barium, boron, cadmium, chromium, copper, lead, selenium, uranium, vanadium, zinc, mercury, colour, turbidity, pH, electrical conductivity, calcium, iron, magnesium, manganese, potassium, silicon, sodium, total alkalinity, chloride, fluoride, nitrate, nitrite, sulfate, hardness, and the total dissolved solids.

The City also recommends to residents anytime the water in a particular faucet has not been used, to flush the cold-water pipes by running the water until you notice a change in temperature. This could take a short time if there has been recent heavy water use such as showering or toilet flushing. The more time water has been sitting in your home's pipes, the more manganese it may contain.

Conserving water is still important. Rather than just running the water down the drain, residents could use the water for their plants, garden, or lawn.

Water Distribution System

The utility serves a population of approximately 20,000 people. White Rock also supplies water to approximately 84 neighbouring properties in the Surrey and Semiahmoo First Nation. City staff performed one full set of uni-directional flushing in 2018 (October-November). Uni-directional flushing involves closing valves to increase the velocity of the water through the mains and flushing any sediment through an open fire hydrant.



Image 3: Water Distribution System

Water Consumption

Water consumption patterns are tracked to ensure that the White Rock system continues to provide sufficient water services to customers. Annual, monthly water consumptions and the highest daily consumption (peak day) are discussed below.

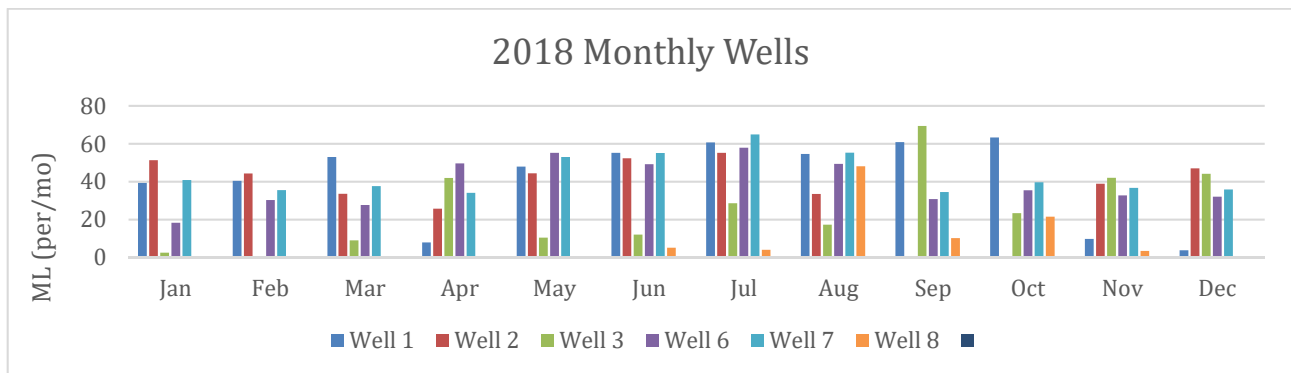
Annual Water Consumption

Total Annual Water Consumption		
Year	2018	2017
(ML)*	2225.7	2171.0
Average Daily Consumption	6.10	5.95

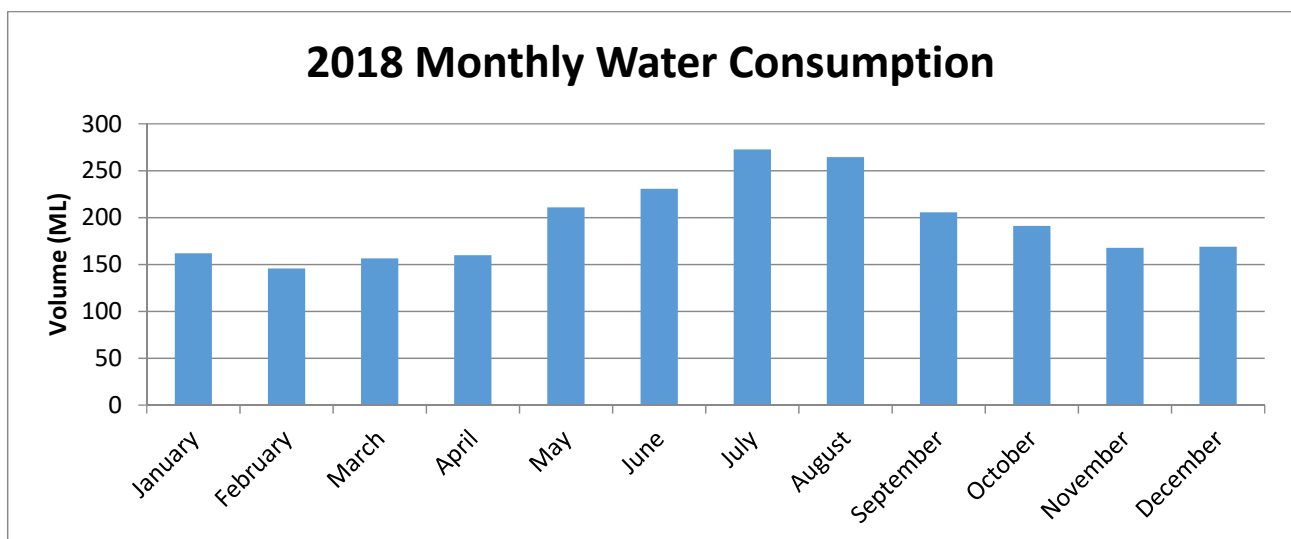
* Million Liters

Table 1: Total Annual Water Consumption

Monthly Water Consumption



Graph 1: 2018 Monthly Water Consumption/Well



Graph 2: 2018 Total Water Monthly Consumption

Peak Day Consumption

The record of peak demand enables us to design water system resources to meet all customer needs, including firefighting and high use periods.

Peak Day Water Consumption

The peak day in 2018 was July 29

Peak Day Water Consumption		
Year	2018	2017
Day	July 29	September 4
(ML)	9.79	9.35

Table 2: Peak Day Water Consumption

Capacity

The storage requirements for forecasted demands are as shown in the following table. It is noted that the 16% value for balancing storage is based on past studies estimating the specific balancing requirement needs for the City of White Rock's system (KWL, 2010).

The available storage capacity is based on tank volumes provided by Stantec (Stantec, 2017).

Required Balancing Storage:	12.4 MLD (144 L/s) x 16%	= 1.99 ML
Required Fire Storage:	212 L/s for 2.6 hours	= 1.98 ML
Required Emergency Storage:	25% of above storage	= 0.99 ML
Total Required		= 4.96 ML
Available Storage:	Merklin Reservoirs	= 3.01 ML
	Oxford Reservoir	= 1.95 ML
	Roper Reservoir (Low Zone)	= 1.14 ML
Total Available		= 6.10 ML
Excess Available for Pump Cycling		= 1.14 ML

Table 3: Balancing Storage Required Versus Available

Based on the assessment, adequate balancing storage is provided by the current system for the forecast future demands.

Maintenance Programs

Maintenance and day-to-day water operations for the 77 km of pipes, 7 wells and 340 hydrants are performed by City staff in the Engineering and Municipal Operations Department. The water distribution operators are licensed with the Environmental Operators Certification Program (EOCP). Other services include:

The City has an ongoing preventative maintenance program that includes:

- Valve exercising
- Hydrant inspection and servicing
- Flushing of water mains

Other services include:

- Operation and maintenance of the pumping station
- Installation of water services
- Water infrastructure repairs and maintenance
- Water quality sampling and testing

In 2018 there were a total of 6 water main breaks throughout the City; the majority of the broken pipes (4) were cast iron, 2 were ductile iron. This is down from 2017 where the City experienced a total of 7 water main breaks. Most of the breaks occurred in cast iron pipes, and the cause of breaks was mainly corrosion, and shear break.

Pressure Monitoring System

Pressure is one of the primary optimization parameters for the delivery of safe drinking water. The loss of pressure can potentially allow outside water sources to contaminate the distribution system. Fluctuations in pressure can affect the physical integrity of pipes. Pressure surges are known to generate an increase in leaks, and water main breaks, which affects the service life of the water system. The use of pressure sensors provides a proper assessment process for the integrity of the water system.

In March of 2018, the City hired Eramosa to design and install a remote pressure monitoring system that was deployed in the water distribution system where communication networks were available. The system contains sensors located in both the high and low pressure areas that transmit readings to a secure web server. These readings tie into our current SCADA system, which allows our operators to receive real-time information on water pressure.

Water Main Replacement

Four (4) water main segments were approved within the 2018 asset improvement budget to be upgraded during the year. Three (3) of these water main segments were scheduled for replacement in the 2017 capital construction program and the construction of the 4th water main was deferred to 2018, pending approval of the 2018 to 2022 Financial Plan.

The five (5) water main upgrades included in the 2018 budget are as follows:

- Marine Drive – Vidal to Martin (deferred from 2017 pending completion of Memorial Park Project)
- Marine Drive – Bergstrom to Nichol
- Saturna Drive & Archibald Road

- Magdalen Crescent – Marine to Sunset
- Goggs Avenue – Oxford to Everall

These projects were grouped together to achieve economic advantage compared to tendering each project individually. This will best utilize staff and contract resources and reduce the cost to complete the works.

The work included replacement of cast iron pipe with PVC pipe and installation of cathodic protection for the fittings, which has not been included in previous Water Utility works. PVC pipe will not be impacted by corrosion, and the implementation of cathodic protection will reduce corrosion of the metal valves and fittings. The combination of these two will extend the life of the infrastructure by reducing corrosion.



Image 4 - Water Main Replacement

The Saturna Drive project was deferred from 2017 due to scheduling issues. Work along Marine Drive - Vidal to Martin - will be coordinated with the Memorial Park reconstruction project.

Fencing

Municipal and private water systems facilities security measures throughout Canada are being elevated to reduce the potential for vandalism or other activities that could impact water quality or water supply to the public.

The Oxford Pumping Station, Merklin Pumping Station, Roper Reservoir, and Well #4 at High Street are facilities that needed to have additional security measures implemented to mitigate the potential for damage.

As part of the City’s commitment to water security, the City’s Water Department started fencing of the reservoir and pumping stations. At the present time, the Merklin Pumping Station and Reservoir, Roper Reservoir and the High Street Well #4 have been fenced.

The Oxford Pumping Station and the new Water Treatment Plant which is being constructed next to the Oxford Pumping Station will be fenced by the completion of the Design Build project for the Water Treatment Plant.



Unidirectional Flushing Program

Flushing is one of the most powerful tools available to water utilities for addressing distribution system deficiencies and maintenance. Unidirectional flushing (UDF) is designed to bring water through the system in a controlled fashion at velocities sufficient to provide a scouring action within the distribution piping. UDF is being utilized by a growing number of utilities as a cost-effective way of improving and preserving water quality in the distribution system.



The City of White established a Unidirectional Flushing Program once a year to reduce the impact of layers of manganese deposited for decades in the distribution system.

Residents were notified during water main flushing and informed that they may experience a temporary discoloration of water while the water main was being flushed. They were also informed that any disruption experienced, would be short-lived.

Advance notification of flushing work to affected areas were provided a week prior to the flushing taking place via letters delivered to local businesses and residents, along with signs being placed on the road side. Also, hospitals/clinics were notified to inform their home-based hemodialysis patients.

During flushing programs residents and businesses have water, however, they are advised not to open their taps to avoid drawing sediments into their pipes.

In 2017, there was a significant improvement in the discharged water during the flushing program as the amount of sedimentation was less, shorter periods of flushing was required, and there was a decrease in the amount of water used compared to the previous flushing events.

Staff Training and How It Contributes to Water Quality Management

Training for Operators

Planning for future implementation of water treatment at the City of White Rock, and to ensure the best utilization of existing human resources, the 4 Water Distribution Operators of the City of White Rock started to attend water treatment courses. Four operators attended the Water Treatment 1 course which is delivered by BCWWA and received the course certificate.

The course provides operators with the basic knowledge of water treatment plant components and treatment methods used with varying degrees of complexity. After completing the Water Treatment 1 course, the operator will be able to:

- Describe procedures associated with monitoring, evaluating and adjusting treatment processes
- Perform basic laboratory analysis procedures
- Describe the drinking water regulations and their impact to water treatment
- Describe the practical aspects of plant operations and perform basic operational and maintenance procedures on equipment
- Perform safety, security and administrative procedures
- Certifications and exams are administered by the Environmental Operators Certification Program.

Specialized training programs will be provided in 2018 and beyond, such as Ozone for Drinking Water Treatment, which is delivered by Engineers and Geoscientists British Columbia (formerly Association of Professional Engineers and Geoscientists of British Columbia). The course was delivered twice (April and November, 2018) in Vancouver, by Dr. Saad Jasim P.Eng., Manager, Utilities, City of White Rock, and President Elect International Ozone Association. The course will enhance participant's knowledge in the application of Ozone for drinking water treatment. The course included case studies to evaluate of the effectiveness of the ozone technology to improve water quality, dealing with new challenges and to improve water treatment processes.

Unprecedented Communication and Public Engagement

Since acquiring the water utility from EPCOR in October of 2015, the City of White Rock has provided unprecedented information to the public on the state of the City's water, including steps the City must take as mandated by Health Canada and the Fraser Health, i.e. providing a secondary disinfection throughout the entire system, as well as important capital infrastructure work. This information is readily available on the City's website under the [My Water](#) page, which includes links to various projects and initiatives so the public is aware of the action the City has taken, or is taking, to address and improve the water quality and communicating with the public:

- [City Water Projects](#) – Where the public can find information on capital projects related to water as part of the City's Total Water Quality Management Project.
- [Event Materials](#) – Contains the material from the number of Water Quality Open Houses, community forums and public information meetings.
- [Historic Funding Announcement](#) – the City received nearly \$12 million dollars in government grant funds to help improve the City's water quality through the construction of treatment processes, set to be completed by March 2019.
- [Water Quality](#) – Where the public can find monthly water quality test results from the time the City acquired the water utility from EPCOR, who did not provide such information.
- [Water Research](#) - to ensure the City implements the right technology to reach its water quality goals, it partnered with RES'EAU-WaterNET. This is where the public can learn about the partnership and the research being done.
- [Flushing Program](#) – informs the public of the flushing program, when City Staff would be flushing, and what to do and not to do when flushing is taking place in their area. Our staff also hand deliver notices to residents in the area a few days prior to the flushing starting in their area.

The City also developed [FAQ pages related to water](#) and [secondary disinfection](#) that further ensures the public is aware of the steps the City is taking to address water quality matters.

The City also provides updates to Council and the public on the status of the City's water quality and infrastructure through corporate reports that are published on the City's website. The Regular Council Meetings are also live streamed so any member of the public who is not able to attend a meeting can either watch the meeting live or the recording at a later date.

This is all in addition to other methods we use to communicate with the public about the City's water related projects and initiatives.

BCIT Environmental Health Program Visit

25 Students accompanied by a Faculty member from the BCIT Environmental Health program, visited the City of White Rock on May 15, 2018. The program provides education and training to the students to graduate as a health inspector and an environmental public health professional.

Dr. Jasim, Manager, Utilities, delivered a presentation to the students at the City of White Rock Council Chambers followed by a tour at the Merklin Pumping Station.



Image 7 – Dr. Jasim delivers a presentation to students from the BCIT Environmental Health at Council Chambers, May 2018

Open Houses

The Water Department organized three Open Houses;

1. Water Research Open House

On January 25, 2018, the City of White Rock and the research group, RES'EAU WaterNET organized a "Water Research" Open House, at the White Rock Community Centre, 15154 Russell Avenue from 6 to 8 p.m. Attendants learned more about the research that RES'EAU WaterNET has conducted in White Rock. Their research has focused on finding the technology most suitable for our water and distribution system to reduce the levels of naturally occurring arsenic and manganese. The Open House also provided information on the Design-Build of the water treatment plant.



Image 8 – Water Research Open House

2. Water System Master Plan Open House

The City's Water System Master Plan Open House at the White Rock Community Centre, was organized on February 21, 2018. The Water System Master Plan was approved by White Rock City Council in November of 2017. The Water System Master Plan is an all-encompassing comprehensive guide to addressing the City's water system needs to the year 2045.

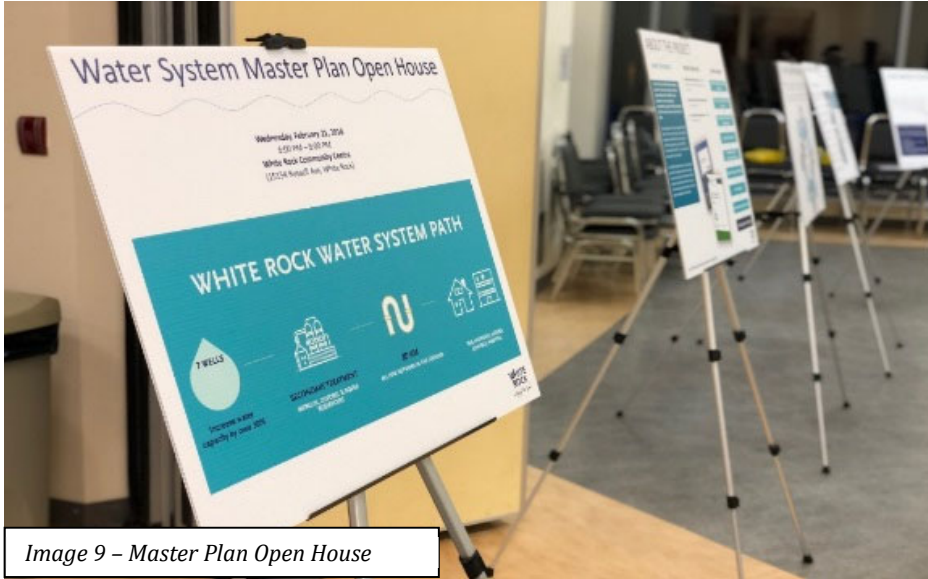


Image 9 – Master Plan Open House

3. Aquifer Protection Plan Open House

The City of White Rock held an open house to discuss the city-commissioned Aquifer Protection Plan on Wednesday, September 26, 2018 at the White Rock Community Centre. The plan, which assesses future water quality and quantity needs for White Rock, also includes strategies for protecting the community's water supply source from potential contaminants, including urban development, commercial, industrial and agricultural activity and saltwater intrusion, and also the effects of population growth, climate change and sea-level rise.



Image 10 – Aquifer Protection Plan Open House

Celebration Event for a Significant Mile Stone for Water Quality Enhancements

The City of White Rock celebrated on September 20, 2018 a milestone event with representatives from the Government of Canada and Government of British Columbia in regards to the construction progress of the City's Water Treatment Plant, funded through the Clean Water & Wastewater Fund (CWWF).

The City's Water Treatment Plant project would not have been possible without the vision of the Government of Canada and Government of British Columbia who created the CWWF as they understand that building and maintaining high-quality water and infrastructure are an essential part of livable communities. Their commitment to partnering with small communities is a testament to their dedication of ensuring that local governments are able to deliver the public infrastructure needed in their respective communities.



Image 11 – Water Treatment Plant Milestone Event, September

Conferences, Seminars

Presentations to national and international Conferences delivered about the progressive steps taken to improve the water system in the City of White Rock:

1. Water Quality Technology Conference (WQTC), AWWA, Toronto, ON, November 11-15, 2018.
2. 2018 Ontario Water Conference and Exhibition, Niagara Falls, ON, May 1-3, 2018.
3. BCWWA Conference, Penticton, BC, May 15-17, 2018. (2 Presentations)
4. AWWOA conference March 11-15, 2018, Banff, AB.
5. Dr. Jasim delivers presentations annually on UN World Water Day to the Rotary Clubs in White Rock.



Image 12 – Dr. Jasim presenting at the 2018 Ontario Water Conference and Exhibition

Dr. Jasim introduced a new course in British Columbia, “Ozone for Drinking Water Treatment” in collaboration with Engineers and Geoscientists British Columbia. All the Water Operators of the City of White Rock, in addition to other outside participants attended the courses in Vancouver, BC.

The course will enhance participant’s knowledge in the application of Ozone for drinking water treatment, evaluate the effectiveness of the ozone technology to improve water quality, deal with new challenges, and to improve water treatment processes. The course is certified by the Ontario Ministry of Environment and the Environmental Operators Certification Program (EOCP) in British Columbia.

Aquifer Protection Plan

Advisian (part of Worley Parsons Group) was retained by the City of White Rock (CoWR) to prepare an Aquifer Protection Plan (Plan) for the White Rock water supply system. The White Rock water supply system is located within the CoWR, British Columbia. It services a residential population of approximately 20,000 within a 600 hectare service area that includes the CoWR as well as Semiahmoo First Nation and a small portion of the City of Surrey.

The Sunnyside Aquifer is an important natural resource that is used as the water supply source for the CoWR. Population growth, climate change, sea level rise, and other users of the aquifer (e.g. future groundwater use by the City of Surrey) may put increasing pressure on the water supply system. This Plan has been developed as a key component in protecting the community’s water supply source. Groundwater protection goals includes stakeholder engagement, advancing the understanding of aquifer characteristics, protecting groundwater quality from contamination, and ensuring future withdrawals sustainably meet future demands.

Key outcomes of the Plan include development of a numerical groundwater model that has been used to delineate the well protection area and to simulate three future scenarios to inform future groundwater management. The report is available on the City of White Rock website.

RES'EAU-WaterNET

The City of White Rock partnered with RES'EAU-WaterNET, a research program funded by NSERC's Strategic Partnership Grants for Networks and hosted by the University of British Columbia, to assess a number of water treatment processes and determine the extent to which they can reduce the arsenic and manganese from the City's water supply. This is to ensure the City implements the right technology to reach its water quality goals.

The final report was submitted in 2017 and a copy of the report was provided for the selected Contractors/Consultants short listed for the RFP. A copy of the full report is available on the [City of White Rock website](#). The research finding played a major role in the design of the new water treatment plant in the City of White Rock.

Arsenic and Manganese Treatment Facility

The Fraser Health Authority (FHA) advised the private company operating the White Rock Water System that should arsenic and manganese levels move above Health Canada's Guideline for Drinking Water Quality (GCDWQ), or should the GCDWQ deem manganese a health criteria, a treatment system must be operational on or before December 31, 2018.



Image 13 – Signage for the Water Treatment Project

The Design of the Water Treatment Plant

The City was conducting a pilot scale study to evaluate the efficacy of the best technologies to provide useful information for the design and construction of a water treatment system for treating the water drawn from wells 1, 2, 3, 6, 7 and 8. Kerr Wood Leidal Associates (KWL) was retained to provide cost evaluations for three options for design and construction of water treatment plant(s).

The options are as follows:

- Option 1 is based on one water treatment plant at the Oxford site;
- Option 2 is based on two water treatment plants, one at Merklin site and another at Oxford site; and

- Option 3 is one water treatment plant covering all the above referenced wells in addition to connecting existing well # 4 to the plant located at the Oxford site.

Water Treatment Objectives

The White Rock Water Treatment Plant is designed to treat the City's existing groundwater supplies to remove naturally occurring manganese and arsenic to ensure that an improved drinking water quality is supplied to the residents that meets the guidelines and aesthetic objectives. The plant is built next to the Oxford Pumping Station of the City of White Rock. The water treatment plant process is multi-stage and includes the following key treatment components:

- Pre-Oxidation with ozone for arsenic and manganese in the raw water supply.
- Removal of manganese using Greensand Plus media filters.
- Removal of arsenic using Bayoxide E33 media filters.

The treatment objectives of the White Rock WTP are to deliver drinking water meeting the following operational targets:

- Mn < 0.02 mg/L
- As < 0.002 mg/L (95% of time, 0.005 mg/L for 5% of operation)

All other water quality parameters shall meet the objectives of the Guidelines for Canadian Drinking Water Quality (GCDWQ).

Ozone Pre-oxidation

Research has shown that the application of ozone for water treatment processes can enhance the ability to remove many emerging contaminants and reduce disinfectant byproducts. Ozone, a strong oxidant, is very effective in the oxidation of organic and Inorganic compounds more effectively than chlorine.

Arsenic present in groundwater in As(III) form needs to be oxidized to As(V). To have an optimum removal of As(III) which is neutrally charged, it should be oxidized to As(V) which is negatively charged. The use of a strong oxidant is an important factor to achieve arsenic removal. Strong chemical oxidants oxidize As(III) very rapidly.

Manganese and Arsenic Removal

Knowledge of raw water quality is an important factor in the selection of the technology and processes to remove certain organic or inorganic compounds that might interfere in achieving the targeted effluent water quality. The City of White Rock's groundwater has elevated, naturally occurring arsenic and manganese. The research conducted by the City of White Rock and RES'EAU-WaterNet showed that the use of ozone as a pre-oxidant, followed by greensand and adsorption filter media for the removal of manganese and arsenic, respectively, is effective for groundwater sources like White Rock's water supply.

The Design Build Team (NAC/Associated Engineering) chose pre-oxidation with ozone followed by filtration using Greensand Plus media for manganese reduction, and AdEdge E33 adsorption media, for arsenic removal to achieve the low target levels required by the Design Objectives, following the research findings provided to them by the City of White Rock. The use of ozone for pre-oxidation of the arsenic and manganese

prior to the two-stage process; filtration and adsorption process was included in the design due to the facts that:

- Many arsenic removal technologies are more effective at removing the pentavalent form of arsenic, arsenate, As(V) than arsenite, As(III).
- Therefore, many treatment systems include a pre-oxidation process to convert Arsenite, As(III) to Arsenate As(V).
- Ozone can achieve 100% oxidation of As(III) to As(V).
- Oxidation alone does not remove arsenic from solution, and must be coupled with a removal process such as adsorption
- The pilot scale experiments indicated that manganese removal was very effective using ozone followed by Greensand Plus

Ozone System

The ozone treatment process at the White Rock WTP is targeting the oxidation of Mn and As for downstream removal by filtration and adsorption. The system is designed to provide up to 1 mg/L of ozone dose for up to 15 MLD of water to treat. The design of the White Rock Water Treatment Plant includes a pre-oxidation with ozone injected via sidestream injection; the concentrated ozonated water is injected into the raw water through an in-line mixer to oxidize metals in raw water.

On-site generated ozone gas will be used to preoxidize the arsenic and manganese in the raw water. Ozone will convert the arsenite form As(III) to the arsenate form As(V). It will also convert Mn(II) to Mn(IV). Both oxidized forms are more readily removable in downstream filtration and adsorption processes. The ozone system includes two parallel trains of oxygen and ozone production with 100% redundancy of inactive equipment, followed by two parallel trains of ozone injection system through the application of ozone into two side streams of water pumped from the mainstream line. Undissolved ozone is removed at the side stream level through centrifugal degassing and destroyed back to oxygen through two 100% redundant ozone destruct units.

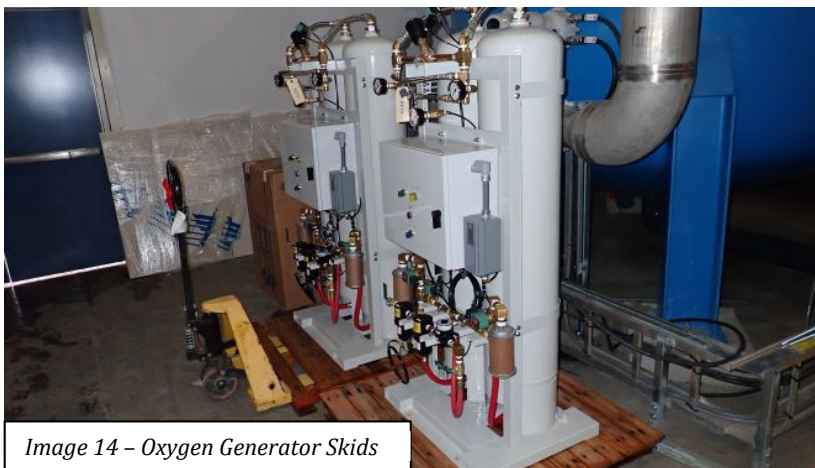


Image 14 - Oxygen Generator Skids

Greensand Plus

Greensand Plus filter media was selected for removing manganese from groundwater supplies of the City of White Rock (Sunnyside Aquifer). Greensand Plus manganese dioxide coated surface acts as a catalyst in the oxidation-reduction reaction of manganese. The silica sand core of Greensand Plus allows it to withstand waters low concentrations in silica, TDS, and hardness without breakdown. Greensand Plus has the WQA Gold Seal Certification for compliance with NSF/ANSI 61. Two (2) pressure filter vessels will be operating in parallel mode, Figures (15-16).

The newly designed and built water treatment plant will utilize a Supervisory Control and Data Acquisition (SCADA) for the daily operation, control and data acquisition for all the water treatment processes. The existing SCADA for the two pumping stations (Oxford and Merklin) will be integrated into the water treatment processes.

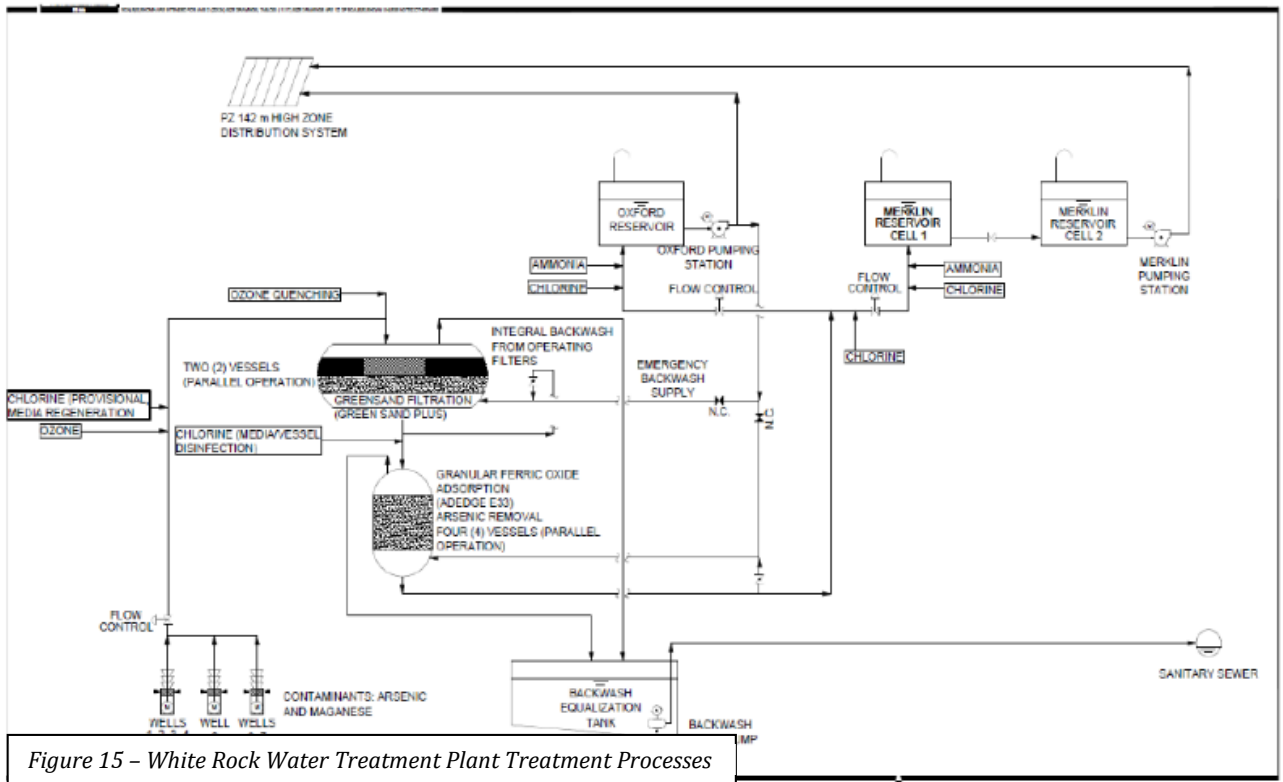


Figure 15 - White Rock Water Treatment Plant Treatment Processes

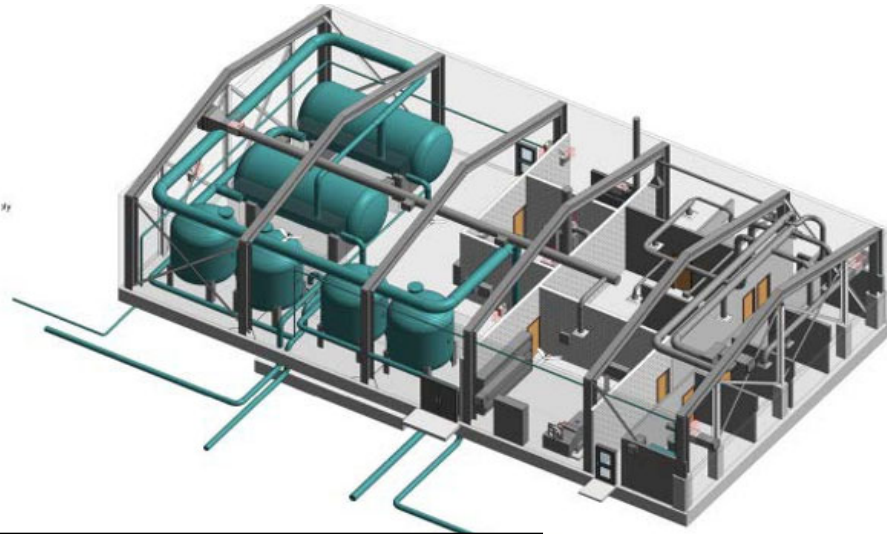


Figure 16 – 3D Layout of the Treatment Processes



Image 17 – The Water Treatment Plant



Emergency Response Action Plan

The City has an emergency response plan in case the water supply is interrupted for any reason. There are procedures that City crews follow whether it is a major or minor problem. The Emergency Response Plan Action Plan follows five general steps:

1. Analyze the type and severity of the emergency;
2. Take any action needed to save lives;
3. Take action to reduce system damage and injuries and reduce environmental damage;
4. According to priority demand, make appropriate repairs; and
5. Return the system to normal operation.

The Emergency Response Plan was added in 2018 to the City of White Rock website

Next Steps for 2019

- Complete the Water Treatment Plant Construction
- Start operation of the Water Treatment Plant
- Complete the 2018 approved Capital Works projects
- Work on the 2019 Capital Works projects
- Maintain the improvement and upgrade for the water distribution system
- Provide the training for the Water Operators to have them update/upgrade their licenses
- Work with Communication Department to maintain updated information on the website
- Work with Communication Department to provide the public with updates on the water system

Summary

The City of White Rock has now owned the water utility for three full years. During 2018 City staff worked on engaging the community and explained steps taken to improve the City's water quality with the addition of a water treatment plant for the arsenic and manganese removal.

During the year of 2018, staff collected and sent 2078 samples for water quality testing.

The City completed the full implementation of secondary disinfection to the distribution system, meeting the requirements of the Permit to Operate by Fraser Health.

The new water treatment plant was completed in early 2019 and, at the time of producing this Annual Water Report, the City is pleased to advise that the treatment processes are achieving a remarkable level of removal of Arsenic and Manganese. The City of White Rock will continue to monitor the water quality in the distribution system and will continue to share the test results to the public on the City website.

Attachments

References

Tables – Table II – Summary of Water Quality Analyses Results

Appendix A – City of White Rock Water Quality Testing for 2017 – Raw Data

References

Kerr Wood Leidal Associates Ltd., Water System Master Plan Update, Final Report, December 2010.

Piteau Associates Engineering Ltd., 2010. Hydrogeologic Assessment for White Rock Groundwater Supply. Report to Kerr Wood Leidal Associates Ltd. And Epcor White Rock Water, December.

Piteau Associates Engineering Ltd., 2012. Production Well 7 Completion Report. Report to Kerr Wood Leidal Associates, June.

Stantec, *White Rock – Reservoir Volumes Memo*, August 2017

2016 Water Annual Report, www.whiterockcity.ca

Consolidated Bylaws\Bylaw 2117 - Water Services Bylaw Consolidated December 2017.

Appendix A

City of White Rock Water Quality Testing for 2018 – Raw Data
January to December 2018

Microbiological Results 2018

Date	Microbiological Analysis MPN / 100mL	Guideline Limit	# of Samples	Pass	Fail	Guideline Comments
Jan 2 & Jan 3	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Jan 9 & Jan 10	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Jan 16 & Jan 17	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Jan 23 & Jan 24	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Jan 30 & Jan 31	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Feb 6 & Feb 7	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Feb 13 & Feb 14	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Feb 20 & Feb 21	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Feb 27	Total Coliforms	0 per 100 mL	6	6	0	Below MAC
	Escherichia Coli	0 per 100 mL	6	6	0	Below MAC
Mar 6	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Mar 13	Total Coliforms	0 per 100 mL	6	6	0	Below MAC
	Escherichia Coli	0 per 100 mL	6	6	0	Below MAC
Mar 14	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC

Date	Microbiological Analysis MPN / 100mL	Guideline Limit	# of Samples	Pass	Fail	Guideline Comments
Mar 20	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Mar 27	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
Mar 28	Total Coliforms	0 per 100 mL	6	6	0	Below MAC
	Escherichia Coli	0 per 100 mL	6	6	0	Below MAC
Apr 3 & Apr 4	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Apr 10	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Apr 17 & Apr 18	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Apr 24 & Apr 25	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
May 1 & May 2	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
May 8 & May 9	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
May 15 & May 16	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
May 22	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
May 29 & May 30	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
June 5	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC

Date	Microbiological Analysis MPN / 100mL	Guideline Limit	# of Samples	Pass	Fail	Guideline Comments
June 12 & June 13	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
June 19 & June 20	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
June 26	Total Coliforms	0 per 100 mL	8	8	0	Below MAC
	Escherichia Coli	0 per 100 mL	8	8	0	Below MAC
July 3 & July 4	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
July 10 & July 11	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
July 17 & July 18	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
July 24	Total Coliforms	0 per 100 mL	9	9	0	Below MAC
	Escherichia Coli	0 per 100 mL	9	9	0	Below MAC
August 1	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
Aug 7 & Aug 8	Total Coliforms	0 per 100 mL	12	12	0	Below MAC
	Escherichia Coli	0 per 100 mL	12	12	0	Below MAC
Aug 14 & Aug 15	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Aug 21 & Aug 22	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Aug 28	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
Sep 4 & Sep 5	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC

Date	Microbiological Analysis MPN / 100mL	Guideline Limit	# of Samples	Pass	Fail	Guideline Comments
Sep 11 & Sep 12	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Sep 18 & Sep 19	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Sep 25 & Sep 26	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Oct 2 & Oct 3	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Oct 9 & Oct 10	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Oct 16	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Oct 23	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Oct 31	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Nov 13	Total Coliforms	0 per 100 mL	13	13	0	Below MAC
	Escherichia Coli	0 per 100 mL	13	13	0	Below MAC
Nov 20	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
Nov 27 & Nov 28	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Dec 4 & Dec 5	Total Coliforms	0 per 100 mL	14	14	0	Below MAC
	Escherichia Coli	0 per 100 mL	14	14	0	Below MAC
Dec 11	Total Coliforms	0 per 100 mL	6	0	0	Sample Expired - Retest
	Escherichia Coli	0 per 100 mL	6	0	0	

Date	Microbiological Analysis MPN / 100mL	Guideline Limit	# of Samples	Pass	Fail	Guideline Comments
Dec 12	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
Dec 17	Total Coliforms	0 per 100 mL	7	7	0	Below MAC
	Escherichia Coli	0 per 100 mL	7	7	0	Below MAC
Dec 19	Total Coliforms	0 per 100 mL	10	10	0	Below MAC
	Escherichia Coli	0 per 100 mL	10	10	0	Below MAC

Metal Results 2018

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese
		mg/L	mg/L	mg/L	mg/L	mg/L
Nominal Detection Limit		0.0001	0.0005	0.00001	0.004	0.001
Guideline Limit		0.010	1.0	0.01	0.3	0.05
Customer Concern #1	18-Jan-18	0.0068	0.0049	0.00012	<0.004	0.065
Well #1	18-Jan-18	0.0071	0.0056	0.00035	<0.004	0.073
Well #2	18-Jan-18	0.0049	0.0041	<0.00001	<0.004	0.004
Well #3	18-Jan-18	0.0065	0.0005	0.00023	0.006	0.21
Well #4	18-Jan-18	0.0027	0.0048	0.00239	0.085	0.21
Well #6	18-Jan-18	0.0094	<0.0005	0.00004	<0.004	0.15
Well #7	18-Jan-18	0.0085	<0.0005	0.00114	<0.004	0.12
Well #8	18-Jan-18	0.0069	<0.0005	0.00003	0.005	0.18
Well #6	28-Feb-18	0.0089				
Well #7	28-Feb-18	0.00998				
Well #6	28-Mar-18	0.0089				
Well #7	28-Mar-18	0.0082				
Well #6	25-Apr-18	0.0097				
Well #7	25-Apr-18	0.0092				
Customer Concern #2	15-May-18	0.0056	0.0102	0.00006	0.006	0.031
Well #1	31-May-18	0.0071	0.0036	0.00010	<0.004	0.055
Well #2	31-May-18	0.0045	0.0039	0.00002	0.005	0.004
Well #3	31-May-18	0.0064	0.0009	0.00015	0.006	0.20
Well #6	31-May-18	0.0091	0.0012	0.00007	<0.004	0.14
Well #7	31-May-18	0.0085	<0.0005	0.00069	0.006	0.12
Well #8	31-May-18	0.0070	0.0012	0.00004	0.0098	0.17
Well #6	27-Jun-18	0.0087				
Well #7	27-Jun-18	0.0081				
Customer Concern #3	18-Jul-18	0.0058	0.0018	0.00017	<0.004	0.037
Well #1	25-Jul-18	0.0064	0.0044	0.00011	<0.004	0.056
Well #2	25-Jul-18	0.0043	0.0034	0.00003	0.006	0.005
Well #3	25-Jul-18	0.0055	<0.0005	0.00010	<0.004	0.16
Well #6	25-Jul-18	0.0087	0.0015	0.00005	<0.004	0.15
Well #7	25-Jul-18	0.0082	<0.0005	0.00041	<0.004	0.12
Well #8	25-Jul-18	0.0058	0.0026	0.00123	0.014	0.13
Customer Concern #4	13-Aug-18	0.0066	0.0053	0.00030	0.008	0.076
Customer Concern #5	28-Aug-18	0.0065	0.0065	0.00016	<0.004	0.14
Customer Concern #6	28-Aug-18	0.0065	0.0216	0.00004	<0.004	0.15
Customer Concern #7	29-Aug-18	0.0079	0.0086	0.00001	<0.004	0.13

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese
Well #6	29-Aug-18	0.0087				
Well #7	29-Aug-18	0.0081				
Well #4 Flow Test*	30-Aug-18	0.0021	0.0016	0.00057	0.038	0.21
Customer Concern #8	04-Sep-18	0.0085	0.0033	0.00014	<0.004	0.13
Customer Concern #9**	05-Sep-18	0.0069	0.0295	0.02118	0.014	0.14
Customer Concern #10	05-Sep-18	0.0081	0.0042	0.00010	<0.004	0.13
Customer Concern #11	06-Sep-18	0.0072	0.0081	0.00045	<0.004	0.12
Customer Concern #12	07-Sep-18	0.0070	0.0044	0.00021	<0.004	0.12
Customer Concern #9***	10-Sep-18	0.0066	0.0065	0.00021	<0.004	0.12
Customer Concern #9***	10-Sep-18	0.0065	0.0041	0.00010	<0.004	0.12
Customer Concern #9***	10-Sep-18	0.0065	0.0053	0.00018	<0.004	0.12
Customer Concern #9***	10-Sep-18	0.0066	0.0063	0.00029	<0.004	0.12
Customer Concern #13	11-Sep-18	0.0060	0.0046	0.00004	<0.004	0.11
Customer Concern #14	11-Sep-18	0.0061	0.0077	0.00006	<0.004	0.11
Customer Concern #15	12-Sep-18	0.0061	0.0090	0.00004	<0.004	0.12
Customer Concern #16	17-Sep-18	0.0059	0.0050	0.00014	<0.004	0.11
Customer Concern #17	18-Sep-18	0.0060	0.0102	0.00006	0.063	0.026
Customer Concern #18	24-Sep-18	0.0064	0.0078	<0.00001	<0.004	0.13
Well #6	26-Sep-18	0.0083				
Well #7	26-Sep-18	0.0079				
Customer Concern #19	26-Sep-18	0.0064	0.0068	0.00010	<0.004	0.12
Customer Concern #20****	01-Oct-18	0.0060	0.0020	0.00008	<0.004	0.11
Customer Concern #20****	01-Oct-18	0.0060	0.0174	0.00008	<0.004	0.11
Customer Concern #20****	01-Oct-18	0.0059	0.0121	0.00057	<0.004	0.11
Customer Concern #20****	02-Oct-18	0.0065	0.0055	0.00009	<0.004	0.12
Customer Concern #21	01-Oct-18	0.0060	0.0020	0.00008	<0.004	0.11
Customer Concern #22	04-Oct-18	0.0058	0.0215	0.00013	0.004	0.10
Customer Concern #23	10-Oct-18	0.0064	0.0162	0.00179	<0.004	0.093
Customer Concern #24	15-Oct-18	0.0064	0.0060	0.00018	0.008	0.094
Customer Concern #25	22-Oct-18	0.0083	0.0130	0.00006	0.006	0.13
Customer Concern #26	25-Oct-18	0.0087	0.0080	0.00016	0.007	0.12
Customer Concern #27	22-Nov-18	0.0054	0.0067	0.00003	<0.004	0.084
Customer Concern #28	22-Nov-18	0.0053	0.0063	0.00005	<0.004	0.080
Centennial Arena*	28-Nov-18	0.0054	0.0189	0.00010	<0.004	0.082
CAL*	28-Nov-18	0.0053	0.0440	0.00015	0.005	0.089
WR Community Centre*	28-Nov-18	0.0054	0.0449	0.00005	<0.004	0.093
City Hall - Annex*	28-Nov-18	0.0071	0.0021	0.00005	<0.004	0.12
City Hall - main*	28-Nov-18	0.0065	0.0088	0.00012	<0.004	0.11

RCMP* Sample Location	28-Nov-18 Date Sampled	0.0078 Arsenic	0.0466 Copper	0.00012 Lead	0.005 Iron	0.089 Manganese
Fire Hall*	28-Nov-18	0.0069	0.0066	0.00009	<0.004	0.12
Evergreen Daycare*	28-Nov-18	0.0076	0.0132	0.00003	<0.004	0.11
Library*	28-Nov-18	0.0073	0.0280	0.00035	0.005	0.10
Kent Activity Center*	28-Nov-18	0.0081	0.0070	0.00005	<0.004	0.13
Operations Bldg*	28-Nov-18	0.0063	0.1286	0.00049	<0.004	0.085
Museum*	28-Nov-18	0.0067	0.0779	0.00113	<0.004	0.11
Well #6	29-Nov-18	0.0092				
Well #7	29-Nov-18	0.0086				
Customer Concern #29	04-Dec-18	0.0088	0.0038	0.00012	0.010	0.13
Customer Concern #30 Pre*****	10-Dec-18	0.0069	0.0050	0.00041	0.007	0.10
Customer Concern 30 Post*****	10-Dec-18	0.0069	0.0007	0.00021	<0.004	<0.001
Customer Concern #31	21-Dec-18	0.0085	0.0058	0.00008	<0.004	0.13
Well #6	28-Dec-18	0.0087				
Well #7	28-Dec-18	0.0083				

* Also under Non-Routine results

** 4 resamples taken immediately after results

*** Resampling results

**** 4 Samples taken from same address

***** Resident has home filter system, results pre- and post-filter

THM & HAA RESULTS 2018

Sample	Unit of Measure	Nominal Detection Limit	Sample Location							Sampled Date
			Stevens Station	Stayte Station	Roper PRV - High	Marine Station	Everall Station	Mann Park Station		
Chloroform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	18-Jan-18
Bromodichloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	18-Jan-18
Dibromochloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	18-Jan-18
Bromoform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	18-Jan-18
Total THMs	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	18-Jan-18
Dibromofluoromethane	%	50-140	103	105	103	103	103	-	-	18-Jan-18
Toluene-d8	%	50-140	97	96	97	97	97	-	-	18-Jan-18
Bromofluorobenzene	%	50-140	96	98	98	99	99	-	-	18-Jan-18
Monochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Monobromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Dichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Bromochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Dibromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Trichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Total HAA6	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	18-Jan-18
Chloroform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	26-Apr-18
Bromodichloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	26-Apr-18
Dibromochloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	26-Apr-18
Bromoform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	26-Apr-18
Total THMs	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	26-Apr-18
Dibromofluoromethane	%	50-140	97	98	93	88	88	-	-	26-Apr-18
Toluene-d8	%	50-140	89	93	90	90	90	-	-	26-Apr-18
Bromofluorobenzene	%	50-140	98	101	101	105	105	-	-	26-Apr-18
Monochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Monobromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Dichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Bromochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Dibromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Trichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Total HAA6	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	26-Apr-18
Chloroform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	24-Jul-18
Bromodichloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	24-Jul-18
Dibromochloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	24-Jul-18
Bromoform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	24-Jul-18

Sample	Unit of Measure	Nominal Detection Limit	Stevens Station	Stayte Station	Roper PRV - High	Marine Station	Everall Station	Mann Park Station	Sampled Date
Total THMs	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	-	-	24-Jul-18
Dibromofluoromethane	%	50-140	82	78	78	75	-	-	24-Jul-18
Toluene-d8	%	50-140	92	90	91	92	-	-	24-Jul-18
Bromofluorobenzene	%	50-140	105	106	102	103	-	-	24-Jul-18
Monochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Monobromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Dichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Bromochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Dibromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Trichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Total HAA6	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	24-Jul-18
Chloroform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	-	-	16-Oct-18
Bromodichloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	-	-	16-Oct-18
Dibromochloromethane	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	-	-	16-Oct-18
Bromoform	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	-	-	16-Oct-18
Total THMs	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	-	-	16-Oct-18
Dibromofluoromethane	%	50-140	98	102	93	94	-	-	16-Oct-18
Toluene-d8	%	50-140	91	92	91	89	-	-	16-Oct-18
Bromofluorobenzene	%	50-140	98	99	99	95	-	-	16-Oct-18
Monochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18
Monobromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18
Dichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18
Bromochloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18
Dibromoacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18
Trichloroacetic Acid	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18
Total HAA6	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	-	-	16-Oct-18

Non Routine Water Quality Results for Source and Distribution Water 2018

Sampling Point Name	Date Sampled	TC	E-coli	Comments
		MPN / 100 ml	MPN / 100 ml	
1500 Blk Stevens	4-Jan-18	<1.0	<1.0	Below Mac
Well 6 - Out of Service	19-Mar-18	<1.0	<1.0	Below Mac
Well 6 - Out of Service	20-Mar-18	<1.0	<1.0	Below Mac
1500 Blk Johnston	13-Jun-18	<1.0	<1.0	Below Mac
Johnston/Royal	14-Jun-18	<1.0	<1.0	Below Mac
15200 Blk Thrift	26-Jul-18	<1.0	<1.0	Below Mac
15200 Blk Thrift	27-Jul-18	<1.0	<1.0	Below Mac
Russell Ave. Station	9-Aug-18	<1.0	<1.0	Below Mac
1500 Blk Johnston	9-Aug-18	<1.0	<1.0	Below Mac
1500 Blk Johnston	15-Aug-18	<1.0	<1.0	Below Mac
Well 4 - Flow Test*	30-Aug-18	<1.0	<1.0	Below Mac
1400 Blk Oxford	4-Sep-18	<1.0	<1.0	Below Mac
Mann Park Station - NIS	25-Sep-18	<1.0	<1.0	Below Mac
14200 Blk Park	9-Oct-18	<1.0	<1.0	Below Mac
Chestnut & North Bluff	10-Oct-18	<1.0	<1.0	Below Mac
1500 Blk Parker	20-Oct-18	<1.0	<1.0	Below Mac
800 Blk Finlay	6-Nov-18	<1.0	<1.0	Below Mac
Centennial Arena*	28-Nov-18	<1.0	<1.0	Below Mac
CAL*	28-Nov-18	<1.0	<1.0	Below Mac
WR Community Centre*	28-Nov-18	<1.0	<1.0	Below Mac
City Hall - Annex*	28-Nov-18	<1.0	<1.0	Below Mac
City Hall - main*	28-Nov-18	<1.0	<1.0	Below Mac
RCMP*	28-Nov-18	<1.0	<1.0	Below Mac
Fire Hall*	28-Nov-18	<1.0	<1.0	Below Mac
Evergreen Daycare*	28-Nov-18	<1.0	<1.0	Below Mac
Library*	28-Nov-18	<1.0	<1.0	Below Mac
Kent Activity Center*	28-Nov-18	<1.0	<1.0	Below Mac
Operations Bldg*	28-Nov-18	<1.0	<1.0	Below Mac
Museum*	28-Nov-18	<1.0	<1.0	Below Mac
14900 Blk Marine	29-Nov-18	<1.0	<1.0	Below Mac
14900 Blk Marine	3-Dec-18	<1.0	<1.0	Below Mac
Everall Station**	27-Dec-18	<1.0	<1.0	Below Mac

Sampling Point Name	Date Sampled	TC	E-coli	Comments
Mann Park Station**	27-Dec-18	<1.0	<1.0	Below Mac
Marine Drive Station**	27-Dec-18	<1.0	<1.0	Below Mac
Russell Ave. Station**	27-Dec-18	<1.0	<1.0	Below Mac
Roper Reservoir**	27-Dec-18	<1.0	<1.0	Below Mac
Roper PRV**	27-Dec-18	<1.0	<1.0	Below Mac
Stevens Station**	27-Dec-18	<1.0	<1.0	Below Mac
Finlay Station**	28-Dec-18	<1.0	<1.0	Below Mac
Stayte Road Station**	28-Dec-18	<1.0	<1.0	Below Mac
Balsam & Marine Station**	28-Dec-18	<1.0	<1.0	Below Mac
Oxford & Buena Vista Station**	28-Dec-18	<1.0	<1.0	Below Mac
Merklin Low Reservoir**	28-Dec-18	<1.0	<1.0	Below Mac
Merklin New Reservoir**	28-Dec-18	<1.0	<1.0	Below Mac
Oxford Reservoir**	28-Dec-18	<1.0	<1.0	Below Mac
* Also under Metals Results				
** Also under Chlorination Results				

In-House Water Testing Results 2018

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colldd	Temp. Tested
			µS/cm		NTU	mg/L	mg/L		
January Week 1									
Merklin Low Reservoir - 25%	5-Jan-17	11:10	278	8.46	0.34	0.01	0.68	9.2	15.1
Merklin Low Reservoir - 50%									
Everall St. Sampling Station	3-Jan-18	15:00	291	7.98	0.19	0.61	0.01	8.6	13.4
Malabar Sampling Station			276	8.08	0.22	0.55	0.02	7.4	13.3
Chestnut & N. Bluff Sample STN			276	8.16	0.21	0.44	0.00	5.9	13.3
Russell Ave. Sample Station			302	8.28	0.40	0.63	0.02	7.9	12.6
Roper Reservoir			289	8.32	0.31	0.38	0.01	5.0	13.3
Roper PRV			299	8.33	0.32	0.61	0.02	8.6	13.2
Roper Ave. Sample Station			295	8.41	0.31	0.56	0.03	6.1	10.0
Finlay St. Sampling Station			290	8.39	0.28	0.56	0.01	6.6	8.8
Stayte Sampling Station			294	8.35	0.28	0.46	0.02	6.5	8.9
Balsam & Marine			285	8.36	0.17	0.56	0.00	7.4	8.7
Oxford St. & Buena Vista STN			292	8.33	0.20	0.39	0.00	7.9	9.1
Merklin Low Reservoir			295	8.38	0.23	0.55	0.03	8.9	10.1
Merklin Reservoir (New)								9.2	
Oxford Reservoir			180	8.29	0.19	0.59	0.02	8.3	10.1
January Week 2									
Everall St. Sampling Station	9-Jan-18	9:10	284	8.29	0.09	0.60	0.04	9.7	22.1
Mann Park Sample Station	9-Jan-18	9:25	279	8.24	0.08	0.59	0.03	7.7	22.1
Marine Dr Sample Station	9-Jan-18	9:55	280	8.23	0.14	0.46	0.03	8.1	22.7
Russell Ave. Sample Station	9-Jan-18	10:35	298	8.45	0.27	0.79	0.00	9.1	20.6
Roper Reservoir	9-Jan-18	11:00	304	8.52	0.33	0.27	0.00	7.4	23.2
Roper PRV	9-Jan-18	10:50	-	-	0.22	0.63	0.00	9.3	-
Stevens Sample Station	10-Jan-18	9:10	302	8.31	0.29	0.58	0.06	9.0	23.2
Finlay St. Sampling Station	10-Jan-18	8:55	300	8.32	0.32	0.58	0.03	8.3	26.7
Stayte Sampling Station	10-Jan-18	9:25	288	8.31	0.22	0.43	0.03	8.4	22.7
Balsam & Marine	10-Jan-18	9:40	288	8.27	0.15	0.64	0.01	8.7	19.1
Oxford St. & Buena Vista STN	10-Jan-18	11:20	289	8.28	0.13	0.53	0.00	8.7	21.5
Merklin Low Reservoir	10-Jan-18	10:20	304	8.37	0.27	0.66	0.00	9.6	23.4

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Merklin Reservoir (New)	10-Jan-18	10:40	306	8.40	0.28	0.74	0.07	9.7	24.3
Oxford Reservoir	10-Jan-18	11:05	282	8.21	0.08	0.58	0.01	10.3	25.6
January Week 3									
Everall St. Sampling Station	16-Jan-18	8:45	283	8.40	0.09	0.58	0.04	9.9	21.0
Malabar Sampling Station	16-Jan-18	9:10	285	8.42	0.09	0.55	0.04	8.5	26.3
Marine Dr Sample Station	16-Jan-18	9:30	274	8.35	0.10	0.47	0.03	7.5	24.1
Russell Ave. Sample Station	16-Jan-18	9:55	309	8.53	0.19	0.56	0.06	9.2	26.4
Roper Reservoir	16-Jan-18	11:00	295	8.98	0.19	0.03	0.02	6.9	24.0
Roper PRV	16-Jan-18	11:05	-	-	0.20	0.62	0.08	9.5	-
Roper Ave. Sample Station	16-Jan-18	10:35	296	8.55	0.31	0.59	0.08	7.9	22.8
Finlay St. Sampling Station	17-Jan-18	8:55	331	8.19	0.21	0.55	0.06	8.7	22.1
Stayte Sampling Station	17-Jan-18	9:15	296	8.28	0.20	0.45	0.03	7.8	22.3
Balsam & Marine	17-Jan-18	9:35	292	8.31	0.17	0.56	0.00	8.9	21.6
Oxford St. & Buena Vista STN	17-Jan-18	9:45	285	8.35	0.19	0.41	0.03	8.9	20.8
Merklin Low Reservoir	17-Jan-18	10:20	300	8.48	0.30	0.57	0.05	9.2	21.1
Merklin Reservoir (New)	17-Jan-18	10:35	291	8.49	0.29	0.60	0.03	9.6	18.6
Oxford Reservoir	17-Jan-18	11:00	282	8.23	0.09	0.56	0.03	10.3	22.6
January Week 4									
Everall St. Sampling Station	23-Jan-18	9:00	286	8.34	0.09	0.58	0.02	10.1	26.1
Mann Park Sample Station	23-Jan-18	9:20	285	8.22	0.08	0.59	0.06	8.4	26.7
Marine Dr Sample Station	23-Jan-18	9:40	275	8.20	0.16	0.38	0.01	7.6	25.5
Russell Ave. Sample Station	23-Jan-18	10:25	301	8.30	0.22	0.72	0.05	9.4	25.0
Roper Reservoir	23-Jan-18	10:50	291	8.39	0.39	0.35	0.00	8.2	23.7
Roper PRV	23-Jan-18	10:56	-	-	0.21	0.65	0.08	9.6	-
Stevens Sample Station	23-Jan-18	11:15	303	8.39	0.19	0.37	0.09	9.4	24.3
Finlay St. Sampling Station	24-Jan-18	8:57	292	8.35	0.26	0.57	0.06	9.1	23.9
Stayte Sampling Station	24-Jan-18	9:20	300	8.27	0.19	0.46	0.03	8.4	26.0
Balsam & Marine	24-Jan-18	9:35	282	8.24	0.15	0.58	0.07	9.3	26.3
Oxford St. & Buena Vista STN	24-Jan-18	9:50	289	8.28	0.15	0.39	0.02	9.3	26.4
Merklin Low Reservoir	24-Jan-18	10:35	293	8.42	0.24	0.59	0.03	12.1	23.8
Merklin Reservoir (New)	24-Jan-18	10:47	307	8.37	0.28	0.65	0.03	9.7	25.1
Oxford Reservoir	24-Jan-18	11:15	283	8.28	0.08	0.58	0.02	10.5	26.4
January Week 5									
Everall St. Sampling Station	30-Jan-18	9:00	288	8.43	0.10	0.61	0.04	9.7	24.0
Malabar Sampling Station	30-Jan-18	9:15	280	8.31	0.11	0.56	0.02	8.7	22.8

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Chestnut & N. Bluff Sample STN	30-Jan-18	9:30	282	8.27	0.11	0.47	0.01	7.7	24.0
Russell Ave. Sample Station	30-Jan-18	9:50	307	8.51	0.26	0.61	0.00	10.0	23.6
Roper Reservoir	30-Jan-18	11:25	290	8.59	0.65	0.23	0.00	7.7	22.9
Roper PRV	30-Jan-18	11:05	-	-	0.21	0.66	0.03	9.3	-
Roper Ave. Sample Station	30-Jan-18	10:45	302	8.47	0.31	0.61	0.04	8.0	24.0
Finlay St. Sampling Station	31-Jan-18	8:35	300	8.43	0.25	0.58	0.04	8.8	26.9
Stayte Sampling Station	31-Jan-18	9:00	285	8.32	0.21	0.44	0.01	8.3	23.4
Balsam & Marine	31-Jan-18	9:20	284	8.46	0.15	0.53	0.00	18.1	25.3
Oxford St. & Buena Vista STN	31-Jan-18	9:40	282	8.31	0.11	0.41	0.07	9.9	25.6
Merklin Low Reservoir	31-Jan-18	10:35	298	8.53	0.22	0.67	0.03	9.2	24.6
Merklin Reservoir (New)	31-Jan-18	10:45	306	8.37	0.22	0.57	0.02	9.7	26.0
Oxford Reservoir	31-Jan-18	11:05	276	8.57	0.08	0.51	0.03	10.3	25.0
February Week 1									
Everall St. Sampling Station	6-Feb-18	10:00	279	8.09		0.58	0.03	9.2	17.3
Malabar Sampling Station	6-Feb-18	10:15	278	8.17		0.50	0.02	8.7	17.5
Marine Dr Sample Station	6-Feb-18	10:30	277	8.20		0.42	0.02	7.7	17.5
Russell Ave. Sample Station	6-Feb-18	10:45	311	8.35		0.58	0.03	8.7	17.4
Roper Reservoir	6-Feb-18	11:00	293	8.55		0.29	0.02	8.2	16.7
Roper PRV	6-Feb-18	11:00	307	8.40		0.57	0.02	8.9	17.2
Roper Ave. Sample Station	6-Feb-18	11:15	302	8.39		0.53	0.03	7.9	17.4
Finlay St. Sampling Station	6-Feb-18	11:30	288	8.34		0.51	0.03	8.7	17.4
Stayte Sampling Station	7-Feb-18	8:50	302	8.41	0.22	0.45	0.01	8.2	28.6
Balsam & Marine	7-Feb-18	9:10	291	8.36	0.12	0.51	0.00	9.0	28.0
Oxford St. & Buena Vista STN	7-Feb-18	9:30	301	8.52	0.16	0.43	0.02	9.2	25.4
Merklin Low Reservoir	7-Feb-18	10:30	314	8.74	0.13	0.59	0.02	8.9	25.7
Merklin Reservoir (New)	7-Feb-18	10:50	313	8.63	0.11	0.65	0.02	9.4	25.1
Oxford Reservoir	7-Feb-18	9:55	278	8.49	0.09	0.55	0.03	10.1	25.7
February Week 2									
Everall St. Sampling Station	13-Feb-18	9:00	303	8.43	0.09	0.61	0.04	9.0	24.8
Mann Park Sample Station	13-Feb-18	9:15	282	8.32	0.09	0.57	0.03	8.1	25.8
Marine Dr Sample Station	13-Feb-18	9:35	276	8.35	0.16	0.34	0.03	7.2	24.4
Russell Ave. Sample Station	13-Feb-18	9:55	311	8.50	0.10	0.67	0.05	8.7	23.6
Roper Reservoir	13-Feb-18	10:35	306	8.50	0.49	0.55	0.00	7.0	26.3
Roper PRV	13-Feb-18	10:40	-	-	0.09	0.59	0.00	9.0	-
Stevens Sample Station	13-Feb-18	11:00	310	8.56	0.12	0.66	0.04	8.8	24.2

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Finlay St. Sampling Station	14-Feb-18	8:50	311	8.51	0.12	0.58	0.02	8.4	23.6
Stayte Sampling Station	14-Feb-18	9:10	304	8.35	0.13	0.48	0.03	7.8	24.5
Balsam & Marine	14-Feb-18	9:30	283	8.38	0.12	0.50	0.02	8.5	24.2
Oxford St. & Buena Vista STN	14-Feb-18	9:50	299	8.48	0.11	0.47	0.01	8.7	25.3
Merklin Low Reservoir	14-Feb-18	10:40	315	8.48	0.09	0.70	0.01	8.7	24.5
Merklin Reservoir (New)	14-Feb-18	10:55	310	8.53	0.09	0.84	0.00	9.2	23.4
Oxford Reservoir	14-Feb-18	11:20	282	8.51	0.07	0.54	0.06	9.9	24.3
February Week 3									
Everall St. Sampling Station	20-Feb-18	7:50	296	8.42	0.11	0.58	0.02	9.3	24.4
Malabar Sampling Station	20-Feb-18	8:05	281	8.33	0.10	0.46	0.01	8.5	23.3
Chestnut & N. Bluff Sample STN	20-Feb-18	8:22	277	8.25	0.11	0.45	0.01	7.5	23.2
Russell Ave. Sample Station	20-Feb-18	8:40	290	8.63	0.17	0.52	0.00	8.7	21.6
Roper Reservoir	20-Feb-18	9:00	302	8.54	0.43	0.55	0.07	6.5	22.0
Roper PRV	20-Feb-18	8:52	-	-	0.21	0.49	0.06	8.9	-
Roper Ave. Sample Station	20-Feb-18	9:15	302	8.47	0.28	0.51	0.00	7.7	21.7
Finlay St. Sampling Station	20-Feb-18	9:40	282	8.43	0.23	0.55	0.04	8.3	18.4
Stayte Sampling Station	21-Feb-18	8:52	302	8.33	0.24	0.48	0.04	7.9	19.9
Balsam & Marine	21-Feb-18	9:05	288	8.35	0.15	0.51	0.03	8.4	19.9
Oxford St. & Buena Vista STN	21-Feb-18	9:30	296	8.37	0.17	0.35	0.00	8.4	18.9
Merklin Low Reservoir	21-Feb-18	10:35	317	8.43	0.25	0.58	0.03	9.1	20.9
Merklin Reservoir (New)	21-Feb-18	10:55	302	8.43	0.21	0.65	0.02	9.4	19.2
Oxford Reservoir	21-Feb-18	9:50	287	8.23	0.12	0.37	0.00	9.6	19.0
February Week 4									
Everall St. Sampling Station	27-Feb-18	9:15	284	8.46	0.11	0.60	0.02	9.3	16.2
Mann Park Sample Station	27-Feb-18	9:30	281	8.29	0.12	0.62	0.03	7.2	17.3
Marine Dr Sample Station	27-Feb-18	9:45	275	8.43	0.15	0.54	0.02	6.7	17.8
Russell Ave. Sample Station	27-Feb-18	11:20	305	8.45	0.26	0.64	0.03	8.7	17.3
Roper Reservoir	27-Feb-18	11:40	305	8.54	0.33	0.40	0.07	6.8	17.2
Roper PRV	27-Feb-18	11:30	-	-	0.21	0.52	0.04	8.9	-
Stevens Sample Station	27-Feb-18	11:05	288	8.43	0.17	0.52	0.04	8.2	17.8
Finlay St. Sampling Station	28-Feb-18	8:50	312	8.57	0.26	0.61	0.02	7.8	23.3
Stayte Sampling Station	28-Feb-18	9:10	298	8.45	0.21	0.53	0.06	7.2	21.6
Balsam & Marine	28-Feb-18	9:25	293	8.45	0.14	0.44	0.00	8.3	22.5
Oxford St. & Buena Vista STN	28-Feb-18	9:40	289	8.50	0.14	0.39	0.01	8.1	20.9
Merklin Low Reservoir	28-Feb-18	10:34	308	8.56	0.20	0.57	0.00	9.2	18.0

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Merklin Reservoir (New)	28-Feb-18	10:20	315	8.56	0.22	0.75	0.00	9.6	20.6
Oxford Reservoir	28-Feb-18	11:00	279	8.46	0.09	0.58	0.02	10.0	21.5
March Week 1									
Everall St. Sampling Station	6-Mar-18	7:28	282	8.36	0.09	0.62	0.02	9.6	22.4
Malabar Sampling Station	6-Mar-18	7:40	283	8.32	0.13	0.53	0.02	8.2	21.4
Marine Dr Sample Station	6-Mar-18	7:50	283	8.43	0.11	0.46	0.02	7.4	21.7
Russell Ave. Sample Station	6-Mar-18	8:05	301	8.39	0.15	0.58	0.00	8.9	22.3
Roper Reservoir	6-Mar-18	8:20	292	8.52	0.22	0.48	0.03	7.7	17.6
Roper PRV	6-Mar-18	8:15	-	-	0.19	0.57	0.00	9.1	-
Roper Ave. Sample Station	6-Mar-18	9:15	309	8.61	0.26	0.62	0.04	7.1	19.6
Finlay St. Sampling Station	6-Mar-18	8:37	307	8.45	0.24	0.56	0.05	8.2	21.3
Stayte Sampling Station	6-Mar-18	8:50	299	8.48	0.19	0.47	0.02	7.5	22.2
Balsam & Marine	6-Mar-18	9:00	273	8.33	0.10	0.42	0.05	8.8	17.7
Oxford St. & Buena Vista STN	6-Mar-18	10:45	294	8.38	0.11	0.40	0.02	8.7	20.2
Merklin Low Reservoir	6-Mar-18	9:25	298	8.48	0.19	0.59	0.07	9.1	17.6
Merklin Reservoir (New)	6-Mar-18	9:40	304	8.47	0.21	0.62	0.03	9.5	18.0
Oxford Reservoir	6-Mar-18	10:30	279	8.32	0.09	0.59	0.02	10.7	18.3
March Week 2									
Everall St. Sampling Station	13-Mar-18	8:50	275	8.39	0.09	0.62	0.03	9.9	24.4
Mann Park Sample Station	13-Mar-18	9:15	279	8.24	0.10	0.56	0.03	8.7	23.6
Marine Dr Sample Station	13-Mar-18	9:05	283	8.33	0.15	0.46	0.02	7.7	25.3
Russell Ave. Sample Station	13-Mar-18	9:30	318	8.49	0.10	0.64	0.05	9.5	25.1
Roper Reservoir	13-Mar-18	9:50	293	8.41	0.19	0.48	0.03	8.9	23.0
Roper PRV	13-Mar-18	9:40	-	-	0.09	0.64	0.02	9.9	-
Stevens Sample Station	13-Mar-18	10:30	296	8.41	0.10	0.62	0.04	9.5	23.3
Finlay St. Sampling Station	14-Mar-18	9:00	310	8.31	0.12	0.62	0.06	9.6	19.7
Stayte Sampling Station	14-Mar-18	9:20	297	8.29	0.17	0.55	0.03	8.5	18.4
Balsam & Marine	14-Mar-18	9:35	288	8.30	0.11	0.52	0.06	9.7	19.8
Oxford St. & Buena Vista STN	14-Mar-18	11:45	285	8.30	0.14	0.35	0.02	9.8	19.7
Merklin Low Reservoir	14-Mar-18	11:10	288	8.44	0.28	0.54	0.04	9.2	19.8
Merklin Reservoir (New)	14-Mar-18	10:00	298	8.47	0.21	0.62	0.00	9.8	20.3
Oxford Reservoir	14-Mar-18	8:40	280	8.36	0.10	0.63	0.03	10.7	20.4
March Week 3									
Everall St. Sampling Station	20-Mar-18	8:37	276	8.37	0.09	0.60	0.03	9.8	17.4
Malabar Sampling Station	20-Mar-18	8:48	281	8.25	0.10	0.51	0.02	9.7	16.8

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Marine Dr Sample Station	20-Mar-18	9:05	272	8.24	0.11	0.44	0.03	9.8	15.5
Russell Ave. Sample Station	20-Mar-18	9:30	283	8.29	0.10	0.58	0.03	9.6	17.6
Roper Reservoir	20-Mar-18	11:20	282	8.50	0.20	0.46	0.04	9.1	15.4
Roper PRV	20-Mar-18	11:15	-	-	0.15	0.56	0.02	9.8	-
Roper Ave. Sample Station	20-Mar-18	9:45	289	8.52	0.23	0.53	0.01	9.0	17.4
Finlay St. Sampling Station	20-Mar-18	10:00	287	8.40	0.17	0.55	0.02	10.1	18.0
Stayte Sampling Station	20-Mar-18	10:35	273	8.40	0.18	0.53	0.00	9.2	15.0
Balsam & Marine	20-Mar-18	10:50	284	8.33	0.13	0.52	0.01	9.9	18.2
Oxford St. & Buena Vista STN	20-Mar-18	11:03	274	8.34	0.10	0.29	0.01	10.4	16.0
Merklin Low Reservoir	20-Mar-18	11:30	289	8.48	0.18	0.45	0.00	9.2	17.2
Merklin Reservoir (New)	20-Mar-18	11:40	279	8.49	0.17	0.61	0.02	9.7	15.9
Oxford Reservoir	20-Mar-18	11:50	286	8.34	0.08	0.44	0.02	10.5	17.8
March Week 4									
Everall St. Sampling Station	27-Mar-18	8:30	281	8.22	0.12	0.60	0.03	9.8	20.3
Mann Park Sample Station	27-Mar-18	8:45	284	8.15	0.11	0.58	0.05	9.1	20.7
Marine Dr Sample Station	27-Mar-18	9:10	280	8.23	0.11	0.41	0.00	8.5	20.9
Russell Ave. Sample Station	27-Mar-18	9:25	279	8.19	0.11	0.62	0.06	9.6	21.1
Roper Reservoir	27-Mar-18	11:15	292	8.36	0.18	0.53	0.00	8.9	21.5
Roper PRV	27-Mar-18	11:05	302	8.33	0.09	0.67	0.07	9.8	18.5
Stevens Sample Station	27-Mar-18	10:30	325	8.35	0.11	0.63	0.00	9.8	21.6
Finlay St. Sampling Station	27-Mar-18	10:45	284	8.30	0.10	0.59	0.00	10.0	19.4
Stayte Sampling Station	28-Mar-18	9:25	395	8.38	0.13	0.45	0.03	9.6	17.8
Balsam & Marine	28-Mar-18	9:40	277	8.32	0.11	0.66	0.04	9.9	22.2
Oxford St. & Buena Vista STN	28-Mar-18	11:25	277	8.35	0.10	0.46	0.02	10.3	21.3
Merklin Low Reservoir	28-Mar-18	10:20	333	8.45	0.09	0.60	0.01	9.3	23.9
Merklin Reservoir (New)	28-Mar-18	10:35	325	8.47	0.10	0.63	0.02	9.8	22.4
Oxford Reservoir	28-Mar-18	11:10	269	8.41	0.10	0.60	0.02	10.3	20.6
April Week 1									
Everall St. Sampling Station	3-Apr-18	9:00	267	8.02	0.14	0.62	0.02	9.6	17.1
Malabar Sampling Station	3-Apr-18	9:15	266	8.33	0.15	0.55	0.02	8.9	17.3
Marine Dr Sample Station	3-Apr-18	9:45	265	8.33	0.19	0.49	0.02	8.7	17.6
Russell Ave. Sample Station	3-Apr-18	10:00	315	8.39	0.14	0.59	0.04	9.5	17.8
Roper Reservoir	3-Apr-18	10:15	291	8.38	0.14	0.43	0.00	9.1	17.4
Roper PRV	3-Apr-18	10:15	307	8.44	0.13	0.61	0.02	9.8	17.3
Roper Ave. Sample Station	4-Apr-18	7:35	320	8.30	0.11	0.56	0.03	9.8	18.0

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Finlay St. Sampling Station	4-Apr-18	7:50	290	8.30	0.11	0.57	0.02	9.7	18.0
Stayte Sampling Station	4-Apr-18	8:05	391	8.39	0.12	0.43	0.02	9.8	17.9
Balsam & Marine	4-Apr-18	8:20	384	8.27	0.13	0.60	0.02	9.8	17.9
Oxford St. & Buena Vista STN	4-Apr-18	8:30	299	8.38	0.14	0.47	0.03	9.4	10.2
Merklin Low Reservoir	4-Apr-18	8:45	317	8.40	0.11	0.56	0.04	9.1	12.3
Merklin Reservoir (New)	4-Apr-18	7:20	327	8.43	0.12	0.59	0.04	9.6	10.1
Oxford Reservoir	4-Apr-18	9:00	270	8.40	0.18	0.60	0.02	10.0	12.0
April Week 2 (WITH METALS)									
Everall St. Sampling Station	10-Apr-18	8:30	267	8.19	0.12	0.61	0.03	9.3	18.9
Mann Park Sample Station	10-Apr-18	8:45	263	8.22	0.15	0.56	0.03	9.5	18.8
Marine Dr Sample Station	10-Apr-18	9:00	263	8.26	0.15	0.41	0.03	9.6	18.8
Russell Ave. Sample Station	10-Apr-18	9:15	315	8.30	0.12	0.61	0.04	9.7	18.8
Roper Reservoir	10-Apr-18	9:30	308	8.39	0.20	0.46	0.01	9.4	18.8
Roper PRV	10-Apr-18	9:30	307	8.41	0.14	0.60	0.03	9.7	18.8
Stevens Sample Station	10-Apr-18	9:45	290	8.44	0.17	0.57	0.05	10.4	18.8
Finlay St. Sampling Station	10-Apr-18	10:00	286	8.43	0.11	0.57	0.03	10.7	18.8
Stayte Sampling Station	10-Apr-18	10:15	293	8.42	0.21	0.41	0.03	10.3	18.8
Balsam & Marine	10-Apr-18	10:30	296	8.46	0.12	0.59	0.02	10.5	18.8
Oxford St. & Buena Vista STN	10-Apr-18	10:45	284	8.45	0.10	0.40	0.03	9.6	18.7
Merklin Low Reservoir	10-Apr-18	11:00	317	8.51	0.07	0.57	0.02	9.5	18.8
Merklin Reservoir (New)	10-Apr-18	11:15	315	8.49	0.15	0.59	0.03	9.6	18.8
Oxford Reservoir	10-Apr-18	11:30	267	8.52	0.18	0.61	0.02	9.2	18.8
April Week 3 (W/O METALS)									
Everall St. Sampling Station	17-Apr-18	9:15	352	8.20	0.15	0.66	0.02	9.7	17.4
Malabar Sampling Station	17-Apr-18	9:30	255	8.19	0.11	0.65	0.02	10.7	18.0
Marine Dr Sample Station	17-Apr-18	9:45	262	8.36	0.18	0.50	0.01	10.3	18.8
Russell Ave. Sample Station	17-Apr-18	10:55	307	8.39	0.10	0.66	0.02	9.8	17.0
Roper Reservoir	17-Apr-18	11:20	312	8.45	0.16	0.57	0.02	9.9	19.5
Roper PRV	17-Apr-18	11:10	312	8.55	0.09	0.67	0.02	9.9	19.2
Roper Ave. Sample Station	17-Apr-18	11:45	311	8.43	0.12	0.64	0.03	10.5	19.2
Finlay St. Sampling Station	18-Apr-18	9:00	319	8.43	0.11	0.60	0.02	11.1	19.3
Stayte Sampling Station	18-Apr-18	9:20	297	8.39	0.18	0.41	0.02	10.8	18.4
Balsam & Marine	18-Apr-18	9:35	297	8.41	0.12	0.60	0.03	10.6	19.2
Oxford St. & Buena Vista STN	18-Apr-18	9:55	297	8.37	0.11	0.44	0.02	11.2	19.4
Merklin Low Reservoir	18-Apr-18	10:30	314	8.42	0.09	0.60	0.02	9.5	18.7

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Merklin Reservoir (New)	18-Apr-18	10:55	315	8.43	0.08	0.67	0.02	9.9	18.8
Oxford Reservoir	18-Apr-18	11:20	250	8.47	0.09	0.69	0.02	10.0	18.2
April Week 4 (WITH METALS)									
Everall St. Sampling Station	24-Apr-18	8:45	282	8.45	0.12	0.59	0.03	10.2	25.8
Malabar Sampling Station	24-Apr-18	9:00	277	8.33	0.15	0.55	0.03	11.3	25.3
Marine Dr Sample Station	24-Apr-18	9:25	267	8.34	0.16	0.48	0.04	12.5	19.4
Russell Ave. Sample Station	24-Apr-18	9:40	306	8.54	0.11	0.67	0.02	10.1	18.6
Roper Reservoir	24-Apr-18	10:05	312	8.53	0.17	0.48	0.03	10.4	20.7
Roper PRV	24-Apr-18	9:55	306	8.51	0.09	0.66	0.03	10.5	18.6
Roper Ave. Sample Station	24-Apr-18	10:40	321	8.50	0.11	0.61	0.05	12.1	21.7
Finlay St. Sampling Station	24-Apr-18	10:55	307	8.50	0.10	0.63	0.06	12.3	19.8
Stayte Sampling Station	24-Apr-18	11:05	311	8.47	0.16	0.44	0.03	11.9	21.8
Balsam & Marine	24-Apr-18	11:20	305	8.52	0.12	0.56	0.04	11.6	21.6
Oxford St. & Buena Vista STN	24-Apr-18	11:40	299	8.47	0.13	0.39	0.03	12.1	20.7
Merklin Low Reservoir	25-Apr-18	9:55	316	8.30	0.13	0.59	0.02	10.6	22.3
Merklin Reservoir (New)	25-Apr-18	10:35	316	8.34	0.10	0.67	0.03	9.8	22.7
Oxford Reservoir	25-Apr-18	11:30	279	8.23	0.12	0.55	0.03	10.3	22.7
May Week 1 (WITHOUT METALS)									
Everall St. Sampling Station	1-May-18	9:05	284	8.30	0.10	0.58	0.02	10.0	23.5
Mann Park Sample Station	1-May-18	9:20	283	8.30	0.12	0.51	0.02	11.8	24.1
Marine Dr Sample Station	1-May-18	9:40	286	8.35	0.18	0.27	0.02	12.5	23.0
Russell Ave. Sample Station	1-May-18	10:00	319	8.48	0.09	0.64	0.02	10.0	22.7
Roper Reservoir	1-May-18	10:45	316	8.52	0.17	0.48	0.03	10.8	24.3
Roper PRV	1-May-18	10:35	315	8.53	0.09	0.65	0.02	10.2	22.8
Stevens Sample Station	1-May-18	11:05	318	8.50	0.10	0.64	0.03	11.4	23.8
Finlay St. Sampling Station	2-May-18	9:20	317	8.41	0.11	0.60	0.05	13.6	24.6
Stayte Sampling Station	2-May-18	9:40	309	8.40	0.18	0.34	0.03	13.1	23.4
Balsam & Marine	2-May-18	10:00	315	8.46	0.12	0.57	0.04	12.1	23.1
Oxford St. & Buena Vista STN	2-May-18	11:40	311	8.44	0.11	0.42	0.02	12.9	24.4
Merklin Low Reservoir	2-May-18	10:35	325	8.54	0.13	0.55	0.04	9.7	25.1
Merklin Reservoir (New)	2-May-18	10:50	323	8.54	0.10	0.65	0.02	9.8	24.3
Oxford Reservoir	2-May-18	11:15	285	8.41	0.11	0.56	0.04	10.4	23.8
May Week 2 (WITH METALS)									
Everall St. Sampling Station	8-May-18	8:50	275	8.20	0.16	0.61	0.06	10.1	23.1
Mann Park Sample Station	8-May-18	9:00	279	8.26	0.12	0.52	0.04	12.5	24.1

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Marine Dr Sample Station	8-May-18	9:15	278	8.28	0.19	0.44	0.00	13.9	22.9
Russell Ave. Sample Station	8-May-18	10:40	316	8.45	0.11	0.64	0.05	10.6	23.1
Roper Reservoir	8-May-18	11:00	310	8.55	0.24	0.43	0.04	11.6	22.9
Roper PRV	8-May-18	10:50	318	8.48	0.26	0.63	0.00	10.8	23.1
Stevens Sample Station	8-May-18	9:35	315	8.54	0.11	0.64	0.05	12.1	23.4
Finlay St. Sampling Station	8-May-18	9:45	314	8.51	0.10	0.65	0.05	13.9	23.7
Stayte Sampling Station	8-May-18	11:15	305	8.46	0.14	0.40	0.05	14.2	24.6
Balsam & Marine	8-May-18	11:25	299	8.49	0.15	0.58	0.05	13.2	24.8
Oxford St. & Buena Vista STN	8-May-18	11:40	294	8.45	0.14	0.43	0.04	14.1	24.4
Merklin Low Reservoir	9-May-18	9:05	313	8.44	0.17	0.52	0.02	9.8	19.3
Merklin Reservoir (New)	9-May-18	9:20	312	8.51	0.16	0.65	0.02	10.0	18.6
Oxford Reservoir	9-May-18	9:50	274	8.42	0.11	0.57	0.03	10.3	19.8
May Week 3 (WITOUT METALS)									
Everall St. Sampling Station	15-May-18	8:35	289	8.47	0.17	0.59	0.05	10.4	29.2
Malabar Sampling Station	15-May-18	8:55	291	8.31	0.12	0.53	0.04	12.9	30.3
Marine Dr Sample Station	15-May-18	9:10	285	8.33	0.13	0.41	0.04	17.6	29.3
Russell Ave. Sample Station	15-May-18	9:25	309	8.46	0.10	0.62	0.04	10.8	29.4
Roper Reservoir	15-May-18	9:45	304	8.50	0.15	0.51	0.06	13.8	29.4
Roper PRV	15-May-18	9:35	302	7.88	0.12	0.65	0.04	11.2	28.3
Roper Ave. Sample Station	15-May-18	10:30	298	8.54	0.12	0.61	0.07	15.0	24.2
Finlay St. Sampling Station	15-May-18	10:45	304	8.52	0.16	0.63	0.07	14.6	24.5
Stayte Sampling Station	16-May-18	9:10	303	8.51	0.20	0.35	0.02	15.8	25.1
Balsam & Marine	16-May-18	9:25	305	8.28	0.16	0.55	0.03	13.6	23.4
Oxford St. & Buena Vista STN	16-May-18	9:50	301	8.57	0.47	0.49	0.06	14.7	23.0
Merklin Low Reservoir	16-May-18	10:30	302	8.66	0.12	0.59	0.02	10.0	21.5
Merklin Reservoir (New)	16-May-18	10:45	307	8.64	0.12	0.63	0.02	9.9	22.2
Oxford Reservoir	16-May-18	11:10	287	8.47	0.10	0.57	0.03	10.6	22.7
May Week 4 (WITH METALS)									
Everall St. Sampling Station	22-May-18	9:15	279	8.26	0.16	0.60	0.04	10.0	27.6
Malabar Sampling Station	22-May-18	9:30	289	8.24	0.13	0.54	0.04	15.0	29.0
Marine Dr Sample Station	22-May-18	9:55	284	8.28	0.14	0.41	0.04	17.5	26.8
Russell Ave. Sample Station	22-May-18	10:40	316	8.43	0.13	0.69	0.04	10.6	27.7
Roper Reservoir	22-May-18	11:00	307	8.45	0.17	0.51	0.03	12.5	28.9
Roper PRV	22-May-18	10:55	317	8.46	0.12	0.65	0.02	10.7	29.0
Roper Ave. Sample Station	22-May-18	11:30	316	8.46	0.11	0.64	0.05	14.8	28.8

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Finlay St. Sampling Station	23-May-18	8:58	309	8.43	0.12	0.65	0.04	14.8	22.5
Stayte Sampling Station	23-May-18	9:15	302	8.36	0.22	0.36	0.03	17.3	23.0
Balsam & Marine	23-May-18	9:35	307	8.41	0.24	0.59	0.05	14.6	22.8
Oxford St. & Buena Vista STN	23-May-18	9:55	303	8.41	0.21	0.44	0.04	15.7	22.8
Merklin Low Reservoir	23-May-18	10:30	312	8.51	0.13	0.60	0.03	10.5	22.4
Merklin Reservoir (New)	23-May-18	10:50	310	8.50	0.13	0.69	0.03	10.1	21.7
Oxford Reservoir	23-May-18	11:25	281	8.40	0.11	0.58	0.04	10.5	22.3
May Week 5 (WITHOUT METALS)									
Everall St. Sampling Station	29-May-18	8:25	291	8.54	0.12	0.59	0.05	10.1	23.7
Mann Park Sample Station	29-May-18	8:45	290	8.37	0.13	0.51	0.03	13.2	25.7
Marine Dr Sample Station	29-May-18	9:00	287	8.44	0.16	0.45	0.03	17.2	25.5
Russell Ave. Sample Station	29-May-18	9:20	315	8.59	0.15	0.66	0.03	10.7	27.7
Roper Reservoir	29-May-18	9:28	299	8.62	0.19	0.48	0.03	12.9	25.7
Roper PRV	29-May-18	9:35	311	8.61	0.15	0.63	0.04	10.9	26.0
Stevens Sample Station	29-May-18	9:55	315	8.60	0.14	0.66	0.04	12.4	27.0
Finlay St. Sampling Station	30-May-18	7:40	309	8.39	0.16	0.60	0.02	16.3	18.1
Stayte Sampling Station	30-May-18	8:10	296	8.39	0.19	0.35	0.04	17.9	18.2
Balsam & Marine	30-May-18	8:30	305	8.45	0.16	0.58	0.04	14.2	18.4
Oxford St. & Buena Vista STN	30-May-18	8:45	296	8.43	0.15	0.44	0.02	16.1	18.3
Merklin Low Reservoir	30-May-18	9:00	308	8.56	0.12	0.55	0.02	10.5	18.0
Merklin Reservoir (New)	30-May-18	9:15	309	8.56	0.12	0.67	0.02	10.0	18.0
Oxford Reservoir	30-May-18	10:55	275	8.53	0.11	0.59	0.02	10.3	18.1
June Week 1 (WITH METALS)									
Everall St. Sampling Station	5-Jun-18	8:35	282	8.51	0.11	0.60	0.04	10.4	19.6
Mann Park Sample Station	5-Jun-18	8:45	288	8.37	0.15	0.48	0.05	14.6	21.8
Marine Dr Sample Station	5-Jun-18	8:55	281	8.37	0.15	0.41	0.02	18.0	20.8
Russell Ave. Sample Station	5-Jun-18	9:10	308	8.55	0.12	0.63	0.03	10.8	20.4
Roper Reservoir	5-Jun-18	9:25	309	8.43	0.18	0.54	0.04	12.7	23.2
Roper PRV	5-Jun-18	9:20	302	8.55	0.12	0.68	0.03	10.9	18.7
Stevens Sample Station	5-Jun-18	9:38	309	8.58	0.12	0.63	0.03	12.5	19.1
Finlay St. Sampling Station	5-Jun-18	9:50	310	8.57	0.11	0.60	0.03	16.8	19.5
Stayte Sampling Station	5-Jun-18	10:52	303	8.48	0.18	0.36	0.04	18.0	23.0
Balsam & Marine	5-Jun-18	11:02	303	8.62	0.14	0.57	0.04	14.3	21.8
Oxford St. & Buena Vista STN	5-Jun-18	11:15	294	8.56	0.13	0.40	0.04	16.3	19.4
Merklin Low Reservoir	5-Jun-18	10:25	307	8.63	0.14	0.59	0.03	10.5	19.4

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Merklin Reservoir (New)	1-Jun-18	10:38	305	8.63	0.14	0.62	0.04	10.1	18.4
Oxford Reservoir	5-Jun-18	11:30	278	8.49	0.12	0.54	0.03	10.9	17.8
June Week 2									
Everall St. Sampling Station	12-Jun-18	9:15	284	8.16	0.12	0.57	0.02	10.5	22.5
Malabar Sampling Station	12-Jun-18	9:30	290	8.20	0.11	0.55	0.03	13.3	23.5
Chestnut & N. Bluff Sample STN	12-Jun-18	9:50	290	8.18	0.14	0.36	0.02	18.2	23.6
Russell Ave. Sample Station	12-Jun-18	10:55	314	8.41	0.11	0.65	0.02	11.2	23.4
Roper Reservoir	12-Jun-18	11:25	309	8.40	0.17	0.50	0.02	12.3	23.2
Roper PRV	12-Jun-18	11:15	314	8.40	0.12	0.64	0.04	11.1	22.8
Roper Ave. Sample Station	12-Jun-18	11:45	315	8.43	0.13	0.61	0.03	16.2	22.9
Finlay St. Sampling Station	13-Jun-18	8:45	315	8.41	0.14	0.61	0.03	16.0	23.5
Stayte Sampling Station	13-Jun-18	9:10	303	8.36	0.17	0.34	0.03	16.9	23.2
Balsam & Marine	13-Jun-18	9:35	309	8.45	0.16	0.57	0.03	13.4	22.8
Oxford St. & Buena Vista STN	13-Jun-18	9:55	308	8.45	0.14	0.39	0.02	14.9	22.9
Merklin Low Reservoir	13-Jun-18	10:35	312	8.54	0.15	0.62	0.04	10.3	22.2
Merklin Reservoir (New)	13-Jun-18	10:50	316	8.52	0.12	0.67	0.02	9.7	22.7
Oxford Reservoir	13-Jun-18	11:20	284	8.46	0.12	0.54	0.03	10.1	21.9
June Week 3									
Everall St. Sampling Station	19-Jun-18	8:40	289	8.25	0.18	0.58	0.06	10.3	23.8
Mann Park Sample Station	19-Jun-18	9:00	284	8.22	0.21	0.52	0.05	14.2	24.5
Chestnut & N. Bluff Sample STN	19-Jun-18	9:20	282	8.21	0.15	0.45	0.05	18.6	24.9
Russell Ave. Sample Station	19-Jun-18	9:40	310	8.39	0.14	0.69	0.05	10.9	24.2
Roper Reservoir	19-Jun-18	9:50	307	8.44	0.22	0.49	0.01	13.6	24.5
Roper PRV	19-Jun-18	10:00	309	8.44	0.20	0.60	0.00	11.1	24.0
Roper Ave. Sample Station	19-Jun-18	10:40	312	8.45	0.14	0.66	0.04	16.4	24.2
Finlay St. Sampling Station	19-Jun-18	10:55	311	8.46	0.15	0.66	0.05	16.0	24.1
Stayte Sampling Station	20-Jun-18	8:40	308	8.44	0.20	0.36	0.03	18.4	23.1
Balsam & Marine	20-Jun-18	9:00	309	8.43	0.21	0.59	0.04	14.3	23.4
Oxford St. & Buena Vista STN	20-Jun-18	9:20	306	8.42	0.21	0.50	0.02	15.2	23.2
Merklin Low Reservoir	20-Jun-18	9:35	309	8.52	0.13	0.61	0.02	10.8	22.6
Merklin Reservoir (New)	20-Jun-18	9:45	310	8.50	0.12	0.64	0.01	10.3	22.4
Oxford Reservoir	20-Jun-18	10:30	277	8.48	0.12	0.49	0.00	10.8	22.2
June Week 4 (WITH METALS)									
Everall St. Sampling Station	26-Jun-18	8:30	282	8.41	0.14	0.52	0.02	10.0	21.7

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Malabar Sampling Station	26-Jun-18	8:55	285	8.27	0.13	0.53	0.05	14.6	22.2
Chestnut & N. Bluff Sample STN	26-Jun-18	9:15	279	8.27	0.16	0.34	0.05	19.5	22.0
Russell Ave. Sample Station	26-Jun-18	9:30	307	8.48	0.16	0.65	0.03	11.1	21.0
Roper Reservoir	26-Jun-18	9:45	305	8.42	0.22	0.54	0.05	13.0	21.6
Roper PRV	26-Jun-18	9:55	310	8.46	0.15	0.67	0.04	11.2	22.0
Roper Ave. Sample Station	26-Jun-18	10:40	313	8.44	0.17	0.61	0.02	16.6	22.5
Finlay St. Sampling Station	26-Jun-18	11:00	312	8.47	0.16	0.73	0.04	16.1	22.5
Stayte Sampling Station	27-Jun-18	8:40	298	8.51	0.19	0.34	0.06	18.5	20.6
Balsam & Marine	27-Jun-18	8:55	307	8.48	0.15	0.59	0.03	14.2	20.7
Oxford St. & Buena Vista STN	27-Jun-18	9:10	305	8.47	0.17	0.45	0.05	15.6	20.7
Merklin Low Reservoir	27-Jun-18	9:30	305	8.53	0.15	0.58	0.02	10.6	19.0
Merklin Reservoir (New)	27-Jun-18	9:40	308	8.54	0.15	0.67	0.04	9.9	18.4
Oxford Reservoir	27-Jun-18	10:00	278	8.50	0.13	0.54	0.05	10.7	18.3
July Week 1									
Everall St. Sampling Station	3-Jul-18	10:30	283	8.12	0.19	0.51	0.02	11.0	21.4
Malabar Sampling Station	3-Jul-18	10:45	276	8.58	0.14	0.47	0.04	15.3	21.2
Chestnut & N. Bluff Sample STN	3-Jul-18	11:00	276	8.51	0.19	0.29	0.04	19.5	21.3
Russell Ave. Sample Station	3-Jul-18	11:15	311	8.72	0.16	0.58	0.04	11.3	21.3
Roper Reservoir	3-Jul-18	11:30	302	8.64	0.17	0.48	0.04	12.9	21.3
Roper PRV	3-Jul-18	11:30	308	8.62	0.11	0.59	0.04	11.1	21.3
Roper Ave. Sample Station	3-Jul-18	11:45	312	8.13	0.12	0.55	0.04	17.4	21.3
Finlay St. Sampling Station	4-Jul-18	8:00	311	8.63	0.09	0.58	0.03		22.3
Stayte Sampling Station	4-Jul-18	8:15	295	8.40	0.15	0.32	0.03		22.3
Balsam & Marine	4-Jul-18	8:30	299	8.63	0.16	0.49	0.02		22.2
Oxford St. & Buena Vista STN	4-Jul-18	8:45	297	8.62	0.13	0.43	0.02		21.9
Merklin Low Reservoir	4-Jul-18	9:30	311	8.57	0.16	0.51	0.05	10.7	21.5
Merklin Reservoir (New)	4-Jul-18	9:15	312	8.13	0.09	0.62	0.05	10.0	21.4
Oxford Reservoir	4-Jul-18	9:00	279	8.65	0.12	0.53	0.04		22.0
July Week 2									
Everall St. Sampling Station	10-Jul-18	7:35	289	8.31	0.16	0.60	0.03	10.3	25.7
Mann Park Sample Station	10-Jul-18	7:50	285	8.30	0.16	0.55	0.03	15.3	27.2
Marine Dr Sample Station	10-Jul-18	8:05	284	8.36	0.20	0.40	0.04	18.8	24.9
Russell Ave. Sample Station	10-Jul-18	8:25	317	8.48	0.16	0.65	0.02	11.1	25.3
Roper Reservoir	10-Jul-18	9:15	307	8.51	0.20	0.52	0.02	13.3	24.5

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Roper PRV	10-Jul-18	9:05	312	8.51	0.15	0.66	0.03	11.1	23.9
Stevens Sample Station	10-Jul-18	8:40	319	8.56	0.14	0.66	0.02	12.8	24.4
Finlay St. Sampling Station	11-Jul-18	7:50	317	8.43	0.17	0.63	0.05	16.6	25.9
Stayte Sampling Station	11-Jul-18	8:10	302	8.39	0.22	0.36	0.04	18.8	26.5
Balsam & Marine	11-Jul-18	8:35	313	8.44	0.16	0.59	0.07	14.2	26.7
Oxford St. & Buena Vista STN	11-Jul-18	8:50	305	8.43	0.16	0.46	0.03	15.7	26.0
Merklin Low Reservoir	11-Jul-18	9:15	316	8.52	0.15	0.56	0.03	10.9	25.7
Merklin Reservoir (New)	11-Jul-18	9:30	317	8.52	0.14	0.62	0.04	9.9	25.6
Oxford Reservoir	11-Jul-18	10:50	283	8.44	0.15	0.57	0.03	10.6	25.7
July Week 3									
Everall St. Sampling Station	17-Jul-18	7:40	284	8.26	0.19	0.60	0.03	10.4	25.8
Malabar Sampling Station	17-Jul-18	8:00	279	8.30	0.13	0.55	0.03	16.5	25.3
Chestnut & N. Bluff Sample STN	17-Jul-18	8:20	280	8.31	0.11	0.44	0.03	20.1	25.5
Russell Ave. Sample Station	17-Jul-18	8:40	318	8.46	0.09	0.64	0.07	10.9	25.8
Roper Reservoir	17-Jul-18	10:55	311	8.50	0.15	0.53	0.03	13.2	25.5
Roper PRV	17-Jul-18	10:45	316	8.52	0.08	0.63	0.02	11.1	25.3
Roper Ave. Sample Station	17-Jul-18	11:20	318	8.54	0.07	0.69	0.06	16.8	25.3
Finlay St. Sampling Station	18-Jul-18	8:00	317	8.40	0.09	0.63	0.04	15.5	25.1
Stayte Sampling Station	18-Jul-18	8:20	302	8.34	0.16	0.33	0.03	19.7	25.4
Balsam & Marine	18-Jul-18	9:25	311	8.44	0.12	0.59	0.03	14.5	25.3
Oxford St. & Buena Vista STN	18-Jul-18	9:45	311	8.47	0.16	0.49	0.04	16.0	24.9
Merklin Low Reservoir	18-Jul-18	10:30	316	8.51	0.09	0.58	0.02	10.9	24.7
Merklin Reservoir (New)	18-Jul-18	10:50	315	8.55	0.10	0.62	0.06	10.0	24.3
Oxford Reservoir	18-Jul-18	11:25	280	8.47	0.21	0.59	0.03	10.1	23.8
July Week 4									
Everall St. Sampling Station	24-Jul-18	8:00	284	8.44	0.09	0.66	0.02	10.0	28.7
Mann Park Sample Station	24-Jul-18	8:20	279	8.32	0.11	0.63	0.04	15.6	29.5
Marine Dr Sample Station	24-Jul-18	8:40	274	8.55	0.14	0.52	0.04	19.5	28.0
Russell Ave. Sample Station	24-Jul-18	9:05	316	8.45	0.07	0.62	0.00	10.7	29.4
Roper Reservoir	24-Jul-18	9:20	306	8.49	0.14	0.60	0.03	12.6	28.7
Roper PRV	24-Jul-18	9:25	311	8.44	0.08	0.63	0.06	11.1	28.6
Stevens Sample Station	24-Jul-18	9:50	305	8.27	0.09	0.63	0.03	12.5	26.8
Finlay St. Sampling Station	24-Jul-18	10:35	314	8.53	0.11	0.64	0.05	15.2	28.6
Stayte Sampling Station	24-Jul-18	10:55	294	8.32	0.13	0.45	0.05	19.4	29.6
Balsam & Marine	25-Jul-18	9:00	311	8.52	0.11	0.65	0.06	14.1	24.4

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Oxford St. & Buena Vista STN	25-Jul-18	9:25	306	8.37	0.11	0.52	0.03	15.4	24.1
Merklin Low Reservoir	25-Jul-18	10:25	310	8.51	0.11	0.56	0.02	11.0	23.9
Merklin Reservoir (New)	25-Jul-18	10:45	310	8.59	0.08	0.58	0.03	9.8	24.0
Oxford Reservoir	25-Jul-18	9:45	274	8.44	0.08	0.60	0.00	10.5	23.7
July Week 5									
Everall St. Sampling Station	31-Jul-18	9:10	283	8.30	0.08	0.58	0.03	10.4	27.0
Malabar Sampling Station	31-Jul-18	9:25	286	8.31	0.10	0.59	0.04	17.0	27.2
Chestnut & N. Bluff Sample STN	31-Jul-18	9:40	284	8.32	0.11	0.40	0.05	24.9	26.5
Russell Ave. Sample Station	31-Jul-18	10:35	318	8.48	0.11	0.59	0.03	11.8	27.0
Roper Reservoir	31-Jul-18	11:05	311	8.52	0.12	0.55	0.03	12.9	26.7
Roper PRV	31-Jul-18	10:55	317	8.53	0.08	0.61	0.03	11.6	26.3
Roper Ave. Sample Station	31-Jul-18	11:25	318	8.54	0.11	0.60	0.05	17.8	26.2
August Week 1									
Finlay St. Sampling Station	1-Aug-18	9:10	309	8.44	0.10	0.62	0.03	12.6	21.6
Stayte Sampling Station	1-Aug-18	9:25	296	8.34	0.14	0.36	0.04	20.0	21.9
Balsam & Marine	1-Aug-18	9:45	305	8.48	0.11	0.59	0.03	14.9	21.4
Oxford St. & Buena Vista STN	1-Aug-18	10:45	308	8.48	0.10	0.45	0.04	16.8	21.9
Merklin Low Reservoir	1-Aug-18	11:10	310	8.55	0.09	0.57	0.02	11.1	21.2
Merklin Reservoir (New)	1-Aug-18	11:20	311	8.59	0.11	0.65	0.03	10.0	21.1
Oxford Reservoir	1-Aug-18	11:40	273	8.52	0.10	0.58	0.02	10.5	20.7
August Week 2									
Everall St. Sampling Station	7-Aug-18	8:20	272	8.23	0.09	0.62	0.03	10.2	25.9
Mann Park Sample Station	7-Aug-18	8:40	277	8.26	0.12	0.59	0.04	15.1	26.4
Marine Dr Sample Station	7-Aug-18	9:00	278	8.27	0.12	0.47	0.04	19.8	26.3
Russell Ave. Sample Station	7-Aug-18	9:30	317	8.35	0.07	0.67	0.04	11.3	26.1
Roper Reservoir	7-Aug-18	10:40	309	8.39	0.17	0.58	0.04	14.0	25.7
Roper PRV	7-Aug-18	10:30	317	8.39	0.13	0.64	0.03	11.5	25.6
Stevens Sample Station	7-Aug-18	10:10	315	8.40	0.09	0.67	0.04	13.0	25.1
Finlay St. Sampling Station	8-Aug-18	8:10	318	8.42	0.09	0.67	0.04	15.0	26.1
Stayte Sampling Station	8-Aug-18	8:27	296	8.39	0.12	0.43	0.04	19.7	26.6
Balsam & Marine	8-Aug-18	8:45	308	8.45	0.15	0.61	0.06	14.1	26.6
Oxford St. & Buena Vista STN	8-Aug-18	9:15	308	8.46	0.12	0.47	0.04	16.3	26.2
Merklin Low Reservoir	8-Aug-18	10:30	317	8.52	0.08	0.62	0.03	11.2	26.1
Merklin Reservoir (New)	8-Aug-18	10:50	318	8.53	0.09	0.63	0.03	10.1	25.8
Oxford Reservoir	8-Aug-18	9:55	283	8.44	0.08	0.57	0.06	10.3	26.0

August Week 3									
Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free CI	Temp. Colltd	Temp. Tested
Everall St. Sampling Station	14-Aug-18	9:45	273	8.38	0.11	0.62	0.04	10.3	23.8
Malabar Sampling Station	14-Aug-18	10:00	273	8.41	0.09	0.61	0.04	13.8	24.9
Chestnut & N. Bluff Sample STN	14-Aug-18	10:40	278	8.41	0.17	0.36	0.05	20.4	25.3
Russell Ave. Sample Station	14-Aug-18	11:50	279	8.47	0.15	0.59	0.03	11.6	24.5
Roper Reservoir	14-Aug-18	11:15	305	8.57	0.21	0.53	0.05	13.6	25.1
Roper PRV	14-Aug-18		314	8.59	0.15	0.63	0.04	11.5	24.0
Roper Ave. Sample Station	14-Aug-18	11:35	317	8.59	0.10	0.64	0.05	17.2	24.5
Finlay St. Sampling Station	15-Aug-18	9:30	317	8.47	0.18	0.63	0.04	16.9	23.7
Stayte Sampling Station	15-Aug-18	10:00	292	8.41	0.14	0.35	0.03	20.1	24.3
Balsam & Marine	15-Aug-18	10:30	303	8.48	0.17	0.61	0.05	14.5	23.1
Oxford St. & Buena Vista STN	15-Aug-18	10:50	307	8.49	0.12	0.45	0.04	16.4	22.6
Merklin Low Reservoir	15-Aug-18	11:10	316	8.58	0.16	0.60	0.02	11.2	21.5
Merklin Reservoir (New)	15-Aug-18	11:20	313	8.59	0.09	0.67	0.02	10.0	21.5
Oxford Reservoir	15-Aug-18	12:00	278	8.53	0.11	0.54	0.02	10.2	21.8
August Week 4									
Everall St. Sampling Station	21-Aug-18	9:10	272	8.30	0.08	0.62	0.05	10.2	25.4
Mann Park Sample Station	21-Aug-18	9:25	276	8.32	0.09	0.59	0.04	15.0	25.6
Marine Dr Sample Station	21-Aug-18	9:45	279	8.36	0.13	0.48	0.04	18.8	26.0
Russell Ave. Sample Station	21-Aug-18	10:25	281	8.40	0.11	0.62	0.04	11.7	25.6
Roper Reservoir	21-Aug-18	10:55	304	8.50	0.18	0.54	0.05	13.0	25.4
Roper PRV	21-Aug-18	10:40	315	8.53	0.14	0.65	0.06	11.3	25.2
Stevens Sample Station	21-Aug-18	11:15	316	8.55	0.09	0.66	0.04	13.0	25.1
Finlay St. Sampling Station	22-Aug-18	9:15	315	8.42	0.11	0.63	0.04	15.5	24.7
Stayte Sampling Station	22-Aug-18	9:35	291	8.39	0.16	0.35	0.03	19.6	24.9
Balsam & Marine	22-Aug-18	9:50	306	8.48	0.15	0.58	0.04	14.3	24.9
Oxford St. & Buena Vista STN	22-Aug-18	11:45	303	8.46	0.09	0.43	0.02	15.9	24.4
Merklin Low Reservoir	22-Aug-18	10:40	313	8.55	0.09	0.59	0.05	11.2	23.8
Merklin Reservoir (New)	22-Aug-18	11:00	315	8.58	0.08	0.66	0.04	10.0	23.9
Oxford Reservoir	22-Aug-18	11:25	274	8.49	0.09	0.55	0.03	10.3	24.2
August Week 5 (with Metals)									
Everall St. Sampling Station	28-Aug-18	9:25	259	8.31	0.10	0.64	0.03	10.1	25.2
Malabar Sampling Station	28-Aug-18	9:40	262	8.36	0.10	0.64	0.06	12.5	25.3
Chestnut & N. Bluff Sample STN	28-Aug-18	10:10	263	8.32	0.12	0.37	0.04	19.7	24.9

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Russell Ave. Sample Station	28-Aug-18	10:45	262	8.40	0.11	0.64	0.03	10.7	24.9
Roper Reservoir	28-Aug-18	11:35	296	8.43	0.15	0.52	0.03	13.0	24.5
Roper PRV	28-Aug-18		306	8.46	0.16	0.60	0.04	11.2	24.1
Roper Ave. Sample Station	28-Aug-18	11:05	309	8.46	0.12	0.59	0.03	17.1	24.9
Finlay St. Sampling Station	29-Aug-18	9:25	308	8.38	0.10	0.56	0.02	16.7	23.9
Stayte Sampling Station	29-Aug-18	9:46	278	8.37	0.14	0.36	0.03	18.6	24.1
Balsam & Marine	29-Aug-18	10:35	301	8.44	0.08	0.58	0.06	14.1	23.9
Oxford St. & Buena Vista STN	29-Aug-18	10:55	295	8.46	0.17	0.40	0.04	15.7	23.6
Merklin Low Reservoir	29-Aug-18	11:15	314	8.51	0.10	0.55	0.03	13.2	22.6
Merklin Reservoir (New)	29-Aug-18	11:30	317	8.53	0.09	0.64	0.04	10.0	22.8
Oxford Reservoir	29-Aug-18	12:10	262	8.52	0.09	0.59	0.03	10.1	23.4
September Week 1									
Everall St. Sampling Station	4-Sep-18	9:00	266	8.35	0.11	0.61	0.02	10.0	21.8
Mann Park Sample Station	4-Sep-18	9:20	268	8.40	0.11	0.56	0.04	14.7	21.7
Marine Dr Sample Station	4-Sep-18	9:50	269	8.43	0.14	0.42	0.03	18.1	22.0
Russell Ave. Sample Station	4-Sep-18	10:30	268	8.45	0.10	0.60	0.03	10.9	22.0
Roper Reservoir	4-Sep-18	11:40	293	8.54	0.15	0.54	0.03	12.6	21.8
Roper PRV	4-Sep-18	11:30	298	8.53	0.11	0.63	0.03	11.6	21.4
Stevens Sample Station	4-Sep-18	11:00	314	8.57	0.11	0.65	0.05	12.8	21.4
Finlay St. Sampling Station	5-Sep-18	9:25	304	8.43	0.13	0.60	0.05	16.4	21.9
Stayte Sampling Station	5-Sep-18	9:40	285	8.42	0.17	0.33	0.03	18.8	23.0
Balsam & Marine	5-Sep-18	10:35	302	8.49	0.11	0.60	0.04	13.9	22.6
Oxford St. & Buena Vista STN	5-Sep-18	10:00	295	8.48	0.17	0.46	0.04	15.6	22.4
Merklin Low Reservoir	5-Sep-18	10:50	315	8.55	0.11	0.59	0.02	11.2	22.3
Merklin Reservoir (New)	5-Sep-18	11:05	315	8.58	0.10	0.66	0.04	10.0	22.1
Oxford Reservoir	5-Sep-18	11:50	270	8.54	0.11	0.62	0.04	10.0	21.3
September Week 2									
Everall St. Sampling Station	12-Sep-18	8:50	308	8.54	0.15	0.70	0.03	9.8	24.8
Malabar Sampling Station	11-Sep-18	9:05	277	8.48	0.11	0.65	0.01	12.9	27.1
Chestnut & N. Bluff Sample STN	11-Sep-18	9:25	277	8.42	0.14	0.24	0.01	19.5	27.8
Russell Ave. Sample Station	12-Sep-18	9:05	276	8.52	0.12	0.65	0.03	10.7	26.0
Roper Reservoir	11-Sep-18	10:30	290	8.39	0.16	0.57	0.05	12.3	24.7
Roper PRV	11-Sep-18	9:55	297	8.61	0.14	0.60	0.04	11.5	25.8
Roper Ave. Sample Station	11-Sep-18	10:40	308	8.63	0.15	0.56	0.00	16.7	27.3
Finlay St. Sampling Station	12-Sep-18	9:30	303	8.61	0.18	0.48	0.02	18.1	23.7

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Stayte Sampling Station	12-Sep-18	9:50	285	8.60	0.15	0.67	0.00	18.4	26.3
Balsam & Marine	11-Sep-18	11:00	283	8.61	0.11	0.31	0.02	13.8	25.7
Oxford St. & Buena Vista STN	12-Sep-18	10:55	277	8.61	0.14	0.53	0.05	15.5	23.8
Merklin Low Reservoir	11-Sep-18	11:25	308	8.64	0.12	0.57	0.03	11.6	24.8
Merklin Reservoir (New)	12-Sep-18	11:10	311	8.66	0.13	0.64	0.01	10.0	24.2
Oxford Reservoir	12-Sep-18	11:30	275	8.70	0.09	0.63	0.04	10.0	25.0
September Week 3									
Everall St. Sampling Station	18-Sep-18	9:15	272	8.25	0.11	0.65	0.02	9.9	21.5
Mann Park Sample Station	18-Sep-18	9:30	271	8.28	0.13	0.61	0.02	14.4	21.4
Marine Dr Sample Station	18-Sep-18	9:50	276	8.30	0.19	0.41	0.03	17.4	21.8
Russell Ave. Sample Station	18-Sep-18	10:50	274	8.30	0.14	0.64	0.02	10.7	21.0
Roper Reservoir	18-Sep-18	11:20	291	8.37	0.16	0.53	0.02	12.1	20.9
Roper PRV	18-Sep-18	11:05	291	8.35	0.10	0.63	0.02	11.3	21.2
Stevens Sample Station	18-Sep-18	11:40	316	8.37	0.14	0.61	0.04	12.8	21.4
Finlay St. Sampling Station	19-Sep-18	9:45	312	8.36	0.19	0.50	0.03	17.9	21.6
Stayte Sampling Station	19-Sep-18	10:00	282	8.28	0.15	0.37	0.02	17.2	22.0
Balsam & Marine	19-Sep-18	11:20	289	8.37	0.14	0.57	0.02	11.2	21.9
Oxford St. & Buena Vista STN	19-Sep-18	11:35	283	8.36	0.14	0.41	0.04	15.1	22.2
Merklin Low Reservoir	19-Sep-18	10:40	318	8.45	0.11	0.57	0.04	11.2	21.7
Merklin Reservoir (New)	19-Sep-18	11:05	318	8.45	0.14	0.62	0.04	9.9	21.8
Oxford Reservoir	19-Sep-18	11:50	273	8.41	0.13	0.61	0.03	10.0	21.5
September Week 4									
Everall St. Sampling Station	25-Sep-18	8:55	275	8.26	0.11	0.69	0.02	9.8	24.9
Malabar Sampling Station	25-Sep-18	9:17	276	8.30	0.12	0.68	0.03	12.8	25.8
Chestnut & N. Bluff Sample STN	25-Sep-18	9:40	263	8.28	0.15	0.17	0.03	17.6	24.6
Russell Ave. Sample Station	25-Sep-18	10:50	275	8.36	0.12	0.68	0.02	10.5	23.9
Roper Reservoir	25-Sep-18	12:00	288	8.44	0.17	0.61	0.03	11.7	24.5
Roper PRV	25-Sep-18	11:50	302	8.46	0.15	0.63	0.02	11.1	24.8
Roper Ave. Sample Station	25-Sep-18	11:35	303	8.50	0.16	0.59	0.04	15.9	23.3
Finlay St. Sampling Station	26-Sep-18	8:45	308	8.34	0.19	0.51	0.03	17.2	23.1
Stayte Sampling Station	26-Sep-18	9:00	281	8.24	0.17	0.39	0.03	16.6	23.3
Balsam & Marine	26-Sep-18	9:15	281	8.33	0.14	0.56	0.04	13.0	22.8
Oxford St. & Buena Vista STN	26-Sep-18	11:25	282	8.38	0.14	0.56	0.05	14.0	23.0
Merklin Low Reservoir	26-Sep-18	9:55	315	8.43	0.14	0.55	0.04	11.3	22.7
Merklin Reservoir (New)	26-Sep-18	10:10	316	8.44	0.15	0.66	0.05	10.0	23.0

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Oxford Reservoir	26-Sep-18	11:00	272	8.40	0.11	0.68	0.02	10.3	22.7
October Week 1									
Everall St. Sampling Station	2-Oct-18	9:00	272	8.00	0.13	0.63	0.02	10.1	18.8
Malabar Sampling Station	2-Oct-18	9:20	270	8.19	0.13	0.58	0.02	14.6	18.1
Chestnut & N. Bluff Sample STN	2-Oct-18	9:40	272	8.24	0.18	0.45	0.03	15.8	18.0
Russell Ave. Sample Station	2-Oct-18	10:00	271	8.28	0.11	0.62	0.03	10.9	17.7
Roper Reservoir	2-Oct-18	10:20	300	8.27	0.18	0.52	0.02	12.1	17.5
Roper PRV	2-Oct-18	10:30	289	8.35	0.12	0.57	0.02	11.2	17.6
Roper Ave. Sample Station	2-Oct-18	10:50	313	8.35	0.15	0.54	0.03	15.4	17.9
Finlay St. Sampling Station	3-Oct-18	9:00	310	8.11	0.17	0.48	0.02	16.1	17.6
Stayte Sampling Station	3-Oct-18	9:20	280	8.16	0.19	0.31	0.02	14.6	16.5
Balsam & Marine	3-Oct-18	9:40	279	8.20	0.15	0.55	0.03	14.7	13.0
Oxford St. & Buena Vista STN	3-Oct-18	10:00	276	8.21	0.14	0.51	0.03	14.8	13.8
Merklin Low Reservoir	3-Oct-18	8:30	314	8.30	0.08	0.61	0.02	14.8	9.9
Merklin Reservoir (New)	3-Oct-18	8:45	318	8.33	0.10	0.57	0.02	14.7	10.0
Oxford Reservoir	3-Oct-18	10:20	272	8.22	0.14	0.64	0.02	14.8	8.0
October Week 2									
Everall St. Sampling Station	9-Oct-18	9:25	272	8.24	0.12	0.69	0.04	9.7	19.7
Malabar Sampling Station	9-Oct-18	9:45	275	8.30	0.14	0.69	0.03	11.3	20.4
Chestnut & N. Bluff Sample STN	9-Oct-18	10:00	274	8.26	0.19	0.21	0.04	15.9	20.3
Russell Ave. Sample Station	9-Oct-18	10:40	274	8.34	0.12	0.69	0.03	10.4	20.3
Roper Reservoir	9-Oct-18	11:20	293	8.43	0.17	0.58	0.02	10.9	20.5
Roper PRV	9-Oct-18	11:10	296	8.44	0.13	0.65	0.02	10.6	20.4
Roper Ave. Sample Station	9-Oct-18	10:55	310	8.47	0.12	0.57	0.03	14.3	20.5
Finlay St. Sampling Station	10-Oct-18	9:05	312	8.28	0.14	0.51	0.04	15.9	20.2
Stayte Sampling Station	10-Oct-18	9:25	285	8.20	0.16	0.36	0.02	14.9	19.7
Balsam & Marine	10-Oct-18	9:45	282	8.26	0.14	0.61	0.03	12.2	20.0
Oxford St. & Buena Vista STN	10-Oct-18	12:00	281	8.27	0.16	0.55	0.02	13.0	19.9
Merklin Low Reservoir	10-Oct-18	10:30	315	8.34	0.11	0.55	0.03	11.2	20.3
Merklin Reservoir (New)	10-Oct-18	10:45	313	8.36	0.12	0.62	0.03	9.8	20.1
Oxford Reservoir	10-Oct-18	11:20	274	8.27	0.12	0.67	0.02	9.9	19.8
October Week 3									
Everall St. Sampling Station	16-Oct-18	8:30	280	8.26	0.13	0.69	0.02	9.9	22.7
Mann Park Sample Station	16-Oct-18	8:50	275	8.23	0.15	0.54	0.02	12.6	19.1

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Marine Dr Sample Station	16-Oct-18	9:10	280	8.29	0.19	0.67	0.00	14.4	20.5
Russell Ave. Sample Station	16-Oct-18	9:25	304	8.35	0.13	0.63	0.03	10.1	16.6
Roper Reservoir	16-Oct-18	9:45	298	8.40	0.17	0.57	0.02	10.7	16.2
Roper PRV	16-Oct-18	9:35	310	8.38	0.14	0.61	0.00	10.3	17.7
Stevens Sample Station	16-Oct-18	10:40	308	8.39	0.12	0.61	0.03	11.6	16.8
Finlay St. Sampling Station	16-Oct-18	10:50	322	8.45	0.14	0.53	0.02	15.6	19.7
Stayte Sampling Station	16-Oct-18	11:00	288	8.36	0.16	0.35	0.03	15.0	17.3
Balsam & Marine	16-Oct-18	11:15	303	8.18	0.13	0.58	0.02	12.1	19.6
Oxford St. & Buena Vista STN	16-Oct-18	11:25	281	8.38	0.14	0.50	0.03	13.0	17.0
Merklin Low Reservoir	16-Oct-18	10:15	317	8.41	0.13	0.57	0.02	11.0	20.3
Merklin Reservoir (New)	16-Oct-18	10:25	303	8.44	0.12	0.67	0.02	9.9	17.3
Oxford Reservoir	16-Oct-18	11:40	279	8.35	0.16	0.60	0.01	10.1	18.2
October Week 5									
Everall St. Sampling Station	31-Oct-18	8:30	276	8.22	0.15	0.58	0.03	9.6	19.0
Mann Park Sampling Station	31-Oct-18	9:30	272	8.23	0.17	0.55	0.02	11.8	19.0
Marine Dr. Sample STN	31-Oct-18	9:45	272	8.23	0.19	0.34	0.02	13.4	18.9
Russell Ave. Sample Station	31-Oct-18	10:00	270	8.29	0.16	0.57	0.02	10.6	18.6
Roper Reservoir	31-Oct-18	10:15	302	8.38	0.28	0.48	0.03	10.5	19.9
Roper PRV	31-Oct-18	10:30	291	8.36	0.16	0.59	0.04	10.3	19.9
Roper Ave. Sample Station	31-Oct-18	10:45	306	8.30	0.12	0.58	0.03	11.2	19.7
Finlay St. Sampling Station	31-Oct-18	11:00	311	8.33	0.14	0.53	0.02	14.3	19.8
Stayte Sampling Station	31-Oct-18	11:15	290	8.29	0.17	0.27	0.03	14.1	19.5
Balsam & Marine	31-Oct-18	11:30	300	8.20	0.15	0.52	0.03	11.1	19.9
Oxford St. & Buena Vista STN	31-Oct-18	8:00	279	8.18	0.12	0.47	0.03	12.7	19.8
Merklin Low Reservoir	31-Oct-18	11:45	310	8.26	0.11	0.57	0.02	10.6	19.9
Merklin Reservoir (New)	31-Oct-18	12:00	309	8.25	0.13	0.59	0.02	9.4	20.0
Oxford Reservoir	31-Oct-18	8:15	285	8.20	0.14	0.60	0.03	9.9	18.6
November Week 1									
Everall St. Sampling Station	7-Nov-18	7:40	286	8.18	0.15	0.65	0.04	9.7	15.1
Malabar Sampling Station	7-Nov-18	8:05	287	8.22	0.17	0.61	0.03	11.4	16.3
Chestnut & N. Bluff Sample STN	7-Nov-18	8:25	291	8.22	0.19	0.40	0.02	13.3	16.7
Russell Ave. Sample Station	7-Nov-18	8:40	294	8.30	0.15	0.62	0.03	10.2	16.4
Roper Reservoir	7-Nov-18	9:05	303	8.42	0.19	0.50	0.02	10.3	16.5
Roper PRV	7-Nov-18	8:55	310	8.44	0.14	0.56	0.02	10.3	16.9
Roper Ave. Sample Station	7-Nov-18	9:30	307	8.48	0.13	0.59	0.05	12.7	15.5

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Finlay St. Sampling Station	7-Nov-18	9:50	313	8.47	0.13	0.56	0.03	13.8	16.4
Stayte Sampling Station	7-Nov-18	11:23	302	8.38	0.20	0.36	0.03	13.5	16.6
Balsam & Marine	7-Nov-18	11:38	294	8.42	0.16	0.57	0.03	11.5	16.1
Oxford St. & Buena Vista STN	7-Nov-18	11:53	294	8.43	0.18	0.52	0.02	12.1	16.1
Merklin Low Reservoir	7-Nov-18	10:40	309	8.53	0.13	0.58	0.03	10.5	15.8
Merklin Reservoir (New)	7-Nov-18	10:54	314	8.52	0.13	0.61	0.00	9.7	16.8
Oxford Reservoir	7-Nov-18	12:15	281	8.38	0.14	0.64	0.02	10.1	15.2
November Week 2									
Everall St. Sampling Station	13-Nov-18	7:55	278	8.25	0.13	0.62	0.02	9.5	14.8
Mann Park Sample Station	13-Nov-18	8:10	282	8.25	0.14	0.58	0.02	11.1	15.6
Marine Dr Sample Station	13-Nov-18	8:30	286	8.29	0.18	0.47	0.03	11.1	16.7
Russell Ave. Sample Station	13-Nov-18	8:50	290	8.36	0.12	0.63	0.05	9.7	15.5
Roper Reservoir	13-Nov-18	9:15	304	8.43	0.18	0.51	0.03	9.7	15.8
Roper PRV	13-Nov-18	9:05	313	8.43	0.13	0.64	0.03	9.8	16.3
Stevens Sample Station	13-Nov-18	11:00	314	8.44	0.46	0.66	0.03	10.3	16.6
Finlay St. Sampling Station	13-Nov-18	9:40	314	8.44	0.14	0.56	0.03	12.3	17.0
Stayte Sampling Station	13-Nov-18	11:20	296	8.35	0.17	0.33	0.02	12.3	15.8
Balsam & Marine	13-Nov-18	11:35	293	8.38	0.14	0.56	0.04	10.7	15.8
Oxford St. & Buena Vista STN	13-Nov-18	11:50	295	8.36	0.15	0.52	0.03	11.2	16.9
Merklin Low Reservoir	13-Nov-18	10:20	306	8.48	0.12	0.50	0.05	10.4	15.9
Merklin Reservoir (New)	13-Nov-18	10:37	313	8.48	0.15	0.67	0.03	9.5	16.3
Oxford Reservoir	13-Nov-18	12:05	282	8.33	0.12	0.62	0.03	9.9	16.6
November Week 3									
Everall St. Sampling Station	20-Nov-18	9:50	275	8.25	0.15	0.65	0.02	9.2	17.4
Malabar Sampling Station	20-Nov-18	9:55	280	8.30	0.20	0.61	0.05	10.3	19.4
Marine Dr Sample Station	20-Nov-18	10:05	283	8.30	0.25	0.25	0.03	11.5	18.1
Russell Ave. Sample Station	20-Nov-18	10:15	312	8.48	0.18	0.63	0.04	9.5	17.8
Roper Reservoir	20-Nov-18	12:10	303	8.48	0.21	0.49	0.02	9.2	18.1
Roper PRV	20-Nov-18	12:05	306	8.50	0.15	0.62	0.03	9.6	16.8
Roper Ave. Sample Station	20-Nov-18	10:55	318	8.53	0.16	0.58	0.02	10.6	18.6
Finlay St. Sampling Station	21-Nov-18	8:50	313	8.33	0.21	0.51	0.00	11.4	28.3
Stayte Sampling Station	21-Nov-18	8:56	298	8.32	0.28	0.19	0.02	11.5	27.2
Balsam & Marine	21-Nov-18	9:00	288	8.36	0.27	0.51	0.02	10.2	24.2
Oxford St. & Buena Vista STN	21-Nov-18	9:10	290	8.39	0.30	0.41	0.04	11.0	26.3
Merklin Low Reservoir	21-Nov-18	10:40	318	8.52	0.15	0.55	0.00	9.5	25.8

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Merklin Reservoir (New)	21-Nov-18	10:30	314	8.55	0.17	0.60	0.04	9.5	22.0
Oxford Reservoir	21-Nov-18	9:20	285	8.38	0.16	0.46	0.03	9.9	26.2
November Week 4									
Everall St. Sampling Station	27-Nov-18	8:30	274	8.27	0.20	0.63	0.05	9.8	13.5
Mann Park Sample Station	27-Nov-18	8:40	275	8.35	0.23	0.56	0.06	10.0	13.3
Marine Dr Sample Station	27-Nov-18	9:05	273	8.39	0.32	0.37	0.06	9.8	13.5
Russell Ave. Sample Station	27-Nov-18	9:25	283	8.48	0.18	0.60	0.03	9.8	13.8
Roper Reservoir	27-Nov-18	9:55	295	8.58	0.26	0.49	0.04	9.7	13.6
Roper PRV	27-Nov-18	10:00	307	8.61	0.23	0.61	0.03	9.8	14.0
Stevens Sample Station	27-Nov-18	10:45	302	8.59	0.16	0.59	0.02	10.2	14.5
Finlay St. Sampling Station	28-Nov-18	8:30	313	8.69	0.23	0.54	0.02	11.1	16.5
Stayte Sampling Station	28-Nov-18	8:40	292	8.69	0.24	0.37	0.02	11.1	16.4
Balsam & Marine	28-Nov-18	8:50	279	8.60	0.28	0.55	0.02	10.5	16.6
Oxford St. & Buena Vista STN	28-Nov-18	8:15	282	8.82	0.19	0.49	0.00	11.4	15.5
Merklin Low Reservoir	28-Nov-18	8:00	309	8.68	0.14	0.53	0.02	9.8	15.5
Merklin Reservoir (New)	28-Nov-18	8:10	310	8.79	0.20	0.61	0.01	9.7	15.3
Oxford Reservoir	28-Nov-18	9:15	280	8.68	0.16	0.55	0.00	9.9	16.5
December Week 1									
Everall St. Sampling Station	4-Dec-18	10:25	278	8.16	0.12	0.62	0.02	9.1	22.4
Malabar Sampling Station	4-Dec-18	10:35	281	8.22	0.14	0.59	0.01	10.0	21.7
Chestnut & N. Bluff Sample STN	4-Dec-18	10:45	282	8.25	0.23	0.25	0.01	10.2	23.5
Russell Ave. Sample Station	4-Dec-18	10:55	317	8.43	0.14	0.59	0.03	9.6	20.7
Roper Reservoir	4-Dec-18	11:00	306	8.45	0.18	0.45	0.02	8.9	23.8
Roper PRV	4-Dec-18	11:05	317	8.47	0.12	0.60	0.00	9.4	23.7
Roper Ave. Sample Station	4-Dec-18	11:15	317	8.48	0.15	0.56	0.02	10.5	24.4
Finlay St. Sampling Station	5-Dec-18	9:25	318	8.38	0.16	0.59	0.05	10.1	23.9
Stayte Sampling Station	5-Dec-18	9:55	295	8.30	0.17	0.20	0.02	10.3	22.8
Balsam & Marine	5-Dec-18	11:15	291	8.34	0.13	0.57	0.01	9.5	23.5
Oxford St. & Buena Vista STN	5-Dec-18	11:30	289	8.34	0.10	0.55	0.03	10.0	26.5
Merklin Low Reservoir	5-Dec-18	10:45	317	8.49	0.07	0.53	0.02	9.7	23.0
Merklin Reservoir (New)	5-Dec-18	10:55	318	8.50	0.08	0.66	0.00	9.1	25.6
Oxford Reservoir	5-Dec-18	11:55	281	8.39	0.10	0.66	0.01	9.5	21.2
December Week 2									
Everall St. Sampling Station	11-Dec-18	9:10	274	8.75	0.08	0.64	0.00	9.3	11.7
Mann Park Sample Station	11-Dec-18	9:25	276	8.72	0.12	0.59	0.01	8.4	11.3

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Marine Dr Sample Station	11-Dec-18	9:40	277	8.72	0.16	0.52	0.05	9.2	11.3
Russell Ave. Sample Station	11-Dec-18	9:55	294	8.84	0.13	0.67	0.06	9.1	11.7
Roper Reservoir	11-Dec-18	10:30	299	8.84	0.19	0.62	0.06	8.4	11.7
Roper PRV	11-Dec-18	10:20	313	8.88	0.15	0.67	0.00	9.2	12.1
Stevens Sample Station	11-Dec-18	11:05	313	8.91	0.15	0.66	0.03	9.3	12.7
Finlay St. Sampling Station	12-Dec-18	8:55	317	8.44	0.17	0.62	0.02	9.3	21.2
Stayte Sampling Station	12-Dec-18	9:40	286	8.37	0.14	0.39	0.02	9.0	19.1
Balsam & Marine	12-Dec-18	9:55	289	8.38	0.11	0.59	0.02	9.1	23.1
Oxford St. & Buena Vista STN	12-Dec-18	11:20	286	8.40	0.10	0.54	0.02	9.5	21.3
Merklin Low Reservoir	12-Dec-18	10:45	317	8.52	0.09	0.61	0.01	9.7	22.4
Merklin Reservoir (New)	12-Dec-18	11:00	316	8.55	0.12	0.51	0.00	9.2	21.2
Oxford Reservoir	12-Dec-18	11:40	278	8.38	0.08	0.64	0.03	9.6	22.3
December Week 3									
Everall St. Sampling Station	17-Dec-18	9:15	280	8.17	0.11	0.66	0.03	9.3	23.3
Malabar Sampling Station	19-Dec-18	8:50	279	8.17	0.11	0.63	0.03	9.5	24.2
Chestnut & N. Bluff Sample STN	19-Dec-18	9:05	282	8.19	0.16	0.43	0.02	9.0	24.7
Russell Ave. Sample Station	17-Dec-18	10:45	312	8.33	0.12	0.65	0.03	9.2	22.6
Roper Reservoir	17-Dec-18	11:15	301	8.32	0.17	0.55	0.02	8.6	23.7
Roper PRV	17-Dec-18	11:00	316	8.34	0.11	0.66	0.06	9.4	22.2
Roper Ave. Sample Station	19-Dec-18	10:40	318	8.33	0.15	0.62	0.05	9.1	28.9
Finlay St. Sampling Station	19-Dec-18	9:25	304	8.37	0.16	0.59	0.02	9.4	22.7
Stayte Sampling Station	19-Dec-18	9:40	297	8.29	0.14	0.38	0.03	9.3	24.2
Balsam & Marine	19-Dec-18	9:55	288	8.28	0.14	0.60	0.04	9.5	27.3
Oxford St. & Buena Vista STN	19-Dec-18	11:30	284	8.32	0.11	0.55	0.03	9.8	24.0
Merklin Low Reservoir	19-Dec-18	10:55	319	8.40	0.08	0.63	0.01	9.7	29.1
Merklin Reservoir (New)	19-Dec-18	11:10	315	8.42	0.11	0.68	0.01	9.4	26.1
Oxford Reservoir	19-Dec-18	11:45	273	8.32	0.08	0.67	0.02	9.7	22.6
December Week 4 (With Metals)									
Everall St. Sampling Station	27-Dec-18	8:55	277	8.22	0.11	0.65	0.03	9.3	16.6
Mann Park Sample Station	27-Dec-18	9:10	275	8.26	0.11	0.59	0.04	8.5	16.6
Marine Dr Sample Station	27-Dec-18	9:35	281	8.27	0.22	0.39	0.02	8.0	17.6
Russell Ave. Sample Station	27-Dec-18	10:35	307	8.44	0.11	0.65	0.05	9.0	16.2
Roper Reservoir	27-Dec-18	11:05	304	8.42	0.17	0.38	0.04	8.5	18.4
Roper PRV	27-Dec-18	10:50	312	8.46	0.10	0.64	0.04	9.2	17.3
Stevens Sample Station	27-Dec-18	11:30	314	8.48	0.10	0.63	0.03	9.4	17.1

Sampling Location	Date Sampled	Time	Conductivity	pH	Turbidity	Total CL	Free Cl	Temp. Colltd	Temp. Tested
Finlay St. Sampling Station	28-Dec-18	9:20	318	8.36	0.13	0.61	0.03	9.0	20.8
Stayte Sampling Station	28-Dec-18	9:40	301	8.34	0.13	0.43	0.03	9.0	20.4
Balsam & Marine	28-Dec-18	10:25	280	8.26	0.10	0.61	0.03	9.2	20.7
Oxford St. & Buena Vista STN	28-Dec-18	10:45	283	8.32	0.08	0.52	0.02	9.4	21.4
Merklin Low Reservoir	28-Dec-18	11:05	315	8.46	0.10	0.60	0.04	9.6	21.2
Merklin Reservoir (New)	28-Dec-18	11:20	313	8.45	0.07	0.65	0.03	9.3	21.4
Oxford Reservoir	28-Dec-18	12:05	275	8.30	0.09	0.63	0.03	9.6	19.6

Oxford & Merklin Chlorination Metal Results 2018

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
		mg/L	mg/L	mg/L	mg/L	mg/L	Colour Units	
Nominal Detection Limit		0.0001	0.0005	0.00001	0.004	0.001	5	
Guideline Limit		0.01	1	0.01	0.3	0.05		6.5 - 8.5
Everall Sample Station	02-Jan-18	0.0053	0.0011	0.00004	0.004	0.025	<5	7.90
Malabar Sample Station	02-Jan-18	0.0054	0.0030	0.00029	0.007	0.020	<5	7.95
Chestnut Sample Station	02-Jan-18	0.0053	0.0011	0.00007	0.016	0.022	<5	7.94
Russell Avenue Sample Station	02-Jan-18	0.0080	0.0009	0.000098	0.009	0.12	<5	8.03
Roper PRV	02-Jan-18	0.0078	0.0013	0.00007	0.011	0.11	<5	8.03
Roper Ave Station	03-Jan-18	0.0082	0.0023	0.00063	0.006	0.12	<5	8.00
Finlay Street Station	03-Jan-18	0.0072	0.0008	0.00005	<0.004	0.086	<5	7.99
Stayte Road Station	03-Jan-18	0.0072	0.0026	0.00031	0.008	0.080	<5	8.00
Balsam Station	03-Jan-18	0.0064	0.00099	0.00022	0.005	0.063	<5	7.97
Buena Vista Station	03-Jan-18	0.0070	0.0107	0.00048	0.010	0.092	<5	8.00
Everall Sample Station	09-Jan-18	0.0057	0.0013	0.00006	<0.004	0.021	<5	7.88
Mann Park Station	09-Jan-18	0.0057	0.0064	0.00024	0.008	0.021	<5	7.96
Marine Drive Station	09-Jan-18	0.0056	0.0029	0.00017	0.009	0.017	<5	7.99
Russell Avenue Sample Station	09-Jan-18	0.0086	0.0011	0.00010	<0.004	0.11	<5	8.05
Roper PRV	09-Jan-18	0.0080	0.0006	0.00005	0.004	0.10	<5	8.05
Stevens Station	10-Jan-18	0.0086	0.0027	0.00011	0.006	0.12	<5	8.07
Finlay Street Station	10-Jan-18	0.0084	0.0008	0.00005	0.008	0.11	<5	8.06
Stayte Road Station	10-Jan-18	0.0073	0.0038	0.00039	0.0097	0.075	<5	8.04
Balsam and Marine Station	10-Jan-18	0.0062	0.00097	0.00018	0.013	0.059	<5	8.00
Oxford & Buena Vista Station	10-Jan-18	0.0064	0.0012	0.00008	0.012	0.087	<5	8.00
Everall Sample Station	16-Jan-18	0.0055	0.0012	<0.00001	<0.004	0.023	<5	7.89
Malabar Sample Station	16-Jan-18	0.0056	0.0029	0.00013	0.008	0.023	<5	7.94
Chestnut Sample Station	16-Jan-18	0.0056	0.0008	<0.00001	0.009	0.023	<5	7.96
Russell Avenue Sample Station	16-Jan-18	0.0082	0.0009	<0.00001	0.008	0.11	<5	7.95
Roper PRV	16-Jan-18	0.0081	<0.0005	<0.00001	0.006	0.11	<5	8.02
Roper Station	16-Jan-18	0.0085	0.0023	0.00022	0.010	0.12	<5	8.00
Finlay Street Station	17-Jan-18	0.0070	0.0006	<0.00001	0.007	0.080	<5	7.84
Stayte Road Station	17-Jan-18	0.0071	0.0032	0.00027	0.009	0.079	<5	7.97

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Balsam and Marine Station	17-Jan-18	0.0073	0.0008	0.00012	0.011	0.080	<5	8.02
Oxford & Buena Vista Station	17-Jan-18	0.0071	0.0009	0.00008	0.013	0.093	<5	8.02
Everall Sample Station	23-Jan-18	0.0053	0.0013	0.00004	<0.004	0.024	<5	7.96
Mann Park Station	23-Jan-18	0.0055	0.0062	0.00016	0.005	0.023	<5	7.98
Marine Drive Station	23-Jan-18	0.0053	0.0031	0.00011	0.011	0.023	<5	8.00
Russell Avenue Sample Station	23-Jan-18	0.0082	0.0020	0.00009	0.008	0.12	<5	8.09
Roper PRV	23-Jan-18	0.0077	0.0013	0.00004	0.007	0.10	<5	8.07
Stevens Station	23-Jan-18	0.0080	0.0025	0.00009	0.007	0.12	<5	8.09
Finlay Street Station	24-Jan-18	0.0095	0.00097	0.00004	0.007	0.096	<5	7.98
Stayte Road Station	24-Jan-18	0.0072	0.0023	0.00026	0.008	0.082	<5	8.01
Balsam and Marine Station	24-Jan-18	0.0062	0.0008	0.00019	0.011	0.061	<5	7.99
Oxford & Buena Vista Station	24-Jan-18	0.0069	0.0009	0.00007	0.010	0.089	<5	8.00
Everall Sample Station	30-Jan-18	0.0058	0.0008	0.00006	<0.004	0.025	<5	7.85
Malabar Sample Station	30-Jan-18	0.0058	0.0024	0.00189	0.009	0.022	<5	7.94
Chestnut Sample Station	30-Jan-18	0.0058	0.0006	0.00012	0.009	0.021	<5	7.96
Russell Avenue Sample Station	30-Jan-18	0.0088	0.0008	0.00012	0.004	0.12	<5	8.05
Roper PRV	30-Jan-18	0.0085	0.0007	0.00005	<0.004	0.11	<5	8.05
Roper Station	30-Jan-18	0.0089	0.0025	0.00030	0.006	0.12	<5	7.93
Finlay Street Station	31-Jan-18	0.0073	0.0008	0.00004	<0.004	0.093	<5	7.97
Stayte Road Station	31-Jan-18	0.0068	0.0024	0.00025	<0.004	0.077	<5	8.01
Balsam and Marine Station	31-Jan-18	0.0058	0.0012	0.00021	<0.004	0.054	<5	7.98
Oxford & Buena Vista Station	31-Jan-18	0.0058	0.0012	0.00008	<0.004	0.077	<5	7.98
Everall Sample Station	06-Feb-18	0.0057	0.0006	0.00005	0.004	0.026	<5	7.91
Malabar Sample Station	06-Feb-18	0.0057	0.0027	0.00030	0.007	0.021	<5	7.98
Chestnut Sample Station	06-Feb-18	0.0057	0.0005	0.00009	0.009	0.022	<5	8.00
Russell Avenue Sample Station	06-Feb-18	0.0087	0.0009	0.00012	0.005	0.13	<5	8.09
Roper PRV	06-Feb-18	0.0082	0.0012	0.00008	0.004	0.11	<5	8.07
Roper Station	06-Feb-18	0.0086	0.0022	0.00031	0.008	0.13	<5	8.09
Finlay Street Station	06-Feb-18	0.0069	0.0008	0.00003	0.008	0.073	<5	8.10
Stayte Road Station	07-Feb-18	0.0071	0.0023	0.00025	0.009	0.074	<5	8.01
Balsam and Marine Station	07-Feb-18	0.0060	0.00096	0.00016	0.0097	0.055	<5	8.02
Oxford & Buena Vista Station	07-Feb-18	0.0077	0.0012	0.000095	0.012	0.10	<5	8.06
Everall Sample Station	13-Feb-18	0.0055	0.0008	0.00007	0.005	0.025	<5	7.79

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Mann Park Station	13-Feb-18	0.0055	0.0057	0.00017	0.004	0.025	<5	7.90
Marine Drive Station	13-Feb-18	0.0055	0.0023	0.00015	0.008	0.025	<5	7.93
Russell Avenue Sample Station	13-Feb-18	0.0085	0.0008	0.00009	0.007	0.14	<5	8.01
Roper PRV	13-Feb-18	0.0079	0.0015	0.00008	0.007	0.12	<5	8.01
Stevens Station	13-Feb-18	0.0085	0.0022	0.00012	0.006	0.14	<5	8.02
Finlay Street Station	14-Feb-18	0.0077	0.0006	0.00004	0.004	0.096	<5	7.87
Stayte Road Station	14-Feb-18	0.0072	0.0020	0.00024	0.005	0.077	<5	8.00
Balsam and Marine Station	14-Feb-18	0.0059	0.0009	0.00016	<0.004	0.053	<5	7.88
Oxford & Buena Vista Station	14-Feb-18	0.0068	0.0008	0.00008	0.007	0.089	<5	8.00
Everall Sample Station	20-Feb-18	0.0054	0.0016	0.00006	0.007	0.026	<5	7.72
Malabar Sample Station	20-Feb-18	0.0054	0.0030	0.00024	0.008	0.021	<5	7.86
Chestnut Sample Station	20-Feb-18	0.0054	0.0011	0.00016	0.013	0.022	<5	7.88
Russell Avenue Sample Station	20-Feb-18	0.0068	0.00099	0.00009	0.005	0.079	<5	7.93
Roper PRV	20-Feb-18	0.079	<0.0005	0.00004	0.006	0.12	<5	7.97
Roper Station	20-Feb-18	0.0082	0.0019	0.00029	0.009	0.13	<5	7.99
Finlay Street Station	20-Feb-18	0.0069	0.0017	0.00005	0.008	0.082	<5	7.95
Stayte Road Station	21-Feb-18	0.0076	0.0034	0.00035	0.009	0.086	<5	7.81
Balsam and Marine Station	21-Feb-18	0.0069	0.0013	0.00021	0.008	0.071	<5	7.86
Oxford & Buena Vista Station	21-Feb-18	0.0079	0.0012	0.000095	0.011	0.11	<5	7.95
Everall Sample Station	27-Feb-18	0.0061	0.0009	0.00006	<0.004	0.036	<5	7.81
Mann Park Station	27-Feb-18	0.0059	0.0057	0.00022	<0.004	0.030	<5	7.93
Marine Drive Station	27-Feb-18	0.0059	0.0029	0.00014	0.007	0.023	<5	7.96
Russell Avenue Sample Station	27-Feb-18	0.0086	0.0011	0.00009	0.004	0.12	<5	7.94
Roper PRV	27-Feb-18	0.0083	0.0005	0.00004	0.004	0.11	<5	8.03
Stevens Station	27-Feb-18	0.0072	0.0024	0.00011	<0.004	0.083	<5	8.01
Finlay Street Station	28-Feb-18	0.0079	0.0025	0.00006	0.008	0.11	<5	7.89
Stayte Road Station	28-Feb-18	0.0074	0.0029	0.00024	0.008	0.087	<5	7.98
Balsam and Marine Station	28-Feb-18	0.0068	0.0013	0.00020	0.007	0.075	<5	8.00
Oxford & Buena Vista Station	28-Feb-18	0.0069	0.0012	0.000097	0.011	0.10	<5	7.99
Everall Sample Station	06-Mar-18	0.0065	0.0010	0.00012	0.004	0.039	<5	7.73
Malabar Sample Station	06-Mar-18	0.0063	0.0028	0.00024	0.012	0.030	<5	7.89
Chestnut Sample Station	06-Mar-18	0.0062	0.0012	0.00010	0.009	0.026	<5	7.94
Russell Avenue Sample Station	06-Mar-18	0.0078	0.0012	0.00009	0.004	0.093	<5	7.98

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Roper PRV	06-Mar-18	0.0084	0.0008	0.00005	0.005	0.11	<5	8.01
Roper Station	06-Mar-18	0.0089	0.0036	0.00040	0.008	0.13	<5	8.01
Finlay Street Station	06-Mar-18	0.0085	0.00096	0.00006	0.006	0.12	<5	8.01
Stayte Road Station	06-Mar-18	0.0078	0.0030	0.00023	0.008	0.086	<5	7.99
Balsam and Marine Station	06-Mar-18	0.0064	0.0012	0.00019	0.008	0.060	<5	7.94
Oxford & Buena Vista Station	06-Mar-18	0.0070	0.0012	0.00011	0.010	0.095	<5	7.97
Everall Sample Station	13-Mar-18	0.0061	0.0008	0.00011	0.007	0.042	<5	7.86
Mann Park Station	13-Mar-18	0.0060	0.0057	0.00017	0.004	0.029	<5	7.97
Marine Drive Station	13-Mar-18	0.0060	0.0025	0.00019	0.012	0.026	<5	8.00
Russell Avenue Sample Station	13-Mar-18	0.0087	0.0010	0.000096	0.006	0.13	<5	8.08
Roper PRV	13-Mar-18	0.0086	0.0007	0.00003	0.005	0.12	<5	8.09
Stevens Station	13-Mar-18	0.0074	0.0027	0.00017	0.006	0.097	<5	8.06
Finlay Street Station	14-Mar-18	0.0084	0.00095	0.00005	<0.004	0.11	<5	7.83
Stayte Road Station	14-Mar-18	0.0076	0.0029	0.00023	0.004	0.081	<5	7.95
Balsam and Marine Station	14-Mar-18	0.0066	0.0012	0.00022	0.006	0.066	<5	7.95
Oxford & Buena Vista Station	14-Mar-18	0.0066	0.0010	0.00007	0.007	0.092	<5	7.97
Everall Sample Station	20-Mar-18	0.0058	0.0010	0.00012	0.004	0.035	<5	7.83
Malabar Sample Station	20-Mar-18	0.0058	0.0025	0.00021	0.009	0.027	<5	7.94
Chestnut Sample Station	20-Mar-18	0.0058	0.0013	0.00011	0.010	0.026	<5	7.97
Russell Avenue Sample Station	20-Mar-18	0.0059	0.0011	0.000097	<0.004	0.032	<5	7.98
Roper PRV	20-Mar-18	0.0075	0.0009	0.00004	0.005	0.088	<5	8.03
Roper Ave Station	20-Mar-18	0.0085	0.0027	0.00029	0.008	0.12	<5	8.08
Finlay Street Station	20-Mar-18	0.0069	0.0013	0.00005	0.006	0.074	<5	8.03
Stayte Road Station	20-Mar-18	0.0067	0.0032	0.00024	0.007	0.068	<5	8.03
Balsam and Marine Station	20-Mar-18	0.0061	0.0012	0.00024	0.008	0.052	<5	8.00
Oxford & Buena Vista Station	20-Mar-18	0.0061	0.0011	0.00009	0.009	0.072	<5	8.04
Everall Sample Station	27-Mar-18	0.0058	0.0009	0.00013	<0.004	0.033	<5	7.78
Mann Park Station	27-Mar-18	0.0056	0.0054	0.00019	<0.004	0.025	<5	8.15
Marine Drive Station	27-Mar-18	0.0056	0.0021	0.00013	0.007	0.024	<5	8.18
Russell Avenue Sample Station	27-Mar-18	0.0058	0.0010	0.00011	<0.004	0.030	<5	8.24
Roper Reservoir	27-Mar-18	0.0070	0.00099	0.00006	0.007	0.072	<5	8.29
Roper PRV	27-Mar-18	0.0076	0.0011	0.00005	0.006	0.091	<5	8.31
Stevens Station	27-Mar-18	0.0083	0.0023	0.00013	0.004	0.11	<5	8.33

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Finlay Street Station	27-Mar-18	0.0064	0.0009	0.00006	0.006	0.058	<5	8.29
Stayte Road Station	28-Mar-18	0.0066	0.0028	0.00023	0.006	0.061	<5	8.08
Balsam and Marine Station	28-Mar-18	0.0057	0.0013	0.00030	0.008	0.073	<5	8.04
Oxford & Buena Vista Station	28-Mar-18	0.0058	0.0011	0.00012	0.008	0.084	<5	8.17
Everall Sample Station	04-Apr-18	0.0061	0.0014	0.00014	<0.004	0.13	<5	7.75
Mann Park Station	04-Apr-18	0.0061	0.0048	0.00018	0.004	0.11	<5	7.89
Marine Drive Station	04-Apr-18	0.0062	0.0026	0.00018	0.009	0.076	<5	7.93
Russell Avenue Sample Station	04-Apr-18	0.0089	0.0008	0.00012	0.007	0.14	<5	8.02
Roper PRV	04-Apr-18	0.0085	0.0027	0.00026	0.005	0.14	<5	8.03
Stevens Station	04-Apr-18	0.0076	0.0023	0.00014	0.006	0.13	<5	8.03
Finlay Street Station	04-Apr-18	0.0073	0.0007	0.00005	0.006	0.13	<5	8.02
Stayte Road Station	04-Apr-18	0.0077	0.0023	0.00028	0.011	0.12	<5	8.02
Balsam and Marine Station	04-Apr-18	0.0078	0.0010	0.00027	0.007	0.13	<5	8.02
Oxford & Buena Vista Station	04-Apr-18	0.0071	0.0065	0.00032	0.011	0.13	<5	8.01
Everall Sample Station	24-Apr-18	0.0056	0.0011	0.00012	<0.004	0.033	<5	7.76
Malabar Sample Station	24-Apr-18	0.0058	0.0025	0.00028	0.009	0.053	<5	7.91
Chestnut Sample Station	24-Apr-18	0.0058	0.0013	0.00011	0.009	0.068	<5	7.96
Russell Avenue Sample Station	24-Apr-18	0.0087	0.0008	0.00011	0.005	0.13	<5	8.05
Roper PRV	24-Apr-18	0.0088	0.0007	0.00007	0.005	0.13	<5	8.07
Roper Ave Station	24-Apr-18	0.0087	0.0033	0.00043	0.006	0.13	<5	8.08
Finlay Street Station	24-Apr-18	0.0086	0.0009	0.00008	0.006	0.13	<5	8.08
Stayte Road Station	24-Apr-18	0.0079	0.0029	0.00030	0.0098	0.12	<5	7.90
Balsam and Marine Station	24-Apr-18	0.0081	0.0010	0.00028	0.009	0.11	<5	8.00
Oxford & Buena Vista Station	24-Apr-18	0.0077	0.0008	0.00010	0.011	0.13	<5	8.02
Everall Sample Station	08-May-18	0.0058	0.0015	<0.00001	0.005	0.052	<5	7.80
Mann Park Station	08-May-18	0.0058	0.0064	0.00015	0.004	0.045	<5	7.91
Marine Drive Station	08-May-18	0.0058	0.0036	0.00011	0.006	0.042	<5	7.94
Russell Avenue Sample Station	08-May-18	0.0087	0.0011	0.00002	0.006	0.14	<5	8.04
Roper PRV	08-May-18	0.0086	0.0008	<0.00001	0.005	0.14	<5	8.07
Stevens Station	08-May-18	0.0086	0.0025	0.00008	0.008	0.14	<5	8.08
Finlay Street Station	08-May-18	0.0085	0.0008	<0.00001	0.008	0.14	<5	8.08
Stayte Road Station	08-May-18	0.0076	0.0033	0.00024	0.008	0.11	<5	8.05
Balsam and Marine Station	08-May-18	0.0075	0.0012	0.00024	0.008	0.10	<5	8.05

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Oxford & Buena Vista Station	08-May-18	0.0065	0.0009	0.00003	0.008	0.12	<5	8.03
Everall Sample Station	22-May-18	0.0056	0.0018	0.00010	<0.004	0.068	<5	7.96
Malabar Sample Station	22-May-18	0.0054	0.0031	0.00039	0.007	0.049	<5	7.95
Chestnut Sample Station	22-May-18	0.0055	0.0013	0.00013	0.009	0.046	<5	7.96
Russell Avenue Sample Station	22-May-18	0.0084	0.0011	0.00011	0.007	0.14	<5	8.05
Roper PRV	22-May-18	0.0084	0.0007	0.00005	0.006	0.14	<5	8.06
Roper Ave Station	22-May-18	0.0084	0.0048	0.00063	0.007	0.14	<5	8.07
Finlay Street Station	23-May-18	0.0084	0.0009	0.00006	0.006	0.13	<5	7.84
Stayte Road Station	23-May-18	0.0072	0.0028	0.00031	0.010	0.11	<5	7.96
Balsam and Marine Station	23-May-18	0.0079	0.0009	0.00028	0.007	0.11	<5	8.02
Oxford & Buena Vista Station	23-May-18	0.0071	0.0008	0.00009	0.007	0.12	<5	8.02
Everall Sample Station	05-Jun-18	0.0056	0.0015	0.00010	<0.004	0.049	<5	7.80
Malabar Sample Station	05-Jun-18	0.0055	0.0065	0.00027	<0.004	0.042	<5	7.92
Chestnut Sample Station	05-Jun-18	0.0056	0.0039	0.00029	0.013	0.042	<5	7.96
Russell Avenue Sample Station	05-Jun-18	0.0085	0.0012	0.00012	0.005	0.14	<5	8.05
Roper PRV	05-Jun-18	0.0085	<0.0005	0.00005	0.004	0.14	<5	8.07
Roper Ave Station	05-Jun-18	0.0086	0.0028	0.00019	0.005	0.14	<5	8.08
Finlay Street Station	05-Jun-18	0.0083	0.0008	0.00008	0.006	0.14	<5	8.09
Stayte Road Station	05-Jun-18	0.0071	0.0037	0.00042	0.006	0.095	<5	8.05
Balsam and Marine Station	05-Jun-18	0.0077	0.0008	0.00037	0.008	0.11	<5	8.06
Oxford & Buena Vista Station	05-Jun-18	0.0070	0.0009	0.00018	0.008	0.11	<5	8.04
Everall Sample Station	26-Jun-18	0.0055	0.0012	0.00009	<0.004	0.053	<5	7.78
Malabar Sample Station	26-Jun-18	0.0055	0.0029	0.00035	0.005	0.040	<5	7.88
Chestnut Sample Station	26-Jun-18	0.0055	0.0014	0.00013	0.006	0.050	<5	7.95
Russell Avenue Sample Station	26-Jun-18	0.0084	0.0012	0.00011	0.006	0.13	<5	8.08
Roper PRV	26-Jun-18	0.0082	0.0005	0.00008	0.006	0.13	<5	8.11
Roper Ave Station	26-Jun-18	0.0083	0.0028	0.00045	0.005	0.14	<5	7.97
Finlay Street Station	26-Jun-18	0.0082	0.0008	0.00007	0.006	0.14	<5	8.09
Stayte Road Station	27-Jun-18	0.0067	0.0030	0.00035	0.006	0.092	<5	7.89
Balsam and Marine Station	27-Jun-18	0.0080	0.0010	0.00031	0.007	0.11	<5	8.10
Oxford & Buena Vista Station	27-Jun-18	0.0074	0.0009	0.00014	0.006	0.11	<5	8.15
Everall Sample Station	24-Jul-18	0.0059	0.0013	0.00001	<0.04	0.071	<5	7.77
Mann Park Station	24-Jul-18	0.0059	0.0066	0.00012	<0.04	0.072	<5	7.87

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Marine Drive Station	24-Jul-18	0.0059	0.0051	0.00029	<0.004	0.064	<5	7.95
Russell Avenue Sample Station	24-Jul-18	0.0085	0.0011	0.00002	<0.004	0.13	<5	8.04
Roper PRV	24-Jul-18	0.0085	0.0016	0.00001	0.004	0.13	<5	7.86
Stevens Station	24-Jul-18	0.0086	0.0031	0.00017	0.004	0.13	<5	8.01
Finlay Street Station	24-Jul-18	0.0085	0.0008	<0.00001	<0.004	0.13	<5	8.06
Stayte Road Station	24-Jul-18	0.0069	0.0031	0.00032	0.004	0.100	<5	8.04
Balsam and Marine Station	25-Jul-18	0.0080	0.0011	0.00023	0.005	0.12	<5	7.77
Oxford & Buena Vista Station	25-Jul-18	0.0079	0.0008	0.00012	<0.004	0.093	<5	8.05
Finlay Street Station	29-Aug-18	0.0082	0.0008	0.00009	0.005	0.13	<5	7.91
Stayte Road Station	29-Aug-18	0.0070	0.0034	0.00042	<0.004	0.13	<5	8.07
Balsam and Marine Station	29-Aug-18	0.0079	0.0008	0.00020	<0.004	0.14	<5	8.12
Oxford & Buena Vista Station	29-Aug-18	0.0072	0.0012	0.00009	0.006	0.15	<5	8.11
Everall Sample Station	28-Aug-18	0.0065	0.0015	0.00008	<0.004	0.16	<5	7.95
Malabar Sample Station	28-Aug-18	0.0066	0.0025	0.00035	<0.004	0.15	<5	8.07
Chestnut Sample Station	28-Aug-18	0.0065	0.0010	0.00012	0.006	0.10	<5	8.08
Russell Avenue Sample Station	28-Aug-18	0.0065	0.0010	0.00009	<0.004	0.15	<5	8.11
Roper Reservoir	28-Aug-18	0.0075	0.0014	0.00007	<0.004	0.13	<5	8.14
Roper PRV	28-Aug-18	0.0078	0.0007	0.00006	<0.004	0.13	<5	8.15
Roper Ave Station	28-Aug-18	0.0080	0.0035	0.00065	<0.004	0.13	<5	8.16
Everall Sample Station	25-Sep-18	0.0060	0.0010	0.00006	0.004	0.12	<5	8.11
Malabar Sample Station	25-Sep-18	0.0060	0.0024	0.00032	0.005	0.11	<5	8.09
Chestnut Sample Station	25-Sep-18	0.0061	0.0006	0.00006	0.008	0.10	<5	8.09
Russell Avenue Sample Station	25-Sep-18	0.0059	0.0008	0.00007	0.004	0.11	<5	8.10
Roper PRV	25-Sep-18	0.0072	0.0008	0.00004	0.008	0.12	<5	8.14
Roper Ave Station	25-Sep-18	0.0076	0.0031	0.00045	0.006	0.12	<5	8.16
Finlay Street Station	26-Sep-18	0.0080	0.0006	0.00007	0.009	0.12	<5	8.01
Stayte Road Station	26-Sep-18	0.0062	0.0026	0.00031	0.007	0.12	<5	8.10
Balsam and Marine Station	26-Sep-18	0.0063	0.0010	0.00019	0.007	0.12	<5	8.14
Oxford & Buena Vista Station	26-Sep-18	0.0063	0.0011	0.00006	0.007	0.12	<5	8.16
Everall Sample Station	27-Nov-18	0.0053	0.0010	0.00007	<0.004	0.086	<5	8.02
Mann Park Station	27-Nov-18	0.0051	0.0037	0.00010	<0.004	0.084	<5	8.13
Marine Drive Station	27-Nov-18	0.0051	0.0034	0.00021	<0.004	0.077	<5	8.16
Russell Avenue Sample Station	27-Nov-18	0.0065	0.0008	0.00008	<0.004	0.10	<5	8.19

Sample Location	Date Sampled	Arsenic	Copper	Lead	Iron	Manganese	Colour	pH
Roper Reservoir	27-Nov-18	0.0074	0.0013	0.00004	0.007	0.12	<5	8.23
Roper PRV	27-Nov-18	0.0083	0.0007	0.00002	0.007	0.13	<5	8.24
Stevens Station	27-Nov-18	0.0080	0.0022	0.00012	<0.004	0.13	<5	8.23
Finlay Street Station	28-Nov-18	0.0083	0.0006	0.00007	<0.004	0.13	<5	8.08
Stayte Road Station	28-Nov-18	0.0062	0.0030	0.00026	0.007	0.11	<5	8.13
Balsam and Marine Station	28-Nov-18	0.0056	0.0013	0.00020	<0.004	0.10	<5	8.16
Oxford & Buena Vista Station	28-Nov-18	0.0061	0.0088	0.00031	<0.004	0.10	<5	8.18
Merklin Low Reservoir	28-Nov-18	0.0083	0.0276	0.00008	<0.004	0.14	<5	8.24
Merklin New Reservoir	28-Nov-18	0.0083	<0.0005	0.00004	<0.004	0.13	<5	8.25
Oxford Reservoir	28-Nov-18	0.0052	0.0100	0.00012	0.005	0.091	<5	8.03
Everall Sample Station	27-Dec-18	0.0053	0.0011	0.00005	<0.004	0.075	<5	7.93
Mann Park Station	27-Dec-18	0.0054	0.0033	0.00008	<0.004	0.078	<5	8.04
Marine Drive Station	27-Dec-18	0.0053	0.0033	0.00017	<0.004	0.075	<5	8.06
Russell Avenue Sample Station	27-Dec-18	0.0083	0.0008	0.00009	<0.004	0.13	<5	8.15
Roper Reservoir	27-Dec-18	0.0073	0.0017	0.00005	<0.004	0.11	<5	8.15
Roper PRV	27-Dec-18	0.0083	0.0010	0.00004	0.005	0.13	<5	8.17
Stevens Station	27-Dec-18	0.0082	0.0024	0.00013	0.005	0.13	<5	8.18
Finlay Street Station	28-Dec-18	0.0085	0.0006	0.00005	0.005	0.13	<5	8.09
Stayte Road Station	28-Dec-18	0.0069	0.0033	0.00024	0.007	0.097	<5	8.10
Balsam and Marine Station	28-Dec-18	0.0059	0.0016	0.00010	<0.004	0.072	<5	8.09
Oxford & Buena Vista Station	28-Dec-18	0.0063	0.0010	0.00005	0.004	0.082	<5	8.11
Merklin Low Reservoir	28-Dec-18	0.0086	0.0323	0.00013	0.004	0.13	<5	8.18
Merklin New Reservoir	28-Dec-18	0.0085	<0.0005	0.00001	<0.004	0.13	<5	8.18
Oxford Reservoir	28-Dec-18	0.0056	0.0090	0.00013	<0.004	0.031	<5	7.99

Annual Samples 2018

Sample	Unit of Measure	Nominal Detection Limit	Guideline Limit	Sample Location										
				Well #1 Oct 17, 2018	Well #2 Oct 17, 2018	Well #3 Oct 17, 2018	Well #6 Oct 17, 2018	Well #7 Oct 17, 2018	Well #8 Oct 17, 2018	Chestnut Stn Oct 17, 2018	Marine Dr Stn Oct 17, 2018	Malabar Stn Oct 17, 2018		
Inorganic Nonmetallic Parameters														
Organic Carbon	mg/L	0.5		<0.5	<0.5	<0.5	0.5	<0.5	<0.001	<0.5	<0.5	<0.5	<0.5	1.2
Ammonia - N	mg/L	0.01		0.02	<0.01	0.06	0.14	0.10	<0.001	0.12	0.07	0.11	0.12	
Metals Extractable														
Aluminum	mg/L	0.001	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Antimony	mg/L	0.00002	0.006	0.00007	0.00008	0.00006	0.00005	0.00006	0.00005	0.00005	0.00006	0.00006	0.00006	0.00007
Arsenic	mg/L	0.0001	0.010	0.0061	0.0039	0.0066	0.0090	0.0086	0.0069	0.0069	0.0063	0.0064	0.0064	0.0064
Barium	mg/L	0.0001	1	0.0167	0.0194	0.0182	0.0239	0.0189	0.0186	0.0186	0.0155	0.0163	0.0167	0.0167
Boron	mg/L	0.002	5	0.018	0.018	0.015	0.038	0.024	0.014	0.014	0.016	0.002	0.015	0.015
Cadmium	mg/L	0.00001	0.005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Chromium	mg/L	0.00005	0.05	0.00030	0.00780	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00015	0.00008	0.00018	0.00018
Copper	mg/L	0.0005	1.0	0.0027	0.0013	0.00060	0.0012	<0.0005	0.0012	0.0012	0.0008	0.0031	0.0025	0.0025
Lead	mg/L	0.00001	0.01	0.00016	0.00013	0.00010	0.00004	0.00043	0.00003	0.00003	0.00010	0.00031	0.00037	0.00037
Selenium	mg/L	0.0002	0.05	0.0023	0.0130	0.0003	<0.0002	<0.0002	0.0003	0.0003	0.0019	0.0019	0.0021	0.0021
Uranium	mg/L	0.00001	0.02	0.00014	0.00027	0.00009	0.00015	0.00013	0.00011	0.00011	0.00013	0.00013	0.00013	0.00013
Vanadium	mg/L	0.00005		0.00271	0.00366	0.00300	0.00255	0.00231	0.00252	0.00252	0.0026	0.00261	0.00259	0.00259
Zinc	mg/L	0.0005	5.0	0.0040	0.0020	0.0012	0.0020	<0.0005	0.0007	0.0007	0.0008	0.0019	0.0028	0.0028
Metals Total														
Mercury	mg/L	0.00001	0.001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Physical and Aggregate Properties														
Colour	Colour Units	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Turbidity	NTU	0.02		<0.05	2.6	<0.05	<0.05	<0.05	0.05	0.05	0.11	0.09	0.06	0.06
Routine Water														
pH			6.5-8.5	7.83	7.82	7.83	7.92	7.90	7.86	7.86	7.79	7.80	7.79	7.79
Electrical Conductivity		1		263	306	242	315	265	240	240	270	269	272	272
Calcium	mg/L	0.01		23	29	21	24	23	23	23	23	23	23	23
Iron	mg/L	0.004	0.3	<0.004	0.14	0.010	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Magnesium	mg/L	0.02		9.4	13	8.6	10	9.6	9.2	9.2	9.5	9.5	9.6	9.6
Manganese	mg/L	0.001	0.05	0.0039	0.018	0.019	0.15	0.12	0.19	0.19	0.1	0.097	0.083	0.083
Potassium	mg/L	0.04	200	3.0	3.1	2.8	3.8	3.5	3.0	3.0	3.0	3.0	3.0	3.0
Silicon	mg/L	0.005		10	10	10	10	10	10	10	10	10	10	10
Sodium	mg/L	0.1		15	13	14	24	16	9.9	9.9	13	13	14	14
T-Alkalinity	mg/L	5		75	98	85	111	101	95	95	92	90	91	91
Chloride	mg/L	0.05	250	18.8	19.6	16.9	17.7	10.1	8.5	8.5	15.5	14.9	15.9	15.9
Fluoride	mg/L	0.01	1.5	0.06	0.05	0.06	0.13	0.11	0.07	0.07	0.06	0.06	0.06	0.06

Nitrate - N	mg/L	0.01	10	0.30	1.02	<0.01	<0.01	<0.01	<0.01	0.28	0.24	0.27
Nitrite - N	mg/L	0.01	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01
Sulfate (SO4)	mg/L	0.5	500	14.7	21.2	10.8	14.6	12.9	15.1	15.1	14.8	15.1
Hardness	mg/L	1		96	124	89	97	96	97	97	98	98
Total Dissolved Solids	mg/L	1		157	190	153	166	152	165	165	163	165

Sample Location

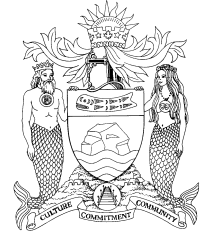
Sample	Unit of Measure	Nominal Detection Limit	Guideline Limit	Sample Location									
				Mann Park Stn Oct 17, 2018	Balsam Stn Oct 17, 2018	Oxford Stn Oct 17, 2018	Oxford Reservoir Oct 17, 2018	Everall Stn Oct 17, 2018	Russell Stn Oct 17, 2018	Stevens Stn Oct 17, 2018	Finlay Stn Oct 17, 2018	Stayte Stn Oct 17, 2018	
Inorganic Nonmetallic Parameters													
Organic Carbon	mg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.5	<0.5	
Ammonia - N	mg/L	0.01		0.11	0.10	0.10	0.12	0.11	0.09	0.09	0.09	0.05	
Metals Extractable													
Aluminum	mg/L	0.001	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Antimony	mg/L	0.00002	0.006	0.00008	0.00006	0.00006	0.00006	0.00007	0.00007	0.00006	0.00006	0.00007	
Arsenic	mg/L	0.0001	0.010	0.0064	0.0077	0.0074	0.0064	0.0064	0.0089	0.0090	0.0086	0.0076	
Barium	mg/L	0.0001	1	0.0171	0.0193	0.0187	0.0172	0.0175	0.0213	0.0213	0.0205	0.0185	
Boron	mg/L	0.002	5	0.017	0.027	0.021	0.017	0.016	0.030	0.033	0.027	0.024	
Cadmium	mg/L	0.00001	0.005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
Chromium	mg/L	0.00005	0.05	0.00021	0.00009	0.00011	0.00020	0.00021	<0.00005	<0.00005	<0.00005	0.00010	
Copper	mg/L	0.0005	1.0	0.0041	0.0009	0.0009	0.0099	0.0010	0.0007	0.0021	0.0005	0.0029	
Lead	mg/L	0.00001	0.01	0.00020	0.00020	0.00008	0.00016	0.00010	0.00012	0.00018	0.00007	0.00033	
Selenium	mg/L	0.0002	0.05	0.0019	0.0008	0.0011	0.0018	0.0018	<0.0002	<0.0002	<0.0002	0.0009	
Uranium	mg/L	0.00001	0.02	0.00014	0.00014	0.00013	0.00013	0.00013	0.00014	0.00014	0.00014	0.00014	
Vanadium	mg/L	0.00005		0.00264	0.00251	0.00256	0.00254	0.00263	0.00241	0.00242	0.00236	0.00253	
Zinc	mg/L	0.0005	5.0	0.0008	0.0007	<0.0005	0.0039	0.0013	0.0036	0.0024	<0.0005	0.0027	
Metals Total													
Mercury	mg/L	0.00001	0.001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
Physical and Aggregate Properties													
Colour	Colour Units	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	
Turbidity	NTU	0.02		0.16	0.13	0.11	<0.05	0.18	0.06	0.14	0.21	0.11	
Routine Water													
pH				7.79	7.89	7.89	7.86	7.81	7.83	7.90	7.90	7.88	
Electrical Conductivity		1		269	280	271	255	269	290	291	290	278	
Calcium	mg/L	0.01		23	24	24	23	24	24	24	24	24	
Iron	mg/L	0.004	0.3	<0.004	<0.004	<0.004	0.006	<0.004	<0.004	<0.004	<0.004	0.005	
Manganese	mg/L	0.02		9.6	9.7	9.7	9.7	9.6	9.9	9.9	9.8	9.7	
Manganese	mg/L	0.001	0.05	0.093	0.12	0.11	0.096	0.095	0.13	0.14	0.13	0.12	

Potassium	mg/L	0.04	200	3.0	3.4	3.2	3.0	3.0	3.6	3.6	3.6	3.6	3.3
Silicon	mg/L	0.005		10	10	10	11	10	10	10	10	10	10
Sodium	mg/L	0.1		13	18	16	13	13	20	20	20	20	17
T-Alkalinity	mg/L	5		92	91	72	69	92	109	94	106	106	73
Chloride	mg/L	0.05	250	15.2	14.9	15.0	15.0	14.8	14.3	14.3	14.4	14.4	14.9
Fluoride	mg/L	0.01	1.5	0.06	0.10	0.09	0.06	0.06	0.13	0.12	0.12	0.12	0.09
Nitrate - N	mg/L	0.01	10	0.25	0.10	0.16	0.23	0.23	<0.01	<0.01	<0.01	<0.01	0.15
Nitrite - N	mg/L	0.01	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04
Sulfate (SO4)	mg/L	0.5	500	14.9	16.4	15.9	14.9	14.8	17.2	17.2	17.2	17.2	16.1
Hardness	mg/L	1		98	99	99	98	99	100	99	100	99	99
Total Dissolved Solids	mg/L	1		163	168	155	150	163	182	174	181	181	158

Sample	Unit of Measure	Nominal Detection Limit	Guideline Limit	Sample Location									
				Roper Stn Oct 17, 2018	Roper PRV Oct 17, 2018	Merklin Reservoir Oct 17, 2018	Merklin Low Reservoir Oct 17, 2018	Roper Reservoir Oct 17, 2018	3.6	3.6	3.6		
Inorganic Nonmetallic Parameters													
Organic Carbon	mg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Ammonia - N	mg/L	0.01		0.09	0.09	0.10	0.09	0.08					
Metals Extractable													
Aluminum	mg/L	0.001	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Antimony	mg/L	0.00002	0.006	0.00006	0.00006	0.00011	0.00005	0.00006					
Arsenic	mg/L	0.0001	0.010	0.0088	0.0086	0.0088	0.0087	0.0084					
Barium	mg/L	0.0001	1	0.0212	0.0206	0.0213	0.0215	0.0208					
Boron	mg/L	0.002	5	0.032	0.032	0.036	0.032	0.028					
Cadmium	mg/L	0.00001	0.005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001					
Chromium	mg/L	0.00005	0.05	<0.00005	<0.00005	<0.00005	<0.00005	0.00005					
Copper	mg/L	0.0005	1.0	0.0031	0.0007	<0.0005	0.0035	0.0011					
Lead	mg/L	0.00001	0.01	0.00048	0.00005	<0.00001	0.00011	0.00004					
Selenium	mg/L	0.0002	0.05	<0.0002	<0.0002	<0.0002	<0.0002	0.0003					
Uranium	mg/L	0.00001	0.02	0.00014	0.00014	0.00014	0.00014	0.00014					
Vanadium	mg/L	0.00005		0.00244	0.00241	0.00229	0.00239	0.00253					
Zinc	mg/L	0.0005	5.0	0.0026	0.0019	<0.0005	0.0014	0.0024					
Metals Total													
Mercury	mg/L	0.00001	0.001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001					
Physical and Aggregate Properties													
Colour	Colour Units	5		<5	<5	<5	<5	<5					
Turbidity	NTU	0.02		0.16	<0.05	<0.05	<0.05	0.09					
Routine Water													

pH				7.90	7.90	7.91	7.90	7.91	7.90	7.91			
Electrical Conductivity		1		292	288	291	291	291	291	283			
Calcium	mg/L	0.01		24	24	24	24	24	24	24			
Iron	mg/L	0.004	0.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
Manganese	mg/L	0.02		9.9	9.7	9.8	9.8	9.8	9.8	9.8			
Manganese	mg/L	0.001	0.05	0.13	0.13	0.14	0.14	0.14	0.14	0.13			
Potassium	mg/L	0.04	200	3.5	3.5	3.6	3.6	3.6	3.6	3.5			
Silicon	mg/L	0.005		11	10	10	10	10	10	10			
Sodium	mg/L	0.1		21	20	20	20	20	20	18			
T-Alkalinity	mg/L	5		71	94	107	106	107	106	102			
Chloride	mg/L	0.05	250	14.4	14.4	14.4	14.4	14.4	14.4	14.4			
Fluoride	mg/L	0.01	1.5	0.12	0.12	0.13	0.12	0.13	0.12	0.10			
Nitrate - N	mg/L	0.01	10	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.05			
Nitrite - N	mg/L	0.01	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Sulfate (SO4)	mg/L	0.5	500	17.2	17.1	17.3	17.2	17.3	17.2	16.6			
Hardness	mg/L	1		100	99	100	100	100	100	99			
Total Dissolved Solids	mg/L	1		160	172	182	181	182	181	176			

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: July 8, 2019
TO: Mayor and Council
FROM: Jim Gordon P.Eng., Director Engineering & Municipal Operations
SUBJECT: Oxford Water Facility Fencing Installation, Contract WR18-058

RECOMMENDATIONS

THAT Council:

1. Receive for information the corporate report dated July 8, 2019, from the Director of Engineering & Municipal Operations titled "Oxford Water Facility Fencing Installation, Contract WR18-058"; and
 2. Approve the award of a contract for construction of the perimeter fence around the Oxford Water facility to Streamline Fencing Ltd. for \$242,894.88 excluding GST.
-

INTRODUCTION

The City is in the process of installing fencing around critical water facilities to harden them against potential contamination and vandalism. This is also to reduce negative interactions between city staff and people trespassing on the properties. To date, Merklin Reservoir, Roper Reservoir, and well #4 have been fenced.

This Corporate Report requests Council approval of a contract to install the same type of fencing around the Oxford Water facility that includes the Water Treatment Plant, Oxford pump station, Oxford Reservoir and 4 wells.

PAST PRACTICE / POLICY / LEGISLATION

The award of projects is governed by Council Policies #300 and #301. Both policies are being adhered to in the tendering and proposed award of this project.

Policy #301 requires that Council, or if during Council recess, the August Contract Committee, give approval for contracts with a value exceeding \$250,000. Once GST is included, this contract exceeds \$250,000.

ANALYSIS

The City has standardized the ornamental steel fencing used on all facilities. The fencing is intended to provide an attractive and professional appearance that blends with neighboring properties and provides a good first line of security. This fence is 8 feet high and is also used at E-Comm in Vancouver.

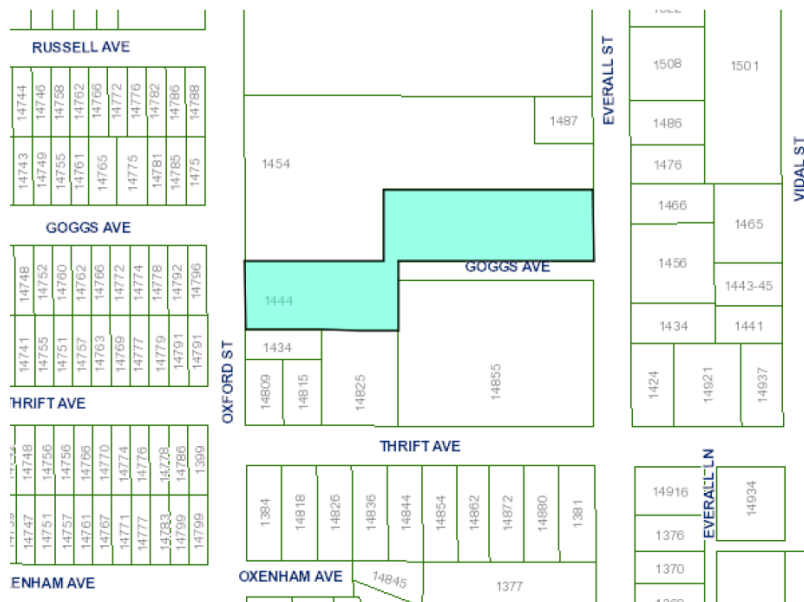
In preparation for this work, the Water Treatment Plant (WTP) contractor installed conduits from the Treatment Plant electrical room to the front gate off Goggs Avenue. A remotely operated gate is included in the fencing contract, as the main gate will be used daily.

Staff consulted with local residents and developed a fence design that incorporates a corner cutoff on the north east of the property so a bench and mini park area can be constructed. The Parks Manager prepared plans, consistent with this fencing contract, whereby the mini park will be constructed subsequent to the fence installation.

The fence will be similar to the fencing shown below at the Merklin Reservoir and will be situated on the properties shown below in green. The mini park corner cutoff will be located on the northerly corner of the property.



Merklin Reservoir & Pump Station Fencing using Ameristar Montage Commercial Invincible ornamental steel fence



A Request For Proposals (RFP) to construct the fence around the Oxford facility was posted to BC Bid and the City web site on November 19, 2018. The closing date was on December 3, 2018. A non-mandatory site meeting was held on November 26 for interested proponents to view the site and ask questions.

Three (3) Proposals were received and prices (excluding GST) are shown below.

Company	Proposal Amount (excluding taxes)	Comments
Streamline Fencing Ltd.	\$ 242,895	Recommended
Ace Link Fence Ltd.	\$ 139,017	Non-compliant
BluePine Enterprises Ltd.	\$ 289,460	Non-compliant

Proposals were evaluated using the criteria stated in the RFP. Streamline Fencing Ltd. was the only compliant bidder as the other two only provided a quote. Reference checks of Streamline Fencing Ltd. for past work was good with no issues raised. They have supplied fencing over multiple years to the same companies and have followed up to resolve issues.

Award of the project was delayed until recent final City budget approval. Streamline Fencing provided the only compliant tender. Their price of \$242,894.88 excluding GST is within the allocated 2019 budget.

BUDGET IMPLICATIONS

Fencing is not an infrastructure eligible cost for grant purposes with respect to the Water Treatment Plant project. As such \$300,000 was allocated separately to fence this property in the 2019 Capital Budget. The Director of Financial Services has reviewed this report and concurs that this funding source is available and appropriate to use for this purpose.

RISK MANAGEMENT

The risks of not proceeding with this work is the Water Utility is more susceptible to tampering and vandalism.

CONCLUSION

The City received three proposals for fencing the Oxford Water facility property. It is recommended that Streamline Fencing Ltd. be awarded the contract for \$242,894.88 (excluding GST) to proceed with this work.

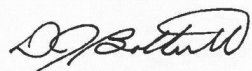
Respectfully submitted,



Jim Gordon, P.Eng.
Director of Engineering and Municipal Operations

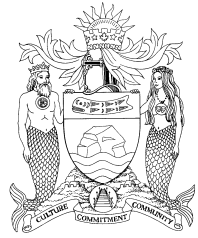
Comments from the Chief Administrative Officer:

I concur with the recommendation(s) of this report.



Dan Bottrill
Chief Administrative Officer

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: July 8, 2019

TO: Mayor and Council

FROM: Jim Gordon, P. Eng., Director of Engineering & Municipal Operations

SUBJECT: 2019 Sewer CCTV Inspection and Smoke Testing Program Contract Award

RECOMMENDATION

THAT Council:

1. Receive for information the corporate report dated July 8, 2019 from the Director of Engineering and Municipal Operations Department titled “2019 Sewer CCTV Inspection and Smoke Testing Program Contract Award;” and
 2. Approve the award of a contract for the 2019 Sewer CCTV Inspection and Smoke Testing Program to C3 Mainline Inspections Inc. for \$246,973.92 (excluding GST).
-

INTRODUCTION

The City has an ongoing sewer preventative maintenance program which identifies defects and deficiencies in the existing sewer collection system. Common sewer inspection techniques include using sewer cameras for closed-circuit television (CCTV) and smoke testing.

CCTV inspections are an extremely significant part of the City’s sewer asset management. A video inspection can determine an exact problem area and be proactive in identifying problems. These inspections will ultimately reduce resident complaints, sanitary sewer overflows, time and money spent on sewer blockages, and other reactive maintenance activities.

Smoke testing is a relatively simple process that consists of blowing smoke mixed with large volumes of air into the sanitary sewer line usually through a manhole. The smoke travels the path of least resistance and shows up at sites that have cross connections.

The purpose of this report is to seek Council’s approval for the award of the program to C3 Mainline Inspections Inc.

PAST PRACTICE / POLICY / LEGISLATION

The award of contracts is governed by Council Policy #301. This policy is being adhered to in the tendering and proposed award of this project. Policy #301 requires Council approval for contracts with a value exceeding \$250,000. Once GST is included, this contract will exceed \$250,000.

ANALYSIS

Each year approximately 1/5th of the City’s storm and sanitary sewer system is flushed, cleaned and videoed to identify and locate any defects or deficiencies. The 2019 CCTV Inspection and Smoke Testing Program was tendered on the BC Bid website and the City of White Rock website.

The tenders received are listed below:

	2019 CCTV Inspection & Smoke Testing Program	Tendered Price (excludes Section 4, Optional Work, and GST)
1	C3 Mainline Inspections Inc.	\$246,973.92
2	Superior City Contracting Services Ltd.	\$336,777.00
3	ABC Pipe Cleaning Services Ltd.	\$374,331.25
4	Mar-Tech Underground Services Ltd.	\$478,972.55

The consulting engineer and City staff evaluated the tenders for arithmetic errors, account rates, contractor qualifications, schedule, bid bonds, surety’s consent and labour and material bond and recommend that this contract for the 2019 Sewer CCTV Inspection and Smoke Testing Program be awarded to C3 Mainline Inspections Inc..

The consulting engineer will manage the contract schedule, evaluate the video inspection footage, identify and estimate needed repairs for the 2020 repair program, and administer contract payments.

The total cost of the project, including contingency, is estimated to be \$325,000.

BUDGET IMPLICATIONS

The 2019 portion of the current Financial Plan identifies City funding for sewer inspections. The recommended funding sources are:

Sanitary CCTV Inspections budget	\$120,000
Drainage Condition Assessment budget	\$ 80,000
Re-allocation from Sanitary Capacity Upgrade budget	\$80,000
Allocation of Drainage Capital Contingency	\$45,000
Total	\$325,000

The Director of Financial Services has reviewed this report and concurs that these funding sources are available and appropriate for these purposes.

CONCLUSION

It is recommended that the contract for the 2019 Sewer CCTV Inspection and Smoke Testing Program be awarded to C3Mainline Inspections Inc.

Respectfully submitted,



Jim Gordon
Director, Engineering and Municipal Operations Department

Comments from the Chief Administrative Officer:

I concur with the recommendations of this report.



Dan Bottrill
Chief Administrative Officer

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: July 8, 2019
TO: Mayor and Council
FROM: Sandra Kurylo, Director of Financial Services
SUBJECT: Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302

RECOMMENDATION

THAT Council receive for information the July 8, 2019 report from the Director of Financial Services, titled “*Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302.*”

INTRODUCTION

The purpose of this corporate report is to introduce Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302 which amends the City’s water service user fees for 2019.

PAST PRACTICE/POLICY/LEGISLATION

Section 194 of the *Community Charter* authorizes Council, by bylaw, to establish municipal fees for services, for the use of municipal property or to exercise the authority to regulate, prohibit or impose requirements.

ANALYSIS

The City’s water user rate structure is based on what Epcor had in place, except for a minor adjustment that was made related to Epcor’s Fire Protection Service Fees. In line with this structure, the City’s residential single family rates are the same as the non-residential fees for all meter sizes greater than 5/8 inch. However there are non-residential rates established for three larger meter sizes (3, 4, and 6 inch meters), that do not exist in the residential single family category. Bylaw 2302 sets out residential single family rates for these larger sized water meters, so they exist in both categories. The proposed 3, 4, and 6 inch residential single family rates are the same as the non-residential rates for the these meter sizes, which is consistent with the current rate structure. Also this bylaw amendment adds the “bulk water supply” user type to the residential single family rate criteria. The City’s only bulk water supply customer is the Semiahmoo First Nation.

CONCLUSION

It is recommended that Water Services Bylaw, 2015, No. 2117, Amendment No. 6, Bylaw, 2019, No. 2302 be given first, second and third readings.

Respectfully submitted,



Sandra Kurylo
Director of Financial Services

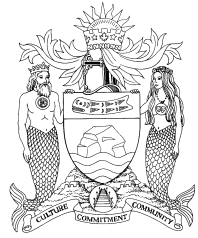
Comments from the Acting Chief Administrative Officer:

I concur with the recommendation of this corporate report.



Dan Bottrill
Chief Administrative Officer

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: July 8, 2019
TO: Mayor and Council
FROM: Sandra Kurylo, Director of Financial Services
SUBJECT: Museum Funding Request

RECOMMENDATION

THAT Council receive for information the corporate report dated July 8, 2019 from the Director of Financial Services, titled "Museum Funding Request".

INTRODUCTION

This corporate report is in follow-up to Council's resolution of June 24, 2019, that directed staff to report back on a recommended funding source should it wish to approve a request to increase the annual grant to the Rock Museum and Archives Society by \$50,000.

ANALYSIS

Representatives of the White Rock Museum and Archives Society appeared as a delegation at the Council meeting of June 24, 2019. Background information was presented on the relationship between the City and the Society, as well as a request to increase the City's annual grant to the Society by \$50,000, to enable the Executive Director's role to be expanded to a full-time basis.

The delegation presentation noted that the City's current annual grant is \$111,340, and they requested an increase of \$50,000 to \$161,340, along with inflationary increases as stipulated in the current operating agreement between the two organizations. City staff have confirmed that the actual grant provided to the Society in 2019 was \$120,300, and annual inflationary increases are added to this amount in the 2019 to 2023 Financial Plan. Even though these figures differ from what was presented on June 24, staff assume that the request is to increase the Society's annual grant by \$50,000, from \$120,300 to \$170,300, and to continue with the annual inflationary increments.

It is recommended that if Council wishes to consider this request, it be referred to the 2020 to 2024 Financial Plan process, in conjunction with other new budget requests that may be presented at that time. Standard practice is that ongoing budget increases require ongoing/sustainable funding sources. At this time, based on information available on the City's future year budgets, the recommended funding source is a 2020 property tax increase of 0.23%.

CONCLUSION

It is recommended that the information contained in this corporate report be received.

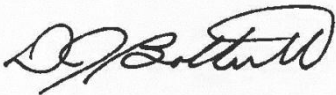
Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. Kurylo', with a large, sweeping flourish at the end.

Sandra Kurylo
Director of Financial Services

Comments from the Chief Administrative Officer:

This corporate report is provided for information.

A handwritten signature in black ink, appearing to read 'D. Bottrill', with a large, sweeping flourish at the end.

Dan Bottrill
Chief Administrative Officer

PRESENT: Councillor Fathers, Chairperson
Mayor Walker
Councillor Chesney
Councillor Johanson (arrived at 5:32 p.m.)
Councillor Kristjanson (arrived at 5:34 p.m.)
Councillor Manning
Councillor Trevelyan (arrived at 5:32 p.m.)

STAFF: D. Bottrill, Chief Administrative Officer
T. Arthur, Director of Corporate Administration
J. Gordon, Director of Engineering and Municipal Operations
C. Johannsen, Director of Planning and Development Services
S. Kurylo, Director of Financial Services
E. Stepura, Director of Recreation and Culture
C. Isaak, Manager of Planning

Press: 1
Public: 4

1. **CALL MEETING TO ORDER**
The meeting was called to order at 5:30 p.m.

2. **ADOPTION OF AGENDA**

2019-G/L-085 **It was MOVED and SECONDED**
THAT the Governance and Legislation Committee adopts the agenda for
June 24, 2019 as circulated.

CARRIED

3. **ADOPTION OF MINUTES**
a) June 10, 2019

2019-G/L-086 **It was MOVED and SECONDED**
THAT the Governance and Legislation Committee adopts the following meeting minutes
as circulated:

a) June 10, 2019.

CARRIED

Councillors Johanson and Trevelyan arrived at the meeting at 5:32 p.m.
Counillor Kristjanson arrived at the meeting at 5:34 p.m.

4. **AFFORDABLE HOUSING**
This item was discussed at the June 10, 2019 Governance and Legislation Committee
meeting and due to time constraints, was placed on this agenda as a continuation of the
discussion.

Staff confirmed that Development Cost Charges (DCC's) cannot be used to purchase land for affordable housing. The only land purchase they would permit are for parkland purposes.

Community Amenity Contributions (CAC's) may be used for purchase of property for various purposes. A breakdown was given that outlined uncommitted CAC's at this time that have been received (\$2.4M). It is expected that the City will receive an additional \$6.4/\$6.5M in CAC's in 2019 but there is no timing when they will actually be received.

Some outstanding projects to consider where CAC funds could be utilized:

- Amount of Grants the City will have approved for the pier renovation (\$8M currently anticipated to be received however if the grants are not approved then those funds will need to come from the City, perhaps from CAC's) or if fundraising comes in less than \$2M additional funds will have to be made up by the City
- Additional funds to be paid for 1510 Johnston Road (site expropriated by the City in 2018 for a Town Plaza)
- Replace City Hall

AGENDA VARIED

As the Director of Financial Services was asked to address information contained the Community Amenity Contributions Report (Item 8) and it was considered at this time.

8. **COMMUNITY AMENITY CONTRIBUTIONS**

Corporate report dated June 24, 2019 from the Director of Financial Services titled "Community Amenity Contributions".

2019-G/L-087

It was MOVED and SECONDED

THAT the Governance and Legislation Committee receives for information the corporate report dated June 24, 2019 from the Director of Financial Services, titled "Community Amenity Contributions".

CARRIED

2019-G/L-088

It was MOVED and SECONDED

THAT the Governance and Legislation Committee endorses a:

1. Housing Task Force be established where all aspects of housing in the community will be reviewed; and
2. Community Forum on the topic of Affordable Housing be held.

CARRIED

It is the expectation that staff will bring forward a proposed Housing Task Force Terms of Reference for review. The Task Force will look at creative ways to bring affordable housing to White Rock without necessarily purchasing land or assembling land specifically for this purpose.

ORIGINAL AGENDA ORDER RESUMED

5. **RENOVICTION AND POTENTIAL REGULATIONS**

Corporate report dated June 24, 2019 from the Director of Planning and Development Services titled “Renoviction and Potential Regulations”.

The Director of Planning and Development Services reviewed the corporate report using a Power Point titled “Renoviction and Potential Regulations”.

2019-G/L-089

It was MOVED and SECONDED

THAT the Governance and Legislation Committee:

1. Receives for information the corporate report dated June 24, 2019, from the Director of Planning and Development Services, titled “Renoviction and Potential Regulations”; and
2. Directs staff to pursue a new policy as outlined within the corporate report, including review of ways to address protection of those living in suites within single family dwellings.

CARRIED

The following discussion points were noted:

- It was confirmed that existing tenants maintain the existing rent amount when they move back to the unit is to be addressed
- Would like the policy to also review situations where the entire single family dwelling is rented out and then demolished
- Tenants being given eviction notices prior to land assembly or development permit being finalized (Penalties can be given for this – the *Tenancy Act* must be adhered to).

In the circumstance of this being done in a single family dwelling, there are property owner rights that must be adhered to

6. **DRAFT GOOD NEIGHBOUR CONSTRUCTION POLICY**

Corporate report dated June 24, 2019 from the Director of Planning and Development Services titled “Draft Good Neighbour Construction Policy”.

The Director of Planning and Development Services reviewed the corporate report using a Power Point titled “Draft Good Neighbour Construction Policy”.

The following discussion points were noted:

- What can the City do when there is not a specific bylaw in place? Staff noted that there are City bylaws (ex: Noise / Parking Bylaws) for this and they can be ticketed for infractions under these various bylaws
- Blue Frog Studio noted concern(s) on this, they sent information to Council
- The contractors need to work with the City and the community
- It is important for builders to follow the policy, if not a stop work order should be considered (the rights of those that live in the community need to be respected)
- Small development (three stories) should be moved to a higher threshold

(remove four and state three instead)

- Enforcement should be reflected within the City's Financial Plan

2019-G/L-090

It was MOVED and SECONDED

THAT the Governance and Legislation Committee receives for information the corporate report dated June 24, 2019, from the Director of Planning and Development Services, titled "Draft Good Neighbour Construction Policy".

CARRIED

7.

PROPOSED VACANCY TAX

Corporate report dated June 24, 2019 from the Director of Financial Services titled "Proposed Vacancy Tax".

The following motion was placed "On Table" for the committee to discuss and consider at this time so it can then later in the evening be ratified by Council and thus meet the June 30th deadline for submission:

2019-G/L-091

It was MOVED and SECONDED

THAT the Governance and Legislation Committee recommends Council endorse the following resolution to be forwarded to Union of British Columbia Municipalities for consideration at their September 2019 convention:

WHEREAS The City of Vancouver has authority through the Vancouver Charter to implement an Annual Vacancy Tax

WHEREAS The City of White Rock is governed through the Community Charter where there is no current authority to implement a Vacancy Tax and it is believed that there are a number of vacant residential and commercial properties in the City of White Rock

THEREFORE BE IT RESOLVED THAT the City of White Rock request that UBCM work with the Province of British Columbia to amend the authority given to Local Governments through the Community Charter permitting municipalities the authority to impose, by bylaw, an annual vacancy tax on taxable residential and commercial properties, and that the criteria and administrative requirements be similar to those of the Vancouver Charter .

CARRIED

2019-G/L-092

It was MOVED and SECONDED

THAT the Governance and Legislation Committee receives for information the corporate report dated June 24, 2019 from the Director of Financial Services, titled "Proposed Vacancy Tax".

CARRIED

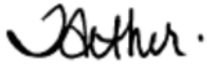
ADJOURNMENT OF THE MEETING

Due to timing the remaining items were not discussed at this time.

12. CONCLUSION OF THE JUNE 24, 2019 GOVERNANCE AND LEGISLATION COMMITTEE MEETING

The Chairperson adjourned the meeting at 6:32 p.m. until the conclusion of the June 24, 2019 regular Council meeting.

Mayor Walker



Tracey Arthur, Director of
Corporate Administration

Unapproved

PRESENT: Councillor Fathers, Chairperson
Councillor Chesney

ABSENT: Councillor Manning

STAFF: S. Kurylo, Director of Financial Services
E. Keurvorst, Manager of Cultural Development
E. Stepura, Director of Recreation and Culture
S. Lam, Deputy Corporate Officer

Press: 0

Public: 2

The meeting was called to order at 11:00 a.m.

1. AGENDA APPROVAL

2019-GIA-006

It was MOVED and SECONDED

THAT the Grants-In-Aid Sub-Committee adopts the agenda for the meeting scheduled for June 27, 2019 as circulated.

CARRIED

2. PREVIOUS MINUTES

a) Grants-In-Aid Sub-Committee Meeting – April 10, 2019

2019-GIA-007

It was MOVED and SECONDED

THAT the Grants-In-Aid Sub-Committee adopts the minutes of the April 10, 2019 meeting as circulated.

CARRIED

3. 2019 GRANTS-IN-AID | ARTS AND CULTURE EVENTS – LATE APPLICATION

Corporate report dated June 27, 2019 from the Manager of Cultural Services titled “2019 Grants-in-Aid | Arts and Culture Events – Late Application”.

Committee Member Manning was unable to attend the meeting and forwarded his comments regarding the application to the Committee through correspondence.

It was noted that the proposed event would activate the park in an interesting way. In response to questions of the Committee, the applicant provided the following information:

- The proposed dates are for Saturday evenings to potentially garner interest and participation in the event. There is often a good crowd of patrons enjoying the beach on the weekends, so there is the potential for a “built in” crowd
- If the event is successful, in future, the applicant will consider holding the event on a weeknight

- The proposed site is not suitable for a dance floor, and so one is being installed for the event
- The applicant is also looking for in-kind equipment and services (eg: tent, set-up/tear-down)
- Burlington Northern Santa Fe (BNSF) is notified for larger City events, such as Canada Day and the Sea Festival
- The City can reach out to Semiahmoo First Nation to see if they would like to participate

Staff noted that the City's policy requires that the applicant be a non-profit society. While the event organizers do not have this status, it was established that there is a partnership with the Semiahmoo Rotary Club thus for this year they qualify under the "non-profit society" requirement. It was noted that the partnership is a "one time only" relationship, and the event organizers will be required to have formed a non-profit society should they wish to be considered for a grant in the following years.

2019-GIA-008

It was MOVED and SECONDED

THAT the Grants-in-Aid Committee recommends that Council:

1. Receives for information the corporate report dated June 27, 2019 from the Manager of Cultural Development titled "2019 Grants-in-Aid | Arts and Culture Events – Late Application;"
2. Receives the On Table the correspondence dated June 26, 2019 from Committee Member Councillor Manning submitting his remarks/questions regarding the application; and
3. Approves an Arts and Cultural program grant-in-aid in the amount of \$5,000 to the Semiahmoo Rotary Club for the Dancing at the Pier event.

CARRIED

4. CONCLUSION OF THE JUNE 27, 2019 GRANTS-IN-AID SUB-COMMITTEE MEETING

The Chairperson declared the meeting concluded 11:14 a.m.

Councillor Fathers
Chairperson

S. Lam

S. Lam
Deputy Corporate Officer

- PRESENT:** C. Latzen, Chairperson
G.Gumley, Vice-chairperson
H. Valentine, Community Member
A. Shah, Community Member
- COUNCIL:** Mayor D. Walker (non-voting)
Councillor C. Trevelyan (non-voting)
- NON-VOTING:** P. Giesbrecht, Semiahmoo First Nations (arrived at 4:42 p.m.)
R. Khanna, South Surrey/ White Rock Chamber of Commerce
C. James, Tourism White Rock
A. Nixon, White Rock Business Improvement Association (left at 5:26 p.m.)
- ABSENT:** T. Blume, Community Member
- STAFF:** C. Johannsen, Director of Planning & Development Services
J.Gordon, Director of Engineering & Municipal Operations
C. Isaak, Manager of Planning & Development Services
S. Lam, Deputy Corporate Officer (left at 4:43 p.m.)
E. Tuson, Committee Clerk
- Public: 2
Press: 0
-

1. **CALL TO ORDER**
The Chairperson called the meeting to order at 4:03 p.m.
2. **ADOPTION OF AGENDA**
2019-MDTF- 001 **It was MOVED and SECONDED**
THAT the Marine Drive Task Force (the Task Force) adopts the June 18, 2019 agenda as circulated.

CARRIED
3. **MAYOR'S WELCOME AND INTRODUCTORY COMMENTS**
Mayor Walker began with a welcome message for the Task Force members and comments regarding the mandate of the Task Force.
4. **COMMITTEE INTRODUCTIONS**
The Chairperson began with Committee Member and staff introductions.
5. **COMMITTEE ORIENTATION**
The Deputy Corporate Officer provided a PowerPoint presentation to the Task Force in regard to committee procedures.

In response to a question staff noted that draft meeting minutes are provided along with the agenda package for the next scheduled meeting. Once reviewed, minutes are considered for approval by the Task Force.

Council is also provided draft versions of Committee meeting minutes for their information. These are included in the Council agenda package when available (often times before the next scheduled Committee/Task Force meeting).

6. SELECTION OF VICE-CHAIRPERSON

Committee Member Gumley, put his name forward for the position of Vice-chairperson.

2019-MDTF- 002 **It was MOVED and SECONDED**

THAT the Marine Drive Task Force appoints G. Gumley as the Vice-chairperson for the Marine Drive Task Force.

CARRIED

7. STAFF UPDATES

Waterfront Enhancement Strategy (OCP Review) and other waterfront initiatives and relationship to Task Force.

Staff provided a PowerPoint presentation regarding the Marine Drive Task Force's Terms of Reference and the Waterfront Enhancement Strategy (WES).

Staff noted the resource book titled "The Waterfront Enhancement Strategy Draft Resource Book" was distributed to the Task Force for information.

ACTION: Staff to contact the representative from the consulting group and invite them to give a presentation to the Task Force that explains the WES and the resource book.

Discussion ensued regarding City events and the following points were noted by staff:

- Tuesday, June 25 (5:00-8:00 p.m.): Official Community Plan (OCP) Review Public Open House (relates to all topics, except the Waterfront Enhancement Strategy)
- Thursday, June 27 (7:30-9:00 p.m.): Waterfront Community Forum (relates to only the Waterfront Enhancement Strategy)
- Saturday, July 6 (1:00-5:00 p.m.): Town Centre Design Workshop #1 (Town Centre review only; registration is required for some activities)
- Tuesday, July 9 (5:00-9:00 p.m.): Town Centre Design Workshop #2 (Town Centre review only; registration is required for some activities)
- There is also a survey available at www.talkwhiterock.ca that focuses on the OCP.

In response to questions from the Task Force, staff noted the following points:

- The Planning and Development Services department has placed ads in the Peace Arch News, on the City's social media and posters around the City to notify the public about the OCP survey.
- Staff will be sending the above dates and times of all the City events pertaining to Marine Drive to the Task Force for information.
- The consulting group that is conducting the survey has also been collecting data from staff, the White Rock Business Improvement Association (BIA), and had other informal conversations with local business owners. Consultation will be increased as the Task Force works with staff and Council to make recommendations.
- The program for the July 23rd Design Workshop will be developed in partnership with the consulting group, partly based on the issues raised at the Waterfront Community Forum.

Capital Projects Update

Staff provided an update on the City's capital projects. The following information was provided:

- New signage will be installed to help direct people to the West Beach parkade.
- The viewing platforms at Memorial Park will be updated.
- The City is working to clear up the construction at East Beach so it can be open to the public.
- Railway crossing projects are anticipated to be completed at the end of June, 2019.
- Pier restoration is on track, with an approximate completion date at the end of August, 2019.

In response to questions from the Task Force, staff noted the following:

- The promenade at East Beach was widened from the previous dimensions. There is also more grass and picnic tables.
- The walkways at Finlay Street have been updated. The crossing near Cypress Street will be closing late July 2019 to install concrete panels which will improve beach access.
- The East Beach promenade will be opened on June 21st.
- The cost of Pier repair is partly covered by the City's insurance policy. It is anticipated that other grants from the Province will help with additional costs.
- The Provincial Government gave the City \$1M for pier restoration.
- The City was also given funding from Burlington Northern Santa Fe (BNSF) and Transport Canada for the rail crossing projects.
- The pier reconstruction has two (2) phases. The City is still accessing funding options and grants for phase two (2) of the project.

Mayor Walker noted that the City has applied for federal funding through a provincial grant system.

Discussion continued regarding questions from the Task Force and staff noted the following:

- Phase one (1) of the pier reconstruction has \$4.6M in funding secured. The remaining work for phase two (2) has been assessed at approximately \$16M.
- A seismic upgrade is very important when considering pier enhancement.
- This Task Force can come up with ideas to help enhance the pier. Task Force recommendations will be provided to Council for their consideration.

ACTION: Task Force members were asked to complete the Waterfront Health Assessment Tool at the back of the resource book before the next meeting.

8.

TASK FORCE WORK PLAN

The Chairperson began going through the Work Plan provided in the agenda package. It was noted that outreach and information gathering has also been discussed under item 7 (Staff Updates).

Discussion ensued regarding the improvement of the Talk White Rock survey distribution and the following points were noted:

- Distributing surveys in person may be affective.
- Having a hard copy survey in restaurants along Marine Drive may help encourage participation for those who do not have internet access.
- The City has not yet filled the position for a Communications Manager.

ACTION: Staff to look into doing an additional survey that includes questions for non-resident visitors to the waterfront community.

The Task Force provided the following comments with regard to potential partnership opportunities:

- Working with the Semiahmoo First Nation (SFN) as they are an essential part of White Rock culture and heritage.
- Work between the current White Rock City Council and the SFN is very positive and has established new opportunities for both SFN and White Rock.
- It could be beneficial to reach out to other parties that are not included in the Terms of Reference in the future.
- The Task Force would be interested in exploring additional ways to fundraise for the pier reconstruction.

Staff noted that they will be looking for Task Force feedback on various design ideas that come from the public, as well as to develop their own ideas for Marine Drive.

In response to a question from the Task Force, staff noted that the White Rock BIA has been involved in the WES. The City will also be speaking with the South Surrey/White Rock Chamber of Commerce in order to seek their input.

There was concern noted with the Task Force term expiry date of March, 2020 considering its large mandate. In response, Mayor Walker noted the following:

- As long as the Task Force continues to be successful, it will continue to operate.
- Prioritizing the mandate will help the Task Force be most effective.

Discussion continued regarding the Task Force work plan and staff noted the following:

- The WES is not the only channel of influence for the Task Force; while the WES is a primary component, the Task Force can also make recommendations regarding other priority items and issues to Council directly.
- There will be a workshop with Marine Drive Businesses, the White Rock BIA, as well as the committee liaison from Economic Investment Committee in order to encourage business participation along Marine Drive.

9.

2019 SCHEDULE OF COMMITTEE MEETINGS

The Chairperson reviewed the following schedule of 2019 Task Force meetings:

- July 16;
- September 17;
- October 15; and
- November 19

The Task Force suggested moving the September 17th meeting to September 10th.

2019-MDTF- 003 **It was MOVED and SECONDED**

THAT the Marine Drive Task Force approves the 2019 meeting schedule as follows:

- July 16;
- ~~September 17~~; September 10;
- October 15; and
- November 19.

CARRIED

10. CONCLUSION OF THE JUNE 18, 2019 MEETING

The Chairperson declared the meeting concluded at 6:02 p.m.



C. Latzen, Chairperson

E. Tuson
Committee Clerk

UNAPPROVED

PRESENT: A. Vigoda, Chairperson
M. Isherwood, Vice-Chairperson
B. Coates, Community Member
F. MacDermid, Community Member
L. Taylor, Community Member
R. Wright, Community Member
B. Dalziel, Race Director, Community Member

COUNCIL: Councillor D. Chesney (non-voting)

ABSENT: L. Xu, Community Member
G. Stonier, Community Member
A. Anderson, Community Member

STAFF: E. Stepura, Director of Recreation and Culture
J. Stech, Recreation Programmer
E. Tuson, Committee Clerk

Public: 0

Press: 0

1. CALL TO ORDER

The Chairperson called the meeting to order at 6:01 p.m.

2. ADOPTION OF AGENDA

2019-TOUR-018 **It was MOVED and SECONDED**

THAT the Tour de White Rock Committee adopts the June 20, 2019 agenda as circulated.

CARRIED

3. ADOPTION OF MINUTES

a) May 30, 2019

2019-TOUR-019 **It was MOVED and SECONDED**

THAT the Tour de White Rock Committee adopts the May 30, 2019 minutes as circulated.

CARRIED

4. SPONSORSHIP STATUS REPORT

Discussion ensued regarding sponsorship updates and staff noted the following:

- The City will be meeting with sponsors to go over vendor booth locations at the event.
- Current sponsorship is approximately \$39,000
- Contributions from the Rotary Club are still forthcoming, updates will be provided to the Committee when available.

5. **MARKETING AND PROMOTION STATUS REPORT**

Tour de White Rock Hashtags

The Committee noted that the Tour de White Rock hashtags are now in place. They are as follows:

- #marketfestivaltourdewhiterock and;
- #tourdewhiterock

Tour de White Rock Business Cards

Discussion ensued regarding the business cards and the following was noted:

- The cards have been picked up, the Committee will distribute them to the community as invitations.
- It was suggested that Committee members should hand them out as a personal invitation to their personal and business connections.
- The cards could also be given to the White Rock Business Improvement Association (BIA) as an official invitation.
- Members who have personal contacts with businesses in White Rock should also drop the cards off to them.

Discussion continued regarding the business cards and the Committee suggested they be distributed along Johnston Road, at the White Rock Farmers' Market, and at Semiahmoo Mall.

Marketing Sub-Committee Update

There was no update provided at this time.

Promotion at Farmers Market

There was no update provided at this time.

Wayfinding Maps for Spectators and Participants

Staff distributed a final product of the wayfinding map to the Committee for information.

ACTION: Staff to e-mail an electronic version of the map to the Committee for information.

Discussion ensued regarding the wayfinding map and staff noted that volunteers will have the maps with them to distribute to attendees at the event. It was noted that additional information on parkade access and the bike valet company, once finalized, should be included.

Discussion ensued regarding the bike valet and the Committee provided the following updates:

- The Committee is looking into finalizing the bike valet services during the race.
- They have spoken with three (3) bike shops that are interested in participating.

In response to a question from the Committee, staff noted that White Rock residents who live within the closed off areas during the race will receive a letter from the City that details how to get out of their driveways and the hours that the closures will be taking place.

6. VOLUNTEER RECRUITMENT STATUS REPORT

Staff noted the following updates:

- 135 volunteers have been acquired for the road race.
- 32 volunteers have been acquired for the Crit.
- The White Rock Farmers' Market has been great for recruiting volunteers.

7. VIP RECEPTION REPORT

Staff noted the following updates:

- The City met with the Boathouse Restaurant and a draft schedule for the reception has been established.
- The reception event will take place from 9:00 a.m. – 12:00 p.m.
- The Mayor will speak at 9:30 a.m.
- The race will start at 10:00 a.m.
- Food at the reception will be served from 9:00 a.m. – 11:00 a.m.
- VIP's are asked to park in the Montecito parking lot across from the new parkade and in the new parkade (both are located at the corner of Vidal Street and Victoria Avenue).
- Invites for this event will be distributed early next week.

8. VARIOUS 40th ANNIVERSARY ACTIVITIES

Kids' Zone

Staff noted that everything is in order for the Kids' Zone to run similar to last year.

Beer Garden

Logistics for the beer garden would be finalized in the near future.

Marketplace

The following was provided in regard to the marketplace:

- There will be approximately fifty (50) vendors this year.
- Five (5) food trucks.
- The Market has had over 4,000 hits on its website.
- Sponsors have given the Market approximately \$1,000 in gift cards for donations which will be used to thank the volunteers.
- The bike zone setup location is being worked on.

In regard to reserving parking spots on private property, the Committee would have to approach the owner personally to see if they would be willing to use some of their parking for the event (e.g. the concert bands).

Beachfront and Beach Activities

The Committee noted that no discussion of this was necessary as it has been finalized at a previous meeting.

2019-TOUR-020

It was MOVED and SECONDED

THAT the Tour de White Rock Committee removes Beachfront and Beach Activities from future meeting agendas.

CARRIED

Concert Post Road Race

Councilor Chesney distributed the concert line-up to the Committee for information.

Discussion ensued regarding the band line-up and it was noted that the concert will be from 2:00 p.m. – 6:30 p.m.

The following information was provided in regard to concert banners:

- They have been priced out and ordered to display in vacant store fronts. Locations for display are still to be determined; the banners should be available for next week.

Staff noted that the 40th annual anniversary Tour de White Rock volunteer t-shirt colour for this year is neon yellow with red lettering. Sponsor t-shirts are teal with white lettering.

ACTION: Staff to look into talking with local businesses about distributing t-shirts to them for their employees to wear/advertise.

Staff noted that the traffic control management plan costs have not been determined yet as they are waiting to hear back from the traffic control company. It is anticipated that the Traffic Control Management Plan will be provided to staff by next week.

ACTION: Staff to send a copy of the City's existing entertainer contract to Councilor Chesney, to be provided to post road race concert bands for their signature.

Discussion ensued regarding the overlap between the post-road race take-down and concert set-up, and staff provided the following information:

- The road race finishes later so it would be best to move the concert start time back one (1) hour to accommodate for race clean up.
- Marine Drive will stay shut down roughly 1.5 hours after the race is over.
- Due to the take down of the race stage, there will be no access across the Marine Drive hump until about 3:30 p.m.
- The race will finish at approximately 1:30 p.m. The awards ceremony will finish around 2:00 p.m.

- Post-race awards will take approximately thirty (30) minutes.
- Race stage take down will take approximately two (2) hours.

The Committee noted the following in regards to noise of the road race stage take-down:

- Coordinating the logistics of tear down and set up of both the race and concert stage would be helpful.
- Arranging a meeting with the two (2) sound companies and the stage crew for both the race and concert stages will be helpful.
- Councilor Chesney and staff to connect regarding the two (2) sound companies and stage companies to discuss logistics.

ACTION: Staff to send the Committee a timeline of the traffic control requirements and costs when available.

9.

BUDGET

Staff noted that the Traffic Control Management Plan may bring the Committee over budget for the 2019 Tour de White Rock event. This is due to the need for more personnel because of the increased regulations from Work Safe BC regarding traffic control.

10.

OTHER BUSINESS

Staff noted that they received invites to the other BC Super Week bike races. If a Committee member wishes to attend another cities race, they can connect with staff to request tickets.

Discussion ensued regarding the Tour de White Rock Instagram frame and it was noted that plastic Choroplast attached to wooden stakes could be more cost effective than getting a frame printed.

ACTION: A. Vigoda, Chairperson, to connect with L. Xu, Committee member, about the Instagram frame.

M. Isherwood, Committee member, noted that she is working on door prizes for the volunteer dinner. She will be contacting more sponsors this weekend for donations. There will be goodie-bags and prizes that dinner attendees will have a chance to win.

Staff suggested that displaying the previous year's Tour de White Rock volunteer t-shirts at the volunteer dinner for attendees to see.

ACTION: Councillor Chesney to email all pictures of the volunteer t-shirts to staff for the volunteer dinner slide show.

11. 2019 SCHEDULE OF COMMITTEE MEETINGS

The 2019 meeting schedule was adopted by the Committee at its meeting on March 21, 2019, and the upcoming meetings are noted for reference purposes:

- July 18 – post-race debrief

2019-TOUR-021 **It was MOVED and SECONDED**

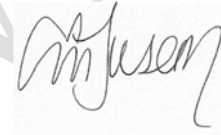
THAT the Tour de White Rock Committee amend their meeting schedule as follows:

- ~~July 18~~ July 16 – post-race debrief.

CARRIED

13. CONCLUSION OF THE JUNE 20, 2019 MEETING

The Chairperson declared the meeting concluded at 6:56 p.m.



A. Vigoda, Chairperson

E. Tuson
Committee Clerk

PRESENT: J. Adams, Chairperson
M. Partridge, Vice-chairperson
M. Bali
E. Cheung (left at 4:58 p.m.)
J. Davidson
S. Fairbairn
P. Higinbotham
P. Petrala
D. Thompson
H. Vanderwolf

NON-VOTING: K. Bjerke-Lisle (non-voting)

COUNCIL: Councillor D. Chesney (non-voting)

ABSENT: K. Breaks

STAFF: E. Keurvorst, Manager, Cultural Development
S. Lam, Deputy Corporate Officer (left at 4:17 p.m.)
E. Tuson, Committee Clerk

Public: 0

Press: 0

1. CALL TO ORDER
Councilor Chesney called the meeting to order at 3:59 p.m.

2. ADOPTION OF AGENDA

2019-ACAC-001 **It was MOVED and SECONDED**

THAT the Arts and Cultural Advisory Committee (the Committee) adopts the agenda for the June 25, 2019 meeting as circulated.

CARRIED

3. 2019 COMMITTEE ORIENTATION
The Committee Clerk provided an orientation PowerPoint presentation to the Committee. Committee meeting procedures were discussed.

4. ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON

2019-ACAC-002 **It was MOVED and SECONDED**

THAT the Arts and Cultural Advisory Committee (the Committee) appoints the following members as Chairperson and Vice-Chairperson for the 2019 Committee Year:

- Chairperson: J. Adams
- Vice-Chairperson: M. Partridge

CARRIED

5. ADOPTION OF MINUTES

- a) September 25, 2018

2019-ACAC-003 **It was MOVED and SECONDED**

THAT the Arts and Cultural Advisory Committee (the Committee) adopts the minutes of the September 25, 2018 meeting as circulated.

CARRIED

6. COMMITTEE TERMS OF REFERENCE REVIEW

The Manager, Cultural Development, reviewed the Arts and Cultural Advisory Committee Terms of Reference for the Committees information.

7. CIVIC CULTURAL DEVELOPMENT ACTIVITIES REVIEW

The Manager, Cultural Development, provided an overview of the arts and cultural activities currently in progress in the community.

Staff noted that there is an events calendar for all arts and cultural events on City website.

Staff listed the following examples in regards to what the City of White Rock Recreation and Culture department encompasses:

- Special events.
- Public art (e.g. Coastal Cradled).
- The White Rock Community Centre.
- The City's filming portfolio.
- The Landmark Pop-Uptown Gallery.
- The Busking and Artist Walk Program.

The Committee noted that the Landmark Pop-Uptown gallery is having its official opening on Friday, July 5, 2019. After the grand opening, the regular hours of operation will be Thursday – Friday 1:00 p.m. – 5:00 p.m. and Saturday 10:00 a.m. – 5:00 p.m.

Staff noted that the Recreation and Culture department has a new outline for the types of special events the City organizes. It is as follows:

- Category A: City-Produced Events.
- Category B: City as a Producing Partner.

- Category C: City as a Supporter.

ACTION: Staff to send out Council policy 708 – Community Public Art and 302 – Grants-In-Aid to the Committee for information.

Note: J. Adams assumed the role of Chairperson.

8. **BUSKERS PROGRAM AND FESTIVAL SUB-COMMITTEE APPOINTMENTS**

The Manager, Cultural Development provided an overview of the City’s buskers program and the proposed Busker Festival.

Staff noted the following regarding this year’s Buskers Festival:

- Council has provided \$20,000 to help with the Busker’s Festival for 2019.
- The White Rock Business Improvement Association (BIA) has contributed \$7,000.
- The name of this year’s festival will be the “Busker and Comedy Festival: Lighten Up”.
- The festival will be taking place from September 27 – 28, 2019 at the Blue Frog Studio.

2019-ACAC-004 **It was MOVED and SECONDED**

THAT the Arts and Cultural Advisory Committee (the Committee) appoints the following members be to the Buskers Sub-Committee in order to review auditions for new applicants to the Civic Busker Program and assist with the organizing of the 2019 Buskers Festival:

- M. Bali

CARRIED

Note: Committee Members E. Cheung and M. Partridge were previously appointed to the Busker’s Sub-Committee.

The Committee suggested that the hearing impaired community is often underrepresented in White Rock. Having text or sign language incorporated at the Buskers Festival as well as having accommodating seating could be considered.

9. **CULTURAL STRATEGIC PLANNING PROCESS**

The Manager, Cultural Development, presented the 2014 – 2018 Cultural Strategic Plan and discussed the Cultural Strategic Planning Process provided in the agenda as follows for future meetings:

- Review the cultural strategy vision and six goal areas.
- Review the 2014-2018 Cultural Strategic Plan achievements.
- Conduct a Strengths, Weaknesses, Opportunities and Threats (S.W.O.T) and gap analysis.
- Brainstorm to address S.W.O.T and gaps and to establish strategic goals and actions.

- Consult with the public on draft strategic goals and actions through a public meeting, focus groups and online feedback.
- Confirm and prioritize strategic goals and actions.
- Sort strategic goals into a matrix identifying actions, who is the lead responsible for delivering the action, key agencies and partners, timeline for achievement and resources required over five years.
- Present the final revised Cultural Strategic Plan and corporate report to Council for adoption and resourcing as needed.

ACTION: Staff to send out Cultural Strategic Plan and Economic Strategy to Committee for information.

Staff added that the S.W.O.T analysis will be an important aspect for this Committee to address. An update about the Cultural Strategic Plan will be provided at the next Committee meeting.

The Plan is meant to help create activity and growth in the Community. One (1) goal for this Committee will be to help guide ways in which to make the Plan better. The Plan was developed in 2013 and was put in place in 2014.

In response to a question from the Committee, Staff suggested that meaningful outreach and finding opportunities via events will be important when encouraging White Rock residents to engage and interact with art and culture in the community.

10. COMMITTEE ROUNDTABLE

Discussion ensued regarding the Committees vision for art and culture in White Rock. Several ideas were discussed.

11. 2019 MEETING SCHEDULE

Chairperson reviewed the following schedule of 2019 committee meetings:

- July 24
- September 24
- November 26

2019-ACAC-005 **It was MOVED and SECONDED**

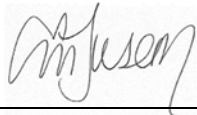
THAT the Arts and Cultural Advisory Committee (the Committee) approves the 2019 meeting schedule as presented.

CARRIED

12. CONCLUSION OF THE JUNE 25, 2019 MEETING

The Chairperson concluded the meeting at 5:16 p.m.

J. Adams, Chairperson



E. Tuson, Committee Clerk

PRESENT: M. Armstrong
B. Sullivan
C. Lane
G. Parkin
A. Shah

COUNCIL: Councillor C. Trevelyan, Chairperson (non-voting)

NON-VOTING MEMBERS: A. Nixon, BIA (arrived at 4:03 p.m.)

ABSENT: K. Klop
S. McQuade

STAFF: S. Kurylo, Director Financial Services
R. Volkens, Manager of Parking
D. Johnstone, Committee Clerk

Public: 2
Press: 0

1. CALL TO ORDER
The meeting was called to order at 3:33 p.m.

2. ADOPTION OF AGENDA

2019-PTF-30

It was MOVED and SECONDED

THAT the Parking Task Force (the Task Force) amended the June 27, 2019 agenda to include:

- Item 8.1 Increments for Parking Rates;
- Item 8.2 Communication; and,

THAT the agenda be adopted as amended.

CARRIED

3. ADOPTION OF MINUTES

2019-PTF-31

It was MOVED and SECONDED

THAT the Parking Task Force (the Task Force) adopts the June 13, 2019 minutes as circulated.

CARRIED

4.

WEST BEACH PARKADE AND WATERFRONT PARKING RATES

Councillor Trevelyan reported that the Fees and Charges Bylaw was provided to Council for final reading on June 24, 2019. Council decided to rescind the original three readings, and have recommended that rates be set as follows:

- April to September - \$3.75 per hour in the High Demand Zones;
- April to September - \$3.25 per hour in the Value Rate Parking Zones;
- April to September - \$15 per day for Montecito and West Beach Parkades
- October to March - \$2.00 per hour, with Free Monday – Friday parking on the waterfront during the months of November, December and January; and
- October to March - \$7.50 per day for Montecito and West Beach Parkades.

It was noted that staff would be providing the amended Fees and Charges Bylaw to Council for their consideration at the July 8 Council meeting.

Discussion ensued, and the Task Force noted the following:

- The Task Force was disappointed that Council did not pass their recommendations, and suggested that a variety of factors (such as the increase in TransLink taxes) were not mentioned when discussing new rates.
- In accordance with the Task Force mandate, parking rates are not to impact property tax values.
- While the Task Force agreed to help Marine Drive businesses, it was noted that a potential increase in property taxes would affect all White Rock residents, as well as business owners.
- The Task Force had discussed having parking increments set at 30 minute intervals; however, the rates proposed by Council cannot be easily divided.
- In the future, the Task Force agreed that consultation with outside factors, such as businesses, could take place earlier in the decision making process.
- At the June 13th meeting, the Task Force had debated eliminating Value Rate Parking Zones; however, due to time constraints the Task Force decided not to amend their recommendations. This was to ensure that summer parking rates would be put into effect as soon as possible. The Task Force noted that this suggestions could have been brought up at the Council meeting, for their information.

Staff reported the following information:

- It was clarified that draft numbers Councillor Trevelyan provided at the Council meeting did include the impact of the upcoming increase in TransLink tax.
- If there is a shortfall in parking revenue, and the net loss is deemed to be short-term the City is set up to internally temporarily finance the shortfall. Parking rates may need to be increased at that point to prevent an annual loss on a yearly basis. Also the temporary loan would need to be paid back over a stated period of time with future parking revenues. If the amount was considered to be a sustainable loss, parking rates and/or property taxes would need to be increased.

Councillor Trevelyan noted that the majority of the recommendations provided by the Task Force were accepted by Council, and noted his appreciation for hard work of the Task Force.

5. PARKING PERMIT REVIEW

The Director of Financial Services summarized a report dated June 13, 2019 regarding resident parking permit and pay parking decal statistics.

At the June 13, 2018 Task Force meeting it had been noted that the City charges a \$1 (one) dollar fee for Special Event Parking Permits; however, staff clarified that while the City currently does not charge for Special Event Parking Permits, it is anticipated that there will be a \$1 (one) charge in the future.

The Task Force agreed that looking at the numbers it does not appear as though residents are abusing the current parking permit system, and therefore did not propose any changes at this time.

6. CONSTRUCTION PARKING PLAN REVIEW

The Task Force reviewed a draft version of the City of White Rock Good Neighbour Construction Policy.

Staff reported that following the last Task Force meeting, the Director of Planning and Development Services had spoken to four (4) developers in the community regarding their parking plans. In addition, parking staff has temporarily expanded enforcement hours to target Town Centre areas, where resident concerns have been noted that construction workers are not parking in accordance with their plans.

The following discussion points were noted:

- While a Good Neighbour Policy is important for White Rock, as presented it lacks a penalty which is challenging from an enforcement standpoint.
- In order to hold people accountable for their actions there needs to be some kind of a consequence (i.e. a fine).
- Council had reviewed the Good Neighbour Policy at the June 24th Governance and Legislation Committee meeting. Council had requested that further consideration regarding fines be added into the policy.
- Parking concerns for construction workers were noted in a variety of developments throughout South Surrey and White Rock. It could be challenging to enforce these rules for developers in South Surrey.
- In the Good Neighbour Policy it states that violating the policy ‘may result in a stop work order’; however, this type of repercussion would not be appropriate to issue for a parking offence.
- Ensuring that construction workers throughout the City are aware and understand their parking plans is an important component.

The Task Force debated how best to address construction-related parking concerns for both residents and businesses. Areas for consideration included:

- Implementing signage -No Construction Worker Parking, Resident and Business Only Parking, and/or two (2) Hour Parking Except with Permit - were all suggested as options;
- A temporary parking permit area could be established; and,
- A two (2) hour time restriction could be implemented.

Staff noted that often times permit parking areas only move the issue to another block. Further, in order to offer a temporary permit parking pass to residents within these development areas at no charge, an amendment to the Fees and Charges Bylaw would be required. It would also need to be made very clear that this was a temporary solution, and that parking in the area would revert back to normal following the construction period.

Action: Staff to look into options including temporary permit parking, and report back to the Task Force at their next meeting.

With respect to Construction Sites, the Task Force suggested that as part of the Development Permit application, it be required that construction workers have a site orientation on parking. Additionally, construction sites are required to have information bulletins posted with regard to safety concerns and site information. It was suggested that the development also posts their parking plans onto these boards.

Action: Councillor Trevelyan to follow-up with the Director of Planning and Development Services and provide information back to the Task Force regarding the number of parking spots that are allocated per development, and to enquire if parking information is currently included in a site orientation.

2019-PTF-32

It was MOVED and SECONDED

THAT the Parking Task Force (the Task Force) recommends that Council consider that all development sites in the City of White Rock be mandated to prominently post their parking plan for all trades contractor staff.

CARRIED

The Task Force noted the following comments:

- A permit parking area could inconvenience a lot of people, whereas solving the issue of construction parking with enforcement could alleviate all of these concerns.
- A letter could be sent to developers noting resident and business owners concerns, and providing them with information on what the City is looking to do to address these concerns.
- Signage needs to be targeted in a way to assist residents, businesses and customers.
- While it is important that City staff continues to work with the developers to ensure that they are adhering to their parking plans (and amending them if necessary), it was noted that something needs to be done to illustrate to residents that the City is working to resolve this issue.

2019-PTF-33

It was MOVED and SECONDED

THAT the Parking Task Force (the Task Force) requests that staff explore and report back with sign and permit options that could be considered to address construction related parking issues.

CARRIED

7.

CORRESPONDENCE

The Task Force received the letter dated June 14, 2019 from a Trustee of the Church of the Holy Trinity Anglican Church of Canada regarding parking concerns on the 1300 block of Foster Street.

Due to time constraints this item was not discussed.

8.

OTHER BUSINESS

8.1

INCREMENTS FOR PARKING RATES

The Task Force discussed potential increments for waterfront parking rates. Previously the Task Force determined that increments would be set by half hour increments; however, this is more challenging to determine given the new rate of \$3.75 per hour. The Task Force noted that 20 minute increments may be a better way to charge for parking.

Staff noted that meters on the waterfront are currently set at 20 minute increments up to 60 minutes. Following this parking is purchased by the hour.

The Task Force suggested further discussion of this at their next meeting.

8.2

COMMUNICATION

The Task Force discussed the importance of notifying the public of the new waterfront parking rates, the free winter months that are being offered and how parking fees are disbursed throughout the City.

2019-PTF-34

It was MOVED and SECONDED

THAT the Parking Task Force (the Task Force) recommends that the Communications Department considers preparing a document for the public explaining the rules for the new parking rate structure, as well as creating a pie chart illustrating the City's costs for parking on the City website, through social media and in print (Peace Arch News).

CARRIED

9. **2019 MEETING SCHEDULE**

The following 2019 Parking Task Force meeting schedule was approved by the Committee at its March 14, 2019 meeting and is noted for information purposes:

- July 11
- July 25

10. **CONCLUSION OF THE JUNE 27, 2019 MEETING**

The Chairperson declared the meeting concluded at 5:42 p.m.



Councillor Trevelyan, Chairperson

D. Johnstone, Committee Clerk

Unapproved



POLICY TITLE: COUNCIL REMUNERATION AND EXPENSES

POLICY NUMBER: COUNCIL - 106

<i>Date of Council Adoption: 2015</i>	<i>Date of Last Amendment: January 29, <u>2018 June 10, 2019</u></i>
<i>Council Resolution Number: 2004-136, 2005-441, 2008-039, 208-040, 2008-041, 2008-042, 2008-175, 2009-378 and 2009-379, 2009-477, 2010-249 and 2010-250; 2010-395, 2012-092; 2013-343; 2013-405; 2015-216; 2015-285, 2018-034</i>	
<i>Originating Department: Corporate Administration / Finance</i>	<i>Date last reviewed by the Governance and Legislation Committee: December 10, <u>2018 June 10, 2019</u></i>

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Policy:

1- Remuneration for Council Members

- 1.1 Remuneration amounts and notations contained in this section shall be effective January 1, 2015.
- 1.2 In addition to the remuneration for Councillor the appointed Deputy Mayor will receive an additional remuneration in the amount of 20% of the Mayor’s monthly rate for each month that they act in that capacity. Where an appointment to this role is made for less than a full month, the remuneration shall be prorated.
- 1.3 Directly following the swearing in of Council Members after a scheduled Municipal Election the Director of Financial Services shall revise the annual remuneration for the Mayor and Councillors using the following calculation:
 - The remuneration for the position of Mayor using the average of the remuneration for the previous year for the following three (3) noted municipalities:
 - City of Pitt Meadows
 - City of Port Moody
 - City of Langley

The remuneration for the position of Councillor is to be based on a rate ratio of 40% which is consistent with rate ratios of comparable sized municipalities to the City of White Rock.
- 1.4 Effective January 1, 2018, the remuneration paid to the Mayor and Councillors in all other years shall be adjusted by the previous year’s change in the consumer price index for the City of Vancouver. ~~For 2018 only, the remuneration paid to the Mayor and Councillors shall also be adjusted to reflect the 2015 and 2016 changes in the consumer price index for the City of Vancouver.~~

1.5 The calculation of the remuneration in subsections 1.2 to 1.4 shall be rounded to the nearest ten (10) dollars.

1.6 Authorizes the payment of remuneration and expenses be carried out in accordance with City Policy.

2.1.2 Group Insurance

2.1 Group Accident Insurance will be provided to all members of City Council while going to, returning from, or attending Council Meetings and other Council activities, or performing any duties of a Council Member.

2.2.3 Allowance for Incidental Expenses

~~One third of the annual remuneration paid to the Mayor and Councillors of the City of White Rock shall be considered an allowance for expenditures incidental to the discharge of the duties of office within the boundaries of the City. This amount is currently exempt from taxation in accordance with the Income Tax Act subsection 81(3).~~

~~Effective January 1, 2019, this exemption will no longer be allowed. Therefore, beginning on that date, one third will no longer be considered an allowance and the full remuneration paid to the Mayor and Councillors will become taxable.~~

2.3 Event Allowance

3.1 2.3.1 Event tickets for the Mayor to attend on behalf of the City will be purchased and/or reimbursed by the City. The events the Mayor attends will be at their discretion (considering budget limitations). In circumstances where the Mayor is unavailable the Deputy Mayor will be asked to attend in their place.

3.2 2.3.2 Councillors shall be reimbursed up to \$900 annually, to cover expenses of attending and representing the City of White Rock, as individual Councillors, at local community events.²

2.4.4 Business Meetings Outside of Metro Vancouver

2.4.14.1 Councillors shall be reimbursed for expenses of attending business meetings outside of Metro Vancouver when representing the City, if pre-approved by the Mayor.

2.5 Kilometre/Vehicle Allowance

5.1 Mayor and Councillors shall be reimbursed for using their personal automobiles while involved in Council business outside the boundary of White Rock. The rate claimed for mileage will be the same as that authorized for exempt City employees.

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6.2.6 Expenses Incurred

2.6.16.1 That the City reimburses members of Council for the reasonable expenses to attend the UBCM, FCM and LMLGA annual conferences. *(Amended May 3, 2010)*

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6.2.2.6.2 That the City reimburses members of Council for the reasonable expenses to attend the local Newly Elected Seminar hosted by the UBCM.

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2.6.36.3 That the City reimburses a member of Council for expenses relating to a conference where Council has designated a member of Council by motion to attend.

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2.6.46.4 That the Mayor be allocated \$8,000 for the four-year term for discretionary education conferences or education materials.

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“Discretionary” is defined as not requiring the prior approval of Council. Notwithstanding, the expenditure is still subject to scrutiny by Council. If, in the opinion of the Council, it is determined the expenditure does not comply with the intent of the policy, the expenditure may be disapproved, or if already paid, will be recovered.

“Education Conferences” is defined as a short course, seminar, or conference on subject matter directly relevant to the duties of a member of Council. It is not intended to include accredited courses leading to certification in a trade or profession, or courses leading to a degree or diploma.

6.5.2.6.5 That the Councillors be allocated \$5,400 for the four-year term for discretionary education conferences or education materials.

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“Discretionary” is defined as not requiring the prior approval of Council. Notwithstanding, the expenditure is still subject to scrutiny by Council. If, in the opinion of the Council, it is determined the expenditure does not comply with the intent of the policy, the expenditure may be disapproved, or if already paid, will be recovered.

“Education Conferences” is defined as a short course, seminar, or conference on subject matter directly relevant to the duties of a member of Council. It is not intended to include accredited courses leading to certification in a trade or profession, or courses leading to a degree or diploma.

2.6.6.6 That a member of Council who is elected via by-election, Sections 2.6.4 and 2.6.5, as applicable, these amounts would be prorated.

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2.6.76.7 That the City provides members of Council for electronic equipment, computer software, and computer hardware that is compatible with City systems for the four -year term .

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6.8.2.6.8 Reimbursement for expenses set out in Sections 6 and 2.67 of this policy shall be by written claim in accordance with the City of White Rock Expense Policy.

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6.2.6.9 Council members may, after reaching the term limit for their additional educational and conference expenses, apply to Council in advance of incurring the expenses, for further

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educational or conference funding. The City will reimburse further funding by motion of Council.

Note: Until December 31, 2018, Section 81(3) of the Income Tax Act stipulates that 1/3 of Council remuneration shall be considered a non-accountable allowance for expenses incidental to the discharge of the duties of office. Further, until December 31, 2018, Council Policy 106 stipulates these expenses are to be incurred within the boundaries of White Rock.

Application Guidelines:

Incidental expenses which ~~are~~ were covered by this non-accountable allowance, until December 31, 2018, included but ~~are~~ were not limited to the following (incurred within the White Rock boundaries):

- Business use of personal vehicle within the White Rock boundaries
- Meals and entertainment (except while attending a conference or seminar authorized by Council Policy 106 where per diems would be applicable).
- Home office materials and supplies such as stationary, printer paper, toner and Christmas cards. This does not include City business cards as they are provided and paid for by the City directly. Computer templates for City Councillor letterhead are also available for use where appropriate.
- Home office internet access connections and land line telephone costs etc.

Effective January 1, 2019, due to the change in the Income Tax Act, this portion of Council remuneration is now taxable. Because it is expected that the above expenses will still be incurred by members of Council, annual remuneration has been adjusted to compensate for the additional income tax paid. Therefore the above items will continue to not be reimbursed by the City.

Items not previously covered by the non-taxable allowance, which may be provided at the City's additional expense include the following:

- Technical equipment such as software, hardware, and peripherals. These items are for Council members' use for the duration of their term(s) and remain City property throughout this period. Upon the end of the term(s) of office, these items must be returned to the City
- Conferences, seminars, educational materials and other expenses incurred/reimbursed subject to the provisions of Council Policy 106.
- Business use of personal vehicle when representing the City at meetings outside of the White Rock boundaries for which no other compensation/indemnity is provided.
- City business cards.
- Mayor's City business expenses such as mobile telecommunication costs, stationary, meals and attendance to official events etc.
- Electronic Communication as per Section 2.68.

2.6

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2.7 7 Qualifying Expenses

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Expenditures that qualify for payment are:

- a) Overnight accommodation required while outside the Metro Vancouver as authorized by this policy or Council resolution, as applicable
- b) If air travel is used, flights shall be booked at the lowest available economy fare. Air travel shall be booked as far in advance as practical to take advantage of discounted fares
- c) Provision of a “gift” to a maximum of \$50 per night if the traveler stays at private accommodation
- d) Transportation other than personal vehicle
- e) Long distance telephone, facsimile transmission or other electronic communications. Photocopying
- f) Meals not otherwise provided per diem
- g) Gratuities
- h) Reading material and other office supplies
- i) Excess medical insurance for travel outside of Canada
- j) Other appropriate incidentals (Council Members shall be reimbursed for the amount of reasonable expenses necessarily incurred that comply with the City of White Rock’s Expense Policy.)
- k) Parking (airport / hotel as applicable)
- l) ~~Other~~ Other overnight expenses as pre-approved by the Mayor

~~m) That the Councillors be allocated \$5,400 for the four year term for discretionary education conferences or education materials.~~

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2.78 Electronic Communications

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- a) For City business use, a smartphone is available as an additional communications device for all members of Council; and
- b) For those members of Council wishing to pursue this, the units be purchased through three-year plans under the City’s current wireless communications contract.

Rationale:

To provide an annual remuneration and the payment of benefits and expenses for the Mayor and Councillors.

**THE CORPORATION OF THE
CITY OF WHITE ROCK
BYLAW 2299**



**A Bylaw to amend Schedule “K” of the Fees and Charges Bylaw, 2019, No. 2298
in regards to Pay Parking fees.**

The Council of the City of White Rock, in open meeting assembled, enacts as follows:

1. The “**Waterfront**” fees under “**Pay Parking**”, in **Schedule “K” FINANCIAL SERVICES** of Fees and Charges Bylaw, 2019, No. 2298, be amended to the following:

Pay Parking	
<ul style="list-style-type: none"> • The following waterfront rates are per hour from 10:00 am – 12:00 midnight unless otherwise stated • A 4-hour maximum stay applies to the prime parking area (Oxford St. to Hump), with the exception of the Montecito and the West Beach Parkades. 	
<ul style="list-style-type: none"> • WINTER SEASON – November to January <ul style="list-style-type: none"> - Monday to Friday - Saturday and Sunday - Daily Weekend Rate for Montecito and West Beach Parkades 	FREE \$2.00 \$7.50
<ul style="list-style-type: none"> • SHOULDER SEASON – October, February and March <ul style="list-style-type: none"> - Daily Rate for Montecito and West Beach Parkades 	\$2.00 \$7.50
<ul style="list-style-type: none"> • SUMMER SEASON – April to September <ul style="list-style-type: none"> - High Demand Zones – all lot and on-street waterfront parking locations (including the parkades), except for locations west of Oxford Street - Value Priced Zone – all lot and on-street waterfront parking locations west of Oxford Street - Daily Rate for Montecito and West Beach Parkades 	\$3.75 \$3.25 \$15.00

2. This Bylaw may be cited for all purposes as the “Fees and Charges Bylaw, 2019, No. 2298, Amendment No. 1, 2019, No. 2299”

RECEIVED FIRST READING on the 24th day of June, 2019

RECEIVED SECOND READING on the 24th day of June, 2019

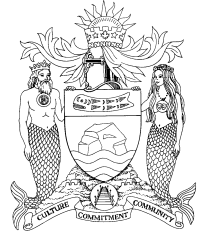
RECEIVED THIRD READING on the 24th day of June, 2019

RECEIVED FINAL READING on the

MAYOR

DIRECTOR OF CORPORATE ADMINISTRATION

**THE CORPORATION OF THE
CITY OF WHITE ROCK
BYLAW NO. 2302**



A Bylaw to amend the Water Services Bylaw, 2015, No. 2117

The CITY COUNCIL of the Corporation of the City of White Rock, in an open meeting assembled, ENACTS as follows:

1. Replace SCHEDULE A, Section 1 titled “Water Service User Fees” of Water Services Bylaw, 2015, No. 2117 with a new SCHEDULE A, Section 1.
2. This Bylaw may be cited for all purposes as the “*Water Services Bylaw, 2015, No. 2117, Amendment No.6, Bylaw, 2019, No. 2302*”.

RECEIVED FIRST READING on the _____ day of _____
RECEIVED SECOND READING on the _____ day of _____
RECEIVED THIRD READING on the _____ day of _____
ADOPTED on the _____ day of _____

MAYOR

DIRECTOR, CORPORATE ADMINISTRATION

**SCHEDULE A
WATER SERVICE FEES**

1. Water Service User Fees

Residential Fees

Single Family (including duplex, triplex or fourplex dwellings, and bulk water supply)

Single Family Minimum by meter size	Includes consumption up to	Effective Jan 1, 2018 Per Quarter	Effective Jan 1, 2019 Per Quarter
Single Family Minimum (5/8" meter)	1,500 cubic feet	\$ 124.20	\$ 127.90
Single Family Minimum (1" meter)	3,900 cubic feet	249.60	257.10
Single Family Minimum (1 1/2" meter)	7,500 cubic feet	499.20	514.20
Single Family Minimum (2" meter) *	12,000 cubic feet	798.80	822.80
Single Family Minimum (3" meter)	22,500 cubic feet	1,497.90	1,542.80
Single Family Minimum (4" meter)	37,500 cubic feet	2,496.50	2,571.40
Single Family Minimum (6" meter)	75,000 cubic feet	4,933.20	5,081.20
Excess consumption above consumption included in minimum, per 100 cubic feet:		3.77	3.88

* Except for the triplex located at 14968, 14972 & 14976 Beachview Ave. This water service account will be charged the equivalent of three (3) Single Family 5/8" meter rates.

Multi Family

Multi Family Minimum	Includes consumption up to	Effective Jan 1, 2018 Per Quarter	Effective Jan 1, 2019 Per Quarter
Multi Family Minimum per unit	750 cubic feet per unit	\$ 44.30	\$ 45.60
Excess consumption above consumption included in minimum, per 100 cubic feet:		3.77	3.88

Non Residential Fees

All other account types

Non Residential Minimum by meter size	Includes consumption up to	Effective Jan 1, 2018 Per Quarter	Effective Jan 1, 2019 Per Quarter
Non Residential Minimum (5/8" meter)	1,500 cubic feet	\$ 99.80	\$ 102.80
Non Residential Minimum (1" meter)	3,900 cubic feet	249.60	257.10
Non Residential Minimum (1 1/2" meter)	7,500 cubic feet	499.20	514.20
Non Residential Minimum (2" meter)	12,000 cubic feet	798.80	822.80
Non Residential Minimum (3" meter)	22,500 cubic feet	1,497.90	1,542.80
Non Residential Minimum (4" meter)	37,500 cubic feet	2,496.50	2,571.40
Non Residential Minimum (6" meter)	75,000 cubic feet	4,933.20	5,081.20
Excess consumption above consumption included in minimum, per 100 cubic feet:		3.77	3.88

Pro-rating of Fees

The City reads meters and bills on a quarterly basis. The minimum charges and reading consumption charges will be pro-rated based on the number of days the water service is connected during the billing cycle.

Multi Family consumption per unit

Per unit consumption is calculated by taking the total consumption divided by the number of units.

National Energy
Board



Office national
de l'énergie

File OF-Fac-Oil-T260-2013-03 60
18 June 2019

Mr. Scott Stoness
Vice President, Regulatory and Finance
Trans Mountain Canada Inc.
Suite 2700, 300 – 5th Avenue SW
Calgary, AB T2P 5J2
Email regulatory@transmountain.com

Mr. Shawn H. T. Denstedt, Q.C.
Osler, Hoskin & Harcourt LLP
Suite 2500, 450 – 1st Street SW
Calgary, AB T2P 5H1
Email sdenstedt@osler.com

Dear Mr. Stoness and Mr. Denstedt:

**Trans Mountain Pipeline ULC (Trans Mountain)
Trans Mountain Expansion Project (Project)
Order in Council P.C. 2019-0820
Project update**

On 18 June 2019, the Governor in Council (GIC) [directed](#) the National Energy Board (Board) to issue a certificate of public convenience and necessity (Certificate) for the Project. The GIC also approved amendments to existing Certificates in relation to the Project. The Board will issue the Certificate and amended Certificates to Trans Mountain in the coming days.

The Board reminds Trans Mountain that the issuance of Certificates does not automatically reinstate previous Board decisions or orders required to commence or resume construction activities.

The Board is mindful of the significant public interest in the next steps related to the Project, the regulatory processes undertaken prior to the Federal Court of Appeal's decision of 30 August 2018,¹ and the substantial public and Indigenous participation in those processes. The Board is also aware of Trans Mountain's interest in advancing Project construction.

The Board is committed to undertaking its regulatory oversight responsibilities in a manner that is fair, efficient, and transparent to all those involved. The Board also recognizes the importance of providing regulatory clarity about the next steps for the Project, both for Trans Mountain and for those affected by the Project.

.../2

¹ Federal Court of Appeal decision in *Tsleil-Waututh Nation v. Canada (Attorney General)*, [2018 FCA 153](#)

In the coming days, the Board will issue, for public comment, a proposed approach to resuming the regulatory processes required for the next phases of the Project lifecycle, including the detailed route approval process, condition compliance, and the Board's consideration of routing and non-routing variance requests. **The Board will not consider submissions on these topics that are filed prior to the start of the comment period.**

The Board's intent is to minimize any potential burden on the participants in its various processes by not repeating them unnecessarily, while, at the same time, ensuring it accounts for relevant circumstances that have materially changed. The Board intends to resolve these matters as expeditiously as possible.

Trans Mountain is directed to serve a copy of this letter on its list of interested parties for the Project, including all potentially affected landowners and Indigenous peoples, all participants in the Project-related regulatory processes that followed the Board's issuance of Project Certificates in 2016, as well as all participants in the OH-001-2014 and MH-052-2018 hearings.

For any questions, please contact a Process Advisor by phone at 1-800-899-1265 (toll-free) or by email at TMX.ProcessHelp@neb-one.gc.ca.

Yours truly,

Original signed by L. George for

Sheri Young
Secretary of the Board

c.c. Indigenous Advisory and Monitoring Committee (Trans Mountain)
c/o Ms. Michelle Wilsdon and Ms. Naina Sloan
Attention of: Indigenous Partnership Office – West
Email nrcan.tmxcommittee-comitetmx.nrcan@canada.ca

June 27, 2019

Mayor Darryl Walker
City of White Rock
15322 Buena Vista Avenue
White Rock, BC V4B 1Y6

RECEIVED

JUL 02 2019

**CITY OF WHITE ROCK
ADMINISTRATION**

Dear Mayor Walker:

Re: 2019 Resolutions

UBCM confirms receipt of the attached resolution(s) endorsed by your Council and submitted directly to UBCM by the June 30 deadline.

The resolution(s) will be presented to the UBCM membership for their consideration at the 2019 UBCM Convention in September.

Please feel free to contact Jamee Justason, Resolutions and Policy Analyst, if you have any questions about this process.

Tel: 604.270.8226 ext. 100 Email: jjustason@ubcm.ca

Very Best Wishes,



Arjun Singh
UBCM President

Enclosure

Proposed Vacancy Tax

White Rock

Where as the City of Vancouver has authority through the *Vancouver Charter* to implement an Annual Vacancy Tax;

And whereas the City of White Rock is governed through the *Community Charter* where there is no current authority to implement a Vacancy Tax and it is believed that there are a number of vacant residential and commercial properties in the City of White Rock:

Therefore be it resolved that the City of White Rock request that UBCM work with the Province of British Columbia to amend the authority given to Local Governments through the *Community Charter* permitting municipalities the authority to impose, by bylaw, an annual vacancy tax on taxable residential and commercial properties, and that the criteria and administrative requirements be similar to those of the *Vancouver Charter*.

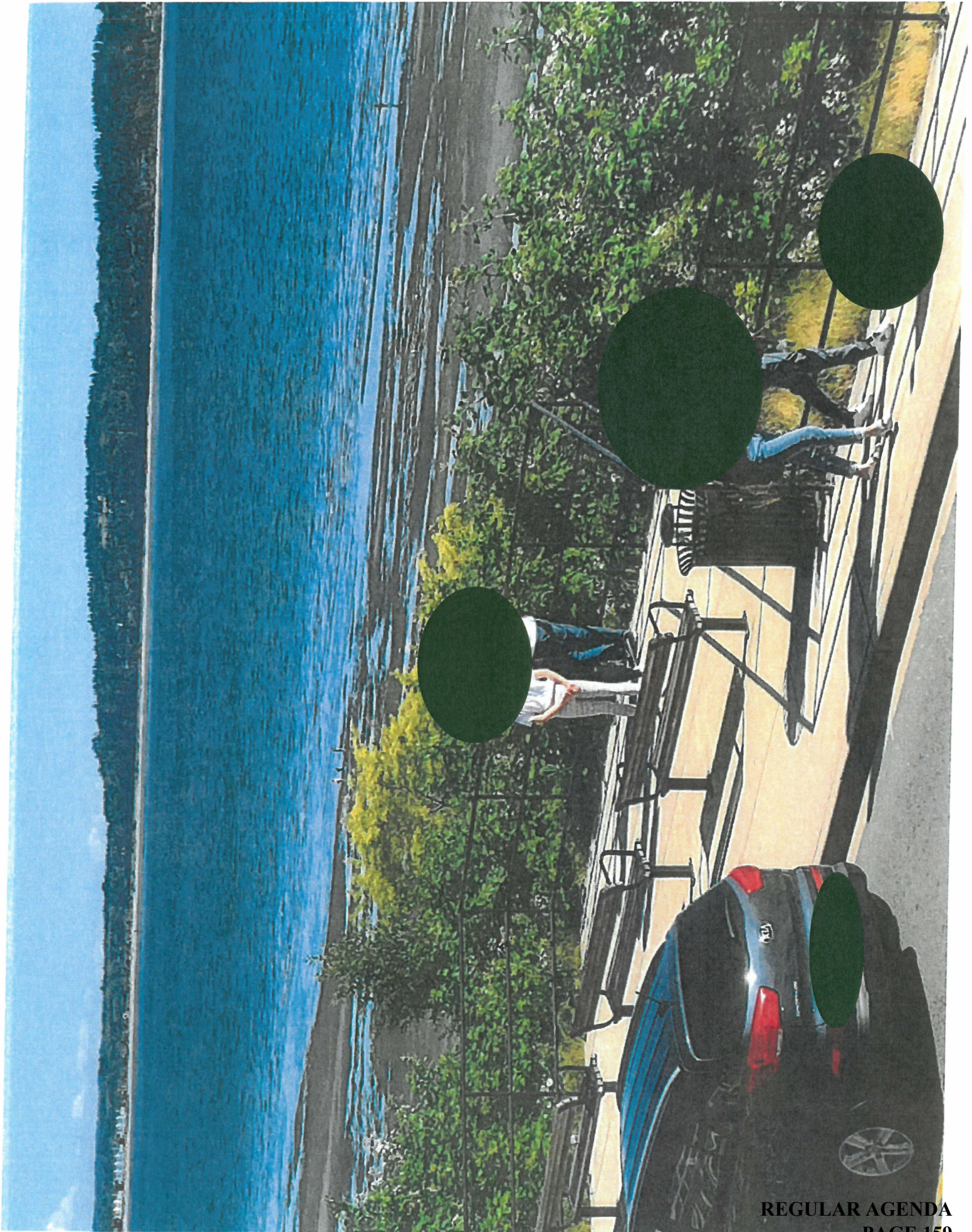
Convention Decision:















LETTERS: Seaside character lacking in 'City by the Sea'

Jun. 7, 2019 6:30 a.m. [LETTERS OPINION](#)



Editor:

As the tall buildings continue to proliferate in White Rock and "cheese-grater" fences pop up by the waterfront, it is getting harder and harder to get a proper view of the ocean.

I suggest that the White Rock branding should be modified from "City by the Sea" to "City by the Sea you can't See."

Where is the seaside flavour of this community? It is certainly not reflected in its architecture, nor is it a theme in city parks, business names, common spaces or street signs.

Seaside imagery such as boats, anchors and marine life seem to be conspicuously absent, thereby making the designation of "City by the Sea" a bit unwarranted, in my opinion. It denotes a geographic reality only.

There was an opportunity to make the new sidewalks reflect this image (the choice of benches, printing motifs in the cement, lamp posts) but no one on councils, past or present, seems concerned with the esthetics of the city.

Many lessons could have been learned from seaside cities, small and large, around the world, that boast "character."

That is something this city, unfortunately, does not have at present.

Maybe something to work on.

Lynda Hornby, White Rock



Seaside character is lacking

Editor:

As the tall buildings continue to proliferate in White Rock and "cheese-grater" fumes pop up by the waterfront, it is getting harder and harder to get a proper view of the ocean.

I suggest that the White Rock branding should be modified from "City by the Sea" to "City by the Sea you can't see."

Where is the seaside flavor of this community? It is certainly not reflected in its architecture, nor is it a theme in city parks, business names, common spaces or street signs.

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the designation of "City by the Sea" a bit unimpressive, in my opinion. It denotes a geographic reality only.

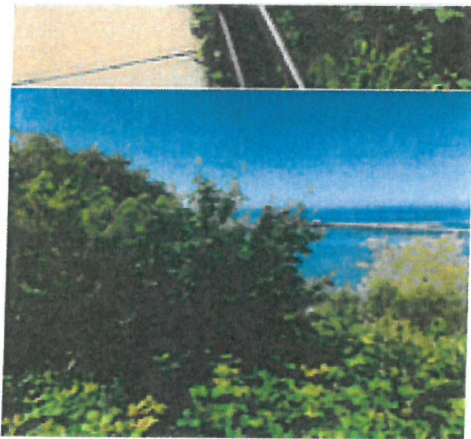
There was an opportunity to make the new trademarks reflect this image (the choice of benches, parking emblems, in-the-moment, lamp posts) but no one on council, past or present, seems concerned with the aesthetic of the city.

Many houses could have been learned from outside cities, small and large, around the world, that boast "character."

That is something this city, unfortunately, does not have at present.

Maybe something to work on.

Lynda Herndy White Rock



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RECOMMENDATION PARKING TASK FORCE - JUNE 27, 2019

THAT the Parking Task Force (the Task Force) requests that staff explore and report back with sign and permit options that could be considered to address construction related parking issues.