City of Maple Ridge

COMMITTEE OF THE WHOLE AGENDA May 21, 2019 1:30 p.m. Council Chamber

Committee of the Whole is the initial venue for review of issues. No voting takes place on bylaws or resolutions. A decision is made to send an item to Council for debate and vote or to send an item back to staff for more information or clarification before proceeding to Council. The meeting is live streamed and recorded by the City of Maple Ridge.

Chair: Acting Mayor

1. CALL TO ORDER

- 2. ADOPTION AND RECEIPT OF MINUTES
- 2.1 Minutes of the Committee of the Whole Meeting of May 7, 2019
- 3. **DELEGATIONS/STAFF PRESENTATIONS** (10 minutes each)

4. PUBLIC WORKS AND DEVELOPMENT SERVICES

Note:

- Owners and/or Agents of development applications on this agenda may be permitted to speak to their item with a time limit of 10 minutes.
- The following items have been numbered to correspond with the Council Agenda where further debate and voting will take place, upon Council decision to forward them to that venue.

1101 2018-180-RZ, 22057 and 22083 Lougheed Highway, RS-1 to RM-2

Staff report dated May 21, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7481-2018 to rezone from RS-1 (One Family Urban Residential) to RM-2 (Medium Density Apartment Residential) to allow a five storey apartment building with approximately 86 units and underground parking be given first reading and that the applicant provide further information as described on Schedules C, D and E of the Development Procedures Bylaw No. 5879-1999. Committee of the Whole Agenda May 21, 2019 Page 2 of 4

1102 2019-081-RZ, 21358 and 21366 Dewdney Trunk Road, RS-1, RS-1b to RM-2

Staff report dated May 21, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7540-2019 to rezone from RS-1 (One Family Urban Residential) and RS-1b (One Family Urban [Medium Density] Residential) to RM-2 (Medium Density Apartment Residential) to allow future construction of a five storey, 54 unit, purpose-built rental apartment building be given first reading and that the applicant provide further information as described on Schedules C, D and E of the Development Procedures Bylaw No. 5879-1999.

1103 2019-091-RZ, 21585 River Road, RS-1 to RT-2

Staff report dated May 21, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7541-2019 to rezone from RS-1 (One Family Urban Residential) to RT-2 (Ground-Oriented Residential Infill) to permit the development of courtyard residential housing with five dwelling units, clustered around a common courtyard be given first reading and that the applicant provide further information as described on Schedules C, D and E of the Development Procedures Bylaw No. 5879-1999.

1104 2017-117-RZ, 11865, 11839, 11831 232 Street, RS-1 to RM-1

Staff report dated May 21, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7351-2017 to rezone from RS-1 (One Family Urban Residential) to RM-1 (Townhouse Residential) to permit the future construction of a 46 unit residential townhouse development be given second reading and be forwarded to Public Hearing.

1105 Drinking Water Quality Report 2018

Staff report dated May 21, 2019 providing information on Drinking Water Quality Report 2018.

- 1106 Post Disaster Water Supply briefing
 - Joe Dingwall, Manager of Utility Engineering
- 1107 Contract Award: Hydrovac Services

Staff report dated May 21, 2019 recommending that a one (1) year agreement for Hydrovac services on an as, if and when required basis be awarded to Badger Daylighting Limited Partnership and McCrae's Environmental Services Ltd. with the option to renew.

5. CORPORATE SERVICES

Committee of the Whole Agenda May 21, 2019 Page 3 of 4

6. PARKS, RECREATION & CULTURE

1151 Award of Contract for Phase One of the Albion Community Centre

Staff report dated May 21, 2019 recommending that the Contract for Construction of Phase One of the Albion Community Centre be awarded to Double V Construction Ltd. in the amount of \$5,306,981 excluding taxes, and that a contingency of \$530,698 be authorized and that the Corporate Officer be authorized to execute the contract.

- 7. ADMINISTRATION (including Fire and Police)
- 8. OTHER COMMITTEE ISSUES
- 9. ADJOURNMENT

Committee of the Whole Agenda May 21, 2019 Page 4 of 4

10. COMMUNITY FORUM

COMMUNITY FORUM

The Community Forum provides the public with an opportunity to speak with Council on items that are of concern to them, with the exception of Public Hearing bylaws that have not yet reached conclusion.

Each person will be permitted 2 minutes to speak or ask questions (a second opportunity is permitted if no one else is sitting in the chairs in front of the podium). Questions must be directed to the Chair of the meeting and not to the individual members of Council. The total time for this Forum is limited to 15 minutes.

If a question cannot be answered, the speaker will be advised when and how a response will be given.

Council will not tolerate any derogatory remarks directed at Council or staff members.

Other opportunities are available to address Council including public hearings and delegations. The public may also make their views known to Council by writing or via email and by attending open houses, workshops and information meetings. Serving on an Advisory Committee is an excellent way to have a voice in the future of this community.

For more information on these opportunities contact:

Clerk's Department at 604-463-5221 or clerks@mapleridge.ca Mayor and Council at mayorandcouncil@mapleridge.ca

Checked by: May 17/19 Date:

2.0 Minutes

City of Maple Ridge

COMMITTEE OF THE WHOLE MEETING MINUTES

May 7, 2019

The minutes of the meeting held on May 7, 2019 at 1:46 p.m. in Council Chamber of City Hall, 11995 Haney Place, Maple Ridge, BC.

PRESENT	Appointed Staff
Elected Officials	K.Swift, Acting Chief Administrative Officer
Mayor M. Morden	F. Quinn, General Manager Public Works and Development Services
Councillor J. Dueck	D. Boag, Acting General Manager Parks, Recreation and Culture
Councillor C. Meadus	L. Benson, Director of Corporate Administration
Councillor G. Robson	T. Thompson, Chief Financial Officer
Councillor R. Svendsen	C. Carter, Director of Planning
Councillor A. Yousef	D. Pollock, Municipal Engineer
	Other Staff as Required
ABSENT	W. Cooper, Planner 1
Councillor K. Duncan	C. Goddard, Manager of Development and Environmental Services R. MacNair, Senior Advisor, Bylaw and Licensing Services M. Millward, Facilities Operations Manager

Note: These Minutes are posted on the City website at <u>mapleridge.ca/AgendaCenter/</u> Video of the meeting is posted at <u>media.mapleridge.ca/Mediasite/Showcase</u>

1. CALL TO ORDER

2. ADOPTION AND RECEIPT OF MINUTES

2.1 Minutes of the Committee of the Whole Meeting of April 16, 2019

It was moved and seconded

That the minutes of the April 16, 2019 Committee of the Whole Meeting be adopted.

CARRIED

3. DELEGATIONS/STAFF PRESENTATIONS – Nil

4. PUBLIC WORKS AND DEVELOPMENT SERVICES

Committee of the Whole Minutes May 7, 2019 Page 2 of 6

1101 2018-289-RZ, 10309 and 10337 240 Street; 10350 and 10320 Slatford Place, RS-3, RS-2 to RM-1

Staff report dated May 7, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7543-2019 to rezone from RS-3 (One Family Rural Residential) and RS-2 (One Family Suburban Residential) to RM-1 (Townhouse Residential) to permit an approximately 110 townhouse development be given first reading and that Maple Ridge Zone Amending Bylaws No. 7400-2017 and 7232-2015 be repealed and that the applicant provide further information as described on Schedules A, C, D, F and G of the Development Procedures Bylaw No. 5879–1999, and a Subdivision application.

W. Cooper gave a PowerPoint presentation on the application and answered questions from Council.

It was moved and seconded

That the staff report dated May 7, 2019 titled "First Reading, Zone Amending Bylaw No. 7543-2019 10309 and 10337 240 Street; 10350 and 10320 Slatford Place" be forwarded to the Council Meeting of May 14, 2019.

CARRIED

1102 2019-064-RZ, 11045 Cameron Court, RS-2 to RS-1d

Staff report dated May 7, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7551-2019 to rezone from RS-2 (One Family Suburban Residential) to RS-1d (One Family Urban (Half Acre) Residential) to enable the subdivision of approximately 6 single family lots no less than 557m² in area be given first reading and that the applicant provide further information as described on Schedules A, B, and F of the Development Procedures Bylaw No. 5879-1999, along with the information required for an Intensive Residential Development Permit and a Subdivision application.

W. Cooper gave a PowerPoint presentation on the application.

It was moved and seconded

That the staff report dated May 7, 2019 titled "First Reading, Zone Amending Bylaw No. 7551-2019, 11045 Cameron Court" be forwarded to the Council Meeting of May 14, 2019.

Committee of the Whole Minutes May 7, 2019 Page 3 of 6

1103 2017-572-RZ, 11703 Fraser Street and 11718 224 Street, RM-1 to RM-2

Staff report dated May 7, 2019 recommending that Maple Ridge Official Community Plan Amending Bylaw No. 7550-2019 to re-designate the easterly portion of subject property (11703 Fraser Street) from Ground-Oriented Multi-Family to Low-Rise Apartment be given first and second readings and be forwarded to Public Hearing and that Maple Ridge Zone Amending Bylaw No. 7422-2018 to rezone from RM-1 (Townhouse Residential) to RM-2 (Medium Density Apartment Residential) to permit future construction of a 57 unit apartment building with underground parking be given second reading and be forwarded to Public Hearing.

W. Cooper gave a PowerPoint presentation on the application and answered questions from Council.

It was moved and seconded

That the staff report dated May 7, 2019 titled "First and Second Reading, Official Community Plan Amending Bylaw No. 7550-2019, Second Reading, Zone Amending Bylaw No. 7422-2018; 11703 Fraser Street and 11718 224 Street" be forwarded to the Council Meeting of May 14, 2019.

CARRIED

1104 2016-031-RZ, 13227 236 Street, RS-2 to RM-1

Staff report dated May 7, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7228-2016 to rezone from RS-2 (One Family Suburban Residential) to RM-1 (Townhouse Residential) to permit the future development of 17 townhouse units be given second reading and be forwarded to Public Hearing.

C. Goddard gave a PowerPoint presentation on the application and answered questions from Council.

It was moved and seconded

That the staff report dated May 7, 2019 titled "Second Reading Zone Amending Bylaw No. 7228-2016, 13227 236 Street" be forwarded to the Council Meeting of May 14, 2019.

Committee of the Whole Minutes May 7, 2019 Page 4 of 6

1105 2018-093-RZ, 11780 Burnett Street, RS-1 to R-1

Staff report dated May 7, 2019 recommending that Maple Ridge Zone Amending Bylaw No. 7485-2018 to rezone from RS-1 (One Family Urban Residential) to R-1 (Residential District) to permit a two-lot subdivision be given second reading and be forwarded to Public Hearing.

C. Goddard gave a PowerPoint presentation on the application and answered questions from Council.

It was moved and seconded

That the staff report dated May 7, 2019 titled "Second Reading Zone Amending Bylaw No. 7485-2018, 11780 Burnett Street" be forwarded to the Council Meeting of May 14, 2019.

CARRIED

1106 New Cannabis Retail Store

Staff report dated May 7, 2019 recommending that the application for a cannabis retail store by 1151761 B.C. Ltd. at #670-22709 Lougheed Highway, Maple Ridge be supported based on the information contained in the Council report dated May 7, 2019 and that a copy of the resolution be forwarded to the Liquor and Cannabis Regulation Branch.

R. MacNair provided a summary of the report and answered questions from Council.

The applicant was invited by Council to take the floor and he provided some information on the proposed business. He answered questions from Council on security, charitable donations, and the proximity of ownership to Maple Ridge.

It was moved and seconded

That the staff report dated May 7, 2019 titled "New Cannabis Retail Store" be forwarded to the Council Meeting of May 14, 2019.

- 5. CORPORATE SERVICES Nil
- 6. PARKS, RECREATION & CULTURE

1151 Award of Contract for Maple Ridge Secondary School Track Facility Upgrades Design Services

Staff report dated May 7, 2019 recommending that Contract RFP-PL19-31 be awarded to Simcic + Uhrich Architects in the amount of \$166,720 excluding taxes, that a contingency of \$25,000 be authorized and that the Corporate Officer be authorized to execute the contract.

M. Millward gave a PowerPoint presentation and answered questions from Council.

It was moved and seconded

That the staff report dated May 7, 2019 titled "Award of Contract for Maple Ridge Secondary School Track Facility Upgrades Design Services" be forwarded to the Council Meeting of May 14, 2019.

CARRIED

1152 Award of Contract for Hammond Community Centre Renovation Design Services

Staff report dated May 7, 2019 recommending that Contract RFP-PL19-3 be awarded to MIZA Architects Inc. in the amount of \$263,795 plus taxes, that a contingency of \$39,500 be authorized, and that the Corporate Officer be authorized to execute the contract.

It was moved and seconded

That the staff report dated May 7, 2019 titled "Award of Contract for Hammond Community Centre Renovation Design Services" be forwarded to the Council Meeting of May 14, 2019.

CARRIED

1153 Award of Contract for Firefighters Park Construction

Staff report dated May 7, 2019 recommending that Contract ITT-PL19-01 be awarded to Cedar Crest Lands (BC) Ltd. in the amount of \$526,500 excluding taxes, that a contingency of \$50,000 be authorized, that the budget be increased by \$133,330 funded from the Park Development Cost Charge fund and Capital Works Reserve, that the next Financial Plan Bylaw be amended to reflect this, and that the Corporate Officer be authorized to execute the contract.

It was moved and seconded

That the staff report dated May 7, 2019 titled "Award of Contract for Firefighters Park Construction" be forwarded to the Council Meeting of May 14, 2019.

Committee of the Whole Minutes May 7, 2019 Page 6 of 6

- 7. ADMINISTRATION (including Fire and Police) Nil
- 8. OTHER COMMITTEE ISSUES Nil
- 9. *ADJOURNMENT* 2:39 p.m.

Councillor Judy Dueck Presiding Member of the Committee



City of Maple Ridge

TO: FROM:	His Worship Mayor Michael Morden and Members of Council Chief Administrative Officer	MEETING DATE: FILE NO: MEETING:	May 21, 2019 2018-180-RZ C o W
SUBJECT:	First Reading Zone Amending Bylaw No. 7481-2018 22057 and 22083 Lougheed Highway and PID 001-844-652		

EXECUTIVE SUMMARY:

An application has been received to rezone the subject properties, located at 22057 and 22083 Lougheed Highway and PID 001-844-652, from RS-1 (One Family Urban Residential) to RM-2 (Medium Density Apartment Residential) to allow a five storey apartment building with approximately 86 units and underground parking.

The subject application was previously deferred at the July 24, 2018 Council meeting with the following resolution:

That first reading of Zone Amending Bylaw No. 7481-2018 be deferred until the receipt of a report outlining a land use study for both sides of the Lougheed Highway corridor.

Following deferral of the subject application, Council endorsed a process and engagement strategy and study areas boundaries for the Lougheed Transit Corridor Study on September 4, 2018. On February 26, 2019, staff summarized the Transit Corridor Phase 1, which focused on a land use and monitoring study led by Metro Vancouver. Over the spring, the City has conducted several public engagement events as part of Phases II and III of the Lougheed Transit Corridor Study.

At this time, the subject application is being brought forward for consideration of first reading. In keeping with precedence, consideration of second reading is proposed to be held until after Council endorsement of a Lougheed Transit Corridor Concept Plan, anticipated for fall 2019. This would provide the applicant time to work through the many other items necessary to proceed to second reading without additional delays.

To proceed further with this application additional information is required as outlined below. Pursuant to Council Policy 6.31, this application is subject to the Community Amenity Contribution charge of approximately \$3,100 per apartment dwelling unit totalling approximately \$226,600.00.

RECOMMENDATIONS:

- 1. That Zone Amending Bylaw No. 7481-2018 be given first reading, and that consideration of second reading be deferred until such time as the Lougheed Transit Corridor Study Concept Plan is endorsed by Council; and
- 2. That the applicant provide further information as described on Schedules C, D and E of the Development Procedures Bylaw No. 5879–1999.

DISCUSSION:

a)	Background Co	ontext:	
Applicant:			Bissky Architecture And Urban Design Inc.
Legal Description:			Lot 3 District Lot 397 Group 1 New Westminster District Plan 11251; Lot 4 District Lot 397 Group 1 New Westminster District Plan 11251 Parcel B (Y89442) District Lot 397 Group 1 New Westminster District Plan 11251
OCP: Zonin	Existing: ag:		Urban Residential
	Existing: Proposed:		RS-1 (One Family Urban Residential) RM-2 (Medium Density Apartment Residential)
Surro	unding Uses: North:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
	South:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
	East:	Use: Zone: Designation:	Maple Ridge Baptist Church P-4 (Place of Worship) Institutional
	West:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
Existing Use of Property: Proposed Use of Property: Site Area: Access: Servicing requirement:		perty:	Single Family Residential (Group Home) Multi-Family Residential 0.33 ha (0.82 acres) 221 Street; Lane Urban Standard

b) Site Characteristics:

The three subject properties, addressed at 22057 and 22083 Lougheed Highway and PID 001-844-652, are located on the north side of Lougheed Highway, between 220 Street and 221 Street (see Appendicies A and B). The subject properties are relatively flat and are currently occupied by single family houses that are being rented out to a registered charity.

c) Project Description:

The applicant is proposing to rezone the three subject properties from RS-1 (One Family Urban Residential) to RM-2 (Medium Density Apartment Residential) to allow for a five storey apartment building with approximately 86 units and underground parking. The applicant is proposing four storeys at the rear, adjacent to the lane, and five storeys along Lougheed Highway. The four storeys is proposed as a transition to the surrounding single family residential properties to the north. The application proposes a mix of studio, one, two and three bedroom units. A variance would be required to the RM-2 (Medium Density Apartment Residential) zone to allow for a five storey apartment building, as well as a variance to setbacks along the south (Lougheed Highway) and east (221 Street) property boundaries.

Lougheed Transit Corridor Study

The subject properties are located within the Lougheed Transit Corridor study area. The study area encompasses the future B-Line rapid bus route, which will run between Haney Transit Exchange and Coquitlam Central Station along the Lougheed Highway. Initially, bus stops will be located at Laity Street and 203 Street, with the opportunity to add an additional stop in the future at 222 Street in proximity to the subject properties. Council endorsed a process and engagement strategy and study area boundaries for the Lougheed Transit Corridor Study on September 4, 2018. On February 26, 2019, staff summarized the Transit Corridor Phase 1, which focused on a land use and monitoring study led by Metro Vancouver. Over the spring, the City has conducted several public engagement events as part of Phases II and III of the Lougheed Transit Corridor Study. A report summarizing all public engagement feedback is scheduled for a Council Workshop in June 2019.

The proposed apartment building reflects the existing Major Corridor Residential Infill policies. Based on feedback captured through the consultation events, it is anticipated that the use and density along Lougheed Highway east of 216 Street will remain consistent with current Major Corridor policies. Opportunities for land use changes are anticipated to be focused around the bus stop nodes at 203 Street and Laity Street.

As mentioned above, Translink has identified a potential additional B-Line rapid stop at 222 Street which may be added in the future. Should a third stop be added at a later date, the bus stop would likely be located closer to the 222 Street intersection, based on the other bus stop locations identified for Laity Street and 203 Street.

At this time the current application has been assessed to determine its compliance with the OCP and provide a land use assessment only. Detailed review and comments will need to be made once full application packages have been received. A more detailed analysis and a further report will be required prior to second reading. Such assessment may impact proposed lot boundaries and yields, OCP designations and Bylaw particulars, and may require application for further development permits.

d) Planning Analysis:

Official Community Plan:

The subject properties are located to the west, just outside, of the Town Centre Area Plan. The OCP designates the subject properties *Urban Residential – Major Corridor*, and development of the properties are subject to the *Major Corridor Residential* infill policies of the OCP. The *Major Corridor Residential* category identifies the various types of housing forms which are encouraged along major road corridors to include: single detached dwellings, duplexes, triplexes, fourplexes, townhouses, apartments, and small lot intensive residential developments. These policies require that

development be compatible with the surrounding neighbourhood, with particular attention given to site design, setbacks, and lot configuration with the existing pattern of development in the area. It is noted that one of the underlying principles in the OCP is to encourage growth within the Urban Area Boundary (UAB) and to accommodate growth through infill by promoting a mix of housing types and tenures (Policy 3-1). The proposed rezoning of the subject property to RM-2 (Medium Density Apartment Residential) aligns with the *Major Corridor Residential* infill policies.

Policy 3-20 c) *Major Corridor Residential* indicates apartment buildings have a maximum height of four storeys; however, other OCP policies provide support for the increase in height noting density bonus and the provision of rental housing or a cash-in-lieu contribution are mechanisms for achieving additional density and height. Based on Council direction, on July 17, 2018 Council directed a draft framework of density bonus regulations. As a result of the discussion, Council directed staff to begin preparing bylaw amendments to incorporate the density bonus framework into the New Zoning Bylaw.

In developing the proposed density bonus framework staff worked closely with Rollo + Associates, the consultant that prepared the original analysis for the City's Albion Density Bonus scheme and our existing CAC program, to complete a financial analysis to determine both the value of land at the various base densities currently available, as well as the possible increase in land values that may be associated with a proposed bonus density opportunity. The consultant also looked at the costs associated with the required amenities (be they affordable rental units or a cash in-lieu contribution) to ensure the opportunity of the density bonus zoning is calibrated appropriately to the cost of providing the associated amenities. In preparing the density bonus framework, staff also consulted with local developers and industry representatives. The Urban Development Institute and the Homebuilders Association of Vancouver (formerly the Greater Vancouver Home Builders' Association) called the draft framework a "win-win-win" opportunity for Maple Ridge, the development industry, and residents looking for affordable housing solutions.

Relating this application, under the proposed density bonus regulations for the RM-2 zone (the zone under consideration in the current application) the base density of 1.8 FSR could be bonused in exchange for either:

- 10% of the gross floor area being rental units, with rents at minimum 10% below CMHC average market rents for the Ridge-Meadows area; *OR*
- A cash in-lieu, at a rate of \$9.00 per square foot.

Like all density bonus programs, the proposed framework is optional in nature. To be clear, under the proposed density bonus framework the provision of affordable rental units or a cash in-lieu contribution would only be applicable if the developer chose to pursue the available bonused density. In the current application before Council, the applicant has indicated they are open to either option, however, based on recent conversations with Council, staff will not pursue the rental option and instead focus on the cash-in-lieu scenario. The details of the cash-in-lieu option will form part of the second reading report. It should be noted that Council are interested in revisiting the above noted City-wide density bonus regulations and the report on this topic is expected to be presented to Council shortly.

The following OCP policies would also apply to this rezoning application:

3-30 Maple Ridge will consider density bonus as a means of encouraging the provision of affordable, rental and special needs housing, and amenities.

3-31 Maple Ridge supports the provision of rental accommodation and encourages the construction of rental units that vary in size and number of bedrooms.

3-32 Maple Ridge supports the provision of affordable, rental and special needs housing throughout the District.

3-33 Maple Ridge will encourage housing that incorporates "age-in-place" concepts and senior housing designed to accommodate special needs.

Housing Action Plan:

Maple Ridge's vision and commitment to towards housing is encompassed in this statement contained in the Maple Ridge Housing Action Plan (MRHAP):

"Access to safe, affordable, and appropriate housing that meets the diverse and changing needs of the community is a priority."

The current application will provide approximately 86 new apartment units directly adjacent to the Town Centre, and as mentioned above, the applicant offers a diverse mix of studio, one, two and three bedroom units. The applicant also intends to meet the need for rental, affordable, special needs or age-in place housing, as discussed above, with details to be determined prior to second reading.

Zoning Bylaw:

The applicant is proposing to rezone the three subject properties from RS-1 (One Family Urban Residential) to RM-2 (Medium Density Apartment Residential) (see Appendix C) to allow for a five storey apartment buiding with approximately 86 units and underground parking (see Appendix D). The applicant is proposing a mix of studio, one, two and three bedroom units. The maximum floor space ratio (FSR) permitted in the RM-2 (Medium Density Apartment Residential) zone is 1.8. This application is proposing an FSR of 2.0. As mentioned above, discussions with the applicant suggest they are willing to provide a percentage of the units as market rental, in exchange for the increased density and height. The applicant has also suggested that, alternative to providing rental, a cash-in-lieu option could be provided for the increase in density. Recent conversations with Council have identified that cash-in-lieu is the prefered option; therefore, staff will work with the applicant for cash-in-lieu and report those details back to Council within the second reading report.

It has also been suggested by the applicant, that they will provide some electric vehicle charging infrastructure, the number and type are to be determined prior to second reading.

The minimum lot size for the proposed RM-2 (Medium Density Apartment Residential) zone is 0.13 ha (0.3 acres) and the proposed consolidated lot area is approximately 0.33 ha (0.8 acres). The applicant has indicated that variances to height and setbacks will be applied for through a Development Variance Permit application.

Development Permits:

Pursuant to Section 8.7 of the OCP, a Multi-Family Development Permit application is required to ensure the current proposal enhances existing neighbourhoods with compatible housing styles that meet diverse needs, and minimize potential conflicts with neighbouring land uses.

Advisory Design Panel:

A Multi-Family Development Permit is required and must be reviewed by the Advisory Design Panel prior to second reading.

Development Information Meeting:

A Development Information Meeting is required for this application. Prior to second reading the applicant is required to host a Development Information Meeting in accordance with Council Policy 6.20.

e) Interdepartmental Implications:

In order to advance the current application, after first reading, comments and input, will be sought from the various internal departments and external agencies listed below:

- a) Engineering Department;
- b) Fire Department;
- c) Building Department;
- d) Parks Department;
- e) School District;
- f) Ministry of Transportation and Infrastructure; and
- g) Canada Post.

The above list is intended to be indicative only and it may become necessary, as the application progresses, to liaise with agencies and/or departments not listed above.

This application has not been forwarded to the Engineering Department for comments at this time; therefore, an evaluation of servicing requirements has not been undertaken. We anticipate that this evaluation will take place between first and second reading.

f) Intergovernmental Implications

This development application will be referred to the Ministry of Transportation and Infrastructure (MOTI) after first reading to determine if they have any concerns or requirements that will impact the proposed development. MOTI will need to approve of *Zoning Bylaw No.* 7481-2018 prior to the bylaw obtaining final reading.

g) Alternatives

Council may choose to defer the subject development application until such time as a City-led Lougheed Transit Corridor Study Concept Plan is complete. The anticipated completion time of the concept plan is the end of year, 2019. If Council prefers this alternative, the recommendation at the start of this report should be replaced with:

1. That Zone Amending Bylaw No. 7481-2018 be deferred until Council endorses the Lougheed Transit Corridor Study draft concept plan.

h) Development Applications:

In order for this application to proceed the following information must be provided, as required by Development Procedures Bylaw No. 5879–1999 as amended:

- 1. A complete Rezoning Application (Schedule C);
- 2. A Multi-Family Residential Development Permit Application (Schedule D); and
- 3. A Development Variance Permit (Schedule E).

As part of the information being submitted above, to include details about provision of market rental and adaptable units, stormwater management, public art and shadow analysis.

The above list is intended to be indicative only, other applications may be necessary as the assessment of the proposal progresses.

CONCLUSION:

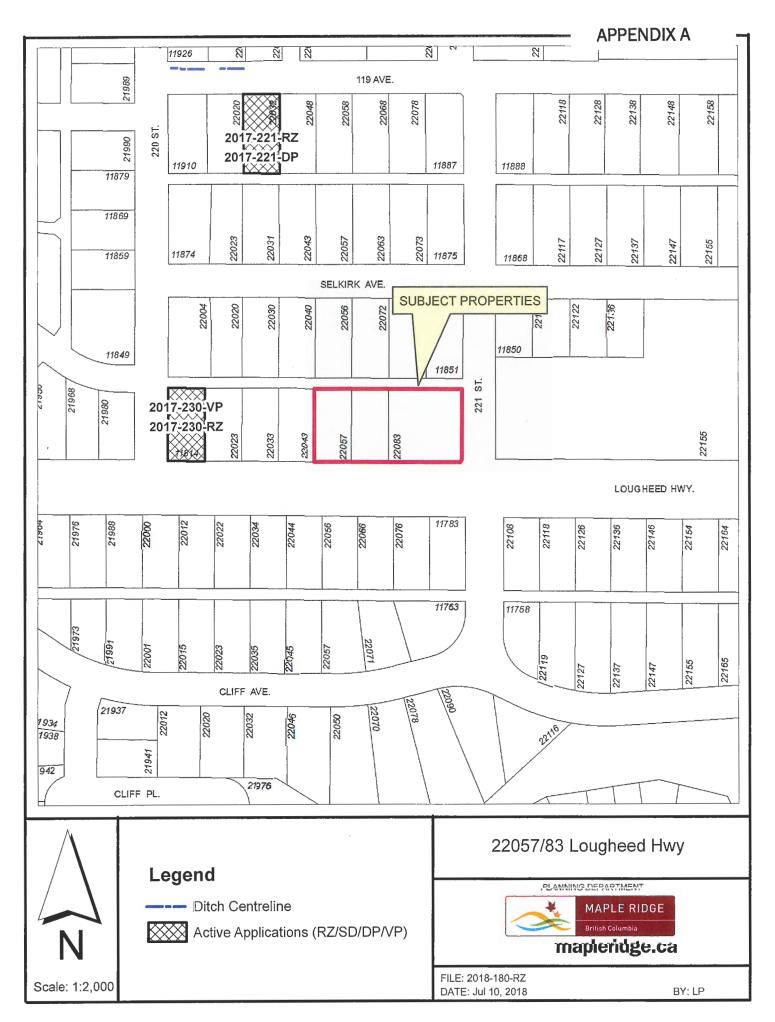
The development form is generally in compliance with the OCP, noting there is policy support for density bonusing and the provision a cash-in-lieu option, or alternatively, a provision of providing a percentage of rental units. As the subject properties are located in the Lougheed Transit Corridor study area, staff are recommending first reading. Consideration of second reading will take place following Council endorsement of the Lougheed Transit Corridor Concept Plan, anticipated for fall 2019. In addition, compatibility of this projects design, proposed height, setbacks and density bonus details will be determined prior to second reading. Therefore, it is recommended that Council grant first reading subject to additional information being provided and assessed prior to second reading.

It is recommended that Council not require any further additional OCP consultation.

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Prepared by:	Adam Rieu
	Planning Technician
	Clared
Approved by:	Christine Carter, M.PL, MCIP, RPP
1	Director of Planning
Linle	Chi
Approved by:	Frank Quinn, MBA, P. Eng
	GM Public Works & Development Services
Jel -	
Concurrence:	Kelly Swift, MBA
ter"	Acting Chief Administrative Officer
The following append	dices are attached hereto:
Appendix A – Subjec Appendix B – Ortho I	-

Appendix C – Zone Amending Bylaw No. 7481-2018

Appendix D – Proposed Site Plan



APPENDIX B



APPENDIX C

CITY OF MAPLE RIDGE BYLAW NO. 7481-2018

A Bylaw to amend Map "A" forming part of Zoning Bylaw No. 3510 - 1985 as amended

WHEREAS, it is deemed expedient to amend Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended;

NOW THEREFORE, the Municipal Council of the City of Maple Ridge enacts as follows:

- 1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 7481-2018."
- 2. Those parcels or tracts of land and premises known and described as:

Lot 3 District Lot 397 Group 1 New Westminster District Plan 11251 Lot 4 District Lot 397 Group 1 New Westminster District Plan 11251 Parcel B (Y89442) District Lot 397 Group 1 New Westminster District Plan 11251

and outlined in heavy black line on Map No. 1766 a copy of which is attached hereto and forms part of this Bylaw, are hereby rezoned to RM-2 (Medium Density Apartment Residential).

3. Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended and Map "A" attached thereto are hereby amended accordingly.

READ a first time the 24th day of July, 2018.

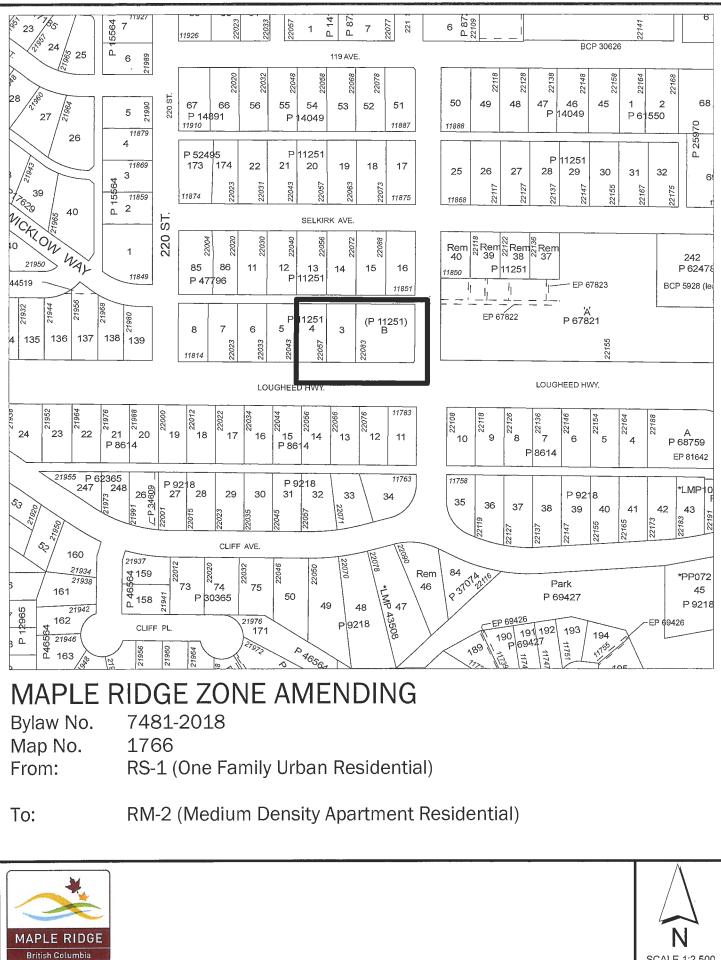
READ a second time theday of, 20PUBLIC HEARING held theday of, 20READ a third time theday of, 20APPROVED by the Ministry of Transportation and Infrastructure this

APPROVED by the Ministry of Transportation and Infrastructure this day of , 20

ADOPTED, the day of , 20

PRESIDING MEMBER

CORPORATE OFFICER



SCALE 1:2,500

22057/22083 Lougheed HWY Prelim Reconciliation FSR at 2.0 4,223 51 Studie 2 bed 3 herd 1 bed Total: 8 12 33 25 16 29.1% 38.4% 18.6% 14.0% age of oi total AATT INC Unit 1 0,050 670 S 525 Sf 925 SI \$13,764,240 76,468 5 68,275 SI 12,600 displayed 0,525 5 16,750 5 8,400 S Parking nequired (1.7 per unit in RA4.2 Zone) 27.2 146.2 42.5 56.1 20.4 Area required for parking @ 270sf gross (per stable) 39,474 51 15,147 Sf 5,508 Sf 11,475 Sf 7,344 55 FSR at 2.0 Units 19 19 19 5 Lane 201 S 221st St. Proposed RM-2 Multi-Family Devit WAYNE STEPHEN BISSKY ARCHITELTURE & URBAN DENGN INF PLANNING INTERIOR DESIGN 1000 ALL ADD 23057 & 22043 Low of Hery Massie Rafes BC propert to the uncluster are, and all containst property of themes Despites (theme Despite, Research, and to easil being the color of perpetition for which online the color of perpetition for which online the color of perpetition discussion, and applicables on the life discussion, and applicables on the life discussion and explosions. Not the Α.1 Site Plan 2.0 FSR Lai 4 DL 307 Grp 1 16VD Plan 11251 , Parcel 8 (Y89442) DL 397 Grp 1s MMD Plan 11251 & Let 3 DL 397 Grp 1 NMD Plan 11251 005-218-944, 025-283-919 & 001-844-852 RDM 52320 Laughted Highwes, Maple Ritge, 8 C. V2X 274 Pk. 004-4574500 (m. 604-457-520) E-cost Intel global and Cost Balance Cost Legal P04

APPENDIX D



City of Maple Ridge

TO: FROM:	His Worship Mayor Michael Morden and Members of Council Chief Administrative Officer	MEETING DATE: FILE NO: MEETING:	May 21, 2019 2019-081-RZ C o W
SUBJECT:	First Reading Zone Amending Bylaw No. 7540-2019		

21358 and 21366 Dewdney Trunk Road

EXECUTIVE SUMMARY:

An application has been received to rezone the subject property, located at 21358 and 21366 Dewdney Trunk Road, from RS-1 (One Family Urban Residential) and RS-1b (One Family Urban (Medium Density) Residential) to RM-2 (Medium Density Apartment Residential) to allow future construction of a five storey, 54 unit, purpose-built rental apartment building.

Council endorsed a process and engagement strategy and study area boundaries for the Lougheed Transit Corridor Study on September 4, 2018. On February 26, 2019, staff summarized the Transit Corridor Phase 1, which focused on a land use and monitoring study led by Metro Vancouver. Over the spring, the City has conducted several public engagement events as part of Phases II and III of the Lougheed Transit Corridor Study.

At this time, the subject application is being brought forward for consideration of first reading. In keeping with precedence, consideration of second reading is proposed to be held until after Council endorsement of a Lougheed Transit Corridor Concept Plan, anticipated to be presented by the end of 2019. This would provide the applicant time to work through the many other items necessary to proceed to second reading without additional delays.

The subject application is exempt from paying the Community Amenity Contribution, Policy 6.31, as the applicant is proposing 100% of the units as rental to be secured through a Housing Agreement. To proceed further with this application additional information is required as outlined below.

RECOMMENDATIONS:

- That Zone Amending Bylaw No. 7540-2019 be given first reading; and that consideration of second reading be deferred until such time as the Lougheed Transit Corridor Study Concept Plan is endorsed by Council; and
- 2. That the applicant provide further information as described on Schedules C, D and E of the Development Procedures Bylaw No. 5879–1999.

DISCUSSION:

a) Background Context:

Applica	ant:		Westurban Developments Ltd. (Purpose-Built Rental Apartment Developer)
Legal Description:			Lot 4 Except: Firstly; Part Dedicated Road on Plan 77386, Secondly; Part Dedicated Road on Plan LMP10702 District Lot 248 Group 1 New Westminster District Plan 17075 Lot A District Lot 248 Group 1 New Westminster District Plan 14984
OCP: Zoning			Urban Residential Urban Residential
	Existing: Proposed:		RS-1b (One Family Urban (Medium Density) Residential) and RS-1 (One Family Urban Residential) RM-2 (Medium Density Apartment Residential)
Surrounding Uses: North: Use: Zone: Designation:		Zone:	Single Family Residential R-1 (Residential District) Urban Residential
	South:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
	East:	Use: Zone: Designation:	Multi-Family Residential RM-1 (Townhouse Residential) Urban Residential
	West:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
Existing Use of Property: Proposed Use of Property: Site Area: Access: Servicing requirement:		operty:	Single Family Residential Multi-Family Residential 1,780 m² (0.44 acres) Hood Street Urban Standard

b) Site Characteristics:

The subject properties, located at 21358 and 21366 Dewdney Trunk Road, are located south of Dewdney Trunk Road, east of Hood Street and north of the Maple Ridge Cemetery. Consolidation of the subject properties will be a condition of final reading with a combined total area of 1,780 m² (0.44 acres). Both lots currently have structures located on them; however, these will need to be removed as a condition of final reading. The subject properties are flat with trees, shrubs and lawn located throughout each property.

c) Project Description:

The current application proposes to rezone the subject properties from RS-1 (One Family Urban Residential) and RS-1b (One Family Urban (Medium Density) Residential) to RM-2 (Medium Density Apartment) to permit the construction of a five storey, purpose-built rental apartment proposing approximately 54 units. The applicant, Westurban Developments Ltd., specializes in purpose-built rental buildings and is proposing 100% of the units as rental. The proposed structure will consist of a concrete base and wood frame construction with a mix of studio, one and two bedroom units. Residential parking will be located underground and accessed from Hood Street. Ample bicycle storage is proposed with the development to help off-set a proposed reduction in the amount of car parking stalls.

Lougheed Transit Corridor Study

The subject properties are located within the Lougheed Transit Corridor study area. The study area encompasses the future B-Line rapid bus route, which will run between Haney Transit Exchange and Coquitlam Central Station along the Lougheed Highway. Initially, bus stops will be located at Laity Street and 203 Street, with the opportunity to add an additional stop in the future at 222 Street in proximity to the subject properties. Council endorsed a process and engagement strategy and study area boundaries for the Lougheed Transit Corridor Study on September 4, 2018. On February 26, 2019, staff summarized the Transit Corridor Phase 1, which focused on a land use and monitoring study led by Metro Vancouver. Over the spring, the City has conducted several public engagement events as part of Phases II and III of the Lougheed Transit Corridor Study. A report summarizing all public engagement feedback is scheduled for a Council Workshop in June 2019.

At this time the current application has been assessed to determine its compliance with the Official Community Plan (OCP) and provide a land use assessment only. Detailed review and comments will need to be made once full application packages have been received. A more detailed analysis and a further report will be required prior to second reading. Such assessment may impact proposed lot boundaries and yields, OCP designations and Bylaw particulars, and may require application for further development permits.

d) Planning Analysis:

Official Community Plan:

The subject properties are located along Dewdney Trunk Road, where the OCP designates the subject properties *Urban Residential – Major Corridor*, and development of the properties are subject to the *Major Corridor* infill policies of the OCP. The *Major Corridor Residential* category identifies the various types of housing forms which are encouraged along major road corridors to include: single detached dwellings, duplexes, triplexes, fourplexes, townhouses, apartments, and small lot intensive residential developments. These policies require that development be compatible with the surrounding neighbourhood, with particular attention given to site design, setbacks, and lot configuration with the existing pattern of development in the area. It is noted that one of the underlying principles in the OCP is to encourage growth within the Urban Area Boundary (UAB) and to accommodate growth through infill by promoting a mix of housing types and tenures (Policy 3-1). The proposed rezoning of the subject properties to RM-2 (Medium Density Apartment Residential) aligns with the *Major Corridor Residential* infill policies.

Policy 3-20 c) *Major Corridor Residential* indicates apartment buildings have a maximum height of four storeys; however, other OCP policies provide support for the increase in height as a means of encouraging affordable rental and special needs housing.

The following other OCP policies would also apply to this rezoning application:

3-30 Maple Ridge will consider density bonus as a means of encouraging the provision of affordable, rental and special needs housing, and amenities.

The applicant proposes to increase the density within the RM-2 (Medium Density Apartment) zone from 1.8 to 2.1 FSR, which is generally in keeping with the City's draft density bonus framework that forms part of the new zoning bylaw. The draft density bonus framework is premised on the exchange of density for either affordable rental units or a cash-in-lieu alternative. The applicant is also providing 100% of the units as rental with further details regarding affordable rental to be determined prior to second reading.

3-31 Maple Ridge supports the provision of rental accommodation and encourages the construction of rental units that vary in size and number of bedrooms...

This project proposes to add approximately 54 new rental housing units in West-Central Maple Ridge. The applicant proposes a mix of studio, one and two bedroom units, details of which will form part of the second reading report. No three or more bedroom units are proposed with the subject application.

A recommended approach to secure these units as rental housing (in perpetuity) will be through a Restrictive Covenant placed on title and a Housing Agreement with the property owner.

Housing Action Plan:

The Housing Action Plan (HAP), which was endorsed by Council in September, 2014 identifies rental housing as a priority. This was reaffirmed with the endorsement of the Housing Action Plan Implementation Framework in September, 2015.

This project meets many of the objectives of the Housing Action Plan to encourage more rental, affordable and special needs housing in Maple Ridge. The applicant will provide a more detailed amount of information about the unit mix and potential affordable rent for the second reading report. A Housing Agreement will ensure that these units will be retained for such rental purposes over time.

Zoning Bylaw:

The applicant is proposing to rezone the two subject properties from RS-1 (One Family Urban Residential) and RS-1b (One Family Urban (Medium Density) Residential) to RM-2 (Medium Density Apartment Residential) (see Appendix C) to allow for a five storey, purpose-built rental apartment building with approximately 54 units. The applicant, who specializes in purpose-built rental buildings, is proposing the development be 100% rental units and secured through a housing agreement in perpetuity. The proposed building will contain a mix of studio, one and two bedroom units. The maximum floor space ratio permitted in the RM-2 (Medium Density Apartment Residential) zone is 1.8 FSR; however, the applicant is proposing an increase in density, to 2.1 FSR, details of which are to be determined before proceeding to second reading.

Underground parking is provided; however, the applicant will be seeking a variance to the number of spaces from 92 required spaces to 47 spaces. The applicant, as suggested above, is proposing the

development as 100% rental, and justifies the reduction in required parking on the basis that residents of rental buildings have less reliance on automobiles and seek other forms of mobility, including walking, cycling and transit.

A Parking Study, conducted by Watt Consulting Group, has been provided and will be reviewed as part of the submission requirements required before going to second reading. Early findings in the Parking Study suggest the applicant is proposing to increase the amount of bicycle parking, in the form of 92 long-term spaces, which is 78 spaces more than the required amount. The applicant is also considering contributing towards a transportation mobility fund that could be used towards puchasing transit passes for residents for a defined period of time. Other suggestions within the Parking Study indicate that there may be opportunties to approach carsharing programs, which do not currently operate in the City of Maple Ridge, for an on-site vehicle; as well, looking at the possibility of creating an information package, to be distributed to new residents, identifying transportation options and services available in the surrounding area. The location of the subject properties also lends itself well to transit options, as there are bus stops located just west of the development along Dewdney Trunk Road (east of Laity Street, eastbound and west of Laity Street, westbound), as well as northbound and southbound stops along Laity Street and the new location of the B-Line along Lougheed Highway at Laity Street. It should be noted that the Parking Study provided by the applicant is supported by the 2018 Metro Vancouver Regional Parking Study findings that suggest in instances where rental units are located in proximity to transit, a reduction in parking may be warranted. It should also be noted that other applications proposing a significant reduction in parking have been supported, based on providing 100% rental and proximity to services and transit.

The minimum lot size for the proposed RM-2 (Medium Density Apartment Residential) zone is 1,214 m² (0.3 acres) and the proposed consolidated lot area is approximately 1,780 m² (0.44 acres). The applicant has indicated that variances to height, setbacks and parking will be applied for through a Development Variance Permit application.

Development Permits:

Pursuant to Section 8.7 of the OCP, a Multi-Family Development Permit application is required to ensure the current proposal enhances existing neighbourhoods with compatible housing styles that meet diverse needs, and minimize potential conflicts with neighbouring land uses.

Advisory Design Panel:

A Form and Character Development Permit is required and must be reviewed by the Advisory Design Panel prior to second reading.

Development Information Meeting:

A Development Information Meeting is required for this application. Prior to second reading the applicant is required to host a Development Information Meeting in accordance with Council Policy 6.20.

e) Interdepartmental Implications:

In order to advance the current application, after first reading, comments and input, will be sought from the various internal departments and external agencies listed below:

- a) Engineering Department;
- b) Operations Department;
- c) Fire Department;
- d) Building Department;
- e) Parks Department;
- f) School District;
- g) Ministry of Transportation and Infrastructure; and
- h) Canada Post.

The above list is intended to be indicative only and it may become necessary, as the application progresses, to liaise with agencies and/or departments not listed above.

This application has not been forwarded to the Engineering Department for comments at this time; therefore, an evaluation of servicing requirements has not been undertaken. We anticipate that this evaluation will take place between first and second reading.

f) Alternative:

Council may choose to defer the subject development application until such time as a City-led Lougheed Transit Corridor Study Concept Plan is complete. The anticipated completion time of the concept plan is the end of year, 2019. If Council prefers this alternative, the recommendation at the start of this report should be replaced with:

1. That Zone Amending Bylaw No. 7540-2019 be deferred until Council endorses the Lougheed Transit Corridor Study Concept Plan.

g) Development Applications:

In order for this application to proceed the following information must be provided, as required by Development Procedures Bylaw No. 5879–1999 as amended:

- 1. A complete Rezoning Application (Schedule C);
- 2. A Multi-Family Residential Development Permit Application (Schedule D); and
- 3. A Development Variance Permit (Schedule E);

The above list is intended to be indicative only, other applications may be necessary as the assessment of the proposal progresses.

CONCLUSION:

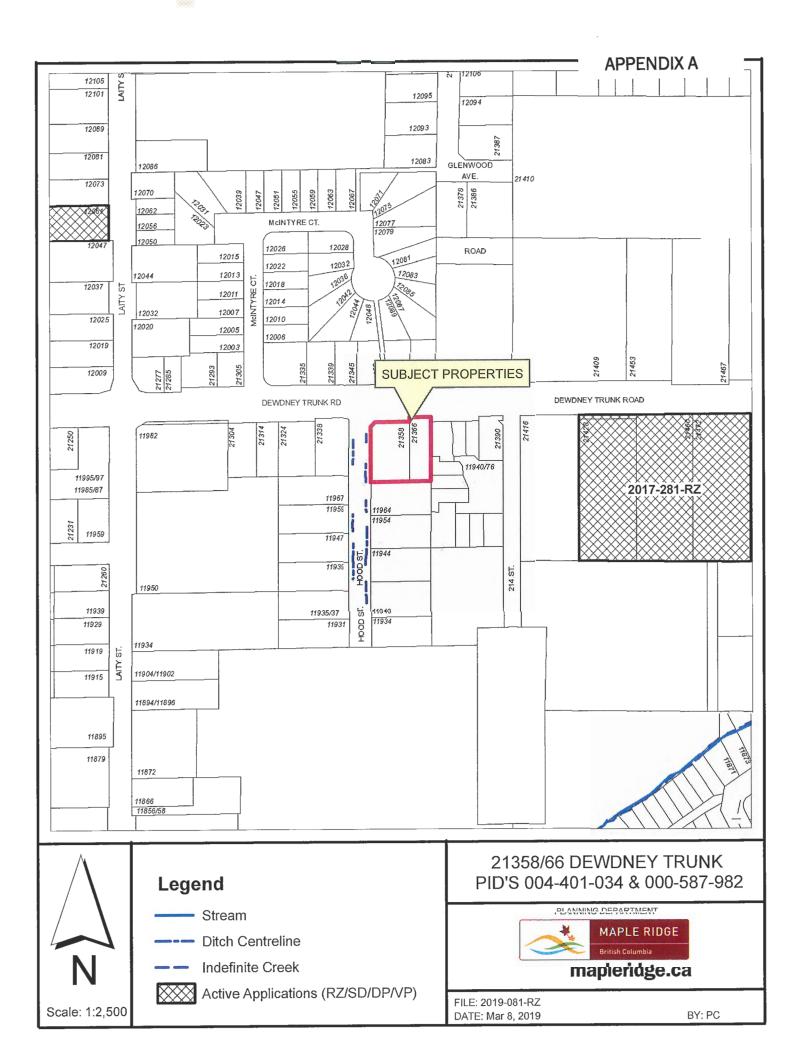
The development form is generally in compliance with the OCP, noting there is draft policy support for density bonusing and the provision of providing a percentage of affordable rental units, or alternatively, a cash-in-lieu option. As the subject properties are located in the Lougheed Transit Corridor study area, staff are recommending first reading. Consideration of second reading will take place following Council endorsement of the Lougheed Transit Corridor Concept Plan, anticipated by the end of 2019. In addition, compatibility of this projects design, proposed height, setbacks and density bonus details will be determined prior to second reading. Therefore, it is recommended that Council grant first reading subject to additional information being provided and assessed prior to second reading.

Adam Rieu Prepared by: **Planning Technician** Christine Carter, M.PL, MCIP, RPP Reviewed by: **Director of Planning** Frank Quinn, MBA, P. Eng Approved by: **GM Public Works & Development Services** Kelly Swift, MBA Concurrence: Acting Chief Administrative Officer

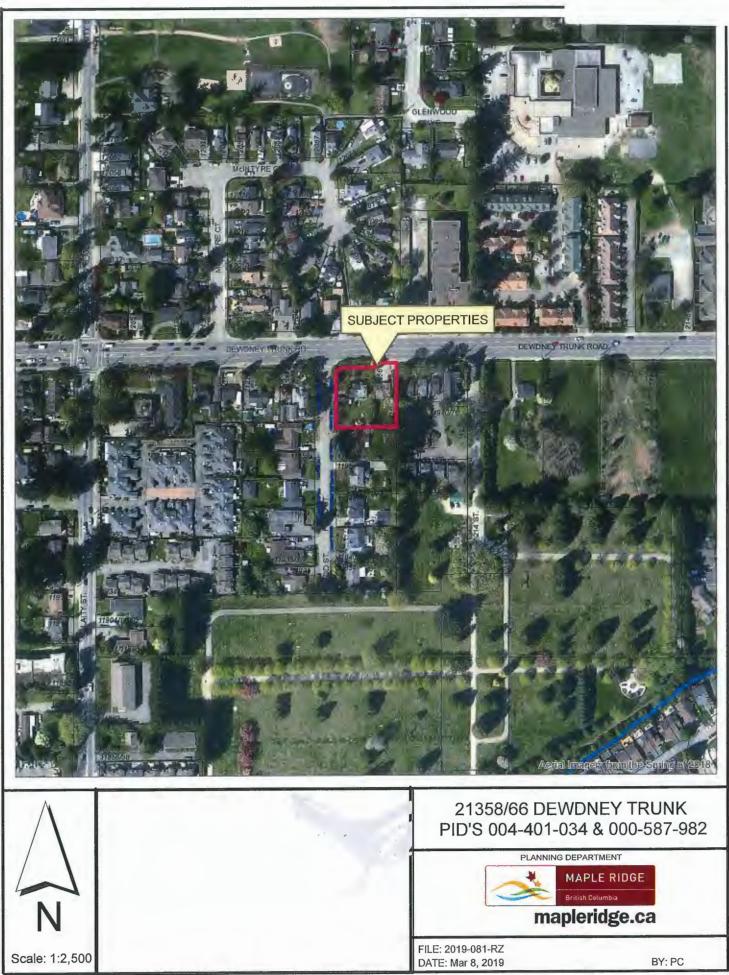
The following appendices are attached hereto:

Appendix A – Subject Map

- Appendix B Ortho Map
- Appendix C Zone Amending Bylaw No. 7540-2019
- Appendix D Proposed Site Plan



APPENDIX B



CITY OF MAPLE RIDGE BYLAW NO. 7540-2019

A Bylaw to amend Map "A" forming part of Zoning Bylaw No. 3510 - 1985 as amended

WHEREAS, it is deemed expedient to amend Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended;

NOW THEREFORE, the Municipal Council of the City of Maple Ridge enacts as follows:

- 1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 7540-2019."
- 2. Those parcels or tracts of land and premises known and described as:

Lot 4 Except: Firstly; Part Dedicated Road on Plan 77386, Secondly; Part Dedicated Road on Plan LMP10702 District Lot 248 Group 1 New Westminster District Plan 17075;

Lot A District Lot 248 Group 1 New Westminster District Plan 14984

and outlined in heavy black line on Map No. 1794 a copy of which is attached hereto and forms part of this Bylaw, are hereby rezoned to RM-2 (Medium Density Apartment Residential).

3. Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended and Map "A" attached thereto are hereby amended accordingly.

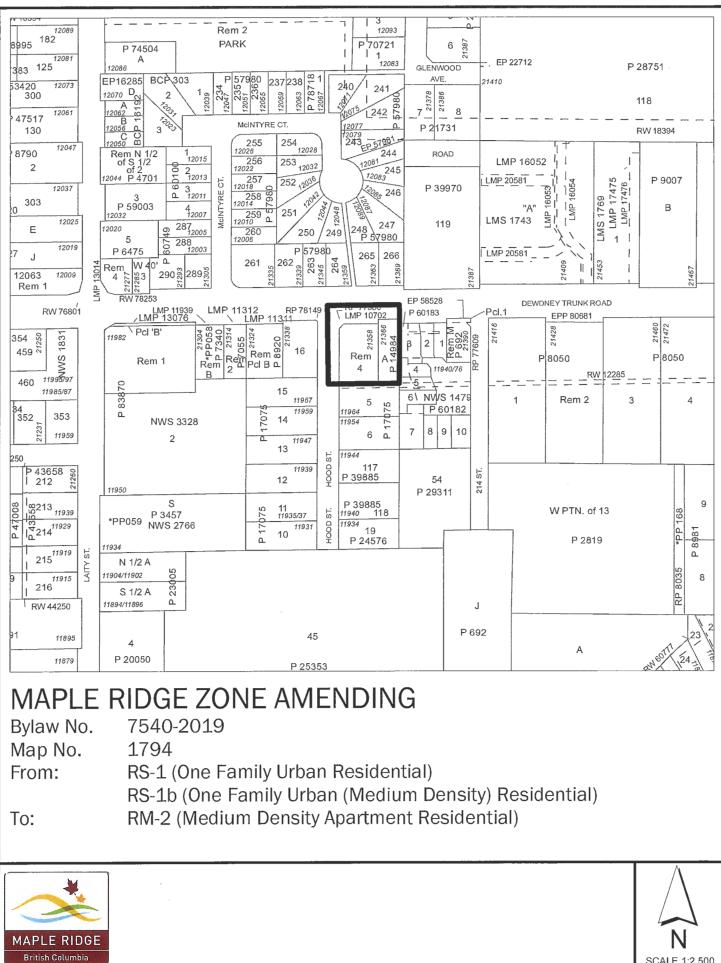
READ a first time the data	ay of	, 20
READ a second time the	day of	, 20
PUBLIC HEARING held the	day of	, 20
READ a third time the	day of	, 20

APPROVED by the Ministry of Transportation and Infrastructure this day of , 20

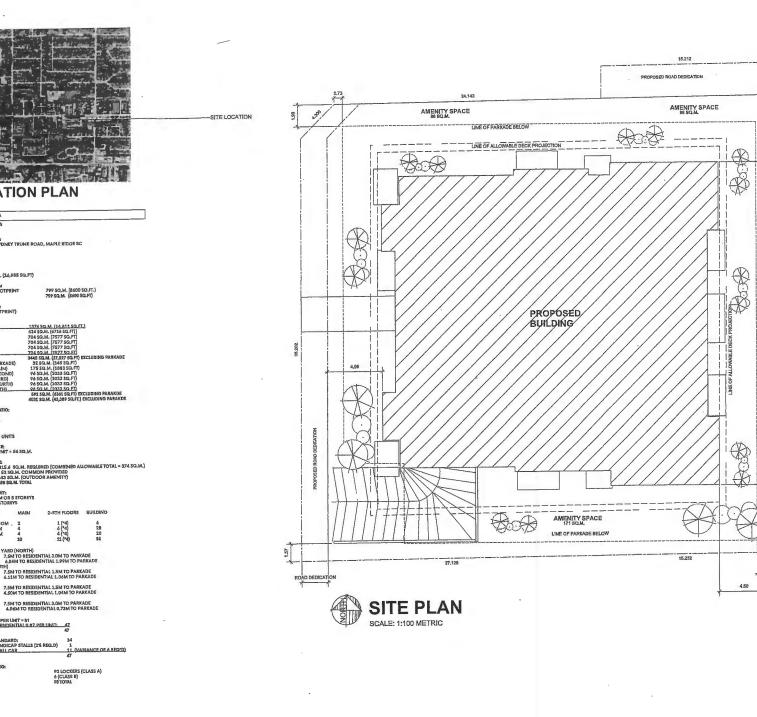
ADOPTED, the day of , 20

PRESIDING MEMBER

CORPORATE OFFICER



SCALE 1:2,500



6.04

44.195

LINE OF PARKADE BELOW

6,11

1.06

1.04



City of Maple Ridge

TO: FROM:	His Worship Mayor Michael Morden and Members of Council Chief Administrative Officer	MEETING DATE: FILE NO: MEETING:	May 21, 2019 2019-091-RZ C o W
SUBJECT:	First Reading Zone Amending Bylaw No. 7541-2019 21585 River Road		

EXECUTIVE SUMMARY:

An application has been received to rezone the subject property, located at 21585 River Road, from RS-1 (One Family Urban Residential) to RT-2 (Ground-Oriented Residential Infill) a newly adopted zone, to permit the development of courtyard residential housing. This project proposes a total of five dwelling units, clustered around a common courtyard.

Pursuant to Council resolution, this application is subject to the Community Amenity Contribution (CAC) Program, Policy 6.31, at a rate of \$4,100.00 per ground-oriented unit. Note that the original unit is exempt from the policy.

To proceed further with this application additional information is required as outlined below.

RECOMMENDATIONS:

That Zone Amending Bylaw No. 7541-2019 be given first reading; and

That the applicant provide further information as described on Schedules C, D and E of the Development Procedures Bylaw No. 5879–1999.

Salenco Developments Inc.

RS-1 (One Family Urban Residential)

RT-2 (Ground-Oriented Residential Infill)

38052

Urban Residential

Lot 274 District Lot 247 Group 1 New Westminster District Plan

DISCUSSION:

a) Background Context:

Applicant:

Legal Description:

OCP:

Existing:

Zoning:

Existing: Proposed:

Page 1 of 5

Surrounding Uses:

North:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
South:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
East:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
West:	Use: Zone: Designation:	Single Family Residential RS-1 (One Family Urban Residential) Urban Residential
Existing Use of Property: Proposed Use of Property: Site Area: Access: Servicing requirement:		Single Family Residential Multi-Family Residential 1,220 m² (0.3 acres) Lane Urban Standard

b) Site Characteristics:

The subject property is approximately 1,220 m² in area, and is bound by a single family lot to the north, a lane to the west, 216 Street to the east and River Road to the south (see Appendix B). The subject property is a corner lot, is relatively flat and has some vegetation and trees located throughout the property. There is an existing house on the subject property that will require removal as part of rezoning conditions.

C) **Project Description:**

The current application proposes to rezone the subject property from RS-1 (One Family Urban Residential) to RT-2 (Ground-Oriented Residential Infill) to permit the development of courtyard housing containing five units. The site is located on River Road, which is a Major Corridor as identified on Figure 4 of the Official Community Plan (OCP).

This new zone provides for the infill of ground-oriented residential buildings within established residential neighbourhoods in a form that will be incremental and sensitive to the existing and emerging context. Dwelling units for the new zone may be in one building with shared party walls to create triplexes or fourplexes that will resemble a single family home in order to fit seamlessly into neighbourhoods, or dwelling units may also be arranged individually or attached around a shared open space.

The applicant is proposing a courtyard development consisting of five units located within two buildings, where each dwelling unit is provided with ample greenspace and faces into a central courtyard. The development is located on a corner lot, therefore, the street presence of the buildings will appear as two separate single family dwellings, yet will contain five separate units. Access to the development will be located from the lane to the west.

At this time the current application has been assessed to determine its compliance with the OCP and provide a land use assessment only. Detailed review and comments will need to be made once full application packages have been received. A more detailed analysis and a further report will be required prior to second reading. Such assessment may impact proposed lot boundaries and yields, OCP designations and Bylaw particulars, and may require application for further development permits.

d) Planning Analysis:

Official Community Plan:

The OCP designates the subject property *Urban Residential – Major Corridor*, and development of the property is subject to the *Major Corridor* infill policies of the OCP. The *Major Corridor Residential* category identifies the types of ground-oriented housing forms which are encouraged along major road corridors, including fourplexes and courtyard residential development. These policies require that development be compatible with the surrounding neighbourhood, with particular attention given to site design, setbacks, and lot configuration with the existing pattern of development in the area. It is noted that one of the underlying principles in the OCP is to encourage growth within the Urban Area Boundary (UAB) and to accommodate growth through infill by promoting a mix of housing types and tenures (Policy 3-1). The proposed rezoning of the subject property to RT-2 (Ground-Oriented Residential Infill) aligns with the *Major Corridor Residential* infill policies.

Zoning Bylaw:

The current application proposes to rezone the subject property from RS-1 (One Family Urban Residential) to RT-2 (Ground-Oriented Residential Infill) to permit the development of courtyard housing. The minimum lot size for the current RS-1 (One Family Urban Residential) zone is 668 m² and the minimum lot size for Courtyard Housing in the RT-2 (Ground-Oriented Residential Infill) zone is 950 m². Any variations from the requirements of the proposed zone will require a Development Variance Permit application.

Courtyard Residential development is supported on this property because it will be similar in scale to the established single family neighbourhood. The maximum height requirements for courtyard residential developments are 9.5 m (31 ft.), which are less than today's new single family homes (11 m (36 ft.) maximum height). There is a recognition that existing older homes in the area were built to a lower height, therefore, the 9.5 m maximum height restriction for the RT-2 (Ground-Oriented Residential Infill) zone does not significantly alter the existing neighbourhood context. Each dwelling unit is also provided with ample greenspace with a central courtyard separating the two buildings. The development is also proposing one shared driveway, to be accessed from the lane. As the development is located on a corner lot, the street presence of the buildings will appear as two separate single family dwellings, but will actually contain five units between them. The density permitted for courtyard residential is not much greater than the surrounding area at 0.75 FSR, whereas single family homes are typically in the 0.6 FSR range.

Development Permits:

Pursuant to Section 8.7 of the OCP, a Multi-Family Development Permit application is required to ensure the current proposal enhances existing neighbourhoods with compatible housing styles that meet diverse needs, and minimize potential conflicts with neighbouring land uses.

Advisory Design Panel:

A Multi-Family Development Permit is required and must be reviewed by the Advisory Design Panel prior to second reading.

Development Information Meeting:

A Development Information Meeting is required for this application. Prior to second reading the applicant is required to host a Development Information Meeting in accordance with Council Policy 6.20.

e) Interdepartmental Implications:

In order to advance the current application, after first reading, comments and input, will be sought from the various internal departments and external agencies listed below:

- a) Engineering Department;
- b) Operations Department;
- c) Fire Department;
- d) Building Department;
- e) Parks Department;
- f) School District;
- g) Ministry of Transportation and Infrastructure; and
- h) Canada Post.

The above list is intended to be indicative only and it may become necessary, as the application progresses, to liaise with agencies and/or departments not listed above.

This application has not been forwarded to the Engineering Department for comments at this time; therefore, an evaluation of servicing requirements has not been undertaken. We anticipate that this evaluation will take place between first and second reading.

f) Development Applications:

In order for this application to proceed the following information must be provided, as required by Development Procedures Bylaw No. 5879–1999 as amended:

- 1. A complete Rezoning Application (Schedule B or Schedule C);
- 2. A Multi-Family Residential Development Permit Application (Schedule D); and
- 3. A Development Variance Permit (Schedule E);

The above list is intended to be indicative only, other applications may be necessary as the assessment of the proposal progresses.

CONCLUSION:

The development proposal is in compliance with the OCP, therefore, it is recommended that Council grant first reading subject to additional information being provided and assessed prior to second reading.

Prepared by: Adam Rieu Planning Technician

Reviewed by: Christine Carter, M.PL, MCIP, RPP Director of Planning

Approved by: Frank Quinn, MBA, P. Eng GM Public Works & Development Services

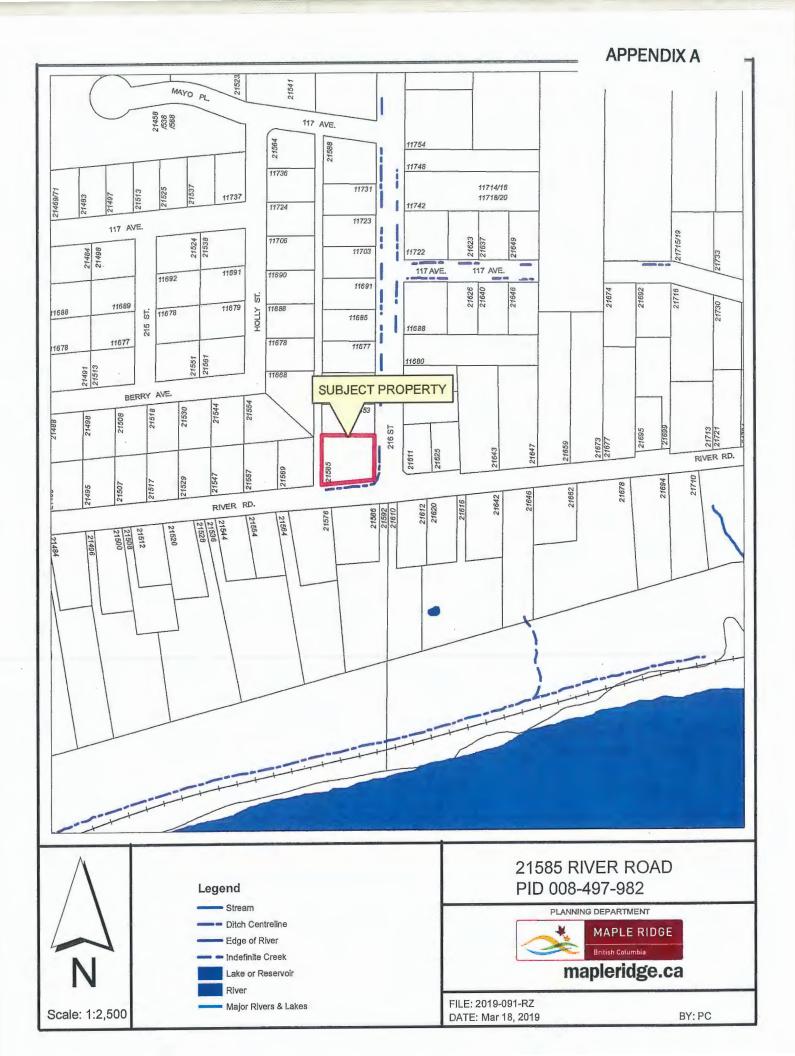
Concurrence: Kelly Swift, MBA Acting Chief Administrative Officer

The following appendices are attached hereto:

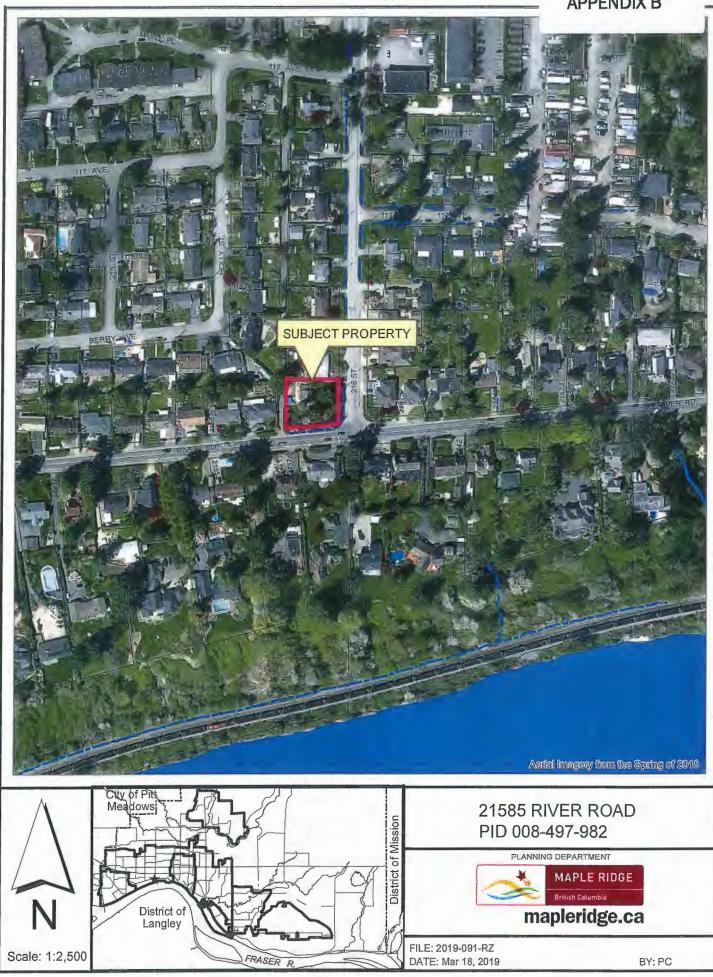
Appendix A – Subject Map

Appendix B – Ortho Map

- Appendix C Zone Amending Bylaw No. 7541-2019
- Appendix D Proposed Site Plan



APPENDIX B



CITY OF MAPLE RIDGE BYLAW NO. 7541-2019

A Bylaw to amend Map "A" forming part of Zoning Bylaw No. 3510 - 1985 as amended

WHEREAS, it is deemed expedient to amend Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended;

NOW THEREFORE, the Municipal Council of the City of Maple Ridge enacts as follows:

- 1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 7541-2019."
- 2. That parcel or tract of land and premises known and described as:

Lot 274 District Lot 247 Group 1 New Westminster District Plan38052

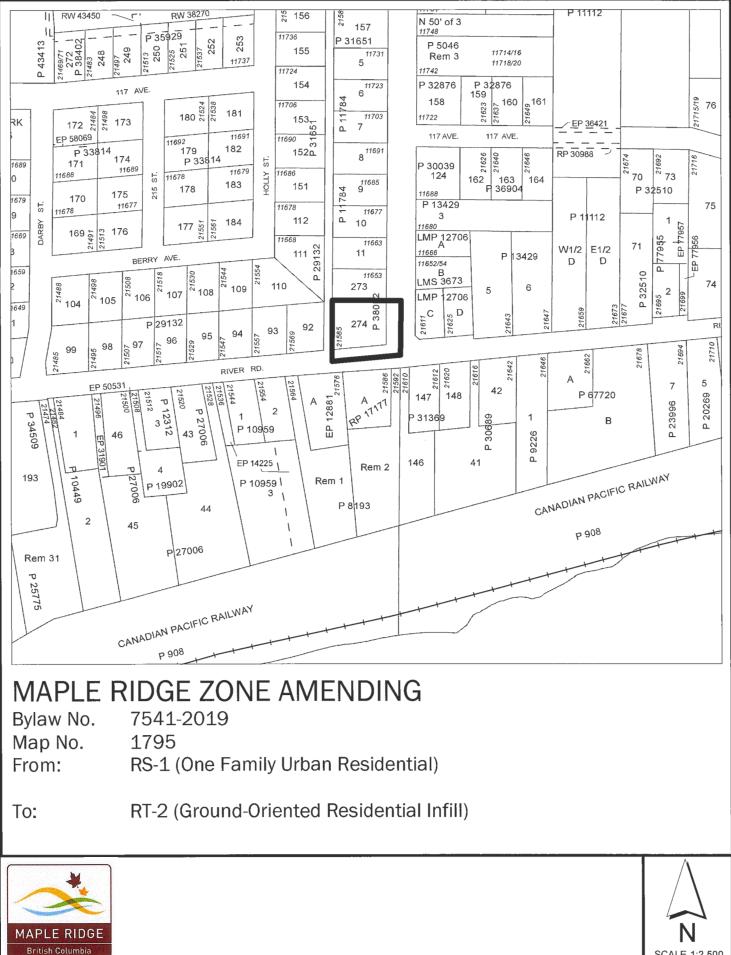
and outlined in heavy black line on Map No. 1795 a copy of which is attached hereto and forms part of this Bylaw, is hereby rezoned to RT-2 (Ground-Oriented Residential Infill).

3. Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended and Map "A" attached thereto are hereby amended accordingly.

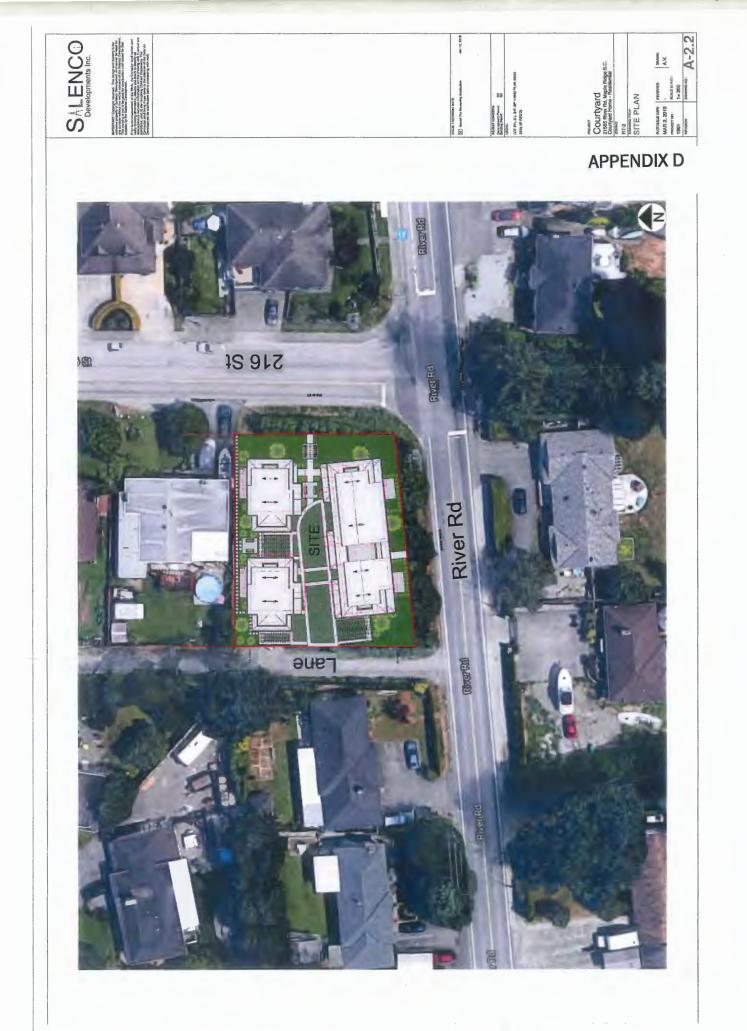
READ a first time the	day of	, 20	
READ a second time the	day of	, 20	
PUBLIC HEARING held the	day of	, 20	
READ a third time the	day of	, 20	
APPROVED by the Ministry of Transportation and Infrastructure this , 20			day of
ADOPTED, the day of	of , 20		

PRESIDING MEMBER

CORPORATE OFFICER



SCALE 1:2.500





City of Maple Ridge

to: From:	His Worship Mayor Michael Morden and Members of Council Chief Administrative Officer	MEETING DATE: FILE NO: MEETING:	May 21, 2019 2017-117-RZ C o W
SUBJECT:	Second Reading Zone Amending Bylaw No. 7351-2017; 11865, 11839, 11831 232 Street		

EXECUTIVE SUMMARY:

An application has been received to rezone the subject properties located at 11865, 11839, 11831 232 Street (Appendix A and B) from RS-1 (One Family Urban Residential) to RM-1 (Townhouse Residential) to permit the future construction of a 46 unit residential townhouse development. Council granted first reading to Zone Amending Bylaw No. 7351-2017 on September 19, 2017.

This application is in compliance with the OCP.

Pursuant to Council policy, this application is subject to the Community Amenity Contribution Program at a rate of \$4,100.00 per townhouse dwelling unit, for an estimated amount of \$188,600.00.

RECOMMENDATIONS:

- 1) That Zone Amending Bylaw No. 7351-2017 be given second reading, and be forwarded to Public Hearing;
- 2) That the following terms and conditions be met prior to final reading:
 - i) Registration of a Rezoning Servicing Agreement as a Restrictive Covenant and receipt of the deposit of a security, as outlined in the Agreement;
 - ii) Road dedication on 232 Street as required;
 - iii) Consolidation of the subject properties;
 - iv) Registration of a Restrictive Covenant for the Geotechnical Report, which addresses the suitability of the subject properties for the proposed development;
 - v) Registration of a Restrictive Covenant for protecting the Visitor Parking, and Stormwater Management;
 - vi) Removal of existing buildings;
 - vii) In addition to the site profile, a disclosure statement must be submitted by a Professional Engineer advising whether there is any evidence of underground fuel storage tanks on the subject properties. If so, a Stage 1 Site Investigation Report is required to ensure that the subject property is not a contaminated site.



viii) That a voluntary contribution, in the amount of \$188,600.00 be provided in keeping with the Council Policy with regard to Community Amenity Contributions.

DISCUSSION:

1) Background Context:

Applica	nt:	Planvan Development Consultants	
Legal D	escription:	Lot 1 Except: South 83 feet, Section 17 Township 12 New Westminster District Plan 12599; South 83 feet Lot 1 Section 17 Township 12 New Westminster District Plan 12599; Lot 35 Section 17 Township 12 New Westminster District Plan 24972.	
OCP:			
Zaning	Existing: Proposed:		Urban Residential No change
Zoning:	Existing: Proposed:		RS-1 (One Family Urban Residential) RM-1 (Townhouse Residential District)
Surrou	nding Uses: North:	Use: Zone:	Residential RS-1 (One Family Urban Residential) Urban Residential
	South:	Designation: Use: Zone: Designation:	Residential RS-1b (One Family Urban Medium Density Residential) Urban Residential
East:		Use: Zone: Designation:	Residential RS-1 and RM-1 (Townhouse Residential District) Urban Residential
	West:	Use: Zone: Designation:	Residential RS-1 Urban Residential
Existing Use of Property: Proposed Use of Property: Site Area: Access: Servicing requirement:		perty:	Single family dwelling Townhouses 1.075 ha (2.66 acres) 232 Street Urban Standard

2) Project Description:

The applicant proposes to rezone the subject property from RS-1 (One Family Urban Residential) to RM-1 (Townhouse Residential District). The proposed development is a 46 unit, three storey, three bedroom, townhouse development with a floor space ratio (FSR) of approximately 0.6. Each unit has a two car garage with no tandem stalls or parking aprons. Nine visitor parking spaces are located around the development site and 10 are required, therefore a variance will be required. Each unit has a usable open space either as a backyard or front yard, while the site also has common outdoor amenity (see Appendix D)

3) Planning Analysis:

i) Official Community Plan:

The development site is located within the Urban Area Boundary and is currently designated Urban Residential. No OCP amendment is required to support the proposed RM-1 (Townhouse Residential District) zoning.

The development of the property is subject to the Major Corridor infill policies of the OCP. These policies require that development be compatible with the surrounding neighborhood, with particular attention given to site design setbacks and lot configuration with the existing pattern of development in the area. The proposed rezoning to RM-1 (Townhouse Residential District) is in conformance with the *Urban Residential* designation and Major Corridor infill policies.

It is noted that one of the underlying principles in the OCP is to encourage growth within the Urban Area Boundary (UAB) and to accommodate growth through infill by promoting a mix of housing types and tenures (Policy 3-1). The Major Corridor Residential Infill and Compatibility Criteria all support a change in the unit type, and specifically cite that townhouse development is both compatible and desirable in the City (Policies 3-19 and 3-20).

ii) <u>Zoning Bylaw</u>:

The application is to rezone the subject properties located at 11831, 11839, and 11865 232 Street from RS-1 (One Family Urban Residential) to RM-1 (Townhouse Residential District) to permit a 46 unit residential townhouse development (see Appendix C)

iii) Off-Street Parking And Loading Bylaw:

Required parking for 46 unit residential townhouse development in the RM-1 (Townhouse Residential District) is 2.0 per unit, or 92 stalls. An additional parking requirement for visitor parking is 0.2 stalls per unit, or 10 stalls, 9 have been provided which include 2 disabled spaces. The minimum requirement of parking stalls required is 102 stalls. The proposal only contains 101 parking stalls being deficient by 1 visitor stall which will require a variance.

iv) Proposed Variances:

A Development Variance Permit application has been received for this project and involves the following relaxations:

Maple Ridge Zoning Bylaw No. 3510 -1985, Section 602, Part 6

- To vary the front yard setback from 7.5 metres to 6.38 metres to the building face;
- To vary the front yardsetback fron 7.5 metres to 4.5 metres to the porch element;
- To vary north setback from 6.0 metres to 4.57 metres; and
- To vary the south setback from 6.0 metres to 2.56 metres.

Maple Ridge Off-Street Parlong and Loading By,aw No. 4350-1990, Schedule "A"

• To vary the visitor parking requirement from 10 stalls to 9 stalls..

These relaxations are reasonable for this form of development. The requested variances to RM-1 (Townhouse Residential District) zone will be the subject of a future Council report.

v) <u>Development Permits</u>:

Pursuant to Section 8.7 of the OCP, a Multi-Family Development Permit application is required to ensure the current proposal enhances existing neighbourhoods with compatible housing styles that meet diverse needs, and minimize potential conflicts with neighbouring land uses.

vi) Advisory Design Panel:

The Advisory Design Panel (ADP) reviewed the form and character of the proposed development and the landscaping plans at a meeting held on November 21, 2018 (see Appendix E and F)

Following presentations by the project Architect and Landscape Architect, the ADP made the following resolution:

That File No. 2017-117-RZ be supported and the following concerns be addressed as the design develops and submitted to Planning staff for follow-up:

Landscape Comments:

- 1. Difficult to interpret planting symbols on the plan- adjust scale or line weights or otherwise make clearer;
- 2. Consider providing more private enclosed backyard on the West property line;
- 3. Provide a planting strip between the yard fence and peripheral walkway of the West facing units;
- 4. Provide a recess in the fence line at the private yard gate locations to reduce pedestrian conflicts;
- 5. Provide a tree in a raised planter at children's amenity space;
- 6. Consider providing a shade structure at children's playground;
- 7. Provide suitable edge conditions between the play tiles and sod with a detail shown on the plan;
- 8. Provide trellis to demarcate entrance gate for amenity space;
- 9. Provide wayfinding at pedestrian path entrances and additional signage to direct visitors to front door of all units, and peripheral ones in particular, from the visitor parking areas and the internal road system;
- 10. Address the difficult wayfinding conditions that will face visitors and pedestrians by ensuring a well-coordinated wayfinding signage system with lighting, landscaping and surfacing;
- 11. Pedestrian path between building 2 and 3 to be coordinated, continued and extended to sidewalk along 232 Street;
- 12. Provide sidewalk connections from hammer heads to perimeter path on the North side of the project;
- 13. Provide a continuous surface treatment or accent different than asphalt road surfacing to direct pedestrians safely through the site;
- 14. Ensure type and location of trees along neighbouring property lines align with glazing to provide additional privacy;
- 15. Provide for recycling and garbage at mailbox kiosk and amenity spaces;

- 16. Resolve the conflict for the mailbox kiosk shown on the site plan and the landscape plan;
- 17. Provide main entrance feature or identifier;
- 18. Reflect details as required of storm water management elements within landscape plans.

Architectural Comments:

1. Provide front door appeal to the sides facing north and south along the perimeter walkway.

The ADP concerns have been addressed and are reflected in the current plans. A detailed description of how these items were incorporated into the final design will be included in a future development permit report to Council.

vii) Development Information Meeting:

A Development Information Meeting was held at Golden Ears Elementary School on April 8, 2019. Approximately 27 people attended the meeting plus the architect, traffic consultant facilitator and owner. A summary of the main comments and discussions with the attendees was provided by the applicant and include the following main points:

Summary of verbal comments:

- Where will workers park during construction? Response: on a gravel pad on site.
- What is the setback on the south edge, and is a variance being requested? Response: South setback meets the City zoning. There is a variance request for one electrical closet.
- How will the on-site drainage work? Response: The site is designed to retain all of its onsite drainage, with a detention facility on-site under the common amenity area.
- How much visitor parking and resident parking? Response: Nine (9) visitor stalls are provided, as well as two stalls in garages for each unit. No tandem stalls are proposed.
- Verbal concerns were expressed on the amount of people not using their garage for a car, and therefore parking on the street, like 232 Street now. School is at capacity now.

Details of Written comments:

- ... will surely attract homebuyers either from Maple Ridge or other towns nearby. The townhomes are good as shown in the drawings, sq footage are basically normal, location is perfect in front of a school.
- gave us new perspective in housing needs in Lower Mainland. We hope the prices would be competitive to others.
- Needs more visitor parking 9 spots is not enough. 232 is already at a premium. The dogwood tree should be retained. BC's tree. The City needs to address sidewalks and pedestrian crossings. It is already very dangerous.
- Street parking along 232nd needs to be reviewed. Reviewing the parking of Residence of the Complexes along 232nd east side. Concerned with the addition of more students to the elementary school it is already at capacity.
- ... very good and convenient. The location is right beside a school and not very far from downtown Maple Ridge. Size of the townhouse is great but would like to see more rooms, even a basement suite.
- ... very nice future development. I am looking forward this area having more living options in this area which is needed.

- ... concern will be around street parking but more importantly the amount of traffic affecting the school crossing at 118th Avenue. I would want to see a pedestrian activated light put in by the City at that crossing.
- ...support this project for low cost housing this area need to cleanup and multifamily low cost
- ...support the project...this good devement near the school...good design and layout...
- Support the project because development in the area will help people to buy the homes.
- Support the project and I am in favour of the more affordable housing.
- Support the development because townhouses are good for the first time home buyers.
- I support the development because of the good location.
- We are interested to see the development in the area so that more families can have their own homes.
- I support the development. Affordable housing and good location.

4) Interdepartmental Implications:

i) Engineering Department:

The applicant's engineer will have to confirm that there is sufficient capacity within the City's storm and sanitary sewer, if upgrades are required they will be the sole responsibility of the applicant. Road dedication of 3 m along 232 Street is required the length of the property.

ii) Fire Department:

The proposed building will be reviewed in more detail at the building permit stage.

5) School District No. 42 Comments:

Pursuant to Section 476 of the *Local Government Act*, consultation with School District No. 42 is required at the time of preparing or amending the OCP. A referral was sent to School District No. 42 and the following response was received.

"The proposed application would affect the student population for the catchment areas currently served by Golden Ears Elementary and Thomas Haney Secondary School.

Golden Ears Elementary has an operating capacity of 523 students. For the 2017-18 school year the student enrolment at Golden Ears Elementary was 491 students (94% utilization) including 178 students from out of catchment.

Thomas Haney Secondary School has an operating capacity of 1200 students. For the 2017-18 school year the student enrolment at Thomas Haney Secondary School was 1162 (97% utilization) including 724 students from out of catchment."

CONCLUSION:

It is recommended that second reading be given to Zone Amending Bylaw No. 7351-2017, and that application 2017-117-RZ be forwarded to Public Hearing.

Prepared by: Wendy Cooper. Planner Christine Carter, M.PL, MCIP, RPP Reviewed by: Director of Planning \$ Approved by: Frank Quinn, MBA, P. Eng GM Public Works & Development Services Kelly Swift, MBA Concurrence: Acting Chief Administrative Officer The following appendices are attached hereto:

Appendix A - Subject Map

Appendix B - Ortho Map

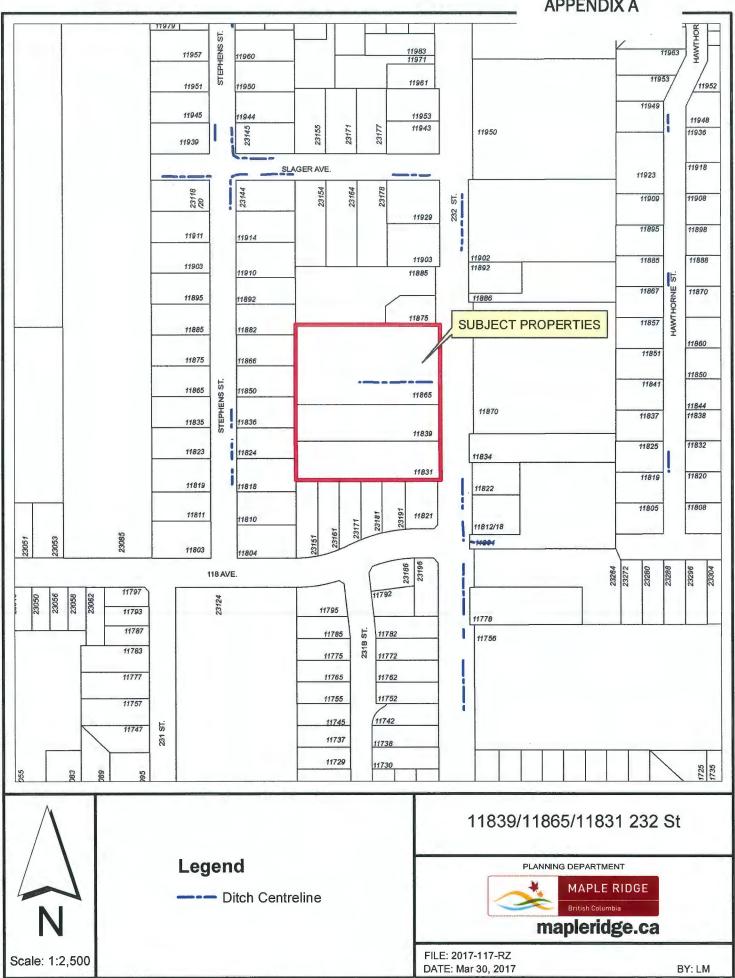
Appendix C – Zone Amending Bylaw No. 7351-2017

Appendix D - Site Plan

Appendix E – Building Elevation Plans

Appendix F – Landscape Plan

APPENDIX A





CITY OF MAPLE RIDGE

BYLAW NO. 7351-2017

A Bylaw to amend Map "A" forming part of Zoning Bylaw No. 3510 - 1985 as amended

WHEREAS, it is deemed expedient to amend Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended;

NOW THEREFORE, the Municipal Council of the City of Maple Ridge enacts as follows:

- 1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 7351-2017."
- 2. Those parcels or tracts of land and premises known and described as:

Lot 1 EXCEPT: South 83 Feet, Section 17 Township 12 New Westminster District Plan 12599;

South 83 Feet Lot 1, Section 17 Township 12 New Westminster District Plan 12599; Lot 35 Section 17 Township 12 New Westminster District Plan 24972;

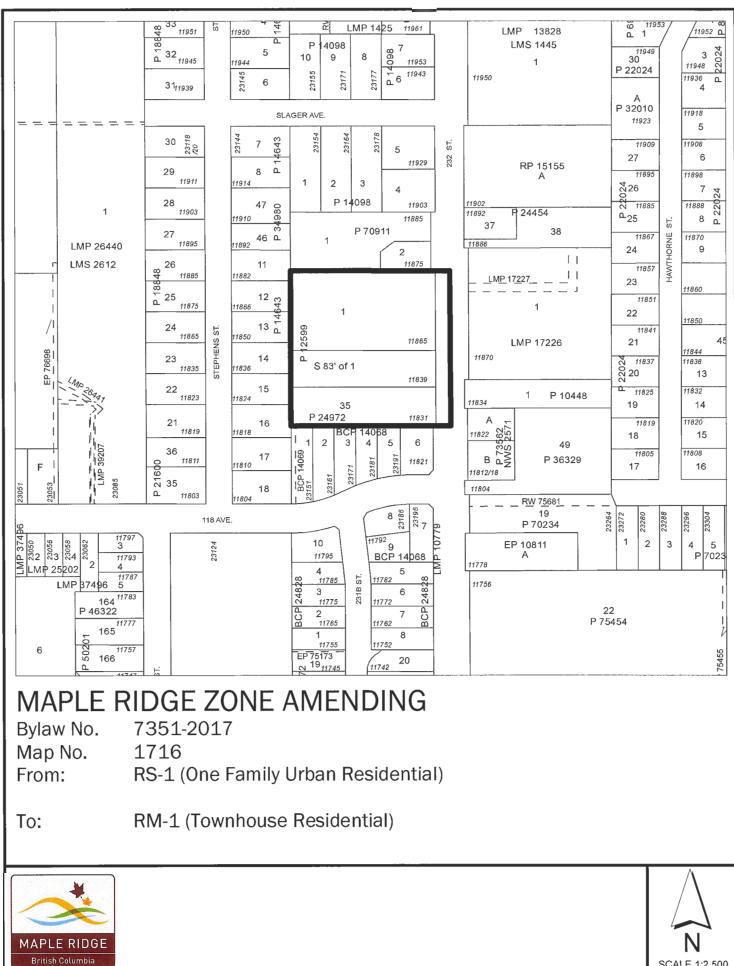
and outlined in heavy black line on Map No. 1716 a copy of which is attached hereto and forms part of this Bylaw, are hereby rezoned to RM-1 (Townhouse Residential).

3. Maple Ridge Zoning Bylaw No. 3510 - 1985 as amended and Map "A" attached thereto are hereby amended accordingly.

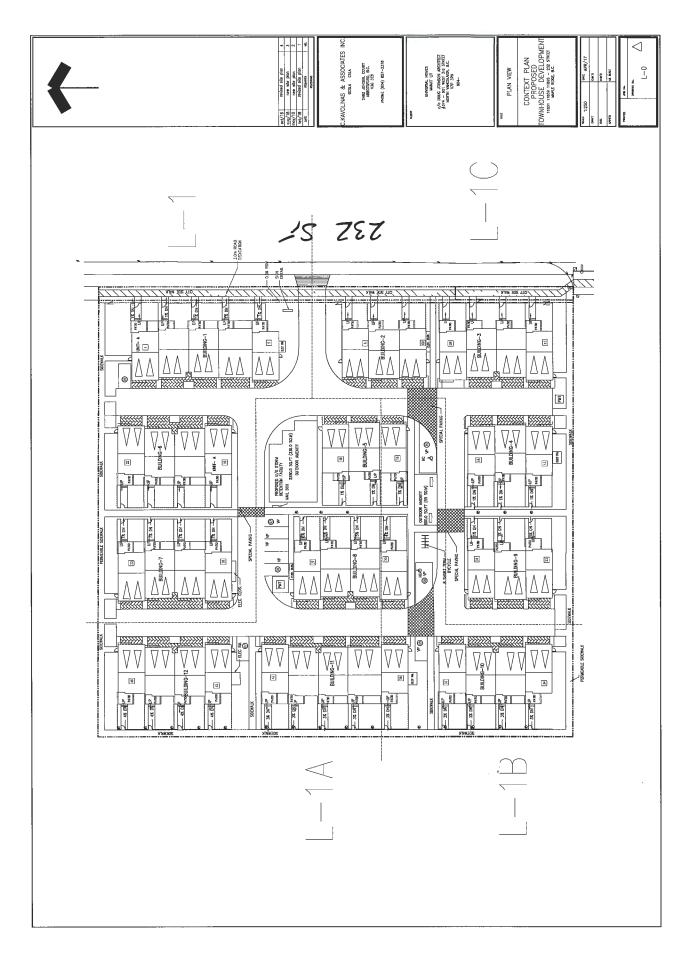
READ a first time the 19th day of September, 2017.

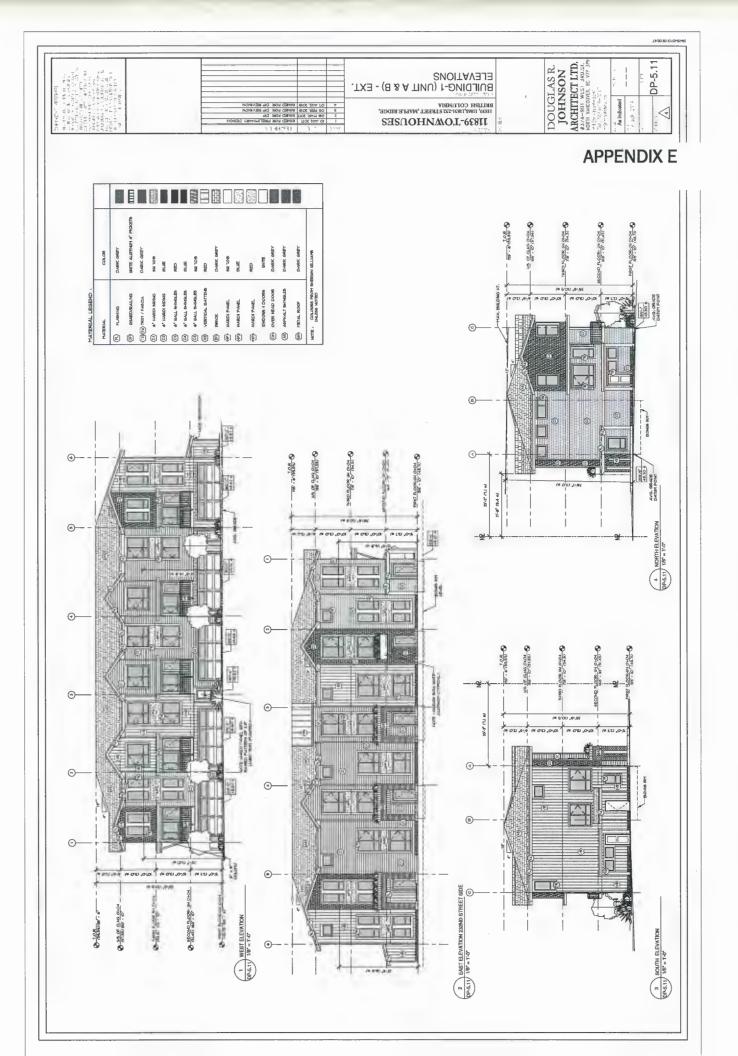
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PUBLIC HEARING held	d the day of	, 20	
READ a third time the	day of	, 20	
ADOPTED the da	ay of	, 20	

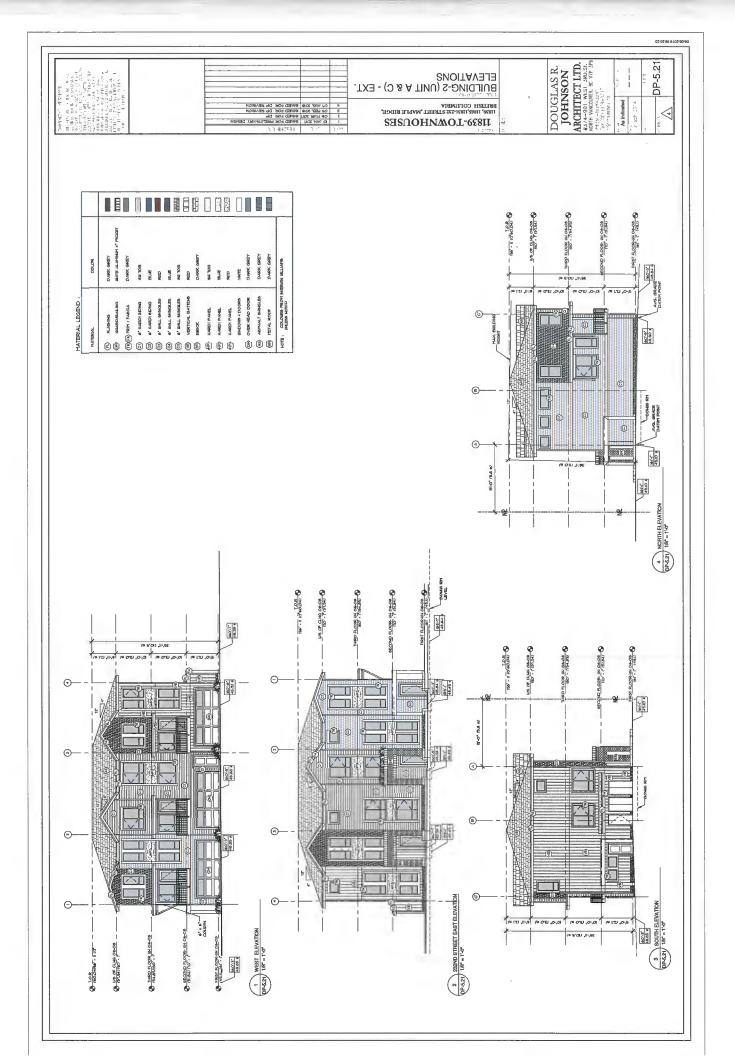
PRESIDING MEMBER

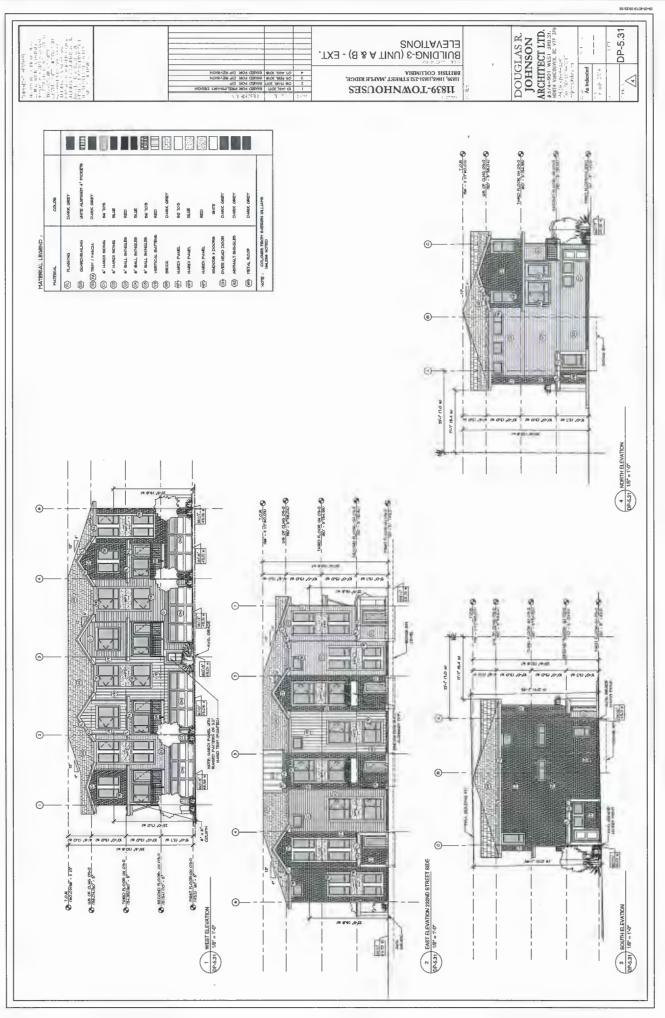


APPENDIX D

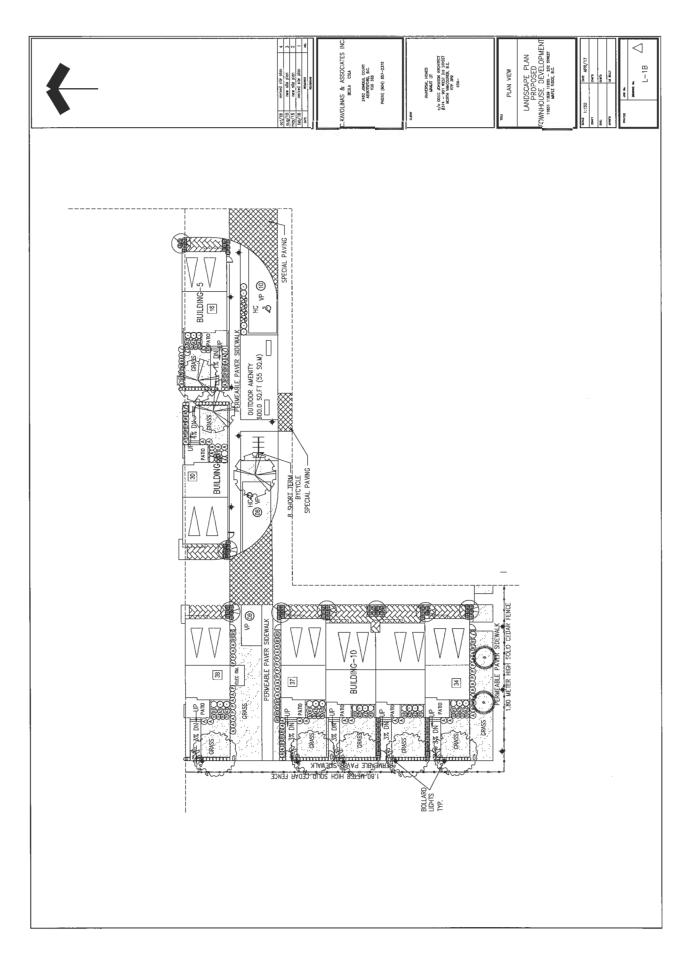


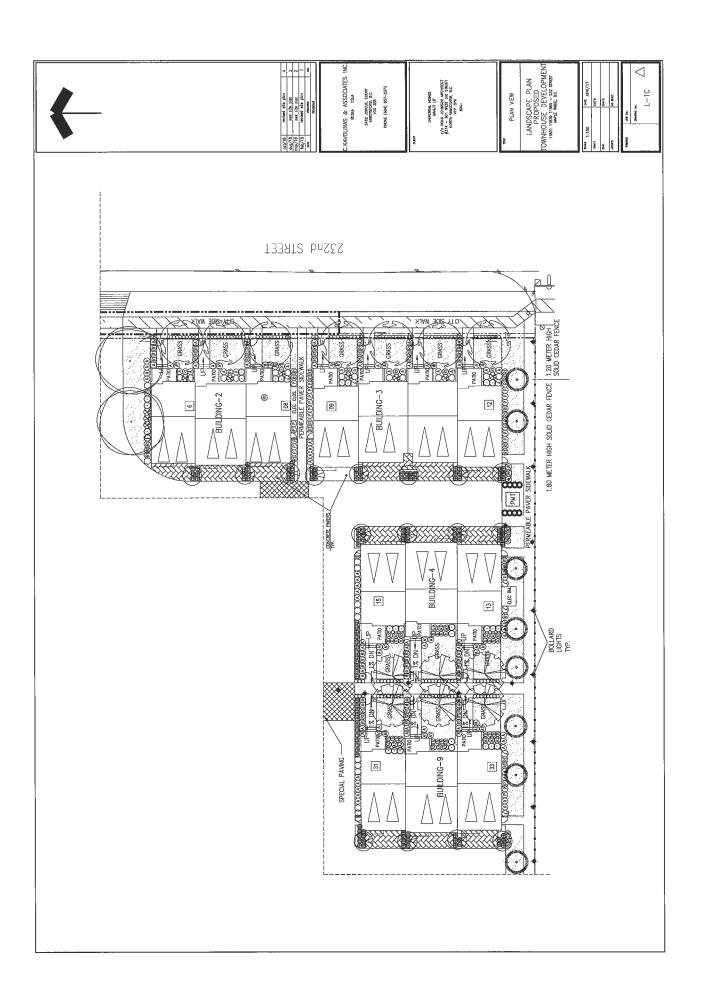


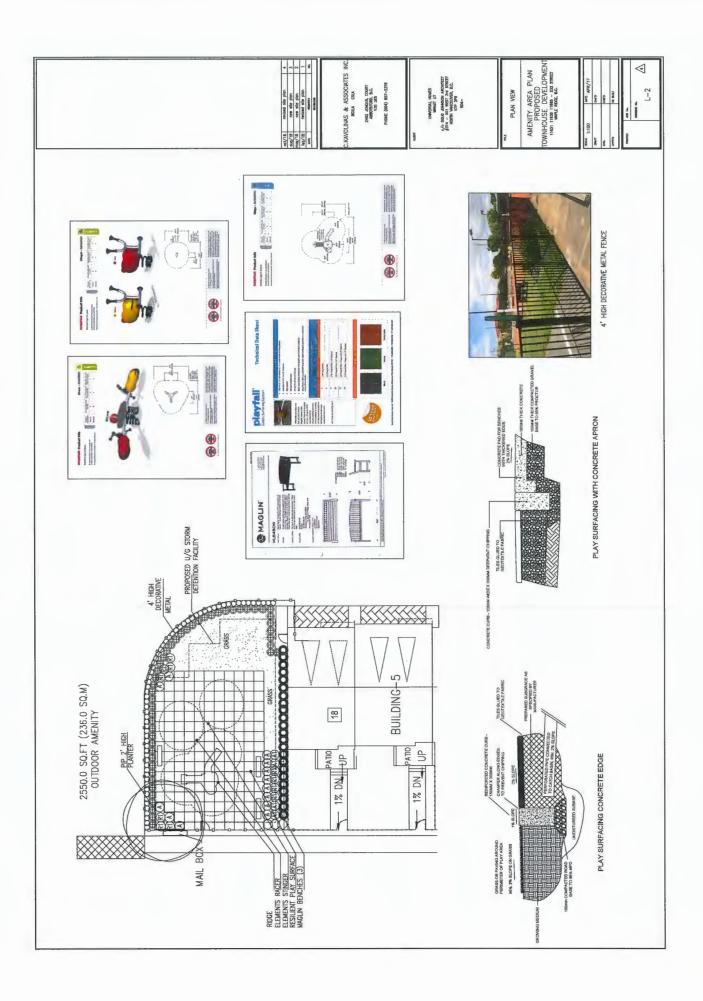


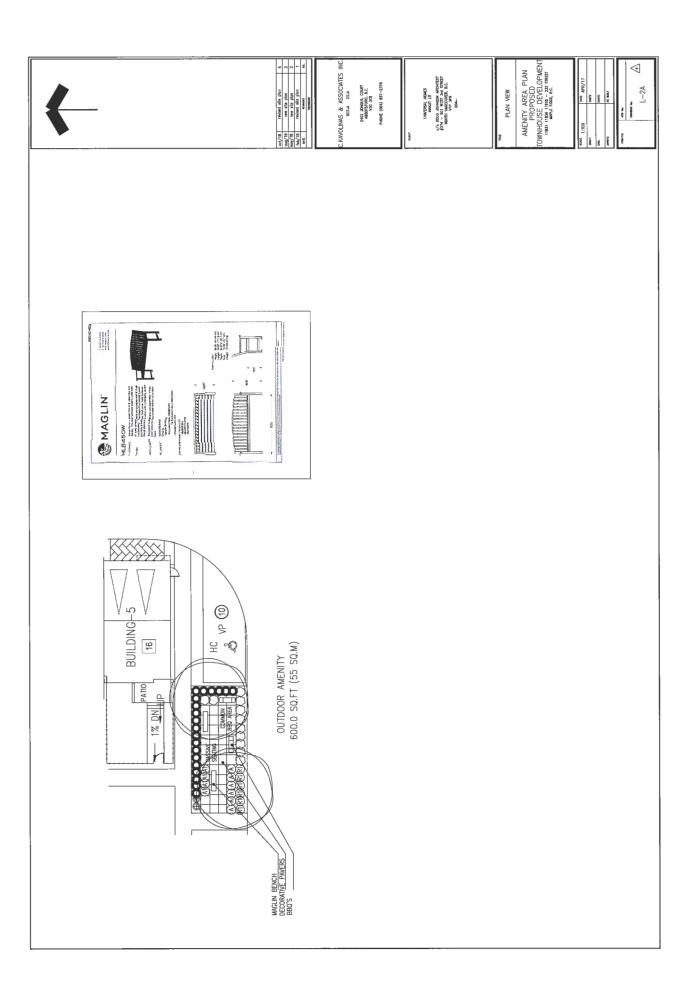


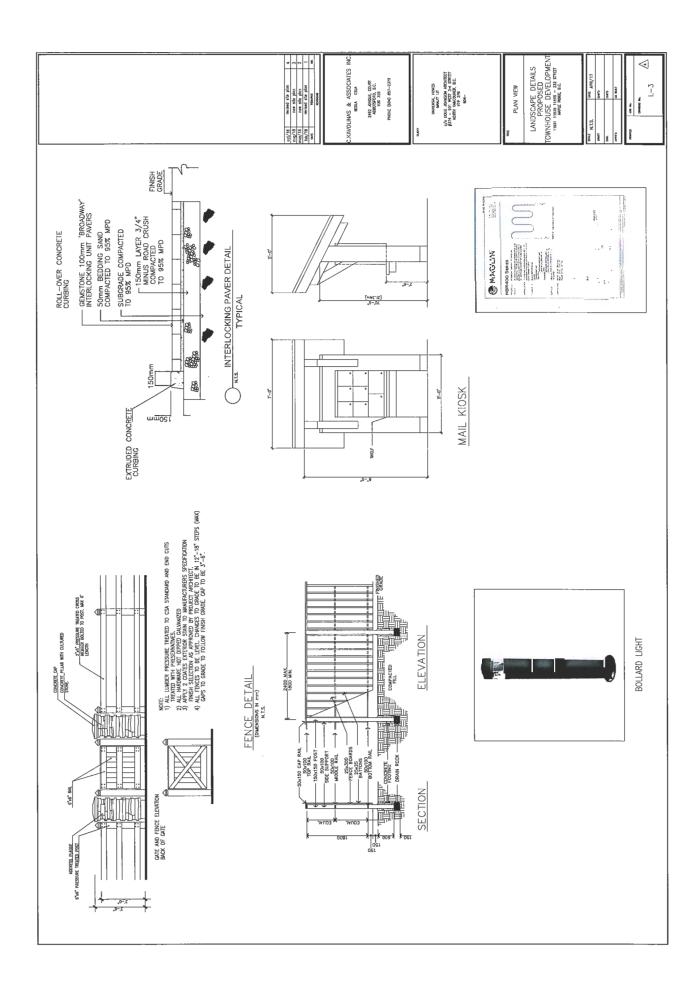
APPENDIX F











Britis	PLE RIDGE h Columbia eridge.ca	City of M	laple Ridge	
TO: FROM:	His Worship Mayor Michael and Members of Council Chief Administrative Officer	Morden	MEETING DATE: FILE NO: MEETING:	May 21, 2019 11-5600-05 COW
SUBJECT:	Drinking Water Quality Repo	ort 2018		

EXECUTIVE SUMMARY:

The City of Maple Ridge (City) operates a Municipal Water Utility under permit by the Fraser Health Authority (FHA) that requires an annual report be prepared and submitted to the FHA, and be available to the public.

The attached "Drinking Water Quality Report 2018" includes an outline of the regulatory framework, water quality monitoring data for 2018, and explanatory comments on the data. A copy of the report will be placed in the public library and on the corporate website.

In 2018, water quality within the City's municipal water distribution system met the standards detailed in the *BC Drinking Water Protection Regulation* as well as Health Canada's recommendations for drinking water quality, with the exception of temperature.

RECOMMENDATION:

This report is submitted for information.

DISCUSSION:

a) Background Context:

The City operates a Municipal Water Utility under the provisions of the provincial Local Government Act, and under permit by the Provincial Ministry of Health Services - Fraser Health Authority (FHA). Water quality requirements are stipulated by the Provincial Drinking Water Protection Regulations and administered by the FHA.

The City, as a distributor and purveyor of drinking water, is reliant on the Greater Vancouver Water District (GVWD) for source water quality control. While Coquitlam Lake is the primary source of water delivered to Maple Ridge, the GVWD can supply Maple Ridge with water from Seymour and Capilano Lakes in the event of disruptions at Coquitlam Lake.

The City's drinking water system operating permit requires a water quality monitoring program and that an annual report be prepared and submitted. While the monitoring program provides a representative picture of drinking water quality within municipal mains, it does not provide a definite picture of drinking water quality within buildings, where water quality can change significantly due to pipe materials, standing times, temperature, and other factors. It can be assumed that samples taken within buildings may be of different quality than those taken from municipal mains. The City is not responsible for testing/verifying water quality on private property.

Samples from 20 locations in the distribution system are taken weekly and analyzed by Metro Vancouver's laboratory staff. Test results are sent to the Operations and Engineering Departments as well as the FHA for review. In 2018, no samples tested positive for E. coli, and no samples exceeded the *BC Drinking Water Protection Regulation* microbiological standard of 10 total coliforms per 100mL.

In monitoring unregulated drinking water quality parameters, the City follows the 2018 Water *Quality Monitoring and Reporting Plan for Metro Vancouver (GVWD) and Local Government Members* and compares laboratory results to Health Canada's recommendations for drinking water quality. In 2018, City water did not exceed any maximum limits recommended by Health Canada for unregulated parameters, with the exception of temperature.

b) Strategic Alignment:

Financial Management

The City continues to provide high quality services to citizens and customers in a cost effective and efficient manner. The annual water quality monitoring program is intended to ensure that the water delivered by the City's utility is of high quality.

<u>Growth</u>

The Strategic Plan seeks to protect and manage municipal infrastructure through the preparation of appropriate plans to ensure maintenance of the system. A systematic water quality monitoring program assists in ensuring that the water distribution system is effectively managed and maintained.

Inter-Government Relations

The Strategic Plan directs the City to continue building strong relationships with the region and other levels of government. The City currently benefits from good working relationships with the GVWD and FHA in the cooperative provision of quality drinking water. The annual monitoring program and report facilitates this effective relationship.

c) Citizen/Customer Implications:

Maple Ridge water utility customers expect that the investment in the water distribution network be maintained to provide safe, reliable and high quality water. The annual reporting of water quality is a means to meet the accountability that customers expect.

d) Interdepartmental Implications:

As part of the Public Works and Development Services Division, the Engineering and Operations Departments collaborate in the Water Utility's planning, management, operation, maintenance and water quality reporting to meet water quality objectives.

e) Policy Implications:

The reporting of water quality is consistent with the public policy approach of transparency and accountability as well as meeting the requirements of the FHA.

CONCLUSION:

The City monitored drinking water quality in 2018 in accordance with the Provincial mandate and the 2018 Water Quality Monitoring and Reporting Plan for Metro Vancouver (GVWD) and Local Government Members. Testing indicated that all samples met BC Drinking Water Protection Regulation standards and did not exceed Health Canada guidelines with the exception of temperature. The "Drinking Water Quality Report 2018" documents the water quality monitoring program and test results. The document was prepared in accordance with Fraser Health Authority requirements and will be available to the public.

Joe Dingwall, PEng. Prepared by: Manager of Utility Engineering Reviewed by: David Pollock, PEng. **Municipal Engineer** Approved by: Frank Quinn, MBA, PEng. General Manager Public Works & Development Services Kelly Swift, MBA Concurrence: Acting Chief Administrative Officer

Attachments:

(A) Drinking Water Quality Report 2018



CITY OF MAPLE RIDGE DRINKING WATER QUALITY REPORT

2018



May 2019

Table of Contents

List of	Ab	breviations	.2
Execu	tive	e Summary	.3
1.0	Int	troduction	.4
2.0	Ba	ackground	.5
2.1		Source Water	.5
2.2		Distribution System	.6
2.3		Facility Maintenance	.6
2.4		Re-Chlorination Stations	.6
3.0	Re	egulated Drinking Water Quality Parameters	.7
3.1		Water Quality Sampling and Monitoring	.7
3.2		Bacteriological Monitoring and Results	.7
3	.2.1	1 Escherichia Coli	.7
3	.2.2	2 Total Coliform	.8
3	.2.3	3 Frequency of Monitoring Samples	.9
4.0	Un	nregulated Drinking Water Quality Parameters	10
4.1		Free Chlorine	10
4.2		Turbidity	10
4.3		Heterotrophs	11
4.4		Disinfection Byproducts	12
4.5		pH	12
4.6		Metals	12
4.7	4.7 Temperature		
4.8	,	Vinyl Chloride	13
5.0	Re	esponse to Potential Contamination	13
6.0	Pu	ublic Health Message from the Medical Health Officer	14
7.0	Со	onclusion	14
Appen	dix	A: Sampling Station Locations	15
Appen	dix	B: Residual Free Chlorine Figures	17
Appen	dix	C: Disinfection By-Products and pH	21
Appen	dix	D: Metals and Vinyl Chloride	23
Appen	dix	E: Free Chlorine and Turbidity Charts	26
Appen	dix	F: Weekly Sample Lab Results	37
Appen	dix	G: Preventing Water-Borne Infections for People with Weakened Immune Systems	35

List of Abbreviations

L	=	litre
mL	=	milliliter
g	=	gram
mg	=	milligram
μg	=	microgram
ppb	=	parts per billion
°C	111	degree Celsius
E. coli	=	Escherichia coli
NTU	=	Nephelometric Turbidity Units
HPC	=	heterotrophic plate count
CFU	=	colony-forming unit
THM	=	trihalomethane
HAA	=	haloacetic acid
USEPA	=	United States Environmental Protection Agency
Cl_2	=	chlorine
MF	=	membrane filtration
EOCP		Environmental Operators Certification Program

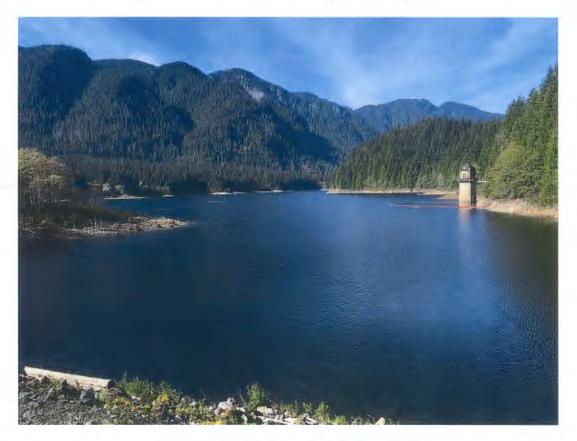
Executive Summary

The City of Maple Ridge (City) is a distributor of water that is supplied and treated by Metro Vancouver from its Coquitlam Lake source. In 2018, the City distributed water to over 80,000 people.

In accordance with the requirements of the *BC Drinking Water Protection Regulation*, the City sends drinking water samples from 20 locations to a laboratory for analysis every week. Test results are communicated to the City and the Fraser Health Authority and documented in this annual report. In 2018, the City's water met all regulatory requirements for drinking water quality set out in the *BC Drinking Water Protection Regulation*:

- No samples tested positive for E. coli
- For each 30-day period, over 90% of samples had 0 total coliform per 100mL, and no sample had more than 10 total coliform per 100mL

In monitoring unregulated drinking water quality parameters, the City follows the 2018 Water *Quality Monitoring and Reporting Plan for Metro Vancouver (GVWD) and Local Government Members* and compares laboratory results to Health Canada's recommendations for drinking water quality. In 2018, City water did not exceed any maximum limits recommended by Health Canada for the unregulated parameters, with the exception of temperature.



Coquitlam Lake (Source Water for Maple Ridge)

1.0 Introduction

The City operates a Municipal Water Utility under the provisions of the provincial Local Government Act, the BC Drinking Water Protection Act, and the BC Drinking Water Protection Regulation. These obligate the City to meet several requirements, including:

- Operating the utility under a permit granted by the Provincial Ministry of Health Services
- Monitoring water quality

The roles and responsibilities for the Province, Fraser Health Authority, and Metro Vancouver/City of Maple Ridge (Water System Owners) are shown in Figure 1.



Figure 1: Agency Responsibilities for Water Quality

2.0 Background

The City is supplied with water from protected and undeveloped watersheds. Treated drinking water is conveyed to Maple Ridge through large diameter Metro Vancouver transmission mains and distributed to business and residents through approximately 400km of smaller diameter water mains.

2.1 Source Water

Metro Vancouver supplies water to the City through a series of pipes linking Maple Ridge to the Coquitlam, Seymour and Capilano watersheds (Figure Two). While the Coquitlam watershed is the primary source of water for Maple Ridge, Metro Vancouver has the ability to convey water from the Seymour/Capilano watersheds to Maple Ridge in the event of a service disruption at the Coquitlam source. Metro Vancouver treats drinking water at the Coquitlam reservoir using a combination of ozone and ultra violet (UV) light. Chlorine is added to water as it leaves the treatment plant in order to preserve the quality of drinking water as it travels through the distribution system. Additional information on how Metro Vancouver treats source water is available at <u>www.metrovancouver.org</u> (search the website using the key words "drinking water treatment processes").

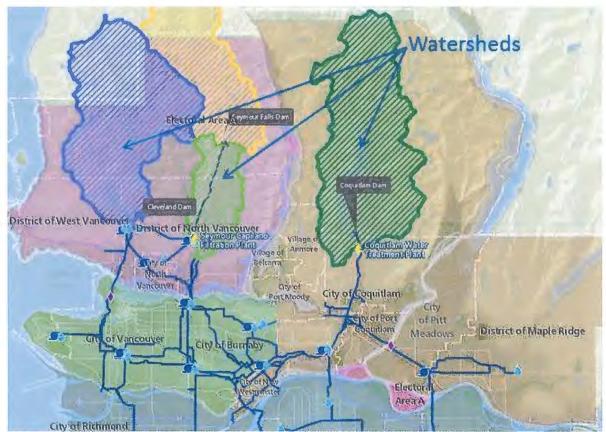


Figure 2: Regional Water Supply System (source: https://gis.metrovancouver.org/maps/Water)

2.2 Distribution System

The City distributes water to businesses, institutions and over 80,000 residents. Water distribution infrastructure includes approximately 400km of water mains, 19,000 service connections, 9 pump stations and 10 reservoir tanks. The Municipality also operates 8 re-chlorination stations to boost residual chlorine levels within the distribution system.

The distribution system is managed by a team of professionals within the City's Public Works and Development Services Division, under the leadership of the General Manager of Public Works and Development Services. System operators are *Environmental Operators Certification Program Level 4* compliant. The system is regulated by Maple Ridge's Water Service Bylaw 6002-2001.

2.3 Facility Maintenance

Water main flushing is conducted annually as a means of cleaning water mains. Flushing involves manipulating valves and discharging water through fire hydrants or blow off points. The discharged water carries sediment and other solids with it, thus cleaning the mains. The City cleaned 57km of water mains using this method in 2018. The City also cleans its reservoir tanks on a 5 year cycle. In 2018, the City cleaned the Grant Mountain Reservoir.

2.4 Re-Chlorination Stations

Chlorine levels are continually monitored at 8 re-chlorination stations throughout the distribution system. Additional chlorine is automatically injected into the drinking water at these locations if detected chlorine levels are low. The re-chlorination stations are inspected daily and adjusted as necessary.

3.0 Regulated Drinking Water Quality Parameters

The Province sets out drinking water quality requirements in its *Drinking Water Protection Regulation*. This section reports on the quality of the City's drinking water in relation to those regulations.

3.1 Water Quality Sampling and Monitoring

Water quality is monitored for regulatory compliance on a weekly basis at the City's 20 sampling locations. Sampling locations and codes are shown graphically in Appendix A. Samples are sent to the Metro Vancouver laboratory for analysis. Results are communicated to City and Fraser Health staff. Responses to undesirable test results can range from flushing water mains to possibly issuing a boil water advisory, depending on the water quality parameter of concern. If significant contamination were detected in a sample, further samples would be taken to confirm results before a large scale response is initiated.

The monitoring program indicates drinking water quality within municipal water mains. However, it does not provide information on the quality of drinking water within buildings where water quality can change significantly due to pipe material, standing time, temperature, and other factors. It can be assumed that samples taken within buildings would have a different quality of water compared to samples taken directly from municipal water mains. The City is not responsible for water quality on private property.

3.2 Bacteriological Monitoring and Results

The *BC Drinking Water Protection Regulation* requires the City to carry out routine sampling and testing for Escherichia coli (E. coli) and total coliform bacteria. These are considered "indicator organisms" because their presence or absence provides an indication of overall water quality. Figures 3 and 4 show Metro Vancouver Laboratory technicians processing a water sample and testing it for the presence of bacteria.

3.2.1 Escherichia Coli

E. coli is a type of coliform bacteria present exclusively in the feces of humans and other mammals. The existence of E. coli in a water sample indicates recent fecal contamination and the possible presence of intestinal disease-causing bacteria, viruses, and protozoa. The BC Drinking Water Protection Regulation standard for E. coli is none detectable per 100 mL. In 2018, no samples tested positive for E. coli.

City of Maple Ridge Drinking Water Quality Report 2018



Figure 3: Metro Vancouver Laboratory technician processing water sample in preparation for coliform bacteria check



Figure 4: Metro Vancouver Laboratory technician checking water sample for coliform bacteria

3.2.2 Total Coliform

The total coliform group includes various types of bacteria with similar characteristics. Members of this group range from being fecal-specific, such as E. coli, to being widely distributed throughout water, soil, and vegetation. The *BC Drinking Water Protection Regulation* standards for total coliform are described in Table 1.

Table 1: BC Drinking Water Protection	Regulation Standards for Total Coliform
---------------------------------------	--

Occurrence	Standard
More than 1 sample in a 30 day	At least 90% of samples have 0 total coliform per 100mL
period	and no sample has more than 10 total coliform per 100mL

In 2018, two samples had detectable total coliform per 100mL. However, for each 30 day period, over 90% of samples had 0 total coliform per 100mL. Also, no sample had more than 10 total coliform per 100mL. Thus City water met *BC Drinking Water Protection Regulation* requirements for total coliform bacteria in 2018.

Upon receiving results indicating the presence of total coliforms, City crews are dispatched to flush water mains in the area. After flushing is completed, additional samples are sent to the Metro Vancouver Laboratory for analysis to confirm water quality.

Table 2 lists the annual number of samples found to contain total coliforms between 2008 and 2018.

Table 2: Total Colifor	m Results by Year
Year	Number of Samples with Total Coliform
2018	2
2017	2
2016	0
2015	3
2014	0
2013	0
2012	2
2011	1
2010	3
2009	1
2008	0

Table Q. Tatal Californi Degulta by Veer

3.2.3 Frequency of Monitoring Samples

The monitoring frequency for the detection of E. coli and total coliforms is stipulated by the BC Drinking Water Protection Regulation. Current requirements are identified in Table 3. With a total of 20 weekly sampling sites at various points in the City's water distribution system, the average number of monthly samples (87) exceeds the stipulated value of 80 (based on a directly serviced population of approximately 80,000). As the City's population grows, additional sampling sites will be added.

Population Served	Target No. of Samples per Month
Less than 5,000	4
5,000 to 90,000	1 per 1,000 of population
More than 90,000	90 plus 1 per 10,000 of population in excess of 90,000

4.0 Unregulated Drinking Water Quality Parameters

This section reports on water quality parameters that are not regulated through legislation.

4.1 Free Chlorine

In the *Guidelines* for *Canadian Drinking Water Quality*, Health Canada states that for health considerations, a "guideline value [maximum acceptable concentration level for chlorine] is not necessary due to low toxicity at concentrations found in drinking water."

With respect to a minimum chlorine concentration, no regulations exist for British Columbia. However, Health Canada reports the following:

"The U.S. Environmental Protection Agency (EPA) Surface Water Treatment Rule requires a minimum disinfectant residual of 0.2 mg/L for water entering the distribution system and that a detectable level be maintained throughout the distribution system. The World Health Organization (WHO) has suggested that, for areas with little risk of cholera or related outbreaks, a free chlorine residual range of 0.2-0.5 mg/L be maintained at all points in the supply. In general, a free chlorine residual of 0.2 mg/L is considered a minimum level for the control of bacterial regrowth in the distribution system."

Residual chlorine concentrations are affected by various parameters such as water age, turbidity, pipe material, and temperature.

Table 4 and the maps in Appendix B show that:

- In 2018, the average free chlorine residual at all stations in Maple Ridge was greater than 0.2 mg/L.
- Station 441 had the fewest number of samples with chlorine residuals greater than 0.2 mg/L.
- 7 stations had samples with chlorine levels less than 0.2 mg/L.

Detailed free chlorine residual data is charted in Appendix E and tabulated in Appendix F.

4.2 Turbidity

Turbidity, measured in Nephelometric Turbidity Units (NTU), is a measure of water clarity. There are no provincial guidelines for turbidity within a distribution system. Average turbidity values at sample stations are documented in Table 4. Detailed turbidity data for 2018 is charted in Appendix E and tabulated in Appendix F.

Turbidity levels within the distribution system vary over time. Higher levels may be associated with turbidity in the source water or local system events such as high flow rates from unidirectional flushing, fire-fighting, or water main breaks. In the event that a high level of turbidity is detected, the City will determine whether this is expected due to system operations. If the event is unexpected, the City will confirm the turbidity level and flush mains should high turbidity persist.

¹ Guidelines for Canadian Drinking Water Quality - Guideline Technical Document - Chlorine - (Health Canada, 2009)

	1	Table 4: 201	8 Chlorine	Residual and Tur	bidity Results	by Site	
Station	Total Samples Taken	Average Free Chlorine in mg/L	Average Turbidity in NTU	Samples Taken with Free Chlorine Greater Than or Equal to 0.2 mg/L (#)	Samples Taken with Free Chlorine Less Than 0.2 mg/L (#)	Samples Taken with Free Chlorine Greater Than or Equal to 0.2 mg/L (%)	Samples Taken with Free Chlorine Less Than 0.2 mg/L (%)
MPR-400	52	0.51	0.32	51	1	98%	2%
MPR-431	52	0.95	0.42	52	0	100%	0%
MPR-432	52	0.67	0.41	51	1	98%	2%
MPR-433	52	0.76	0.41	52	0	100%	0%
MPR-434	52	0.62	0.41	52	0	100%	0%
MPR-435	52	0.65	0.52	52	0	100%	0%
MPR-436	52	0.68	0.35	48	4	92%	8%
MPR-437	52	1.00	0.42	52	0	100%	0%
MPR-438	52	0.96	0.46	52	0	100%	0%
MPR-439	52	0.90	0.37	52	0	100%	0%
MPR-440	52	0.88	0.56	52	0	100%	0%
MPR-441	52	0.36	0.38	38	14	73%	27%
MPR-442	52	0.69	0.55	52	0	100%	0%
MPR-443	52	0.73	0.40	50	2	96%	4%
MPR-444*	51	0.66	0.37	51	0	100%	0%
MPR-445	52	0.66	0.47	48	4	92%	8%
MPR-446	52	0.77	0.39	52	0	100%	0%
MPR-447	52	0.78	0.57	52	0	100%	0%
MPR-448	52	0.50	0.50	52	0	100%	0%
MPR-449	52	0.29	0.33	42	10	81%	19%

* Station MPR-444 was not sampled in first week of July as the station was temporarily taken offline as part of a construction project.

4.3 Heterotrophs

Heterotophs are microorganisms requiring organic carbon for growth. Health Canada does not suggest a maximum acceptable concentration for heterotrophs. Instead, it recommends that increases in heterotrophic plate count (HPC) concentrations above baseline levels be considered undesirable. Table 5 shows the annual number of samples with HPC's over 500 CFU/mL between 2006 and 2018. In response to HPC counts at or above 500 CFU/mL, the City will re-test and flush water mains. HPC data for each sample taken in 2018 is provided in Appendix F.

Table 5: HPC R	
Year	Number of Samples with HPC > 500 CFU/mL
2018	9
2017	6
2016	0
2015	5
2014	0
2013	0
2012	0
2011	1
2010	1
2009	1
2008	4
2007	1
2006	7

.....

4.4 Disinfection Byproducts

Disinfection byproducts such as trihalomethanes (THMs) and haloacetic acids (HAAs) can form when chlorine used to disinfect drinking water reacts with naturally occurring organic matter. Health risks may be associated with long-term exposure to high levels of THMs and HAAs.

Health Canada recommends that the running average (last 4 guarters) for Total THMs remain below 100 ppb. Quarterly samples were taken at four sites for THM analysis. The running quarterly average THM concentration in the samples remained below 100 ppb at all locations. Detailed THM test results are provided in Appendix C.

Health Canada recommends that the running average (last 4 guarters) total HAA concentration be below 80 ppb. Quarterly samples were taken at four sites for HAA analysis. The running guarterly average HAA concentration remained below 80 ppb at all locations. Detailed HAA test results are provided in Appendix C.

4.5 pH

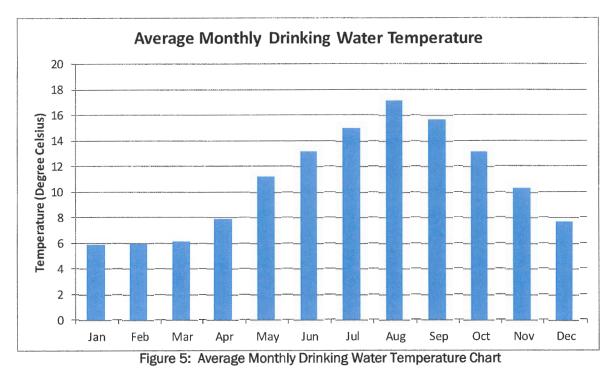
pH is a measure of the acid-base equilibrium of water. pH is of concern in water distribution systems because at low values water becomes corrosive and at high values chlorine disinfection is less efficient. Health Canada indicates that an acceptable pH range for drinking water is 6.5 - 8.5 pH units. 8 distribution system samples were tested for pH. Test results ranged of 7.2 to 7.4 pH units (see Appendix C).

4.6 Metals

The City tested samples at 3 monitoring sites for concentrations of various metals. Test results are shown in Appendix D, along with maximum concentration limits suggested by Health Canada. As shown in Appendix D, all measured metal concentrations were below the limits recommended by Health Canada.

4.7 Temperature

Health Canada recommends a temperature of less than 15°C for drinking water. Water temperatures exceeding this objective can result in the growth of nuisance organisms that could lead to unpleasant tastes and odors. Figure 5 shows average monthly drinking water temperatures in Maple Ridge. In July, August and September the average monthly temperatures were 15, 17 and 16 °C, exceeding Health Canada's recommendation. Detailed temperature information is provided in Appendix F.



4.8 Vinyl Chloride

The concentration of vinyl chloride was tested in 6 samples during 2018. As indicated in Appendix D, all results were non-detectable (less than 0.0004 μ g/L), less than the Health Canada Guideline of 2 μ g/L.

5.0 Response to Potential Contamination

If health-related contaminants are detected in the water distribution system, City and Fraser Health Authority staff will be quickly notified. The City and Fraser Health will then work together to confirm the incident, determine the nature of the risk to public health, and issue public notices as appropriate. Depending on the level of risk a water quality advisory, boil water notice, or do-not-use water notice could be issued. Public notices would be communicated through various media. The City's contamination response plan is embedded in emergency planning documents which are available to water system users upon request.

6.0 Public Health Message from the Medical Health Officer

Fraser Health's Medical Health Officer has requested that a fact sheet entitled *"Preventing Water-Borne Infections for People with weakened Immune Systems"* be included in this report. The fact sheet is presented in Appendix G. Additionally, the Medical Health Officer has requested the following message be included in this report:

Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your coldwater pipes by running the water until you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home's pipes, the more lead it may contain.

Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead.

The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not the local water supply.

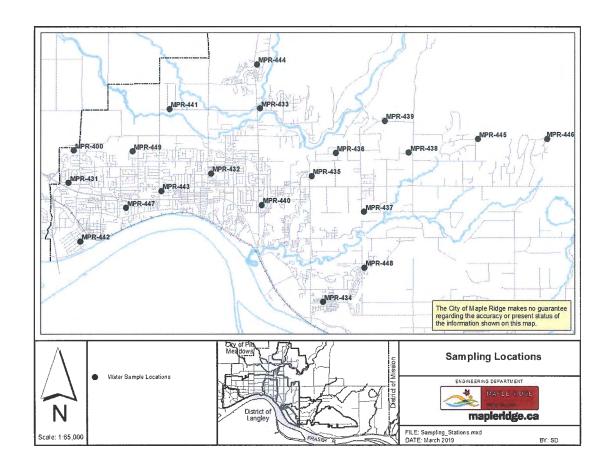
7.0 Conclusion

The City monitored drinking water quality in 2018 in accordance with Provincial regulations and the 2018 Water Quality Monitoring and Reporting Plan for Metro Vancouver (GVWD) and Local Government Members. Over 1,000 drinking water samples were obtained from the municipal water distribution system at 20 locations throughout the City. Metro Vancouver Laboratory testing indicated that all samples met BC Drinking Water Protection Regulation standards and did not exceed Health Canada guidelines with the exception of temperature.

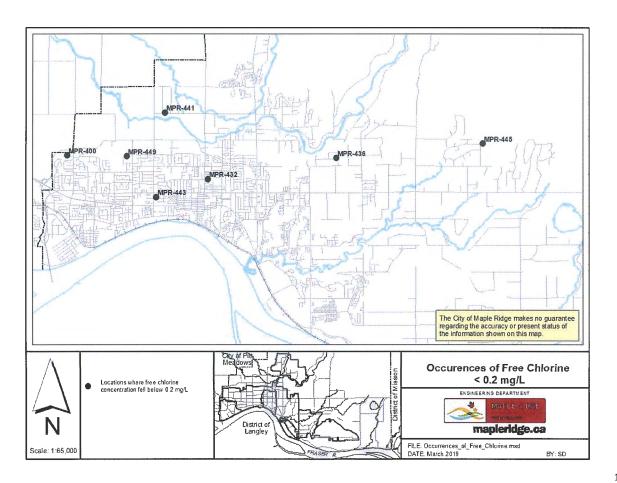
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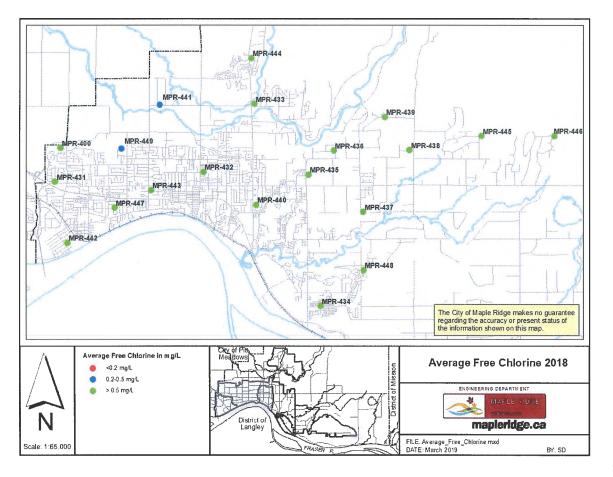
Appendix A: Sampling Station Locations

City of Maple Ridge Drinking Water Quality Report 2018

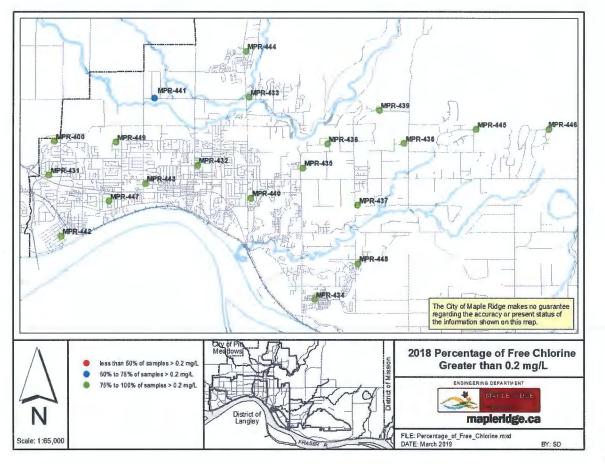


Appendix B: Residual Free Chlorine Figures









Appendix C: Disinfection By-Products and pH

	Sample Location	Date Sampled	THM (ppb)						HAA (ppb)							
Sample Site			Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Running Average (Last 4 Quarters)	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Running Average (Last 4 Quarters)	PH Units
	ple Concentration (Health Canada Gui Water Quality)Ma	idelines for	16	*********			£	100	Alter The second		1000				80	6.5-8.5
MPR-434	102 Ave. East of 241A St.	16-05-2017	<1	<1	<1	30	32		<0.5	20	<1	2	29.7	52		
MPR-434	102 Ave. East of 241A St.	22-08-2017	<1	<1	<1	33	33		<0.5	15	<1	<2	20.7	37		
MPR-434	102 Ave. East of 241A St.	28-11-2017	<1	<1	<1	37	39	-	<0.S	21	<1	2	40.8	66		
MPR-434	102 Ave. East of 241A 5t.	13-02-2018	<1	<1	<1	40	42	37	0.5	18	<1	<2	27.5	48	51	
MPR-434	102 Ave. East of 241A St.	29-05-2018	<1	<1	<1	33	34	37	0.7	24	<1	2	34.3	62	53	
MPR-434	102 Ave. East of 241A St.	07-08-2018	<1	<1	<1	25	26	35	<0.5	14	<1	<2	15.6	33	52	
MPR-434	102 Ave. East of 241A St.	20-11-2018	<1	<1	<1	37	37	35	<0.5	27	<1	2	41.8	73	54	
MPR-435	240 St. South of Abernethy Way	16-05-2017	1	<1	<1	34	36		<0.5	20	<1	<2	34.3	56		
MPR-435	240 St. South of Abernethy Way	22-08-2017	<1	<1	<1	26	26		<0.5	13	<1	<2	15.3	29		
MPR-435	240 St. South of Abernethy Way	28-11-2017	<1	<1	<1	31	33		<0.5	15	<1	<2	22.8	40		
MPR-435	240 St. South of Abernethy Way	13-02-2018	<1	<1	<1	37	39	34	<0.5	15	<1	<2	20.9	37	41	7.2
MPR-435	240 St. South of Abernethy Way	29-05-2018	<1	<1	<1	27	29	32	0.8	20	<1	2	26.3	49	39	7.2
MPR-435	240 St. South of Abernethy Way	07-08-2018	1	<1	<1	35	37	35	<0.5	24	<1	3	30.6	59	46	7.2
MPR-435	240 St. South of Abernethy Way	20-11-2018	<1	<1	<1	48	49	39	<0.5	20	<1	<2	40.6	64	52	7.3
MPR-438	125 Ave. West off 256 St.	16-05-2017	1	<1	<1	46	48		<0.5	29	<1	3	45.1	77		
MPR-438	125 Ave. West off 256 St.	22-08-2017	<1	<1	<1	34	35		<0.5	17	<1	2	24.4	42		
MPR-438	125 Ave. West off 256 St.	28-11-2017	<1	<1	<1	50	51		<0.5	24	<1	2	54.3	81		
MPR-438	125 Ave. West off 256 St.	13-02-2018	1	<1	<1	46	48	46	0.6	29	<1	3	43.1	76	69	7.3
MPR-438	125 Ave. West off 256 5t.	29-05-2018	<1	<1	<1	40	41	44	0.7	27	<1	3	40.2	71	67	7.3
MPR-438	125 Ave. West off 256 St.	07-08-2018	1	<1	<1	41	42	46	<0.5	22	<1	<2	28.3	.53	70	7.4
MPR-438	125 Ave. West off 256 St.	20-11-2018	<1	<1	<1	58	59	48	<0.5	37	<1	4	58.1	100	75	7.4
MPR-440	232 St. @ 117 Ave.	16-05-2017	<1	<1	<1	24	26		<0.5	14	<1	<2	19	36		
MPR-440	232 St. @ 117 Ave.	22-08-2017	<1	<1	<1	25	25		<0.5	12	<1	<2	12.9	25		
MPR-440	232 St. @ 117 Ave.	28-11-2017	<1	<1	<1	30	31		<0.5	12	<1	<2	16.2	30		
MPR-440	232 St. @ 117 Ave.	13-02-2018	<1	<1	<1	28	30	28	<0.5	15	<1	2	14	31	31	
MPR-440	232 St. @ 117 Ave.	29-05-2018	<1	<1	<1	26	27	28	0.9	18	<1	<2	22.5	44	32	
MPR-440	232 St. @ 117 Ave.	07-08-2018	<1	<1	<1	28	29	29	0.5	17	<1	2	14.9	34	35	
MPR-440	232 St. @ 117 Ave.	20-11-2018	<1	<1	<1	39	40	32	<0.5	23	<1	2	26.3	52	40	

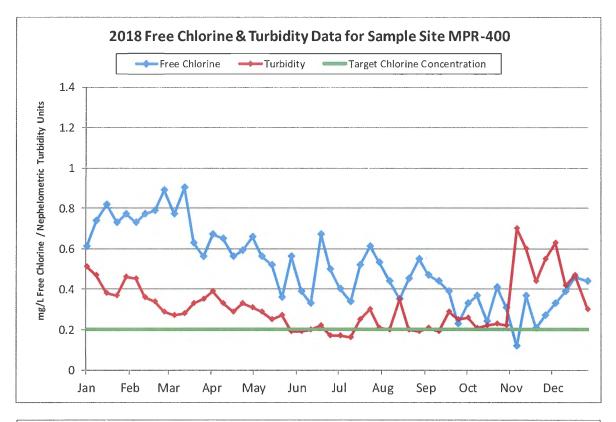
Appendix D: Metals and Vinyl Chloride

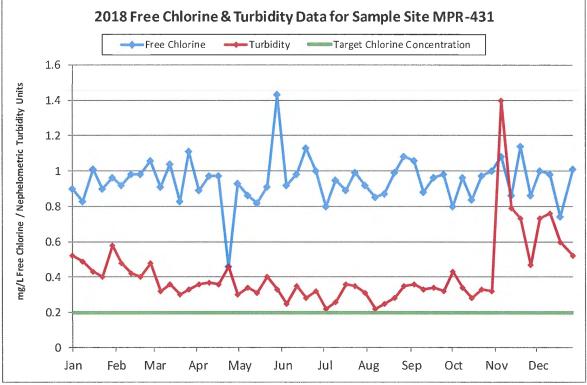
							Μ	eta	I Co	ncei	ntra	tion												
Sample Name	Sample Location	Sampled Date	Aluminium Total (µg/L)	Antimony Total (µg/L)	Arsenic Total (µg/L)	Barium Total (µg/L)	Boron Total (µg/L)	Cadmium Total (µg/L)	Calcium Total (µg/L)	Chromium Totel (µg/L)	Cobatt Total (µg/L)	Copper Total (µg/L)	Iron Total (µg/L)	Lead Totai (µg/L)	Magnesium Total (µg/L)	Manganese Total (µg/L)	Mercury Total (µg/L)	Molybdenum Total (µg/L)	Nickel Total (µg/L)	Potassium Total (µg/L)	Selenium Total (µg/L)	Silver Total (µg/L)	Sodium Total (µg/L)	Zinc Totai (µg/L)
	Acceptable Conce an Drinking Wate	ntration (Guidelines r Quality)	200	6	10	1000	5000	5	hohe	50	none	1000	300	10	none	,50	1	none	none	none	50	none	200,000	5000
Reason Gu Aesthetic	uideline Establish (A)	ed - Health (H) or	A	н	H	н	н	н		H		- A -	A	н		A	н				н	A	A	A
MPR-431	Dewdney Trunk Rd. @ 201B St.	12-Jun-18	84	<0.5	<0.5	2.2	<10	<0.2	812	<0.05	<0.5	10.2	50	<0.5	92	3.2	<0.05	<0.5	<0.5	105	<0.5	<0.5	4960	<3.0
MPR-435	240 St. South of Abernethy Way- Field Duplicate	12-Jun-18	78	<0.5	<0.5	2.2	<10	⊲0.2	822	<0.05	⊲0.5	15.3	43	⊲0.5	90	1.8	<0.05	<0.5	<0.5	103	<0.5	⊲0.5	4960	⊲3.0
MPR-446	128th Ave and Willow Place	12-Jun-18	91	<0.5	<0.5	3,4	<10	<0.2	1560	0.07	<0.5	2.7	63	<0.5	86	3.5	<0.05	<0.5	<0.5	121	<0.5	<0.5	7630	3.8
MPR-431	Dewdney Trunk Rd. @ 201B St.	04-Dec-18	135	<0.5	<0.5	2.7	<10	<0.2	801	0.06	<0.5	19.9	61	<0.5	102	1.9	<0.05	<0.5	<0.5	111	<0.5	<0.5	5820	<3.0
MPR-435	240 St. South of Abernethy Way	04-Dec-18	128	<0.5	<0.5	3.1	<10	<0,2	1050	0.07	<0.5	20,4	55	<0.5	100	1.3	<0.05	<0.5	<0.5	108	<0.5	<0.5	6030	<3.0
MPR-446	128th Ave and Willow Place	04-Dec-18	139	<0.5	⊲0.5	3.6	<10	<0.2	1610	0.09	<0.5	3.6	100	<0.5	96	6.5	<0.05	<0.5	<0.5	124	<0.5	⊲0.5	10000	3.5

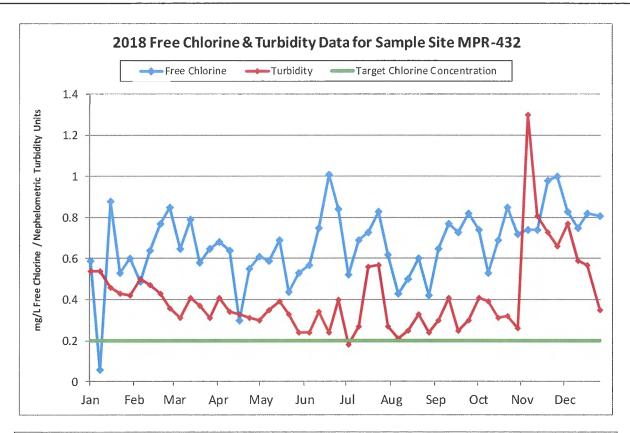
Sample Site Number	Sample Reported Name	Sampled date	Vinyl Chloride (mg/L)
MPR-431	Dewdney Trunk Rd. @ 201B St.	19-Jun-18	<0.00040
MPR-431	Dewdney Trunk Rd. @ 201B St.	27-Nov-18	<0.00040
MPR-435	240 St. South of Abernethy Way	19-Jun-18	<0.00040
MPR-435	240 St. South of Abernethy Way	27-Nov-18	<0.00040
MPR-446	128th Ave and Willow Place	19-Jun-18	<0.00040
MPR-446	128th Ave and Willow Place	27-Nov-18	<0.00040

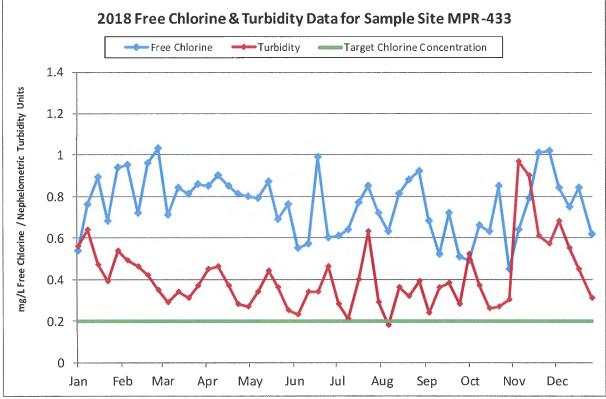
Vinyl Chloride Concentration

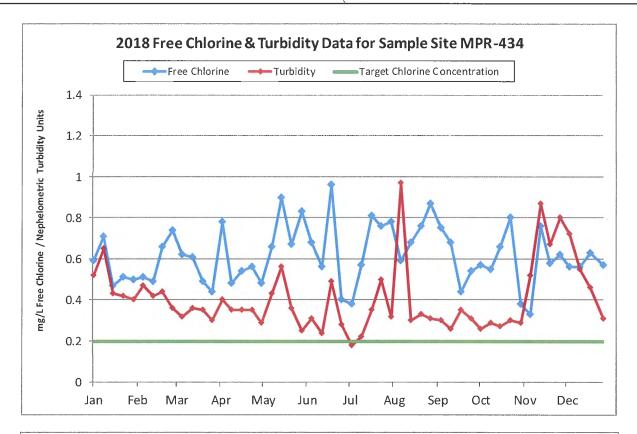
Appendix E: Free Chlorine and Turbidity Charts

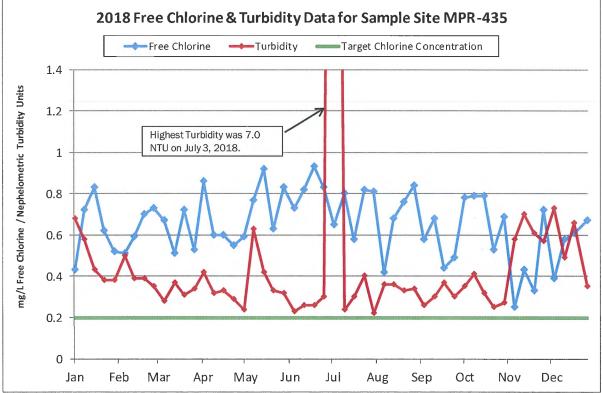


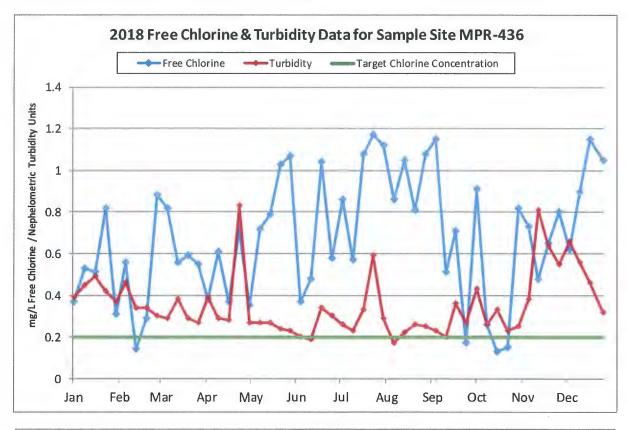


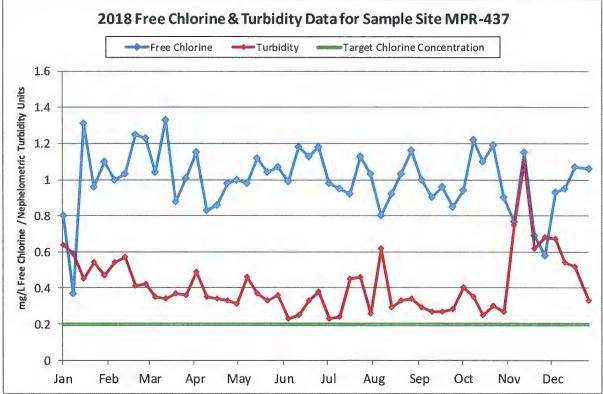


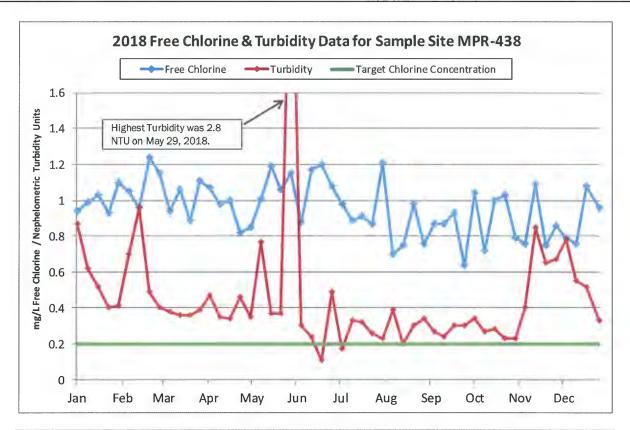


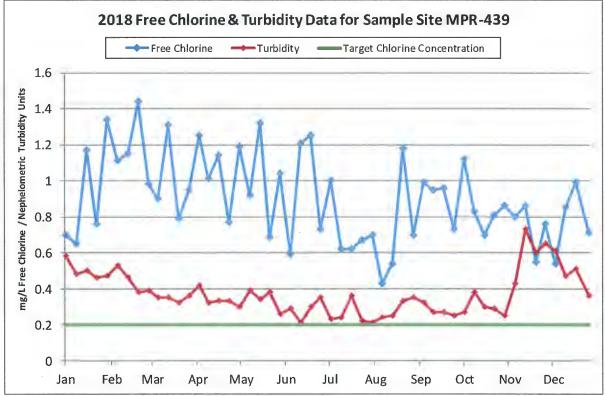


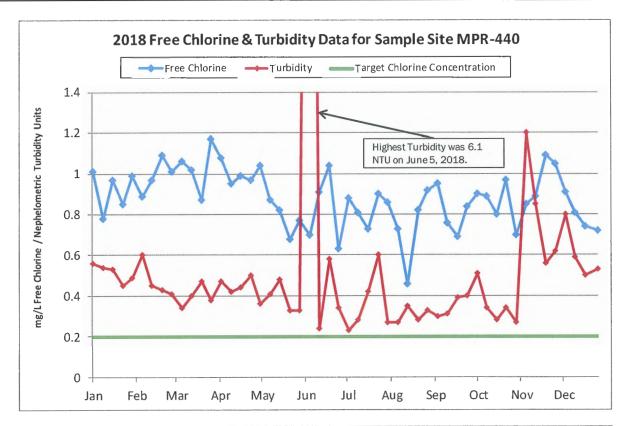


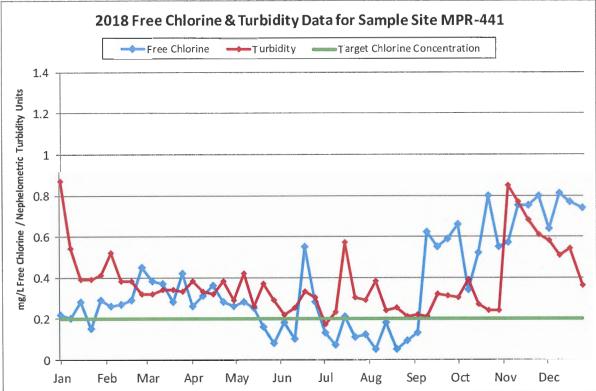




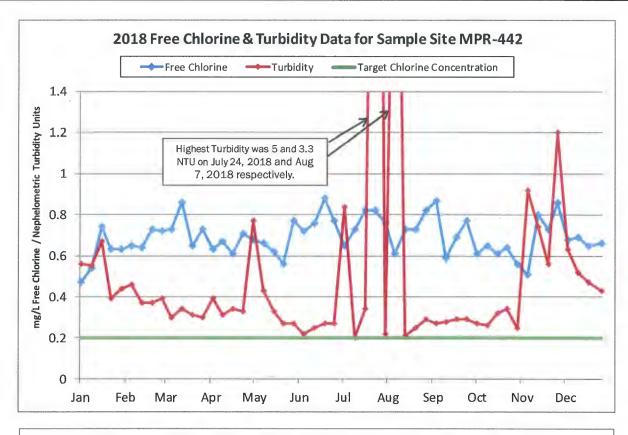


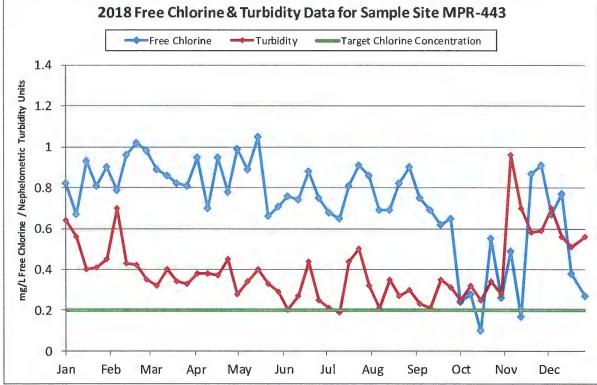




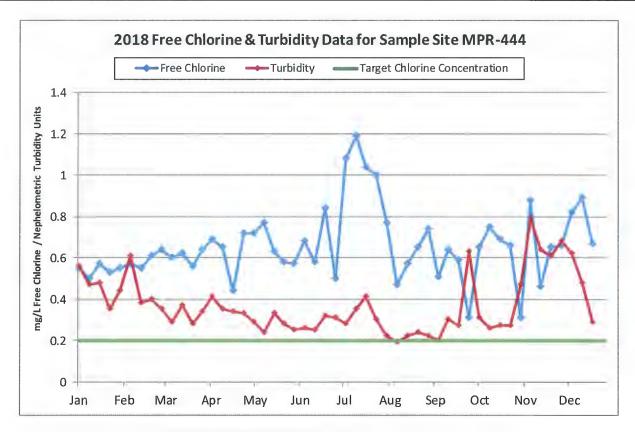


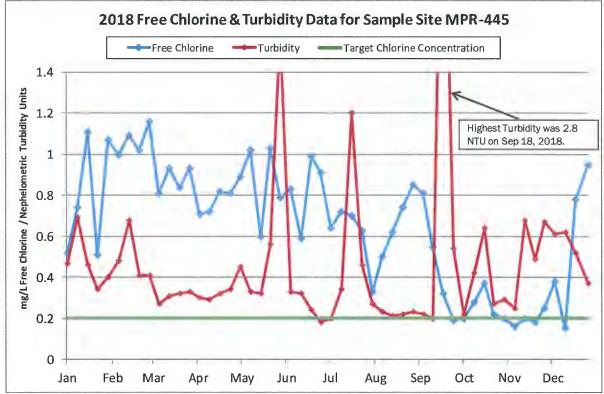
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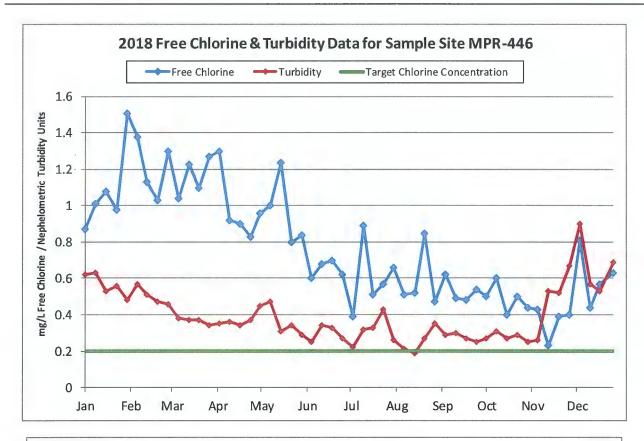


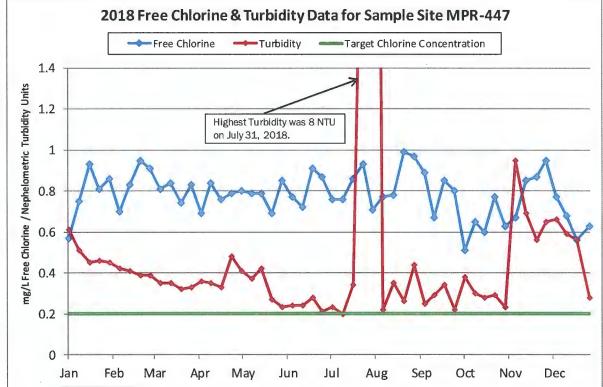
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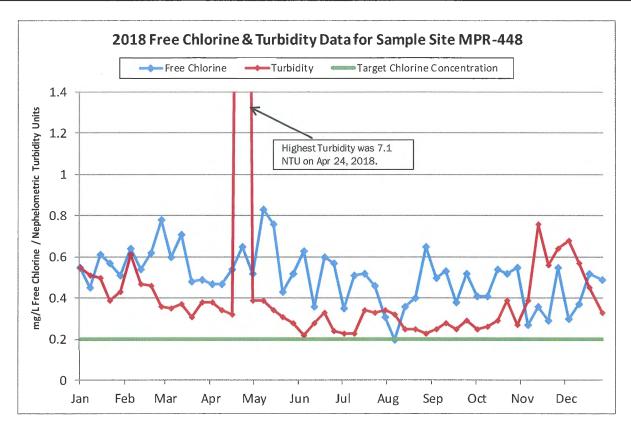


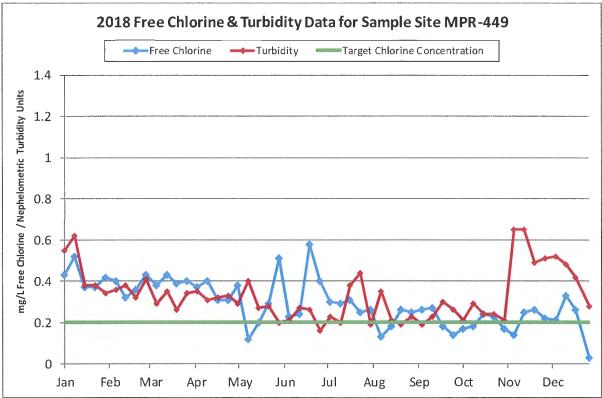


City of Maple Ridge Drinking Water Quality Report 2018









Appendix F: Weekly Sample Lab Results

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-400	Powell Ave. West of 203rd Street	2-Jan-18	0.61	<1	4	8	<1	0.51
MPR-400	Powell Ave. West of 203rd Street	9-Jan-18	0.74	<1	<2	7	<1	0.47
MPR-400	Powell Ave. West of 203rd Street	16-Jan-18	0.82	<1	2	8	<1	0.38
MPR-400	Powell Ave. West of 203rd Street	23-Jan-18	0.73	<1	2	7	<1	0.37
MPR-400	Powell Ave. West of 203rd Street	30-Jan-18	0.77	<1	14	8	<1	0.46
MPR-400	Powell Ave. West of 203rd Street	6-Feb-18	0.73	<1	2	7	<1	0.45
MPR-400	Powell Ave. West of 203rd Street	13-Feb-18	0.77	<1	4	8	<1	0.36
MPR-400	Powell Ave. West of 203rd Street	20-Feb-18	0.79	<1	2	7	<1	0.34
MPR-400	Powell Ave. West of 203rd Street	27-Feb-18	0.89	<1	4	7	<1	0.29
MPR-400	Powell Ave. West of 203rd Street	6-Mar-18	0.77	<1	<2	6	<1	0.27
MPR-400	Powell Ave. West of 203rd Street	13-Mar-18	0.9	<1	<2	7	<1	0.28
MPR-400	Powell Ave. West of 203rd Street	20-Mar-18	0.63	<1	2	7	<1	0.33
MPR-400	Powell Ave. West of 203rd Street	27-Mar-18	0.56	<1	<2	8	<1	0.35
MPR-400	Powell Ave. West of 203rd Street	3-Apr-18	0.67	<1	<2	8	<1	0.39
MPR-400	Powell Ave. West of 203rd Street	10-Apr-18	0.65	<1	4	8	<1	0.33
MPR-400	Powell Ave. West of 203rd Street	17-Apr-18	0.56	<1	6	9	<1	0.29
MPR-400	Powell Ave. West of 203rd Street	24-Apr-18	0.59	<1	6	8	<1	0.33
MPR-400	Powell Ave. West of 203rd Street	1-May-18	0.66	<1	36	9	<1	0.31
MPR-400	Powell Ave. West of 203rd Street	8-May-18	0.56	<1	16	10	<1	0.29
MPR-400	Powell Ave. West of 203rd Street	15-May-18	0.52	<1	34	11	<1	0.25
MPR-400	Powell Ave. West of 203rd Street	22-May-18	0.36	<1	160	12	<1	0.27
MPR-400	Powell Ave. West of 203rd Street	29-May-18	0.56	<1	50	12	<1	0.19
MPR-400	Powell Ave. West of 203rd Street	5-Jun-18	0.39	<1	96	13	<1	0.19
MPR-400	Powell Ave. West of 203rd Street	12-Jun-18	0.33	<1	150	13	<1	0.2
MPR-400	Powell Ave. West of 203rd Street	19-Jun-18	0.67	<1	140	13	<1	0.22
MPR-400	Powell Ave. West of 203rd Street	26-Jun-18	0.5	<1	82	14	<1	0.17
MPR-400	Powell Ave. West of 203rd Street	3-Jul-18	0.4	<1	110	14	<1	0.17
MPR-400	Powell Ave. West of 203rd Street	10-Jul-18	0.34	<1	220	14	<1	0.16
MPR-400	Powell Ave. West of 203rd Street	17-Jul-18	0.52	<1	190	15	<1	0.25
MPR-400	Powell Ave. West of 203rd Street	24-Jul-18	0.61	<1	630	15	<1	0.3
MPR-400	Powell Ave. West of 203rd Street	31-Jul-18	0.53	<1	54	16	<1	0.21
MPR-400	Powell Ave. West of 203rd Street	7-Aug-18	0.44	<1	120	16	<1	0.2
MPR-400	Powell Ave. West of 203rd Street	14-Aug-18	0.35	<1	380	17	<1	0.35
MPR-400	Powell Ave. West of 203rd Street	21-Aug-18	0.45	<1	50	18	<1	0.2
MPR-400	Powell Ave. West of 203rd Street	28-Aug-18	0.55	<1	220	19	<1	0.19
MPR-400	Powell Ave. West of 203rd Street	4-Sep-18	0.47	<1	58	16	<1	0.21
MPR-400	Powell Ave. West of 203rd Street	11-Sep-18	0.44	<1	130	17	<1	0.19
MPR-400	Powell Ave. West of 203rd Street	18-Sep-18	0.39	<1	180	16	<1	0.29
MPR-400	Powell Ave. West of 203rd Street	25-Sep-18	0.23	<1	340	14	<1	0.25

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-400	Powell Ave. West of 203rd Street	2-Oct-18	0.33	<1	320	16	<1	0.26
MPR-400	Powell Ave. West of 203rd Street	9-Oct-18	0.37	<1	230	14	<1	0.21
MPR-400	Powell Ave. West of 203rd Street	16-Oct-18	0.24	<1	140	14	<1	0.22
MPR-400	Powell Ave. West of 203rd Street	23-Oct-18	0.41	<1	180	13	<1	0.23
MPR-400	Powell Ave. West of 203rd Street	30-Oct-18	0.31	<1	180	13	<1	0.22
MPR-400	Powell Ave. West of 203rd Street	6-Nov-18	0.12	<1	130	13	<1	0.7
MPR-400	Powell Ave. West of 203rd Street	13-Nov-18	0.37	<1	82	13	<1	0.6
MPR-400	Powell Ave. West of 203rd Street	20-Nov-18	0.21	<1	98	12	<1	0.44
MPR-400	Powell Ave. West of 203rd Street	27-Nov-18	0.27	<1	62	12	<1	0.55
MPR-400	Powell Ave. West of 203rd Street	4-Dec-18	0.33	<1	32	11	<1	0.63
MPR-400	Powell Ave. West of 203rd Street	11-Dec-18	0.39	<1	18	11	<1	0.42
MPR-400	Powell Ave. West of 203rd Street	18-Dec-18	0.46	<1	NA	10	<1	0.47
MPR-400	Powell Ave. West of 203rd Street	27-Dec-18	0.44	<1	NA	10	<1	0.3
MPR-431	Dewdney Trunk Rd. @ 201B St.	2-Jan-18	0.9	<1	2	5	<1	0.52
MPR-431	Dewdney Trunk Rd. @ 201B St.	9-Jan-18	0.83	<1	<2	7	<1	0.49
MPR-431	Dewdney Trunk Rd. @ 201B St.	16-Jan-18	1.01	<1	<2	6	<1	0.43
MPR-431	Dewdney Trunk Rd. @ 201B St.	23-Jan-18	0.9	<1	LA	6	<1	0.4
MPR-431	Dewdney Trunk Rd. @ 201B St.	30-Jan-18	0.96	<1	<2	6	<1	0.58
MPR-431	Dewdney Trunk Rd. @ 201B St.	6-Feb-18	0.92	<1	<2	6	<1	0.48
MPR-431	Dewdney Trunk Rd. @ 201B St.	13-Feb-18	0.98	<1	<2	6	<1	0.42
MPR-431	Dewdney Trunk Rd. @ 201B St.	20-Feb-18	0.98	<1	<2	6	<1	0.4
MPR-431	Dewdney Trunk Rd. @ 201B St.	27-Feb-18	1.06	<1	2	5	<1	0.48
MPR-431	Dewdney Trunk Rd. @ 201B St.	6-Mar-18	0.91	<1	<2	6	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	13-Mar-18	1.04	<1	4	6	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	20-Mar-18	0.83	<1	<2	6	<1	0.3
MPR-431	Dewdney Trunk Rd. @ 201B St.	27-Mar-18	1.11	<1	<2	7	<1	0.33
MPR-431	Dewdney Trunk Rd. @ 201B St.	3-Apr-18	0.89	<1	<2	7	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	10-Apr-18	0.97	<1	<2	8	<1	0.37
MPR-431	Dewdney Trunk Rd. @ 201B St.	17-Apr-18	0.97	<1	<2	8	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	24-Apr-18	0.46	<1	<2	9	<1	0.46
MPR-431	Dewdney Trunk Rd. @ 201B St.	1-May-18	0.93	<1	<2	9	<1	0.3
MPR-431	Dewdney Trunk Rd. @ 201B St.	8-May-18	0.86	<1	<2	11	<1	0.34
MPR-431	Dewdney Trunk Rd. @ 201B St.	15-May-18	0.82	<1	<2	12	<1	0.31
MPR-431	Dewdney Trunk Rd. @ 201B St.	22-May-18	0.91	<1	2	11	<1	0.4
MPR-431	Dewdney Trunk Rd. @ 201B St.	29-May-18	1.43	<1	<2	10	<1	0.33
MPR-431	Dewdney Trunk Rd. @ 201B St.	5-Jun-18	0.92	<1	<2	12	<1	0.25
MPR-431	Dewdney Trunk Rd. @ 201B St.	12-Jun-18	0.98	<1	<2	11	<1	0.35
MPR-431	Dewdney Trunk Rd. @ 201B St.	19-Jun-18	1.13	<1	<2	12	<1	0.28
MPR-431	Dewdney Trunk Rd. @ 201B St.	26-Jun-18	1	<1	4	13	<1	0.32

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-431	Dewdney Trunk Rd. @ 201B St.	3-Jul-18	0.8	<1	<2	14	<1	0.22
MPR-431	Dewdney Trunk Rd. @ 201B St.	10-Jul-18	0.95	<1	<2	14	<1	0.26
MPR-431	Dewdney Trunk Rd. @ 201B St.	17-Jul-18	0.89	<1	<2	15	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	24-Jul-18	0.99	<1	<2	15	<1	0.35
MPR-431	Dewdney Trunk Rd. @ 201B St.	31-Jul-18	0.92	<1	<2	16	<1	0.31
MPR-431	Dewdney Trunk Rd. @ 201B St.	7-Aug-18	0.85	<1	4	17	<1	0.22
MPR-431	Dewdney Trunk Rd. @ 201B St.	14-Aug-18	0.87	<1	<2	17	<1	0.25
MPR-431	Dewdney Trunk Rd. @ 201B St.	21-Aug-18	0.99	<1	6	17	<1	0.28
MPR-431	Dewdney Trunk Rd. @ 201B St.	28-Aug-18	1.08	<1	2	17	<1	0.35
MPR-431	Dewdney Trunk Rd. @ 201B St.	4-Sep-18	1.06	<1	8	17	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	11-Sep-18	0.88	<1	2	16	<1	0.33
MPR-431	Dewdney Trunk Rd. @ 201B St.	18-Sep-18	0.96	<1	<2	14	<1	0.34
MPR-431	Dewdney Trunk Rd. @ 201B St.	25-Sep-18	0.98	<1	2	15	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	2-Oct-18	0.8	<1	2	15	<1	0.43
MPR-431	Dewdney Trunk Rd. @ 201B St.	9-Oct-18	0.96	<1	<2	13	<1	0.34
MPR-431	Dewdney Trunk Rd. @ 201B St.	16-Oct-18	0.84	<1	<2	13	<1	0.28
MPR-431	Dewdney Trunk Rd. @ 201B St.	23-Oct-18	0.97	<1	<2	11	<1	0.33
MPR-431	Dewdney Trunk Rd. @ 201B St.	30-Oct-18	1	<1	<2	13	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	6-Nov-18	1.08	<1	<2	11	<1	1.4
MPR-431	Dewdney Trunk Rd. @ 201B St.	13-Nov-18	0.86	<1	<2	10	<1	0.79
MPR-431	Dewdney Trunk Rd. @ 201B St.	20-Nov-18	1.14	<1	<2	9	<1	0.73
MPR-431	Dewdney Trunk Rd. @ 201B St.	28-Nov-18	0.86	<1	<2	9	<1	0.47
MPR-431	Dewdney Trunk Rd. @ 201B St.	4-Dec-18	1	<1	<2	8	<1	0.73
MPR-431	Dewdney Trunk Rd. @ 201B St.	11-Dec-18	0.98	<1	<2	7	<1	0.76
MPR-431	Dewdney Trunk Rd. @ 201B St.	18-Dec-18	0.74	<1	NA	7	<1	0.6
MPR-431	Dewdney Trunk Rd. @ 201B St.	27-Dec-18	1.01	<1	NA	6	<1	0.52
MPR-432	224 St. @ 122 Ave.	2-Jan-18	0.59	<1	<2	5	<1	0.54
MPR-432	224 St. @ 122 Ave.	9-Jan-18	0.06	<1	<2	5	<1	0.54
MPR-432	224 St. @ 122 Ave.	16-Jan-18	0.88	<1	<2	6	<1	0.46
MPR-432	224 St. @ 122 Ave.	23-Jan-18	0.53	<1	<2	6	<1	0.43
MPR-432	224 St. @ 122 Ave.	30-Jan-18	0.6	<1	<2	6	<1	0.42
MPR-432	224 St. @ 122 Ave.	6-Feb-18	0.49	<1	<2	6	<1	0.5
MPR-432	224 St. @ 122 Ave.	13-Feb-18	0.64	<1	<2	6	<1	0.47
MPR-432	224 St. @ 122 Ave.	20-Feb-18	0.77	<1	<2	6	<1	0.43
MPR-432	224 St. @ 122 Ave.	27-Feb-18	0.85	<1	<2	5	<1	0.36
MPR-432	224 St. @ 122 Ave.	6-Mar-18	0.65	<1	<2	5	<1	0.31
MPR-432	224 St. @ 122 Ave.	13-Mar-18	0.79	<1	<2	6	<1	0.41
MPR-432	224 St. @ 122 Ave.	20-Mar-18	0.58	<1	<2	7	<1	0.37
MPR-432	224 St. @ 122 Ave.	27-Mar-18	0.65	<1	<2	7	<1	0.31

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100	Turb. NTU
MPR-432	224 St. @ 122 Ave.	2 Apr 19	0.68	-1		7	mLs	0.41
MPR-432	224 St. @ 122 Ave.	3-Apr-18	0.68	<1 <1	<2 <2	8	<1	0.41
MPR-432	-	10-Apr-18 17-Apr-18	0.84				<1	0.34
	224 St. @ 122 Ave.			<1	<2	8	<1	0.33
MPR-432	224 St. @ 122 Ave.	24-Apr-18	0.55	<1	<2	8	<1	0.31
MPR-432	224 St. @ 122 Ave.	1-May-18	0.61	<1	2	10	<1	0.3
MPR-432	224 St. @ 122 Ave.	8-May-18	0.59	<1	<2	12	<1	0.35
MPR-432	224 St. @ 122 Ave.	15-May-18	0.69	<1	<2	12	<1	0.39
MPR-432	224 St. @ 122 Ave.	22-May-18	0.44	<1	<2	13	<1	0.33
MPR-432	224 St. @ 122 Ave.	29-May-18	0.53	<1	<2	13	<1	0.24
MPR-432	224 St. @ 122 Ave.	5-Jun-18	0.57	<1	4	13	<1	0.24
MPR-432	224 St. @ 122 Ave.	12-Jun-18	0.75	<1	<2	12	<1	0.34
MPR-432	224 St. @ 122 Ave.	19-Jun-18	1.01	<1	2	13	<1	0.24
MPR-432	224 St. @ 122 Ave.	26-Jun-18	0.84	<1	<2	13	<1	0.4
MPR-432	224 St. @ 122 Ave.	3-Jul-18	0.52	<1	<2	14	<1	0.18
MPR-432	224 St. @ 122 Ave.	10-Jul-18	0.69	<1	2	14	<1	0.27
MPR-432	224 St. @ 122 Ave.	17-Jul-18	0.73	<1	<2	15	<1	0.56
MPR-432	224 St. @ 122 Ave.	24-Jul-18	0.83	<1	<2	15	<1	0.57
MPR-432	224 St. @ 122 Ave.	31-Jul-18	0.62	<1	LA	17	<1	0.27
MPR-432	224 St. @ 122 Ave.	7-Aug-18	0.43	<1	36	17	<1	0.21
MPR-432	224 St. @ 122 Ave.	14-Aug-18	0.5	<1	16	17	<1	0.25
MPR-432	224 St. @ 122 Ave.	21-Aug-18	0.6	<1	10	17	<1	0.33
MPR-432	224 St. @ 122 Ave.	28-Aug-18	0.42	<1	<2	17	<1	0.24
MPR-432	224 St. @ 122 Ave.	4-Sep-18	0.65	<1	<2	16	<1	0.3
MPR-432	224 St. @ 122 Ave.	11-Sep-18	0.77	<1	<2	16	<1	0.41
MPR-432	224 St. @ 122 Ave.	18-Sep-18	0.73	<1	2	13	<1	0.25
MPR-432	224 St. @ 122 Ave.	25-Sep-18	0.82	<1	<2	14	<1	0.3
MPR-432	224 St. @ 122 Ave.	2-Oct-18	0.74	<1	<2	13	<1	0.41
MPR-432	224 St. @ 122 Ave.	9-Oct-18	0.53	<1	<2	14	<1	0.39
MPR-432	224 St. @ 122 Ave.	16-Oct-18	0.69	<1	<2	13	<1	0.31
MPR-432	224 St. @ 122 Ave.	23-Oct-18	0.85	<1	2	12	<1	0.32
MPR-432	224 St. @ 122 Ave.	30-Oct-18	0.72	<1	<2	12	<1	0.26
MPR-432	224 St. @ 122 Ave.	6-Nov-18	0.74	<1	4	10	<1	1.3
MPR-432	224 St. @ 122 Ave.	13-Nov-18	0.74	<1	<2	10	<1	0.81
MPR-432	224 St. @ 122 Ave.	20-Nov-18	0.98	<1	<2	10	<1	0.73
MPR-432	224 St. @ 122 Ave.	27-Nov-18	1	<1	<2	9	<1	0.66
MPR-432	224 St. @ 122 Ave.	4-Dec-18	0.83	<1	<2	8	<1	0.77
MPR-432	224 St. @ 122 Ave.	11-Dec-18	0.75	<1	<2	7	<1	0.59
MPR-432	224 St. @ 122 Ave.	18-Dec-18	0.82	<1	NA	7	<1	0.57
MPR-432	224 St. @ 122 Ave.	27-Dec-18	0.81	<1	NA	6	<1	0.35

41

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Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-433	232 St. North of 130 Ave.	2-Jan-18	0.54	<1	2	5	<1	0.56
MPR-433	232 St. North of 130 Ave.	9-Jan-18	0.76	<1	<2	5	<1	0.64
MPR-433	232 St. North of 130 Ave.	16-Jan-18	0.89	<1	<2	5	<1	0.47
MPR-433	232 St. North of 130 Ave.	23-Jan-18	0.68	<1	<2	6	<1	0.39
MPR-433	232 St. North of 130 Ave.	30-Jan-18	0.94	<1	<2	5	<1	0.54
MPR-433	232 St. North of 130 Ave.	6-Feb-18	0.95	<1	2	6	<1	0.49
MPR-433	232 St. North of 130 Ave.	13-Feb-18	0.72	<1	<2	6	<1	0.46
MPR-433	232 St. North of 130 Ave.	20-Feb-18	0.96	<1	<2	5	<1	0.42
MPR-433	232 St. North of 130 Ave.	27-Feb-18	1.03	<1	<2	4	<1	0.35
MPR-433	232 St. North of 130 Ave.	6-Mar-18	0.71	<1	<2	5	<1	0.29
MPR-433	232 St. North of 130 Ave.	13-Mar-18	0.84	<1	<2	6	<1	0.34
MPR-433	232 St. North of 130 Ave.	20-Mar-18	0.81	<1	<2	6	<1	0.31
MPR-433	232 St. North of 130 Ave.	27-Mar-18	0.86	<1	<2	6	<1	0.37
MPR-433	232 St. North of 130 Ave.	3-Apr-18	0.85	<1	<2	6	<1	0.45
MPR-433	232 St. North of 130 Ave.	10-Apr-18	0.9	<1	<2	7	<1	0.46
MPR-433	232 St. North of 130 Ave.	17-Apr-18	0.85	<1	<2	7	<1	0.37
MPR-433	232 St. North of 130 Ave.	24-Apr-18	0.81	<1	<2	7	<1	0.28
MPR-433	232 St. North of 130 Ave.	1-May-18	0.8	<1	<2	8	<1	0.27
MPR-433	232 St. North of 130 Ave.	8-May-18	0.79	<1	2	9	<1	0.34
MPR-433	232 St. North of 130 Ave.	15-May-18	0.87	<1	<2	9	<1	0.44
MPR-433	232 St. North of 130 Ave.	22-May-18	0.69	<1	<2	10	<1	0.36
MPR-433	232 St. North of 130 Ave.	29-May-18	0.76	<1	<2	11	<1	0.25
MPR-433	232 St. North of 130 Ave.	5-Jun-18	0.55	<1	<2	11	<1	0.23
MPR-433	232 St. North of 130 Ave.	12-Jun-18	0.57	<1	<2	12	<1	0.34
MPR-433	232 St. North of 130 Ave.	19-Jun-18	0.99	<1	<2	11	<1	0.34
MPR-433	232 St. North of 130 Ave.	26-Jun-18	0.6	<1	<2	12	<1	0.46
MPR-433	232 St. North of 130 Ave.	3-Jul-18	0.61	<1	<2	14	<1	0.28
MPR-433	232 St. North of 130 Ave.	10-Jul-18	0.64	<1	<2	13	<1	0.21
MPR-433	232 St. North of 130 Ave.	17-Jul-18	0.77	<1	<2	13	<1	0.4
MPR-433	232 St. North of 130 Ave.	24-Jul-18	0.85	<1	<2	13	<1	0.63
MPR-433	232 St. North of 130 Ave.	31-Jul-18	0.72	<1	<2	14	<1	0.29
MPR-433	232 St. North of 130 Ave.	7-Aug-18	0.63	<1	<2	15	<1	0.18
MPR-433	232 St. North of 130 Ave.	14-Aug-18	0.81	<1	<2	15	<1	0.36
MPR-433	232 St. North of 130 Ave.	21-Aug-18	0.88	<1	<2	15	<1	0.32
MPR-433	232 St. North of 130 Ave.	28-Aug-18	0.92	<1	<2	15	<1	0.39
MPR-433	232 St. North of 130 Ave.	4-Sep-18	0.68	<1	<2	15	<1	0.24
MPR-433	232 St. North of 130 Ave.	11-Sep-18	0.52	<1	<2	15	<1	0.36
MPR-433	232 St. North of 130 Ave.	18-Sep-18	0.72	<1	<2	14	<1	0.38
MPR-433	232 St. North of 130 Ave.	25-Sep-18	0.51	<1	<2	14	<1	0.28

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-433	232 St. North of 130 Ave.	2-Oct-18	0.49	<1	2	15	1	0.52
MPR-433	232 St. North of 130 Ave.	9-Oct-18	0.66	<1	<2	13	<1	0.37
MPR-433	232 St. North of 130 Ave.	16-Oct-18	0.63	<1	4	13	<1	0.26
MPR-433	232 St. North of 130 Ave.	23-Oct-18	0.85	<1	<2	12	<1	0.27
MPR-433	232 St. North of 130 Ave.	30-Oct-18	0.45	<1	<2	12	<1	0.3
MPR-433	232 St. North of 130 Ave.	6-Nov-18	0.64	<1	2	11	<1	0.97
MPR-433	232 St. North of 130 Ave.	13-Nov-18	0.79	<1	<2	10	<1	0.9
MPR-433	232 St. North of 130 Ave.	20-Nov-18	1.01	<1	<2	9	<1	0.61
MPR-433	232 St. North of 130 Ave.	27-Nov-18	1.02	<1	<2	9	<1	0.57
MPR-433	232 St. North of 130 Ave.	4-Dec-18	0.84	<1	<2	8	<1	0.68
MPR-433	232 St. North of 130 Ave.	11-Dec-18	0.75	<1	<2	8	<1	0.55
MPR-433	232 St. North of 130 Ave.	18-Dec-18	0.84	<1	NA	7	<1	0.45
MPR-433	232 St. North of 130 Ave.	27-Dec-18	0.62	<1	NA	6	<1	0.31
MPR-434	102 Ave. East of 241A St.	2-Jan-18	0.59	<1	<2	5	<1	0.52
MPR-434	102 Ave. East of 241A St.	9-Jan-18	0.71	<1	<2	6	<1	0.65
MPR-434	102 Ave. East of 241A St.	16-Jan-18	0.47	<1	<2	6	<1	0.43
MPR-434	102 Ave. East of 241A St.	23-Jan-18	0.51	<1	<2	6	<1	0.42
MPR-434	102 Ave. East of 241A St.	30-Jan-18	0.5	<1	2	6	<1	0.4
MPR-434	102 Ave. East of 241A St.	6-Feb-18	0.51	<1	2	7	<1	0.47
MPR-434	102 Ave. East of 241A St.	13-Feb-18	0.49	<1	<2	6	<1	0.42
MPR-434	102 Ave. East of 241A St.	20-Feb-18	0.66	<1	<2	6	<1	0.44
MPR-434	102 Ave. East of 241A St.	27-Feb-18	0.74	<1	<2	5	<1	0.36
MPR-434	102 Ave. East of 241A St.	6-Mar-18	0.62	<1	<2	6	<1	0.32
MPR-434	102 Ave. East of 241A St.	13-Mar-18	0.61	<1	2	6	<1	0.36
MPR-434	102 Ave. East of 241A St.	20-Mar-18	0.49	<1	<2	7	<1	0.35
MPR-434	102 Ave. East of 241A St.	27-Mar-18	0.44	<1	<2	7	<1	0.3
MPR-434	102 Ave. East of 241A St.	3-Apr-18	0.78	<1	<2	7	<1	0.4
MPR-434	102 Ave. East of 241A St.	10-Apr-18	0.48	<1	2	7	<1	0.35
MPR-434	102 Ave. East of 241A St.	17-Apr-18	0.54	<1	2	8	<1	0.35
MPR-434	102 Ave. East of 241A St.	24-Apr-18	0.56	<1	<2	8	<1	0.35
MPR-434	102 Ave. East of 241A St.	1-May-18	0.48	<1	2	9	<1	0.29
MPR-434	102 Ave. East of 241A St.	8-May-18	0.66	<1	<2	10	<1	0.43
MPR-434	102 Ave. East of 241A St.	15-May-18	0.9	<1	<2	10	<1	0.56
MPR-434	102 Ave. East of 241A St.	22-May-18	0.67	<1	<2	11	<1	0.36
MPR-434	102 Ave. East of 241A St.	29-May-18	0.83	<1	<2	13	<1	0.25
MPR-434	102 Ave. East of 241A St.	5-Jun-18	0.68	<1	<2	13	<1	0.31
MPR-434	102 Ave. East of 241A St.	12-Jun-18	0.56	<1	<2	11	<1	0.24
MPR-434	102 Ave. East of 241A St.	19-Jun-18	0.96	<1	<2	13	<1	0.49
MPR-434	102 Ave. East of 241A St.	26-Jun-18	0.4	<1	<2	14	<1	0.28

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-434	102 Ave. East of 241A St.	3-Jul-18	0.38	<1	<2	13	<1	0.18
MPR-434	102 Ave. East of 241A St.	10-Jul-18	0.57	<1	4	14	<1	0.22
MPR-434	102 Ave. East of 241A St.	17-Jul-18	0.81	<1	<2	15	<1	0.35
MPR-434	102 Ave. East of 241A St.	24-Jul-18	0.76	<1	<2	15	<1	0.5
MPR-434	102 Ave. East of 241A St.	31-Jul-18	0.78	<1	LA	15	<1	0.32
MPR-434	102 Ave. East of 241A St.	7-Aug-18	0.59	<1	<2	16	<1	0.97
MPR-434	102 Ave. East of 241A St.	14-Aug-18	0.68	<1	<2	17	<1	0.3
MPR-434	102 Ave. East of 241A St.	21-Aug-18	0.76	<1	2	17	<1	0.33
MPR-434	102 Ave. East of 241A St.	28-Aug-18	0.87	<1	<2	17	<1	0.31
MPR-434	102 Ave. East of 241A St.	4-Sep-18	0.75	<1	2	15	<1	0.3
MPR-434	102 Ave. East of 241A St.	11-Sep-18	0.68	<1	<2	16	<1	0.26
MPR-434	102 Ave. East of 241A St.	18-Sep-18	0.44	<1	<2	15	<1	0.35
MPR-434	102 Ave. East of 241A St.	25-Sep-18	0.54	<1	<2	15	<1	0.31
MPR-434	102 Ave. East of 241A St.	2-Oct-18	0.57	<1	6	15	<1	0.26
MPR-434	102 Ave. East of 241A St.	9-Oct-18	0.55	<1	<2	13	<1	0.29
MPR-434	102 Ave. East of 241A St.	16-Oct-18	0.66	<1	2	11	<1	0.27
MPR-434	102 Ave. East of 241A St.	23-Oct-18	0.8	<1	<2	10	<1	0.3
MPR-434	102 Ave. East of 241A St.	30-Oct-18	0.38	<1	<2	13	<1	0.29
MPR-434	102 Ave. East of 241A St.	6-Nov-18	0.33	<1	<2	12	<1	0.52
MPR-434	102 Ave. East of 241A St.	13-Nov-18	0.76	<1	<2	11	<1	0.87
MPR-434	102 Ave. East of 241A St.	20-Nov-18	0.58	<1	<2	10	<1	0.67
MPR-434	102 Ave. East of 241A St.	27-Nov-18	0.62	<1	<2	10	<1	0.8
MPR-434	102 Ave. East of 241A St.	4-Dec-18	0.56	<1	<2	9	<1	0.72
MPR-434	102 Ave. East of 241A St.	11-Dec-18	0.56	<1	<2	8	<1	0.55
MPR-434	102 Ave. East of 241A St.	18-Dec-18	0.63	<1	NA	8	<1	0.46
MPR-434	102 Ave. East of 241A St.	27-Dec-18	0.57	<1	NA	7	<1	0.31
MPR-435	240 St. South of Abernethy Way	2-Jan-18	0.43	<1	<2	5	<1	0.68
MPR-435	240 St. South of Abernethy Way	9-Jan-18	0.72	<1	<2	5	<1	0.58
MPR-435	240 St. South of Abernethy Way	16-Jan-18	0.83	<1	<2	6	<1	0.43
MPR-435	240 St. South of Abernethy Way	23-Jan-18	0.62	<1	<2	6	<1	0.38
MPR-435	240 St. South of Abernethy Way	30-Jan-18	0.52	<1	<2	6	<1	0.38
MPR-435	240 St. South of Abernethy Way	6-Feb-18	0.51	<1	<2	7	<1	0.5
MPR-435	240 St. South of Abernethy Way	13-Feb-18	0.59	<1	<2	6	<1	0.39
MPR-435	240 St. South of Abernethy Way	20-Feb-18	0.7	<1	2	6	<1	0.39
MPR-435	240 St. South of Abernethy Way	27-Feb-18	0.73	<1	<2	5	<1	0.35
MPR-435	240 St. South of Abernethy Way	6-Mar-18	0.67	<1	<2	5	<1	0.28
MPR-435	240 St. South of Abernethy Way	13-Mar-18	0.51	<1	<2	6	<1	0.37
MPR-435	240 St. South of Abernethy Way	20-Mar-18	0.72	<1	<2	7	<1	0.31
MPR-435	240 St. South of Abernethy Way	27-Mar-18	0.53	<1	LA	7	<1	0.34

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-435	240 St. South of Abernethy Way	3-Apr-18	0.86	<1	<2	7	<1	0.42
MPR-435	240 St. South of Abernethy Way	10-Apr-18	0.6	<1	<2	8	<1	0.32
MPR-435	240 St. South of Abernethy Way	17-Apr-18	0.6	<1	<2	8	<1	0.33
MPR-435	240 St. South of Abernethy Way	24-Apr-18	0.55	<1	6	9	<1	0.29
MPR-435	240 St. South of Abernethy Way	1-May-18	0.59	<1	12	10	<1	0.24
MPR-435	240 St. South of Abernethy Way	8-May-18	0.77	<1	<2	9	<1	0.63
MPR-435	240 St. South of Abernethy Way	15-May-18	0.92	<1	<2	9	<1	0.42
MPR-435	240 St. South of Abernethy Way	22-May-18	0.63	<1	<2	10	<1	0.33
MPR-435	240 St. South of Abernethy Way	29-May-18	0.83	<1	<2	10	<1	0.32
MPR-435	240 St. South of Abernethy Way	5-Jun-18	0.73	<1	<2	11	<1	0.23
MPR-435	240 St. South of Abernethy Way	12-Jun-18	0.82	<1	<2	12	<1	0.26
MPR-435	240 St. South of Abernethy Way	19-Jun-18	0.93	<1	<2	12	<1	0.26
MPR-435	240 St. South of Abernethy Way	26-Jun-18	0.83	<1	<2	13	<1	0.3
MPR-435	240 St. South of Abernethy Way	3-Jul-18	0.65	<1	130	12	<1	7
MPR-435	240 St. South of Abernethy Way	10-Jul-18	0.8	<1	<2	12	<1	0.24
MPR-435	240 St. South of Abernethy Way	17-Jul-18	0.58	<1	<2	13	<1	0.3
MPR-435	240 St. South of Abernethy Way	24-Jul-18	0.82	<1	<2	14	<1	0.4
MPR-435	240 St. South of Abernethy Way	31-Jul-18	0.81	<1	<2	15	<1	0.22
MPR-435	240 St. South of Abernethy Way	7-Aug-18	0.42	<1	<2	15	<1	0.36
MPR-435	240 St. South of Abernethy Way	14-Aug-18	0.68	<1	<2	16	<1	0.36
MPR-435	240 St. South of Abernethy Way	21-Aug-18	0.76	<1	6	17	<1	0.33
MPR-435	240 St. South of Abernethy Way	28-Aug-18	0.84	<1	<2	17	<1	0.34
MPR-435	240 St. South of Abernethy Way	4-Sep-18	0.58	<1	70	16	<1	0.26
MPR-435	240 St. South of Abernethy Way	11-Sep-18	0.68	<1	<2	16	<1	0.3
MPR-435	240 St. South of Abernethy Way	18-Sep-18	0.44	<1	<2	17	<1	0.37
MPR-435	240 St. South of Abernethy Way	25-Sep-18	0.49	<1	4	17	<1	0.3
MPR-435	240 St. South of Abernethy Way	2-Oct-18	0.78	<1	<2	14	<1	0.35
MPR-435	240 St. South of Abernethy Way	9-Oct-18	0.79	<1	<2	15	<1	0.41
MPR-435	240 St. South of Abernethy Way	16-Oct-18	0.79	<1	<2	13	<1	0.32
MPR-435	240 St. South of Abernethy Way	23-Oct-18	0.53	<1	<2	14	<1	0.25
MPR-435	240 St. South of Abernethy Way	30-Oct-18	0.69	<1	<2	12	<1	0.27
MPR-435	240 St. South of Abernethy Way	6-Nov-18	0.25	<1	LA	12	<1	0.58
MPR-435	240 St. South of Abernethy Way	13-Nov-18	0.43	<1	2	11	<1	0.7
MPR-435	240 St. South of Abernethy Way	20-Nov-18	0.33	<1	2	10	<1	0.61
MPR-435	240 St. South of Abernethy Way	27-Nov-18	0.72	<1	<2	10	<1	0.57
MPR-435	240 St. South of Abernethy Way	4-Dec-18	0.39	<1	2	9	<1	0.73
MPR-435	240 St. South of Abernethy Way	11-Dec-18	0.58	<1	2	7	<1	0.49
MPR-435	240 St. South of Abernethy Way	18-Dec-18	0.61	<1	NA	7	<1	0.66
MPR-435	240 St. South of Abernethy Way	27-Dec-18	0.67	<1	NA	7	<1	0.35

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-436	125 Ave. West of Ansell St.	2-Jan-18	0.37	<1	130	5	<1	0.39
MPR-436	125 Ave. West of Ansell St.	9-Jan-18	0.53	<1	4	6	<1	0.45
MPR-436	125 Ave. West of Ansell St.	16-Jan-18	0.51	<1	76	6	<1	0.49
MPR-436	125 Ave. West of Ansell St.	23-Jan-18	0.82	<1	22	6	<1	0.42
MPR-436	125 Ave. West of Ansell St.	30-Jan-18	0.31	<1	160	6	<1	0.37
MPR-436	125 Ave. West of Ansell St.	6-Feb-18	0.56	<1	56	7	<1	0.46
MPR-436	125 Ave. West of Ansell St.	13-Feb-18	0.14	<1	290	7	<1	0.34
MPR-436	125 Ave. West of Ansell St.	20-Feb-18	0.29	<1	270	6	<1	0.34
MPR-436	125 Ave. West of Ansell St.	27-Feb-18	0.88	<1	38	5	<1	0.3
MPR-436	125 Ave. West of Ansell St.	6-Mar-18	0.82	<1	42	5	<1	0.29
MPR-436	125 Ave. West of Ansell St.	13-Mar-18	0.56	<1	86	6	<1	0.38
MPR-436	125 Ave. West of Ansell St.	20-Mar-18	0.59	<1	88	6	<1	0.29
MPR-436	125 Ave. West of Ansell St.	27-Mar-18	0.55	<1	150	7	<1	0.27
MPR-436	125 Ave. West of Ansell St.	3-Apr-18	0.38	<1	270	7	<1	0.39
MPR-436	125 Ave. West of Ansell St.	10-Apr-18	0.61	<1	310	8	<1	0.29
MPR-436	125 Ave. West of Ansell St.	17-Apr-18	0.37	<1	500	9	<1	0.28
MPR-436	125 Ave. West of Ansell St.	24-Apr-18	0.72	<1	52	9	<1	0.83
MPR-436	125 Ave. West of Ansell St.	1-May-18	0.35	<1	200	11	<1	0.27
MPR-436	125 Ave. West of Ansell St.	8-May-18	0.72	<1	400	12	<1	0.27
MPR-436	125 Ave. West of Ansell St.	15-May-18	0.79	<1	26	12	<1	0.27
MPR-436	125 Ave. West of Ansell St.	22-May-18	1.03	<1	14	13	<1	0.24
MPR-436	125 Ave. West of Ansell St.	29-May-18	1.07	<1	<2	13	<1	0.23
MPR-436	125 Ave. West of Ansell St.	5-Jun-18	0.37	<1	64	14	<1	0.2
MPR-436	125 Ave. West of Ansell St.	12-Jun-18	0.48	<1	58	15	<1	0.19
MPR-436	125 Ave. West of Ansell St.	19-Jun-18	1.04	<1	<2	14	<1	0.34
MPR-436	125 Ave. West of Ansell St.	26-Jun-18	0.58	<1	34	16	<1	0.3
MPR-436	125 Ave. West of Ansell St.	3-Jul-18	0.86	<1	2	15	<1	0.26
MPR-436	125 Ave. West of Ansell St.	10-Jul-18	0.57	<1	60	17	<1	0.23
MPR-436	125 Ave. West of Ansell St.	17-Jul-18	1.08	<1	<2	15	<1	0.33
MPR-436	125 Ave. West of Ansell St.	24-Jul-18	1.17	<1	<2	16	<1	0.59
MPR-436	125 Ave. West of Ansell St.	31-Jul-18	1.12	<1	4	16	<1	0.29
MPR-436	125 Ave. West of Ansell St.	7-Aug-18	0.86	<1	18	17	<1	0.17
MPR-436	125 Ave. West of Ansell St.	14-Aug-18	1.05	<1	4	17	<1	0.22
MPR-436	125 Ave. West of Ansell St.	21-Aug-18	0.81	<1	<2	16	<1	0.26
MPR-436	125 Ave. West of Ansell St.	28-Aug-18	1.08	<1	4	17	<1	0.25
MPR-436	125 Ave. West of Ansell St.	4-Sep-18	1.15	<1	2	17	<1	0.23
MPR-436	125 Ave. West of Ansell St.	11-Sep-18	0.51	<1	30	17	<1	0.2
MPR-436	125 Ave. West of Ansell St.	18-Sep-18	0.71	<1	<2	16	<1	0.36
MPR-436	125 Ave. West of Ansell St.	25-Sep-18	0.17	<1	7400	16	<1	0.27

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-436	125 Ave. West of Ansell St.	2-Oct-18	0.91	<1	2	14	<1	0.43
MPR-436	125 Ave. West of Ansell St.	9-Oct-18	0.26	<1	82	15	<1	0.26
MPR-436	125 Ave. West of Ansell St.	16-Oct-18	0.13	<1	120	14	<1	0.33
MPR-436	125 Ave. West of Ansell St.	23-Oct-18	0.15	<1	1600	12	<1	0.23
MPR-436	125 Ave. West of Ansell St.	30-Oct-18	0.82	<1	6	12	<1	0.25
MPR-436	125 Ave. West of Ansell St.	6-Nov-18	0.73	<1	6	11	<1	0.38
MPR-436	125 Ave. West of Ansell St.	13-Nov-18	0.48	<1	<2	10	<1	0.81
MPR-436	125 Ave. West of Ansell St.	20-Nov-18	0.65	<1	2	9	<1	0.64
MPR-436	125 Ave. West of Ansell St.	27-Nov-18	0.8	<1	<2	9	<1	0.55
MPR-436	125 Ave. West of Ansell St.	4-Dec-18	0.62	<1	2	9	<1	0.66
MPR-436	125 Ave. West of Ansell St.	11-Dec-18	0.9	<1	<2	7	<1	0.56
MPR-436	125 Ave. West of Ansell St.	18-Dec-18	1.15	<1	NA	7	<1	0.46
MPR-436	125 Ave. West of Ansell St.	27-Dec-18	1.05	<1	NA	7	<1	0.32
MPR-437	248 St. @ 116 Ave.	2-Jan-18	0.8	<1	2	5	<1	0.64
MPR-437	248 St. @ 116 Ave.	9-Jan-18	0.37	<1	<2	5	<1	0.59
MPR-437	248 St. @ 116 Ave.	16-Jan-18	1.31	<1	<2	5	<1	0.45
MPR-437	248 St. @ 116 Ave.	23-Jan-18	0.96	<1	<2	6	<1	0.54
MPR-437	248 St. @ 116 Ave.	30-Jan-18	1.1	<1	<2	6	<1	0.47
MPR-437	248 St. @ 116 Ave.	6-Feb-18	1	<1	<2	6	<1	0.54
MPR-437	248 St. @ 116 Ave.	13-Feb-18	1.03	<1	<2	6	<1	0.57
MPR-437	248 St. @ 116 Ave.	20-Feb-18	1.25	<1	<2	5	<1	0.41
MPR-437	248 St. @ 116 Ave.	27-Feb-18	1.23	<1	<2	5	<1	0.42
MPR-437	248 St. @ 116 Ave.	6-Mar-18	1.04	<1	<2	5	<1	0.35
MPR-437	248 St. @ 116 Ave.	13-Mar-18	1.33	<1	<2	6	<1	0.34
MPR-437	248 St. @ 116 Ave.	20-Mar-18	0.88	<1	<2	6	<1	0.37
MPR-437	248 St. @ 116 Ave.	27-Mar-18	1.01	<1	<2	6	<1	0.36
MPR-437	248 St. @ 116 Ave.	3-Apr-18	1.15	<1	<2	7	<1	0.49
MPR-437	248 St. @ 116 Ave.	10-Apr-18	0.83	<1	2	7	<1	0.35
MPR-437	248 St. @ 116 Ave.	17-Apr-18	0.86	<1	<2	8	<1	0.34
MPR-437	248 St. @ 116 Ave.	24-Apr-18	0.98	<1	2	8	<1	0.33
MPR-437	248 St. @ 116 Ave.	1-May-18	1	<1	<2	9	<1	0.31
MPR-437	248 St. @ 116 Ave.	8-May-18	0.98	<1	<2	10	<1	0.46
MPR-437	248 St. @ 116 Ave.	15-May-18	1.12	<1	<2	10	<1	0.37
MPR-437	248 St. @ 116 Ave.	22-May-18	1.04	<1	<2	11	<1	0.33
MPR-437	248 St. @ 116 Ave.	29-May-18	1.07	<1	4	11	<1	0.36
MPR-437	248 St. @ 116 Ave.	5-Jun-18	0.99	<1	<2	12	<1	0.23
MPR-437	248 St. @ 116 Ave.	12-Jun-18	1.18	<1	<2	12	<1	0.25
MPR-437	248 St. @ 116 Ave.	19-Jun-18	1.13	<1	2	12	<1	0.33
MPR-437	248 St. @ 116 Ave.	26-Jun-18	1.18	<1	<2	13	<1	0.38

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-437	248 St. @ 116 Ave.	3-Jul-18	0.98	<1	<2	13	<1	0.23
MPR-437	248 St. @ 116 Ave.	10-Jul-18	0.95	<1	<2	13	<1	0.24
MPR-437	248 St. @ 116 Ave.	17-Jul-18	0.92	<1	<2	14	<1	0.45
MPR-437	248 St. @ 116 Ave.	24-Jul-18	1.13	<1	2	14	<1	0.46
MPR-437	248 St. @ 116 Ave.	31-Jul-18	1.03	<1	<2	15	<1	0.26
MPR-437	248 St. @ 116 Ave.	7-Aug-18	0.8	<1	2	15	<1	0.62
MPR-437	248 St. @ 116 Ave.	14-Aug-18	0.92	<1	<2	16	<1	0.29
MPR-437	248 St. @ 116 Ave.	21-Aug-18	1.03	<1	<2	16	<1	0.33
MPR-437	248 St. @ 116 Ave.	28-Aug-18	1.16	<1	<2	17	<1	0.34
MPR-437	248 St. @ 116 Ave.	4-Sep-18	1	<1	<2	15	<1	0.29
MPR-437	248 St. @ 116 Ave.	11-Sep-18	0.9	<1	4	16	<1	0.27
MPR-437	248 St. @ 116 Ave.	18-Sep-18	0.96	<1	110	15	<1	0.27
MPR-437	248 St. @ 116 Ave.	25-Sep-18	0.85	<1	<2	14	<1	0.28
MPR-437	248 St. @ 116 Ave.	2-Oct-18	0.94	<1	<2	14	<1	0.4
MPR-437	248 St. @ 116 Ave.	9-Oct-18	1.22	<1	<2	13	<1	0.35
MPR-437	248 St. @ 116 Ave.	16-Oct-18	1.1	<1	<2	12	<1	0.25
MPR-437	248 St. @ 116 Ave.	23-Oct-18	1.19	<1	2	12	<1	0.3
MPR-437	248 St. @ 116 Ave.	30-Oct-18	0.9	<1	<2	13	<1	0.27
MPR-437	248 St. @ 116 Ave.	6-Nov-18	0.77	<1	<2	11	<1	0.75
MPR-437	248 St. @ 116 Ave.	13-Nov-18	1.15	<1	<2	10	<1	1.1
MPR-437	248 St. @ 116 Ave.	20-Nov-18	0.69	<1	2	9	<1	0.62
MPR-437	248 St. @ 116 Ave.	27-Nov-18	0.58	<1	<2	9	<1	0.68
MPR-437	248 St. @ 116 Ave.	4-Dec-18	0.93	<1	2	8	<1	0.67
MPR-437	248 St. @ 116 Ave.	11-Dec-18	0.95	<1	<2	7	<1	0.54
MPR-437	248 St. @ 116 Ave.	18-Dec-18	1.07	<1	NA	7	<1	0.52
MPR-437	248 St. @ 116 Ave.	27-Dec-18	1.06	<1	NA	7	<1	0.33
MPR-438	125 Ave. West off 256 St.	2-Jan-18	0.94	<1	<2	5	<1	0.87
MPR-438	125 Ave. West off 256 St.	9-Jan-18	0.99	<1	<2	5	<1	0.62
MPR-438	125 Ave. West off 256 St.	16-Jan-18	1.03	<1	<2	6	<1	0.52
MPR-438	125 Ave. West off 256 St.	23-Jan-18	0.93	<1	<2	6	<1	0.4
MPR-438	125 Ave. West off 256 St.	30-Jan-18	1.1	<1	2	6	<1	0.41
MPR-438	125 Ave. West off 256 St.	6-Feb-18	1.05	<1	<2	6	<1	0.7
MPR-438	125 Ave. West off 256 St.	13-Feb-18	0.96	<1	<2	6	<1	0.96
MPR-438	125 Ave. West off 256 St.	20-Feb-18	1.24	<1	<2	5	<1	0.49
MPR-438	125 Ave. West off 256 St.	27-Feb-18	1.15	<1	<2	5	<1	0.4
MPR-438	125 Ave. West off 256 St.	6-Mar-18	0.94	<1	<2	5	<1	0.38
MPR-438	125 Ave. West off 256 St.	13-Mar-18	1.06	<1	<2	6	<1	0.36
MPR-438	125 Ave. West off 256 St.	20-Mar-18	0.89	<1	<2	6	<1	0.36
MPR-438	125 Ave. West off 256 St.	27-Mar-18	1.11	<1	LA	6	<1	0.39

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-438	125 Ave. West off 256 St.	3-Apr-18	1.07	<1	<2	7	<1	0.47
MPR-438	125 Ave. West off 256 St.	10-Apr-18	0.98	<1	<2	7	<1	0.35
MPR-438	125 Ave. West off 256 St.	17-Apr-18	1	<1	<2	8	<1	0.34
MPR-438	125 Ave. West off 256 St.	24-Apr-18	0.82	<1	<2	8	<1	0.46
MPR-438	125 Ave. West off 256 St.	1-May-18	0.85	<1	2	9	<1	0.35
MPR-438	125 Ave. West off 256 St.	8-May-18	1.01	<1	<2	10	1	0.77
MPR-438	125 Ave. West off 256 St.	15-May-18	1.19	<1	<2	11	<1	0.37
MPR-438	125 Ave. West off 256 St.	22-May-18	1.06	<1	<2	11	<1	0.37
MPR-438	125 Ave. West off 256 St.	29-May-18	1.15	<1	<2	12	<1	2.8
MPR-438	125 Ave. West off 256 St.	5-Jun-18	0.88	<1	<2	12	<1	0.3
MPR-438	125 Ave. West off 256 St.	12-Jun-18	1.17	<1	<2	12	<1	0.24
MPR-438	125 Ave. West off 256 St.	19-Jun-18	1.2	<1	<2	14	<1	0.11
MPR-438	125 Ave. West off 256 St.	26-Jun-18	1.08	<1	<2	13	<1	0.49
MPR-438	125 Ave. West off 256 St.	3-Jul-18	0.98	<1	<2	13	<1	0.17
MPR-438	125 Ave. West off 256 St.	10-Jul-18	0.89	<1	<2	14	<1	0.33
MPR-438	125 Ave. West off 256 St.	17-Jul-18	0.91	<1	<2	14	<1	0.32
MPR-438	125 Ave. West off 256 St.	24-Jul-18	0.87	<1	<2	15	<1	0.26
MPR-438	125 Ave. West off 256 St.	31-Jul-18	1.21	<1	<2	15	<1	0.23
MPR-438	125 Ave. West off 256 St.	7-Aug-18	0.7	<1	2	22	<1	0.39
MPR-438	125 Ave. West off 256 St.	14-Aug-18	0.75	<1	<2	17	<1	0.2
MPR-438	125 Ave. West off 256 St.	21-Aug-18	0.98	<1	<2	17	<1	0.3
MPR-438	125 Ave. West off 256 St.	28-Aug-18	0.76	<1	6	16	<1	0.34
MPR-438	125 Ave. West off 256 St.	4-Sep-18	0.87	<1	<2	16	<1	0.27
MPR-438	125 Ave. West off 256 St.	11-Sep-18	0.87	<1	2	16	<1	0.24
MPR-438	125 Ave. West off 256 St.	18-Sep-18	0.93	<1	<2	15	<1	0.3
MPR-438	125 Ave. West off 256 St.	25-Sep-18	0.64	<1	<2	15	<1	0.3
MPR-438	125 Ave. West off 256 St.	2-Oct-18	1.04	<1	LA	14	<1	0.34
MPR-438	125 Ave. West off 256 St.	9-Oct-18	0.72	<1	<2	13	<1	0.27
MPR-438	125 Ave. West off 256 St.	16-Oct-18	1	<1	<2	13	<1	0.28
MPR-438	125 Ave. West off 256 St.	23-Oct-18	1.03	<1	<2	12	<1	0.23
MPR-438	125 Ave. West off 256 St.	30-Oct-18	0.79	<1	2	12	<1	0.23
MPR-438	125 Ave. West off 256 St.	6-Nov-18	0.76	<1	2	11	<1	0.4
MPR-438	125 Ave. West off 256 St.	13-Nov-18	1.09	<1	<2	10	<1	0.85
MPR-438	125 Ave. West off 256 St.	20-Nov-18	0.75	<1	<2	10	<1	0.65
MPR-438	125 Ave. West off 256 St.	27-Nov-18	0.86	<1	<2	9	<1	0.67
MPR-438	125 Ave. West off 256 St.	4-Dec-18	0.79	<1	<2	9	<1	0.78
MPR-438	125 Ave. West off 256 St.	11-Dec-18	0.76	<1	<2	7	<1	0.55
MPR-438	125 Ave. West off 256 St.	18-Dec-18	1.08	<1	NA	7	<1	0.52
MPR-438	125 Ave. West off 256 St.	27-Dec-18	0.96	<1	NA	7	<1	0.33

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	2-Jan-18	0.7	<1	<2	5	<1	0.58
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	9-Jan-18	0.65	<1	<2	5	<1	0.48
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	16-Jan-18	1.17	<1	2	6	<1	0.5
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	23-Jan-18	0.76	<1	<2	6	<1	0.46
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	30-Jan-18	1.34	<1	<2	6	<1	0.47
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	6-Feb-18	1.11	<1	<2	7	<1	0.53
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	13-Feb-18	1.15	<1	<2	6	<1	0.46
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	20-Feb-18	1.44	<1	2	5	<1	0.38
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	27-Feb-18	0.98	<1	<2	5	<1	0.39
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	6-Mar-18	0.9	<1	<2	5	<1	0.35
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	13-Mar-18	1.31	<1	<2	6	<1	0.35
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	20-Mar-18	0.79	<1	<2	6	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	27-Mar-18	0.95	<1	<2	6	<1	0.36
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	3-Apr-18	1.25	<1	<2	7	<1	0.42
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	10-Apr-18	1.01	<1	<2	7	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	17-Apr-18	1.14	<1	2	8	<1	0.33
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	24-Apr-18	0.77	<1	<2	9	<1	0.33
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	1-May-18	1.19	<1	2	10	<1	0.3
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	8-May-18	0.92	<1	<2	12	<1	0.39
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	15-May-18	1.32	<1	<2	13	<1	0.34
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	22-May-18	0.69	<1	<2	14	<1	0.38
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	29-May-18	1.04	<1	<2	14	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	5-Jun-18	0.59	<1	<2	14	<1	0.29
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	12-Jun-18	1.21	<1	<2	14	<1	0.21
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	19-Jun-18	1.25	<1	<2	15	<1	0.3
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	26-Jun-18	0.73	<1	<2	16	<1	0.35
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	3-Jul-18	1	<1	<2	15	<1	0.23
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	10-Jul-18	0.62	<1	<2	16	<1	0.24
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	17-Jul-18	0.62	<1	<2	17	<1	0.36
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	24-Jul-18	0.67	<1	44	19	<1	0.22
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	31-Jul-18	0.7	<1	100	20	<1	0.21
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	7-Aug-18	0.43	<1	550	20	<1	0.24
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	14-Aug-18	0.54	<1	<2	19	<1	0.25
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	21-Aug-18	1.18	<1	2	17	<1	0.33
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	28-Aug-18	0.7	<1	<2	17	<1	0.35
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	4-Sep-18	0.99	<1	<2	17	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	11-Sep-18	0.95	<1	<2	16	<1	0.27
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	18-Sep-18	0.96	<1	<2	15	<1	0.27
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	25-Sep-18	0.73	<1	2	15	<1	0.25

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	2-Oct-18	1.12	<1	<2	15	<1	0.27
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	9-Oct-18	0.83	<1	<2	13	<1	0.38
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	16-Oct-18	0.7	<1	2	12	<1	0.3
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	23-Oct-18	0.81	<1	2	12	<1	0.29
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	30-Oct-18	0.86	<1	32	12	<1	0.25
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	6-Nov-18	0.8	<1	<2	12	<1	0.43
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	13-Nov-18	0.86	<1	<2	10	<1	0.73
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	20-Nov-18	0.55	<1	4	9	<1	0.6
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	27-Nov-18	0.76	<1	<2	9	<1	0.65
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	4-Dec-18	0.54	<1	<2	8	<1	0.61
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	11-Dec-18	0.85	<1	<2	6	<1	0.47
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	18-Dec-18	0.99	<1	NA	7	<1	0.51
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	27-Dec-18	0.71	<1	NA	7	<1	0.36
MPR-440	232 St. @ 117 Ave.	2-Jan-18	1.01	<1	<2	4	<1	0.56
MPR-440	232 St. @ 117 Ave.	9-Jan-18	0.78	<1	<2	5	<1	0.54
MPR-440	232 St. @ 117 Ave.	16-Jan-18	0.97	<1	<2	5	<1	0.53
MPR-440	232 St. @ 117 Ave.	23-Jan-18	0.85	<1	<2	5	<1	0.45
MPR-440	232 St. @ 117 Ave.	30-Jan-18	0.99	<1	<2	5	<1	0.49
MPR-440	232 St. @ 117 Ave.	6-Feb-18	0.89	<1	<2	5	<1	0.6
MPR-440	232 St. @ 117 Ave.	13-Feb-18	0.97	<1	<2	5	<1	0.45
MPR-440	232 St. @ 117 Ave.	20-Feb-18	1.09	<1	<2	5	<1	0.43
MPR-440	232 St. @ 117 Ave.	27-Feb-18	1.01	<1	<2	5	<1	0.41
MPR-440	232 St. @ 117 Ave.	6-Mar-18	1.06	<1	<2	5	<1	0.34
MPR-440	232 St. @ 117 Ave.	13-Mar-18	1.02	<1	<2	6	<1	0.4
MPR-440	232 St. @ 117 Ave.	20-Mar-18	0.87	<1	<2	6	<1	0.47
MPR-440	232 St. @ 117 Ave.	27-Mar-18	1.17	<1	<2	6	<1	0.38
MPR-440	232 St. @ 117 Ave.	3-Apr-18	1.08	<1	2	6	<1	0.47
MPR-440	232 St. @ 117 Ave.	10-Apr-18	0.95	<1	<2	7	<1	0.42
MPR-440	232 St. @ 117 Ave.	17-Apr-18	0.99	<1	<2	7	<1	0.44
MPR-440	232 St. @ 117 Ave.	24-Apr-18	0.97	<1	<2	6	<1	0.5
MPR-440	232 St. @ 117 Ave.	1-May-18	1.04	<1	<2	8	<1	0.36
MPR-440	232 St. @ 117 Ave.	8-May-18	0.87	<1	<2	8	<1	0.41
MPR-440	232 St. @ 117 Ave.	15-May-18	0.82	<1	<2	9	<1	0.48
MPR-440	232 St. @ 117 Ave.	22-May-18	0.68	<1	<2	10	<1	0.33
MPR-440	232 St. @ 117 Ave.	29-May-18	0.77	<1	<2	10	<1	0.33
MPR-440	232 St. @ 117 Ave.	5-Jun-18	0.7	<1	4	12	<1	6.1
MPR-440	232 St. @ 117 Ave.	12-Jun-18	0.91	<1	<2	11	<1	0.24
MPR-440	232 St. @ 117 Ave.	19-Jun-18	1.04	<1	<2	11	<1	0.58
MPR-440	232 St. @ 117 Ave.	26-Jun-18	0.63	<1	<2	11	<1	0.34

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-440	232 St. @ 117 Ave.	3-Jul-18	0.88	<1	2	11	<1	0.23
MPR-440	232 St. @ 117 Ave.	10-Jul-18	0.81	<1	<2	13	<1	0.28
MPR-440	232 St. @ 117 Ave.	17-Jul-18	0.73	<1	<2	13	<1	0.42
MPR-440	232 St. @ 117 Ave.	24-Jul-18	0.9	<1	<2	13	<1	0.6
MPR-440	232 St. @ 117 Ave.	31-Jul-18	0.86	<1	<2	14	<1	0.27
MPR-440	232 St. @ 117 Ave.	7-Aug-18	0.73	<1	<2	15	<1	0.27
MPR-440	232 St. @ 117 Ave.	14-Aug-18	0.46	<1	<2	16	<1	0.35
MPR-440	232 St. @ 117 Ave.	21-Aug-18	0.82	<1	<2	15	<1	0.28
MPR-440	232 St. @ 117 Ave.	28-Aug-18	0.92	<1	<2	15	<1	0.33
MPR-440	232 St. @ 117 Ave.	4-Sep-18	0.95	<1	<2	15	<1	0.3
MPR-440	232 St. @ 117 Ave.	11-Sep-18	0.76	<1	2	16	<1	0.31
MPR-440	232 St. @ 117 Ave.	18-Sep-18	0.69	<1	2	13	<1	0.39
MPR-440	232 St. @ 117 Ave.	25-Sep-18	0.84	<1	<2	13	<1	0.4
MPR-440	232 St. @ 117 Ave.	2-Oct-18	0.9	<1	<2	13	<1	0.51
MPR-440	232 St. @ 117 Ave.	9-Oct-18	0.89	<1	<2	13	<1	0.34
MPR-440	232 St. @ 117 Ave.	16-Oct-18	0.8	<1	4	12	<1	0.28
MPR-440	232 St. @ 117 Ave.	23-Oct-18	0.97	<1	2	12	<1	0.34
MPR-440	232 St. @ 117 Ave.	30-Oct-18	0.7	<1	2	12	<1	0.27
MPR-440	232 St. @ 117 Ave.	6-Nov-18	0.85	<1	<2	10	<1	1.2
MPR-440	232 St. @ 117 Ave.	13-Nov-18	0.89	<1	<2	10	<1	0.85
MPR-440	232 St. @ 117 Ave.	20-Nov-18	1.09	<1	<2	9	<1	0.56
MPR-440	232 St. @ 117 Ave.	27-Nov-18	1.05	<1	<2	9	<1	0.62
MPR-440	232 St. @ 117 Ave.	4-Dec-18	0.91	<1	<2	7	<1	0.8
MPR-440	232 St. @ 117 Ave.	11-Dec-18	0.81	<1	<2	7	<1	0.59
MPR-440	232 St. @ 117 Ave.	18-Dec-18	0.74	<1	NA	7	<1	0.5
MPR-440	232 St. @ 117 Ave.	27-Dec-18	0.72	<1	NA	6	<1	0.53
MPR-441	132 Ave. @ Cedar Way	2-Jan-18	0.22	<1	10	5	<1	0.87
MPR-441	132 Ave. @ Cedar Way	9-Jan-18	0.2	<1	<2	6	<1	0.54
MPR-441	132 Ave. @ Cedar Way	16-Jan-18	0.28	<1	48	6	<1	0.39
MPR-441	132 Ave. @ Cedar Way	23-Jan-18	0.15	<1	<2	6	<1	0.39
MPR-441	132 Ave. @ Cedar Way	30-Jan-18	0.29	<1	6	7	<1	0.41
MPR-441	132 Ave. @ Cedar Way	6-Feb-18	0.26	<1	4	7	<1	0.52
MPR-441	132 Ave. @ Cedar Way	13-Feb-18	0.27	<1	<2	7	<1	0.38
MPR-441	132 Ave. @ Cedar Way	20-Feb-18	0.29	<1	<2	6	<1	0.38
MPR-441	132 Ave. @ Cedar Way	27-Feb-18	0.45	<1	<2	5	<1	0.32
MPR-441	132 Ave. @ Cedar Way	6-Mar-18	0.38	<1	<2	6	<1	0.32
MPR-441	132 Ave. @ Cedar Way	13-Mar-18	0.37	<1	<2	6	<1	0.34
MPR-441	132 Ave. @ Cedar Way	20-Mar-18	0.28	<1	2	7	<1	0.34
MPR-441	132 Ave. @ Cedar Way	27-Mar-18	0.42	<1	<2	7	<1	0.33

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-441	132 Ave. @ Cedar Way	3-Apr-18	0.26	<1	2	8	<1	0.38
MPR-441	132 Ave. @ Cedar Way	10-Apr-18	0.31	<1	2	9	<1	0.33
MPR-441	132 Ave. @ Cedar Way	17-Apr-18	0.36	<1	<2	9	<1	0.32
MPR-441	132 Ave. @ Cedar Way	24-Apr-18	0.28	<1	2	9	<1	0.38
MPR-441	132 Ave. @ Cedar Way	1-May-18	0.26	<1	<2	11	<1	0.29
MPR-441	132 Ave. @ Cedar Way	8-May-18	0.28	<1	4	12	<1	0.42
MPR-441	132 Ave. @ Cedar Way	15-May-18	0.25	<1	2	14	<1	0.26
MPR-441	132 Ave. @ Cedar Way	22-May-18	0.16	<1	22	15	<1	0.37
MPR-441	132 Ave. @ Cedar Way	29-May-18	0.08	<1	36	16	<1	0.29
MPR-441	132 Ave. @ Cedar Way	5-Jun-18	0.18	<1	130	16	<1	0.22
MPR-441	132 Ave. @ Cedar Way	12-Jun-18	0.1	<1	220	15	<1	0.25
MPR-441	132 Ave. @ Cedar Way	19-Jun-18	0.55	<1	52	16	<1	0.33
MPR-441	132 Ave. @ Cedar Way	26-Jun-18	0.28	<1	270	17	<1	0.3
MPR-441	132 Ave. @ Cedar Way	3-Jul-18	0.13	<1	210	16	<1	0.17
MPR-441	132 Ave. @ Cedar Way	10-Jul-18	0.07	<1	170	17	<1	0.23
MPR-441	132 Ave. @ Cedar Way	17-Jul-18	0.21	<1	56	18	<1	0.57
MPR-441	132 Ave. @ Cedar Way	24-Jul-18	0.11	<1	30	18	<1	0.3
MPR-441	132 Ave. @ Cedar Way	31-Jul-18	0.12	<1	56	19	<1	0.29
MPR-441	132 Ave. @ Cedar Way	7-Aug-18	0.05	<1	40	19	<1	0.38
MPR-441	132 Ave. @ Cedar Way	14-Aug-18	0.18	<1	280	20	<1	0.24
MPR-441	132 Ave. @ Cedar Way	21-Aug-18	0.05	<1	280	20	<1	0.25
MPR-441	132 Ave. @ Cedar Way	28-Aug-18	0.09	<1	270	19	<1	0.21
MPR-441	132 Ave. @ Cedar Way	4-Sep-18	0.13	<1	180	19	<1	0.22
MPR-441	132 Ave. @ Cedar Way	11-Sep-18	0.62	<1	<2	16	<1	0.21
MPR-441	132 Ave. @ Cedar Way	18-Sep-18	0.55	<1	2	13	<1	0.32
MPR-441	132 Ave. @ Cedar Way	25-Sep-18	0.59	<1	2	14	<1	0.31
MPR-441	132 Ave. @ Cedar Way	2-Oct-18	0.66	<1	<2	14	<1	0.3
MPR-441	132 Ave. @ Cedar Way	9-Oct-18	0.34	<1	<2	13	<1	0.39
MPR-441	132 Ave. @ Cedar Way	16-Oct-18	0.52	<1	<2	12	<1	0.27
MPR-441	132 Ave. @ Cedar Way	23-Oct-18	0.8	<1	<2	12	<1	0.24
MPR-441	132 Ave. @ Cedar Way	30-Oct-18	0.55	<1	<2	12	<1	0.24
MPR-441	132 Ave. @ Cedar Way	6-Nov-18	0.57	<1	<2	11	<1	0.85
MPR-441	132 Ave. @ Cedar Way	13-Nov-18	0.75	<1	<2	10	<1	0.77
MPR-441	132 Ave. @ Cedar Way	20-Nov-18	0.75	<1	<2	8	<1	0.68
MPR-441	132 Ave. @ Cedar Way	27-Nov-18	0.8	<1	<2	9	<1	0.61
MPR-441	132 Ave. @ Cedar Way	4-Dec-18	0.64	<1	<2	8	<1	0.58
MPR-441	132 Ave. @ Cedar Way	11-Dec-18	0.81	<1	<2	8	<1	0.51
MPR-441	132 Ave. @ Cedar Way	18-Dec-18	0.77	<1	NA	7	<1	0.54
MPR-441	132 Ave. @ Cedar Way	27-Dec-18	0.74	<1	NA	6	<1	0.36

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-442	Princess St. @ Ditton St.	2-Jan-18	0.47	<1	<2	6	<1	0.56
MPR-442	Princess St. @ Ditton St.	9-Jan-18	0.54	<1	<2	6	<1	0.55
MPR-442	Princess St. @ Ditton St.	16-Jan-18	0.74	<1	2	6	<1	0.67
MPR-442	Princess St. @ Ditton St.	23-Jan-18	0.63	<1	<2	6	<1	0.39
MPR-442	Princess St. @ Ditton St.	30-Jan-18	0.63	<1	<2	6	<1	0.44
MPR-442	Princess St. @ Ditton St.	6-Feb-18	0.65	<1	<2	6	<1	0.46
MPR-442	Princess St. @ Ditton St.	13-Feb-18	0.64	<1	<2	6	<1	0.37
MPR-442	Princess St. @ Ditton St.	20-Feb-18	0.73	<1	<2	6	<1	0.37
MPR-442	Princess St. @ Ditton St.	27-Feb-18	0.72	<1	<2	6	<1	0.39
MPR-442	Princess St. @ Ditton St.	6-Mar-18	0.73	<1	<2	6	<1	0.3
MPR-442	Princess St. @ Ditton St.	13-Mar-18	0.86	<1	<2	6	<1	0.34
MPR-442	Princess St. @ Ditton St.	20-Mar-18	0.65	<1	<2	7	<1	0.31
MPR-442	Princess St. @ Ditton St.	27-Mar-18	0.73	<1	<2	7	<1	0.3
MPR-442	Princess St. @ Ditton St.	3-Apr-18	0.63	<1	4	8	<1	0.39
MPR-442	Princess St. @ Ditton St.	10-Apr-18	0.67	<1	<2	8	<1	0.31
MPR-442	Princess St. @ Ditton St.	17-Apr-18	0.61	<1	<2	8	<1	0.34
MPR-442	Princess St. @ Ditton St.	24-Apr-18	0.71	<1	<2	9	<1	0.33
MPR-442	Princess St. @ Ditton St.	1-May-18	0.68	<1	<2	10	<1	0.77
MPR-442	Princess St. @ Ditton St.	8-May-18	0.66	<1	<2	11	<1	0.43
MPR-442	Princess St. @ Ditton St.	15-May-18	0.62	<1	<2	12	<1	0.33
MPR-442	Princess St. @ Ditton St.	22-May-18	0.56	<1	<2	11	<1	0.27
MPR-442	Princess St. @ Ditton St.	29-May-18	0.77	<1	<2	12	<1	0.27
MPR-442	Princess St. @ Ditton St.	5-Jun-18	0.72	<1	<2	12	<1	0.22
MPR-442	Princess St. @ Ditton St.	12-Jun-18	0.76	<1	<2	12	<1	0.25
MPR-442	Princess St. @ Ditton St.	19-Jun-18	0.88	<1	<2	13	<1	0.27
MPR-442	Princess St. @ Ditton St.	26-Jun-18	0.77	<1	<2	13	<1	0.27
MPR-442	Princess St. @ Ditton St.	3-Jul-18	0.65	<1	<2	13	<1	0.84
MPR-442	Princess St. @ Ditton St.	10-Jul-18	0.73	<1	<2	14	<1	0.2
MPR-442	Princess St. @ Ditton St.	17-Jul-18	0.82	<1	<2	14	<1	0.34
MPR-442	Princess St. @ Ditton St.	24-Jul-18	0.82	<1	80	14	<1	5
MPR-442	Princess St. @ Ditton St.	31-Jul-18	0.76	<1	<2	15	<1	0.22
MPR-442	Princess St. @ Ditton St.	7-Aug-18	0.61	<1	<2	16	<1	3.3
MPR-442	Princess St. @ Ditton St.	14-Aug-18	0.73	<1	<2	16	<1	0.21
MPR-442	Princess St. @ Ditton St.	21-Aug-18	0.73	<1	<2	16	<1	0.25
MPR-442	Princess St. @ Ditton St.	28-Aug-18	0.82	<1	<2	16	<1	0.29
MPR-442	Princess St. @ Ditton St.	4-Sep-18	0.87	<1	2	16	<1	0.27
MPR-442	Princess St. @ Ditton St.	11-Sep-18	0.59	<1	<2	16	<1	0.28
MPR-442	Princess St. @ Ditton St.	18-Sep-18	0.69	<1	2	14	<1	0.29
MPR-442	Princess St. @ Ditton St.	25-Sep-18	0.77	<1	2	15	<1	0.29

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-442	Princess St. @ Ditton St.	2-Oct-18	0.61	<1	<2	15	<1	0.27
MPR-442	Princess St. @ Ditton St.	9-Oct-18	0.65	<1	<2	13	<1	0.26
MPR-442	Princess St. @ Ditton St.	16-Oct-18	0.61	<1	<2	12	<1	0.32
MPR-442	Princess St. @ Ditton St.	23-Oct-18	0.64	<1	<2	12	<1	0.34
MPR-442	Princess St. @ Ditton St.	30-Oct-18	0.56	<1	<2	13	<1	0.25
MPR-442	Princess St. @ Ditton St.	6-Nov-18	0.51	<1	<2	12	<1	0.92
MPR-442	Princess St. @ Ditton St.	13-Nov-18	0.8	<1	<2	11	<1	0.74
MPR-442	Princess St. @ Ditton St.	20-Nov-18	0.73	<1	<2	10	<1	0.56
MPR-442	Princess St. @ Ditton St.	27-Nov-18	0.86	<1	<2	10	<1	1.2
MPR-442	Princess St. @ Ditton St.	4-Dec-18	0.68	<1	2	9	<1	0.63
MPR-442	Princess St. @ Ditton St.	11-Dec-18	0.69	<1	<2	8	<1	0.52
MPR-442	Princess St. @ Ditton St.	18-Dec-18	0.65	<1	NA	8	<1	0.47
MPR-442	Princess St. @ Ditton St.	27-Dec-18	0.66	<1	NA	7	<1	0.43
MPR-443	216 St. @ Donovan	2-Jan-18	0.82	<1	<2	5	<1	0.64
MPR-443	216 St. @ Donovan	9-Jan-18	0.67	<1	<2	6	<1	0.56
MPR-443	216 St. @ Donovan	16-Jan-18	0.93	<1	<2	6	<1	0.4
MPR-443	216 St. @ Donovan	23-Jan-18	0.81	<1	<2	6	<1	0.41
MPR-443	216 St. @ Donovan	30-Jan-18	0.9	<1	2	6	<1	0.45
MPR-443	216 St. @ Donovan	6-Feb-18	0.79	<1	<2	7	<1	0.7
MPR-443	216 St. @ Donovan	13-Feb-18	0.96	<1	<2	6	<1	0.43
MPR-443	216 St. @ Donovan	20-Feb-18	1.02	<1	<2	6	<1	0.42
MPR-443	216 St. @ Donovan	27-Feb-18	0.98	<1	<2	5	<1	0.35
MPR-443	216 St. @ Donovan	6-Mar-18	0.89	<1	<2	5	<1	0.32
MPR-443	216 St. @ Donovan	13-Mar-18	0.86	<1	<2	6	<1	0.4
MPR-443	216 St. @ Donovan	20-Mar-18	0.82	<1	<2	7	<1	0.34
MPR-443	216 St. @ Donovan	27-Mar-18	0.81	<1	<2	7	<1	0.33
MPR-443	216 St. @ Donovan	3-Apr-18	0.95	<1	<2	7	<1	0.38
MPR-443	216 St. @ Donovan	10-Apr-18	0.7	<1	<2	7	<1	0.38
MPR-443	216 St. @ Donovan	17-Apr-18	0.95	<1	<2	8	<1	0.37
MPR-443	216 St. @ Donovan	24-Apr-18	0.78	<1	4	7	<1	0.45
MPR-443	216 St. @ Donovan	1-May-18	0.99	<1	<2	9	<1	0.28
MPR-443	216 St. @ Donovan	8-May-18	0.89	<1	<2	9	<1	0.34
MPR-443	216 St. @ Donovan	15-May-18	1.05	<1	<2	10	<1	0.4
MPR-443	216 St. @ Donovan	22-May-18	0.66	<1	<2	12	<1	0.33
MPR-443	216 St. @ Donovan	29-May-18	0.71	<1	<2	13	<1	0.29
MPR-443	216 St. @ Donovan	5-Jun-18	0.76	<1	<2	13	<1	0.2
MPR-443	216 St. @ Donovan	12-Jun-18	0.74	<1	<2	13	<1	0.27
MPR-443	216 St. @ Donovan	19-Jun-18	0.88	<1	<2	13	<1	0.44
MPR-443	216 St. @ Donovan	26-Jun-18	0.75	<1	<2	14	<1	0.25

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-443	216 St. @ Donovan	3-Jul-18	0.68	<1	<2	14	<1	0.21
MPR-443	216 St. @ Donovan	10-Jul-18	0.65	<1	<2	14	<1	0.19
MPR-443	216 St. @ Donovan	17-Jul-18	0.81	<1	<2	14	<1	0.44
MPR-443	216 St. @ Donovan	24-Jul-18	0.91	<1	4	15	<1	0.5
MPR-443	216 St. @ Donovan	31-Jul-18	0.86	<1	2	15	<1	0.32
MPR-443	216 St. @ Donovan	7-Aug-18	0.69	<1	2	16	<1	0.21
MPR-443	216 St. @ Donovan	14-Aug-18	0.69	<1	<2	17	<1	0.35
MPR-443	216 St. @ Donovan	21-Aug-18	0.82	<1	2	17	<1	0.27
MPR-443	216 St. @ Donovan	28-Aug-18	0.9	<1	<2	17	<1	0.3
MPR-443	216 St. @ Donovan	4-Sep-18	0.75	<1	6	17	<1	0.23
MPR-443	216 St. @ Donovan	11-Sep-18	0.69	<1	<2	17	<1	0.21
MPR-443	216 St. @ Donovan	18-Sep-18	0.62	<1	<2	15	<1	0.35
MPR-443	216 St. @ Donovan	25-Sep-18	0.65	<1	2	14	<1	0.31
MPR-443	216 St. @ Donovan	2-Oct-18	0.24	<1	8	16	<1	0.25
MPR-443	216 St. @ Donovan	9-Oct-18	0.28	<1	130	14	<1	0.32
MPR-443	216 St. @ Donovan	16-Oct-18	0.1	<1	84	14	<1	0.25
MPR-443	216 St. @ Donovan	23-Oct-18	0.55	<1	12	13	<1	0.34
MPR-443	216 St. @ Donovan	30-Oct-18	0.26	<1	12	13	<1	0.28
MPR-443	216 St. @ Donovan	6-Nov-18	0.49	<1	<2	11	<1	0.96
MPR-443	216 St. @ Donovan	13-Nov-18	0.17	<1	6	11	<1	0.7
MPR-443	216 St. @ Donovan	20-Nov-18	0.87	<1	<2	10	<1	0.58
MPR-443	216 St. @ Donovan	27-Nov-18	0.91	<1	<2	9	<1	0.59
MPR-443	216 St. @ Donovan	4-Dec-18	0.67	<1	<2	9	<1	0.7
MPR-443	216 St. @ Donovan	11-Dec-18	0.77	<1	<2	7	<1	0.56
MPR-443	216 St. @ Donovan	18-Dec-18	0.38	<1	NA	8	<1	0.51
MPR-443	216 St. @ Donovan	27-Dec-18	0.27	<1	NA	7	<1	0.56
MPR-444	Foreman Drive @ 232nd St.	2-Jan-18	0.55	<1	2	5	<1	0.56
MPR-444	Foreman Drive @ 232nd St.	9-Jan-18	0.5	<1	<2	5	<1	0.47
MPR-444	Foreman Drive @ 232nd St.	16-Jan-18	0.57	<1	<2	6	<1	0.48
MPR-444	Foreman Drive @ 232nd St.	23-Jan-18	0.53	<1	LA	6	<1	0.35
MPR-444	Foreman Drive @ 232nd St.	30-Jan-18	0.55	<1	<2	6	<1	0.44
MPR-444	Foreman Drive @ 232nd St.	6-Feb-18	0.57	<1	<2	6	<1	0.61
MPR-444	Foreman Drive @ 232nd St.	13-Feb-18	0.55	<1	2	6	<1	0.38
MPR-444	Foreman Drive @ 232nd St.	20-Feb-18	0.61	<1	<2	5	<1	0.4
MPR-444	Foreman Drive @ 232nd St.	27-Feb-18	0.64	<1	2	5	<1	0.35
MPR-444	Foreman Drive @ 232nd St.	6-Mar-18	0.6	<1	<2	5	<1	0.29
MPR-444	Foreman Drive @ 232nd St.	13-Mar-18	0.62	<1	<2	6	<1	0.37
MPR-444	Foreman Drive @ 232nd St.	20-Mar-18	0.56	<1	<2	5	<1	0.28
MPR-444	Foreman Drive @ 232nd St.	27-Mar-18	0.64	<1	<2	7	<1	0.34

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-444	Foreman Drive @ 232nd St.	3-Apr-18	0.69	<1	<2	7	<1	0.41
MPR-444	Foreman Drive @ 232nd St.	10-Apr-18	0.65	<1	<2	8	<1	0.35
MPR-444	Foreman Drive @ 232nd St.	17-Apr-18	0.44	<1	<2	8	<1	0.34
MPR-444	Foreman Drive @ 232nd St.	24-Apr-18	0.72	<1	4	8	<1	0.33
MPR-444	Foreman Drive @ 232nd St.	1-May-18	0.72	<1	2	9	<1	0.29
MPR-444	Foreman Drive @ 232nd St.	8-May-18	0.77	<1	<2	10	<1	0.24
MPR-444	Foreman Drive @ 232nd St.	15-May-18	0.63	<1	<2	11	<1	0.33
MPR-444	Foreman Drive @ 232nd St.	22-May-18	0.58	<1	<2	11	<1	0.28
MPR-444	Foreman Drive @ 232nd St.	29-May-18	0.57	<1	<2	12	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	5-Jun-18	0.68	<1	<2	12	<1	0.26
MPR-444	Foreman Drive @ 232nd St.	12-Jun-18	0.58	<1	<2	12	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	19-Jun-18	0.84	<1	<2	12	<1	0.32
MPR-444	Foreman Drive @ 232nd St.	26-Jun-18	0.5	<1	<2	13	<1	0.31
MPR-444	Foreman Drive @ 232nd St.	10-Jul-18	1.08	<1	<2	14	<1	0.28
MPR-444	Foreman Drive @ 232nd St.	17-Jul-18	1.19	<1	<2	15	<1	0.35
MPR-444	Foreman Drive @ 232nd St.	24-Jul-18	1.04	<1	2	15	<1	0.41
MPR-444	Foreman Drive @ 232nd St.	31-Jul-18	1	<1	<2	16	<1	0.3
MPR-444	Foreman Drive @ 232nd St.	7-Aug-18	0.77	<1	2	18	<1	0.22
MPR-444	Foreman Drive @ 232nd St.	14-Aug-18	0.47	<1	8	18	<1	0.19
MPR-444	Foreman Drive @ 232nd St.	21-Aug-18	0.57	<1	<2	18	<1	0.22
MPR-444	Foreman Drive @ 232nd St.	28-Aug-18	0.65	<1	2	18	<1	0.24
MPR-444	Foreman Drive @ 232nd St.	4-Sep-18	0.74	<1	20	17	<1	0.22
MPR-444	Foreman Drive @ 232nd St.	11-Sep-18	0.51	<1	LA	18	<1	0.2
MPR-444	Foreman Drive @ 232nd St.	18-Sep-18	0.64	<1	86	16	<1	0.3
MPR-444	Foreman Drive @ 232nd St.	25-Sep-18	0.59	<1	68	15	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	2-Oct-18	0.31	<1	<2	15	<1	0.63
MPR-444	Foreman Drive @ 232nd St.	9-Oct-18	0.65	<1	26	14	<1	0.31
MPR-444	Foreman Drive @ 232nd St.	16-Oct-18	0.75	<1	60	13	<1	0.26
MPR-444	Foreman Drive @ 232nd St.	23-Oct-18	0.69	<1	2	12	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	30-Oct-18	0.66	<1	2	13	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	6-Nov-18	0.31	<1	<2	12	<1	0.47
MPR-444	Foreman Drive @ 232nd St.	13-Nov-18	0.88	<1	<2	10	<1	0.79
MPR-444	Foreman Drive @ 232nd St.	20-Nov-18	0.46	<1	<2	10	<1	0.64
MPR-444	Foreman Drive @ 232nd St.	27-Nov-18	0.65	<1	<2	10	<1	0.61
MPR-444	Foreman Drive @ 232nd St.	4-Dec-18	0.66	<1	<2	8	<1	0.68
MPR-444	Foreman Drive @ 232nd St.	11-Dec-18	0.82	<1	<2	8	<1	0.62
MPR-444	Foreman Drive @ 232nd St.	18-Dec-18	0.89	<1	NA	7	<1	0.48
MPR-444	Foreman Drive @ 232nd St.	27-Dec-18	0.67	<1	NA	7	<1	0.29
MPR-445	127th Ave. and 266 St.	2-Jan-18	0.52	<1	6	5	<1	0.47

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-445	127th Ave. and 266 St.	9-Jan-18	0.74	<1	2	5	<1	0.69
MPR-445	127th Ave. and 266 St.	16-Jan-18	1.11	<1	<2	6	<1	0.46
MPR-445	127th Ave. and 266 St.	23-Jan-18	0.51	<1	22	6	<1	0.34
MPR-445	127th Ave. and 266 St.	30-Jan-18	1.07	<1	<2	6	<1	0.4
MPR-445	127th Ave. and 266 St.	6-Feb-18	1	<1	<2	6	<1	0.48
MPR-445	127th Ave. and 266 St.	13-Feb-18	1.09	<1	<2	6	<1	0.68
MPR-445	127th Ave. and 266 St.	20-Feb-18	1.02	<1	<2	6	<1	0.41
MPR-445	127th Ave. and 266 St.	27-Feb-18	1.16	<1	<2	5	<1	0.41
MPR-445	127th Ave. and 266 St.	6-Mar-18	0.81	<1	2	5	<1	0.27
MPR-445	127th Ave. and 266 St.	13-Mar-18	0.93	<1	16	6	<1	0.31
MPR-445	127th Ave. and 266 St.	20-Mar-18	0.84	<1	2	6	<1	0.32
MPR-445	127th Ave. and 266 St.	27-Mar-18	0.93	<1	<2	7	<1	0.33
MPR-445	127th Ave. and 266 St.	3-Apr-18	0.71	<1	<2	7	<1	0.3
MPR-445	127th Ave. and 266 St.	10-Apr-18	0.72	<1	12	8	<1	0.29
MPR-445	127th Ave. and 266 St.	17-Apr-18	0.82	<1	<2	8	<1	0.32
MPR-445	127th Ave. and 266 St.	24-Apr-18	0.81	<1	<2	9	<1	0.34
MPR-445	127th Ave. and 266 St.	1-May-18	0.89	<1	4	10	<1	0.45
MPR-445	127th Ave. and 266 St.	8-May-18	1.02	<1	<2	11	<1	0.33
MPR-445	127th Ave. and 266 St.	15-May-18	0.6	<1	62	13	<1	0.32
MPR-445	127th Ave. and 266 St.	22-May-18	1.03	<1	4	14	<1	0.56
MPR-445	127th Ave. and 266 St.	29-May-18	0.79	<1	4	13	<1	1.6
MPR-445	127th Ave. and 266 St.	5-Jun-18	0.83	<1	12	15	<1	0.33
MPR-445	127th Ave. and 266 St.	12-Jun-18	0.59	<1	100	14	<1	0.32
MPR-445	127th Ave. and 266 St.	19-Jun-18	0.99	<1	16	14	<1	0.24
MPR-445	127th Ave. and 266 St.	26-Jun-18	0.91	<1	30	16	<1	0.18
MPR-445	127th Ave. and 266 St.	3-Jul-18	0.64	<1	230	16	<1	0.2
MPR-445	127th Ave. and 266 St.	10-Jul-18	0.72	<1	120	16	<1	0.34
MPR-445	127th Ave. and 266 St.	17-Jul-18	0.7	<1	24	17	<1	1.2
MPR-445	127th Ave. and 266 St.	24-Jul-18	0.63	<1	4	17	<1	0.46
MPR-445	127th Ave. and 266 St.	31-Jul-18	0.33	<1	12	19	<1	0.27
MPR-445	127th Ave. and 266 St.	7-Aug-18	0.5	<1	54	19	<1	0.23
MPR-445	127th Ave. and 266 St.	14-Aug-18	0.62	<1	6	19	<1	0.21
MPR-445	127th Ave. and 266 St.	21-Aug-18	0.74	<1	2	19	<1	0.22
MPR-445	127th Ave. and 266 St.	28-Aug-18	0.85	<1	14	19	<1	0.23
MPR-445	127th Ave. and 266 St.	4-Sep-18	0.81	<1	10	18	<1	0.22
MPR-445	127th Ave. and 266 St.	11-Sep-18	0.55	<1	360	18	<1	0.2
MPR-445	127th Ave. and 266 St.	18-Sep-18	0.32	<1	1700	17	<1	2.8
MPR-445	127th Ave. and 266 St.	25-Sep-18	0.19	<1	4900	15	<1	0.54
MPR-445	127th Ave. and 266 St.	2-Oct-18	0.2	<1	4100	16	<1	0.22

							Total	
Sample		Sampled	Cl ₂	E. coli	HPC	Temp	Coliform	Turb.
name	Sample reported name	Date	Free	MF/ 100mLs	CFU/mls	°C	MF/100	NTU
			mg/L	TOOMES			mLs	
MPR-445	127th Ave. and 266 St.	9-Oct-18	0.28	<1	650	14	<1	0.42
MPR-445	127th Ave. and 266 St.	16-Oct-18	0.37	<1	560	14	<1	0.64
MPR-445	127th Ave. and 266 St.	23-Oct-18	0.22	<1	340	13	<1	0.27
MPR-445	127th Ave. and 266 St.	30-Oct-18	0.2	<1	140	13	<1	0.29
MPR-445	127th Ave. and 266 St.	6-Nov-18	0.16	<1	92	13	<1	0.25
MPR-445	127th Ave. and 266 St.	13-Nov-18	0.2	<1	48	11	<1	0.68
MPR-445	127th Ave. and 266 St.	20-Nov-18	0.18	<1	36	11	<1	0.49
MPR-445	127th Ave. and 266 St.	27-Nov-18	0.25	<1	34	10	<1	0.67
MPR-445	127th Ave. and 266 St.	4-Dec-18	0.38	<1	16	9	<1	0.61
MPR-445	127th Ave. and 266 St.	11-Dec-18	0.15	<1	16	8	<1	0.62
MPR-445	127th Ave. and 266 St.	18-Dec-18	0.78	<1	NA	8	<1	0.52
MPR-445	127th Ave. and 266 St.	27-Dec-18	0.95	<1	NA	7	<1	0.37
MPR-446	128th Ave and Willow Place	2-Jan-18	0.87	<1	8	5	<1	0.62
MPR-446	128th Ave and Willow Place	9-Jan-18	1.01	<1	<2	6	<1	0.63
MPR-446	128th Ave and Willow Place	16-Jan-18	1.08	<1	<2	6	<1	0.53
MPR-446	128th Ave and Willow Place	23-Jan-18	0.98	<1	<2	6	<1	0.56
MPR-446	128th Ave and Willow Place	30-Jan-18	1.51	<1	<2	7	<1	0.48
MPR-446	128th Ave and Willow Place	6-Feb-18	1.38	<1	<2	7	<1	0.57
MPR-446	128th Ave and Willow Place	13-Feb-18	1.13	<1	<2	7	<1	0.51
MPR-446	128th Ave and Willow Place	20-Feb-18	1.03	<1	<2	5	<1	0.47
MPR-446	128th Ave and Willow Place	27-Feb-18	1.3	<1	<2	5	<1	0.46
MPR-446	128th Ave and Willow Place	6-Mar-18	1.04	<1	<2	5	<1	0.38
MPR-446	128th Ave and Willow Place	13-Mar-18	1.23	<1	<2	5	<1	0.37
MPR-446	128th Ave and Willow Place	20-Mar-18	1.1	<1	<2	6	<1	0.37
MPR-446	128th Ave and Willow Place	27-Mar-18	1.27	<1	<2	6	<1	0.34
MPR-446	128th Ave and Willow Place	3-Apr-18	1.3	<1	<2	7	<1	0.35
MPR-446	128th Ave and Willow Place	10-Apr-18	0.92	<1	<2	7	<1	0.36
MPR-446	128th Ave and Willow Place	17-Apr-18	0.9	<1	<2	7	<1	0.34
MPR-446	128th Ave and Willow Place	24-Apr-18	0.83	<1	<2	11	<1	0.37
MPR-446	128th Ave and Willow Place	1-May-18	0.96	<1	<2	9	<1	0.45
MPR-446	128th Ave and Willow Place	8-May-18	1	<1	2	11	<1	0.47
MPR-446	128th Ave and Willow Place	15-May-18	1.24	<1	<2	11	<1	0.31
MPR-446	128th Ave and Willow Place	22-May-18	0.8	<1	2	12	<1	0.34
MPR-446	128th Ave and Willow Place	29-May-18	0.84	<1	4	13	<1	0.29
MPR-446	128th Ave and Willow Place	5-Jun-18	0.6	<1	2	12	<1	0.25
MPR-446	128th Ave and Willow Place	12-Jun-18	0.68	<1	<2	12	<1	0.34
MPR-446	128th Ave and Willow Place	19-Jun-18	0.7	<1	<2	12	<1	0.33
MPR-446	128th Ave and Willow Place	26-Jun-18	0.62	<1	<2	14	<1	0.27
MPR-446	128th Ave and Willow Place	3-Jul-18	0.39	<1	<2	13	<1	0.22

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mlଃ	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-446	128th Ave and Willow Place	10-Jul-18	0.89	<1	<2	14	<1	0.32
MPR-446	128th Ave and Willow Place	17-Jul-18	0.51	<1	<2	16	<1	0.33
MPR-446	128th Ave and Willow Place	24-Jul-18	0.57	<1	<2	16	<1	0.43
MPR-446	128th Ave and Willow Place	31-Jul-18	0.66	<1	<2	16	<1	0.26
MPR-446	128th Ave and Willow Place	7-Aug-18	0.51	<1	<2	17	<1	0.21
MPR-446	128th Ave and Willow Place	14-Aug-18	0.52	<1	2	17	<1	0.19
MPR-446	128th Ave and Willow Place	21-Aug-18	0.85	<1	<2	17	<1	0.27
MPR-446	128th Ave and Willow Place	28-Aug-18	0.47	<1	24	16	<1	0.35
MPR-446	128th Ave and Willow Place	4-Sep-18	0.62	<1	26	16	<1	0.29
MPR-446	128th Ave and Willow Place	11-Sep-18	0.49	<1	4	15	<1	0.3
MPR-446	128th Ave and Willow Place	18-Sep-18	0.48	<1	6	14	<1	0.27
MPR-446	128th Ave and Willow Place	25-Sep-18	0.54	<1	LA	14	<1	0.25
MPR-446	128th Ave and Willow Place	2-Oct-18	0.5	<1	8	13	<1	0.27
MPR-446	128th Ave and Willow Place	9-Oct-18	0.6	<1	14	13	<1	0.31
MPR-446	128th Ave and Willow Place	16-Oct-18	0.4	<1	2	12	<1	0.27
MPR-446	128th Ave and Willow Place	23-Oct-18	0.5	<1	14	12	<1	0.29
MPR-446	128th Ave and Willow Place	30-Oct-18	0.44	<1	14	12	<1	0.25
MPR-446	128th Ave and Willow Place	6-Nov-18	0.43	<1	<2	11	<1	0.26
MPR-446	128th Ave and Willow Place	13-Nov-18	0.23	<1	4	10	<1	0.53
MPR-446	128th Ave and Willow Place	20-Nov-18	0.39	<1	<2	10	<1	0.52
MPR-446	128th Ave and Willow Place	27-Nov-18	0.4	<1	<2	9	<1	0.67
MPR-446	128th Ave and Willow Place	4-Dec-18	0.81	<1	<2	8	<1	0.9
MPR-446	128th Ave and Willow Place	11-Dec-18	0.44	<1	12	8	<1	0.57
MPR-446	128th Ave and Willow Place	18-Dec-18	0.57	<1	NA	7	<1	0.53
MPR-446	128th Ave and Willow Place	27-Dec-18	0.63	<1	NA	7	<1	0.69
MPR-447	117 Ave. @ 210 St.	2-Jan-18	0.57	<1	<2	5	<1	0.61
MPR-447	117 Ave. @ 210 St.	9-Jan-18	0.75	<1	12	7	<1	0.51
MPR-447	117 Ave. @ 210 St.	16-Jan-18	0.93	<1	<2	6	<1	0.45
MPR-447	117 Ave. @ 210 St.	23-Jan-18	0.81	<1	<2	6	<1	0.46
MPR-447	117 Ave. @ 210 St.	30-Jan-18	0.86	<1	<2	6	<1	0.45
MPR-447	117 Ave. @ 210 St.	6-Feb-18	0.7	<1	<2	6	<1	0.42
MPR-447	117 Ave. @ 210 St.	13-Feb-18	0.83	<1	<2	7	<1	0.41
MPR-447	117 Ave. @ 210 St.	20-Feb-18	0.95	<1	4	6	<1	0.39
MPR-447	117 Ave. @ 210 St.	27-Feb-18	0.91	<1	<2	5	<1	0.39
MPR-447	117 Ave. @ 210 St.	6-Mar-18	0.81	<1	<2	5	<1	0.35
MPR-447	117 Ave. @ 210 St.	13-Mar-18	0.84	<1	<2	6	<1	0.35
MPR-447	117 Ave. @ 210 St.	20-Mar-18	0.74	<1	<2	7	<1	0.32
MPR-447	117 Ave. @ 210 St.	27-Mar-18	0.83	<1	<2	7	<1	0.33
MPR-447	117 Ave. @ 210 St.	3-Apr-18	0.69	<1	<2	8	<1	0.36

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-447	117 Ave. @ 210 St.	10-Apr-18	0.84	<1	<2	8	<1	0.35
MPR-447	117 Ave. @ 210 St.	17-Apr-18	0.76	<1	<2	8	<1	0.33
MPR-447	117 Ave. @ 210 St.	24-Apr-18	0.79	<1	<2	8	<1	0.48
MPR-447	117 Ave. @ 210 St.	1-May-18	0.8	<1	<2	10	<1	0.41
MPR-447	117 Ave. @ 210 St.	8-May-18	0.79	<1	<2	10	<1	0.37
MPR-447	117 Ave. @ 210 St.	15-May-18	0.79	<1	<2	11	<1	0.42
MPR-447	117 Ave. @ 210 St.	22-May-18	0.69	<1	2	12	<1	0.27
MPR-447	117 Ave. @ 210 St.	29-May-18	0.85	<1	<2	12	<1	0.23
MPR-447	117 Ave. @ 210 St.	5-Jun-18	0.77	<1	<2	12	<1	0.24
MPR-447	117 Ave. @ 210 St.	12-Jun-18	0.72	<1	<2	12	<1	0.24
MPR-447	117 Ave. @ 210 St.	19-Jun-18	0.91	<1	<2	13	<1	0.28
MPR-447	117 Ave. @ 210 St.	26-Jun-18	0.87	<1	<2	13	<1	0.21
MPR-447	117 Ave. @ 210 St.	3-Jul-18	0.76	<1	<2	13	<1	0.23
MPR-447	117 Ave. @ 210 St.	10-Jul-18	0.76	<1	<2	14	<1	0.2
MPR-447	117 Ave. @ 210 St.	17-Jul-18	0.86	<1	<2	14	<1	0.34
MPR-447	117 Ave. @ 210 St.	24-Jul-18	0.93	<1	<2	15	<1	2.6
MPR-447	117 Ave. @ 210 St.	31-Jul-18	0.71	<1	<2	15	<1	8
MPR-447	117 Ave. @ 210 St.	7-Aug-18	0.77	<1	<2	16	<1	0.22
MPR-447	117 Ave. @ 210 St.	14-Aug-18	0.78	<1	<2	17	<1	0.35
MPR-447	117 Ave. @ 210 St.	21-Aug-18	0.99	<1	<2	17	<1	0.26
MPR-447	117 Ave. @ 210 St.	28-Aug-18	0.97	<1	<2	16	<1	0.44
MPR-447	117 Ave. @ 210 St.	4-Sep-18	0.89	<1	<2	16	<1	0.25
MPR-447	117 Ave. @ 210 St.	11-Sep-18	0.67	<1	<2	16	<1	0.29
MPR-447	117 Ave. @ 210 St.	18-Sep-18	0.85	<1	2	15	<1	0.34
MPR-447	117 Ave. @ 210 St.	25-Sep-18	0.8	<1	<2	14	<1	0.22
MPR-447	117 Ave. @ 210 St.	2-Oct-18	0.51	<1	4	15	<1	0.38
MPR-447	117 Ave. @ 210 St.	9-Oct-18	0.65	<1	<2	13	<1	0.3
MPR-447	117 Ave. @ 210 St.	16-Oct-18	0.6	<1	<2	13	<1	0.28
MPR-447	117 Ave. @ 210 St.	23-Oct-18	0.77	<1	4	13	<1	0.29
MPR-447	117 Ave. @ 210 St.	30-Oct-18	0.63	<1	<2	12	<1	0.23
MPR-447	117 Ave. @ 210 St.	6-Nov-18	0.67	<1	4	11	<1	0.95
MPR-447	117 Ave. @ 210 St.	13-Nov-18	0.85	<1	2	10	<1	0.69
MPR-447	117 Ave. @ 210 St.	20-Nov-18	0.87	<1	<2	10	<1	0.56
MPR-447	117 Ave. @ 210 St.	27-Nov-18	0.95	<1	<2	9	<1	0.65
MPR-447	117 Ave. @ 210 St.	4-Dec-18	0.77	<1	<2	8	<1	0.66
MPR-447	117 Ave. @ 210 St.	11-Dec-18	0.68	<1	2	7	<1	0.59
MPR-447	117 Ave. @ 210 St.	18-Dec-18	0.56	<1	NA	8	<1	0.56
MPR-447	117 Ave. @ 210 St.	27-Dec-18	0.63	<1	NA	7	<1	0.28
MPR-448	248th St. & McClure	2-Jan-18	0.55	<1	<2	5	<1	0.55

Sample name	Sample reported name	Sampled Date	Cl₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-448	248th St. & McClure	9-Jan-18	0.45	<1	<2	6	<1	0.51
MPR-448	248th St. & McClure	16-Jan-18	0.61	<1	2	6	<1	0.5
MPR-448	248th St. & McClure	23-Jan-18	0.57	<1	<2	6	<1	0.39
MPR-448	248th St. & McClure	30-Jan-18	0.51	<1	<2	7	<1	0.43
MPR-448	248th St. & McClure	6-Feb-18	0.64	<1	2	7	<1	0.61
MPR-448	248th St. & McClure	13-Feb-18	0.54	<1	<2	7	<1	0.47
MPR-448	248th St. & McClure	20-Feb-18	0.62	<1	<2	6	<1	0.46
MPR-448	248th St. & McClure	27-Feb-18	0.78	<1	<2	5	<1	0.36
MPR-448	248th St. & McClure	6-Mar-18	0.6	<1	<2	6	<1	0.35
MPR-448	248th St. & McClure	13-Mar-18	0.71	<1	<2	6	<1	0.37
MPR-448	248th St. & McClure	20-Mar-18	0.48	<1	<2	7	<1	0.31
MPR-448	248th St. & McClure	27-Mar-18	0.49	<1	<2	7	<1	0.38
MPR-448	248th St. & McClure	3-Apr-18	0.47	<1	<2	8	<1	0.38
MPR-448	248th St. & McClure	10-Apr-18	0.47	<1	<2	8	<1	0.34
MPR-448	248th St. & McClure	17-Apr-18	0.54	<1	<2	9	<1	0.32
MPR-448	248th St. & McClure	24-Apr-18	0.65	<1	<2	10	<1	7.1
MPR-448	248th St. & McClure	1-May-18	0.52	<1	2	11	<1	0.39
MPR-448	248th St. & McClure	8-May-18	0.83	<1	2	12	<1	0.39
MPR-448	248th St. & McClure	15-May-18	0.76	<1	<2	13	<1	0.34
MPR-448	248th St. & McClure	22-May-18	0.43	<1	<2	14	<1	0.31
MPR-448	248th St. & McClure	29-May-18	0.52	<1	<2	14	<1	0.28
MPR-448	248th St. & McClure	5-Jun-18	0.63	<1	2	14	<1	0.22
MPR-448	248th St. & McClure	12-Jun-18	0.36	<1	<2	14	<1	0.28
MPR-448	248th St. & McClure	19-Jun-18	0.6	<1	<2	15	<1	0.33
MPR-448	248th St. & McClure	26-Jun-18	0.57	<1	<2	15	<1	0.24
MPR-448	248th St. & McClure	3-Jul-18	0.35	<1	<2	15	<1	0.23
MPR-448	248th St. & McClure	10-Jul-18	0.51	<1	<2	16	<1	0.23
MPR-448	248th St. & McClure	17-Jul-18	0.52	<1	<2	16	<1	0.34
MPR-448	248th St. & McClure	24-Jul-18	0.46	<1	<2	17	<1	0.33
MPR-448	248th St. & McClure	31-Jul-18	0.31	<1	2	17	<1	0.34
MPR-448	248th St. & McClure	7-Aug-18	0.2	<1	<2	17	<1	0.32
MPR-448	248th St. & McClure	14-Aug-18	0.36	<1	<2	19	<1	0.25
MPR-448	248th St. & McClure	21-Aug-18	0.4	<1	<2	18	<1	0.25
MPR-448	248th St. & McClure	28-Aug-18	0.65	<1	<2	18	<1	0.23
MPR-448	248th St. & McClure	4-Sep-18	0.5	<1	<2	17	<1	0.25
MPR-448	248th St. & McClure	11-Sep-18	0.53	<1	<2	18	<1	0.28
MPR-448	248th St. & McClure	18-Sep-18	0.38	<1	<2	17	<1	0.25
MPR-448	248th St. & McClure	25-Sep-18	0.52	<1	<2	16	<1	0.29
MPR-448	248th St. & McClure	2-Oct-18	0.41	<1	2	15	<1	0.25

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-448	248th St. & McClure	9-Oct-18	0.41	<1	<2	14	<1	0.26
MPR-448	248th St. & McClure	16-Oct-18	0.54	<1	2	13	<1	0.29
MPR-448	248th St. & McClure	23-Oct-18	0.52	<1	<2	13	<1	0.39
MPR-448	248th St. & McClure	30-Oct-18	0.55	<1	<2	13	<1	0.27
MPR-448	248th St. & McClure	6-Nov-18	0.27	<1	<2	12	<1	0.39
MPR-448	248th St. & McClure	13-Nov-18	0.36	<1	<2	11	<1	0.76
MPR-448	248th St. & McClure	20-Nov-18	0.29	<1	<2	10	<1	0.56
MPR-448	248th St. & McClure	27-Nov-18	0.55	<1	<2	10	<1	0.64
MPR-448	248th St. & McClure	4-Dec-18	0.3	<1	<2	9	<1	0.68
MPR-448	248th St. & McClure	11-Dec-18	0.37	<1	<2	8	<1	0.57
MPR-448	248th St. & McClure	18-Dec-18	0.52	<1	NA	8	<1	0.45
MPR-448	248th St. & McClure	27-Dec-18	0.49	<1	NA	7	<1	0.33
MPR-449	Meadow Brook North of Douglas	2-Jan-18	0.43	<1	<2	7	<1	0.55
MPR-449	Meadow Brook North of Douglas	9-Jan-18	0.52	<1	2	7	<1	0.62
MPR-449	Meadow Brook North of Douglas	16-Jan-18	0.37	<1	<2	8	<1	0.38
MPR-449	Meadow Brook North of Douglas	23-Jan-18	0.37	<1	<2	7	<1	0.38
MPR-449	Meadow Brook North of Douglas	30-Jan-18	0.42	<1	<2	8	<1	0.34
MPR-449	Meadow Brook North of Douglas	6-Feb-18	0.4	<1	<2	8	<1	0.36
MPR-449	Meadow Brook North of Douglas	13-Feb-18	0.32	<1	<2	8	<1	0.38
MPR-449	Meadow Brook North of Douglas	20-Feb-18	0.36	<1	<2	7	<1	0.32
MPR-449	Meadow Brook North of Douglas	27-Feb-18	0.43	<1	<2	7	<1	0.41
MPR-449	Meadow Brook North of Douglas	6-Mar-18	0.38	<1	<2	6	<1	0.29
MPR-449	Meadow Brook North of Douglas	13-Mar-18	0.43	<1	<2	7	<1	0.35
MPR-449	Meadow Brook North of Douglas	20-Mar-18	0.39	<1	<2	8	<1	0.26
MPR-449	Meadow Brook North of Douglas	27-Mar-18	0.4	<1	<2	8	<1	0.34
MPR-449	Meadow Brook North of Douglas	3-Apr-18	0.37	<1	<2	8	<1	0.35
MPR-449	Meadow Brook North of Douglas	10-Apr-18	0.4	<1	<2	9	<1	0.31
MPR-449	Meadow Brook North of Douglas	17-Apr-18	0.31	<1	<2	9	<1	0.32
MPR-449	Meadow Brook North of Douglas	24-Apr-18	0.31	<1	<2	10	<1	0.33
MPR-449	Meadow Brook North of Douglas	1-May-18	0.38	<1	<2	11	<1	0.29
MPR-449	Meadow Brook North of Douglas	8-May-18	0.12	<1	<2	12	<1	0.4
MPR-449	Meadow Brook North of Douglas	15-May-18	0.2	<1	2	14	<1	0.27
MPR-449	Meadow Brook North of Douglas	22-May-18	0.29	<1	2	14	<1	0.28
MPR-449	Meadow Brook North of Douglas	29-May-18	0.51	<1	<2	15	<1	0.2
MPR-449	Meadow Brook North of Douglas	5-Jun-18	0.23	<1	8	16	<1	0.21
MPR-449	Meadow Brook North of Douglas	12-Jun-18	0.24	<1	2	15	<1	0.27
MPR-449	Meadow Brook North of Douglas	19-Jun-18	0.58	<1	<2	15	<1	0.26
MPR-449	Meadow Brook North of Douglas	26-Jun-18	0.4	<1	<2	16	<1	0.16
MPR-449	Meadow Brook North of Douglas	3-Jul-18	0.3	<1	<2	16	<1	0.23

Sample name	Sample reported name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mLs	HPC CFU/mls	Temp °C	Total Coliform MF/100 mLs	Turb. NTU
MPR-449	Meadow Brook North of Douglas	10-Jul-18	0.29	<1	<2	17	<1	0.2
MPR-449	Meadow Brook North of Douglas	17-Jul-18	0.31	<1	8	17	<1	0.38
MPR-449	Meadow Brook North of Douglas	24-Jul-18	0.25	<1	<2	18	<1	0.44
MPR-449	Meadow Brook North of Douglas	31-Jul-18	0.26	<1	8	19	<1	0.19
MPR-449	Meadow Brook North of Douglas	7-Aug-18	0.13	<1	18	19	<1	0.35
MPR-449	Meadow Brook North of Douglas	14-Aug-18	0.18	<1	20	20	<1	0.21
MPR-449	Meadow Brook North of Douglas	21-Aug-18	0.26	<1	8	18	<1	0.19
MPR-449	Meadow Brook North of Douglas	28-Aug-18	0.25	<1	4	20	<1	0.23
MPR-449	Meadow Brook North of Douglas	4-Sep-18	0.26	<1	8	19	<1	0.19
MPR-449	Meadow Brook North of Douglas	11-Sep-18	0.27	<1	<2	19	<1	0.23
MPR-449	Meadow Brook North of Douglas	18-Sep-18	0.18	<1	8	18	<1	0.3
MPR-449	Meadow Brook North of Douglas	25-Sep-18	0.14	<1	6	17	<1	0.26
MPR-449	Meadow Brook North of Douglas	2-Oct-18	0.17	<1	8	17	<1	0.21
MPR-449	Meadow Brook North of Douglas	9-Oct-18	0.18	<1	<2	16	<1	0.29
MPR-449	Meadow Brook North of Douglas	16-Oct-18	0.24	<1	2	15	<1	0.24
MPR-449	Meadow Brook North of Douglas	23-Oct-18	0.23	<1	4	15	<1	0.24
MPR-449	Meadow Brook North of Douglas	30-Oct-18	0.17	<1	<2	14	<1	0.21
MPR-449	Meadow Brook North of Douglas	6-Nov-18	0.14	<1	2	14	<1	0.65
MPR-449	Meadow Brook North of Douglas	13-Nov-18	0.25	<1	<2	13	<1	0.65
MPR-449	Meadow Brook North of Douglas	20-Nov-18	0.26	<1	<2	11	<1	0.49
MPR-449	Meadow Brook North of Douglas	27-Nov-18	0.22	<1	<2	11	<1	0.51
MPR-449	Meadow Brook North of Douglas	4-Dec-18	0.21	<1	<2	11	<1	0.52
MPR-449	Meadow Brook North of Douglas	11-Dec-18	0.33	<1	<2	10	<1	0.48
MPR-449	Meadow Brook North of Douglas	18-Dec-18	0.26	<1	NA	9	<1	0.42
MPR-449	Meadow Brook North of Douglas	27-Dec-18	0.031	<1	NA	8	<1	0.28

Appendix G: Preventing Water-Borne Infections for People with Weakened Immune Systems





Number 56 June 2013

Preventing Water-Borne Infections For People with Weakened Immune Systems

Who is at higher risk from water-borne infections?

People with very weak immune systems who are at higher risk of certain water-borne diseases include those with:

- HIV infection who have a CD4+ count of less than 100 cells/mm³;
- lymphoma or leukemia (hematological malignancies) who are being actively treated or have been in remission and off treatment for less than 1 year;
- hematopoietic stem cell transplant recipients; and
- people born with diseases that severely affect their immune systems.

Some people with weakened immune systems, such as those with certain types of cancers or taking certain medications, may not be at higher risk of severe water-borne diseases. These people do not need to take extra precautions with their drinking water.

Ask your health care provider how weak your immune system is, and whether you need to take extra precautions.

How can drinking water become contaminated?

Drinking water can contain different organisms, including bacteria, viruses and parasites, which can cause disease. These organisms can exist in the source water such as lake water and survive through treatment, or they can enter the water supply in the distribution system. Well water can be contaminated if the well is not built properly or if it draws on water from the surface of the ground, such as shallow wells or wells drilled in fractured rock. Surface water, such as rivers, lakes and streams, can also contain disease-causing organisms from animal feces. If you have a weak immune system, you should not drink water from surface sources or wells potentially contaminated by surface water such as dug wells, unless the water has been treated to remove or inactivate at least 99.9 per cent of parasites (protozoa), 99.99 per cent of viruses and all harmful bacteria.

Most community water systems in B.C. have effective treatment, such as disinfection or chlorination, against bacteria and viruses. However, in many cases, treatment may not provide a 99.9 per cent reduction in infectious parasites. Some water systems and many private supplies have no treatment at all. If the water you drink has not been disinfected, please refer to HealthLinkBC File #49b How to Disinfect Drinking Water.

How can I further treat disinfected water?

People with very weak immune systems need to take extra precautions with their drinking water.

Boiling: If your water supply has already been disinfected, bring the water to a full boil to inactivate any *Cryptosporidium* parasites a major concern for people with weakened immune systems. For more information, see HealthLinkBC File <u>#48 *Cryptosporidium*</u> Infection.

If the water has not already been disinfected, bring the water to a full boil for at least 1 minute. This will kill or inactivate bacteria, viruses and parasites. At elevations over 2,000 meters (6,500 feet), boil water for at least 2 minutes to disinfect it. Do not drink or use tap water to brush your teeth, rinse your mouth, mix drinks or make ice cubes without boiling it first.

Please note that boiling water will get rid of viruses, bacteria and parasites but not chemicals which may be found in the water.

Reverse Osmosis (RO): RO is effective against all disease-causing organisms and many chemical contaminants. Unless it has a high capacity, it will only produce small amounts of water and waste a large volume. Speak to a water treatment specialist to see if this is the best option for you.

Ultraviolet (UV) Treatment: UV light will kill many disease-causing organisms, and is effective against almost all parasites. UV will not kill some bacterial spores and some viruses, so it should not be used unless the water supply is at least disinfected. UV treatment units should meet NSF Standard #55A.

Filters: Filters do not remove bacteria and viruses and should not be used unless the water supply is disinfected first.

If you plan to install a drinking water filter in your home, you will need a system labeled as Absolute 1 micron or smaller, and labeled as meeting ANSI/NSF International Standard #53 for removal of parasites.

Jug-type filters, such as a Brita®, which sit in a jug and allow water to trickle through, and some tap-mounted and built-in devices are not an appropriate solution. The jug filter models are not effective in removing many disease-causing organisms.

Can I drink bottled water?

Bottled water in B.C. may or may not have been treated. If you have a very weak immune system, check with the bottling company to find out what treatment, if any, it has had. Bottled water that has been properly treated using one of the methods list above can be used for drinking, brushing teeth, making ice cubes and for recipes where water is used but not boiled, such as cold soups.

For More Information

For more information, including the level of treatment in your local water system, please contact:

- your drinking water purveyor or supplier; or
- the local environmental health officer or drinking water officer; or
- visit <u>www.health.gov.bc.ca/protect/dw_ha_con</u> tacts.html.

Please also see the following HealthLinkBC Files:

- #49a Water-borne Diseases in British Columbia
- #49b How to Disinfect Drinking Water
- #69b Formula Feeding Your Baby: Safely
 Preparing and Storing Formula.

For more HealthLinkBC File topics, visit <u>www.HealthLinkBC.ca/healthfiles</u> or your local public health unit.

Click on <u>www.HealthLinkBC.ca</u> or call **8-1-1** for non-emergency health information and services in B.C.

For deaf and hearing-impaired assistance, call 7-1-1 in B.C.

Translation services are available in more than 130 languages on request.





BC Centre for Disease Control An agency of the Previously Health Barrian Authority



City of Maple Ridge

TO:	His Worship Mayor Michael Morden	MEETING DATE:	May 21, 2019
	and Members of Council	FILE NO:	RFP-0P18-82
FROM:	Chief Administrative Officer	MEETING:	Committee of the Whole
SUBJECT:	Contract Award: Hydrovac Services		

EXECUTIVE SUMMARY:

The City of Maple Ridge invited proposals from qualified proponents with experience in providing Hydrovac Services on an as, if and when required basis at various locations in the City of Maple Ridge.

Hydrovac services will be utilized by the Engineering Operations Department in the Operation, Maintenance and Construction of the City's various underground utilities.

RECOMMENDATION:

That a one (1) year agreement for Hydrovac services on an as, if and when required basis be awarded to Badger Daylighting Limited Partnership and McCrae's Environmental Services Ltd., with the option to renew for four (4) additional one (1) year periods; and

That the Corporate Officer be authorized to execute the agreements.

DISCUSSION:

a) Background Context:

A publicly advertised request for proposal invited proposals from qualified proponent(s) with experience in providing Bulk Hydrovac Excavation Services on an as, if and when required basis at various locations in the City of Maple Ridge, with the intent to establish a short list of preferred service providers. Nine proposals were received and evaluated in accordance with established evaluation criteria, with Badger Daylighting Limited Partnership and McCrae's Environmental Services Ltd selected as the successful shortlisted proponents.

Services from qualified Hydrovac companies will be required Monday to Friday during regular business hours as well as after hours, weekends and holidays to support the City of Maple Ridge Operations Department for a one (1) year period with the option to renew for four (4) additional one (1) year periods.

The City's intentions is to award an agreement to two Hydrovac service providers, with callout order given to the highest ranking proponent.

b) Financial Implications:

This service is to support the Engineering Operations Department in bulk excavation works including scheduled works and emergency call outs. Hydrovac services will be utilized by the various utilities within Operations such as Roadworks, Waterworks, Sewerworks and Electrical/Mechanical divisions. Services will be provided utilizing established hourly rates. The approximate value spent in 2017 and 2018 was \$283,000 and \$339,000 respectively. Estimated annual value of this contract is anticipated to be similar to previous years and estimated annual amount to be in the range of \$350,000.

CONCLUSIONS:

The City of Maple Ridge award an agreement to Badger Daylighting Limited Partnership and McCrae's Environmental Services Ltd. for Hydrovac Service for twelve month period with the option to renew for four (4) additional one (1) year periods.

Prepared by: Davin Wilson, P.Tech, AScT Superintendent of Waterworks Reviewed by: James Storey, AScT **Director of Engineering Operations** Frank Quinn, P.Eng by: Approve¢ General Manager, Public Works and Development Services concurrence: Kelly Swift Acting Chief Administrative Officer

British	City of Maple Ridg	e	
TO:	His Worship Mayor Michael Morden and Members of Council	MEETING DATE: FILE NO:	May 21, 2019 2199063
FROM:	Chief Administrative Officer	MEETING:	CoW
SUBJECT:	Award of Contract for Phase One of the	e Albion Community	Centre

EXECUTIVE SUMMARY:

The Albion Community Centre (ACC) is one of the Parks, Recreation & Culture infrastructure projects approved to proceed as part of the Alternate Approval Process in 2017. This Award of Contract recommendation is for the construction of Phase One of the ACC which includes site development, earth works, retaining walls, concrete forming, under slab utilities and building foundations.

Double V Construction Ltd. (DVC Ltd.) was previously awarded a "Construction Manager at Risk" contract which is a delivery method which entails a commitment by the Construction Manager to deliver the project within a fixed price. DVC Ltd. has provided the City with pre construction services including assistance with design development and value engineering. As required by the Construction Manager at Risk contract, DVC Ltd. provided a fixed price to construct Phase One of the ACC project. The DVC Ltd. cost proposal has been reviewed by James Bush and Associates Ltd. (JBL), who are professional quantity surveyors and construction cost managers. JBL has confirmed the fixed price is consistent with the October 2018, Class A cost estimate provided for the project and demonstrates fair value in the current construction market. Council approval to award the contract is required for the work to proceed.

RECOMMENDATION:

That the Contract for Construction of Phase One of the Albion Community Centre be awarded to Double V Construction Ltd. in the amount of \$5,306,981 excluding taxes, and that a contingency of \$530,698 be authorized; and

That the Corporate Officer be authorized to execute the contract.

DISCUSSION:

a) Background Context:

A Request for Proposal (RFP-PL18-29 Construction Manager at Risk) was issued by the City through BC Bid on July 4, 2018. A Construction Manager at Risk is a delivery method which entails a commitment by the Construction Manager to deliver the project at a fixed price based on construction documents and specifications as developed by the design team and City Staff. The Construction Manager at Risk contract with the City stipulates DVC Ltd. is to assist with design development and value engineering of the ACC then submit a fixed price to complete Phase One and subsequently Phase Two of the project.



DVC Ltd. recently conducted a competitive tendering process and has provided the City with a fixed price of \$5,306,981 (excluding tax) for the construction of Phase One of the ACC which includes site development, earth works, retaining walls, concrete forming, under slab utilities and building foundations.

The intent is to start Phase One as soon as possible to ensure work requiring heavy equipment and site disturbances is complete prior to the opening of the adjacent elementary school this Fall. It is anticipated the Phase One works will take up to 10 months to complete, Phase Two construction will commence in early 2020 once the City has received notification regarding the outcome of its \$5 million recreation infrastructure grant application. The entire project (Phase One and Two) should be completed by the Fall of 2020.

b) Desired Outcome:

The desired outcome is to move forward with the development of parks and recreation infrastructure projects to meet the demands of our rapidly growing community and provide enhanced opportunities for citizens to engage in activities that promote an active, healthy lifestyle and community wellbeing.

c) Citizen/Customer Implications

The City of Maple Ridge supports its citizens in maintaining healthy lifestyles through their participation in sport, recreation, arts and culture in venues that allow them to connect with their neighbours and other groups with common interests. This project is a great example of partnerships and co-location of facilities to provide much needed community infrastructure.

d) Strategic Alignment:

This project aligns with many existing plans including Council's Strategic Plan (intergovernment relations, growth, community pride and spirit and the environment), School District No. 42's 2015 Strategic Facilities Plan, the 2010 Parks, Recreation & Culture Master Plan, and lastly the Master Agreement between the School District No. 42 and the City for the joint use of public facilities and coordination of services. The land use designation is also consistent with the City's Official Community Plan.

e) Business Plan/Financial Implications:

The fixed price for Phase One as provided by DVC Ltd. (\$5,306,981- excluding tax) has been reviewed by James Bush and Associates Ltd. (JBL - professional quantity surveyors and construction cost managers) and is within the October 2018, Class A costing estimate provided for the project.

The Class "A" estimate identified a cost of \$15.4 million to construct the ACC with an additional \$800,000 to build to LEED Silver standard and a construction escalation contingency of \$600,000 to support the City's eligibility for a recreation infrastructure grant. At the time, the Class A did not include offsite servicing; however, an additional \$750,000 has been accounted for in the project budget to address this.

The funding plan in place to accommodate the estimated \$17 - 18 Million in costs include:

- 2016 estimate based on a concept \$10 million (\$8.5 million debt and \$1.5 million Amenity Contributions);
- \$0.75 million for Albion Community Centre land servicing/development fees;
- \$2.25 million from Parks & Recreation Projects Construction Contingency; and
- \$4 5 million in grants

If the grants do not achieve this amount (\$4-5 million), an increased reliance on Community Amenity Contributions (CAC's) is recommended to be utilized in place of grant funding.

CONCLUSION:

The Albion Community Centre project is an important part of Council's vision for enhanced services in the Albion neighbourhood that includes an elementary school, community centre, sports field, playground, natural areas and trails. To support this project moving forward in a timely manner and in coordination with the co-located Elementary School, it is recommended that the contract for construction of phase one of the ACC be awarded to Double V Construction Ltd.

Prepared by: Don Cramb Sr. Recreation Manager Valoree Richmond, MBCSLA Reviewed by: Acting Director of Parks & Facilities Trevor Thompson, BBA, CPA, CGA Reviewed by: Chief Financial Officer David Boag Approved by: Acting General Manager Parks, Recreation & Culture Concurrence: Kelly Swift, MBA **Acting Chief Administrative Officer**