

City of Maple Ridge

***COMMITTEE OF THE WHOLE
AGENDA
April 20, 2015
1:00 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.

Note: If required, there will be a 15-minute break at 3:00 p.m.

Chair: Acting Mayor

1. *DELEGATIONS/STAFF PRESENTATIONS* – (10 minutes each)

1:00 p.m.

1.1 Chickens as Pets

- Carol Campos

1.2 Waste Management of Canada Corp. – Proposed Municipally Administered Garbage Collection System

- Alex Limongelli, Public Sector Manager, BC

2. *PUBLIC WORKS AND DEVELOPMENT SERVICES*

Note: Owners and/or Agents of Development Applications may be permitted to speak to their applications with a time limit of 10 minutes.

Note: The following items have been numbered to correspond with the Council Agenda:

- 1101 2014-120-RZ, 23075, 23070, 23025, 23095, 23089, 23060 and 23054 Loughway Highway; 11383 and 11305 232 Street, RS-3 to RM-1, RST, R-2 and C-2**

Staff report dated April 20, 2015 recommending that Maple Ridge Zone Amending Bylaw No. 7139-2015 to rezone from RS-3 (One Family Rural Residential) to RM-1 (Townhouse Residential), RST (Street Townhouse Residential), R-2 (Urban Residential District) and C-2 (Community Commercial) to permit 73 R-2 lots, 68 units of RST-type rowhouses, 144 units of RM-1 townhouses and 3530 square metres of commercial floor space be denied.

- 1102 2015-021-RZ, 24070 132 Avenue, RS-3 to RS-1b**

Staff report dated April 20, 2015 recommending that Maple Ridge Zone Amending Bylaw No. 7142-2015 to rezone from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban [Medium Density] Residential) to allow future subdivision into approximately three single family residential lots be given first reading and that the applicant provide further information as described on Schedules A, B, E, F, G and J of the Development Procedures Bylaw No. 5879-1999, along with a subdivision application.

- 1103 2014-013-RZ, 23895 124 Avenue, 12507, 12469, 12555 and 12599 240 Street, Addendum to First Reading**

Staff report dated April 20, 2015 providing information on revisions to Application No. 2014-013-RZ.

- 1104 2011-081-RZ, 23940 104 Avenue, RS-3 to R-1 and R-2**

Staff report dated April 20, 2015 recommending that Maple Ridge Official Community Plan Amending Bylaw No. 7120-2014 to amend the Urban Area Boundary and to designate from Agricultural to Urban Residential and to Conservation for areas around the watercourse be given first and second readings and be forwarded to Public Hearing and that Maple Ridge Zone Amending Bylaw No. 6906-2012 to rezone from RS-3 (One Family Rural Residential) to R-1 (Residential District) and R-2 (Urban Residential District) to permit subdivision of approximately 68 lots be given second reading and be forwarded to Public Hearing.

- 1105 2015-080-DP, 11406 205 Street, Heritage Alteration Permit**

Staff report dated April 20, 2015 recommending that the Corporate Officer be authorized to sign and seal 2015-080-DP to allow revitalization and renovation work to be carried out on the Whitehead Residence in Hammond.

1106 2014-118-AL, 12266 240 Street, Application for Non-Farm Use

Staff report dated April 20, 2015 recommending that non-farm use Application No. 2014-118-AL for a northern expansion of the existing Meadowridge School site be forwarded to the Agricultural Land Commission.

1107 Maple Ridge Ticket Information Utilization Amending Bylaw

Staff report dated April 20, 2015 recommending that Maple Ridge Ticket Information Utilization Amending Bylaw No. 7061-2014 to update the parent Ticketing Bylaw with recently amended offences in various bylaws be given first, second and third readings.

1108 Maple Ridge Smoking Regulation Amending Bylaw

Staff report dated April 20, 2015 recommending that Maple Ridge Smoking Regulation Amending Bylaw No. 7151-2015 to add an additional definition “smoke or smoking” to ensure that e-cigarettes are prohibited be given first, second and third readings.

1109 Award of Contract, Integrated Stormwater Management Planning – South Alouette and Kanaka Creek Watersheds

Staff report dated April 20, 2015 recommending that Contract 11-5255-20-061, Integrated Stormwater Management Planning – South Alouette and Kanaka Creek Watersheds be awarded to Urban Systems Limited and that the Corporate Officer be authorized to execute the contract.

1110 Drinking Water Quality Report 2014

Staff report dated April 20, 2015 providing information on the regulatory framework and water quality monitoring data for 2014.

3. *FINANCIAL AND CORPORATE SERVICES (including Fire and Police)*

1131 Rock Ridge Cell Tower – Support for Next Steps

Staff report dated April 20, 2015 recommending that the construction and operation of a telecommunications tower at 13550 240 Street by SBA Inc. be supported, that the Corporate Officer be authorized to sign a Licence of Occupation Agreement and that SBA be required to complete specific work prior to undertaking construction of the tower.

1132 Maple Ridge Council Procedure Amending Bylaw

Staff report dated April 20, 2015 recommending that Maple Ridge Council Procedure Amending Bylaw No. 7149-2015 to remove Mayor and Councillor Reports and the Moment of Reflection from the Council Meeting agenda be given first, second and third readings.

1133 Ridge Meadows Youth & Justice Advocacy Association Director Position

Staff report dated April 20, 2015 recommending that staff be directed to request that the Ridge Meadows Youth & Justice Advocacy Association amend their establishing constitution to remove local government elected officials from being directors on their Board of Directors.

1134 2015 Tax Rates Bylaws – Maple Ridge Road 13 Dyking District and Albion Dyking District

Staff report dated April 20, 2015 recommending that Albion Dyking District Tax Rates Bylaw No. 7147-2015 be given first, second and third readings and that Maple Ridge Road 13 Dyking District Tax Rates Bylaw No. 7148-2015 be given first, second and third readings.

1135 Disbursements for the month ended March 31, 2015

Staff report dated April 20, 2015 recommending that the disbursements for the month ended March 31, 2015 be approved.

1136 2014 Consolidated Financial Statements

Staff report dated April 20, 2015 recommending that the 2014 Consolidated Financial Statements be accepted.

1137 2015 Council Expenses

Staff report dated April 14, 2015 providing updated Council expenses recorded to the end of March for 2015.

For information only
No motion required

1138 Maple Ridge Development Cost Charges Imposition Amending Bylaw

Staff report dated April 20, 2015 recommending that Maple Ridge Development Charges Imposition Amending Bylaw No. 7144-2015 be given first, second and third readings.

1139 Maple Ridge 2015-2019 Financial Plan Bylaw

Staff report dated April 20, 2015 recommending that Maple Ridge 2015-2019 Financial Plan Bylaw No. 7145-2015 be given first, second and third readings.

1140 Maple Ridge 2015 Property Tax Rates Bylaw

Staff report dated April 20, 2015 recommending that Maple Ridge 2015 Property Tax Rates Bylaw No. 7146-2015 be given first, second and third readings.

4. *COMMUNITY DEVELOPMENT AND RECREATION SERVICES*

1151

5. *CORRESPONDENCE*

1171

6. *OTHER ISSUES*

1181

7. *ADJOURNMENT*

8. ***COMMUNITY FORUM***

COMMUNITY FORUM

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

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

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.

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: _____
Date: _____

City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: First Reading
Maple Ridge Zone Amending Bylaw No. 7139-2015
23075, 23070, 23025, 23095, 23089, 23060 & 23054 Lougheed Highway;
11383 and 11305 232 Street

MEETING DATE: April 20, 2015
FILE NO: 2014-120-RZ
MEETING: C of W

EXECUTIVE SUMMARY:

An application has been received to rezone the subject properties from RS-3 (One Family Rural Residential) to RM-1 (Townhouse Residential), RST (Street Townhouse Residential), R-2 (Urban Residential District, and C-2 (Community Commercial). The proposal is for 73 R-2 (Urban Residential District) Zone lots, 68 units of RST-type rowhouses, 144 units of RM-1 townhouses and 3,530 square metres (38,000 square feet) of commercial floor space. Apart from minor adjustments, staff supports the residential proposal; however, the amount of floor area and range of uses for the commercial proposal is not supported because this it does not comply with the OCP, the Town Centre Area Plan or the Commercial and Industrial Strategy.

The entire site (9 properties) is designated Urban Residential in the OCP, and has been subject of discussion during the Commercial and Industrial Strategy review, which identified it as a potential location for employment uses. Pursuant to Council's resolution, the applicant prepared an analysis suggesting that light industrial use of the property would not be feasible. A follow-up market analysis submitted by the applicant suggests that the site is viable for a residential development and a commercial component with 3,530 square metres (38,000 square feet) of floor space. G.P.Rollo and Associates reviewed these reports and offered comments contained in this report.

This report provides an overview of the development proposal, and background information on the OCP policies and the Commercial and Industrial Strategy. Based on this review, staff have concerns with the size of the proposed commercial area, its potential negative impact on the Town Centre as well as on existing or designated commercial lands in East Maple Ridge and the incompatible interface with the residential neighbourhood to the west.

Therefore, the recommendation is to deny the proposal. Some alternatives to this proposal are described in this report.

RECOMMENDATION:

That Zone Amending Bylaw No. 7139-2015 be denied.

DISCUSSION:

a) Background Context:

Applicant: Qualico Developments (Vanc) Inc.
Owner: BC Transportation Financing Authority

Legal Description: Parcel "L" (Reference Plan 3957) of Parcel "J" (Reference Plan 3829), Except: Firstly: Part on Statutory Right of Way Plan 4834; Secondly: Part Lying South of Road Shown on Statutory Right of Way Plan 4834; Thirdly: Part on Statutory Right of Way Plan 71204; District Lots 402 And 403 Group 1 New Westminster District;

Parcel "J" (Reference Plan 3829), Except: Firstly: Part on Statutory Right of Way Plan 3041; Secondly: Parcel "L" (Reference Plan 3957); Thirdly: Part on Statutory Right Of Way Plan 4834; Fourthly: Parcel "One" (Explanatory Plan 8328); Fifthly: Part Within Heavy Outline Taken By Highway Statutory Right of Way Plan 63428; District Lots 402 And 403 Group 1 New Westminster District;

Lot 31 District Lots 402 And 403 Group 1 New Westminster District Plan 61595;

Parcel "One" (Explanatory Plan 8328) Of Parcel "J" (Reference Plan 3829) Except: Part on Statutory Right of Way Plan 71204; District Lots 402 and 403 Group 1 New Westminster District

Lot 27 Except: Part on Statutory Right of Way Plan 71204;

District Lot 403 Group 1 New Westminster District Plan 44493

Lot 28 Except Part in Highway Plan 71204, District Lot 403 Group 1 New Westminster District Plan 44493;

Lot 32 District Lots 402 and 403 Group 1 New Westminster District Plan 61595;

Parcel "M" (Reference Plan 681) District Lot 403 Group 1 New Westminster District; and

Lot 29, Except: Part on Statutory Right of Way Plan 71204, District Lot 403 Group 1 New Westminster District Plan 44493.

OCP:

Existing:	Urban Residential and Conservation
Proposed:	Commercial, Medium Density Residential, Urban Residential and Conservation

Zoning:

Existing:	RS-3 (One Family Rural Residential)
Proposed:	RM-1 (Townhouse Residential), RST (Street Townhouse Residential), R-1 (Residential District), R-2 (Urban Residential District), C-2 (Community Commercial)

Surrounding Uses:

Portion of site north of Lougheed Highway:		
North:	Use:	Telosky Park, Thomas Haney Centre, Thomas Haney Secondary and Maple Ridge Lawn Bowling Facility;
	Zone:	CD-1-89 (Assembly, Civic, Park & School);
	Designation:	Institutional;
East:	Use:	Vacant (forested);
	Zone:	RS-3 (One Family Rural Residential);
	Designation:	Conservation and Urban Residential;
South:	Use:	Townhouses;
	Zone:	RM-1 (Townhouse Residential);
	Designation:	Urban Residential;

Portion of site south of Lougheed Highway:

Northwest:	Use:	Residential and Bare Land Strata Residential;
	Zone:	R-1 (Residential District) and RM-1 (Townhouse Residential);
	Designation:	Urban Residential;
Southwest:	Use:	Across Haney Bypass:
		CP Rail rail line, Kanaka Creek Regional Park;
	Zone:	RS-3 (One Family Rural Residential);
	Designation:	Park, Urban Residential and Conservation;
East:	Use:	Townhouse and Rural Residential;
	Zone:	RM-1 (Townhouse Residential) and RS-3 (One Family Rural Residential);
	Designation:	Urban Residential and Conservation;

Existing Use of Property: Vacant Residential

Proposed Use of Property: Commercial, Urban Residential, Townhouses, Rowhouses and Conservation;

Combined Site Area: 18.3 HA (45.2 acres)

Access: Lougheed Highway, Haney Bypass and 232 Street;

Servicing requirement: Urban Standard

b) Site Characteristics:

The lands subject to this rezoning application were part of Ministry of Highways properties once slated to accommodate the alignment of the “Cottonwood Connector” through East Maple Ridge, from Dewdney Trunk Road, through the subject development site and connecting with the Haney Bypass. The connector is no longer to be constructed; therefore, the site is being sold by the Province.

The development site consists of two disconnected sites made up of nine (9) lots – six (6) lots to the north and three (3) lots to the south of Lougheed Highway. The areas are:

	Area in hectares	Area in Acres
Total Site	18.3	45.2
North Portion	6.9	17.0
South Portion	11.4	28.2

North Portion: The northern area of the North Portion is covered with trees, has steep slopes and Morley Creek flows south and is piped under the Lougheed Highway. The lots in the southern area are vacant with clearings, possibly one former house site near 232 Street. The lands slope from the middle of the side east to 232 Street and west towards the creek and rising up to the fields associated with Telosky Park and the Thomas Haney Centre.

There is an existing townhouse complex to the south and the Telosky Park /Thomas Haney Senior Secondary and associated recreational uses to the north.

South Portion: This land is vacant, mainly cleared and generally slopes to the southeast (towards Morely Creek on adjacent lands) and the south west (towards Roslyn Creek which flows through the site in the west). There are three (3) steep slope areas:

- Bisecting the site diagonally from the northwest to southeast near the Haney Bypass;
- Running north to south behind the residential lots fronting Olund Crescent and 231 Street near Lougheed Highway; and

- Running north to south along the eastern side of the site associated Morely Creek. The southern portion of the creek was piped along the lot line shared between the development site and the townhouse project to the east as well as under the Haney Bypass.

There is an existing R-1 (Residential District) and RM-1 (Townhouse Residential) bare land strata neighbourhood to the west, and two RS-3 (One Family Rural Residential) lots and a RM-1 townhouse complex to the east.

c) Project Description:

The following is being proposed for the site (See Appendix C):

North Portion:

- 73 R-2 (Urban Residential District) Zone lots (minimum lot area of 315 square metres) located towards 232 Street; and
- Riparian or restoration areas of approximately 3 hectares (7.5 acres) located towards Loughheed Highway.

South Portion:

- 3,530 square metres (38,000 square feet) of commercial floor space fronting on Loughheed Highway;
- 68 units of RST-type rowhouses at a density of 15.5 units per acre, which complies slightly more than the Zoning Bylaw permits. These are to be situated in the central part of the site behind the Commercial area and abutting the existing single family neighbourhood to the west; and
- 144 units of RM-1 townhouses at a density of up to 14.6 units per acre, which generally complies with the Zoning Bylaw. This would be located south of the Rowhouses stretching south to the Haney Bypass.

At this time, the current application has been assessed to determine its compliance with the Official Community Plan (OCP) and to provide a land use assessment only. As the application is recommended for denial, a subsequent report to Council and accompanying OCP and Zone Amending Bylaws together a more detailed assessment will be provided to Council to consider. The concept plan attached as Appendix C may change.

d) Planning Analysis:

Given the size of the site and the land uses and densities being proposed and the close proximity to the Town Centre Area, an expanded OCP assessment about this project's compliance with the Official Community Plan (OCP) is included in this report.

Official Community Plan Designation:

The development site is currently designated a combination of Urban Residential and Conservation. Minor adjustment to the Conservation designations on the site to account for ground-truthing will be required.

With respect to the residential component, the subject site is designated Urban Residential – Major Corridor in the OCP. This designation provides for a range of residential uses, including ground oriented housing forms such as single detached dwellings, garden suites, duplexes, triplexes,

fourplexes, townhouses, apartments or intensive small lot residential subject to compliance with the infill and compatibility policies. The proposed residential uses are in compliance with the OCP.

The OCP does not provide for any Commercial land uses on the subject site; therefore, the applicant has applied for an OCP amendment. Depending on the size and uses for the proposed commercial land use, the amendment may constitute a major OCP amendment to various sections of the OCP thus requiring a detailed assessment. See Appendix B for more information. In addition, the requirements of Section 879 of the *Local Government Act* respecting consultation during an Official Community Plan amendment would apply.

Commercial and Industrial Strategy:

The Commercial Industrial Strategy notes that Maple Ridge has a demand for 200 acres of industrial land by 2040 and identifies 8 strategies to provide the needed lands. Strategy #5 specifically speaks to the Department of Transportation Lands and states:

“8.7.5 Strategy #5: Department of Transportation Lands

The Department of Transportation owns 38 acres of land to the west of the eastern intersection of the Lougheed Highway and the Haney Bypass. These lands have a number of streams running through the site and some slope issues. It is estimated that 50% of these lands could be developed for industrial use if redesignated. As it stands these properties are located within the Urban Area Boundary and currently zoned CS-1, RM-1 and RS-3. An amendment to the Official Community Plan to support business park industrial development is recommended.”

The following resolution was passed at the Council Workshop meeting on December 2, 2013 and applies to the South Portion of the subject development application site:

That staff be directed to obtain a more detailed site analysis of Ministry of Transportation lands to determine feasibility as employment generating lands.

Based on this resolution, the applicant was advised of the content in the Strategy and was requested to complete a detailed site analysis as a component of the application.

Applicant Completed Industrial Analysis:

The applicant retained City Spaces Consultants to prepare two studies and a proforma to address this Council directive (see Appendix D). For their proforma analysis in the second study, City Spaces used as their model the precedent-setting business park / business incubator project in the Fleetwood Town Centre of Surrey. This project was designed to appear as a townhouse project transitioning between a shopping centre, service commercial strip and townhouse neighbourhood. City Spaces concluded:

This detailed site analysis, however, concludes that the Cottonwood lands are not considered suitable for Industrial designation for reasons of:

- *Unsuitable topography;*
- *Potential developable parcels that are undersized, discontinuous, and poorly configured for business park use;*
- *Potential Incompatibility issues with surrounding development, respecting the interface with established residential properties, and*

- *Inefficient use of existing community infrastructure and amenities, and the corresponding loss of opportunity to complete a planned neighbourhood with compact residential infill, pedestrian connectivity, and centralized amenities.*

G. P. Rollo and Associates (GPRA), the authors of the Commercial and Industrial Strategy, reviewed the City Spaces Study and proforma analysis for compliance to the Strategy. The study mainly uses imperial units, consequently metric equivalents are not indicated from this point forward in the Council Report. The memorandum Rollo prepared is attached as Appendix E. Please refer to Part 1 of this attached document.

Their *comments and observations* (note bolded point below) about the City Spaces' findings about the site's feasibility as employment generating lands is as follows:

Having reviewed the City Spaces Land Use Policy Evaluation, GPRA has the following comments and observations:

- *City Spaces' methodology, analysis and conclusions are sound and largely consistent with a methodological approach GPRA would use;*
- *GPRA's 2012 recommendation that the site be re-designated for Industrial use was predicated on a high-level assessment looking at potential sites with good locality given the need to find alternate locations for industrial development in the city in the coming years. It did not include site-specific environmental or geotechnical analysis;*
- *There are other potential sites in the City where future industrial uses could be located.*
- *The methods and assumptions employed in Qualico Developments' proforma analysis (provided to GPRA by Maple Ridge staff) are reasonable, and based on the assumptions used in that analysis the development of the Cottonwood Lands as industrial business park would not be economically viable; and*
- *As currently proposed, the Cottonwood Land Use Concept includes 38,750 square feet of retail and service commercial use. Assuming that the employment density (square feet per employee) were to range from 175 to 350 square feet, this development would result in between 129 and 221 employees.*

Conclusion: Based on the G. P. Rollo assessment of the City Spaces Study and proforma analysis, as well as, the site's physical and environmental limitations as documented in the City Spaces Report, the Ministry of Transportation lands are felt to be not feasible as business park lands. However, other employment generating uses that have not been assessed may be appropriate for this site. Staff note that incompatibility issues raised in the proforma could be negated through site design and building form.

Applicant's Studies:

The applicant provided two studies to the City in support of the scale of the commercial proposal.

City Spaces Study: As the subject site in some circles is deemed to be a suitable for light industrial site, the City Spaces Study considered the notable Fleetwood example, an employment generating land use in a townhouse complex built form. However, it was judged to be unfeasible for the subject site from financial as well as site characteristic perspectives.

The applicant's justification for supporting a mixture of land uses, including commercial land uses, rather than the current urban residential designation, is based on:

- creating a more complete community to satisfy the day-to-day shopping needs of the emerging neighbourhood on the south side of Lougheed Highway;

- the size and the range of commercial uses can be strictly tailored to not impact the commercial establishments in the Town Centre; and
- some employment generation, albeit at lesser levels, are possible through an acceptable commercial centre and new home occupations.

The City Spaces Study (Appendix D) acknowledges the potential for some infill employment uses but also some potential threats to the Town Centre Area. The Study states the following:

- *A limited portion of the upper lands adjacent to the Lougheed Highway could feasibly be developed for infill employment use, provided that the scale of buildings and the permitted land uses are compatible with existing and future residential development. This potential infill employment use is recommended to be of a type and scale to support, rather than detract from, the adjacent Town Centre in a manner consistent with OCP policy, and be respectful of the hierarchy of community commercial nodes and neighbourhood centres. Infill employment uses could be incorporated within a possible commercial centre on the upper Cottonwood lands adjacent to the Lougheed Highway (p. 1).*
- *The Cottonwood Lands are approximately 500 metres from the Town Centre Commercial designation, and between two commercial designated parcels located on the Lougheed Highway at the Haney Bypass and at 116th Avenue. The addition of substantial new infill employment lands located in close proximity to the Town Centre is not considered to be consistent with current policy to monitor new office development in support of commercial development within the Town Centre (p. 16).*
- *Development of the entire Cottonwood lands for infill employment uses is considered in potential conflict with policy respecting the hierarchy and scale of commercial nodes and centres, and appears to disrupt the planned integral system of commercial centres and nodes (p. 16).*
- *From a physical planning perspective, the upper terrace Cottonwood Lands (located adjacent to the Lougheed Highway) are considered feasible for limited infill employment use that might be provided within a commercial centre designed to complement the residential community (p. 18).*

The applicant has elaborated that:

It is important to create a site large enough to attract a strong anchor tenant. The anchor is what draws customers to the site and provides support for the other commercial units. (February 26, 2015 email)

A 38,000 sq ft centre would allow the creation of a viable community retail space that could still be defined as a local retail precinct. A 15,000-20,000 grocery store would offer real convenience to the surrounding community and the newly developed Cottonwood lands. It could be similar to the 23,000 sq. ft. Cooper's Foods on Dewdney Trunk at 240th Street. (March 23rd 2015 email)

Hume Report: The applicant has retained Hume Consulting to prepare a report on the key market and planning rationale for the 38,000 square foot commercial centre. This report is attached as Appendix F. Its stated purpose is as follows:

Hume Consulting has been retained by Qualico to assess the site specific commercial opportunity for the Cottonwood Lands. This report will assess the market's ability to support up to 38,000 square feet of convenience-oriented development that would likely be

anchored by a small supermarket plus a variety of other stores and services targeting basic day-to-day needs of nearby residents and regional traffic passing the site.

It analyses the success of commercial centres based on these locational factors:

- Nearby Source of Demand
- Exposure to Traffic
- Convenient Access
- Good Visibility
- Sufficient Site Size
- Limited Direct Competition

These are strictly site-specific marketing matters, without analysing any economic impact on existing primary (Town Centre Area) or proposed commercial areas.

The report identifies a trade area (a “5-minute drive”) stretching from the Fraser River on the south and encompassing the southeast corner of the Town Centre Area northward to Dewdney Trunk Road in the vicinity of 232 Street and eastward to include southwest portion of Albion (shown to the right from p. 9). The proposed 38,000 square foot commercial centre would be expected to capture 5% to 20% of the market share of this trade area depending on the store category. For a supermarket, about 10,500 to 14,000 square feet would capture 15 – 20% of the resident’s supermarket expenditures. The possibility of a 22,000 square feet grocery store was put forward to accommodate the sales potential from traffic passing by the site.



As for the impact on the Town Centre, qualitative rather than quantitative assertions are made indicating it would have a “very limited impact” (p. 12). Among the arguments for another supermarket include: making up for the lost grocery sales floor area due to the closure of Target; accommodating grocery retailers not currently in the community like Buy Low, Marketplace IGA, Choices, Urban Fare, etc.; and expanded choices offered by having a number of complete supermarkets in the same trade area with distinct store identities and accommodating loyalties with shoppers.

The main driving factor to support a 38,000 square foot shopping centre with a grocery store anchor of up to 22,000 square feet appears to be economics – a large enough centre to have a large enough supermarket with a well-known and identifiable “banner” to attract shoppers that in turn, attracts smaller business to locate and be more viable “coat-tailing” on the anchor store. There was an estimate that the 38,000 square foot commercial centre would create about 57 to 76 full time equivalent jobs

Assessment of Applicant’s Reports by Rollo and Associates

The applicant is proposing to introduce commercial land uses, which are not in compliance with the OCP. If applied, the OCP policy for neighbourhood commercial centres would allow up to 10,000 square feet of commercial floor area whereas the proposal is for nearly four (4) times more than the maximum allowable amount. Applying the next level in the OCP commercial hierarchy, the permitted amount of area would be up to 100,000 square feet about three times greater than being proposed by the applicant.

With respect to uses, the C-2 Community Commercial zone is being proposed by the applicant rather than the more typical C-1 Neighbourhood Commercial Zone and commercial uses typical to service local shopping needed. The C-2 Zone would accommodate a significantly larger anchor tenant and wider range of other commercial uses serving several neighbourhoods.

G. P. Rollo was asked to probe deeper (see Appendix E, Part 2) into the City Spaces assertions concerning commercial use, as well as, assessing the size and range of uses that might be supportable for the subject site. The main conclusions are as follows:

- *The Cottonwood Lands are located within 500 metres of the Town Centre Commercial Designation. All three of downtown Maple Ridge's major grocery store anchors are located within a 5 minute drive of the site (2 grocery stores within a 3-minute drive), as is London Drugs and Shoppers Drug Mart (P. 6). [Staff note: Extra Foods is a third grocery store and Rexall will be opening in Haney Place.]*
- *As currently conceived, the commercial node in the Cottonwood Land Use Concept would contain 38,750 square feet of built capacity. While it is unknown what tenants if any have been approached at this stage, in order to make this node commercially viable it is likely that a grocery store or pharmacy-driven store with grocery component of between 15,000 and 20,000 square feet would be sought to anchor the project. This could prove a challenging size to fill, as the typical anchor would likely be a smaller convenience-oriented grocer of under 10,000 square feet, or a small, full-line store of over 25,000 square feet. If an anchor in the 15-20,000 square foot range could be secured, given the location of the Cottonwood lands vis-à-vis the downtown a store of this size would likely draw on a trade area that would overlap the market area for the downtown grocery stores. With a quality anchor tenant, it is likely that some downtown grocery-related sales transference would occur (p. 6-7).*
- *A retail node at the Cottonwood Lands may be more justifiable from a planning perspective, and more viable from a commercial market perspective, if it is of a size and configuration that limits its primary market area to the immediate neighbourhood, offering opportunity for a convenience food store anchor and other complementary convenience retail and service commercial. This would minimize any potential market overlap and sales transference from downtown stores and ancillary retail establishments, minimize the potential for tenants to move from the town centre to this new node, and maximize its chances of achieving commercial success (p. 7).*
- *A convenience-oriented commercial node of up to 20,000 square feet of built space at the Cottonwood Lands would be appropriate for a local-serving retail precinct at this location that is complementary to the nearby downtown retail precincts. Given typical anchoring ratios for small convenience-oriented shopping nodes, an anchor tenant in a 20,000 square foot centre would be limited to 6-10,000 square feet. At this size (both absolute and anchor), the sales requirements and market area would likely be convenience, local serving in nature, and thus complementary to the downtown.*

As a comparison to the 14,000 – 22,000 grocery store being proposed, the following are the sizes for nearby with nearby grocery stores (based on Business Licences issued):

- | | | |
|---|---------------|--|
| • | Thrifty's | about 3,251 square metres (35,000 square feet) |
| • | Save-on-Foods | about 3,144 square metres (33,842 square feet) |
| • | Coopers | about 2,694 square metres (29,000 square feet) |
| • | Extra Foods | about 2,230 square metres (24,004 square feet) |

Rollo was also asked to review and comment upon the Hume Report. This was not available at the time that this Council Report was finalized. Comments from Rollo on the Hume Report will be provided in future reports to Council should Council either defer or direct staff to prepare the bylaw for this application.

Among the concerns identified by staff include:

- That the proximity of the proposed commercial development to the Town Centre Area suggests more than the portion of the Town Centre Area shown will be within the five-minute driving criteria used to establish the boundary. Consequently, there may be a much greater draw on the Town Centre trade area than estimated by the Hume Report; and
- The Hume Report only assesses what is necessary for a commercial use on the site to be economically viable without regard to OCP commercial goals, objectives and policies, and the impact on the Town Centre Area and other established or designated commercial lands.

Official Community Plan Policies:

For the purposes of this analysis, the Commercial Policies in the OCP contained in Section 6.3 Commercial Opportunities as well as the Town Centre Area Plan are considered relative to the 38,000 square foot commercial proposal on the subject site.

Section 6.3 Commercial Opportunities:

The following is a summary of OCP Policies in Sections 6.3.4, 6.3.5 and 6.3.6 governing land designated Commercial for General Commercial, Community Commercial Nodes and Neighbourhood Commercial Centre respectively. Brief staff comments as related to the commercial component of this project are included.

	<i>OCP Policy</i>	<i>Staff Comment</i>
6 - 23	<i>General Commercial lands are lands designated Commercial on Schedule B of the Official Community Plan that are:</i> <ul style="list-style-type: none"> a) <i>located on the Lougheed Highway, west and east of the Town Centre;</i> b) <i>located on Dewdney Trunk Road, west of the Town Centre, but excludes property within a Community Commercial Node identified on Figure 3;</i> c) <i>located on Dewdney Trunk Road, east of the Town Centre and west of 230th Street;</i> d) <i>Lougheed Highway and 116th Avenue; and</i> e) <i>located west of 207th Street in the vicinity of the intersections between Dewdney Trunk Road and Lougheed Highway.</i> 	The subject site is not identified as General Commercial lands.
6 - 26	<i>Maple Ridge will promote the development of Community Commercial Nodes to serve the commercial needs of emerging neighbourhoods.</i>	
6 - 27	<i>The Community Commercial Nodes are located within the urban area boundary and are identified on Figure 2. The nodes are centred at the intersections of Dewdney Trunk Road and 240th Street, 232nd Street, and 216th Street, with residential developments interspersed between.</i>	

6 - 30	<i>Maple Ridge will encourage the development of Neighbourhood Commercial Centres within walking distance of neighbourhoods to service the daily convenience shopping and service needs of residents in the local neighbourhood.</i>	The subject site is not so designated.
6 - 31	<i>Neighbourhood Commercial Centres will be considered subject to satisfying Parking Bylaw and Zoning Bylaw requirements, traffic access, site design and compatibility with adjacent land uses.</i>	However, based on OCP policy and the GP Rollo Memo, this would be a suitable designation for a 10,000 sq. ft. commercial development.
6 - 32	<i>Total commercial space in a Neighbourhood Commercial centre is typically less than 930 square metres (10,000 square feet) in area.</i>	

Therefore, given the OCP designation, the site is intended to be developed for residential. A review of the commercial policies indicate that:

- The site is not designated for a Community Commercial node or General Commercial;
- A Neighbourhood Commercial centre of 10,000 square feet would be supportable to accommodate a walk-in trade area for nearby residents and future residents of the residential component of this development application. The Commercial and Industrial Strategy does identify that there will be demand for floor area in East Maple Ridge as the community grows. However, this site is not specifically identified. Any development larger than 10,000 sq. ft. is not supportable;
- Should Council be supportive of General Commercial on the site the introduction of some second storey rental housing or community amenity contribution toward rental or affordable housing could be a consideration to bonus the commercial floor area from 10,000 to 15,000 or 20,000 square feet. This has been done for a number of projects in the City recently (See Appendix B for more information.)

Town Centre Area Plan:

The priority for creating a strong commercial, cultural and residential Town Centre Area over all other commercial centres in the City of Maple Ridge has been entrenched for decades in the land use objectives and planning on the community and regional levels. The introduction to the Town Centre Area Plan articulates this as follows:

In early Official Community Plans priority for commercial development and residential density was noted for the Town Centre. In 1996, the area was designated as Regional Town Centre in the Metro Vancouver (former Greater Vancouver Regional District) Livable Region Strategic Plan which signified the Centre's importance within the region, and identified it as a hub for future densification and development.

The Green Infrastructure, Land Use, Park and Transportation Sections each contain policies to achieve the priority for the commercial and residential density and development to support a strong community and regional town centre being envisioned by the OCP.

Among the policies are 3-1 and 3-3, which in part state:

- 3-1 An increase in residential and commercial density is encouraged in the Town Centre, particularly within the Central Business District; and
- 3-3 Commercial uses that support the residential population of the Town Centre through the provision of necessary goods, including food, and services such as medical care are a priority function and will be encouraged to develop or remain in and around the Central Business District of the Town Centre.

The fundamental concept is the concentration of commercial uses in the Town Centre Area will support business development as well as attracting residential development in the Town Centre Area. The growing population will support more business and will expand the trade market for additional commercial uses. It is a positive spiral – more commercial uses attracting residents, more residents attracting additional commercial uses, which attract more resident, etc.

The Commercial and Industrial Strategy has identified the amount of commercial use that can be located outside of the Town Centre without detracting from the Town Centre's growth priority and the positive spiral between commercial and residential development.

Consequently, a project involving 38,000 square feet of commercial area does not conform to the priority objectives and commercial concentration policies in the Town Centre Area Plan and the OCP.

Overall Conclusion:

Under the current OCP and Town Centre Area Plan policies, no commercial land use can be entertained on the subject site. A commercial proposal of up to 10,000 square feet would require amendments to comply with the OCP. The G.P.Rollo Report identified a category of 15,000 – 20,000 square feet of commercial floor area that would be a size preserving the priority of the Town Centre Area. However, this would require further work by staff to draft an OCP Amending Bylaw and accompanying policies, development permit area guidelines and housekeeping changes.

Notwithstanding that from a realty or marketing perspective that a 38,000 square foot commercial could be viable and profitable, the proposal does not conform to the OCP and Town Centre Area Plan policies and cannot be supported. Changing the OCP and the Town Centre Area Plan to allow for such a proposal would be a shift from the envisioned regional and community role and priority of the Town Centre Area, the objectives of the Commercial and Industrial Strategy and potentially long term negative effects on the Town Centre's retail environment and future business growth momentum. A significant amount of time, effort and resources has been directly applied by the City, including various financial incentives for facade improvement and property tax forgiveness, to attract investment and maintain the health and viability of the Town Centre.

Zoning, Referrals and Procedural Matters:

Given the staff recommendation to deny this proposal, matters related to zoning, referrals, interdepartmental comments and procedures are not included in the body of this report. Some details are included in Appendix B for information only. Should Council direct the creation of a bylaw for this development, rezoning, referral and procedural information would be included in the first reading report.

Alternatives:

For Council's information, alternatives have been briefly explored below:

a) Deferral with Concept Plan Change

Council could direct the applicant to amend their plan to one of the following options and staff would bring back a report and amending bylaws (if required),

- (i) Residential only – this option complies with the OCP, or
- (ii) Residential and Neighbourhood Commercial – a residential development with 10,000 ft² of neighbourhood commercial space. This is in alignment with OCP policies; however, an OCP amendment is required.
- (iii) Residential with commercial space greater than 10,000 ft² and no more than 20,000ft² This is not in alignment with OCP policies, however the Rollo report suggests that a convenience oriented node of up to 20,000 ft² would be appropriate. An OCP amendment is required;
- (iv) Employment use only – This approach is consistent with the Commercial Industrial Strategy. The applicant's consultants suggest that employment use is not economically feasible, however, Council may wish to explore this option further.

b) Approve as submitted and direct staff to prepare bylaw – not recommended;

If Council is inclined to explore the applicant's option through either deferral or supporting the application as submitted, then staff recommends:

- Council refer this application back to staff for further review, including reporting back on G. P. Rollo's assessment of the Hume Report;
- Council authorize staff to undertake an Economic Impact Assessment, at the expense of the applicant, to gauge the full impact of a 38,000 square floor shopping centre, grocery store size and proposed range of uses at the subject site, including the impact on the Town Centre, on potential future development of the Albion Flats and on existing or designated neighbourhood commercial centres particularly in East Maple Ridge, including Albion;
- Staff determine a suitable amount of rental, affordable and adaptive housing or community amenity contribution (CAC) or a combination of construction and CACs to be provided;
- Staff seek the input of the Maple Ridge Business Improvement Association; and
- Staff to seek clarification about how Figure 5 (Potential Trade Area) in the Hume Report was determined. The proximity of the proposed commercial development to the Town Centre Area suggests more than the portion of the Town Centre Area shown will be within the five-minute driving criteria used to establish the boundary.

CONCLUSION:

The property is designated Urban Residential in the OCP and the residential portion of the development proposal complies with the OCP. The commercial development proposal is not in compliance with the OCP. The necessary OCP amendments to the Commercial Policies, as well as, the Land Use Plan for the 38,000 sq. ft. Community Commercial Development the applicant is proposing could be a threat to the growth, momentum and well being of the Town Centre Area.

Although the Hume Report identifies from a market perspective how a centre of this size is necessary to be economically viable, Rollo's memorandum clearly establishes that site specific economic viability and overall city-wide commercial growth are separate issues. Success of the commercial centre on the subject site could be at the expense of Town Centre sustainability

In light of the Fleetwood-style employment generation use being found economically unfeasible, staff has explored the supportable commercial use alternatives of Neighbourhood Commercial in place of the applicant's proposal. The option of exploring the applicant's proposal, albeit shown as feasible from a purely retail marketing perspective, would require an economic impact assessment to quantify the risk on the Town Centre before proceeding with any Zoning Bylaw amendment. It is noted that commercial development on the property would require OCP amendments to achieve compliance with the OCP.

Therefore, it is recommended that this application be denied.

"Original signed by Chuck Goddard" for

Prepared by: Adrian Kopystynski, MCIP, RPP, MCAHP
Planner II

"Original signed by Christine Carter"

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

"Original signed by David Pollock" for

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

"Original signed by Jim Rule"

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

Appendix A – Subject Map

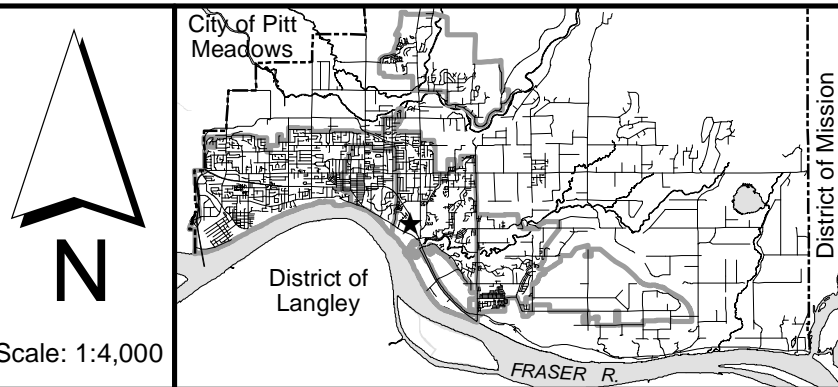
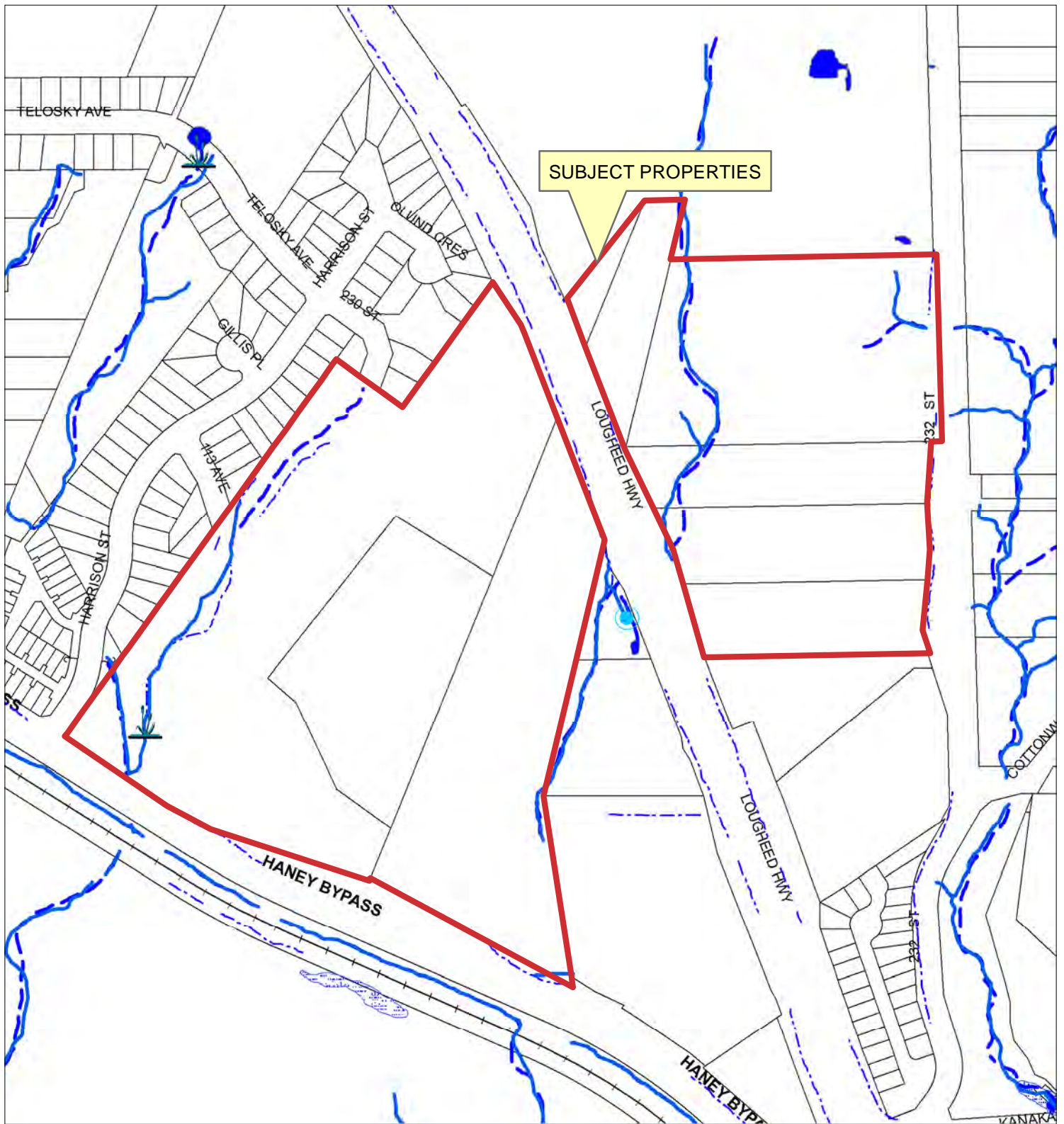
Appendix B – Report Addendum

Appendix C – Proposed Site Plan

Appendix D – City Spaces Reports (June and December 2014 – Note: blank numbered pages removed)

Appendix E – Rollo Memorandum

Appendix F – Hume Report



23054/60/70/75/89/95 LOUGHEED HWY &
11305/83 232 STREET



CITY OF MAPLE RIDGE
PLANNING DEPARTMENT

Scale: 1:4,000

DATE: Dec 11, 2014

FILE: 2014-120-RZ

BY: PC

Appendix B – Report Addendum

Zoning Bylaw:

Proposed Zones: The current application proposes to rezone the properties making up the development site from RS-3 (One Family Rural Residential) to the following:

- RM-1 (Townhouse Residential) to permit about 144 strata townhouse units;
- RST (Street Townhouse Residential) to permit about 65 fee simple lot unit;
- R-2 (Urban Residential District) to permit about 73 lots (315 square metre minimum area); and
- C-2 (Community Commercial) to permit 3,530 square metres (38,000 square feet).

Similar applications (Rental Housing requirement): Whether through site specific text amendments to the C-1 zone or using the C-2 zone, the precedent for expanding floor area or the range of uses in commercial developments away from the Town Centre has been through the provision of rental housing.

Based on the examples shown below, the average has been to provide residential floor space equal to the amount of commercial space in exchange for expanded commercial establishments. The average sizes of the rental units have been about 75 square metres (807 square feet).

File	Location	Commercial space	Residential space (and units)
2013-052-RZ	23227 Dogwood	531 sq. m.	429 sq. m. (5)
2011-015-RZ	11959 203 St.	301 sq. m.	413 sq. m. (6)
2012-084-RZ	11133 240 St.	481 sq. m.	221 sq. m. (2)
RZ/044/09	11213 240 St.	960 sq. m.	1140 sq. m. (16)
Average unit size			75 sq. m. (807 sq. ft.)

In the case of this project, both expanded uses and expanded commercial floor area are proposed. It would be reasonable to require rental housing as currently required as well as affordable housing for the expanded floor space. Based on the above four precedents, the number of units would be:

- For a 38,000 square foot project: 51 dwelling units;
- For a 20,000 square foot project: 25 dwelling units; or
- For a 10,000 square foot project: 12 dwelling units.

For units that cannot be included, the option exists to enter into a Development Agreement or other suitable instrument have applicants to make a payment into a Statutory Reserve Fund for the purpose of providing rental or affordable housing.

Under current OCP policies, the C-2 Zone is not supportable because it is not an allowed zone on the Zone Matrix for Urban Residential designated lands. The land would need to be redesignated to Commercial and listed as General Commercial site under Policy 6 – 23. Most General Commercial designed areas are in West Maple Ridge and at main intersections along Dewdney Trunk Road.

Proposed Subdivision and Lot Layout: The proposed lot layout for the 73 R-2 (Urban Residential District) Zone lot in the North Portion of the subject site located towards 232 Street will require further review after ground truthing is completed and reviewed to determine if there is sufficient setback from the creeks and tops of bank in the area.

The proposed lot layout is not dimensioned and has not been reviewed for acceptability by the Approving Officer.

The land use interface the south portion of the subject site is a concern. The current layout provides a direct connection from the multiple residential and commercial area to flow through the established neighborhood to the west. There are two street stubs - to Telosky Avenue / 230 Street and 113 Avenue that should become cul-de-sacs or connected to complete the existing neighbourhood. The Approving Officer wishes to see a revised layout submitted that completes neighbourhood and limits the cross traffic to the west.

Conclusion: Once a full submission is made, including a revised subdivision plan, and assessed by staff, it can be determined if any variations from the zoning requirements will require a Development Variance Permit application.

Development Permits:

Development permits will be required as follows:

- Pursuant to Section 8.5 of the OCP, a Commercial Development Permit application is required to address the commercial component of current proposal's compatibility with adjacent development, and to enhance the unique character of the community;
- 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; and
- Pursuant to Sections 8.9 and 8.10 of the OCP, a combined Watercourse Protection Development Permit and Natural Features Development Permit application is required for all developments and building permits within 50 metres of the top of bank of all watercourses and wetlands. The purpose of this Development Permit is to ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas, and slope protection.

Advisory Design Panel:

A Commercial Development Permit and a Multi-Family Development Permit are 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.

Preliminary Engineering Comments:

- 1) The adequacy of all municipal services and off-site improvements need to be determined and constructed by the applicant as part of rezoning where substandard or lacking.
- 2) A comprehensive traffic study will need to review the impact of the development on the existing roads and intersections and recommend the necessary changes and improvements, including signalization at existing and proposed intersections in the vicinity along Lougheed Highway and Haney Bypass. Of particular note is the Lougheed/Bypass/232 intersection and upgrading along the Haney Bypass, which will require approval from both the Ministry of Highways.
- 3) Road dedication for an arterial road is required on 232 Street at rezoning.

Preliminary Environmental Comments:

Watercourse Protection: There are three watercourses and wetland features that have been identified on site in addition to surrounding protected riparian areas (i) Roslyn Creek (ii) Morley Creek and (iii) Salamander Creek. Roslyn Creek on the western portion of the site has a 30 metre setback designation, Morley Creek and Salamander require further study by a qualified environmental professional to determine appropriate SPR setbacks. The municipal system currently has these watercourse section classified with a 15 metre from the top of bank or ravine bank for the initial setback designation. Based on SPR guidelines, manmade barriers to fish passage which were identified by previous environmental consultants are not considered permanent barriers. Therefore, upstream portions of Roslyn and Salamander Creek continue to be classified as potential fish bearing systems with future enhancement opportunities.

Steep Slopes: There are some steep slopes on the property that are over 25% which would not be considered to be developable. These landscape features need to be incorporated into the development layout in a manner which complies with OCP hillside management policies and objectives as well as NFDP best management practices.

Wildlife Habitat Values: Significant evidence of a wide variety of wildlife species utilizing the riparian corridors as well as the southern portion of the old fields. Site visits confirmed numerous wildlife veteran trees, and a combination of riparian areas, old field grasslands, wetlands, coniferous forest and shrub thicket within study area. The variety of ecosystem types provides habitat for a variety of species including signs of waterfowl, passerines, raptors, amphibians, reptiles, insects, and large mammals such as coyotes, black bear, and deer. Evidence of moderate to high wildlife use also was identified along Morley and Salamander Creek. Wildlife diversity and habitat in properties to the south and east of the study area is also recognized as being high in value.

Potential Natural Hazards: There is evidence from previous stream surveys and municipal on site visits of moderate to severe erosion occurring along northern portions of Morley Creek and Salamander creek exposing Haney clays. There is also a history of some local slides on site especially along the SE corner. Due to the vulnerable nature of the soil types, slope concerns, and the proximity of the proposed development to environmentally sensitive features, a geotechnical study and report should be required for this area to be carried out.

Aboriginal Sensitivity: BC Archeology Branch has recorded a significant first nations archeological site within Kanaka Creek Regional Park less than 250 metres to the south of the proposed study site. It is recommended that an archeological impact assessment be prepared by a qualified consultant.

Rail Noise and Vibration: The site abuts CP Rail immediately to the south of Haney Bypass. It also slopes toward the south, exposing the townhouse component of this development to noise and vibration from the rail operation. The applicant must take into consideration the *Guidelines for New Development in Proximity to Railway Operations* to adequately mitigate noise and vibration issues.

Preliminary Parks and Recreation Comments:

Parks would support the provision of a pedestrian flyover of the Haney Bypass and CPR RoW from the development site to Kanaka Creek Regional Park, as it would be beneficial for the community to achieve this facility in this location. Metro Vancouver Parks identified this potential pedestrian connection in the Kanaka Creek Management Plan as shown below:



Interdepartmental Implications:

Although staff is not supporting First Reading, an application of this type would require comments and input from the various internal departments and external agencies including those listed below:

- a) Engineering Department;
- b) Operations Department;
- c) Fire Department;
- d) Parks Department;
- e) School District;
- f) Utility companies;
- g) Parks Metro Vancouver;
- h) Ministry of Transportation and Infrastructure;
- i) Archeology Branch;
- j) First Nations;
- k) Fisheries & Oceans Canada;
- l) Ministry of Environment;
- m) CP Rail; and
- n) 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.

Only the conceptual land use proposal has not been forwarded to the other Department for comments at this time; therefore, an evaluation of servicing and other requirements has not been undertaken. We anticipate that this evaluation will take place between First and Second Reading.

Early and Ongoing Consultation:

As First Reading is not being recommended, the requirements of Section 879 of the *Local Government Act* respecting consultation during an Official Community Plan amendment was not assessed.

Due to the potential impacts, the consultation would in all likelihood include referral to the School District and the Town Centre Business Improvement Association in addition to the normal notification and posting on line.

Future Development Applications:

Although First Reading is not recommended by staff, an application of this type would require the following information must be provided, as required by Development Procedures Bylaw No. 5879–1999 as amended in order to proceed past First Reading:

1. An OCP Application (Schedule A);
2. A complete Rezoning Application (Schedule B or Schedule C);
3. A Multi-Family Residential Development Permit Application (Schedule D);
4. A Development Variance Permit (Schedule E);
5. A Watercourse Protection Development Permit Application (Schedule F);
6. A Natural Features Development Permit Application (Schedule G); and
7. A Subdivision Application with detailed subdivision plan for proposed residential lots and completing of the road system for the single family neighbourhood to the west.

In addition to the above, the applicant be required to provide further information including: a listing of the proposed commercial uses to be permitted for the site specific Zoning Bylaw text amendment, details on rental and affordable housing units to be provided above the commercial space, provision of amenities such as public art and place making in the commercial area, a Development Viability Assessment for rail operations-related impacts, a preliminary Archeological Impact Assessment, information about existing easements including the existing BC Hydro high powered gas line running through Roslyn Creek and a plan showing pedestrian interconnectivity with safe access across Lougheed Highway, CP Rail and Haney Bypass.

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

LAND USE LEGEND

SOUTH OF LOUGHEED

- RST Fee Simple Townhouses
- RM-1 Strata Townhouses
- Commercial
- Green Buffers (0.3 ha)
- Riparian / ESA (1.8 ha)

LAND USE LEGEND

NORTH OF LOUGHEED

- R-2 Single Family Lots
- Green Buffers (0.01 ha)
- Potential Wetland / Restoration Area / Park (0.9 ha)
- Riparian Areas (2.2 ha)



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- Riparian Areas (2.2 ha)





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LAND USE POLICY EVALUATION

The Cottonwood Lands, Maple Ridge BC

PREPARED FOR QUALICO DEVELOPMENTS (VANCOUVER) INC.

June 2014

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APPENDIX29



SUMMARY

This report evaluates the suitability of the Cottonwood (Ministry of Transportation) lands for Official Community Plan redesignation from *Residential* to *Industrial* for business park use. Although currently designated for *Residential* use, these and other lands are recommended in the District of Maple Ridge's (DMR) draft *Commercial and Industrial Strategy: 2012-2014* to be considered for redesignation as *Industrial* lands.

DMR Council has requested staff "to obtain a more detailed site analysis to determine feasibility as employment generating lands." Qualico Developments (Vancouver) Inc. is proceeding, under an agreement with the Province, to purchase and develop the Cottonwood lands for residential use, in accordance with longstanding OCP policy. DMR Planning staff has recommended to Qualico that it complete a feasibility analysis, and bring forward the Cottonwood lands for consideration by DMR Council.

This evaluation is guided by the DMR Official Community Plan land use and implementation policies, and professional planning principles and opinion. It recognizes the identification of these lands for potential industrial use, noting that the Cottonwood lands are sizable lands, contiguous to a full range of municipal services, and are strategically located next to major road corridors that can support industrial development. This detailed site analysis, however, concludes that the Cottonwood lands are not considered suitable for *Industrial* designation for reasons of:

- Unsuitable topography;
- Potential developable parcels that are undersized, discontinuous, and poorly configured for business park use;
- Potential Incompatibility issues with surrounding development, respecting the interface with established residential properties, and
- Inefficient use of existing community infrastructure and amenities, and the corresponding loss of opportunity to complete a planned neighbourhood with compact residential infill, pedestrian connectivity, and centralized amenities.



1. COTTONWOOD LANDS

The *Cottonwood lands* are described and highlighted in the following table and map (Figure 1). These lands are subject to an agreement of purchase between the Province of British Columbia and Qualico Developments (Vancouver) Inc. The sale is the result of a public tender process initiated in November 2013. Qualico completed the Purchase Agreement with the Province in late March 2014, and is now completing due diligence procedures to close the purchase. The Qualico purchase agreement is premised on development of the lands for residential use, in accordance with the residential designation set out in the DMR Official Community Plan. Qualico's intention is to rezone and develop the lands to complete the existing residential community at densities consistent with the current DMR OCP.

PARCEL	DESCRIPTION	LAND AREA (ACRES)	LAND AREA (HECTARES)
1	North of Haney Bypass & south of Lougheed Highway, east of Harrison Street, also referenced as the Ministry (Department) of Transportation Lands in the Commercial and Industrial Strategy: 2012 - 2042 and DMR Staff reports	28.2	11.4
2	East of Lougheed Highway, west of 232 nd Street, south of Thomas Haney Secondary & MR Lawn Bowling	16.9	6.8
3	East of 232 nd Street & west of Cottonwood Drive	7.0	2.8

View to Lougheed Highway frontage looking west



Figure 1: Cottonwood/Ministry of Transportation Lands



Parcel Size Uncertainty: The November 2012, the G. P. Rollo and Associates *Commercial and Industrial Strategy: 2012 - 2042* Report refers to the *Department of Transportation lands to the west of the eastern intersection of the Lougheed Highway and the Haney By-Pass being 38 acres of land*. The report also notes that these lands include a number of streams, some slope issues, and are estimated as being 50% developable for the recommended business park industrial development.

The actual parcel size of the Cottonwood (Ministry of Transportation) Parcel 1 land is 11.4 ha. (28 acres).

The September 2013 DMR staff report identifies the Ministry of Transportation Lands to the west of the Haney By-Pass/Lougheed Highway intersection, as shown in Figure 2. This map includes two vacant parcels to the east of Parcel 1, that are in separate private ownership. These parcels are approximately 1.1 ha. (2.8 acres) in size, and are predominantly designated as, or otherwise isolated by, Conservation lands. The land area of all vacant parcels immediately west of the eastern intersection of the Lougheed Highway and the Haney Bypass, including the two additional private parcels, is 12.5 ha. (31.0 acres). The reason for this discrepancy in land area has not been determined. A copy of a recent BC Land Surveyor plan, confirming the Cottonwood Parcel 1 land area at 11.4 ha. (28.2 acres) is attached to this report.

*Figure 2: Ministry of Transportation Lands
(to the west of the Haney By-Pass/Lougheed Highway intersection (September 9, 2013 Staff Report))*



2. LAND USE POLICY

Metro Vancouver Regional Growth Strategy

The Regional Growth Strategy designates the Cottonwood lands within the Urban Containment Boundary as *General Urban* lands. The current Official Community Plan designation of the Cottonwood lands as *Residential* is consistent with the Regional Growth Strategy.

Figure 3: Metro Vancouver Regional Growth Strategy Excerpt

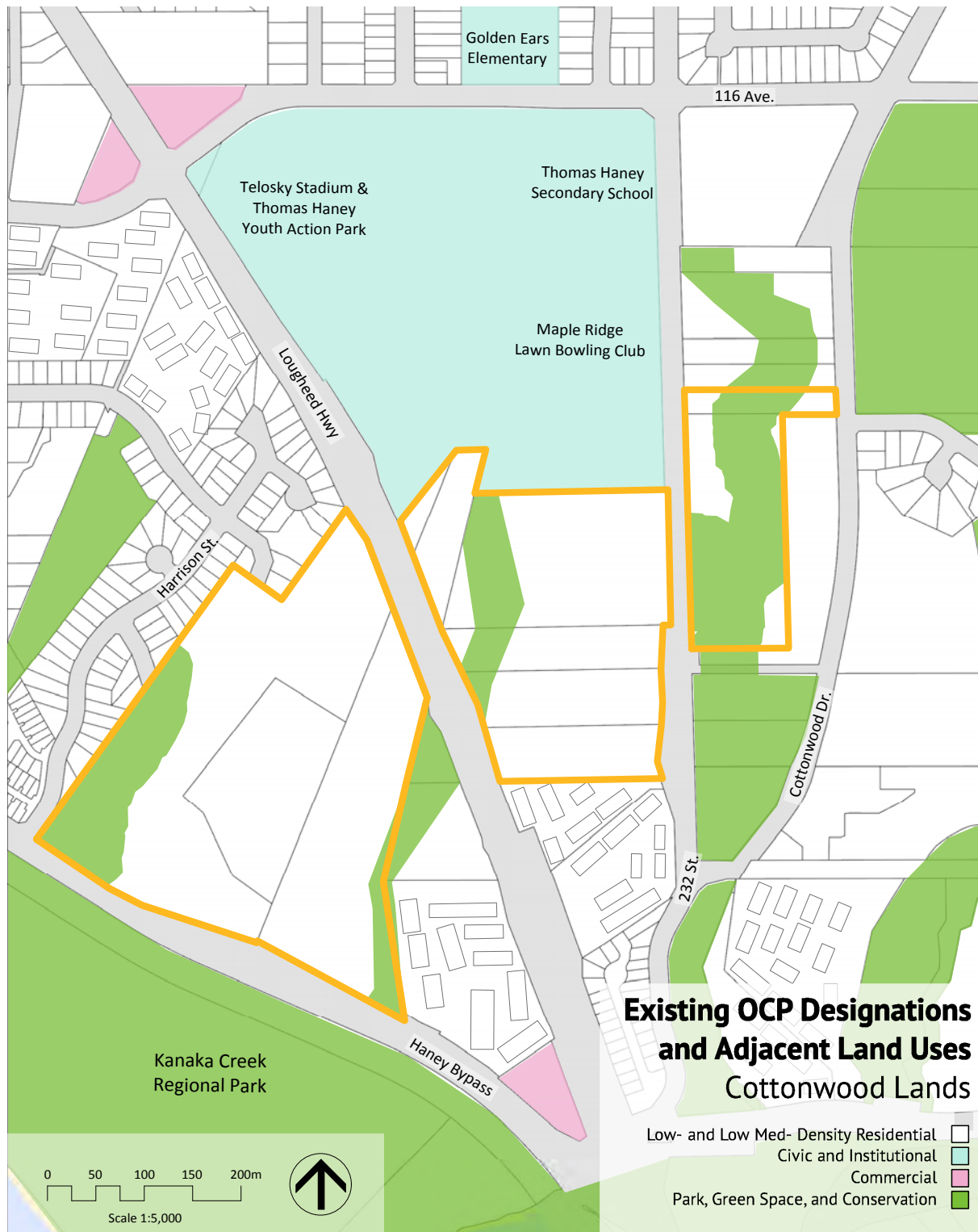


Residential Designation

The DMR Official Community Plan designates the Cottonwood lands as *Urban Residential and Conservation*. The Conservation designation includes approximately 1.6 ha (4.0 acres), and pertains to the riparian areas associated with Roslyn, Morley, and Salamander Creeks that flow south through the properties to Kanaka Creek and the Fraser River. The lands are further designated *Major Corridor Residential Infill*, with policy statements that include:

- Building forms, such as single detached dwellings, duplexes, triplexes, fourplexes, townhouses, apartments, and small lot intensive residential developments;
- A maximum height of two and one-half storeys, with an emphasis on ground-oriented units for all developments, except apartments;
- A maximum height of four storeys for apartments; and
- Adherence to Development Permit Guidelines for multi-family and intensive residential developments.

Figure 4: Existing OCP Designation & Adjacent Land Uses



Industrial Lands Policy

Official Community Plan policy also identifies a long-term need for additional employment lands within Maple Ridge, while recognizing that the redesignation of additional lands for commercial and industrial use *‘is a complex matter that must be considered in a comprehensive manner to ensure that future industrial activity “fits” within the community context, and is consistent with Provincial, Regional and Community goals.’*

In accordance with OCP policy, a *Commercial and Industrial Strategy Report* was completed by G. P. Rollo Associates in November 2012. It includes recommendations for potential additional industrial lands at four locations within Maple Ridge, one of which includes the Cottonwood lands. The report is in the consultation stage, pending further consideration by Council. The most recent Council direction respecting the *Industrial Lands Strategy*, and the Cottonwood lands, is that *“staff be directed to obtain a more detailed site analysis to determine feasibility as employment generating lands.”*

The Land Use Policy Question

The DMR is considering its long-term need for additional *Industrial* designated lands, and its consultant has recommended consideration of a number of *Non-Industrial* designated lands to be redesignated to *Industrial*. The Cottonwood lands are included in the consultant’s recommendations for redesignation from *Residential* to *Industrial*.

Qualico is obligated to proceed under its purchase agreement with the Province, but is not able to conclude its purchase if uncertainty remains concerning the DMR’s intention respecting the possible redesignation of the property for industrial use. Staff advise that further consideration of the *Commercial and Industrial Strategy* has not been scheduled, and that a detailed feasibility analysis of the sites considered for redesignation will likely not be completed and ready for Council consideration until late 2014, or early in 2015. DMR Planning staff has recommended that Qualico bring the Cottonwood lands forward to Council for consideration, prior to completion of the site feasibility analysis for all four properties. Qualico has asked CitySpaces Consulting to prepare an evaluation of the feasibility of Cottonwood lands for industrial use.

The following evaluation, prepared by CitySpaces Consulting, is guided by:

1. OCP Land Use Policy;
2. OCP Implementation Policy;
3. The *GPRA Commercial and Industrial Strategy Report*, and
4. Professional planning principles and opinion.

3. CONTEXT

1. CHRONOLOGY

A partial chronology of the *Commercial and Industrial Strategy Report* is summarized in the following table.

DATE	ACTIVITY
November 2012	<i>Commercial and Industrial Strategy: 2012-2014</i> , Report by GPRA presented to DMR Council
February 20, 2013	DMR Council Workshop endorsement of the Consultation Program
March 4, 2013	Staff summary report on the draft Commercial and Industrial Strategy
September 9, 2013	Staff Consultation Summary Report
March 4, 2014	Qualico completes agreement with the Province to purchase the Cottonwood lands
May 2, 2014	Qualico and CitySpaces meeting with DMR Planning staff
June 9, 2014	DMR Council Workshop consideration of the Commercial and Industrial Strategy
June 16, 2014	Council consideration of the Commercial and Industrial Strategy

2. OFFICIAL COMMUNITY PLAN INDUSTRIAL LANDS POLICY

The projected need for additional industrial lands in Maple Ridge was adopted as OCP policy in Section 6.4.1.

To accommodate the long term demand for industrial lands, Maple Ridge needs to create an additional industrial area or areas of about 80 to 120 hectares (200 to 300 acres). However this is a complex matter that must be considered in a comprehensive manner to ensure that future industrial activity “fits” within the community context, and is consistent with Provincial, Regional and Community goals.

Further Official Community Plan policy is provided in Section 6-41, 6-42 and 6-53, setting out specific criteria to guide the feasibility or suitability evaluation of lands for industrial designation. These policy sections set out evaluation criteria that include, but are not necessarily limited to:

1. *Land that is relatively flat; (Policy 6-41, a)*
2. *Land that is conducive to industrial development; (Policy 6-41, b)*
3. *Land that is contiguous to a full range of municipal services; (Policy 6-41, c)*
4. *Land is strategically located on, or near a Major Road Corridor and the transportation network can support the development; (Policy 6-53, ii)*
5. *The proposed development is compatible with surrounding development; (Policy 6-53, iii) and*
6. *The development is consistent with the Economic Development Strategy.” (Policy 6-53, iv).*



In recognition that the redesignation of lands for industrial purposes is a complex matter because of the need to determine the proper “fit” within the community context (Policy 6.4.1), the OCP implementation policies of Chapter 11 (Policy 11-2) identify a *Comprehensive Strategy* that is required to resolve implementation issues.

The OCP comprehensive implementation strategy “*will be evaluated by a balanced triple bottom line analysis that considers economic, community and environmental issues. The strategy will also identify conflicts that may arise with and between issues, and include an assessment of advantages and disadvantages to assist Council with decision making.*”

In accordance with OCP policy guidance, the Cottonwood lands Parcel 1 suitability for industrial designation use is evaluated in this report, pursuant to the site opportunities and constraints, taking into consideration the triple bottom line analysis of environmental, community, and economic issues.

4. OPPORTUNITIES & CONSTRAINTS

SITE OPPORTUNITIES	CONSTRAINTS
Environment	
<ul style="list-style-type: none"> Views to the south to parkland South exposure for light and solar gain Slope provides potential terracing, unobstructed views, and sun exposure Access to riverfront parkland Existing street system partly in place Former pasture land clear of woodland Existing vegetation and watercourse amenities 	<ul style="list-style-type: none"> Steeper slopes are likely un-developable, and effectively divide the lands into two distinct terraced parcels Highway and railway noise Watercourse and wooded areas reduce developable area Soils and groundwater conditions are anticipated to be challenging, but not insurmountable Groundwater conditions may increase development costs Existing trees may conflict with views
Community	
<ul style="list-style-type: none"> Adjacent to Kanaka Regional Park Connectivity and proximity to existing residential neighbourhoods, schools, and recreational amenities Ease of access to regional transportation system Established residential neighbourhood 	<ul style="list-style-type: none"> Vehicle access to Lougheed Highway and Haney By-Pass may be restricted Abutting residential neighbours may oppose change from residential land use Railway and highway conflicts with pedestrian and vehicle connections to community
Economy	
<ul style="list-style-type: none"> Infill property with services and amenities in place Strong demand and absorption rates for residential development 	<ul style="list-style-type: none"> Topography, soils, groundwater, and environmental attributes add to site development costs Pedestrian and vehicle connections may be costly



Figure 5: Context & Air Photo



5. LAND USE EVALUATION

RESIDENTIAL LAND USE	INDUSTRIAL LAND USE
Environment	
1. Topography	
<ul style="list-style-type: none"> Sloping lands present construction constraints that are offset by a south facing solar aspect, reduced privacy conflicts, and short range views Upper and lower areas could include a road connection if required 	<ul style="list-style-type: none"> Sloping topography is not considered suitable for business park development Gradients for a road connection from the upper to lower areas are not considered practicable for industrial use The slope transects the site, breaking up the continuity, and lessening the flexibility and efficiency for industrial development
<ul style="list-style-type: none"> The Cottonwood lands generally slope from north to south from the Lougheed Highway frontage down to the Haney Bypass. The high point is at the northeast corner of the site, and the low point at the southwest corner. The total grade change over the site is 34 metres (112 ft). Figure 8 illustrates the steeper slope that transects the property northwest to southeast into an upper and lower area. This slope exceeds 25%. This slope is considered a significant engineering impediment to the construction of a road system linking the upper and lower areas. Slopes also exceed 25% in the northwest quadrant of the site, and within the designated conservation areas. 	
2. Soils and Groundwater	
<ul style="list-style-type: none"> Preliminary suggestions of clay soils and perched water tables may present challenges for construction 	<ul style="list-style-type: none"> Preliminary suggestions of clay soils and perched water tables may present challenges for construction
3. Watercourses	
<ul style="list-style-type: none"> Potential residential amenity 	<ul style="list-style-type: none"> Reduces the total developable area Provides less potential as an open space amenity for a business park
4. Vegetation	
<ul style="list-style-type: none"> Higher quality vegetation is generally associated with the designated watercourse and conservation areas, and will be a potential amenity for residential development 	<ul style="list-style-type: none"> Vegetation preservation is a reduction in useable site area for a business park Provides less potential as an amenity in a business park context
5. Views/Aspect	
<ul style="list-style-type: none"> Short range views and south facing aspect are positive attributes for residential development 	<ul style="list-style-type: none"> Short range views and south facing aspect are considered less of an attribute for business park development



RESIDENTIAL LAND USE	INDUSTRIAL LAND USE
Community	
6. Abutting Land Use	
<ul style="list-style-type: none"> Single Dwelling unit and townhouse residential dwellings Residential amenities in close proximity include Kanaka Creek Regional Park, Haney Secondary School, Golden Ears Elementary and neighbourhood commercial to the east 	<ul style="list-style-type: none"> Single Dwelling unit and townhouse residential dwellings Neighbourhood convenience commercial to the east
7. Community Fit	
<ul style="list-style-type: none"> No compatibility issues anticipated with a residential use 	<ul style="list-style-type: none"> Potential industrial/residential land use conflicts may be mitigated, in part, by custom zoning to restrict inappropriate industrial uses, and through buffer strip requirements Further restrictions for business park uses may reduce marketability, and slow absorption rates Rear yard buffer areas will further reduce useable area for business park use
8. Street Continuity	
<ul style="list-style-type: none"> Completion of existing residential streets is desirable, and will complement further residential development Completion of residential neighbourhood may include centrally located neighbourhood commercial amenity 	<ul style="list-style-type: none"> Completion of the existing residential streets reduces available developable business park lands Buffer areas required between the business park and adjacent residential lands will reduce useable business park area
9. Access/Connectivity	
<ul style="list-style-type: none"> Residential street connections to existing street network will distribute traffic, and mitigate restricted access to the Lougheed Highway and Haney Bypass 	<ul style="list-style-type: none"> Business Park access is not compatible with existing residential street network Right-in/right-out vehicle access from the lower developable area to the Haney Bypass will deter Business Park users Industrial lands located in closer proximity to the region's bridges may be preferred to the Cottonwood lands Access from the Lougheed Highway may increase traffic through the DMR core area
10. Municipal Services	
<ul style="list-style-type: none"> Fully serviced lands, with no known capacity issues 	<ul style="list-style-type: none"> Fully serviced lands, with no known capacity issues
11. Amenities	
<ul style="list-style-type: none"> Neighbourhood commercial and other residential amenities preserved or developed on the Cottonwood Lands would be centrally located to serve the larger neighbourhood 	<ul style="list-style-type: none"> A small Business Park may not be able to support commercial or recreational amenities

RESIDENTIAL LAND USE	INDUSTRIAL LAND USE
Economy	
12. Contiguous Lands and Efficient Parcel Configuration	
<ul style="list-style-type: none"> Smaller residential parcels can be accommodated within the the irregular shaped lands that are considered developable 	<ul style="list-style-type: none"> A single contiguous business park parcel is not considered feasible due to topography The configuration of the developable lands will result in irregularly shaped parcels and a single oversized cul-de-sac configuration that will further reduce developable land and impede truck circulation
13. Minimum Business Park Parcel Size	
<ul style="list-style-type: none"> The developable land area is significant size for infill residential development No minimum parcel size applicable for residential subdivision 	<ul style="list-style-type: none"> The Business Park Zone (M-3) provides a minimum size of parcel for a comprehensively designed Business Park at 10 ha. (24.7 acres).

6. NET DEVELOPABLE LAND AREA

Developable Lands

The net land area available for *business park* development has been estimated by eliminating those lands that are not permitted, or considered unsuitable for business park development.

1. WATERCOURSE & CONSERVATION LANDS - APPROX. 1.6 HA (4.0 ACRES)

Reference is made to the Watercourse Protection Development Permit Area Guidelines set out in Section 8.9 of the DMR Official Community Plan. The Watercourse Protection guidelines require that a Development Permit be issued respecting any development within 50 metres of the top of bank of all watercourses and wetlands, noting that the guidelines can be varied with supporting documentation by a qualified professional. For the purposes of this evaluation, the watercourse protection area is anticipated at a 15-metre setback from the top of bank.

Figure 6: Watercourses & Conservation Areas



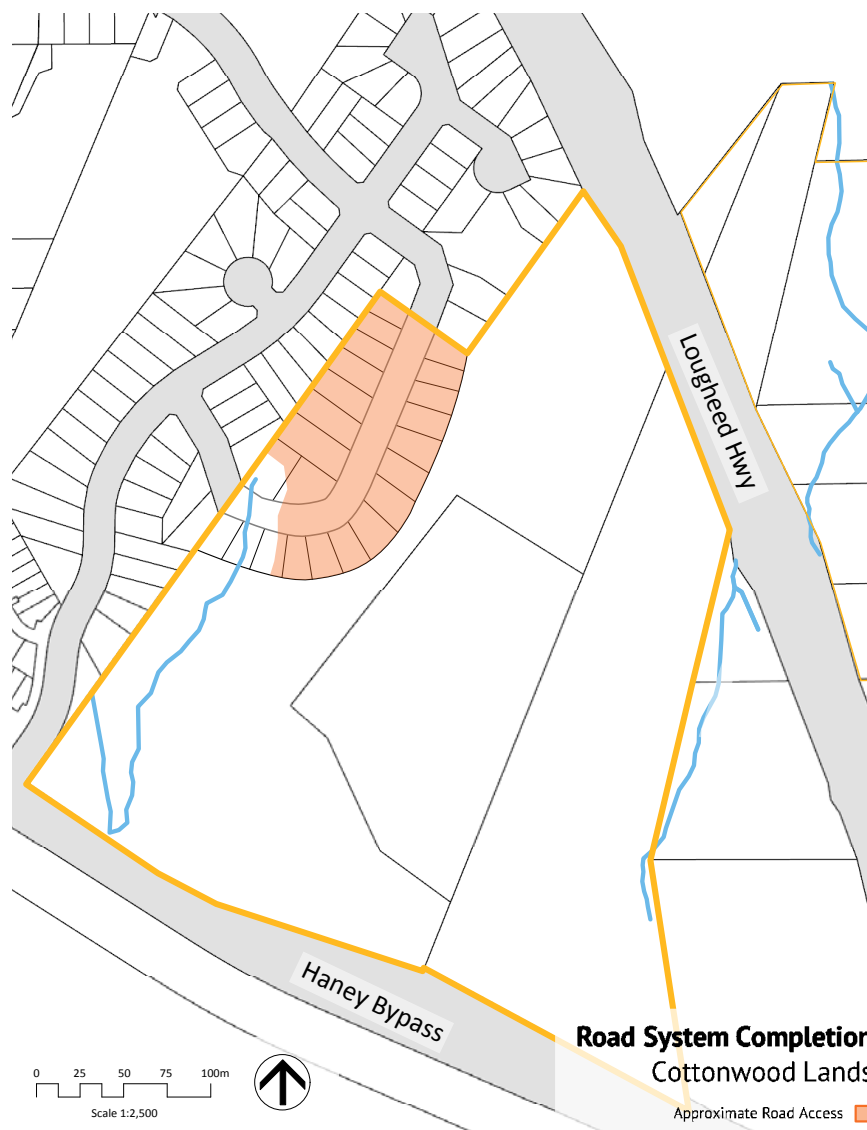
2. LANDS REQUIRED TO COMPLETE THE EXISTING RESIDENTIAL ROAD SYSTEM – APPROX. 1.1 HA (2.7 ACRES)

The residential subdivision to the west of the Cottonwood lands includes two regular *dead-end* roadways that anticipate completion within the Cottonwood lands. These incomplete streets (250 Street and 113 Avenue) are developed with single dwelling residences, and their completion is consistent with the existing *residential* designation of the Cottonwood lands.

If the Cottonwood lands are considered for industrial development, it is not appropriate to complete these streets in a manner to serve a potential business park use, as this would introduce inappropriate traffic types and volumes, and safety and compatibility issues along existing residential streets. Alternatively, a decision not to complete the roadways would be inconsistent with DMR's subdivision intentions, subdivision design standards, and the requirements for safe and functional vehicle access (including emergency vehicle turning facilities).

The completion of 230 Street and 113 Avenue for residential development can be accomplished by a single crescent configuration, or by a configuration of two separate cul-de-sacs. Both options require a net area of approximately 1.1 ha (2.7 acres) of the Cottonwood lands. The crescent option is shown in the following illustration.

Figure 7: Road System Completion



3. UNSUITABLE SLOPES – APPROX. 4.4 HA (10.8 ACRES)

Consistent with criteria set out in the DMR Official Community Plan, industrial land use requires relatively flat land to accommodate the scale and type of buildings, and the truck access requirements of a business park. The Cottonwood lands have a grade differential of approximately 34 metres (112 ft.), from a high point adjacent to the Lougheed Highway to a low point along the Haney By-Pass. The following table summarizes the property gradients, as shown on Figure 8.

PERCENTAGE SLOPE	LAND AREA	PERCENTAGE OF LAND AREA
0-5% slope	1.1 ha (2.7 acres)	9.5%
5-10% slope	5.4 ha (13.3 acres)	47.3%
10-15% slope	2.0 ha (5.0 acres)	17.6%
15-25% slope	1.6 ha (4.0 acres)	14.1%
over 25% slope	1.3 ha (3.2 acres)	11.5%
	11.4 ha (28.2 acres)	100%

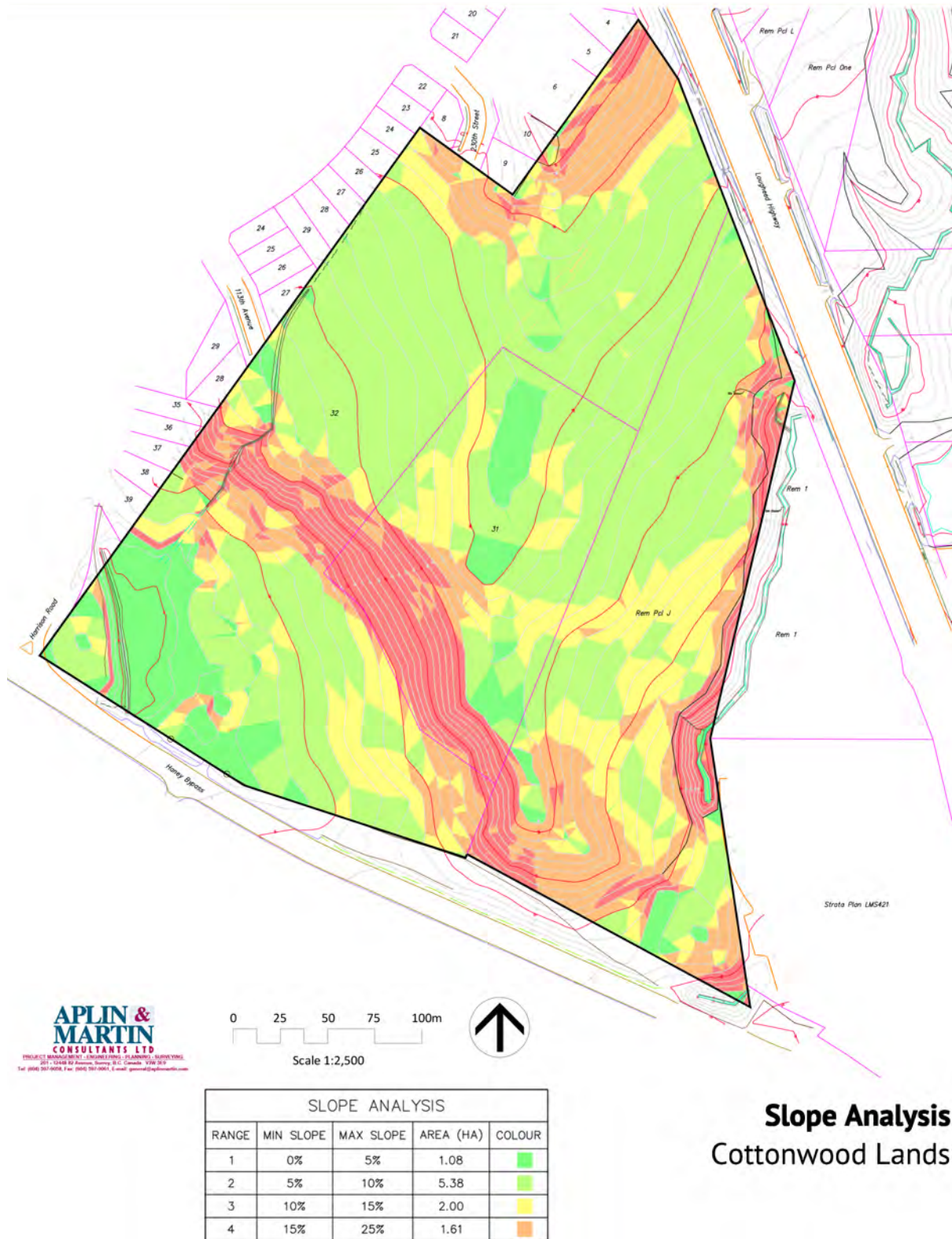


(top) View to the northwest corner of the parcel & Olund Crescent

(bottom) View to the southwest, the lower site area & the Haney By-Pass



Figure 8: Slope Analysis



Lands considered unsuitable for business park development due to unsuitable slope are described in two categories:

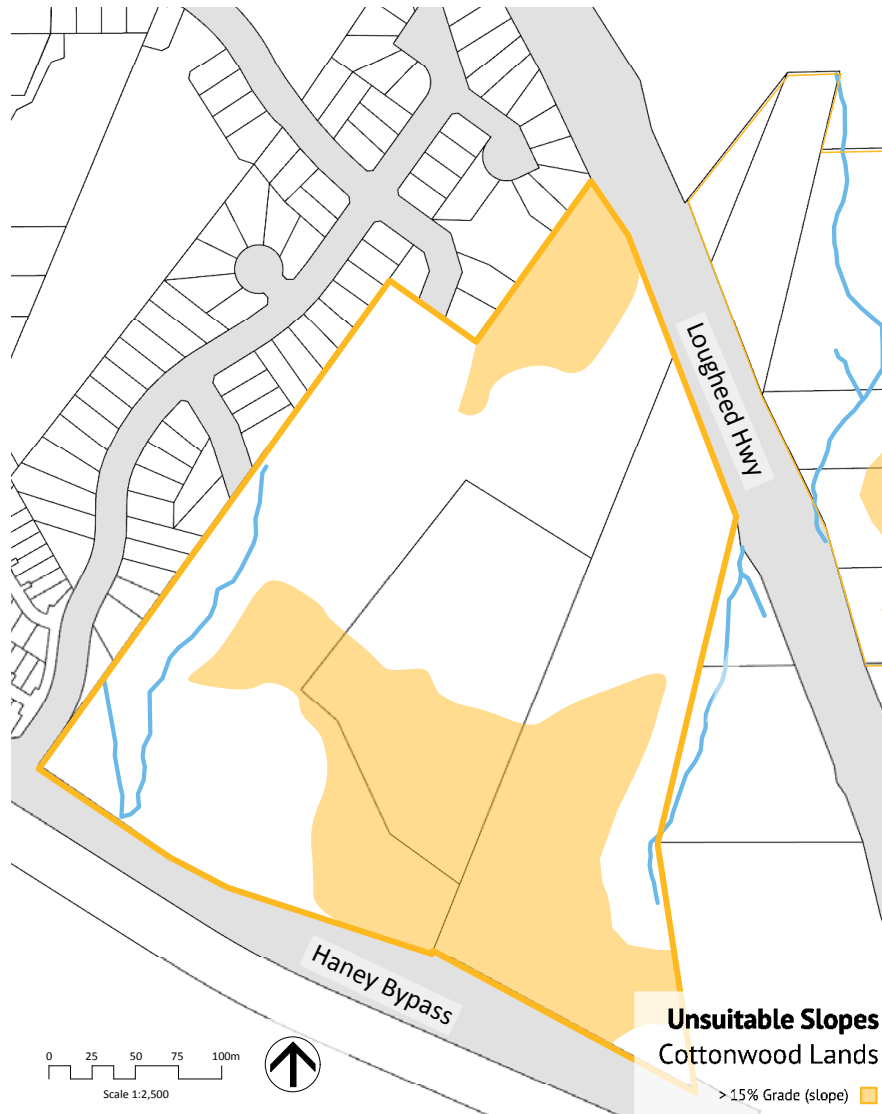
1. First, slopes greater than 25% are considered undevelopable for business park use, and for roads within an industrial park. The extent and impact of earthworks and drainage required to construct a business park roadway to reasonable design standards is not considered practicable at grade greater than 25%. The impact of such dramatic earthworks could also result in unintended negative consequences related to groundwater and drainage. The 25% and greater slope that transects the site, from northwest to southeast, is considered to effectively divide the site into two parts that cannot be reasonably connected by an internal business park roadway. The upper area, that comprises approximately two-thirds of the property, generally relates to the elevation of the Lougheed Highway. The remaining third of the land is located below this slope, and is generally at the elevation of the Haney By-Pass.
2. Second, lands with slopes between 10% and 25% are not considered practicably developable for business park use. Although to a lesser degree than industrial parks, business parks require relatively flat sites to accommodate larger footprint buildings, level loading areas, and truck access routes at relatively flat gradients. Slopes ranging from 10 to 25% are not considered suitable for business park development due to the increased cost of site development, such as earthworks, engineered slopes, and retaining walls.

The area of land deducted from the developable area of the site, due to unsuitable slope, is less than the total area of land in excess of 10% slope, as some of those slopes occur within the watercourse, conservation, and road completion land areas that were previously deducted as undevelopable. The net area of land deducted due to unsuitable slope is approximately 4.4 ha (10.8 acres).

View to the west & Harrison Street residences



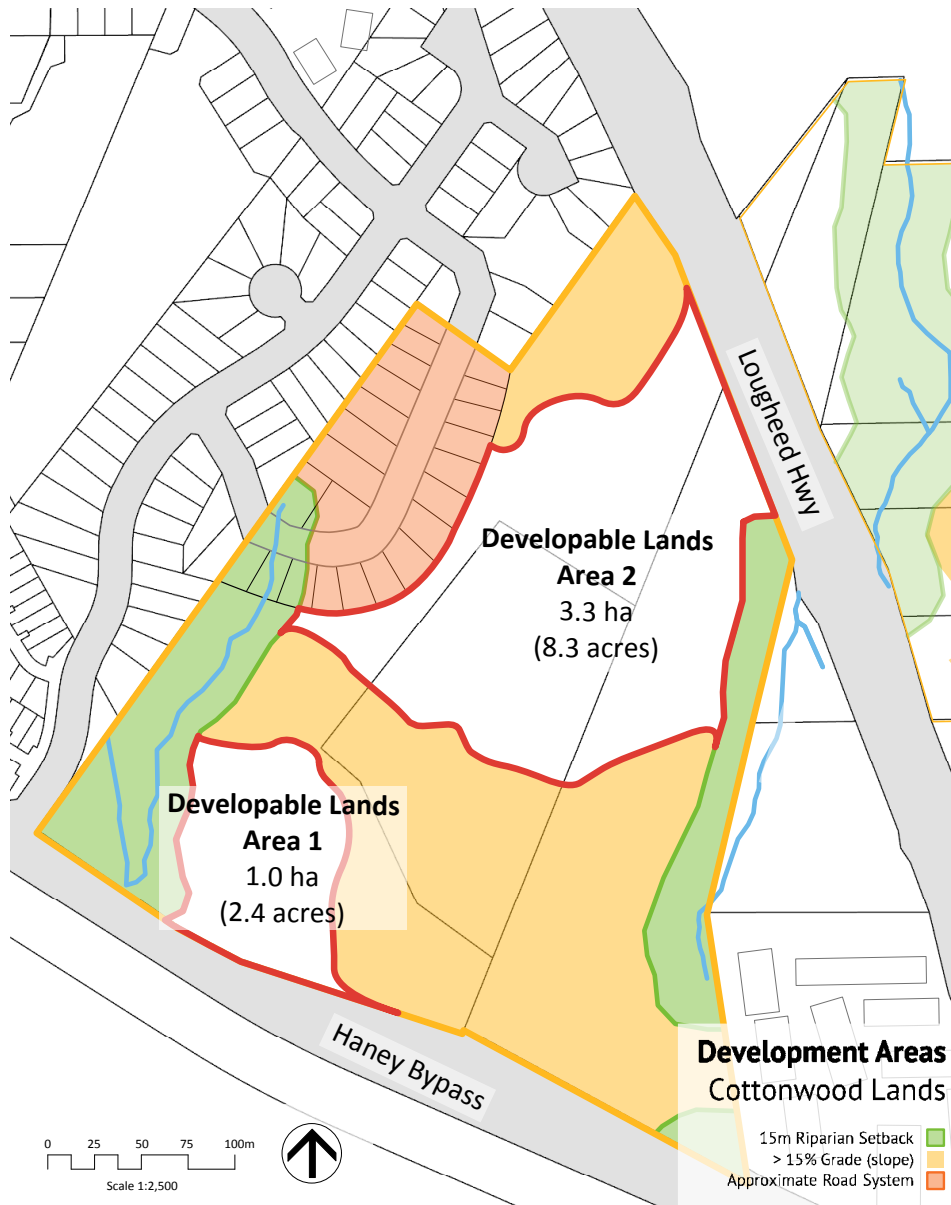
Figure 9: Unsuitable Slopes



Net Developable Lands Summary

AREA	AREA (HA)	AREA (ACRES)
Gross Site Area	11.4	28.2
Watercourse and Conservation Lands	1.6	4.0
Completion of Residential Roads (minus overlapping conservation lands)	1.1	2.7
Unsuitable Slopes (minus overlapping conservation & road system lands)	4.4	10.8
Total Undevelopable lands	7.1	17.5
Net Site Area for Business Park Use	4.3	10.7
Percent of land suitable for Business Park Use	38%	38%

Figure 10: Net Developable Area



It is noted that the net developable area available for residential development will be greater than the net area available for *Business Park* use because:

1. The lands otherwise required for the completion of 230 Street and 113 Avenue will be included in the total lands available for residential development;
2. Residential development is feasible on steeper slopes than business park development; and
3. Residential designs and rear yards may incorporate steep slopes and wooded areas that are otherwise not useable for business park development.

4. INDUSTRIAL DESIGNATION CONCLUSIONS

Despite initial location and servicing characteristics that indicate support for industrial redesignation, this evaluation concludes that the existing designation of the Cottonwood lands for *Residential* uses is appropriate, and that the lands are not suitable for redesignation for *Industrial Business Park* use. The rationale for this conclusion is summarized as follows:

1. UNSUITABLE TOPOGRAPHY

The topographical analysis of the Cottonwood lands illustrates that only 9.5% of the lands are less than 5% gradient, and that 43% of the lands are in excess of 10% gradient. These gradients are considered unsuitably steep for business park development, and have the further consequence of effectively dividing the lands into two parts for the purpose of business park development. On the other hand, these grades are considered challenging, but manageable, and to a large extent, desirable for residential development.

2. PARCEL SIZE & CONFIGURATION

a. Contiguous Lands Configured for Functional and Efficient Parcels

The developable Cottonwood lands are in two discontinuous parcels, each with potential road access from separate roads – the upper area from Lougheed Highway, and the lower area from the Haney By-Pass. The size and configuration of the lower parcel, at approximately 1.0 ha (2.4 acres), is particularly limited for business park use, with the potential to accommodate two to three irregularly shaped lots, with vehicle access to the Haney By-Pass likely restricted to right-in and right-out movements. The upper developable area, at approximately 3.3 ha (8.3 acres), is more sizable than the lower parcel. It is irregularly shaped, however, and subdivision would result in a single oversized cul-de-sac configuration that will further reduce developable land, and potentially impede truck circulation.

The effective size and usability of lots that abut residential rear yards will be further reduced by the requirement that these lots include a buffer strip along the rear of their properties.

b. Minimum Parcel Size for Business Park Development

Business parks need to be of sufficient size to provide a setting for a number of potentially allied businesses, with appropriate integrated infrastructure, and a distinctive setting typically identified by building and landscape design guidelines. This threshold size for a business park is reinforced by the consultation commentary reported in the September 9, 2013 *Consultation Summary Report* from focus group sessions with business and industry representatives: “it was pointed out that, ideally, one big business park would be preferable to a few smaller sites scattered throughout the community.”



The DMR *Business Park Zone; M-3* requires a minimum size of parcel for a *comprehensively designed business park industrial area* at 10 ha. (24.7 acres). The total estimated developable area for business park development on the Cottonwood lands is approximately 4.3 ha (10.4 acres) in two separate parcels – the upper area being approximately 3.3 ha (8.3 acres), and the lower are being approximately 1.0 ha (2.4 acres). Both the individual parcel sizes, and combined parcel sizes are substantially less than the 10 ha (24.7 acre) minimum size set out in the *M-3 Business Park Zone*.

3. COMPATIBILITY WITH SURROUNDING DEVELOPMENT

Business Park uses that directly abut, or are in close proximity to, existing single dwelling residential properties are subject to potential conflict and complaint, if not well designed to buffer and orient objectionable activities away from the residential properties. Typical impacts of *Business Park* uses on single dwelling residential development include complaints, such as noise, odour, truck deliveries, and unsightly views. A *rear yard to rear yard* interface, between business park and residential properties, is potentially problematic and a less desirable arrangement than an intervening, transitional land use, such as commercial, institutional, open space, or transportation corridor. These alternative transitional uses provide a more effective separation of conflicting land uses.

4. EFFECTIVE USE OF EXISTING COMMUNITY INFRASTRUCTURE & AMENITIES

a. Residential Amenities

The Cottonwood lands are located in close proximity to residential amenities, including the Telosky/Thomas Haney Centre, Thomas Haney Secondary School, Golden Ears Elementary School, Maple Ridge Lawn Bowling and tennis facilities, and Kanaka Regional Park. The current residential designation of the Cottonwood lands includes policies for residential infill, densification, and compact, energy efficient development that both supports, and makes effective use of the DMR investment in municipal infrastructure and residential amenities.

b. Residential Connectivity & Continuity

The Cottonwood lands are currently designated as part of a larger residential neighbourhood positioned between, and primarily defined by, the Lougheed Highway and Haney By-Pass. This potential neighbourhood is fragmented by undeveloped lands and conservation areas, leaving some residential developments isolated until the infill properties are developed. The townhouse development immediately to the west of the east Lougheed Highway/Haney By-Pass intersection is an example of a residential enclave that would otherwise be isolated by an intervening business park development. Development of the Cottonwood lands for residential purposes has the potential to connect disparate residential areas with road and pedestrian systems, improving overall neighbourhood connectivity. A neighbourhood commercial amenity would be encouraged in a central location within the Cottonwood lands to serve the larger community.

c. Residential Densification

The Cottonwood lands are of sufficient size to implement DMR policies for residential intensification, in a manner that allows for appropriate transitions from existing low density residential densities to higher density compact and efficient new development, as set out in OCP Residential Infill and Compatibility Criteria Policies 3.21 (f).

APPENDIX

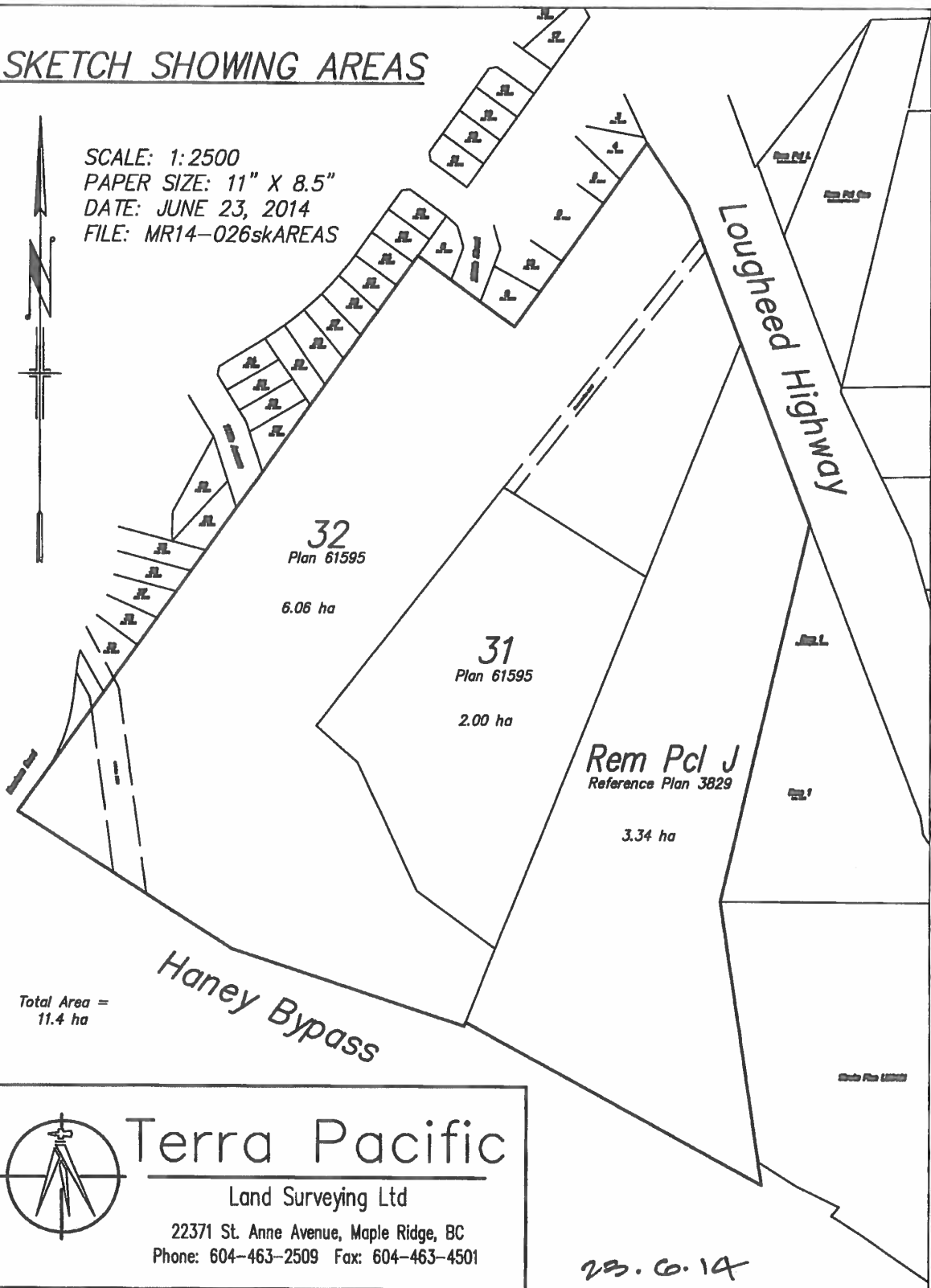
SURVEY PLAN

Terra Pacific Land Surveying Inc., *June 23, 2014*



SKETCH SHOWING AREAS

SCALE: 1:2500
PAPER SIZE: 11" X 8.5"
DATE: JUNE 23, 2014
FILE: MR14-026skAREAS



Terra Pacific

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LAND USE POLICY EVALUATION ADDENDUM

The Cottonwood Lands, Maple Ridge BC

PREPARED FOR QUALICO DEVELOPMENTS (VANCOUVER) INC.

December 2014

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SUMMARY & RECOMMENDATIONS

This report is an addendum to the June 2014 *Land Use Feasibility Evaluation* by CitySpaces Consulting Ltd. It evaluates the suitability of the Cottonwood lands for Official Community Plan redesignation from *Residential* to a proposed *employment lands* designation. Although currently designated for *Residential* use, these and other lands are recommended in the City's *Commercial and Industrial Strategy: 2012-2042* report to be considered for redesignation as *Industrial* (infill employment) lands. This further evaluation regarding *employment lands* focusses on physical planning criteria only, and is guided by the City of Maple Ridge Official Community Plan and professional planning principles.

A separate *Feasibility Pro forma* for infill employment uses has been prepared by Qualico Developments (Vancouver) Inc. and is attached as Schedule A to this report. This report addendum should be read in conjunction with both the June 2014 *Land Use Feasibility Evaluation* prepared by CitySpaces, and the *Qualico Economic Feasibility Analysis*.

Although the 11.4 ha. (28.2 acre) Cottonwood site would not typically be considered an *infill* site, the *infill* descriptor is used in this report term relative to the much larger scale of suburban industrial parks (employment lands,) and is consistent with City of Maple Ridge planning staff use of the term.

This addendum concludes that the Cottonwood lands remain best suited for residential development, while acknowledging from a physical planning perspective, limited infill *employment lands* may be achieved as follows:

1. The developable land area adjacent to the Haney Bypass, comprising approximately 1.0 hectare (2.4 acres), could feasibly be developed for infill employment use. However, restriction of vehicle access to right-in and right-out traffic to the Haney Bypass will likely compromise the functionality and marketability of this option. To overcome this challenge, vehicle access to the west to Harrison Street may be feasible and, although it might improve marketability, employment lands traffic use of Harrison Street will likely be unacceptable to residents located on Harrison and other connecting residential streets.
2. A limited portion of the upper lands adjacent to the Lougheed Highway could feasibly be developed for infill *employment use*, provided that the scale of buildings and the permitted land uses are compatible with existing and future residential development. This potential infill employment use is recommended to be of a type and scale to support, rather than detract from, the the adjacent Town Centre in a manner consistent with OCP policy, and be respectful of the hierarchy of community commercial nodes and neighbourhood centres. Infill employment uses could be incorporated within a possible commercial centre on the upper Cottonwood lands adjacent to the Lougheed Highway.

The rationale for residential use, provided in the June 2014 CitySpaces report respecting topography, parcel size and configuration, and effective use of existing infrastructure and amenities, remains applicable to this addendum report.



1. COTTONWOOD LANDS

BACKGROUND

Qualico Developments (Vancouver) Inc. has an agreement to purchase the Cottonwood lands, and is currently completing due diligence procedures to finalize the purchase. Upon completion of the purchase, Qualico intends to seek approvals for development in accordance with the lands' longstanding residential designation.

This report is an addendum to the *Land Use Feasibility Evaluation* report prepared by CitySpaces Consulting, on behalf of Qualico. The June 2014 report responded to recommendations of the *Commercial and Industrial Strategy: 2012-2042* to redesignate the Cottonwood lands from *Residential* to *Industrial*. That report was prepared at the request of City planning staff to evaluate the feasibility of developing the Cottonwood lands for industrial business park use. It was submitted to, and reviewed by, City planning staff, which has requested that the feasibility evaluation be expanded to include the site feasibility of developing the Cottonwood lands for *employment lands* use.

POLICY CONTEXT

The City of Maple Ridge is considering its long-term need for additional Industrial designated lands, and its consultant has recommended consideration of a number of non-Industrial designated lands to be redesignated to *Industrial*. The Cottonwood lands are included in the consultant's recommendations for redesignation from *Residential* to *Industrial*.

Qualico is obligated to proceed under its purchase agreement, but is not able to conclude its purchase if uncertainty remains concerning the City of Maple Ridge's possible intention to redesignate the lands for industrial use. Staff advise that further consideration of the *Commercial and Industrial Strategy* has been delayed, and that a detailed feasibility analysis of the sites considered for redesignation will likely not be completed by staff for some time. City of Maple Ridge planning staff has recommended that Qualico prepare and bring forward a feasibility analysis for consideration by the City. Qualico has asked CitySpaces Consulting to first, prepare an evaluation of the feasibility of Cottonwood lands for industrial business park use, and second, prepare a report addendum to consider the land feasibility for *infill employment* use.

EMPLOYMENT LANDS

The context for this report is the City's evolving definition and policy discussion concerning employment lands and, in particular, a type of employment land designation that is suitable for infill properties. Qualico would not normally be involved in evaluating its lands against evolving City policy discussions. However, it has an obligation to proceed under its agreement for purchase, and has been asked by City staff to prepare this report to assist the City in its evaluation, and move forward the proposed Qualico development applications.



The policy direction provided to date by City planning staff is summarized as follows:

- Guidance is provided by planning staff in a May 13, 2014 memo speaking to the current policy direction for employment lands; “we are considering creating a new land use designation for *General Employment* that would draw on aspects of industrial business parks, commercial, office space, and educational activities.”
- CitySpaces has further been advised by City staff that the *general employment* uses envisioned for the Cottonwood lands would be uses that are generally considered suitable for infill development, with lower or minimal potential impact on adjacent residential neighbourhoods.
- City staff has also advised that an *employment lands* development at 15343-91st Avenue in Surrey is an comparison example of infill *employment lands* for the purpose of evaluating the feasibility of the Cottonwood lands.
- CitySpaces notes that the context for this feasibility evaluation is an evolving policy discussion concerning employment lands and, in this respect, there is currently no discussion paper, staff report, or draft policy that can be referenced in this evaluation, or that speaks directly to the concept of *infill employment lands*.

For the purposes of this report, CitySpaces will identify the concept of *General Employment* lands by introducing and using the more specific description of *Infill Employment Lands*.

SCOPE OF EVALUATION

This report evaluates the feasibility of the Cottonwood lands for *infill employment* uses through:

1. A review of the land use characteristics of the *infill employment lands* example at 15343-91st Avenue in Surrey to help establish the scale, mix and characteristics of *infill employment land uses* that will have a “good fit” within a neighbouring residential community;
2. Reference to the existing industrial, commercial, and institutional uses permitted within the standard zones of the City’s zoning bylaw to establish a preliminary list of potential uses for the *infill employment lands* designation;
3. Confirmation of the feasibility criteria for lands that are suitable for infill employment, and the net developable land area considered feasible for *infill employment lands*, and
4. Evaluation and recommendations respecting the feasibility of the Cottonwood lands for *infill employment uses*.

2. 91ST AVENUE, SURREY

EMPLOYMENT LANDS EXAMPLE

The comparative employment lands example, identified by City planning staff at 15243 91st Avenue in Surrey, is located just east of 152nd Street, and immediately north of the “Save-on Foods” community shopping centre; between Fleetwood Way and 152nd Street. A summary of the property characteristics is set out in the following table.

Figure 1: 15243 91st Avenue Context



15243 91st Avenue, Surrey

OCP Designation	<i>Commercial</i>
Zoning & Permitted Uses	<p><i>Comprehensive Development C-D (8)</i></p> <ul style="list-style-type: none"> • drug stores • grocery stores • variety stores • barber and beauty parlours • business schools, dancing schools • photographic studios • restaurants and coffee shops • banks and other financial offices • data processing centres • doctor's offices, dentists' and other medical or related offices • general business offices • law offices, accountants' offices and other professional offices • real estate agencies and insurance agencies • travel agencies and travellers' clubs • government offices
Current Uses	<i>Offices, medical and related offices</i>
Approximate Lot Area	.87 hectares (2.15 acres)
Approximate Gross Floor Area of All Buildings	4,100 m ² (44,150 sf)
Floor Space Ratio / Equivalent Density	0.5:1 (1.0:1 permitted) / 17units per hectare (7 units per acre)
Approximate Parking Provided	93 surface parking stalls
Building Form	two-storey residential style buildings (3 storeys permitted)
Number of Buildings	15
Location Context	Immediately north of an existing community commercial node (Save-on Foods)
Topography	Flat site

Figure 2: 15243 91st Avenue



“FIT” WITHIN THE NEIGHBOURING RESIDENTIAL COMMUNITY

The 15243- 91st Avenue development in Surrey is considered a “good fit” within the adjacent residential community immediately to the north. Its positive attributes include:

- Buildings that are both residential in scale and design (two storeys);
- Driveway patterns and scale, and parking configurations that reflect residential design; and
- Lower intensity commercial office uses that are compatible with residential use.

PERMITTED USES

It is noted that the permitted uses set out in the zoning bylaw are primarily commercial office uses, with the exception of *business and dancing schools* that might be included in both commercial and institutional zones. Similarly, a *data processing centre* and *government offices* are uses that might be permitted in both commercial and light industrial zones. At this time, there are no *business and dancing schools, data processing centres or government offices* uses at the 91st Avenue Surrey development. The development is generally characterized as a commercial office development.

BUILDING FORM & CHARACTER

The building forms are similar to surrounding medium and low density residential development. The property is developed at a comparable residential density of 17 units per hectare (7 units per acre). The parking requirements, and the number of parking spaces differentiates the development as there is a total of approximately 93 surface parking stalls relative the 15 buildings (6.2 spaces per building). The flat topography accommodates a very efficient parking layout. The entire internal roadway system is lined with parking spaces that take up the entire frontage of each of the buildings. Approximately 40% of the lot area is devoted to surface parking and driveways.

In addition, there is street parking on the fronting street, and a community shopping centre parking lot immediately adjacent on the south side of 91st Avenue.

TOPOGRAPHY

The flat topography facilitates the compact configuration of parking spaces in close proximity to the buildings. The compact parking arrangement, in turn, allows the building spacing and overall density to reflect the density of the surrounding residential development. If the topography were sloping, the driveway pattern, parking layout, and spacing of buildings would increase substantially to accommodate the required parking spaces, and the character of the development would also change substantially.

In this regard, relatively flat topography that is generally less than 10% slope is considered necessary to maintain the residential character of infill employment uses.

3. LAND USES SUITABLE FOR INFILL EMPLOYMENT DESIGNATION

The City's understood intent of the proposed *infill employment designation* is to establish the appropriate mix of industrial (business park), commercial (office space), and institutional (educational) uses that are appropriate for smaller scale infill development. In the case of the Cottonwood lands, the context for infill employment development is the surrounding residential neighbourhood.

Figure 3: Cottonwood/Ministry of Transportation Lands



The following table of potential *infill employment land uses* has been prepared to indicate the types of industrial, commercial, and institutional uses that might be included within an infill employment designation. All industrial, commercial, and institutional uses set out in the City's *Zoning Bylaw* standard zones formed a master list of potential uses. The inappropriate uses were then eliminated, based on the following criteria:

- Uses that typically require building sizes that are substantially larger than residential buildings, and would be out of scale with the abutting residential neighbourhood;
- Uses with associated outdoor activities and facilities that might impact abutting residential uses;
- Uses with heavy truck or associated car traffic; and
- Uses with characteristics, such as noise, dust, odour, night lighting impacts, evening and weekend hours of operation, and high traffic generators.

Appropriate Uses	Inappropriate Uses
INDUSTRIAL	
<ul style="list-style-type: none"> • Light Industrial use not including industrial repair services and vehicle and equipment repair services • Industrial trade schools • Non-medical testing laboratories • Recreational or instructional facilities limited to industrial trade schools, dance schools, fitness centres and gymnastic schools • Indoor commercial recreation uses • Restaurants excluding drive-through uses • Childcare centre • Office use related to construction, industrial, high technology and utility companies and government 	<ul style="list-style-type: none"> • Mini warehouse use • Industrial use not including: <ul style="list-style-type: none"> • asphalt, rubber and tar production and products manufacturing • hydrocarbon refining and bulk storage • chemical plants • stockyards and abattoirs • septic tank services • waste reduction plants • extraction industrial use • Waste transfer stations • Industrial repair services • Industrial trade schools • Retail sale and rental of industrial vehicles, trailers and heavy equipment • One restaurant per lot limited to 200 m gross floor area • Extraction industrial • Industrial use limited to: <ul style="list-style-type: none"> • concrete and cement plants and product manufacturing • asphalt, rubber and tar production and products manufacturing • wrecking and salvaging of goods, materials or things • sawmills, shakemills and pulp mills • hydrocarbon refining and storage • chemical plants • stockyards and abattoirs • septic tank services • waste reduction and transfer plants • Unenclosed storage • Vehicle and equipment repair services and industrial repair services • Auction marts • Sale or rental of industrial vehicles, heavy equipment and trailers • Warehouses and mini warehouse use • Light industrial use including wholesale and retail sales of products manufactured or assembled on the lot or as part of the wholesale or retail warehouse operations • Liquor primary use

Appropriate Uses	Inappropriate Uses
COMMERCIAL	
<ul style="list-style-type: none"> • Restaurant • Personal services • Personal repair services • Financial services • Indoor commercial recreation • Business services • Professional services • Licensee retail store • Retail sales excluding highway commercial use and liquor primary establishment • Neighbourhood pub • Place of worship • Park and school 	<ul style="list-style-type: none"> • Assembly • Civic • Recycling depot • Tourist accommodation • Community gaming facility • Tourist accommodation limited to hotels, motor hotels, motels, and bed and breakfast uses • Private hospital
INSTITUTIONAL	
<ul style="list-style-type: none"> • Children's institutional • Place of worship • Civic institutional • Commercial recreational • Park and school 	<ul style="list-style-type: none"> • Assembly • Boarding • Correction and rehabilitation • Private hospital • School • Animal shelter

This review of potential industrial, commercial, and institutional uses for infill employment land confirms the land uses permitted in the 91st Avenue Comprehensive Development zone.

Although included in the above list, industrial uses such as *light industrial*, *trades schools*, *indoor commercial recreation*, and *construction offices*, may be questionable as infill uses within a residential neighbourhood. Similarly, institutional uses, such as *places of worship*, *civic institutional*, and *commercial recreation* may not be considered compatible by the neighbouring community.

Low intensity office uses are most likely to obtain general community support, and it is anticipated that commercial office uses will predominate within employment use developments. In this regard, the commercial office uses set out in the Surrey CD bylaw are considered indicative of the infill employment uses most likely to be acceptable and viable on the Cottonwood lands.

4. DEVELOPABLE LANDS

The net land area available for development was determined in the June 2014 *Land Use Feasibility Evaluation*. The developable land area was estimated by eliminating those lands that are not permitted, or considered unsuitable for development. The criteria set out in the June 2014 *Business Park Evaluation* remain pertinent to this feasibility evaluation for infill employment lands. Those being:

1. Watercourse and conservation lands ;
2. Lands required to complete the existing residential road system; and
3. Unsuitable slopes

UNSUITABLE SLOPES

The evaluation of the 91st Avenue lands in Surrey demonstrates that relatively flat topography is required to achieve compact parking arrangements, building arrangements, and overall density that reflects the form and character of the surrounding residential neighbourhood.

If *infill employment lands* are located on sloping topography, the driveway pattern, parking layout, and spacing of buildings would increase to accommodate the required parking spaces. In this regard, relatively flat topography, that is generally less than 10% slope, is considered necessary to maintain the residential character of infill employment uses.

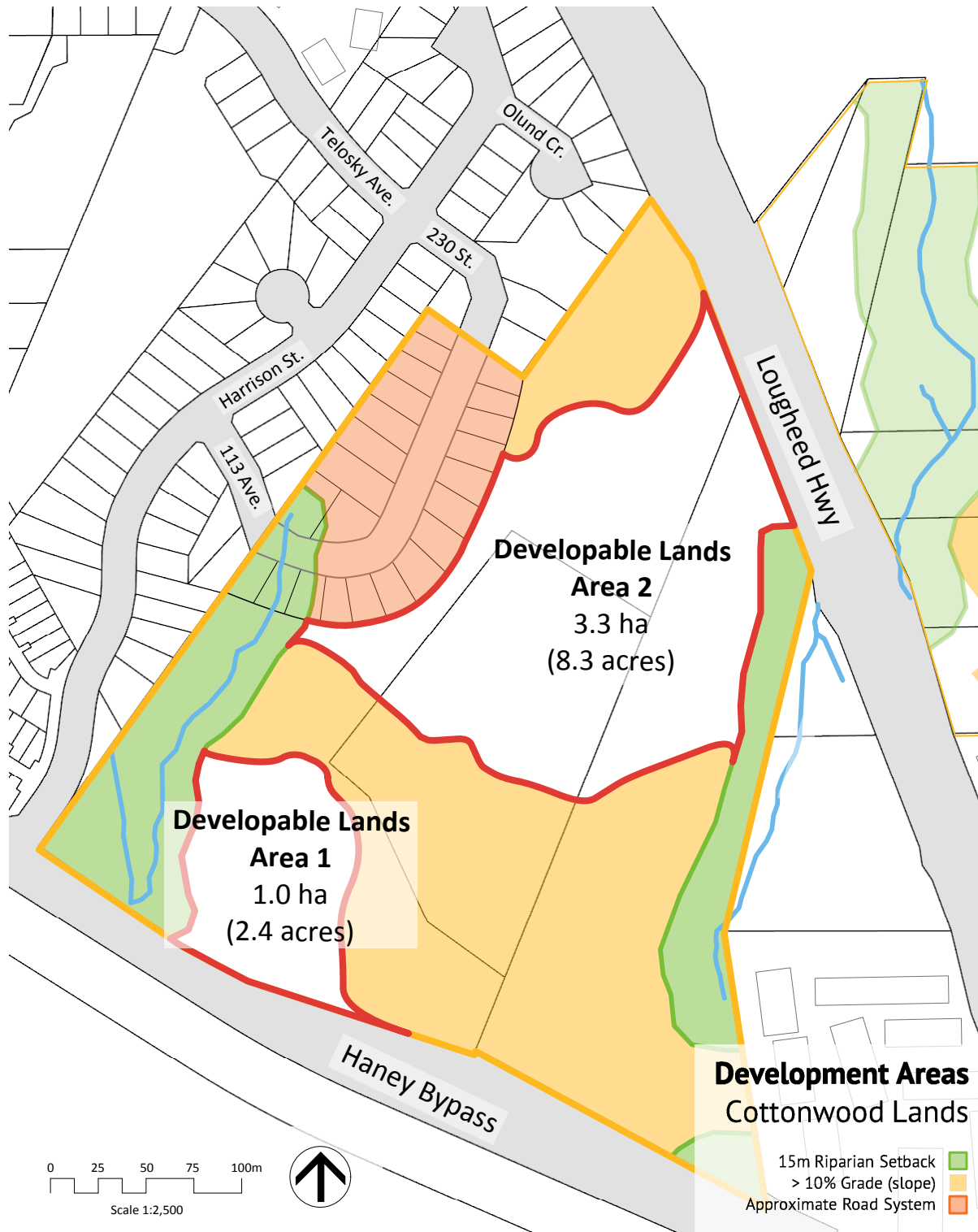
The assessment of net developable lands for *infill employment use* remains unchanged from that set out in the June 2014 report, and are copied below.

Net Developable Lands Summary

AREA	AREA (HA)	AREA (ACRES)
Gross Site Area	11.4	28.2
Watercourse and Conservation Lands	1.6	4.0
Completion of Residential Roads (minus overlapping conservation lands)	1.1	2.7
Unsuitable Slopes (minus overlapping conservation & road system lands)	4.4	10.8
Total Undevelopable lands	7.1	17.5
Net Site Area for Business Park Use	4.3	10.7
Percent of land suitable for Business Park Use	38%	38%



Figure 4: Net Developable Areas



5. EVALUATION & RECOMMENDATIONS

The concept of infill employment lands is an evolving policy that is not yet developed to a point of inclusion in the City's OCP. In this regard, there is no current policy guidance for employment lands use. The feasibility of designating existing residential lands for infill employment lands is therefore considered relative to the existing commercial, industrial, and institutional policies, and the general planning principles set out in the City's OCP.

Development of the entire Cottonwood lands for *infill employment uses*, similar to the 91st Avenue, Surrey example, is considered inconsistent with OCP policy respecting;

- Policy intentions to support the Town Centre without detracting from its ability to be revitalized through increased density and commercial development;
- Specific policy direction to assess the market before permitting pure office development in business parks; and
- Policy direction regarding a planned, interconnected, and integral hierarchy of community commercial nodes and neighbourhood centres that need to be developed and fostered.

Relevant OCP policy excerpts include:

ISSUES

The commercial centres and nodes in the community are interconnected and form part of an integrated system that needs to continue to be developed and fostered. Area residents identified the need to link centres and neighbourhoods with a transportation network that includes transit, trails, bikeways and pedestrian corridors.

Principle 19

There is value in identifying new lands for commercial and industrial uses to secure locations for future employment that will help to create a balanced community. Citizens prefer locations where commercial and industrial activities 'fit' within the community context.

6.4.2 BUSINESS PARKS

"Business park development will compete with industrial uses in the demand for industrial land and may impact the Town Centre office market if parameters are not placed on office uses within business parks."

OBJECTIVE

To respond to market demand for office space and to encourage business park development opportunities without compromising office development in the Town Centre.

Office uses that utilize the entire gross floor area in business parks will be deferred to a future date to allow the Town Centre office market to become established. Maple Ridge will assess the market and review the zoning before permitting pure office developments in business parks".



SUPPORT FOR THE TOWN CENTRE

The Town Centre Area Plan promotes revitalization of the core through increased density, together with increased retail, services, business offices, and jobs. Policy to place limits on commercial office development outside of the core is a means of supporting the vitality and diversity of the core.

The infill employment uses on 91st Street in Surrey, and the residential compatible uses extracted from the City's industrial, institutional, and commercial zones (section 2 above) are not considered substantially different from the uses encouraged within the Town Centre. The commercial office uses that predominate the 91st Avenue example will very likely dominate any infill employment land uses proposed for the Cottonwood Lands. This suggests that if the Cottonwood lands are designated for infill employment use, prospective office building development could choose to locate outside of the Town Centre. In the same manner that office uses within business parks should not impact the Town Centre office market, it is considered consistent policy that office uses within *infill employment lands* should not compete with the Town Centre.

PROXIMITY TO THE TOWN CENTRE

The Cottonwood Lands are approximately 500 metres from the Town Centre Commercial designation, and between two commercial designated parcels located on the Lougheed Highway at the Haney Bypass and at 116th Avenue. The addition of substantial new infill employment lands located in close proximity to the Town Centre is not considered to be consistent with current policy to monitor new office development in support of commercial development within the Town Centre.

SCALE OF EMPLOYMENT LANDS

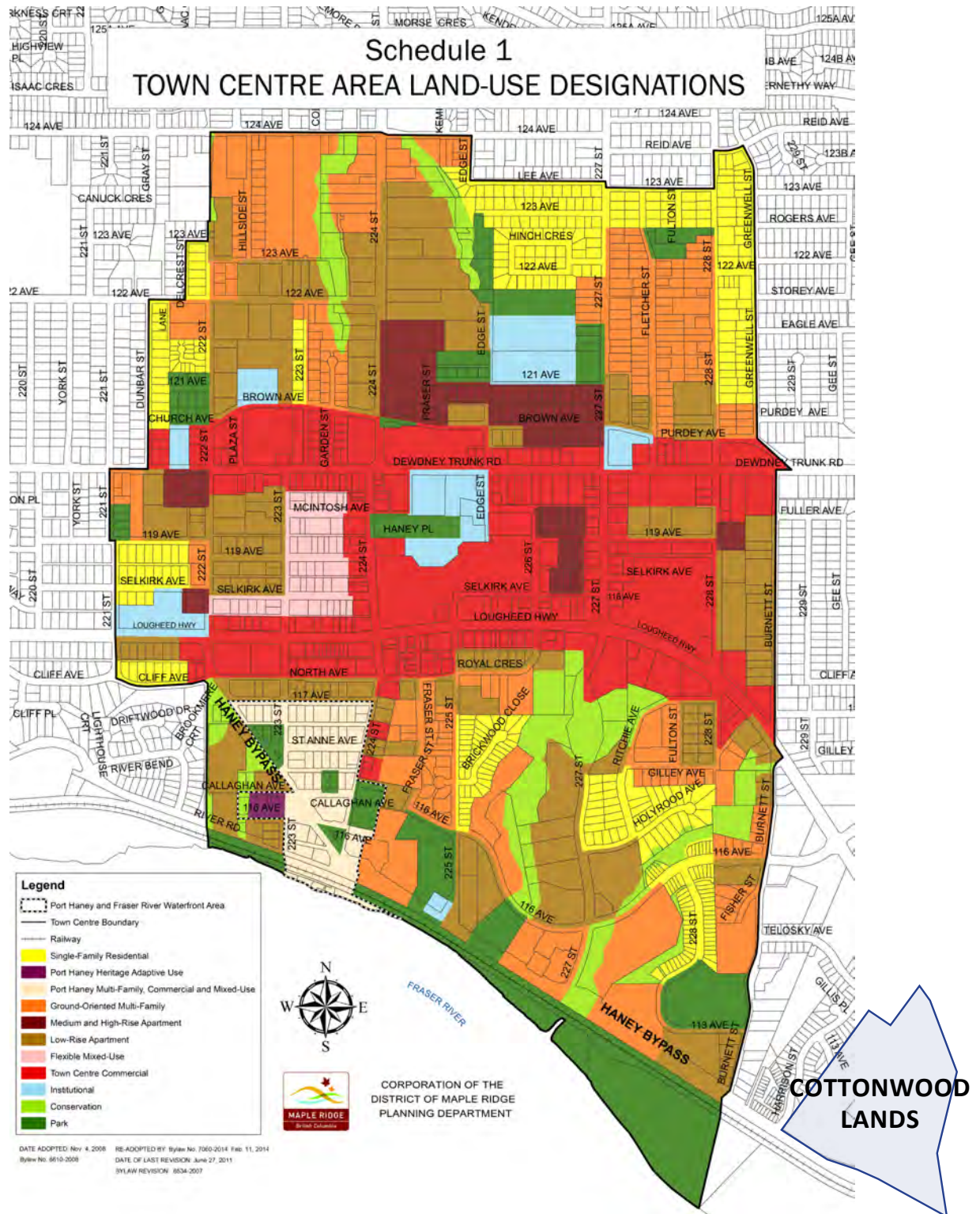
The City's commercial policy reinforces the importance of a planned, interconnected, and integral hierarchy of community commercial nodes and neighbourhood centres that need to be developed and fostered. This hierarchy includes:

- The Town Centre;
- Community Commercial Nodes – 7,000 m² (75,000 sf) with growth to a maximum 9,290 m² (100,000 sf); and
- Neighbourhood Centres – 929 m² (10,000 sf).

Development of the entire Cottonwood lands for infill employment uses is considered in potential conflict with policy respecting the hierarchy and scale of commercial nodes and centres, and appears to disrupt the planned integral system of commercial centres and nodes. For example, the development of the entire upper Cottonwood lands adjacent to the Lougheed Highway, at 80% net developable lands and 50% coverage, would result in approximately 13,470 m² (145,000 sf) of predominantly commercial office floor area. This area would almost double the maximum floor area guidelines for Community Commercial nodes, set at 7,000 m² (75,000 sf).

It is acknowledged that specific zoning regulations could be created to limit the commercial component of an infill employment zone. However, the limited number of industrial and institutional uses that are compatible with residential development is relatively small, and likely unviable without commercial office uses.

Figure 5: City of Maple Ridge OCP, Part 10.4



CONCLUSIONS

It is recommended that the OCP designation of the Cottonwood lands remain *Residential*, and that consideration may be given to allow limited *infill employment uses* on the upper terrace Cottonwood lands adjacent to the Lougheed Highway, in a manner complementary to the existing and proposed residential development. The rationale for this recommendation includes:

1. Infill employment uses suitable for the Cottonwoods lands will be predominantly commercial offices. Suitable office uses will be smaller scale enterprises located in individual residential scale buildings, or small scale neighbourhood commercial buildings. This strong predisposition for office use is substantiated by:

- The infill employment uses that have evolved and established themselves at the precedent site at 91st Avenue in Surrey;
- Smaller commercial office uses that are suitable for, and can be accommodated in, residential scale buildings;
- Parking requirements for smaller scale office enterprises are typically low, and are disbursed throughout business hours; and
- The relatively low surface parking requirements for office uses that can be accommodated on flat sites, and at a scale compatible with residential development.

It is noted that other potential infill employment uses, such as schools, places of worship, restaurants, and commercial recreational uses, may have compatibility issues with both office uses and residential uses related to parking needs, activity levels, concentrated traffic patterns, and scale of buildings.

2. The scale of any infill employment development (predominantly commercial office uses) considered for the Cottonwood lands should be managed in accordance with policy direction of the City's OCP not to compromise office development in the Town Centre.
3. Although some limited level of infill employment lands on the Cottonwood site may be feasible, the planning and land use objective should focus on the completion of the planned residential community located between the Lougheed Highway and the Haney Bypass to:
 - Make efficient use of the existing municipal infrastructure and investment in nearby residential amenities and facilities;
 - Provide for residential continuity, connectivity, and identity of the existing fragmented residential community; and
 - Facilitate residential infill and densification in accordance with the City's OCP Residential Infill and Compatibility Criteria Policies 3.21(f).
4. The lower terrace Cottonwood lands, adjacent to the Haney Bypass, are potential *infill employment lands*. However, vehicle access restrictions for employment lands use are considered to favour the use of these lands for residential use.
5. From a physical planning perspective, the upper terrace Cottonwood Lands (located adjacent to the Lougheed Highway) are considered feasible for limited *infill employment* use that might be provided within a commercial centre designed to complement the residential community.

Rationale provided in the June 2014 CitySpaces report respecting topography, parcel size and configuration, and effective use of existing infrastructure and amenities, remain applicable to this addendum report.

SCHEDULE 'A'

FEASIBILITY PROFORMA FOR INFILL EMPLOYMENT USES

EMPLOYMENT LANDS CASE STUDY

2.4 ACRES ON HANEY BYPASS

DEVELOPMENT PROFORMA SUMMARY		10-Dec-14
Employment Lands Case Study, Maple Ridge - 2.4 acres located on Haney Bypass		
Project Costs		
	Acres	
Land Acquisition (Incl. Closing Costs)	2.4	\$2,111,700
Offsite Servicing Costs		\$195,520
Construction Hard Costs + Onsite Civil/Surface Parking		\$6,678,398
Construction Soft Costs (Incl. Municipal fess, Excl. Design)		\$619,686
Architectural Design Costs & Construction Consultants		\$618,653
Financing		\$208,229
Sales & Marketing Costs		\$348,840
Contingency @ 5.0 %		\$343,696
TOTAL DEVELOPMENT COSTS		\$11,124,721
Cost per Sq.Ft. GBA		\$268.06
Revenues		
B. RESALE BASIS		
No. of Units (UPA)		17.00
Net Operating Income (After Non-Recoverable CAM, Op. Costs)		\$581,400
Capitalization Rate		7.0%
Net Selling Price (After Commission)		\$8,305,714
Average Selling Price Per Unit		\$488,571
Total Development Cost		\$11,124,721
Development Profit		-\$3,068,179
Overall Return on Cost		-27.6%
Required Minimum Overall Return on Costs		15.0%
A. HOLDING BASIS		
Gross Leasable Area		40,800
Average Rent per Sq.Ft.		\$15.00
	0	\$612,000
Less Vacancy and structural Allowance @ 5%		(30,600)
Net Operating Income (After Non-Recoverable CAM, Op. Costs)		\$581,400
Overall Rate of Return		5.23%
Required Minimum Rate of Return		9.00%
Excess (Shortfall)		-3.77%
PROFORMA ASSUMPTIONS		
Based on low density bareland commercial strata located at 15243-91 Ave, Surrey		
7 units per acre		
2400 sqft average unit size		
Two storey townhouse form (commercial development with a residential scale)		
Uses are primarily low intensity commercial		
Sources:		
Aplin & Martin Consulting Engineers		
BDC Development Consultants		
DTZ Real Estate		
Property and sale data for 15243-91 Ave		

COMMERCIAL PRO FORMA							10-Dec-14
Employment Lands Case Study, Maple Ridge - 2.4 acres located on Haney Bypass							
Site Area:	Acres	2.4					
	Land Sq.Ft. Gross	104,544					
	Site Coverage:	39%					
	Gross Building Area (GBA)		Gross Leasable Area (GBA)				
Proposed Building ***	Units per Acre	17	16.8				
Area:	No. of Units (UPA)	7					
	Average Unit Size	2400					
	Total sqft	40,800		40,800	100%	Efficiency (Per BOMA Standards)	
Parking	2.5 Stalls/1000 PSF	102		40,800			
Costs							
	MEASURE	UNIT	\$/UNIT	\$/CATEGORY	TOTAL \$	PSF	
Land							
Purchase Price	Per Acre	2.4	\$ 850,000	\$	2,040,000		
PPT	Per sqft		\$ 19.51		38,800		
Legal	Per sqft		\$ 0.50		20,400		
Survey					2,500		
Appraisal					5,000		
Environmental					5,000		
					2,111,700	\$ 51.76	
Hard Costs *							
Off-Sites (Incl. Road work, Utilities)				Est.	195,520		
Demolition (n/a)					-		
Construction **	Per sqft	40800	\$ 108.10		4,410,480		
Add Commercial Premium Over Residential	Per sqft		\$ 10.00		408,000		
Surface parking	Per stall	102	\$ 5,000		510,000		
On-sites, site work, landscaping, signage *				Est.	533,918		
Tenant Improvement allowance	Per sqft	40,800	\$ 20.00		816,000		
					6,873,918	\$ 168.48	
Soft Costs							
Arch., engineering.	% of hard cost	9%			618,653		
DCC's - Municipal	PSF of GBA	40,800	\$ 6.69		272,899		
GVRD	Per sqft	40,800	\$ 0.81		33,048		
Municipal Permits, connections	% of hard cost	1%			68,739		
Legal, insurance, etc.					25,000		
Property Taxes (incl. Levy)					25,000		
Development management	% total cost exc land	2.5%			195,000	1,238,338 \$ 30.35	
Financing							
Land	Loan	Interest	L/V	Months			
	2,111,700	4.50%	50%	9	35,635		
Construction	8,112,256	4.50%	75%	6	136,894	\$ 5.10	
Commitment Fee		0.50%	7,140,042		35,700	208,229	
Lease up costs							
Leasing commissions	Per sqft	40800	\$ 15.00	32%	195,840		
Lease up	Per sqft	40800	\$ 15.00	3 mos	153,000		
Legal Leasing	Per sqft	40800	\$ 0.50		20,400	348,840 \$ 8.55	
Contingency	% of hard cost		5.0%		343,696	343,696 \$ 8.42	
Total cost						11,124,721 \$ 272.66	
REVENUE							
Projected Net Income	Per sqft	40,800	\$ 15.00		612,000		
					612,000		
Less: Vacancy and structural		5%			(30,600)		
Net Operating Income					581,400		
A. HOLDING BASIS							
Overall Rate of Return					\$ 581,400	5.23%	
					11,124,721	Excess Over Cap Rt. -1.77%	
B. RESALE BASIS							
Net Income capitalized @		7.00%	\$	8,305,714	17	\$ 488,571	
Less: Sales commission @		3.00%		249,171	17	\$ 14,657	
Net Selling Price (After Commission)				8,056,543	17	\$ 473,914	
Total Development Cost				11,124,721			
Development Profit				(3,068,179)			
Overall Return on Cost						-27.58%	
SOURCES							
* Aplin & Martin Consulting Engineers							
** BDC Development Consultants							
*** Per 15243-91 Ave, Surrey example							

Figure 4: Net Developable Areas



MEMORANDUM

To: City of Maple Ridge
From: Justin Barer & Gerry Mulholland, G.P. Rollo & Associates Ltd.
Subject: Cottonwood Lands Proposal Land Use Evaluation
Date: February 23rd 2015

Introduction

G.P. Rollo & Associates Ltd. (GPRA) has been retained by the City of Maple Ridge to undertake a land use analysis pertaining to the Cottonwood Lands, a site just south-east of the Town Centre between the Haney Bypass and the Lougheed Highway. Qualico Developments is seeking City approval to undertake a residential and commercial project on the site which would include over 190 townhouse units, 36 single family lots (east of the Lougheed) and a 38,750 square foot retail and service commercial development.

GPRA's analysis is split into two parts. The first part is a brief review of an assessment prepared by City Spaces on the suitability (or unsuitability) of the site for employment-generating uses.¹ The second part is a high-level analysis of the appropriateness of the commercial component within the land use concept proposed by Qualico.² In undertaking the 'commercial appropriateness' evaluation, GPRA has segmented the analysis into 2 stages:

- *Stage 1*: Examination of the potential justification for designating more commercial land in general, within the context of the conclusions put forward by GPRA in the *Commercial and Industrial Strategy (CIS)* of November 2012;



¹ In the Commercial and Industrial Strategy (CIS) that GPRA had prepared for Maple Ridge in November 2012, this site was identified as one worthy of further analysis to determine its feasibility as employment generating lands.

² Based on the land use concept dated February 13th 2015.

- Stage 2: Exploration of rationale for the commercial component of the development within the context of both City commercial goals and policy, as well as general considerations of commercial viability and appropriate market positioning.

This memorandum is intended neither as a comprehensive downtown market impact analysis nor a detailed commercial market study, nor is it a comprehensive update of the analyses performed for the CIS.

Employment Generating Use Feasibility

City Spaces prepared a *Land Use Policy Evaluation* for the Cottonwood Lands for Qualico Developments in June 2014 which evaluates the suitability of the site for OCP re-designation from *Residential* to *Industrial* for business park use. That review was conducted in response to a Maple Ridge staff request to “obtain a more detailed site analysis to determine feasibility [of the site] as employment generating lands,” a directive that follows from a GPRA recommendation put forward in the CIS report of 2012 that urged further consideration of those lands to help meet the City’s long-term industrial land needs.

The *Land Use Policy Evaluation* “recognizes the identification of these lands for potential industrial uses, noting that the....lands are sizeable,...contiguous to a full range of municipal services, and are strategically located next to major road corridors that can support industrial development.” However, City Spaces ultimately concludes that the site is unsuitable for *Industrial* designation for the following reasons:

- Unsuitable topography;
- Potential development parcels are undersized, discontinuous, and poorly configured for business park use;
- Potential incompatibility issues with surrounding development, respecting the interface with established residential properties;
- Inefficient use of existing community infrastructure and amenities, and the corresponding loss of opportunity to complete a planned neighbourhood with compact residential infill, pedestrian connectivity, and centralized amenities.

Having reviewed the City Spaces *Land Use Policy Evaluation*, GPRA has the following comments and observations:

- City Spaces’ methodology, analysis and conclusions are sound and largely consistent with a methodological approach GPRA would use.
- GPRA’s 2012 recommendation that the site be re-designated for *Industrial* use was predicated on a high-level assessment looking at potential sites with good locality given the need to find alternate locations for industrial development in the city in the coming years. It did not include site-specific environmental or geotechnical analysis.
- There are other potential sites in the City where future industrial uses could be located.
- The methods and assumptions employed in Qualico Developments’ proforma analysis (provided to GPRA by Maple Ridge staff) are reasonable, and based on the assumptions



used in that analysis the development of the Cottonwood Lands as industrial business park would not be economically viable.

- As currently proposed, the Cottonwood Land Use Concept includes 38,750 square feet of retail and service commercial use. Assuming that the employment density (square feet per employee) were to range from 175 to 350 square feet, this development would result in between 129 and 221 employees.³

Retail Commercial Land Use Evaluation

GPRA has conducted a high-level analysis of the appropriateness of the commercial component within the land use concept proposed by Qualico. As noted in the Introduction above, this portion of the analysis is split into 2 segments: (1) site designation justification within the context of the CIS commercial land requirements analysis, and (2) land use concept appropriateness/rationale within the context of Maple Ridge commercial goals and policy, as well as general considerations of commercial viability and appropriate market positioning.

Community-Wide Commercial Floor Area Demand & Land Requirements

Demand Projections – CIS 2012 Assumptions

The CIS report provided forecasts of net new demand for retail and service commercial floor area across Maple Ridge to 2042, split those forecasts into sub-areas of the city, and converted built space to land requirements on the basis of low and high density assumptions. In this section we briefly review the built space and land demand analysis assumptions, provide updates where appropriate and feasible, and discuss implications for commercial land designation.

The CIS forecast net additional commercial floor area demand of 1.3 million square feet in Maple Ridge by 2042. This forecast was premised on the following core assumptions:

- City-wide population growth from a 2011 baseline of 78,556, growing to 96,650 by 2022 and 116,137 by 2032;
- Per-capita retail expenditures in 2012 of nearly \$8,750, based on data from the Pitney Bowes Business Insight Expenditure Potential database;
- A 20% recapture of spending leakage to Maple Ridge;
- Additional 350,000 square feet of built commercial floor area coming online at the Kwantlen Lands along the Lougheed Highway, with phase I operating by 2014 and Phase II operating by 2022.

Demand Projections – Assumption Updates

Population forecasts for Maple Ridge remain largely unchanged. Environics Analytics' 2014 population estimate for the City was 82,655. The population forecasts used in the CIS, based on 2030 and 2041 forecasts from the Regional Transportation Model with interpolation for intervening years, had projected a 2014 population of 82,700. This 0.1% variation between the

³ As part of the analysis for the CIS report, the GPRA-led project team conducted detailed GIS analysis of existing employment densities in the city. That analysis was segmented by general employment type (i.e. warehouse, retail strip, light industrial etc.). The densities from that evaluation are applied to this analysis.



two figures provides us with confidence that no population forecast update is required at this time.

For the purposes of this assignment GPRA is not able to provide an updated analysis of per-capita expenditure potential of Maple Ridge residents. However, we do not believe that there is marked variation from the figures used in the CIS aside from inflation adjustment, which had been taken into consideration in the initial modelling exercise.

With regards to long-term outflow recapture, GPRA still believes that Maple Ridge will see a long-term stemming of commercial outflow spending as the local offerings become more robust, as was modelled for the CIS demand projections.

The key assumption that does require adjustment is that of an imminent Kwantlen shopping centre development. Based on information available at the time of CIS writing, GPRA had assumed that the Kwantlen shopping centre was on the verge of construction, had achieved some pre-leasing success, and the first phase would be operational within 2 years (by 2014). This has not come to pass. Furthermore, based on information we have obtained from industry sources, GPRA no longer believes that a destination Kwantlen shopping centre is likely to emerge within the next 10-15 years. Without this shopping centre, the additional demand that the centre would have absorbed will need to be met elsewhere in the City. It is our opinion that most of this demand should be encouraged to 'land' in the Town Centre.

The table below shows the net additional floor area demand that was projected in the original CIS study by 2022 and 2042, paired with updated projections that account for the removal of the Kwantlen shopping centre from the pipeline inventory.

Net Additional Floor Area Demand						
Categories	2022			2042		
	CIS	Update	Difference	CIS	Update	Difference
Convenience G&S	118,300	217,300	99,000	513,200	624,000	110,800
Comparison Goods	69,000	235,500	166,500	422,800	599,900	177,100
Food & Beverage	20,900	52,400	31,500	152,700	188,200	35,500
Entertainment/Leisure	18,600	36,600	18,000	79,100	98,900	19,800
Auto Goods/Services	55,800	55,800	0	139,000	141,400	2,400

Floor area demand was allocated to sub-areas on the basis of expected population growth distribution. Using those same allocation ratios, we estimate that demand for commercial floor area within the portions of Maple Ridge that were defined as "Core East" and Core Fringe" in the CIS would be in the range of 40-60,000 square feet by 2022 and 130-160,000 square feet by 2042.

Using conservative floor space ratio (FSR) assumptions, this would translate into a need for up to 30 total acres of land between the two areas. On the basis of OCP designation, there is likely still sufficient commercial land capacity to meet this increased demand, although more detailed analysis would be required to determine precise figures.⁴ If a higher proportion of

⁴ The Core East area had 21 total acres of OCP-designated lands in 2012. Given timing and budget of this analysis we were unable to calculate the amount of OCP-designated land located specifically within the "Core Fringe." Based on a

commercial growth is directed into the downtown in the coming decades, which would be consistent with community aspirations and policies, then the likelihood of sufficient designated land outside the Core increases.

With that said, there is some justification for exploring the potential to designate new commercial lands:

- There is significantly less land capacity available when looking only at zoned commercial lands that are vacant or underutilized. Within Core East, vacant and underutilized commercially zoned lands totaled approximately 4.6 acres in 2012. Within the entirety of the Town Core there were 20 acres of vacant and 12 acres of underutilized land.
- There may be sites in the Core Fringe and Core East areas (as well as others) that are better commercial sites from a commercial planning perspective than some of the sites currently designated and/or zoned. For example, a neighbourhood node on lands not currently envisioned for commercial may be a more appropriate complementary use to the downtown than additional commercial development along Dewdney Trunk Rd. to the east of the Town Centre as currently designated.

Given the above, in the next part of this memo GPRA explores the viability and appropriateness of the Cottonwood Lands' commercial node in the context of planning policy related to the downtown.

Market Role & Positioning of Cottonwood Lands Retail Commercial Node

With the above macro context established, GPRA has conducted a high-level review of the suitability of the Cottonwood lands for retail and service commercial through consideration of one central question:

Is the amount and location of land proposed for retail commercial use likely to yield a development that fits within the City's long-range commercial planning policies and aspirations?

Those policies and aspirations are set out in the OCP and Town Centre Area Plan and, in general terms, can be characterized by two central themes: the primacy of the Town Centre, and a clear hierarchy of commercial nodes. There is to be an established and clear differentiation between the Town Centre and all other commercial districts. The overarching goal is to have all commercial developments in the community be complementary with, rather than competitive to, the Town Centre.

Given the above, GPRA evaluates the Qualico commercial node proposal on the basis of its level of complementarity with the Town Centre, and makes recommendations for alterations where appropriate.

Ingredients for a Successful Downtown

One of the most important ingredients for long term commercial success in the downtown is **variety and quality of merchandising**. To be successful in the long run, downtown Maple Ridge

cursory review of OCP maps, there appears to be sufficient land designated along Dewdney Trunk between 228th and 232nd.



must offer an increasingly robust selection of quality stores and services, along with recreation and leisure uses, that can attract Maple Ridge residents to shop and recreate on a regular basis. In the regional context, downtown Maple Ridge is competing with major regional malls and strip centres including Meadowtown Centre in Pitt Meadows, Fremont Village in Port Coquitlam, and a variety of options in Langley including shops, services and entertainment in Walnut Grove and Willowbrook. At the local level, downtown is already competing to some degree with many retail offerings in west Maple Ridge along the Lougheed Highway. The downtown therefore must focus on creating a merchandising mix and critical mass that, in conjunction with an attractive pedestrian-friendly shopping environment and the addition of more downtown residents, establishes the downtown as the go-to destination shopping environment for residents across the City.

In downtown Maple Ridge, one of its key success factors and preconditions for future success is the presence of a critical mass of major retail grocery anchors at a variety of price points. Downtown is particularly fortunate to have three full-line grocery stores encompassing a range of price points and merchandise offerings: a large mid-market retail grocery store (Save-On), a mid-upper market store (Thrifty Foods) and a mid-lower market store (Extra Foods). In addition it has a variety of smaller specialty grocery providers such as Kin's Farm Market, Root's Natural Organics and others, as well as key general merchandise retailers with pharmacy components such as London Drugs and Shoppers Drug Mart. Maintaining the success of these crucial downtown anchors should be a key priority.

Cottonwood Commercial Concept: Viability & Complementarity to Downtown

The Cottonwood Lands are located within 500 metres of the Town Centre Commercial Designation. All three of downtown Maple Ridge's major grocery store anchors are located within a 5 minute drive of the site (2 within a 3-minute drive), as is London Drugs and Shoppers Drug Mart.

For a retail node to be commercially successful at the Cottonwood Lands, it will need to include an anchor tenant to drive traffic to the site. It is typical that for most successful small to mid-size convenience-oriented commercial nodes (typically 35,000 square feet or smaller), they are anchored by a convenience store (e.g. Mac's), a very small local grocery store (7-10,000 square feet), or a small pharmacy-driven anchor with some retail grocery. In mid-large convenience-oriented shopping centres (typically over 50,000 square feet and up to 125,000 square feet), anchoring is done by a supermarket, possibly along with secondary anchors like a drug store. It should be noted that centres in the 35-50,000 square foot range sometimes have difficulty with proper anchoring as they may be too small to accommodate a typical supermarket anchor and too large to be filled with the typical convenience-type uses that succeed in small strips (quick serve restaurant, beauty salon, laundry, convenience store, drug store, café). Once a centre is leased to these types of tenants – and it is often difficult to go beyond 20,000 square feet in these classes – it is can be difficult to fill the balance of space with other classes of more 'destination' focused uses like apparel, home furnishings and the like, as these uses tend to prefer a more focused, specialty retail environment.

As currently conceived, the commercial node in the Cottonwood Land Use Concept would contain 38,750 square feet of built capacity. While it is unknown what tenants if any have been approached at this stage, in order to make this node commercially viable it is likely that a



grocery store or pharmacy-driven store with grocery component of between 15,000 and 20,000 square feet would be sought to anchor the project. This could prove a challenging size to fill, as the typical anchor would likely be a smaller convenience-oriented grocer of under 10,000 square feet, or a small, full-line store of over 25,000 square feet. If an anchor in the 15-20,000 square foot range could be secured, given the location of the Cottonwood lands vis-à-vis the downtown a store of this size would likely draw on a trade area that would overlap the market area for the downtown grocery stores. With a quality anchor tenant, it is likely that some downtown grocery-related sales transference would occur.

A retail node at the Cottonwood Lands may be more justifiable from a planning perspective, and more viable from a commercial market perspective, if it is of a size and configuration that limits its primary market area to the immediate neighbourhood⁵, offering opportunity for a convenience food store anchor and other complementary convenience retail and service commercial. This would minimize any potential market overlap and sales transference from downtown stores and ancillary retail establishments, minimize the potential for tenants to move from the town centre to this new node, and maximize its chances of achieving commercial success.

Alternate Commercial Concept for Cottonwood Lands

Size, Mix, Market Position

A convenience-oriented commercial node of **up to 20,000 square feet** of built space at the Cottonwood Lands would be appropriate for a **local-serving retail precinct** at this location that is complementary to the nearby downtown retail precincts. Given typical anchoring ratios for small convenience-oriented shopping nodes⁶, an anchor tenant in a 20,000 square foot centre would be limited to 6-10,000 square feet. At this size (both absolute and anchor), the sales requirements and market area would likely be convenience, local serving in nature, and thus complementary to the downtown. Assuming a 6-10,000 square foot convenience food anchor is in place, the balance of space would likely be filled in with some combination of the following categories:

- Quick serve restaurant and/or casual dining
- Café / Bakery / deli
- Liquor store
- Personal services (e.g. hair salon, tanning, dry cleaning, pet care)
- Athletic / education services (e.g. gymnastics, martial arts)
- Professional services (e.g. realtor/broker, accountant, photography)
- Small independent specialty store (e.g. antiques)

While we have not performed a comprehensive retail market study for a convenience-oriented retail node at the Cottonwood Lands, we can offer the following comments and observations on the feasibility of a small convenience food store at the site:

⁵ For the purposes of this analysis the 'immediate neighbourhood' is defined as an 800 metre radius around the site.

⁶ The "anchoring ratio" refers to the proportion of total GLA that is taken up by an anchor tenant at a shopping centre. In smaller convenience shopping centres under 30,000 square feet, the anchoring ratio is typically 30-50%.

- The area within 800 metres of the Cottonwood Lands, which we assume would serve as the primary trade area, was home to an estimated 4,000 residents in 2014. It is likely that this area will be home to between 5,000 and 5,600 residents within 10 years.⁷
- It is estimated that residents within this 800 metre area spent approximately \$9.5 million on grocery and specialty foods in 2014. This translates to approximately \$2,400 per capita. Assuming no real change in per-capita expenditure over time, 5,000 residents would spend \$12 million and 5,600 residents would spend \$13.4 million on grocery and specialty foods.
- Using typical retail grocery sales performance targets⁸, and assuming that local area residents would do up to 20% of their spending at the local grocery store, 5,000 to 5,600 residents could support a local-serving grocery store of between 3,000 and 5,000 square feet. If we assume that there would be some sales inflow from beyond the 800 metre primary trade area, and if we also assume that a store could feasibly operate at a slightly lower sales performance level, there could be support for up to 8-9,000 square feet.

If a small food store (3-5,000 square feet) were secured as an anchor, a centre of perhaps 10,000 square feet could be feasible at this location. This size would be consistent with current Maple Ridge's current OCP policy pertaining to Neighbourhood Commercial centres.⁹

Retail Configuration

In the current land use plan, the commercial node is conceived as a highway-fronting development with parking in rear. This type of configuration would offer the development maximum exposure to drive-by traffic, which would be important if the node was relying on attracting traffic from outside of the immediate neighbourhood.

If, as discussed above, the commercial node is downsized and repositioned to be a local serving convenience node, a few options emerge for retail configuration.

1. Keep a downsized project highway fronting, with parking in rear.
2. Integrate the commercial into the residential neighbourhood in the form of a small main street, with appropriate signage along the Lougheed.
3. Disperse the commercial throughout smaller sub-nodes within the project.

Option 3 could work if the total commercial space were quite small (e.g. perhaps up to 3-4 units, with a total under 10,000 square feet).

In our opinion Option 2 is worth further consideration and exploration. At 20,000 square feet or less, a local-serving, convenience-oriented node would not require highway exposure as its

⁷ Based on 3 growth scenarios: (1) Environics Analytics Estimates and Projections for 800m area around Cottonwood Lands; (2) Regional Transportation Model population forecasts by traffic zone (as per the CIS 2012 analysis) for amalgamation of areas defined as "Core Fringe and "Core East" in the CIS; (3) Regional Transportation Model population forecast for traffic zone 5861, which encompasses the area defined approximately by Burnett St. in the west, 118 Ave alignment in the north, 232nd St. in the east, and the river to the south.

⁸ Sales performance is the total amount of sales per year divided by the physical size of a store, expressed as dollars per square foot. We assume a range of \$500 to \$800 per square foot target market performance for a new store.

⁹ OCP Policy 6-32: Total commercial space in a Neighbourhood Commercial centre is typically less than 930 square metres (10,000 square feet) in area.



primary market is not drive-by or destination traffic. Rather, the role of the node would be to provide convenience-type goods and services for the immediate area, ideally in a pleasant, pedestrian-oriented environment. This type of configuration would be consistent with the broader direction of design and development that we are seeing in the retail industry. It may also be better suited to the intent of Maple Ridge OCP policy 6-31, which speaks to compatibility with adjacent land uses.

Precedent for <20,000 square foot grocery-anchored retail nodes

There are many examples in Metro Vancouver of grocery-anchored convenience nodes in the +/-20,000 square foot range. The following list is not meant to be exhaustive, but rather is simply a preliminary illustration of a few nodes of various ages and configuration.

1. Choices Anchored node, 57th & West Boulevard, Vancouver

Size (sf)	Retail Format & Design	Key Anchor(s)	Other Tenant types
~16,000	Convenience-oriented street fronting , single loaded	Choices Market (approx. 7,500sf)	Hair salon; casual dining; women's apparel; café; dry cleaning





2. Choices Anchored node, 16th & Macdonald, Vancouver

Size (sf)	Retail Format & Design	Key Anchor(s)	Other Tenant types
~19,000	Convenience-oriented street fronting, single loaded.	Choices Market (approx. 10,000 sf)	Café; apparel; casual dining; dry cleaning; salon;



3. 24th & Macdonald, Vancouver

Size (sf)	Retail Format & Design	Key Anchor(s)	Other Tenant types
~20,000	Convenience-oriented street fronting, double loaded	Jimmy's Market (<3,000 sf); The Patty Shop (<3,000 sf); La Buca find dining	Casual dining; quick serve restaurant; bakery; home furnishings & accessories; pet grooming; dry cleaning; locksmith; wine shop; deli; auto repair.





4. 28th & St. George St., Vancouver

Size (sf)	Retail Format & Design	Key Anchor(s)	Other Tenant types
<3,000	Neighbourhood node integrated into neighbourhood	La Marche St. George (café/patisserie, groceries, personal effects)	n/a



5. Osprey Village, Pitt Meadows

Size (sf)	Retail Format & Design	Key Anchor(s)	Other Tenant types
~20-25,000	neighbourhood convenience-main street	Osprey Village Market	Hair salon; esthetician; massage; café; pet care; educational service; community centre





6. Sunstone Village, North Delta

Size (sf)	Retail Format & Design	Key Anchor(s)	Other Tenant types
20-25,000	neighbourhood convenience node within community	unknown	unknown

The village is not yet built or leased. The zoning allows for retail, restaurant, pub, and offices.



In sum, a convenience-oriented commercial node designed to serve the immediate surrounding neighbourhoods could be justified at the Cottonwood Lands. In order to minimize the potential for competitive overlap with downtown, this node should be no larger than 20,000 square feet and designed with an eye toward creating a well-integrated, pedestrian-oriented commercial precinct for local residents.

COMMERCIAL OPPORTUNITY ASSESSMENT: COTTONWOOD LANDS - MAPLE RIDGE



PREPARED FOR:

QUALICO

PREPARED BY:

HUME CONSULTING CORPORATION

APRIL 2015

COMMERCIAL OPPORTUNITY ANALYSIS: COTTONWOOD LANDS

1.0 REPORT BACKGROUND & PURPOSE

Qualico has contracted to purchase approximately 53 acres of land commonly referred to as the Cottonwood Lands, located along the Lougheed Highway corridor, near the intersection of the Haney Bypass. While the lands are designated for residential use in the OCP, a Commercial & Industrial Strategy completed in 2012 designated a 28 acre portion of the site (Parcel 1) as suitable for business park uses. City Spaces, on behalf of Qualico, prepared a report that concluded that these lands were not suitable for business park uses. City staff appear to support this conclusion.

Recently, Qualico has prepared a preliminary development concept for Parcel 1 of the Cottonwood Lands that includes a variety of housing types as well a 1.8 ha site for commercial uses. The commercial plan is to accommodate a neighbourhood-oriented shopping centre of 38,000 square feet as part of a comprehensive development. This scale of commercial development does not fit within the OCP guidelines for neighbourhood commercial development which limits the size to 10,000 square feet of gross leasable area. Also, City policy currently encourages new commercial development within the Town Centre rather than outside.

Hume Consulting has been retained by Qualico to assess the site specific commercial opportunity for the Cottonwood Lands. This report will assess the market's ability to support 38,000 square feet of convenience-oriented development that would likely be anchored by a small supermarket plus a variety of other stores and services targeting basic day-to-day needs of nearby residents and regional traffic passing the site.

2.0 INGREDIENTS FOR RETAIL SUCCESS

The creation of a successful retail development or retail precinct is challenging and highly dependent on the quality of a number of locational factors. Good retailers are very demanding of specific locational features as are today's busy shoppers. Some of the fundamental locational ingredients for retail commercial success include:

Nearby Source of Demand - successful retail commercial is located close to large sources of retail and service demand such as residential neighbourhoods, a large nearby workforce, and/or high traffic volumes.

Exposure to Traffic - successful retail sites are adjacent to major roads that provide exposure to high volumes of vehicular and/or pedestrian traffic.

Convenient Access – a good retail location must be highly accessible. Strong retail sites are typically easily accessed by local residents, area workers, regional residents, and/or area visitors. Accessibility via multiple modes of transportation including automobile, public transit, walking, and/or cycling increase the chances for success. On-site access and circulation must also be convenient and safe for shoppers.

Good Visibility – A site or location that maximizes the visibility of its tenants is important in creating the strong retail identity and awareness needed for drawing regular shopping visits. Sufficient frontage along major roads is important in this regard.

Sufficient Site Size – it is important to select a location that can accommodate a sufficient scale of development (“critical mass”) that can accommodate an anchor tenant and offer the variety and selection of tenants needed draw shoppers on a regular basis. The location must also be capable of accommodating adequate parking.

Limited Direct Competition - retail development is most successful when located near a strong source of demand with few or no directly competitive facilities nearby.

Once the locational ingredients have been satisfied, other factors such as layout and design, strong anchor tenants, adequate parking, and a good tenant mix are important in achieving a successful commercial development.

3.0 LOCATIONAL ASSESSMENT

The locational characteristics of Qualico's proposed commercial site have been assessed from a retail market perspective focussing on the key locational ingredients required for retail success.

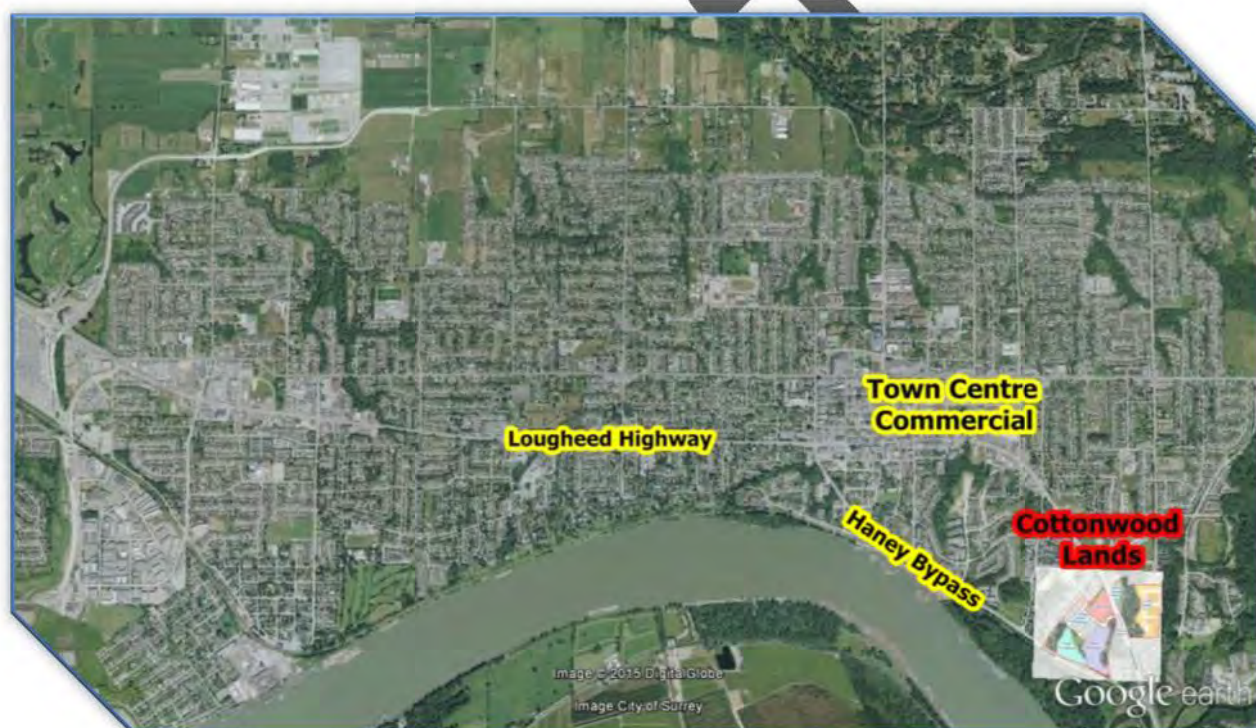
1. Locational Context

- The Cottonwood Lands are situated between the Lougheed Highway and the Haney Bypass, just to the east of the designated town centre.

- The proposed commercial site is located on Parcel 1, on the west side of the Lougheed Highway nearly midway between 116th Street and the Haney Bypass/Lougheed Highway intersection.
- The site is located approximately 0.8 kilometres southeast of the commercial Town Centre which begins to the west of the Burnett and Lougheed intersection.
- The lands are currently undeveloped with low density (single family and townhome) housing located immediately to north and south of Parcel 1, west of the Lougheed Highway.

Overall, the Cottonwood Lands appear well-located relative to a large residential population base and major traffic flows in Maple Ridge which are positive attributes from a retail perspective.

FIGURE 1 REGIONAL CONTEXT



2. Site Size & Configuration

- The proposed commercial site is 1.8 ha (4.45 acres) in size and is slightly irregular in shape with approximately 158.5 metres (520 feet) of frontage along the Lougheed Highway with 130 metre depth near its mid-point.
- The Lougheed Highway and Cottonwood Lands slopes downward from the northwest to southeast. The proposed commercial site would be situated on a fairly level portion of the site that shouldn't pose any obstacles to development or function of the site for retail purposes.

FIGURE 2 LOUGHEED SLOPE



FIGURE 3 SITE FRONTAGE



The site size and configuration of the proposed retail commercial site are appropriate to accommodate an efficient retail layout. The minimal slopes appear to be manageable for development and should not provide any obstacles to site access.

3. Surrounding Land Uses

- Site is bounded by two major roads.
- A number of low density town home developments are located nearby to the north and south.
- There are large areas of park land and natural areas in the vicinity.
- The Telosky Stadium & Thomas Haney Youth Action Park and Thomas Haney Secondary School are located just northeast of the Cottonwood Lands.
- Kanaka Creek Regional Park is located to south.
- The Qualico plan envisions development of ± 300 townhouse units on the Parcel 1 of the Cottonwood Lands, consistent with the type of residential development in the immediate vicinity.



The existing residential development in the immediate area plus additional residential on the Cottonwood Lands reinforces the available demand for a convenience-oriented retail development serving basic day-to-day needs.

4. Exposure to Traffic & Visibility

- The most recent published traffic counts in the area indicate that average daily traffic volumes (AADT) along the Lougheed Highway taken 0.1 kilometres east of the Haney Bypass were **32,537** vehicles per day in 2008. Average daily traffic volumes along the Lougheed Highway taken 0.5 kilometres west of the Haney Bypass were **14,499** vehicles per day in 2007.
- These traffic counts indicate that there are high volumes of traffic along the Lougheed Highway in the immediate vicinity of the proposed commercial site.
- The highest traffic volumes originate to the east of the site with almost half of this traffic using the Haney Bypass just to the south of the Cottonwood Lands.

The proposed commercial site is exposed to high traffic volumes on a daily basis. With 158.5 metres (520 feet) of frontage along the Lougheed Highway, retail facilities would enjoy strong visibility to the passing traffic.

5. Site Access

- Lougheed Highway is a 4-lane highway divided by a concrete median in front of the Cottonwood Lands. The current situation would not allow westbound traffic to enter the Cottonwood Lands
- The Qualico plan proposes that a signalized intersection be created into Parcel 1 which would border the south side of the proposed retail commercial site. This would be designed to allow traffic movements to and from the site for both westbound and eastbound traffic.
- The site plan indicates that the commercial site would be positioned at the primary entrance to the new residential neighbourhood and along the primary collector serving this neighbourhood.
- The initial plans are to integrate the commercial site into the neighbourhood by providing greenway/walkway connections.

FIGURE 4 SITE ACCESS



The proposed site access would provide the type of convenient local and regional site access needed to sustain retail development.

Synopsis

An assessment of the locational characteristics of the proposed retail commercial development indicates that the site is well-suited to convenience-oriented retail development:

- The site appears to be relatively flat and readily developable for retail purposes.
- Is of appropriate size and shape to accommodate an effective retail layout.
- Has extensive frontage along the Lougheed Highway providing strong exposure and visibility to high volumes of passing traffic.
- Is well-positioned to serve a large residential population living within a few minute walk/drive of the site.
- The proposed signalized intersection would make the site highly accessible.
- Overall, the site offers the type and quality of locational characteristics needed to support a convenience-oriented retail development.

4.0 COMPETITIVE ASSESSMENT

- There is no direct retail competition within the trade area for the scale and type of retail development being proposed for the Cottonwood Lands. The much larger shopping centres located in the nearby Town Centre serve as regional shopping destinations as compared to the limited convenience role proposed for the Cottonwood Lands.
- **Haney Place Mall** is a 225,000 square foot enclosed mall anchored by Target (closing) and Thrifty Foods (35,000 square feet). The mall includes ±45 smaller specialty tenants offering a wide range of merchandise and services. The closure of Target eliminates a large amount of competition in the market for general merchandise, pharmacy and grocery /supermarket type merchandise.
- **ValleyFair Mall** is a 140,000 square foot enclosed mall anchored by Save-On-Foods (48,000 square feet), London Drugs (30,000 square feet), BC Liquor Store, TD Canada Trust plus another ±38 smaller specialty tenants.



- **Maple Ridge Square** is a ±82,000 square foot strip plaza located along the north side of Dewdney Trunk Road directly across from the Municipal Hall. It is anchored by PetSmart (17,000 square feet), Shoppers Drug Mart (16,500 square feet), and Extra Foods (29,000 square feet).



- While the a small supermarket anchor on the Cottonwood Lands would compete with the supermarkets at Haney Place, ValleyFair, and Maple Ridge Square to some degree, it is expected that these much larger stores will readily absorb any sales impacts.

- The proposed retail development would be much more comparable to the **Cooper's Foods** (±23,000 square feet) anchored shopping plaza located on Dewdney Trunk Road and 240th Street (±30,000 square feet) which serves some of the basic convenience needs of nearby shoppers. The Cooper's anchored development and the proposed retail development on the Cottonwood Lands would serve a similar role.



- **Bruce's Market** is located adjacent to the Lougheed Highway 3.4 kilometres east of the proposed retail site and is the only grocery store in the area.



- This small store focuses on fresh produce, seafood, and deli items with almost none of the packaged/canned products typically found in convenience stores or supermarkets.
- This ±2,500 square foot market fills a unique specialty niche in the community and offers a different shopping experience compared to a conventional brand name supermarket as envisioned for the Cottonwood Lands. Bruce's is expected to retain a loyal clientele that prefer it's quality produce and seafood and quaint shopping experience.

Overall the wide differences in terms of scale, retail role, and tenant mix between the proposed retail development on the Cottonwood Lands and the concentration of large malls in the Town Centre will greatly limit any competitive impacts between them. The proposed retail development will fulfill a similar local convenience role as provided by the Cooper's Foods site on Dewdney Trunk Road. Bruce's fills a specialty niche and offers a unique shopping experience that will maintain its customer base.

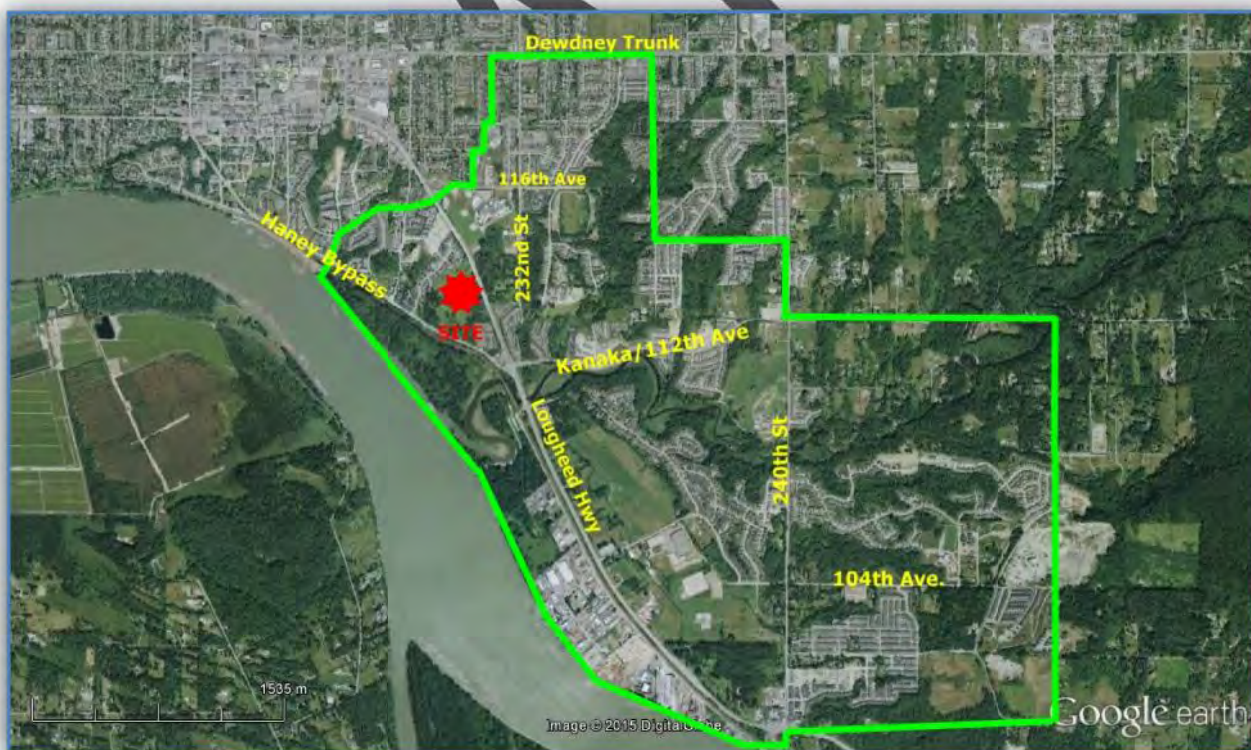
5.0 TRADE AREA POPULATION

The trade area that would be served by the Cottonwood Lands depends largely on the type and scale of retail development as well as the key anchor tenant(s) and merchandising mix. The shape and extent of the trade area is also influenced by potential access to the site via regional and local roads as well as the location of competitive retail facilities.

Qualico is proposing a neighbourhood convenience type shopping centre of 38,000 square feet. This scale/type of shopping centre would likely be anchored by a small supermarket of 20,000-22,000 square feet. This retail concept is the basis for determining the realistic trade area boundaries from which it is expected that most shoppers will come.

- **Figure 5** provides an approximate outline of the potential trade area for a 38,000 square foot shopping centre anchored by a small supermarket of 20,000-22,000 square feet.

FIGURE 5 POTENTIAL TRADE AREA



- Residents living within the area shown are within a convenient 5-minute drive of the site and can easily access the site via some of the roads shown. Many of the roads indicated are established local routes to the Loughheed Highway and Haney Bypass bringing them in close proximity to the Cottonwood Lands on a regular basis.

- The Cottonwood Lands would represent the closest and most convenient shopping location for many of the residents in this area.
- It is expected that most trade area residents regularly travel near or past the Cottonwood lands enroute to/from work, enroute to the Town Centre area, or to other destinations further to the west.
- The estimated population within the trade area shown is approximately 15,300 persons based on 2011 Canada Census data.
- Based on the Maple Ridge Socio-Economic Trends report (Rollo, 2010), population in the east Maple Ridge area was forecast to grow from 22,300 to 37,300 between 2006 and 2041. This represents a compound growth rate of 1.5% per annum. Applying this population growth rate to the designated trade area, **the 2015 trade area population is estimated at 16,240 persons.**

6.0 EXPENDITURE POTENTIAL & WARRANTED FLOOR AREA

1. Trade Area Expenditure Potential

- A retail model was created to estimate the convenience type retail expenditures available in the designated trade area and if a shopping centre of 38,000 square feet could be supported based on a reasonable market share of available expenditures.
- The total retail expenditures available to the Cottonwood Lands has been estimated based on the trade area population and estimated per capita retail expenditures (provided by Statistics Canada). The warranted (supportable) retail floor area has been estimated based on the expected market share of trade area expenditures that could realistically be captured at this location.
- **Table 1** provides a summary of the expenditure potential available trade area within various convenience-oriented retail categories that would be targeted for the Cottonwood Lands.

TABLE 1 TRADE AREA EXPENDITURES & SUPPORTABLE RETAIL

STORE CATEGORY	TRADE AREA EXPENDITURES	ESTIMATED MARKET SHARE (%)	SALES REQUIREMENT (\$/Sq. Ft.)	WARRANTED FLOOR AREA (Sq. Ft.)
<u>Convenience</u>				
Supermarkets	\$38,764,556	15%-20%	\$550	10,570-14,100
Convenience Stores	\$2,356,252	10%-15%	\$350	675-1,010
Specialty Food Stores	\$3,189,005	10%-15%	\$250	1,275-1,915
Beer, Wine, Liquor	\$12,804,758	10%-15%	\$500	2,560-3,840
Health & Personal Care Stores	\$15,953,440	10%-15%	\$550	2,900-4,350
Sub-Total	\$73,068,012			17,980-25,215
<u>Restaurant & Fast Food</u>				
Restaurant	\$13,294,172	5%-10%	\$275	2,415-4,835
Fast Food	\$11,481,330	5%-10%	\$350	1,640-3,280
Pub/Tavern	\$1,755,291	10%-15%	\$600	Not Supported
Sub-Total	\$26,530,793			4,055-8,115
<u>Services¹</u>				
(@15%-20% of Retail)	~		~	3,305-6,665
TOTAL				25,340-39,995

- The retail model indicates that a convenience-oriented shopping centre of approximately 25,000-40,000 square feet could be supported on the Cottonwood Lands based on its ability to capture a relatively small market share ranging from 5% to 20% (depending on the specific retail category) of available trade area expenditures.
- Based on a market share of 15%-20% of supermarket expenditures within the designated trade area, a supermarket of 10,500-14,000 could be supported today. This is an achievable market share by a brand name supermarket anchor that is not currently represented in the area.
- This market share represents approximately \$5.8-\$7.8 million in annual supermarket sales which is a relatively small proportion of the total supermarket expenditures generated within Maple Ridge.
- Given the site's exposure to high volumes of regional traffic passing the site on a regular basis, it is expected that additional sales would be captured from outside the trade area that would likely support a larger supermarket of 20,000-22,000 square feet in size.

7.0 MARKET & PLANNING RATIONALE

Market Rationale

From a market perspective, Qualico's proposed commercial site is well-suited to retail development.

- The site is well located relative to several neighbourhood areas that would serve as an important source of demand.
- Lougheed Highway and local collector roads in the area provide convenient access to the site from the local area population.
- Significant volumes of regional traffic pass by or near the site each day providing an additional source of regular demand.
- The site size and configuration could accommodate an efficient retail development.
- The extensive frontage along the Lougheed Highway provides the type of visibility required to attract and sustain retailers.
- A new signalized intersection (proposed) would provide convenient site access for both local and regional traffic.
- The retail model indicates that a convenience-oriented retail development of 25,000-40,000 square feet could be supported based on a relatively small market share of available trade area expenditures.
- A small supermarket of 20,000-22,000 square feet could likely be supported by a combination of the trade area population and passing traffic.
- In terms of potential impact on the Town Centre, it is expected that the proposed retail development would have a very limited impact on the Town Centre because:
 - The Town Centre is centrally located and readily accessible for all Maple Ridge and regional residents.

- The overall scale of commercial development in the Town Centre has already established the variety of stores and services needed to sustain regular shopping trips from the region.
- The Town Centre includes two enclosed malls with multiple large retail anchor stores including Save-On-Foods, London Drugs, Thrifty Foods, Shoppers Drug Mart, PetSmart, Extra Foods, BC Liquor Store, Marks, and Chances (slots, bingo) that serve as major draws to the Town Centre.
- The Town Centre also includes a recreation centre, arts centre and theatre, public library, and Municipal Hall that complement the retail facilities and reinforce the strong regional draw.
- The small scale retail development proposed on the Cottonwood lands will serve a very different role in the market compared to the Town Centre. It will be a convenience-oriented development focus on providing a few of the basic goods and services required on a day-to-day basis similar to the Cooper's Markets development at Dewdney Trunk Road and 240th Street.
- Cooper's Foods, part of the Overwaitea Food Group, was built despite the presence of Save-On-Foods and other supermarkets located in the nearby Town Centre. This suggests that the scale and type of development is seen playing a complementary role rather than a competitive role relative to the Town Centre.
- With the closure of Target and its grocery store component, the existing supermarkets in the Town Centre could more readily absorb any sales impact from a small supermarket on the Cottonwood Lands.

Grocery Anchor Opportunity

While Qualico has not received any direct expression of interest from potential grocery/supermarket anchors, there is a reasonable possibility that an established grocery store operator could be found to anchor this site despite the presence of other supermarket operators located in the Town Centre area. In addition to the good locational characteristics already identified, there are a number of other reasons why a small supermarket anchor could be found (and supported) for the Cottonwood Lands:

- There are a number of small supermarket operators and/or "banners" that are not represented in the region including: No Frills, Marketplace IGA, Buy Low, Nesters, and Choices. A new operator or new "banner" that isn't currently located in the area could do very well despite the strong competition in the area.
- Each of the supermarket operators have established a relatively distinct identity and loyalty with shoppers based on store design, exclusive product lines, price levels, customer loyalty programs, etc. As a result shoppers often have a preferred store such as Save-On-Foods, Real Canadian Superstore, Safeway, Thrifty's, Marketplace IGA, No Frills, etc. Therefore, a number of competitive supermarkets can be supported in the market at the same time, even in close proximity (as in evidence in the Town Centre).

- There are many different types of shoppers and motivations that tend to support a variety of supermarket brands in a region:
 - Some shop based on brand loyalty generated by exclusive products and/or customer loyalty programs.
 - Some shoppers prefer a larger store with more specialty departments, some prefer smaller stores.
 - Many shoppers are very price motivated and may shop at stores with the lowest overall prices or they may watch for special price deals and shop at multiple stores to take advantage of advertised specials.
 - Some shoppers have no particular store loyalty and/or are not motivated by price and will shop at the location that is closest and/or most convenient to them.

Each of these factors contributes to the possibility of attracting and supporting a small supermarket operator on the Cottonwood Lands without a significant impact on either the supermarkets located in the Town Centre or the regional shopping/service role it plays.

Planning Rationale

The planning rationale for a convenience-oriented shopping facility on the Cottonwood Lands includes the following points:

- Given today's busy lifestyles, shoppers do the majority of their grocery shopping at a store that is conveniently located close to/enroute to home or work, and offers a full selection of food store type goods. The Cottonwood Lands offer a convenient shopping location close to home for many neighbourhood residents.
- In terms of creating vibrant and sustainable neighbourhood commercial precincts, a full-service grocery store usually tops the list of preferred retail stores and services cited by neighborhood/community residents in all urban markets.
- A high quality, full service food store within an easy walking/driving distance from home is central to creating modern neighbourhoods that are complete, vibrant, and sustainable.
- A convenience-oriented shopping centre would also add to the identity and sense of place for neighbourhood residents in the area.
- The overall development plan envisions that the commercial development integrated within the neighbourhood via roads, sidewalks, and greenway connections thereby creating an important focal point of activity in the neighbourhood.
- The Cooper's Markets development is a similar example of a small scale, convenience-oriented retail development near the Town Centre that satisfies some of the basic convenience needs for local area residents. Qualico's comprehensive development plan would provide a better integration of the retail site within the neighbourhood.

- The Town Centre Area Plan, which encourages new higher density residential development within the Town Centre, will be the key to enhancing the viability and sustainability of the Town Centre over the long term. This is a much more effective means to creating a vibrant and sustainable Town Centre rather than restricting the development of small scale retail developments that serve a different (but important) role in creating liveable neighbourhoods located outside the Town Centre boundaries.

Economic Rationale

A convenience-oriented retail development of 38,000 square feet is recommended for several reasons:

- This scale of development can accommodate at least one key anchor tenant that can create the identity and regular draw needed for an economically sustainable development.
- An anchor tenant will attract the needed traffic as well as higher quality tenants that will have a better chance for success.
- A development of 38,000 square feet can accommodate the variety/selection of tenants needed to satisfy many of the basic day-to-day needs of area residents.
- Small strip centres of 10,000-20,000 serving only a small neighbourhood population typically struggle for viability in competitive urban markets for several reasons:
 - Small strip centres of 10,000-20,000 typically struggle as they lack the type/size of anchor tenant capable of attracting the regular traffic needed to support smaller stores. Small stores generally rely on one or more anchor stores to generate regular traffic to a shopping centre.
 - Small strip centres often do not offer sufficient variety/selection of tenants to attract shoppers on a regular basis. With today's increasingly busy lifestyles, consumers primarily shop at convenient locations that offer a sufficient variety of goods and services to meet their needs. They do not have time to do multiple trips for basic day-to-day needs.
 - Without a good anchor tenant, small strip centres typically attract weaker independent type retailers that reduces the shopping centres appeal/draw for shoppers, especially in highly competitive markets where there are lots of shopping choices.
 - Tenant turnover is typically quite high in these types of developments as tenants cannot generate sufficient sales to cover their total occupancy costs of in the range of at least \$25-\$35 per square foot. An average sized retailer of 1,500 square feet would require sales of at least of \$250,000 - \$300,000 annually to keep total occupancy costs at a healthy level (10%-15 % of gross annual sales) which is very challenging in small, unanchored strip centres.
- The addition of a convenience-oriented centre on the Cottonwood Lands will generate a number of
- economic benefits including:
 - a number of direct/indirect jobs and expenditures during the construction phase providing a financial boost to the local economy.
 - the creation of local full-time and part time jobs in the community as well a provide on-going demand for local goods and services from suppliers and service companies.

Approximately 1.5-2.0 full-time equivalent (FTE) jobs are created for every 1,000 square feet of retail floor area or between 57-76 FTE jobs based on a 38,000 square foot development.

- these local jobs will have a multiplier effect in the economy as much of these incomes will be spent and re-spent within Maple Ridge.

DRAFT

City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: First Reading
Maple Ridge Zone Amending Bylaw No. 7142-2015
24070 132 Avenue

MEETING DATE: April 20, 2015
FILE NO: 2015-021-RZ
MEETING: C of W

EXECUTIVE SUMMARY:

An application has been received to rezone the subject property, located at 24070 132 Avenue, from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) Residential), to allow future subdivision into approximately three single family residential lots (see Appendix C). An Official Community Plan (OCP) amendment is anticipated to adjust the *Conservation* boundaries to reflect the location of Millionaire Creek. To proceed further with this application additional information is required as outlined below.

RECOMMENDATIONS:

In respect of Section 879 of the *Local Government Act*, requirement for consultation during the development or amendment of an Official Community Plan, Council must consider whether consultation is required with specifically:

- i. The Board of the Regional District in which the area covered by the plan is located, in the case of a Municipal Official Community Plan;
- ii. The Board of any Regional District that is adjacent to the area covered by the plan;
- iii. The Council of any municipality that is adjacent to the area covered by the plan;
- iv. First Nations;
- v. School District Boards, greater boards and improvements district boards; and
- vi. The Provincial and Federal Governments and their agencies.

and in that regard it is recommended that no additional consultation be required in respect of this matter beyond the early posting of the proposed OCP amendments on the City's website, together with an invitation to the public to comment, and;

That Zone Amending Bylaw No. 7142-2015 be given first reading; and

That the applicant provide further information as described on Schedules A,B,E,F,G and J of the Development Procedures Bylaw No. 5879-1999, along with a subdivision application.

DISCUSSION:

a) Background Context:

Applicant: Annora Developments Ltd.

Owner:	Horst & Margot Kulhanek		
Legal Description:	Lot 8 Section 27 Township 12 New Westminster District Plan 2622		
OCP:			
	Existing:	Conservation and Low Density Urban	
	Proposed:	Conservation and Low Density Urban	
Zoning:			
	Existing:	RS-3 (One Family Rural Residential)	
	Proposed:	RS-1b (One Family Urban (Medium Density) Residential)	
Surrounding Uses:			
North:	Use:	Park	
	Zone:	RS-1b (One Family Urban (Medium Density) Residential)	
	Designation:	Conservation and Low Density Urban	
South:	Use:	Single Family Residential	
	Zone:	RS-3 (One Family Rural Residential)	
	Designation:	Conservation	
East:	Use:	Single Family Residential	
	Zone:	RS-3 (One Family Rural Residential)	
	Designation:	Conservation and Eco Cluster	
West:	Use:	Single Family Residential	
	Zone:	RS-1b (One Family Urban (Medium Density) Residential)	
	Designation:	Low Density Urban	
Existing Use of Property:	Single Family Residential		
Proposed Use of Property:	Single Family Residential		
Site Area:	2.03 ha (5.02 acres)		
Access:	Shoesmith Loop		
Servicing requirement:	Urban Standard		

b) Site Characteristics:

The subject property is 2.03 ha (5.02 acres) in size and is bound by the unopened 132 Avenue road allowance to the north, single family residential lots to the west and residential acreage to the south and east (see Appendix A). Millionaire Creek is located on the eastern portion of the subject property running north-south. The majority of the property has steep slopes and is heavily vegetated, with the northwest corner containing the only potentially developable area. The subject property is within walking distance of Red Alder neighbourhood park, as well as equestrian trails that access the UBC Malcolm Knapp Research Forest and Golden Ears Provincial Park.

c) Project Description:

The applicant proposes to rezone the subject property, from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) Residential) to permit future subdivision into three single family residential lots not less than 557 m² (see Appendix C). The applicant intends to retain the existing house on proposed lot 3 and create two additional lots to the north of the existing house, for a total of three lots. Access will be provided from Shoesmith Loop. The remainder of the subject property will be dedicated as park for conservation purposes.

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 property is located within the Silver Valley Area Plan, north of the Horse Hamlet, and is currently designated *Conservation* (86%) and *Low Density Urban* (14%). The Low Density Urban designation permits densities ranging between 8-15 units per hectare, which equates to a lot yield of 2-4 on the subject property. The proposed development of three single family residential lots falls within the yield described in the Silver Valley Area Plan. An OCP amendment is anticipated to adjust the *Conservation* boundaries to reflect the location of Millionaire Creek. A pedestrian trail is identified in the Area Plan. Prior to second reading, the Parks Department will provide comments on opportunities for trail network expansion.

Zoning Bylaw:

The current application proposes to rezone the subject property from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) Residential) (see Appendix B) to permit future subdivision into approximately three single family residential lots. The existing house on the subject property will remain. The minimum lot size for the current RS-3 (One Family Rural Residential) zone is 0.80 ha (2 acres), and the minimum lot size for the proposed RS-1b (One Family Urban (Medium Density) Residential) zone is 557 m².

A Development Variance Permit will be required for rear yard setbacks for the existing house on lot 3. However, it is noted that the applicant may decide to further develop proposed lot 3 at some point in the future.

Development Permits:

Pursuant to Section 8.9 of the OCP, a Watercourse Protection Development Permit application is required for all developments and building permits within 50 metres of the top of bank of all watercourses and wetlands. The purpose of the Watercourse Protection Development Permit is to ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas.

Pursuant to Section 8.10 of the OCP, a Natural Features Development Permit application is required for all development and subdivision activity or building permits for:

- All areas designated Conservation on Schedule “B” or all areas within 50 metres of an area designated Conservation on Schedule “B”, or on Figures 2, 3 and 4 in the Silver Valley Area Plan;
- All lands with an average natural slope of greater than 15 %;
- All floodplain areas and forest lands identified on Natural Features Schedule “C”

to ensure the preservation, protection, restoration and enhancement of the natural environment and for development that is protected from hazardous conditions.

Pursuant to Section 8.12 of the OCP, a Wildfire Development Permit application is required for all development and subdivision activity identified in wildfire risk areas. The purpose of the Wildfire Development Permit is for the protection of life and property in designated areas that could be at risk for wildland fire and where this risk may be reasonably abated through implementation of appropriate precautionary measures.

The subject property is located within the Wildfire Development Area, identified on Map 1 in Section 8.12 of the OCP. Surrounding land east of the subject property remains forested and undeveloped at this time. Prior to second reading a Registered Professional Foresters Report will be required to determine wildfire mitigation requirements.

Advisory Design Panel:

A Form and Character Development Permit is not required because this is a single family project, therefore this application does not need to be reviewed by the Advisory Design Panel.

Development Information Meeting:

A Development Information Meeting is not required for this application because it is in compliance with the OCP and is less than 25 dwelling units.

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) Licenses, Permits and Bylaws;
- d) Fire Department;
- e) Parks Department;
- f) School District; 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 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. This evaluation will take place between first and second reading.

f) Early and Ongoing Consultation:

In respect of Section 879 of the *Local Government Act* for consultation during an OCP amendment, it is recommended that no additional consultation is required beyond the early posting of the proposed OCP amendments on the City's website, together with an invitation to the public to comment.

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. An OCP Application (Schedule A);

2. A complete Rezoning Application (Schedule B);
3. A Development Variance Permit (Schedule E);
4. A Watercourse Protection Development Permit Application (Schedule F);
5. A Natural Features Development Permit Application (Schedule G);
6. A Wildfire Development Permit Application (Schedule J); and
7. A Subdivision Application.

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; however, an OCP amendment for a *Conservation* boundary adjustment will be required. It is expected that once complete information is received, *Maple Ridge Zone Amending Bylaw No. 7142-2015* will be amended to reflect the appropriate conservation boundary.

It is therefore recommended that Council grant first reading subject to additional information being provided and assessed prior to second reading; and that Council not require any further additional OCP consultation. The proposed layout has not been reviewed in relation to the relevant bylaws and regulations governing subdivision applications. Any subdivision layout provided is strictly preliminary and must be approved by the City of Maple Ridge's Approving Officer.

"Original signed by Adam Rieu"

Prepared by: Adam Rieu
Planning Technician

"Original signed by Christine Carter"

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

"Original signed by David Pollock" for

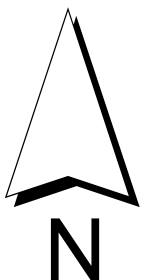
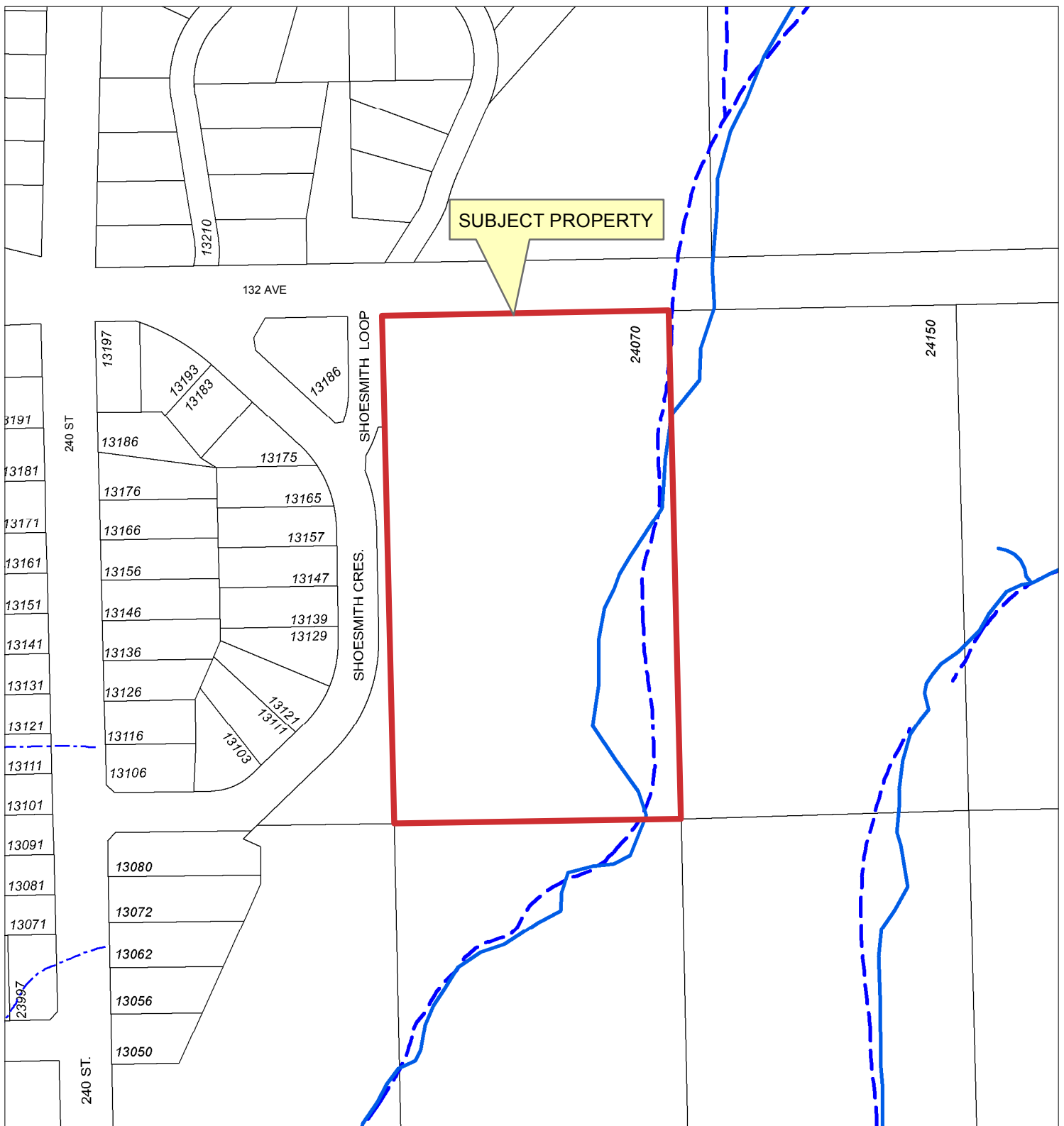
Approved by: Frank Quinn, MBA, P. Eng
GM: Public Works & Development Services

"Original signed by Jim Rule"

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

- Appendix A – Subject Map
- Appendix B – Zone Amending Bylaw No. 7142-2015
- Appendix C – Proposed Subdivision Plan



Scale: 1:2,000

Legend



Wetlands

GPS Creek Centrelines

Streams & Rivers (Topographic)

Feature Type

- Indefinite Creek Centreline
- Ditch Centreline
- River Centreline

Rivers & Lakes (Topographic)

Feature Type

- Canal
- Flooded Land
- Lake/Reservoir
- Marsh
- River
- Major Rivers & Lakes

24070 132 AVENUE



CITY OF MAPLE RIDGE
PLANNING DEPARTMENT

DATE: Feb 12, 2015

FILE: 2015-021-RZ

BY: PC

APPENDIX B

CITY OF MAPLE RIDGE

BYLAW NO. 7142-2015

**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. 7142-2015."
2. That parcel or tract of land and premises known and described as:

Lot 8 Section 27 Township 12 Plan New Westminster District Plan 2622

and outlined in heavy black line on Map No. 1637 a copy of which is attached hereto and forms part of this Bylaw, is hereby rezoned to RS-1b (One Family Urban (Medium Density) 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 _____ day of _____, 20_____

READ a second time the _____ day of _____, 20_____

PUBLIC HEARING held the day of , 20

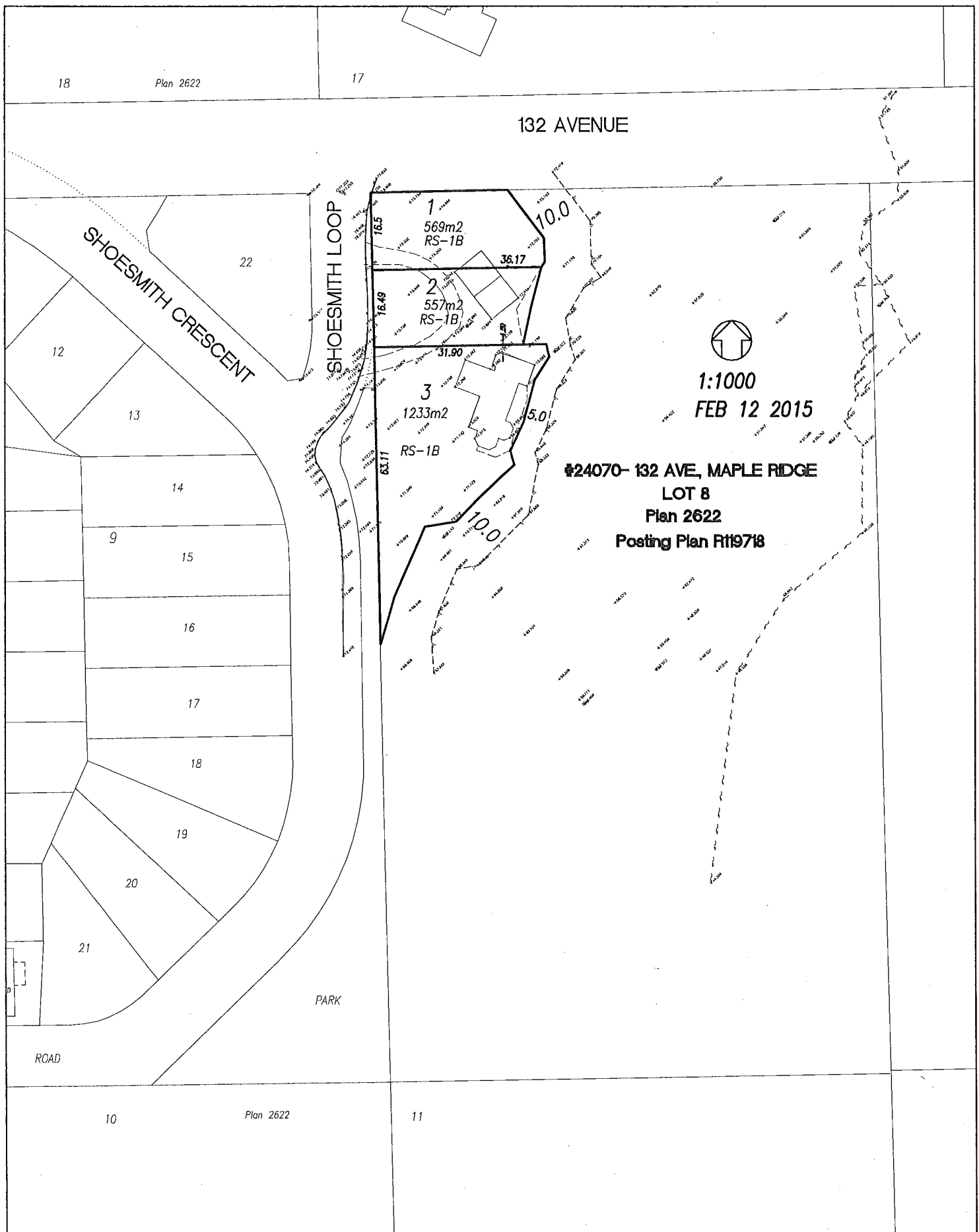
READ a third time the _____ day of _____, 20_____

ADOPTED, the day of , 20

PRESIDING MEMBER

CORPORATE OFFICER

APPENDIX C



City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer

MEETING DATE: April 20, 2015
FILE NO: 2014-013-RZ
MEETING: C of W

SUBJECT: Addendum to First Reading
23895 124 Avenue
12507, 12469, 12555, and 12599 240 Street

EXECUTIVE SUMMARY:

This application was considered by Council on September 30, 2014 for first reading and was deferred with the following resolution:

That staff be directed to undertake “Alternative 2: Short Term Deferral: Density Bonus Framework Using Densities Similar to the RS-1C Zone” outlined in the staff report dated September 15, 2014 titled “First Reading, 23895 124 Avenue and 12507, 12469, 12555 and 12599 240 Street”.

The applicant submitted a revised submission on December 22, 2014. The revision does not align with the above noted Council direction, stating densities no greater than the RS-1C (One Family Urban (Low Density) Residential) zone should be explored. The densities proposed in this revision exceed the levels Council indicated as supportable in the resolution above. A summary of the revision is outlined in this report for Council to provide further direction on how to proceed.

RECOMMENDATION:

1) That the “Addendum to First Reading” report dated April 20, 2015 be received as information.

DISCUSSION:

a) Background Context:

A report recommending denial of first reading was presented to the former Council on September 15, 2014. The report identified that the single storey housing form could be wheelchair accessible, which would contribute to the diversity of the Maple Ridge housing stock, and align with the goals of the Housing Action Plan; however, the report outlined the following OCP policies that the proposal was not in compliance with:

- Policy 3-14, which does not permit urban densities in the Estate Suburban Residential designation;
- Policy 2-6, which stipulates the circumstances of when an Urban Area Boundary adjustment can be considered;
- Policy 3-22, which does not allow non-contiguous expansion of the Urban Area Boundary;
- Policy 3-24, which allocates Thornhill as an Urban Reserve for future urban growth.

The development proposal is not in compliance with the OCP, and would require an amendment to designate the subject properties *Urban Residential* and *Conservation*, as well as include the subject properties within the Urban Area Boundary. The September 15, 2014 staff report is attached (see Appendix B). The subject application was deferred on September 30, 2014 with the following resolution:

That staff be directed to undertake "Alternative 2: Short Term Deferral: Density Bonus Framework Using Densities Similar to the RS-1C Zone" outlined in the staff report dated September 15, 2014 titled "First Reading, 23895 124 Avenue and 12507, 12469, 12555 and 12599 240 Street".

Due to the complex nature of this application, from the perspectives of policy and hydrogeological considerations; at the September 30, 2014 Council meeting, Council requested additional information and changes to be reflected in the first reading report as follows:

1. Reduced density;
2. Clarification on the number of units that will be affordable, rental or special needs;
3. Clarification on the tools for securing the affordable, rental or special needs housing in perpetuity;
4. Minutes from a neighbourhood Development Information Meeting to be hosted by the applicant;
5. Clarification on floodplain and fill considerations;
6. Information on 240 Street improvements and internal road standards;
7. Confirmation on target market for residents and if age restrictions will apply;
8. Additional information on the modular home supplier and specific details on the appearance on the units;
9. Information on transit;
10. Review of the development application by a transportation planning consultant hired by the applicant; and
11. A staff report addressing the impact of the subject project on other land designated *Estate Suburban Residential* in the City.

Following deferral of the application, staff met with the applicant and developer on October 7, 2014 to discuss Council's direction.

b) Revised Information:

The applicant has submitted an alternative development plan, and has provided information regarding floodplain mitigation construction measures and amenity contributions. The number of proposed lots is 129 intensive lots and two large single family lots for a total of 131 lots, which is 35 less lots than the original proposal. Due to filling and floodplain construction requirements, the proposed homes are now designed to be two storeys. The lot dimensions have been reduced from

the original proposal of 9 metres by 26 metres (234 m²/2519 ft²), down to a mix of 7.3 metres x 18.2 metres (133 m²/1430 ft²) and 7.9 metres x 21.3 metres (168 m²/1811 ft²). Table 1 below compares the original submission to the revised option.

The level of density proposed in the revision remains at an urban level. Although the properties are outside of the Urban Area Boundary, the lot sizes proposed are smaller than the most intensive single family residential zone supported within Urban Area Boundary. As outlined in the original staff report, the lot yield under RS-1c (One Family Urban (Low Density) Residential) zone densities is approximately 48 lots. Therefore, the revision down to 131 lots, respectively, is still more than twice the suggested density increase that Council had previously indicated they were willing to explore further. The proposed dwellings are still modular in nature. Table 1 compares the development potential under the current land use designation with both the original and revised development proposals.

Table 1: Development Plan Comparison

	Current OCP designation	Original Proposal	Revised Proposal
Number of parent parcels	5 properties	5 properties	5 properties
Total Parent parcel size	13.8 ha	13.8 ha	13.8 ha
Number of proposed lots	Approximately 10	166	131
Lot Dimensions	10 lots @ 36 m x 60 m	166 lots @ 9 m X 26 m	41 lots @7.3 m x 18.2 m 88 lots @7.9 m x 21.3 m 2 suburban sized lots
Lot Area	4000 sq. m	234 sq. m	41 lots @ 133 sq. m 88 lots @ 168 sq. m 2 lots @ 2.7 – 3.2 acres
Zone equivalent	RS-2	Larger than R-3	Smaller than R-3
Number of storeys	Up to 2.5	1	2
Density Bonus	Not applicable	No information	\$5,000/lot = \$645,000
Floodplain	Would need to be addressed	No information	Information provided

Amenity Framework Proposal

The former Council expressed a desire for the applicant to provide an amenity framework for the development proposal that would both justify the significant increase in density beyond the OCP land use designation and demonstrate the community benefit over the life time of the project. In response, the applicant proposes to provide an amenity contribution of \$5,000.00 per lot. At this point in time, no discussion of how this contribution would be allocated has taken place. Other amenity contributions that the applicant has put forward include:

- adaptable housing
- aging in place
- senior empty nester
- affordable housing

- unique housing type and form
- contribution to public art
- community van

The applicant has explained that the adaptable housing and aging in place aspects of the development that will be achieved using the *Saferhomes Standards* developed by the Saferhomes Standards Society, a non-profit, public interest organization, whose mandate is to encourage a safer home environment and a better standard of living for all people through its certified building standards. These standards include wider doorways and hallways, lower light switches and higher electrical plug-ins, and stairway and closet design to support future installation of an elevator or stairway lift.

The applicant has indicated that the lots will be market housing, and the developer will price the units for the affordable seniors market or those downsizing from their existing larger single family homes. Additionally, the applicant describes the smaller housing size and detached form geared towards seniors as a unique housing type that is currently not found in Maple Ridge. The floorspace for the units will range from 67 m² (725 ft²) for one bedroom, to 143m² (1,541 ft²) for a two bedroom unit. It is noted that no mechanisms are proposed by the applicant to ensure housing affordability. The sales price will be driven by market demand and similar pricing in the area.

Floodplain Information

The resubmission information indicates that 57,445 cubic metres of fill will need to be brought onto the development site to raise the elevation of the building area approximately 3 metres for flood protection purposes. Based on a standard truckload of 7 cubic metres, the required amount of fill is equal to 8,206 truck loads, and this number of loads would increase based on a 6 cubic metre truck load calculation. Flood protection construction consideration will not allow the applicant to proceed with a one storey modular home product, as the inhabitable portions of the home must be raised to a higher elevation. This design requirement undermines the intent of the original proposal to provide accessible housing, as stairs would be needed.

c) Alternatives:

This addendum report is provided to Council for information purposes, to present the changes that the applicant has made to the proposal. Council has the option to consider the deferred motion from September 30, 2014, as follows:

That first reading for properties located at 23895 124 Avenue; 12507, 12469, 12555, and 12599 240 Street be denied.

Alternatively, Council may choose to direct staff to bring forward a zone amending bylaw for first reading, or defer a decision pending further information.

CONCLUSION:

A revised design submission was provided by the applicant on December 22, 2014, showing an option for altering the original development application. The option proposes fewer lots, however the lots are now smaller than the R-3 (Residential District) zone, which is the smallest single family zone available within the Urban Area Boundary. The revision is not reflective of RS-1c (One Family Urban (Low Density) Residential) zone densities, which were the highest density the former Council indicated as supportable in the deferral resolution dated September 30, 2014. This report is provided for information purposes and to update Council on what has occurred with the application since the item was deferred.

“Original signed by Diana Hall”

Prepared by: Diana Hall
Planner II, MA, MCIP, RPP

“Original signed by Christine Carter”

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

“Original signed by David Pollock” for

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

“Original signed by Jim Rule”

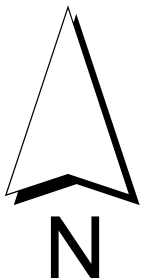
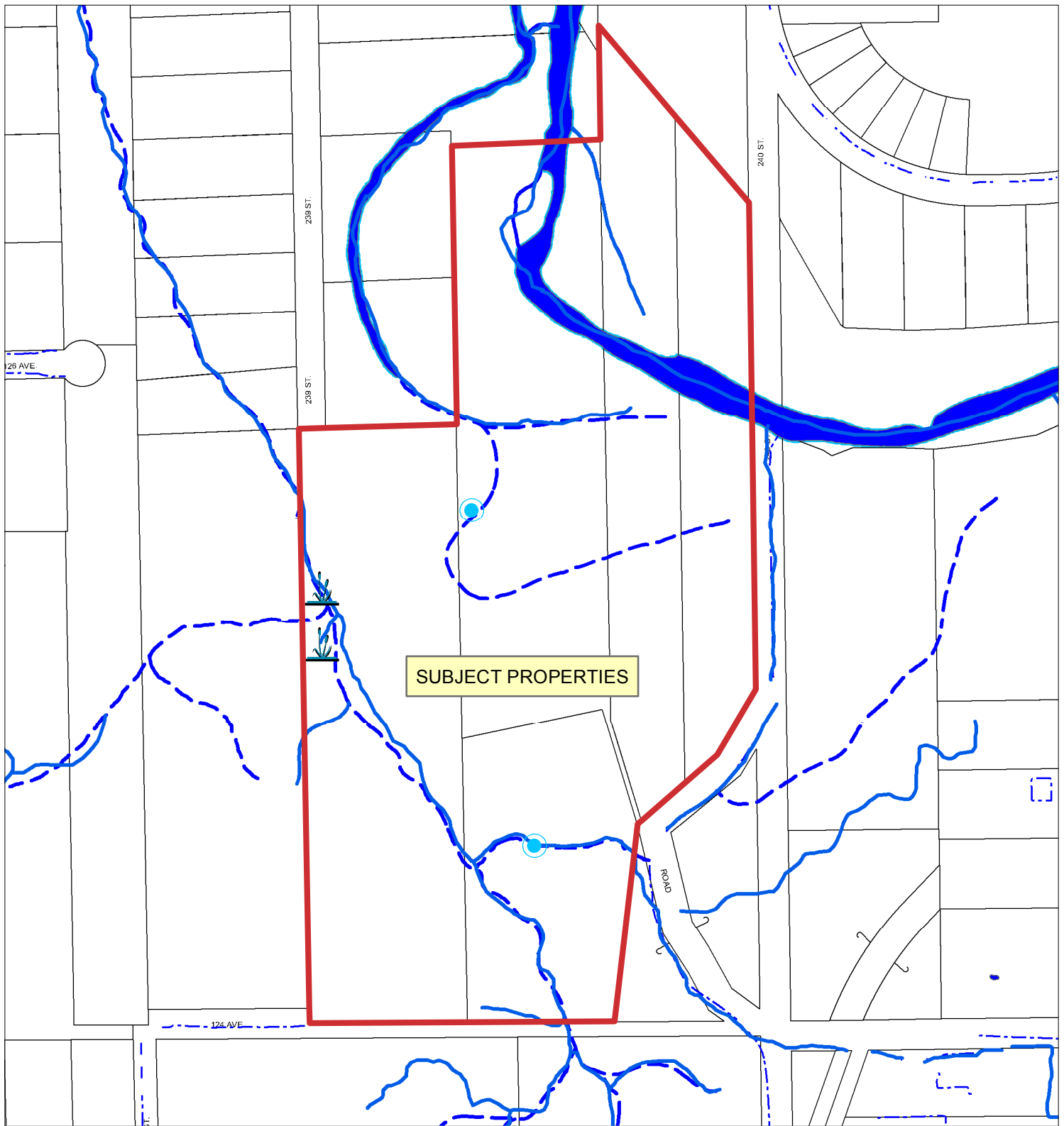
Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

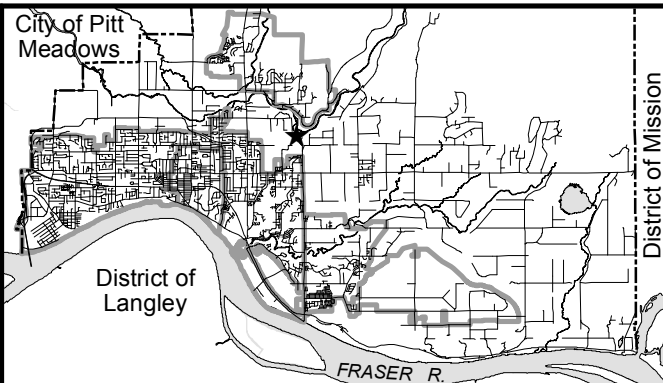
Appendix A – Subject Map

Appendix B – First Reading Report dated September 15, 2014

Appendix C – Revised Site Plan



Scale: 1:3,500



23895 124 AVENUE & 12469, 12507,
12555 & 12599 240 STREET



**CORPORATION OF
THE DISTRICT OF
MAPLE RIDGE**
PLANNING DEPARTMENT

DATE: Feb 19, 2014

FILE: 2014-013-RZ

BY: PC



City of Maple Ridge

TO: His Worship Mayor Ernie Daykin
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: First Reading
23895 124 Avenue
12507, 12469, 12555, and 12599 240 Street

MEETING DATE: September 15 2014
FILE NO: 2014-013-RZ
MEETING: C of W

EXECUTIVE SUMMARY:

An application has been received to rezone the subject properties from RS-3 (One Family Rural Residential) to allow for a 166 unit strata development consisting of modular homes. The proposed plot size averages 237 m² (2500 ft²) per lot. The subject properties are designated *Estate Suburban Residential*, and are located outside of the District's Urban Area Boundary, but are within the Region's Urban Containment Boundary and the Fraser Sewerage Area. The prescribed zones in this designation are RS-2 (One Family Suburban Residential) and RG-2 (Suburban Residential Strata), as outlined in Appendix C of the Official Community Plan (OCP). The housing form associated with this designation is low density single detached or strata housing units with minimum lot areas of 0.4 ha (1 acre), and an average density of 2.5 units per net hectare.

The housing form proposed by this application is modular single storey detached residential units that could be wheelchair accessible. This application would contribute to the diversity of Maple Ridge housing stock and therefore the housing form it proposes is supportable. However, this application proposes residential densities that are not appropriate outside of the Urban Area Boundary. The application as proposed is for 166 units with a density in the range of 41.5 units per net hectare, which is similar to the R3 small lot densities found in the Albion growth area (i.e. Country Lane). The subject site is outside of the Urban Area Boundary, and is considered unavailable for urban development. On this basis it is recommended that this application be denied.

This report will review this application in light of previous Council decisions about extending the Urban Area Boundary, and the 2004 Council decision to reaffirm Thornhill for future urban development as part of the review of the OCP. A number of alternatives are outlined for Council consideration including developing the subject properties in compliance with the OCP at densities of 2.5 units per net hectare, or working with staff to increase the density at a level not exceeding 12 units per net hectare based on a density bonus framework to accomplish a range of housing tenure diversity, affordability, and special needs housing. A third alternative is to direct staff to undertake a policy review of the *Estate Suburban Residential* land use designation, with a comprehensive servicing capacity and traffic assessment in relation to growth management and the OCP policy framework. It should be noted that this third option is likely not achievable until 2016.

RECOMMENDATIONS:

That first reading for properties located at 23895 124 Avenue; 12507, 12469, 12555, and 12599 240 Street be denied.

DISCUSSION:

a) Background Context:

Applicant: Bissky Architecture and Urban Design Inc.

Owners: Jacqueline Vanier
Daniel and Christine Olson
Karen Campbell
0790573 BC Ltd.

Legal Descriptions: Lot: 2, Section: 21, Township: 12, Plan: NWP3017
Lot: 2, Section: 21, Township: 12, Plan: NWP10558
Lot: 3, Section: 21, Township: 12, Plan: NWP10558
Lot: A, Section: 21, Township: 12, Plan: NWP9912
Lot: A, Section: 21, Township: 12, Plan: NWP9912

OCP:
Existing: Estate Suburban Residential
Proposed: Urban Residential, Conservation

Zoning:
Existing: RS-3 (One Family Rural Residential)
Proposed: Yet to be determined

Surrounding Uses:

North:	Use:	Single Family Residential
	Zone:	RS-3 (One Family Rural Residential)
	Designation:	Estate Suburban Residential
South:	Use:	Single Family Residential
	Zone:	RS-3 (One Family Rural Residential)
	Designation:	Agricultural and Estate Suburban Residential
East:	Use:	Single Family Residential
	Zone:	RS-3 (One Family Rural Residential)
	Designation:	Estate Suburban Residential
West:	Use:	Single Family Residential
	Zone:	RS-3 (One Family Rural Residential)
	Designation:	Agricultural and Suburban Residential

Existing Use of Property: Single Family Residential (Rural)
Proposed Use of Property: Single Family Residential (Intensive Urban Strata)

Site Area:	13.8 ha (34 acres)
Access:	240 Street (both south and north, via Fern Crescent), 239 Street
Servicing requirement:	Urban Standard

b) Site Characteristics:

The five subject properties are located to the south of the Silver Valley Horse Hamlet in the vicinity of 240th Street and 124th Avenue. The South Alouette River bisects two of the five properties, with the majority of the lands located south of the river. Portions of the properties are located above an aquifer and are also located in the localized floodplain of the South Alouette River. A number of watercourses are located on or adjacent to the subject properties in addition to the South Alouette River including two branches of Latimer Creek, Latimer Channel and two indefinite watercourses. Four of the five subject properties are currently accessed via 240 Street, constructed to a gravel road standard on the south side of the river. The fifth property is currently accessed via 124th Avenue.

c) Project Description:

The development proposal is for a total of five properties totalling approximately 13.8 ha (34 acres) of land in the northwest corner of 124th Avenue and 240th Street. The applicant proposes to rezone the subject properties to enable a strata development of 166 residential strata lots approximately 237 m² (2500 ft²) in size, each of which would contain a modular rancher home that is constructed elsewhere and placed on the property. Based on preliminary discussions with the applicant, the modular home product is proposed to resemble a regular single storey home, the only differentiation being the methods and location of construction.

The development spans a significant distance, and proposes three main accesses. One access is from 240 Street on the south side of the South Alouette River, and a second access is from 239 Street. These two entrances will service the 134 lots proposed on the south side of the river. The third access is located on the existing unopened 240 Street road allowance located on the north side of the river via Fern Crescent. This entrance will provide access to 32 lots proposed on the north side of the river. Other elements of the proposal include park dedication for conservation purposes of Latimer Creek, Latimer Channel, and South Alouette River; a nature interpretive centre, as well as several parking and common areas.

d) Planning Analysis:

Official Community Plan:

The development site is currently designated *Estate Suburban Residential*. For the proposed development to proceed, an OCP amendment would be required to amend the Urban Area Boundary in order to re-designate the site to *Urban Residential* to allow the density as proposed by the applicant. Portions of the site will also need to be designated *Conservation*. Multiple sections of the Official Community Plan have relevance to this application. They are as follows:

- Chapter 3, *Neighbourhoods and Housing*, which discusses compatible development, expansion into the Urban Reserve, and density bonusing for specific housing options;
- Chapter 5, *Natural Features*, which discusses floodplain development;
- Chapter 6, *Employment*, which discusses development adjacent to agricultural land;

- Chapter 8, *Development Permit Area Guidelines*, which creates special requirements for certain forms of development and for the protection of natural features and ecologically significant land; and
- Appendix C, which aligns specific zones with land use designations.

Land Use Designation and Neighbourhood Context:

The development site is currently designated *Estate Suburban Residential*. Section 3.13 of the Official Community Plan states the following regarding the *Estate Suburban Residential* land use designation:

The Estate Suburban Residential designation permits single detached or duplex housing in areas outside the Urban Area Boundary.

The zones prescribed by this designation are RS-2 (One Family Suburban Residential) and RG-2 (Suburban Residential Strata). The permitted densities average 0.4 hectares (1 acre) per dwelling unit. The *Estate Suburban Residential* designation indicates that the subject properties are outside of the District's Urban Area Boundary, but could be serviced with sanitary sewer without requiring approval from the Greater Vancouver Sewerage and Drainage District as they are within the Fraser Sewer Area.

Aspects of this proposal are supportable as it would meet a specific housing need. However, the proposed 166 units would amount to over 40 units per net hectare, which represents a significant increase in density.

The supportable density land use designation of the *Estate Suburban Residential* is 2.5 units per net hectare, or 0.4 hectare (1 acre) lots, which would amount to a total of 10 units on the subject site. The following OCP policy guides development in the *Estate Suburban Residential* land use designation:

Policy 3-14 Urban level residential densities will not be supported in areas designated Estate Suburban Residential.

Density Bonusing:

The Official Community Plan contains provisions that could be used to support an increased number of units than that prescribed by the zone and land use designation. Through these provisions, an applicant would receive greater development potential (generally more residential units) in exchange for providing a specific community benefit. These benefits could include:

1. Ecological, which could pertain to the protection of features such as significant stands of trees or parkland above what would normally be required
2. Affordable, rental, and special needs housing provisions contained within the development proposal.
3. Community Amenity, which would allow a financial contribution for a specific community amenity. Currently, this provision is only allowed in the Albion area.

A density bonus approach for tree protection purposes is currently under consideration by Council for another application within this neighbourhood, at 23627 and 23598 Dogwood Avenue (2014-054-RZ). The proposed densities of this nearby application are equivalent to the RS1-c Zone, or 1200 m² (13,000 ft²) lots.

The potential of this application to meet specific housing needs could be considered in a density bonus formula. Policy 3 - 30 of the Official Community Plan would support such an initiative, as follows:

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

It is noted that the applicant has emphasized that this higher density housing form would be an accessible and affordable form of home ownership. The estimated market value per unit would be under \$300,000.00 and these units have potential to be wheelchair accessible¹.

This consideration would require further investigation and a commitment to specific measures such as: accessible units, rental secured in perpetuity through a Section 905 Housing Agreement; and/or non market housing units; and one level rancher styled units. All these suggestions are supported through current OCP policies and are reaffirmed in the draft Housing Action Plan.

If a density bonus was applied to this proposal that was consistent with the Dogwood Avenue application, with similar densities, the total number of units would be approximately 48 over this 4 hectare development site. Further discussion about density bonusing is included further in this report.

Based on the land use context of the Horse Hamlet, Official Community Plan policies do not support the development of lands north of the Alouette River as part of this development proposal. The portions of the subject properties on the north side of the river are geographically separated from the land on the south side of the river, and are best considered in relationship to the large RS-3 (One Family Rural Residential) lots already established along the south side of Fern Crescent. In consideration of this context, the development of this area should remain in accordance with the *Estate Suburban Residential* land use designation. It should also be noted that the dedication of this area could be used as a density bonus provision that would allow for increased density in the larger developable southern portion of the site.

This application proposes urban levels of density, with a proposed lot size of 237 m², in an area of Maple Ridge that has not been designated for urban development, and whose neighbourhood context is a mix of large lot suburban and agricultural parcels. Properties along 239 Street and in the Academy Park neighbourhood have been developed in accordance with the *Estate Suburban Residential* designation, characterized by 0.4 hectare (1 acre) lots and high improvement values, indicating that these adjacent properties are not likely for infill and re-development in the foreseeable future. As development of these lands has occurred in accordance with the stated direction of the community, subsequent developments should be sensitive to this context

Additionally, large agricultural lots are located south and west of the subject properties; and an established neighbourhood with a variety of historic lot size is located north of the development site adjacent to the Silver Valley Horse Hamlet.

This development cannot proceed as proposed without an OCP amendment to re-designate the subject properties to *Urban Residential* and *Conservation*, as well as include it within the District's Urban Area Boundary. As the development proposal cannot be supported based on Policies 3-2 and 3-14, the Planning Department does not support an Official Community Plan amendment to include the subject properties within the District's Urban Area Boundary, or to amend the land use designation to *Urban Residential*.

¹ It should be noted at this time that the proposed development and its affordability are entirely market driven.

Urban Area Boundary Adjustment

There are several key OCP policies that do not align with expanding the Urban Area Boundary to include the subject properties and develop them to an urban density as proposed by the applicant. These policies are outlined and discussed below, and in subsequent sections of this report.

Policy 3 - 22 Maple Ridge will avoid non-contiguous expansion of the Urban Area Boundary.

The subject properties are bounded by *Agricultural* and *Estate Suburban Residential* designated land. Expansion of the Urban Area Boundary to include these properties is therefore not supportable. Additionally:

Policy 2 - 6 Maple Ridge supports and maintains the Urban Area Boundary recognizing the role that it has on limiting urban expansion, preserving community character, reducing land speculation within the Agricultural Land Reserve and protecting the agricultural land base, and in providing for the efficient delivery of services. Adjustments to the Urban Area Boundary:

- a) will only be supported if the District has an adopted Agricultural Plan;*
- b) will be considered in cooperation with the Agricultural Land Commission and Metro Vancouver; and*
- c) will only be conducted during a Comprehensive Official Community Plan review, or Council directed Comprehensive Urban Area Boundary review, and applications considered outside of either review are considered premature.*

Policy 2-6 outlines the importance of maintaining the Urban Area Boundary as a way to preserve community character and protect agricultural lands. The policy also outlines the circumstances required in considering an adjustment to the Urban Area Boundary. The Urban Area Boundary was considered by Council in 2009-2011 as a component of the Regional Growth Strategy review, and no changes were directed at that time.

Thornhill Urban Reserve:

In addition to the above noted Urban Area Boundary policies of the OCP, an Urban Area Boundary adjustment and OCP amendment to *Urban Residential* is also not supportable due to the decision to allocate the Thornhill area as a future Urban Reserve growth area. Prior to the adoption of the Official Community Plan in 2006, there was significant dialogue about retaining the Thornhill area as an Urban Reserve. In 2004, consultant services were retained to evaluate where to accommodate population growth in the community. Growth options included expanding northward (on lands that included the subject properties) or retaining Thornhill for future growth. After consideration of the consultant's report and public input, Council directed that Thornhill be retained for future growth in the Official Community Plan.

On December 13, 2004, Council passed the following resolution:

That Option 2 (Status Quo – Thornhill) be indicated as Council's preferred option during the public consultation phase of the review of the Official Community Plan.

The 2006 Official Community Plan was adopted with the retention of Thornhill as the *Urban Reserve*, defined as a land use designation which *identifies lands identified by the District for long term future urban level services and housing, subject to compliance with Section 1.3.5 of the OCP*. In addition, specific triggers were established indicating when development could proceed. Policy 3-24 states the following:

Policy 3 - 24 Maple Ridge will retain the Thornhill area as a long term Urban Reserve area. Urban development will not be supported in the Thornhill Urban Reserve Area until the population threshold exceeds 100,000 people for the District and the residential capacity within the existing urban area is approaching build-out.

As there are significant implications for future growth patterns in Thornhill, the urban density proposed for the subject properties is not supportable.

Agricultural Interface:

The subject properties are adjacent to land located in the Agricultural Land Reserve to the west and south of the site. The following OCP policies apply to development adjacent to agricultural land:

Policy 6 - 12 Maple Ridge will protect the productivity of its agricultural land by:

...

b) requiring agricultural impact assessments (AIAs) and Groundwater Impact Assessment of non-farm development and infrastructure projects and identifying measures to off-set impacts on agricultural capability;

c) preserving larger farm units and areas by using appropriate buffers such as roads, topographic features, watercourses, ditching, fencing, or gradually reduced residential densities on properties adjacent to agricultural land;

...

As a requirement of development on the subject properties, an Agricultural Impact Assessment as outlined in item b) above would be required. An agricultural buffer would also be used to reduce the impact on the existing agricultural properties.

Zoning Bylaw:

The current application proposes to rezone the subject properties located at 23895 124 Avenue, 12507, 12469, 12555 and 12599 240 Street from RS-3 (One Family Rural Residential) to enable a strata development of 166 lots, each of which would contain a modular single storey home that is constructed elsewhere and placed on the property. Appropriate Zoning Bylaw amendments will need to be created, and are dependent upon direction by Council.

Development Permit:

The proposed development would be situated on portions of the site that are entirely within the floodplain of the south Alouette River. A Natural Features Development Permit would be required, and the services of a qualified professional would be required to determine site specific flood construction levels. Bringing in sufficient fill to raise this high density development sufficiently could have potential impacts on adjacent environmentally sensitive lands and could alter river flows on high flow periods. On this basis, it should be noted that the proposed single storey accessible housing form could prove challenging at this location.

e) Intergovernmental Implications:

The subject properties are designated *General Urban* in the Regional Growth Strategy and are located within the Urban Containment Boundary. The *General Urban* designation indicates that the subject properties can be serviced with sanitary sewer without requiring approval from the Greater Vancouver Sewerage and Drainage District, as they are within the Fraser Sewer Area.

Consequently, this regional designation gives Council some flexibility to direct land uses on *Estate Suburban Residential* designated lands, as no regional approvals are required in order for this application to proceed as proposed. Although the subject properties are not considered available for urban levels of development under OCP policies, Council may consider using density bonusing to achieve specific housing benefits as outlined in Policy 3-30.

f) Interdepartmental Comments:

Engineering Department:

To service the proposed development the level of engineering services currently provided will require upgrading including significant transportation, water, sanitary and drainage work. To address the increased demand placed upon the municipal systems the developer would initially be required to evaluate the water network and downstream sanitary sewer for any capacity upgrades. In addition the property is serviced by a “deadend” watermain and a secondary water connection (looped system) will need to be provided, this may require directional drilling under the Alouette River and a pressure reducing station. The sanitary system would also need to be extended from Abernethy Way including the construction of a pump station and a 750m forcemain. Access is currently provided by a gravel road and would require upgrading to a rural standard from the intersection of 141 Ave. The upgrades identified form a preliminary review of the development, additional unknown factors may be identified when the engineering referral is circulated. Consideration to a future 240 Street bridge crossing and associated fill and/or structural footprint may need to be assessed with this application.

Further Engineering review would be required upon receipt of Council direction as it relates to the potential development of this site and lands in this vicinity.

g) Alternatives:

The development concept is supportable in its form and character, and because it provides for an alternative housing form, a range of unit sizes, and responds to a known community need. However, the proposal cannot be supported under the Official Community Plan based on the urban level density being proposed. Three alternatives to the recommendation are outlined below for Council’s consideration.

Alternative 1: Support Application as Proposed

The first alternative is to support the application as proposed for 166 units. If Alternative 1 is preferred, Council will need to direct staff to bring forward a zone amending bylaw for first reading, and to identify the additional information the applicant is required to provide in accordance with Development Procedures Bylaw No. 5879-1999. It is important to recognize that there significant implications to this approach, which is not recommended.

Alternative 2: Short Term Deferral: Density Bonus Framework Using Densities Similar to RS-1c Zone

The second alternative is to develop the subject properties to a higher density than currently supported in the OCP using a density bonus framework for affordable, rental, or special needs housing, and /or for ecological diversity and the retention of forested lands. This approach is similar to the nearby Dogwood Avenue application that proposes increased residential densities in exchange for tree protection. Resulting densities would be consistent with the RS-1c Zone.

If this alternative is preferred, Council will need to direct staff to work with the applicant to bring forward a zone amending bylaw for first reading, and to identify the additional information the applicant is required to provide in accordance with Development Procedures Bylaw No. 5879-1999.

Alternative 3: Long Term Deferral: Estate Suburban Residential Designation Review

Should Council wish to explore supporting urban densities above the RS-1c Zone, or other potential alternatives for developing the subject properties not outlined in this report, a third alternative is to conduct a policy review of the *Estate Suburban Residential* designation. This alternative would involve Council directing staff to prepare a policy review of the entire *Estate Suburban Residential* land use designation, affecting approximately 207 hectares (512 acres) of *Estate Suburban Residential* designated land. A similar review was recently completed for the Albion Area Plan. It is noted at this time that the Planning Department does not have the capacity to undertake this review until the Albion Flats and Hammond Area Plans are completed.

If this alternative is preferred, Council will need to direct staff to conduct this study, noting the subject application will be deferred until the policy review is completed.

CONCLUSION:

The housing form proposed by this application is single storey ground oriented detached residential units that could be wheelchair accessible, which would contribute to the diversity of Maple Ridge housing stock. The housing form it proposes is supportable and aligns with the goals of the Housing Action Plan. However, this application proposes urban densities, with 166 units and an average density of 41.5 units per net hectare, compared to the 10 units currently permitted under the Estate Suburban designation.

This report has reviewed the subject application in light of applicable OCP policies that speak to Urban Area Boundary adjustments, neighbourhood compatibility, and the *Estate Suburban Residential* land use designation. Previous Council decisions about extending the Urban Area Boundary, and the 2004 Council decision to reaffirm Thornhill for future urban development as part of the review of the OCP have also been summarized. In summary, it is recommended that the rezoning application as proposed by the applicant be denied, as the proposal does not comply with the following OCP Policies:

- Policy 3-14, which does not permit urban densities in the Estate Suburban Residential designation;
- Policy 2-6, which stipulates the circumstances of when an Urban Area Boundary can be considered;
- Policy 3-22, which does not allow non-contiguous expansion of the Urban Area Boundary;
- Policy 3-24, which allocates Thornhill as an Urban Reserve for future urban growth.

The development proposal is not in compliance with the OCP, and would require an amendment to designate the subject properties *Urban Residential* and *Conservation*, as well as include the subject properties within the Urban Area Boundary. As outlined in this report, these required amendments do not align with the OCP, and, therefore, it is recommended that this application be denied.

“Original signed by Diana Hall”

Prepared by: Diana Hall, MA, MCIP
Planner

“Original signed by Christine Carter”

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

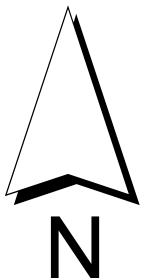
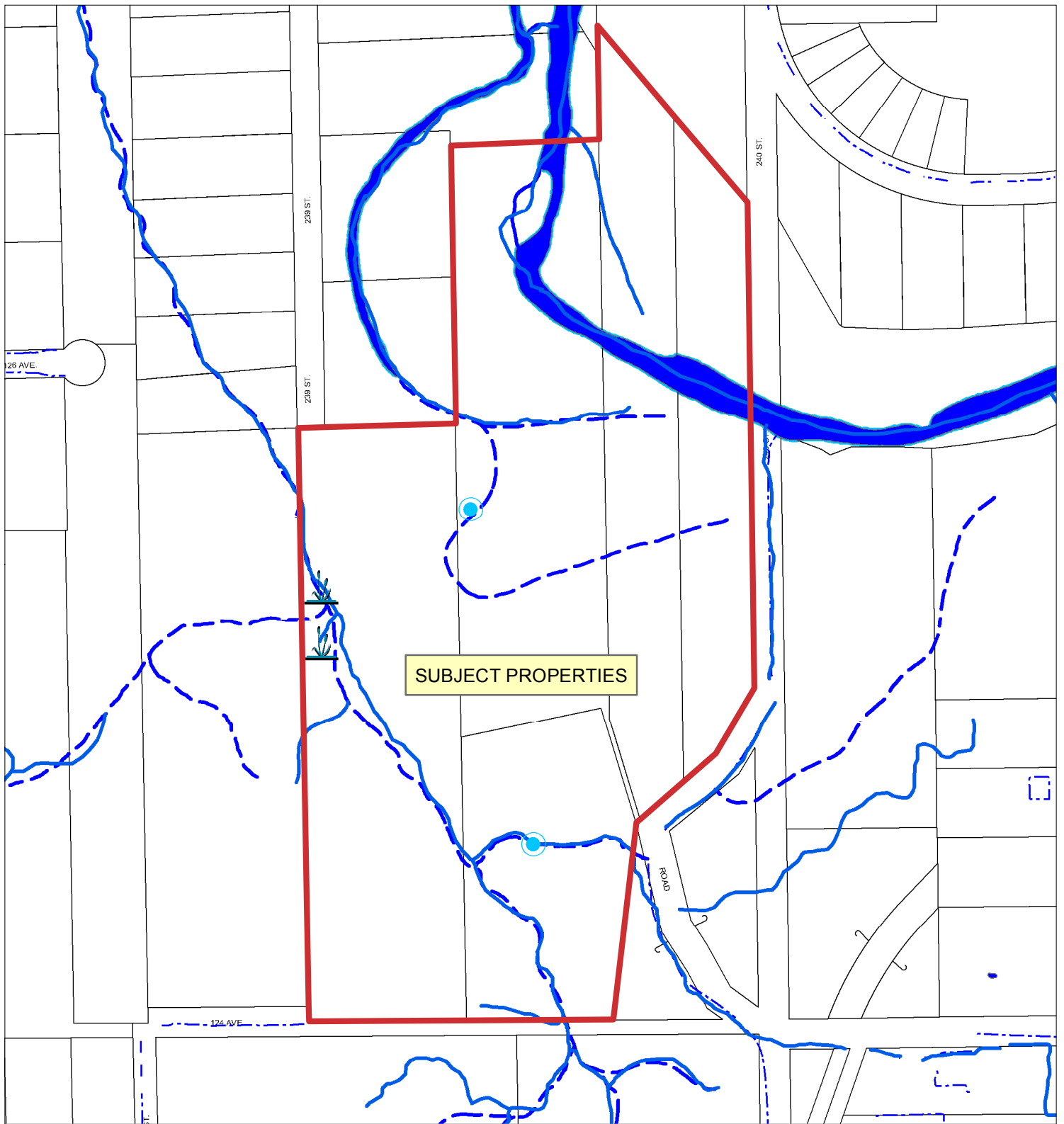
“Original signed by Frank Quinn”

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

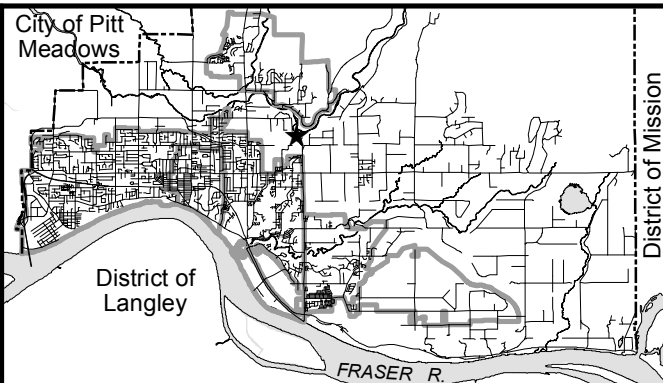
“Original signed by J.L. (Jim) Rule”

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:
Appendix A – Subject Map
Appendix B – Proposed Site Plan



Scale: 1:3,500



23895 124 AVENUE & 12469, 12507,
12555 & 12599 240 STREET

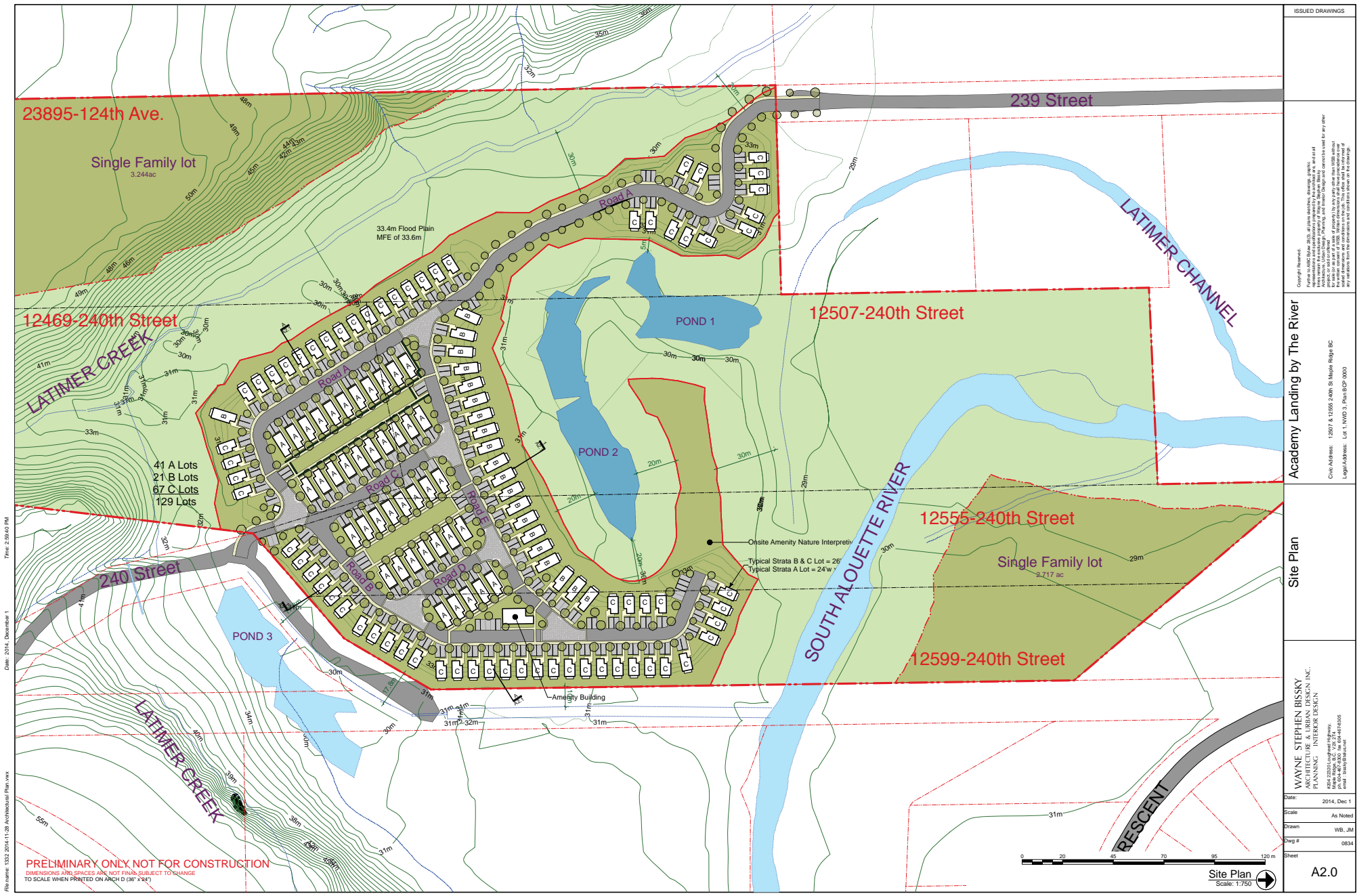


CORPORATION OF
THE DISTRICT OF
MAPLE RIDGE
PLANNING DEPARTMENT

DATE: Feb 19, 2014

FILE: 2014-013-RZ

BY: PC



ISSUED DRAWINGS

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Academy Landing by The River
Site Plan
City Address: 12507 & 12509 240th St. Maple Ridge BC
Legal Address: Lot 1, NWD 3, Plan BCP 0000

Wayne Stephen Bissky & Associates Inc.
ARCHITECTURAL, PLANNING, INTERIOR DESIGN
4000 220th Street, Suite 200, Maple Ridge BC V2X 6K6
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Email: info@wsbinc.com

Date: 2014, Dec 1
Scale: As Noted
Drawn: WB, JMT
Dwg #: 0834
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City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
MEETING DATE: April 20, 2015
FILE NO: 2011-081-RZ
MEETING: C of W
SUBJECT: First and Second Reading
Official Community Plan Amending Bylaw No. 7120-2014 and
Second Reading
Zone Amending Bylaw No. 6906-2012
23940 104 Avenue

EXECUTIVE SUMMARY:

An application has been received to rezone the subject property, located at 23940 104 Avenue, from RS-3 (One Family Rural Residential) to R-1 (Residential District) and R-2 (Urban Residential District), to permit a future subdivision of approximately 68 lots.

The subject property was excluded from the Agricultural Land Reserve (ALR) in 1998 by Resolution #454/98, as the agricultural future of the site was limited due to the conflicts associated with adjacent non-farm land uses. The property is further limited due to the presence of Spencer Creek and its associate stream channels which separates the parcel into three small blocks.

Council granted first reading to Zone Amending Bylaw No. 6906-2012 and considered the early consultation requirements for the Official Community Plan (OCP) amendment on August 28, 2012.

The subject property is designated as General Urban in the Metro Vancouver Regional Growth Strategy and is within the Fraser Sewer Area, so no Regional approvals are required. However, an Official Community Plan (OCP) amendment is required to amend the Urban Area Boundary on Maple Ridge's Generalised Future Land Use Map in the OCP and to re-designate the land from *Agricultural* to *Urban Residential* and to *Conservation* for the areas around the watercourse.

RECOMMENDATIONS:

- 1) That, in accordance with Section 879 of the *Local Government Act*, opportunity for early and on-going consultation has been provided by way of posting Official Community Plan Amending Bylaw No. 7120-2014 on the municipal website and requiring that the applicant host a Development Information Meeting (DIM), and Council considers it unnecessary to provide any further consultation opportunities, except by way of holding a Public Hearing on the bylaw;
- 2) That Official Community Plan Amending Bylaw No. 7120-2014 be considered in conjunction with the Capital Expenditure Plan and Waste Management Plan;
- 3) That it be confirmed that Official Community Plan Amending Bylaw No. 7120-2014 is consistent with the Capital Expenditure Plan and Waste Management Plan;
- 4) That Maple Ridge Official Community Plan Amending Bylaw No. 7120-2014 be given first and second readings and be forwarded to Public Hearing;

- 5) That Maple Ridge Zone Amending Bylaw No. 6906-2012 be amended as identified in the staff report dated April 20, 2015, be given second reading, and be forwarded to Public Hearing;
- 6) 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) Approval from the Ministry of Transportation and Infrastructure;
 - iii) Amendment to Official Community Plan Schedules "B" and "C";
 - iv) Park dedication as required, including construction of walkways, multi-purpose trails; and removal of all debris and garbage from park land;
 - v) Registration of a Restrictive Covenant and Access Easement for the offsite compensation works around the watercourse north-east of the subject property;
 - vi) Registration of a Restrictive Covenant for the geotechnical and floodplain report, which addresses the suitability of the subject property for the proposed development;
 - vii) Proof of submission for review or approval from the Ministry of Forests, Lands and Natural Resource Operations for changes in and about a stream prior to beginning in-stream works;
 - viii) Proof of submission of notification to the Department of Fisheries and Oceans for the relocation and enhancement of Spencer Creek and Mainstone Creek; and
 - ix) 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 property. If so, a Stage 1 Site Investigation Report is required to ensure that the subject property is not a contaminated site.

DISCUSSION:

1) Background Context:

Applicant: Don Bowins
Owners: John and Steve Wynnyk

Legal Description: Lot 6, District Lot 405, Group 1, New Westminster District Plan 60014

OCP:

Existing: Agricultural
Proposed: Urban Residential and Conservation

Zoning:

Existing: RS-3 (One Family Rural Residential)
Proposed: R-1 (Residential District) and R-2 (Urban Residential District)

Surrounding Uses:

North:	Use:	Park and Single Family Residential
	Zone:	RS-3 (One Family Rural Residential) and RS-1b (One Family Urban (Medium Density) Residential)
	Designation:	Urban Residential and Parks within the ALR
South:	Use:	Agricultural (Horse Training Facility)
	Zone:	RS-2 (One Family Suburban Residential) and RS-3 (One Family Rural Residential)
	Designation:	Agricultural
East:	Use:	Park and Single Family Residential
	Zone:	RS-1b (One Family Urban (Medium Density) Residential), RS-2 (One Family Suburban Residential) and RS-3 (One Family Rural Residential)
	Designation:	Conservation and Urban Residential
West:	Use:	Fairgrounds, Ice Rink and Sports Fields
	Zone:	CD-4-88 (Agricultural Events, Special Events, etc.)
	Designation:	Parks within the ALR
Existing Use of Property:		Vacant
Proposed Use of Property:		Single Family Residential
Site Area:		5.3 ha (13 acres)
Access:		104 Avenue and Slatford Place
Servicing requirement:		Full Urban

2) Background:

The subject property was excluded from the ALR in 1998 by Resolution #454/98, as the agricultural future of the site was limited due to the conflicts associated with adjacent non-farm land uses, and the property is further limited due to the presence of Spencer Creek and its associate stream channels which separates the parcel into three small blocks. In 2008, the property was removed from the Green Zone in the Livable Region Strategic Plan, and in 2011 was re-designated General Urban in the Regional Growth Strategy.

At the March 27, 2012 Council Meeting, Council defeated staff's recommendation to defer first reading of Zone Amending Bylaw No. 6906-2012 pending adoption of an Albion Flats Concept Plan. The motion was amended that Zone Amending Bylaw No. 6906-2012 be deferred for a period of no longer than four months, at which time an updated recommendation from staff would be brought forward to Council. At the August 28, 2012 Council Meeting, Council defeated staff's recommendation to defer first reading of Zone Amending Bylaw No. 6906-2012 pending the outcome of the exclusion applications for properties to the north of 105 Avenue and the subsequent adoption of an Albion Flats Concept Plan. First reading was granted on August 28, 2012, and the applicant was directed to provide further information as described on Schedules A, C, and G of the *Development Procedures Bylaw No. 5879-1999*, along with a Subdivision application (see Appendix A for previous Council reports and Council resolutions).

Timeline:

Pursuant with the Council Resolution, a letter was sent on September 12, 2012 requesting the information required on Schedules A, C, and G and the Subdivision application. The applicant worked on the subdivision layout and requested variances to the setback to the creeks. In order to compensate for the reduced environmental setbacks, the applicant needed to provide a net benefit to the environment. Offsite compensation works to the north-east of the site were incorporated into the development plan to accomplish this net benefit. The applicant made their application for the Watercourse Development Permit application on July 11, 2014, the Subdivision application on September 25, 2014, and the Development Variance Permit application on February 16, 2015. Near the end of 2014, the application changed hands from Genstar to Morningstar Homes, resulting in further changes to the subdivision layout and proposed zoning. An updated Environmental Assessment, Subdivision Plan, and Geotechnical Report were received in February 2015, and the Development Information Meeting was held on March 5, 2015. Based on the review of the submitted information, the application is considered feasible and able to proceed for second reading and Public Hearing.

3) Project Description:

The subject property is located on the southwest corner of 104 Avenue and Slatford Place and is approximately 5.3 ha (13 acres) in area (see Appendix B). The subject property is bounded to the north by 104 Avenue and RS-1b (One Family Urban (Medium Density) Residential) zoned properties; to the east by Spencer Creek and Slatford Place and RS-1b (One Family Urban (Medium Density) Residential), RS-3 (One Family Rural Residential) and RS-2 (One Family Suburban Residential) zoned properties; to the south by an RS-3 (One Family Rural Residential) and RS-2 (One Family Suburban Residential) zoned agricultural property that is still within the ALR; and to the west by a city-owned Fairground and playing fields (CD-4-88 Comprehensive Development zone).

The applicant is proposing to rezone the subject property from RS-3 (One Family Rural Residential) to 10 R-1 (Residential District) zoned lots on the north of the property, and 58 R-2 (Urban Residential District) zoned lots on the interior of the property.

4) Planning Analysis:

i) Official Community Plan:

The subject property is designated *Agricultural*, and is within the Albion Flats Area Plan boundaries (see Appendix C). As this application is proceeding in advance of the Albion Flats Area Plan, an OCP amendment to re-designate the subject property from *Agricultural* to *Urban Residential* and *Conservation* is required. The OCP Land Use Schedule will also need amending to include the subject property within the Urban Area Boundary (see Appendix D).

The proposed OCP designation is *Urban Residential – Major Corridor*, as 104 Avenue is identified as a Major Corridor on Figure 4 of the OCP. The *Urban Residential – Major Corridor* designation includes ground-oriented housing forms such as single-detached dwellings, garden suites, duplexes, triplexes, fourplexes, townhouses, apartments, or small lot intensive residential, subject to compliance with Major Corridor Residential infill policies. The R-1 (Residential District) and R-2 (Urban Residential District) zones are in compliance with the OCP designation.

ii) **Albion Flats and the Agricultural Land Reserve:**

As noted above, the subject property is designated *Agricultural*, and is within the Albion Flats Area Plan boundaries.

The history of the Albion Flats Area Plan process was presented at the Council Workshop of March 16, 2015. A report on the land use options and process is being prepared for Council discussion to be presented at an upcoming Council Workshop meeting. The Area Plan will determine future land uses, including land uses to the south of the subject property, which have not yet been determined. The proposed subdivision plan suggests future road connections that may or may not occur, depending upon the outcome of the area plan process.

The subject property was excluded from the Agricultural Land Reserve (ALR) in 1998 by Resolution #454/98, as the agricultural future of the site was limited due to the conflicts associated with adjacent non-farm land uses. The property is further limited due to the presence of Spencer Creek and its associate stream channels which separates the parcel into three small blocks.

Additionally, in October 2011, the Agricultural Land Commission discussed the Albion Flats Concept Plan and provided the following decision related to this area of the plan (Appendix E):

“...that while the Commission is prepared to cooperate towards future commercial or industrial development at Albion Flats, it will do so in conjunction with restoration of an agricultural future of that part of Albion Flats lying to the north of 105 Avenue; and that focusing on the area north of 105 Avenue, the Commission will expect the DMR to undertake a comprehensive review of drainage and stream flow condition in the Road Thirteen Dyking District with a view to resolving issues identified in the Golder Associates overview agricultural assessment and the HB Lanarc environmental baseline report, that review to include:

- preliminary consultation with Fisheries and Oceans Canada,*
- preparation of an agricultural remedial action plan...to address all relevant issues including but not limited to drainage, long-term access, buffering or consolidation, and*
- design to ensure that traffic patterns enable practical access and use by farm vehicles;*

AND THAT the Commission will expect DMR to submit an application under section 29 of the Agricultural Land Commission Act to exclude from the ALR the land lying south of 105 Avenue and west of 240 Street together with any remnant areas elsewhere in DMR identified by the Commission as being unsuitable for agriculture; Commission approval of such an application may be in part or in whole conditional on progress toward the foregoing action plan;”

The above suggests that exclusion of the lands to the south 105 Avenue is dependent upon a remedial action plan for lands to the north of 105 Avenue. One of the key issues will be funding the drainage improvement required for the area. The land use options and process report currently being prepared will highlight this issue. One option Council could consider is that a fee is charged to each property to contribute to the required drainage improvements. As this application is being advanced ahead of the remedial action plan and Area Plan, any new lots created would be exempt from paying the drainage improvement fee, unless required as a condition of zoning approval.

iii) **Metro Vancouver:**

The subject property is designated *General Urban* in the Regional Growth Strategy and is within the Metro Urban Containment Boundary. The subject property is also located within the Fraser Sewerage Area. No regional approvals are required.

iv) **Zoning Bylaw:**

As discussed above, the proposed OCP designation is *Urban Residential – Major Corridor*, as 104 Avenue is identified as a Major Corridor on Figure 4 of the OCP. Although the subject property is considered as a whole to be along a major corridor, Spencer Creek bisects the property in such a way that the properties fronting 104 Avenue should be considered *Major Corridor*, whereas the properties within the development site, which are accessed by Slatford Place, should be considered *Neighbourhood Residential Infill*. It is also noted that these lands abut lands in the ALR and given that the *Agricultural* land use designation remains, lower density use remains the most appropriate.

The proposed R-1 (Residential District) lots to the north are proposed to be wider than what is required under the zone (15.5m (51ft) proposed, versus 12m (39ft) required), in order to be consistent with the RS-1b (One Family Urban (Medium Density) Residential) zoned properties to north, across 104 Avenue, which have a minimum width requirement of 15m (49 ft). The minimum lot area for R-1 (Residential District) zoned lots is 371m² (4,000ft²). The R-1 (Residential District) lots are proposed to be a minimum of 465m² (5,000ft²), up to 580m² (6,240ft²).

The minimum lot area for R-2 (Urban Residential District) zoned lots is 315m² (3,390ft²). The R-2 (Urban Residential District) lots are proposed to be a minimum of 315m² (3,390ft²) up to 541m² (5,800ft²) (see Appendices F and G). Note that Zone Amending Bylaw No. 6909-2012 has been amended since it received first reading on August 28, 2012 to revise the RS-1B (One Family Urban (Medium Density) Residential) zone to the R-1 (Residential District) zone, and to revise the R-1 (Residential District) zone to the R-2 (Urban Residential District) zone.

Both *Urban Residential – Major Corridor* and *Neighbourhood Residential* designations meet OCP Policy 3-21 for infill developments, as discussed above. Park dedication is provided along Slatford Place which will act as a natural buffer between the proposed higher density subdivision, from the existing lots fronting Slatford Place. In addition, the proposed development has paid particular attention to the following:

- the ability of the existing infrastructure to support the new development, as the development is within the Fraser Sewer Area and will meet the stormwater management requirements for handling run-off onsite without impacting neighbouring properties;
- the compatibility of the site design, setbacks, and lot configuration with the existing pattern of development in the area, as the development consists of single family lots, with wider lots fronting 104 Avenue to be consistent with the existing lots fronting 104 Avenue;
- the compatibility between building massing and the type of dwelling units in the proposed development and the surrounding residential properties, as the development will consist of three-storey, single-family homes, which is slightly taller than permitted within the surrounding area, but consistent with newer developments;

- the location, orientation, and visual impact of vehicle access/egress in relation to:
 - i. adjacent developments, as only one additional road access is provided off Slatford Place; and
 - iii. the pedestrian environment, as walkway are provided to access the neighbouring park;
- minimizing adverse parking and traffic impacts on the existing neighbourhood, as two off-street parking spaces are provided per lot, as well as additional on-street parking being provided;
- a gradual transition of scale and density through the design of building mass and form, such as:
 - ii. location of lower density components towards the perimeters of a site, as provided along 104 Avenue; and
 - iii. concentration of density to the centre of a development or towards a non-residential boundary, as provided for the proposed R-2 (Urban Residential District) zoned lots;
- retention and preservation of significant trees, other natural vegetation, and environmental features, as Spencer and Mainstone Creek will be significantly enhanced and improved as a condition of the development of the subject property; and
- maintaining adequate light, view and privacy for residents on adjacent properties or in adjacent neighbourhoods, through developing single family development, rather than multi-family development, as could otherwise be permitted under the *Urban Residential – Major Corridor* designation.

v) **Off-Street Parking and Loading Bylaw:**

The applicant will need to provide two parking spaces per dwelling unit, as per the *Off-Street Parking and Loading Bylaw No. 4350-1990*, and will need to comply with Section 403 (7) of the *Zoning Bylaw No. 3510-1985*, which states that there needs to be 7.5m (25ft) of visual clearance at an intersection with a street, preventing the construction of any fence, wall, or structure within that distance. Section 401 (3) of the *Zoning Bylaw* also prohibits a driveway that is within 7.5m (25ft) of the point of intersection of an exterior side lot line with a front lot line or rear lot line.

vi) **Proposed Variances:**

A Development Variance Permit application has been received for this project and involves the following relaxations (see Appendix H):

- To increase the maximum height of the R-1 (Residential District) zoned lots from 9m (30ft) to 11m (36ft)
- To increase the maximum height of the R-2 (Urban Residential District) zoned lots from 9.75m (32ft) nor 2 storeys to 11m (36ft) and 3 storeys

The requested variances to increase the maximum allowable heights in the R-1 (Residential District) and R-2 (Urban Residential District) zones will be the subject of a future report to Council.

vii) **Development Permits:**

Pursuant to Section 8.9 of the OCP, a Watercourse Protection Development Permit application is required to ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas.

Pursuant to Section 8.10 of the OCP, a Natural Features Development Permit application is required for all development and subdivision activity or building permits for:

- All areas designated *Conservation* on Schedule “B” or all areas within 50 metres of an area designated *Conservation* on Schedule “B”, or on Figures 2, 3 and 4 in the Silver Valley Area Plan;
- All lands with an average natural slope of greater than 15 percent;
- All floodplain areas and forest lands identified on Schedule “C”

to ensure the preservation, protection, restoration and enhancement of the natural environment and for development that is protected from hazardous conditions.

viii) **Advisory Design Panel:**

A Form and Character Development Permit is not required and therefore this application does not need to be reviewed by the Advisory Design Panel.

ix) **Development Information Meeting:**

A Development Information Meeting was held at Samuel Roberson Technical Secondary School on March 5, 2015. Approximately four people attended the meeting. A summary of the main comments and discussions with the attendees was provided by the applicant and include the following main points:

- a) A resident expressed concern over the watercourse area increasing the amount of mosquitos in the area.
- b) A resident expressed concern with the parking along 104 Avenue, especially when there are events at the park.
- c) Two residents expressed concern over the lot sizes fronting 104 Avenue.

The following are the applicant’s responses provided in response to the issues raised by the public:

a) **Long-Term Mosquito Management:**

“The Wynnbrook development is not set up to have ponds within the subdivision. The riparian areas of Spencer Creek and Mainstone Creek are all part of a flowing watercourse system. We don't anticipate any mosquito management issues once the site is built out.”

Short-term issue during construction:

“During soil deposition and construction, temporary ponds and linear ponds are actively used for treatment of suspended solids. When in use, stagnant conditions which would encourage mosquito development will not occur. In fact, the amended ESC plan for the southern section has a treatment plant instead of a pond.

The northern portion of the property has a linear ditch system with stagnant conditions at this point in time. This is because the site is dormant until spring. Once temperatures reach 10 to 12°C or more at night, mosquito larvae could populate the ponds and ditches. It is not expected that this would occur prior to mid-April. We will keep an eye on these ditches if the site is still dormant and report if mosquito larvae are present. If appropriate we would manage mosquitoes at that time, mainly through physical means such as drainage of any wet areas."

- b) *"The subdivision will create 50 additional on-street parking spaces and a walkway connecting the road to the park area."*
- c) *"The frontages of the proposed lots fronting 104 Avenue are consistent with the existing RS-1b (One Family Urban (Medium Density) Residential) zoned lots fronting 104 Avenue."*

x) **Parkland Requirement:**

As there are more than two additional lots proposed to be created, the developer will be required to comply with the park dedication requirements of Section 941 of the *Local Government Act* prior to subdivision approval.

For this project, there is sufficient land that is proposed to be dedicated as park on the subject property and this land will be required to be dedicated as a condition of final reading. In addition to onsite park dedication, offsite park dedication to the north-east is being provided for additional enhancement and restoration works in connection with Spencer Creek, for compensation for the reduced watercourse setbacks (see Appendices B and I).

5) **Environmental Implications:**

The subject property was formerly farmed and consists of old pasture and fill. The property is currently overgrown by reed canarygrass, blackberry and other grass species. The creeks were channelized when the Albion Flats were diked and a floodgate was installed at the confluence of Spencer Creek with Kanaka Creek. Spencer and Mainstone Creeks are ditched with eroding oversteepened banks with slow-flowing silty channels. Both creeks are fishbearing and have coho and other salmonids that utilize this reach for winter rearing, though summer rearing is limited by low water flows. The subject property has little potential for trees due to high groundwater table and poor soil conditions. The subject property is partially located within the Fraser River 200 year floodplain and soil is being deposited to raise the grade to the proposed flood construction level. A restrictive covenant for the geotechnical and floodplain requirements is a condition of final reading.

The development of the subject property involves the relocation and enhancement of reaches of both Spencer and Mainstone Creeks at their confluence. The proposed riparian area enhancements will improve the habitat for red-legged frogs, an identified species at risk, by providing a treed riparian corridor. The enhancements propose an increase in high-value rearing instream habitat, an increase in high value riparian habitat, and offsite instream enhancements upstream, north-east of 104 Avenue (see Appendices I and J).

A notification of the relocation and enhancement to the watercourses was provided in May 2013, to the Urban Development Group of the Department of Fisheries and Oceans. Recent correspondence from the Ministry of Forests, Lands, and Natural Resource Operations indicates that the Environmental Assessment and enhancement works will need to be audited by them as well. This proof of submission for review or approval will be a condition of final reading. A Watercourse Protection Development Permit and Natural Features Development Permit are required to accompany this rezoning and subdivision application.

6) Agricultural Impact:

The subject property was excluded from the ALR in 1998 by Resolution #454/98, as the agricultural future of the site was limited due to the conflicts associated with adjacent non-farm land uses, and the property is further limited due to the presence of Spencer Creek and its associate stream channels which separates the parcel into three small blocks.

An Agricultural Impact Assessment and Groundwater Impact Assessment were provided for the development as the subject property abuts agricultural land within the ALR that is currently in use as a horse training facility with accompanying horse barns and facilities. The proposed development will require imported fill for foundations for buildings, roads, and driveways, resulting in increased local runoff. All increased water flows will be accommodated by the stormwater management system, including: 300 mm topsoil in yards and boulevards; on-lot detention systems; in-pipe detention structures beneath the roads, and drainage into riparian areas and swales that will flow north. A portion of the water falling on the proposed development will no longer infiltrate as in the pre-development stage, which may result in a lowering of watertables in the area. Because poor drainage is the main limitation of agricultural production in the area, reducing the watertable is more likely to have a beneficial rather than a detrimental effect on neighbours.

Dust impacts during the construction phase will be temporary, as the construction phase is in the summer only, and intermittent, as it would only be an issue during northerly winds. The dust will likely mainly impact the pasture area of the farmland, rather than the more intensively used riding area. Options to mitigate the dust include water suppression and/or constructing a temporary 2m (6.6ft) fence near or at the eastern part of the property line, adjacent to the riding area.

There will be increased traffic attributed to this development, both during the construction phase and afterwards, but it will be focused either on 104 Avenue or on Slatford Place. Neither of these roads is an access point for the farming property, nor do they directly affect traffic flow where the farmland fronts onto 240 Street. Therefore, the assessment concluded that the magnitude of the impact of increased traffic on adjacent farmland will be negligible.

The noise impact will be temporary and felt mainly during construction in the southern portion of the subdivision. It would only be felt during daytime hours and animals will likely adapt to relatively constant background noise. The impact of noise is moderate in magnitude, negative in direction, and intermittent and temporary in duration. The effect of noise on pasturing horses is minor as there is some opportunity for avoidance. Options for mitigation include: communication with the farm operator to identify periods of peak noise, periods of peak sensitivity, and re-scheduling certain construction operations or concentrating training operations at a maximum distance from active construction at any one time; temporary noise barriers; and/or early establishment of a treed buffer.

The Agricultural Impact Assessment recommends a row of medium-sized trees along the proposed development and the farmland to deal with the increase in land use intensity. The best combined protection in the interest of both farmland and the proposed residential development would be an evergreen hedge. Therefore, an agricultural buffer is proposed for the development, including trees, a walkway, and a swale (see Appendix H). The future land use is unknown, but ALC Resolution #2635/2011 determined that the land south of 105 Avenue is of very limited interest to agriculture, and that the Commission will expect the City of Maple Ridge to submit an application to exclude the land lying south of 105 Avenue and west of 240 Street, along with other remnant areas elsewhere in Maple Ridge identified by the Commission as being unsuitable for agriculture. Based on this resolution, it is expected that the lands to the south will at some point be excluded from the ALR and that the need for this agricultural buffer is somewhat temporary in nature.

7) Traffic Impact:

As the subject property is located within 800 metres of an intersection of the Lougheed Highway, a referral has been sent to the Ministry of Transportation and Infrastructure. Ministry approval of the Zone Amending Bylaw will be required as a condition of final reading. At this time, the Ministry has granted preliminary approval of the development application.

The intersections of 104 Avenue at both Slatford Place and 105 Avenue are to be reconstructed with button-type traffic circles as a condition of rezoning. Existing curb-returns at these intersections will need to be re-built to accommodate the traffic circles. Driveway letdowns on 104 Avenue will need to be designed in a way that does not interfere with the safe use of the equestrian trail that runs between the back of the sidewalk and the property line. A sidewalk connection between 104 Avenue and the new road into the subdivision will need to be provided.

8) Interdepartmental Implications:

i) Engineering Department:

In addition to the intersection improvements noted above, the west side of Slatford Place will require full urban upgrading including widening, curb and gutter, sidewalk and streetlighting at the subdivision stage. Any improvements to the sanitary sewer will be provided by the developer as a condition of rezoning. The developer will also need to eliminate the aerial wires and poles on the west side of Slatford Place as a condition of rezoning. Storm sewer and watermain works and services will be done as a condition of subdivision.

ii) Parks & Leisure Services Department:

There is an existing horse trail that runs along 104 Avenue, therefore the Parks Department would like to work with the developer to identify an appropriate trail surface in front of the new houses.

iii) License, Permits and Bylaws Department:

A geotechnical and floodplain assessment will need to be provided as the subject property is partially within the Fraser River 200 year floodplain. A geotechnical and floodplain restrictive covenant will be registered as a condition of final reading.

iv) Fire Department:

The initial subdivision layout showed a dead-end street running north/south on the west side of the property. The Fire Department requested a temporary hammerhead turn-around to be installed on the south end of the dead-end street to accommodate vehicle turn-around until development to the south occurs. The subdivision layout has since been revised to provide two temporary hammerhead turn-arounds for the north/south running streets to accommodate vehicle turn-around until development to the south occurs.

9) School District No. 42 Comments:

Pursuant to Section 881 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 on February 26, 2015. The proposed amendment to the OCP would affect the student population for the catchment areas currently served by Albion Elementary and Samuel Robertson Technical Secondary. The School District has confirmed that Albion Elementary has an operating capacity of 438 students, and for the 2014-15 school year, the student enrollment is 558 students, including 151 students from out of catchment.

Samuel Robertson Technical Secondary School had an operating capacity of 600 students and for the 2014-15 school year, the student enrollment is 802 students, including 213 students from out of catchment.

10) Local Government Act:

An amendment to the OCP requires the local government to consult with any affected parties and to adopt related bylaws in compliance with the procedures outlined in Section 882 of the *Local Government Act*. The amendment required for this application, to adjust the Urban Area Boundary and change the land use designation from *Agricultural* to *Urban Residential and Conservation*, is considered to be minor in nature. It has been determined that no additional consultation beyond existing procedures is required, including referrals to the Board of the Regional District, the Council of an adjacent municipality, First Nations, the School District or agencies of the Federal and Provincial Governments.

The amendment has been reviewed with the Financial Plan/Capital Plan and the Waste Management Plan of the Greater Vancouver Regional District and determined to have no impact.

11) Citizen/Customer Implications:

A Development Information Meeting was held on March 5, 2015. The results of the concerns expressed at that meeting are discussed above. The Public Hearing will provide an additional venue for citizens to express their concern or support of the development.

CONCLUSION:

It is recommended that first and second reading be given to OCP Amending Bylaw No. 7120-2014, that second reading be given to Zone Amending Bylaw No. 6906-2012, and that application 2011-081-RZ be forwarded to Public Hearing.

“Original signed by Michelle Baski”

Prepared by: Michelle Baski, ASCT
Planning Technician

“Original signed by Christine Carter”

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

“Original signed by David Pollock” for

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

“Original signed by Jim Rule”

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

Appendix A – Previous Council Reports and Resolutions
Appendix B – Subject Map
Appendix C – Albion Flats Area Map
Appendix D – OCP Amending Bylaw No. 7120-2014
Appendix E – ALC Resolution #2635/2011
Appendix F – Zone Amending Bylaw No. 6906-2012
Appendix G – Subdivision Plan
Appendix H – Building Elevations and Streetscape
Appendix I – Offsite Enhancement Works
Appendix J – Riparian Area Planting Plan



District of Maple Ridge

TO: His Worship Mayor Ernie Daykin
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: First Reading
Maple Ridge Zone Amending Bylaw No. 6906-2012
Lot 6, Plan 60014- Southwest corner of 104th Avenue and Slatford Place

MEETING DATE: March 19, 2012
FILE NO: 2011-081-RZ
MEETING: C of W

EXECUTIVE SUMMARY:

An application has been received to rezone the subject property from RS-3 (One Family Rural Residential) to RS-1b One Family Urban (Medium Density) and R-1 (Residential District)(Appendix A). The proposed lot or road pattern for this site has not yet been determined. The site was removed from the Agricultural Land Reserve in 1998 and was the subject of an earlier and lengthy rezoning application process (RZ/41/00). In 2001, a similar application was received. A council report considered this proposal premature for many reasons, paramount being the need to complete a comprehensive Area Plan that would encompass all properties within the study area. Such a plan would consider environmental protection, drainage, infrastructure and transportation provisions. Council of the day endorsed a land use process that the applicant was to follow. In an August 2001 staff report, it was suggested that the Albion Flats Land Use Plan proceed after the OCP review, noting that advancing the Albion Area Land Use Plan would delay the OCP review. The OCP review occurred between 2002 and 2006 and was approved in November of 2006. The 2006 OCP identified that the Albion Flats would not be available for urban development until a comparative analysis to review land use, social, economic and environmental goals was completed. In 2009, Council directed that an Area Planning process be undertaken. Council received an update report on this process in January 2012.

During the current Albion Flats Concept planning process, the applicant submitted a new rezoning application on July 7, 2011 for residential purposes. The applicant was aware that the site is located within the Council defined Albion Flats Study Area (Appendix B). The applicants feel that their plans for a residential subdivision have been delayed long enough and that they have completed the requested studies at significant expense. The applicants feel the proposed use is appropriate and will blend in well with whatever uses emerge in the vicinity.

While it is recognized that the owners of the land have spent considerable time and effort in advancing their application, the recent comments from the ALC need to be taken into account. Given the ALC comments and given that the OCP directed Albion Flats Concept Plan Study (Appendix C) is ongoing, it is recommended that this application be considered premature and be deferred until the current Albion Flats Concept Plan is completed and approved. The highest and best use of this land is yet to be determined based on community needs, senior agency approvals and the numerous OCP objectives, particularly those surrounding the need to enhance employment generating and shopping opportunities in the District. A decision at this time to allow residential use of this strategic parcel of land may negatively impact future land use options for the entire Albion Flats study area south of 105th Avenue.

At this point, the Agricultural Land Commission supports future commercial and employment development on the south side of 105th Avenue. The loss of any land in this area of the Albion Flats could limit commercial/employment options in the area. The 2011 Albion Flats Concept Plan forwarded to the ALC showed civic, environmental and community garden uses for the applicants site. These uses may have to be accommodated elsewhere in the study area if not on this site. This could only be accomplished on lands south of 105th Avenue and would not be the highest and best use of these commercially strategic and highly visible lands. In addition, should the Agricultural Land Commission deny any application(s) for additional commercial development for lands on the north side of 105th Avenue, Council may wish to pursue a reconfiguration of the land uses south of 105th Avenue to maximize the amount of commercial or employment lands in the area. Should this occur, the subject site may be best suited for commercial or employment use, or needed to accommodate the relocation of civic uses currently situated elsewhere on the plan. Should the ALC exclude lands on the north of 105th Avenue as a result of individual applications for exclusion, the need for alternative uses of the subject site may not be as prevalent.

RECOMMENDATION:

That Zone Amending Bylaw No. 6906-2012 be deferred pending adoption of an Albion Flats Concept Plan.

DISCUSSION:

a) Background Context:

Applicant:	Jorden Cook Associates
Owner:	John Wynnyk Steve Wynnyk

Legal Description:	Lot: 6, D.L.: 405, Plan: 60014
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OCP:	
Existing:	Agricultural
Proposed:	Urban Residential

Zoning:	
Existing:	RS-3 (One Family Rural Residential)
Proposed:	RS-1b (One Family Urban (medium density) Residential) and R-1 (Residential District)

Surrounding Uses:	
North:	Use: Park and Single Family Residential Zone: RS-3 (One Family Rural Residential) and RS-1b (One Family Urban (medium density) Residential)
	Designation: Urban Residential and Parks within the ALR
South:	Use: Agricultural Zone: RS-2 (One Family Suburban Residential) and RS-3 (One Family Rural Residential)
	Designation: Agriculture
East:	Use: Park and Single Family Residential

	Zone:	RS-1b (One Family Urban (medium density) Residential), RS-2 (One Family Suburban Residential) and RS-3 (One Family Rural Residential)
West:	Designation:	Conservation and Urban Residential
	Use:	Fairgrounds, Ice Rink and Sports Fields
	Zone:	CD-4-88 (Agricultural Events, Special Events, etc)
	Designation:	Parks within the ALR

Existing Use of Property:	Vacant
Proposed Use of Property:	Single Family Residential
Site Area:	5.304 HA. (13 acres)
Access:	104 Avenue and Salford Place
Servicing requirement:	Full Urban

b) Project Description:

At this time the current application has been assessed to determine its compliance with the Official Community Plan 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 if Council grants First Reading. Such assessment may impact proposed lot boundaries and yields, Official Community Plan designations and Bylaw particulars, and may require application for further development permits.

c) Background:

A number of staff authored background reports were prepared for Council's consideration throughout 2001 in regards to the initial Albion Flats Land Use Plan. All recommended that before advancing any development applications in the Albion Flats that the proper background studies be completed. Council gave preliminary support in 2001 to rezoning the subject property, contingent upon the landowners at their own expense undertaking site analysis works including a land use concept plan, stormwater management strategy, and drainage study. This work was undertaken in cooperation with other landowners and included preliminary servicing, drainage, environmental and transportation studies. However, this work did not proceed to Second Reading or Public Hearing. During this period of time the District was commencing a review of the Official Community Plan. It was during this work that the overall Albion Flats again became a significant discussion point. It was understood that the site was outside the Urban Area Boundary and Fraser Sewer Area, and the "Green Zone" designation of the site became apparent at this time. The Green Zone designation meant that any lands designated for Agriculture would require GVRD approval prior to development occurring, even if the properties were no longer within the Agricultural Land Reserve. In the newly adopted Official Community Plan, this site, along with 5 other areas, was given a "Starred" designation indicating that Regional consideration was required.

As a result of the adoption of the 2006 OCP and its policies (6-15, 6-16) to undertake comprehensive strategic planning, the Albion Flats was identified as being unavailable for urban development until a comprehensive analysis of potential land uses, social, economic and environmental goals was completed. However, being a "Starred" property, Council requested that the Region remove this property (along with 5 other sites) from the Green Zone. In October 2008, Metro Vancouver granted this request for removal. The property was therefore considered available for urban development, subject to the completion of an Official Community Plan amendment and a rezoning application.

In November of 2009 Council gave approval to an Albion Flats Area Planning Process to begin with a defined study area that included this strategically located site. On January 11, 2010 Council directed that a concept plan be prepared; the Agricultural Land Commission was advised of the work programme and HB Lanarc was hired to proceed with the study. In early May 2011, Council endorsed a Concept Plan which was forwarded to the Commission for consideration. The Concept Plan as endorsed by Council indicated the subject property would be used for community garden plots, conservation, and a playing field.

The Commission responded in late November 2011 they were prepared to cooperate towards future commercial and industrial development at Albion Flats in conjunction with restoration of an agricultural future for lands north of 105th Avenue.

Council received a report in January 2012 on the implications of the Commissions comments. Council has directed that an application for the lands south of 105th Avenue be prepared. Prior to taking this step, however, Council has advised the property owners north of 105th Avenue that they may wish to privately pursue the exclusion of their land through an application by landowners. The Council endorsed option identifies that the District will proceed with an exclusion application on lands to the south in the fall of 2012.

Once acted on by Council, this Commission decision opens up a significant economic development opportunity for all lands south of 105th Avenue irrespective of whether or not they are currently in the Agricultural Land Reserve. The subject site at Slatford and 104th Avenue is such a site where new and higher uses could now be considered in light of changes in the immediate area. The delays and personal expense incurred by the property owners over the last two decades should be acknowledged. However, the strategic nature of this site within the Albion Flats and its potential for greater community benefit demands consideration. There remain numerous unanswered questions regarding the optimum future use of the entire Albion Flats area to generate the maximum employment, business/commercial uses and recreational and agricultural use. This site may have a role to play in this optimization process of the bigger area. This land may be called upon to accommodate uses displaced by commercial uses seeking to optimize their footprints closer to Lougheed Highway. These are significant questions that can only be answered by looking at the Albion Flats in its entirety, once the available land base is known, and community priorities are clarified. For these reasons, it is not recommended at this time that properties within the Albion Flats Concept Plan study area be advanced on a parcel by parcel basis.

In its November 2011 letter, the Commission has required that the District prepare a comprehensive review of drainage and stream flow conditions in the area. This study is anticipated to begin in the fall of this year. A component of this work will include an estimate of the costs for drainage improvements, as well as a discussion regarding how such improvements would be funded or whether developing properties will contribute.

Residential development of this site may not contribute significantly to achieving Council's goal of improving long term commercial and employment opportunities within the District. It could in fact hinder such efforts as the land base available for commercial employment or community uses could shrink considerably, and the compatibility of these different land uses would also be questionable. The subject site represents 5.3 hectares (13 acres) or about 12% of the available privately owned land south of 105th Avenue. This is a significant portion and represents a prime opportunity, especially if the ALC rejects future requests from landowners north of 105th Avenue to exclude their lands. However, should the ALC exclude lands on the north side of 105th Avenue as a result of individual applications for exclusion, the need for alternative uses of the subject site may not be as prevalent.

d) **Planning Analysis:**

Official Community Plan:

Although designated Agricultural, the site also carries an OCP notation referring to specific Albion Flats (6.2.3) OCP Objectives and Policies that need to be taken into consideration before development can proceed. The OCP requires the District to coordinate its efforts in the Albion Flats with other jurisdictions to meet community, Regional and Provincial goals. Specifically the District must coordinate with Metro Vancouver, the ALC and Federal and Provincial agencies in determining the fate of the Albion Flats study area, of which this parcel is a part.

The OCP policies further require:

“Council prior to giving consideration to a change in land use, an extension of municipal services, or an amendment to the Urban Area Boundary, Maple Ridge will: develop and implement a comprehensive Strategy as outlined in 11.1.3 and collaborate with Regional and Provincial authorities to complete a comparative analysis to review land use, social, economic and environmental goals or what is known as a balanced triple bottom line analysis”.

This work is not completed but is in progress under the current Albion Flats Concept Plan process. A component of this required OCP work is the recently completed Agricultural Plan (2010), the future Urban Area Boundary Review, and the soon to begin Commercial and Industrial Land Use Strategy. All of these plans and studies have a direct impact on the potential use of this site and the Albion Flats in general.

Should this application proceed in advance of the Area Plan, an OCP amendment to re-designate the site from Agricultural to Urban Residential will be required. The Urban Area Boundary will also need amending to include the site within the Urban Area Boundary.

Zoning Bylaw:

The current application proposes to rezone the property located at Slatford Place and 104th Avenue from RS-3 (One Family Rural Residential) to RS-1b One Family Urban (Medium Density) and R-1 (Residential District). The lands to the north and east contain lots zoned RS-1b. The introduction of the smaller R-1 lot is intended to increase density and lot yield. Any variations from the requirements of the proposed zone(s) will require a Development Variance Permit application.

Development Permits:

Pursuant to Section 8.9 of the Official Community Plan, a Watercourse Protection Development Permit application is required to ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas associated with Spencer and Mainstone creeks which flow through the site.

Pursuant to Section 8.10 of the Official Community Plan, a Natural Features Development Permit application is required for all development and subdivision activity to ensure the preservation, protection, restoration and enhancement for the natural environment and for development that is protected from hazardous conditions for;

- All areas designated Conservation on Schedule “B” or all areas within 50 metres of an area designated Conservation on Schedule “B”, or on Figures 2, 3 and 4 in the Silver Valley Area Plan;
- All lands with an average natural slope of greater than 15 percent;
- All floodplain areas and forest lands identified on Natural Features Schedule “C”

to ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas.

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) Parks Department;
- e) School District;
- f) Agricultural Land Commission;
- g) Ministry of Environment;
- h) Metro Vancouver.

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) Alternatives:

Council can choose to grant first reading to this rezoning application which would essentially earmark the site for residential uses and remove the (5.3 ha – 13 acres) site from the critical south-east portion of the Albion Flats Study Area. This loss would constitute approximately 12 % of the available non-government owned lands (39 ha) south-east of 105th avenue. Should Council wish to proceed with this option the following resolution must be passed: namely,

1. Grant First Reading of Zone Amending Bylaw No. 6906 – 2012 and consider the following in respect of an amendment to the Official Community Plan:

In respect of Section 879 of the *Local Government Act*, requirement for consultation during the development or amendment of an Official Community Plan, Council must consider whether consultation is required with specifically:

- i. The Board of the Regional District in which the area covered by the plan is located, in the case of a Municipal Official Community Plan;
- ii. The Board of any Regional District that is adjacent to the area covered by the plan;
- iii. The Council of any municipality that is adjacent to the area covered by the plan;
- iv. First Nations;
- v. School District Boards, greater boards and improvements district boards; and
- vi. The Provincial and Federal Governments and their agencies.

and in that regard it is recommended that no additional consultation be required in respect of this matter beyond the early posting of the proposed Official Community Plan amendments on the District's website, together with an invitation to the public to comment.

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. An Official Community Plan Application (Schedule A);
2. A complete Rezoning Application (Schedule B or Schedule C);
3. Watercourse Protection Development Permit Application (Schedule F);
4. Natural Features Development Permit Application (Schedule G);
5. Subdivision Application, as per attached requirements.

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

CONCLUSION:

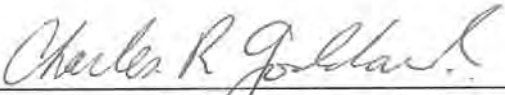
The lands strategic location within the Albion Flats Study Area and the many unanswered questions related to potential development of the larger area. This site will likely form a strategic piece of the overall land use puzzle.

While the applicant has sought residential development for many years and has faced both significant expense and some hurdles not of his own making, the fact remains that the residential use for the site does not appear to be the highest and best use. The insertion of residential uses could add a source of conflict to future commercial, employment or civic uses anticipated to be in the area. These users need large, highly visible tracts of lands.

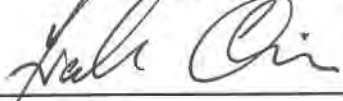
The Agricultural Land Commission favours future development to be on the south side of 105th Avenue. The loss of any land in this area of the Albion Flats will limit commercial options in the area. This would not be the highest and best use of these commercially strategic and highly visible lands. In addition, should the Agricultural Land Commission deny any application(s) for additional commercial development for lands on the north side of 105th Avenue, Council may wish to pursue a

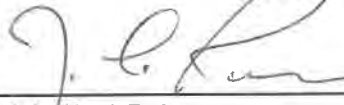
reconfiguration of the land uses on the draft Concept Plan to maximize the amount of commercial or employment lands in the area. Should this occur, the subject site may be best suited for commercial or employment use or to accommodate the relocation of civic uses currently situated elsewhere on the plan. Lastly it is noted that the ALC has required that a comprehensive drainage study be prepared for the Albion Flats. It is anticipated that any drainage improvements required would be shared by those owners situated south of 105th Avenue. Should this project advance, this applicant would not be contributing to the ALC required drainage improvements.

Therefore, it is recommended that this application for residential uses be considered premature and not proceed but be deferred until Albion Flats Concept Plan is completed and approved.


Prepared by: Charles R. Goddard BA MA
Manager of Development and Environmental Services
Approving Officer

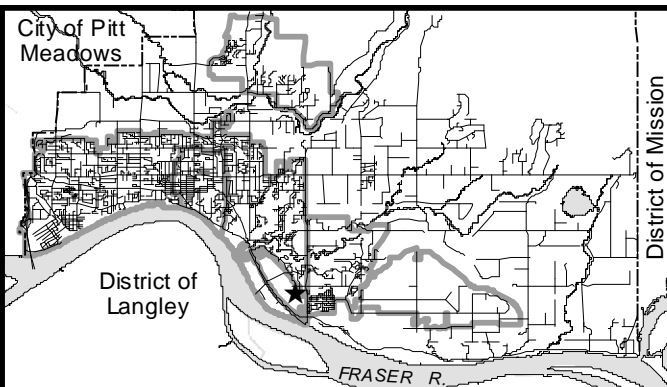
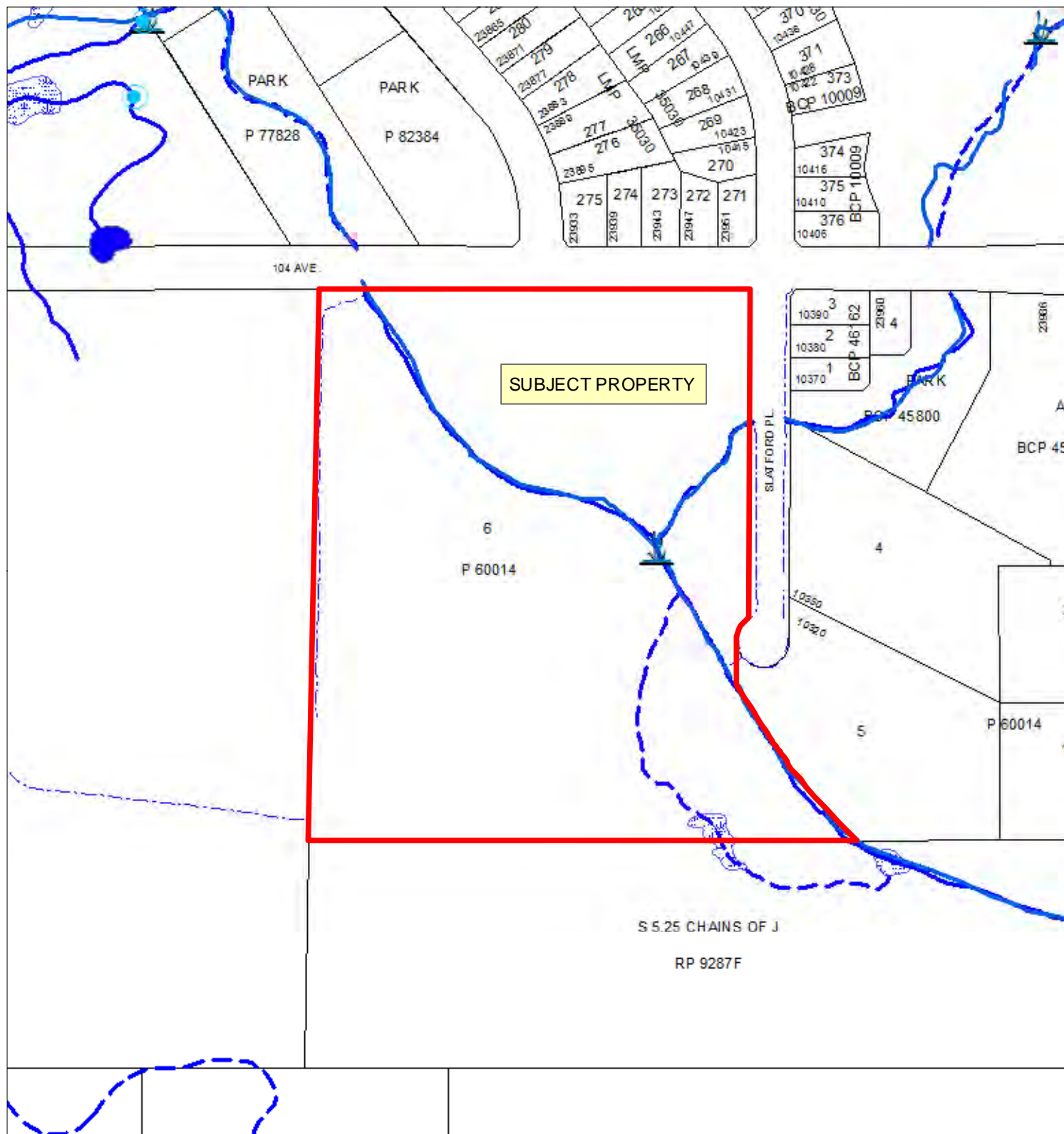

Approved by: Christine Carter, M.PL, MCIP
Director of Planning


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


Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

- Appendix A – Subject Map
- Appendix B – Albion Flats Study Area Map
- Appendix C – Draft Concept Plan
- Appendix D – Zone Amending Bylaw No. 6906-2012



ROLL #94165-0600-6
S/W CORNER SLATFORD PL & 104 AVE



**CORPORATION OF
THE DISTRICT OF
MAPLE RIDGE**
PLANNING DEPARTMENT

DATE: Aug 16, 2012 FILE: 2011-081-RZ

BY: DT

The map shows a residential area with a proposed project area outlined in black. The project area is bounded by River Rd to the west, Lougheed Hwy to the south, and a dashed line to the east. The map includes streets such as River Rd, McKay Ave, Fisherman Rd, Lougheed Hwy, Tamarack Lane, Tamarack Loop, Tamarack Pl, McClure Ave, Zeron Ave, Slateford St, and Kanakacrk Rd. A blue line represents a waterway or river. Arrows indicate traffic flow on River Rd and Lougheed Hwy. A dashed line indicates a boundary or route.

Draft Concept Plan



Proposed Land Use	Area hectares*	Area acres*
Agricultural Fairgrounds & Farm Cluster	5.6	13.8
Agriculture Fields & Community Garden	4.6	11.4
Auto Oriented Regional Serving Retail	9.8	24.2
Mixed Employment Node, Light Industrial, Business Office & Agri-Industrial	27.2	67.2
Green Space & Stream Setbacks	42.6	105.3
Institutional (school site)	2.1	5.2
Recreation (includes multi-purpose recreation facility)	20.0	49.4
Townhouse	8.0	19.8
Transit-Oriented Mixed Use	4.8	11.8
TOTAL	124.7	308.1

* Area calculations are approximate

As directed by Council, the Consultants original numbers have been refined.

CORPORATION OF THE DISTRICT OF MAPLE RIDGE

BYLAW NO. 6906-2012

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 Corporation of the District of Maple Ridge, in open meeting assembled, **ENACTS AS FOLLOWS:**

1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 6906-2012."
2. The parcel of land known and described as:

Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014

and outlined in heavy black line on Map No. 1561 a copy of which is attached hereto and forms part of this Bylaw, is hereby rezoned to RS-1b (One Family Urban (Medium Density) Residential) and R-1 (Residential District).

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 _____, A.D. 20 .

READ a second time the _____ day of _____, A.D. 20 .

PUBLIC HEARING held the day of , A.D. 20 .

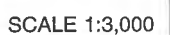
READ a third time the _____ day of _____, A.D. 20 .

APPROVED by the Minister of Transportation this day of , A.D. 20 .

RECONSIDERED AND FINALLY ADOPTED, the day of , A.D. 20 .

PRESIDING MEMBER

CORPORATE OFFICER



That Bylaw No. 6906-2012 be deferred pending adoption of an Albion Flats Concept Plan.

AMENDMENT TO MOTION

That the motion be amended with the addition of the text 'for a period of no longer than four months, at which time an updated recommendation from staff will be brought forward to Council' following the word "deferred" and the removal of the text "pending adoption of an Albion Flats Concept Plan."

CARRIED

MOTION AS AMENDED

That Bylaw No. 6906-2012 be deferred for a period of no longer than four months, at which time an updated recommendation from staff will be brought forward to Council.

CARRIED AS AMENDED

(2011-081-RZ, Lot 6, Plan 60014 – Southwest corner of 104 Avenue and Slatford Place – to rezone from RS-3 [One Family Rural Residential] to RS-1b [One Family Urban (medium density) Residential] and R-1 [Residential District] to permit single family residential lots)

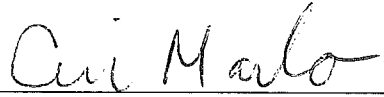
~~CARRIED~~ DEFEATED DEFERRED "Ernie Daykin" MAYOR

ACTION NOTICE

TO: ☐ Chief Administrative Officer
☐ Gen Mgr – Corporate & Financial
☐ Mgr - Accounting
☐ Gen Mgr – Public Works & Development
☒ Dir - Planning
☐ Dir - Licenses, Permits & Bylaws
☐ Municipal Engineer
☐ Dir - Engineering Operations
☐ Gen Mgr - Com. Dev. & Rec. Services
☐ Dir - Parks & Facilities
☐ Dir – Recreation
☐ Dir – Community Services
☐ Clerk's Section
☐ Corporate Officer
☐ Property & Risk Manager
☐ Lynn Marchand
☐ Diana Dalton
☐ Amanda Allen
☐ Tracy Camire
☐ Amanda Gaunt
☐ Karen Kaake

The above decision was made at a meeting of the Municipal Council held on the date noted above and is sent to you for notation and/or such action as may be required by your Department.

March 27, 2012
Date


Corporate Officer



District of Maple Ridge

TO: His Worship Mayor Ernie Daykin
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: **First Reading**
Maple Ridge Zone Amending Bylaw No.6906-2012
Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014
Southwest Corner of 104th Avenue and Slatford Place

MEETING DATE: August 27, 2012
FILE NO: 2011-081-RZ
MEETING: C of W

EXECUTIVE SUMMARY:

An application has been received to rezone the subject property from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) and R-1 (Residential District) (Appendix A). The application was considered by Council on March 27, 2012 for First Reading and was deferred for a period of four months pending an updated recommendation from the Planning Department.

Since the First Reading deferral earlier this year, various discussions have taken place between the Albion Flats Area property owners and the District. Property owners on the north side of 105th Avenue are pursuing independent ALR exclusionary applications. Rulings from the ALC on these independent ALR exclusionary applications would allow the District to confirm the final ALR land use designation and therefore solidify the resulting Albion Flats Concept Plan. Should the Albion Flats Concept Plan be adopted without confirmation on whether or not the properties north of 105th Avenue will be excluded from the ALR, or isolated land uses decisions taken without consideration to the larger picture, there is potential that the adopted Albion Flats Area Plan would not reflect the best possible land use for all lands in the Albion Flats. This is due to the fact that significant portions of the total land area are north of 105th and the land use of that area could change dramatically.

Discussions have also begun between the District of Maple Ridge and the property owners of the lands north of 105th Avenue (Smart Centre's) in regards to a possible land exchange. There is potential to reconfigure the civic lands on the Albion Flats to further improve the commercial opportunities on the lands south of 105th Avenue. Any reordering of the civic facilities would dramatically affect the possible land use configuration of the lands south of 105th Avenue. The extent and affect of this reordering on land in the study area is currently unknown. These unknowns should be resolved before the Albion Flats Concept Plan is finalized.

At this point, there are several unresolved and unknown factors which need to be concluded prior to development applications proceeding in the Albion Flats Concept Plan. The forthcoming discussions by the ALC will largely determine the final concept plan for the Albion Flats. For example should lands become available for development on the north side of 105th Avenue, then the concept plan could include commercial/employment lands on the north side. If the ALR exclusion application is denied, then the only developable commercial land will be on the properties south of 105th Avenue. This would

put even more pressure on the lands south of 105th Avenue as limited space is available to create a comprehensive commercial node and community plan for this area. Once the ALC land use issues are resolved, the Albion Flats Concept Plan can then be finalized. It is therefore, recommended that this application be deferred pending the outcome of the decisions on the lands to the north of 105th Avenue.

RECOMMENDATIONS:

That Zone Amending Bylaw No. 6906-2012 be deferred pending the outcome of the exclusion applications to the north of 105th Avenue and the subsequent adoption of an Albion Flats Concept Plan.

DISCUSSION:

a) Background Context:

Applicant:	Jorden Cook Associates
Owner:	John Wynnyk Steve Wynnyk

Legal Description:	Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014
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OCP:	
Existing:	Agricultural
Proposed:	Urban Residential
Zoning:	
Existing:	RS-3 (One Family Rural Residential)
Proposed:	RS-1b (One Family Urban (medium density) Residential) and R-1 (Residential District)

Surrounding Uses:	
North:	Use: Park and Single Family Residential Zone: RS-3 (One Family Rural Residential) and RS-1b (One Family Urban (medium density) Residential)
	Designation: Urban Residential and Parks within the ALR
South:	Use: Agricultural Zone: RS-2 (One Family Suburban Residential) and RS-3 (One Family Rural Residential)
	Designation: Agriculture
East:	Use: Park and Single Family Residential Zone: RS-1b (One Family Urban (medium density) Residential), RS-2 (One Family Suburban Residential) and RS-3 (One Family Rural Residential)
	Designation: Conservation and Urban Residential

West:	Use:	Fairgrounds, Ice Rink and Sports Fields
	Zone:	CD-4-88 (Agricultural Events, Special Events, etc)
	Designation:	Parks within the ALR

Existing Use of Property:	Vacant
Proposed Use of Property:	Single Family Residential
Site Area:	5.304 Ha. (13 acres)
Access:	104 Avenue and Slatford Place
Servicing requirement:	Full Urban

a) Project Description:

At this time the current application has been assessed to determine its compliance with the Official Community Plan 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 if Council grants First Reading. Such assessment may impact proposed lot boundaries and yields, Official Community Plan designations and Bylaw particulars, and may require application for further development permits.

b) Background:

Over the past decade, various reports were prepared regarding the Albion Flats Land Use Plan. It was agreed by Council that the highest and best use of the Albion Flats Area is combination of uses including: mixed-use commercial; auto-oriented retail; employment generating industrial uses; parks and rec space and mixed agricultural uses. The positioning of these uses into a land use plan is difficult to finalize at this point as final determination of which lands will be excluded from the ALR are not yet resolved. Property owners of the various lands have been pursuing independent ALR exclusionary applications. One ((Wymmyk) has been forwarded to the ALC at this point. The District has recently received another exclusion application (GCS Holdings Ltd –Glen Bury. It will be forwarded to Council in August 2012 for consideration.

Prior to sending any applications to the ALC, Council also endorsed a resolution that the District commences negotiations on a land exchange relating to the Fairgrounds and the area just north of 105th Avenue. These negotiations are underway and would be assisted by an ALC ruling regarding a ALR exclusionary application for the adjacent lands on the north side of 105th Avenue. The ruling on the Wynnyk exclusion application is expected to go before the ALC board no earlier than September 2012.

The Commission’s decision in late 2011 stated that they were willing: “to cooperate towards future commercial or industrial development at the Albion Flats, in conjunction with restoration of a agricultural future for that part of the Albion lying to the north of 105th Avenue”. Although conditional, this position opens up a significant economic development opportunity for all lands south of 105th Avenue irrespective of whether or not they are currently in the Agricultural Land Reserve. The subject site at Slatford and 104th Avenue is such a site where new and higher uses could be considered. The delays and personal expense incurred by the property owners over the last two decades should be

acknowledged. However, the strategic nature of this site within the Albion Flats and its potential for greater community benefit needs consideration. There remain numerous unanswered questions regarding the optimum future use of the entire Albion Flats area to generate the maximum employment, business/commercial uses and recreational and agricultural use. This site may have a role to play in this optimization process of the bigger area. This land may be called upon to accommodate uses displaced by commercial uses seeking to optimize their footprints closer to Lougheed Highway. These are significant questions that can only be answered by looking at the Albion Flats in its entirety, once the available land base is known, and community priorities are clarified. For these reasons, it is not recommended at this time that properties within the Albion Flats Concept Plan study area be advanced on a parcel by parcel basis.

In its November 2011 letter, the Commission has required that the District prepare a comprehensive review of drainage and stream flow conditions in the area. This study is anticipated to begin in the fall of this year. A component of this work will include an estimate of the costs for drainage improvements, as well as a discussion regarding how such improvements would be funded or whether developing properties will contribute. All parties in the study area should contribute to resolving this common area wide problem.

Residential development of this site may not contribute significantly to achieving Council's goal of improving long term commercial and employment opportunities within the District. It could in fact hinder such efforts as the land base available for commercial/employment or community uses could shrink considerably, and the compatibility of these different land uses would also be questionable. The subject site represents 5.3 hectares (13 acres) or about 12% of the available privately owned land south of 105th Avenue. This is a significant portion and represents a prime opportunity, especially if the ALC rejects future requests from landowners north of 105th Avenue to exclude their lands. However, should the ALC exclude lands on the north side of 105th Avenue as a result of individual applications for exclusion, the need for alternative uses of the subject site may not be as prevalent.

d) Planning Analysis:

Official Community Plan:

Although designated Agricultural, the site also carries an OCP notation referring to specific Albion Flats (6.2.3) OCP Objectives and Policies that need to be taken into consideration before development can proceed. The OCP requires the District to coordinate its efforts in the Albion Flats with other jurisdictions to meet community, Regional and Provincial goals. Specifically the District must coordinate with Metro Vancouver, the ALC and Federal and Provincial agencies in determining the fate of the Albion Flats study area, of which this parcel is a part.

The OCP policies further require:

"Council prior to giving consideration to a change in land use, an extension of municipal services, or an amendment to the Urban Area Boundary, Maple Ridge will: develop and implement a comprehensive Strategy as outlined in 11.1.3 and collaborate with Regional and Provincial authorities to complete a comparative analysis to review land use, social, economic and environmental goals or what is known as a balanced triple bottom line analysis".

This work is not completed but is in progress under the current Albion Flats Concept Plan process. A component of this required OCP work is the recently completed Agricultural Plan (2010) and the ongoing Commercial and Industrial Land Use Strategy. All of these plans and studies have a direct impact on the potential use of this site and the Albion Flats in general.

Should this application proceed in advance of the Area Plan, an OCP amendment to re-designate the site from Agricultural to Urban Residential will be required. The Urban Area Boundary will also need amending to include the site within the Urban Area Boundary.

Zoning Bylaw:

The current application proposes to rezone the property located at Slatford Place and 104th Avenue from RS-3 (One Family Rural Residential) to RS-1b One Family Urban (Medium Density) and R-1 (Residential District). The lands to the north and east contain lots zoned RS-1b. The introduction of the smaller R-1 lot is intended to increase density and lot yield. Any variations from the requirements of the proposed zone(s) will require a Development Variance Permit application.

Development Permits:

Pursuant to Section 8.9 of the Official Community Plan, a Watercourse Protection Development Permit application is required to ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas associated with Spencer and Mainstone creeks which flow through the site.

To ensure the preservation, protection, restoration and enhancement of watercourse and riparian areas and pursuant to Section 8.10 of the Official Community Plan, a Natural Features Development Permit application is required for all development and subdivision activity to ensure the preservation, protection, restoration and enhancement for the natural environment and for development that is protected from hazardous conditions for:

- All areas designated Conservation on Schedule “B” or all areas within 50 metres of an area designated Conservation on Schedule “B”, or on Figures 2, 3 and 4 in the Silver Valley Area Plan;
- All lands with an average natural slope of greater than 15 percent; and
- All floodplain areas and forest lands identified on Natural Features Schedule “C”.

Development Information Meeting:

A Development Information Meeting in accordance with Council Policy 6.20 is required for this application, prior to Second Reading.

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) Parks Department;
- e) School District;
- f) Agricultural Land Commission;
- g) Ministry of Environment;
- h) Metro Vancouver.

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) Alternatives:

Council can choose to grant first reading to this rezoning application which would essentially earmark the site for residential uses and remove the (5.3 ha – 13 acres) site from the critical south-east portion of the Albion Flats Study Area. This loss would constitute approximately 12 % of the available non-government owned lands south-east of 105th Avenue. Should Council wish to proceed with this option the following resolution must be passed: namely,

1. Grant First Reading of Zone Amending Bylaw No. 6906 – 2012 and consider the following in respect of an amendment to the Official Community Plan:

In respect of Section 879 of the *Local Government Act*, requirement for consultation during the development or amendment of an Official Community Plan, Council must consider whether consultation is required with specifically:

- i. The Board of the Regional District in which the area covered by the plan is located, in the case of a Municipal Official Community Plan;
- ii. The Board of any Regional District that is adjacent to the area covered by the plan;
- iii. The Council of any municipality that is adjacent to the area covered by the plan;
- iv. First Nations;
- v. School District Boards, greater boards and improvements district boards; and
- vi. The Provincial and Federal Governments and their agencies.

and in that regard it is recommended that no additional consultation be required in respect of this matter beyond the early posting of the proposed Official Community Plan amendments on the District's website, together with an invitation to the public to comment.

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. An Official Community Plan Application (Schedule A);
2. A complete Rezoning Application (Schedule B or Schedule C);
3. Watercourse Protection Development Permit Application (Schedule F);
4. Natural Features Development Permit Application (Schedule G);
5. Subdivision Application, as per attached requirements.

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

CONCLUSION:

The subject is an integral part of the Albion Flats Study Area and potentially is a strategic piece of the overall land use puzzle. While the applicant has sought residential development for many years and has faced both significant expense and some hurdles not of his own making, the fact remains that the residential use for the site may not to be the highest and best use. Depending upon the amount of land ultimately available, the insertion of residential uses could add a source of conflict to future commercial, employment or civic uses anticipated to be in the area.

As the Agricultural Land Commission currently only supports development on the south side of 105th Avenue and not on the north side of 105th Avenue, any loss of land south of 105th Avenue would limit commercial options in the study area and would not be the highest and best use of these commercially strategic and highly visible lands. In addition, should the Agricultural Land Commission deny any application(s) for additional commercial development for lands on the north side of 105th Avenue, Council may wish to pursue a reconfiguration of the land uses on the draft Concept Plan to maximize the amount of commercial or employment lands in the area. Should this occur, the subject site may be best suited for commercial or employment use or to accommodate the relocation of civic uses currently situated elsewhere on the proposed land use plan. Lastly, it is noted that the ALC requires a comprehensive drainage study be prepared for the Albion Flats. It is anticipated that any drainage improvements required would be shared by those owners situated south of 105th Avenue. Should this project advance, this applicant would not be contributing to the ALC required drainage improvements.

Therefore, it is recommended that this application for residential uses be considered premature and not proceed but be deferred pending the ALC decisions and the Albion Flats Concept Plan is approved.

"Original signed by Charles R. Goddard"

Prepared by: Charles R. Goddard BA MA
Manager of Development and Environmental Services
Approving Officer

"Original signed by Charles R. Goddard"

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

"Original signed by Frank Quinn"

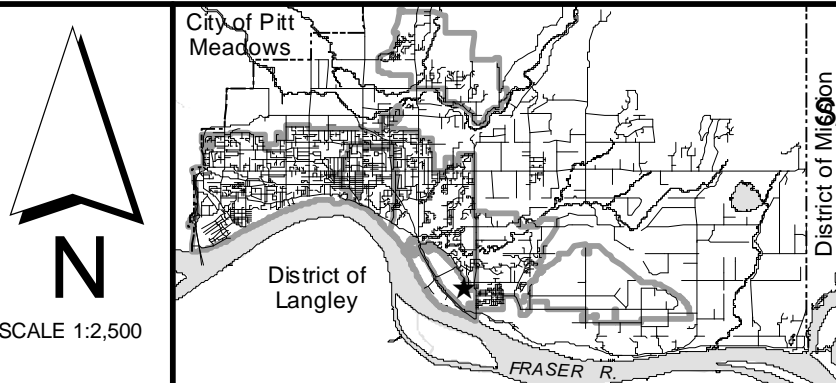
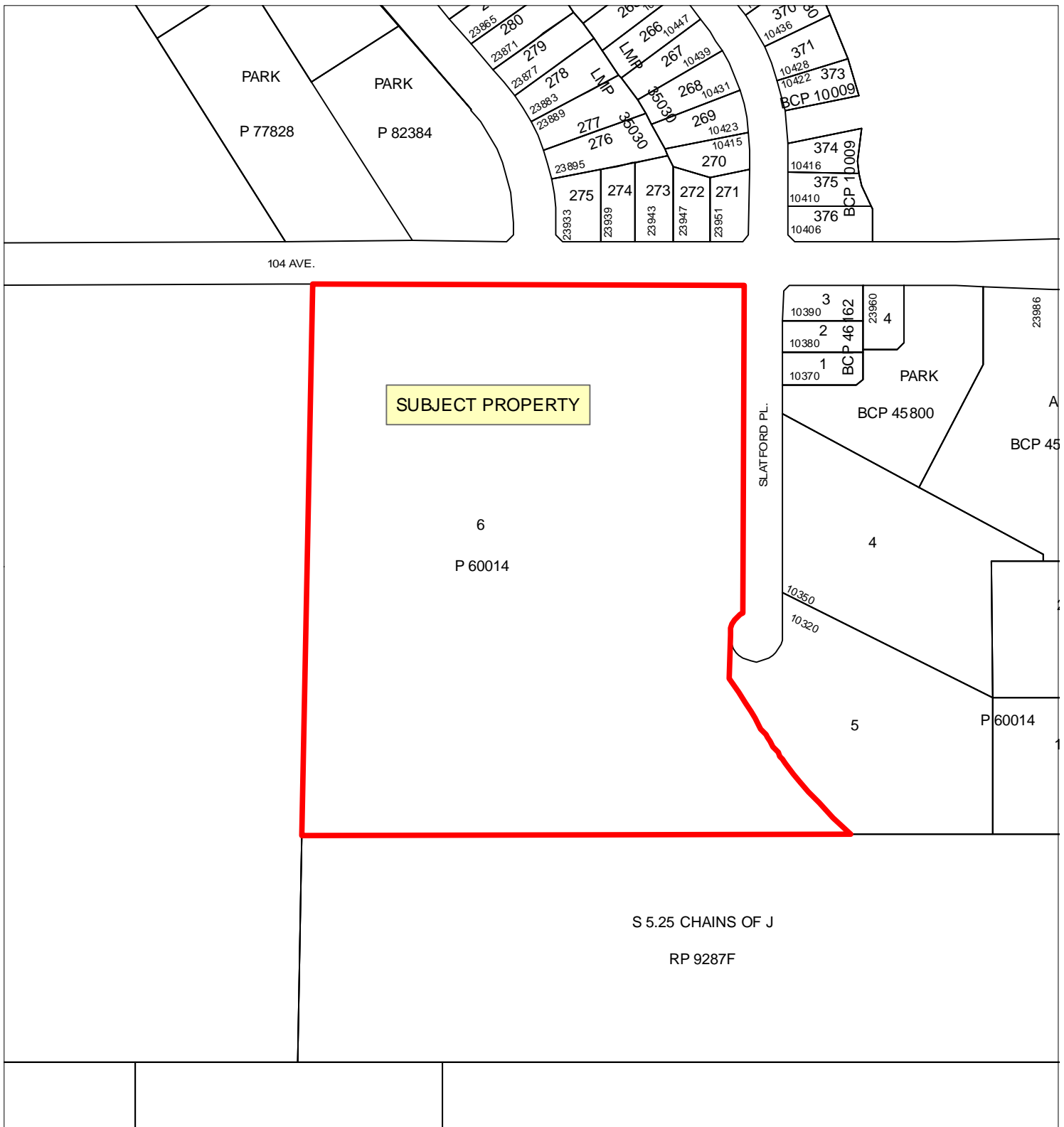
Approved by: Frank Quinn, MBA, P.Eng
GM: Public Works & Development Services

"Original signed by J.L. (Jim) Rule"

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

- Appendix A – Subject Map
- Appendix B – Albion Flats Study Area Map
- Appendix C – Draft Concept Plan
- Appendix D – Zone Amending Bylaw No. 6906-2012



ROLL #94165-0600-6

W CORNER SLATFORD PL & 104 AVE



MAPLE RIDGE
British Columbia

**CORPORATION OF
THE DISTRICT OF
MAPLE RIDGE**

PLANNING DEPARTMENT

DATE: Aug 23, 2012 FILE: 2011-081-RZ

BY: DT

This is a detailed street map of a residential area in Kaneohe, Hawaii. The map shows a network of streets including River Rd, McKay Ave, Fisherman Rd, Lougheed Hwy, Tamarack Lane, Tamarack Pl, McClure Ave, Zeron Ave, Slateford St, and others. A thick black line highlights a specific route or boundary. Blue lines represent water bodies, and dashed lines with arrows indicate one-way traffic flow. The map is oriented with North at the top.

Draft Concept Plan



Proposed Land Use	Area hectares*	Area acres*
Agricultural Fairgrounds & Farm Cluster	5.6	13.8
Agriculture Fields & Community Garden	4.6	11.4
Auto Oriented Regional Serving Retail	9.8	24.2
Mixed Employment Node, Light Industrial, Business Office & Agri-Industrial	27.2	67.2
Green Space & Stream Setbacks	42.6	105.3
Institutional (school site)	2.1	5.2
Recreation (includes multi-purpose recreation facility)	20.0	49.4
Townhouse	8.0	19.8
Transit-Oriented Mixed Use	4.8	11.8
TOTAL	124.7	308.1

* Area calculations are approximate

As directed by Council, the Consultants original numbers have been refined.

CORPORATION OF THE DISTRICT OF MAPLE RIDGE

BYLAW NO. 6906-2012

**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 Corporation of the District of Maple Ridge, in open meeting assembled, **ENACTS AS FOLLOWS:**

1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 6906-2012."
2. The parcel of land known and described as:

Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014

and outlined in heavy black line on Map No. 1561 a copy of which is attached hereto and forms part of this Bylaw, is hereby rezoned to RS-1b (One Family Urban (Medium Density) Residential) and R-1 (Residential District).

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 _____, A.D. 20 .

READ a second time the _____ day of _____, A.D. 20 .

PUBLIC HEARING held the day of , A.D. 20 .

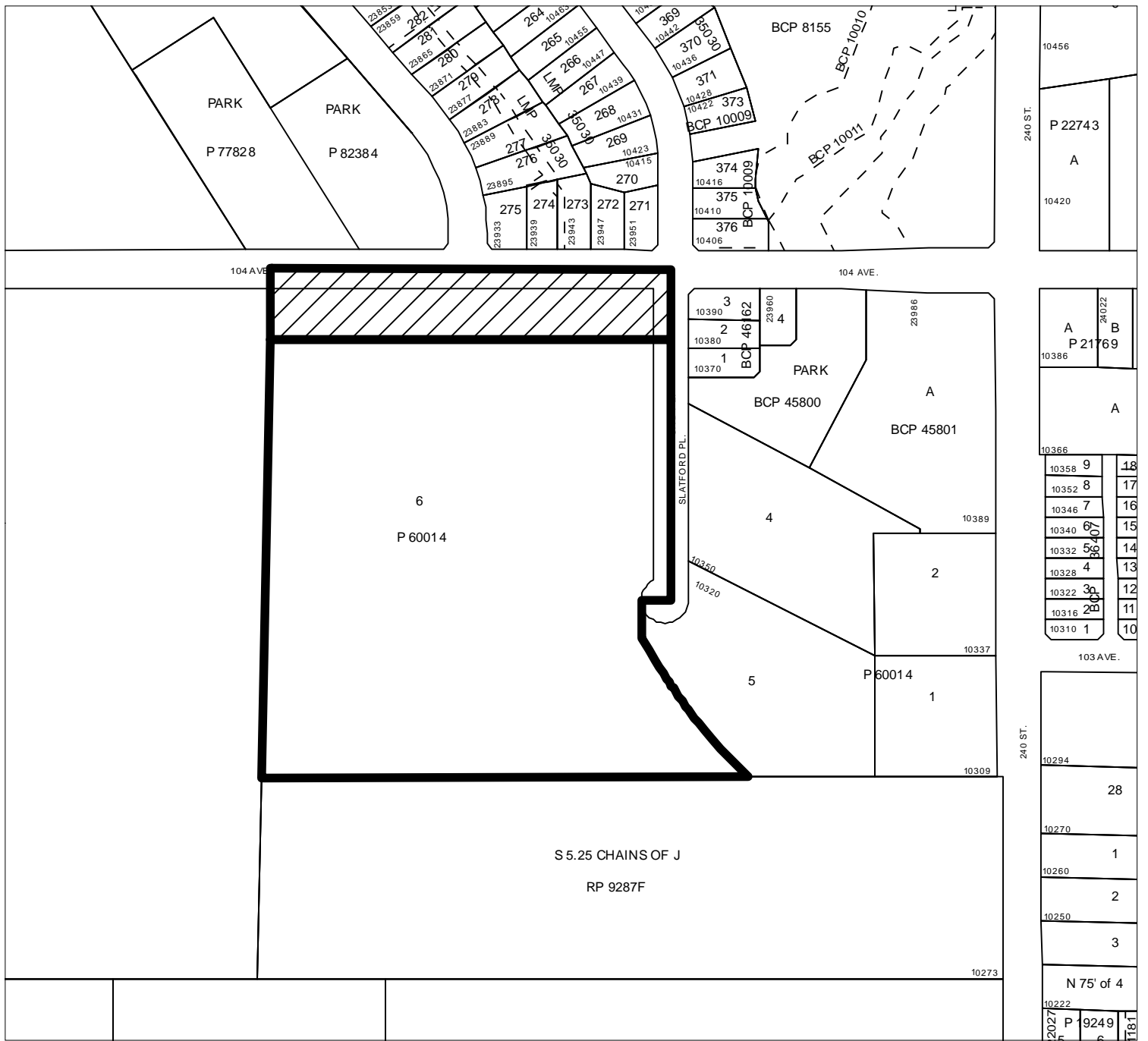
READ a third time the _____ day of _____, A.D. 20 .

APPROVED by the Minister of Transportation this day of , A.D. 20 .

RECONSIDERED AND FINALLY ADOPTED, the day of , A.D. 20 .

PRESIDING MEMBER

CORPORATE OFFICER



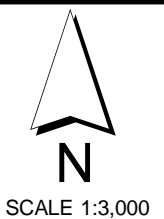
MAPLE RIDGE ZONE AMENDING

Bylaw No. 6906-2012

Map No. 1561

From: RS-3 (One Family Rural Residential)

To:  RS-1b (One Family Urban (Medium Density) Residential)
 R-1 (Residential District)



That Bylaw No. 6906-2012 be deferred pending the outcome of the exclusion applications to the north of 105th Avenue and the subsequent adoption of an Albion Flats Concept Plan.

(2011-081-RZ, Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014, Southwest Corner of 104th Avenue and Slatford Place – to rezone from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) and R-1 (Residential District) to allow for future single family residential development)

OPPOSED - C. HOGARTH, C. QUECK, C. ASHLIE, M. DAYKIN.

"Ernie Daykin"

CARRIED ~~DEFEATED~~ DEFERRED _____ MAYOR

ACTION NOTICE

TO: ☐ Chief Administrative Officer
☐ Executive Director
☐ Mgr – Strategic Economic Initiatives
☐ Mgr – Sustainability & Corp Planning
☐ Mgr – Communications
☐ Gen Mgr – Corporate & Financial
☐ RCMP
☐ Fire Chief
☐ Mgr – Accounting
☐ Chief Information Officer
☐ Gen Mgr – Public Works & Development
☒ Dir – Planning
☐ Dir – Licenses, Permits & Bylaws
☐ Municipal Engineer
☐ Dir – Engineering Operations
☐ Gen Mgr – Com. Dev. & Rec. Services
☐ Dir – Parks & Facilities
☐ Dir – Recreation
☐ Dir – Community Services

Clerk's Section

☐ Corporate Officer
☐ Property & Risk Manager
☐ Lynn Marchand
☒ Diana Dalton
☐ Amanda Allen
☐ Tracy Camire
☐ Amanda Gaunt
☐ Karen Kaake

The above decision was made at a meeting of the Municipal Council held on the date noted above and is sent to you for notation and/or such action as may be required by your Department.

August 28, 2012

Date

Cerie Marlo

Corporate Officer

DISTRICT OF
MAPLE RIDGE

Agenda Item: 1101.1
Council Meeting of: August 28, 2012

That Bylaw No. 6906-2012 be deferred pending the outcome of the exclusion applications to the north of 105th Avenue and the subsequent adoption of an Albion Flats Concept Plan.

(2011-081-RZ, Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014, Southwest Corner of 104th Avenue and Slatford Place – to rezone from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) and R-1 (Residential District) to allow for future single family residential development)

Mayor Daykin, Councillor Ashlie, Councillor Dueck,
Councillor Hogarth - OPPOSED

CARRIED ~~DEFEATED~~ DEFERRED "Ernie Daykin" MAYOR


ACTION NOTICE

TO: ☐ Chief Administrative Officer
☐ Executive Director
☐ Mgr – Strategic Economic Initiatives
☐ Mgr – Sustainability & Corp Planning
☐ Mgr – Communications
☐ Gen Mgr – Corporate & Financial
☐ RCMP
☐ Fire Chief
☐ Mgr - Accounting
☐ Chief Information Officer
☐ Gen Mgr – Public Works & Development
☒ Dir - Planning
☐ Dir - Licenses, Permits & Bylaws
☐ Municipal Engineer
☐ Dir - Engineering Operations
☐ Gen Mgr - Com. Dev. & Rec. Services
☐ Dir - Parks & Facilities
☐ Dir - Recreation
☐ Dir - Community Services

☐ Clerk's Section
☐ Corporate Officer
☐ Property & Risk Manager
☐ Lynn Marchand
☐ Diana Dalton
☐ Amanda Allen
☐ Tracy Camire
☐ Amanda Gaunt
☐ Karen Kaake

The above decision was made at a meeting of the Municipal Council held on the date noted above and is sent to you for notation and/or such action as may be required by your Department.

August 28, 2012
Date


Corporate Officer

In respect of Section 879 of the *Local Government Act*, requirement for consultation during the development or amendment of an Official Community Plan, Council must consider whether consultation is required with specifically:

- i. The Board of the Regional District in which the area covered by the plan is located, in the case of a Municipal Official Community Plan;
- ii. The Board of any Regional District that is adjacent to the area covered by the plan;
- iii. The Council of any municipality that is adjacent to the area covered by the plan;
- iv. First Nations;
- v. School District Boards, greater boards and improvements district boards; and
- vi. The Provincial and Federal Governments and their agencies.

and in that regard it is recommended that no additional consultation be required in respect of this matter beyond the early posting of the proposed Official Community Plan amendments on the District's website, together with an invitation to the public to comment, and;

That Bylaw No. 6906-2012 be given first reading; and;

That the applicant provide further information as described on Schedules A, C and G of the Development Procedures Bylaw No. 5879 – 1999, along with a Subdivision application.

(2011-081-RZ, Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014, Southwest Corner of 104th Avenue and Slatford Place – to rezone from RS-3 (One Family Rural Residential) to RS-1b (One Family Urban (Medium Density) and R-1 (Residential District) to allow for future single family residential development)

~~CARRIED~~

DEFEATED

DEFERRED

"Ernie Daykin"

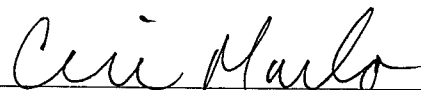
MAYOR

ACTION NOTICE

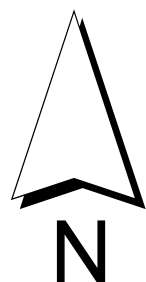
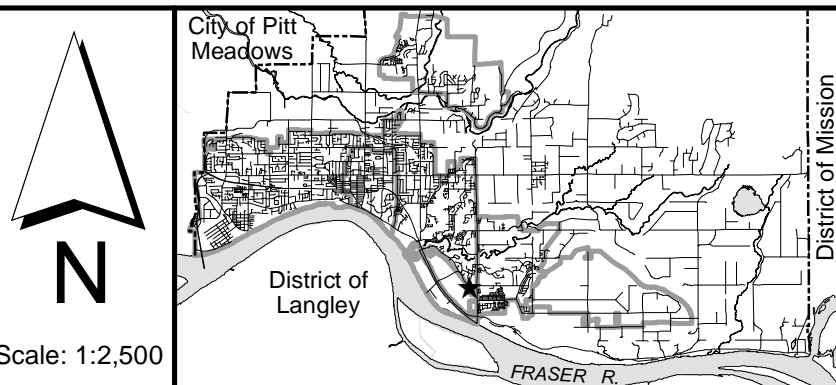
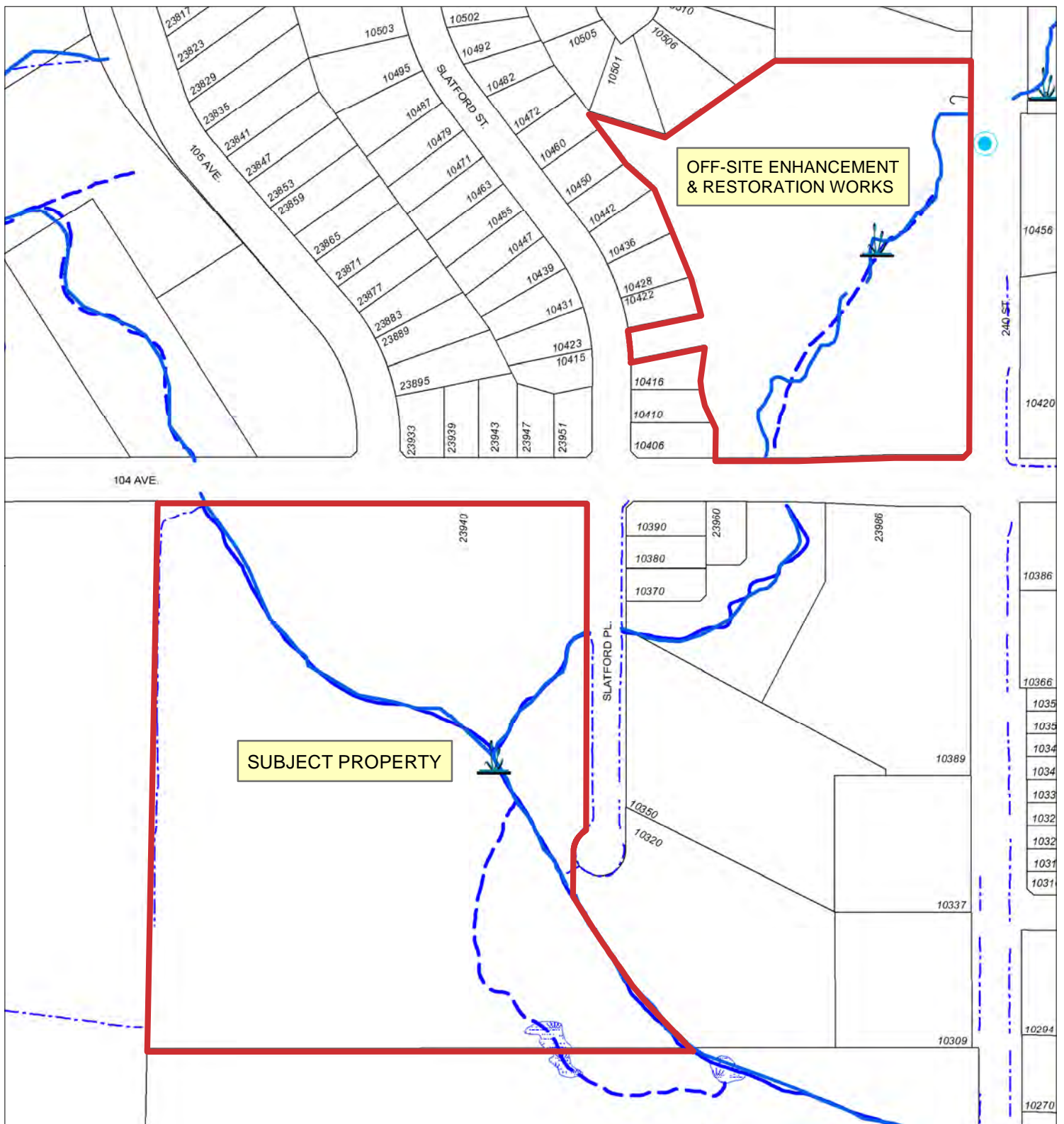
TO: ☐ Chief Administrative Officer
☐ Executive Director
☐ Gen Mgr – Corporate & Financial
☐ Mgr - Accounting
☐ Gen Mgr – Public Works & Development
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Clerk's Section
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☐ Karen Kaake

The above decision was made at a meeting of the Municipal Council held on the date noted above and is sent to you for notation and/or such action as may be required by your Department.

August 28, 2012
Date


Corporate Officer

APPENDIX B



Scale: 1:2,500

23940 104 Avenue

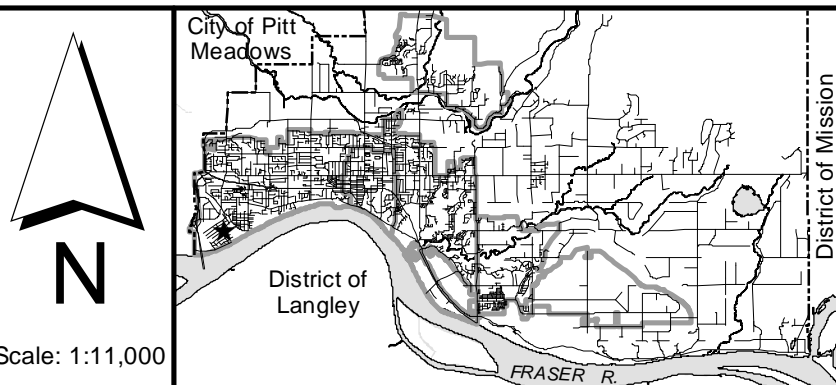
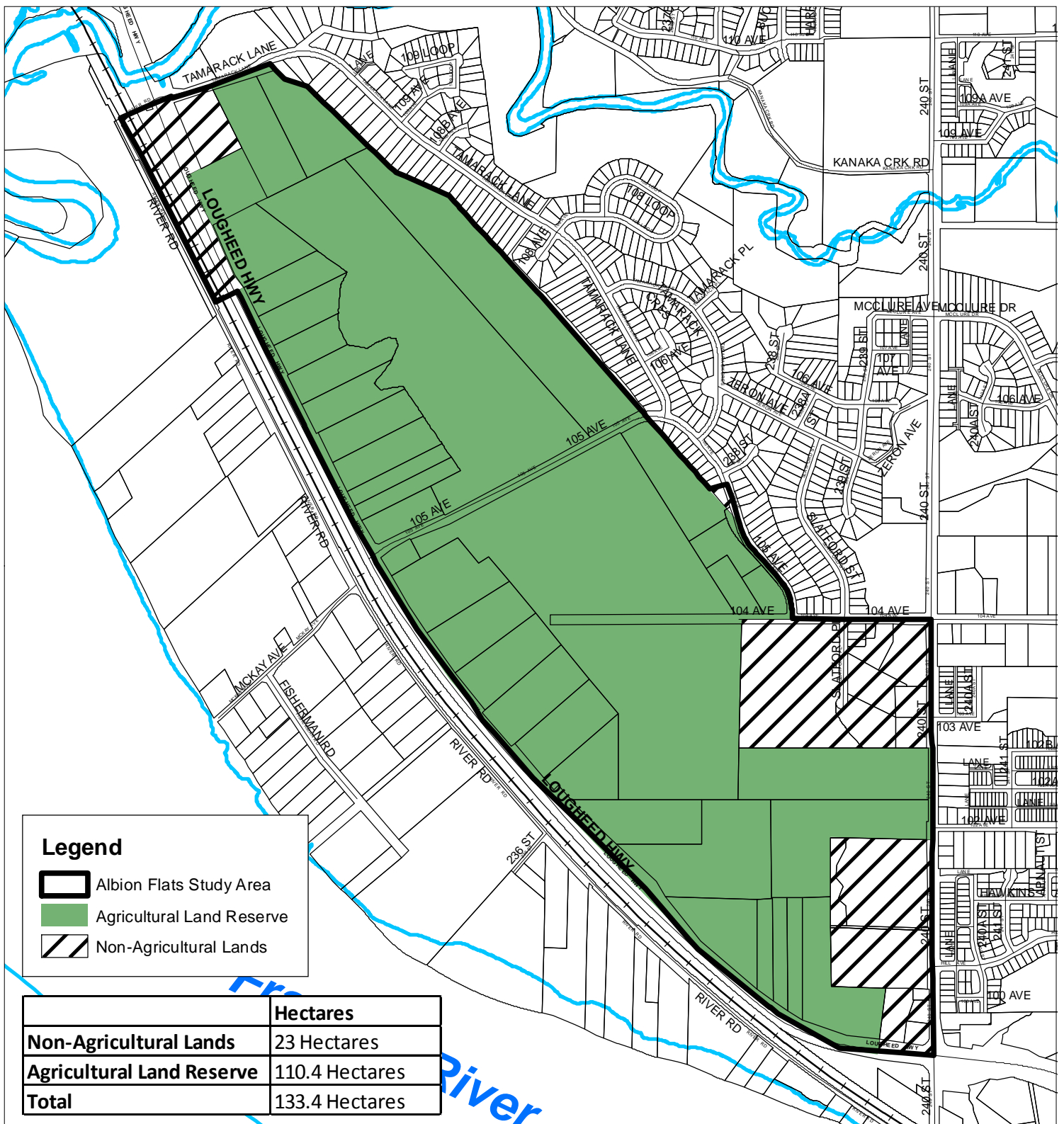


CITY OF MAPLE RIDGE
PLANNING DEPARTMENT

DATE: Mar 25, 2015

FILE: 2011-081-RZ

BY: PC



Albion Flats



CITY OF MAPLE RIDGE
PLANNING DEPARTMENT

DATE: Feb 24, 2015

BY: DT

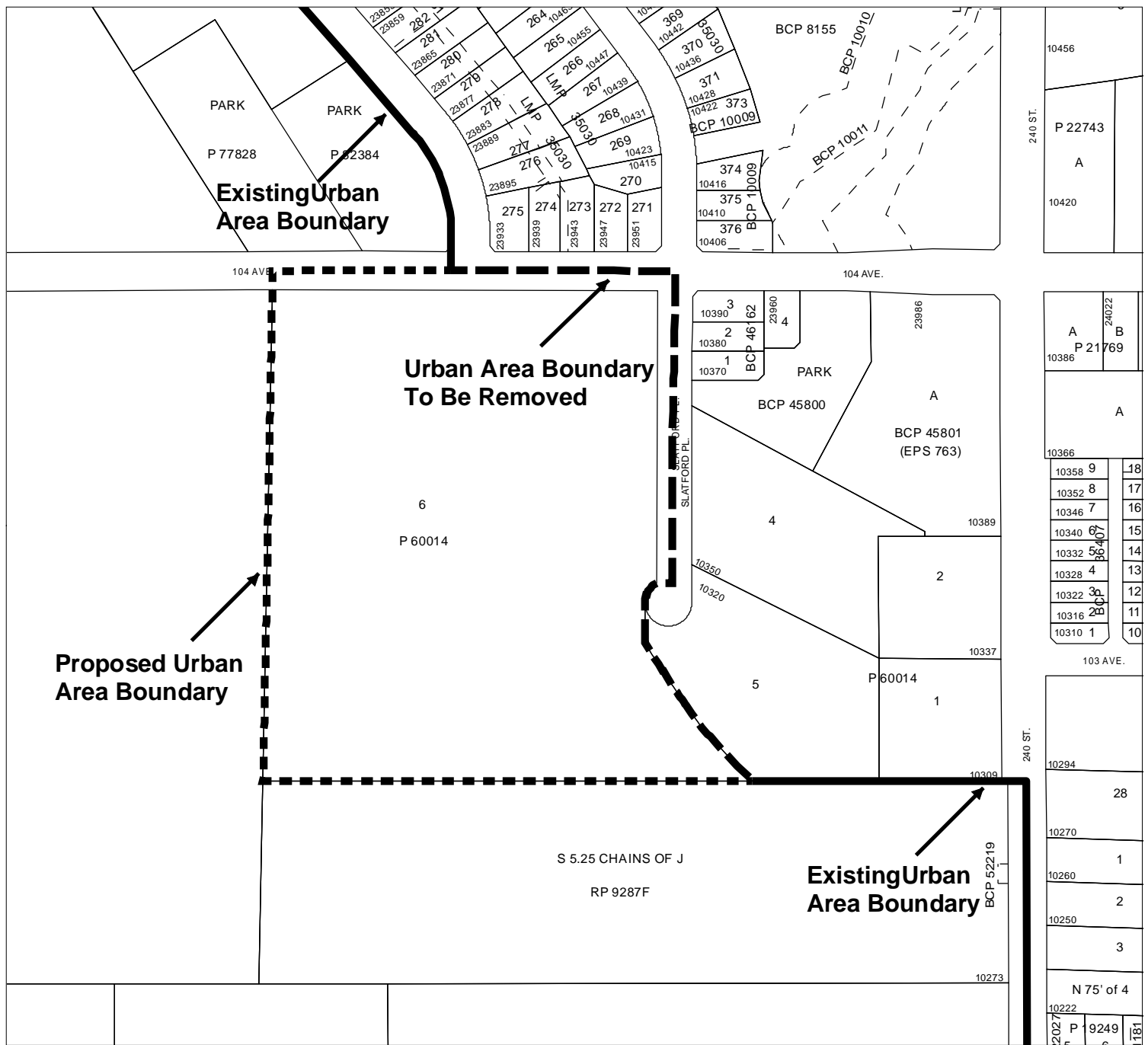
PUBLIC HEARING HELD the day of , 20 .

READ A THIRD TIME the day of , 20 .

ADOPTED, the day of ,20 .

PRESIDING MEMBER

CORPORATE OFFICER

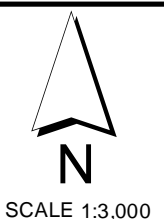


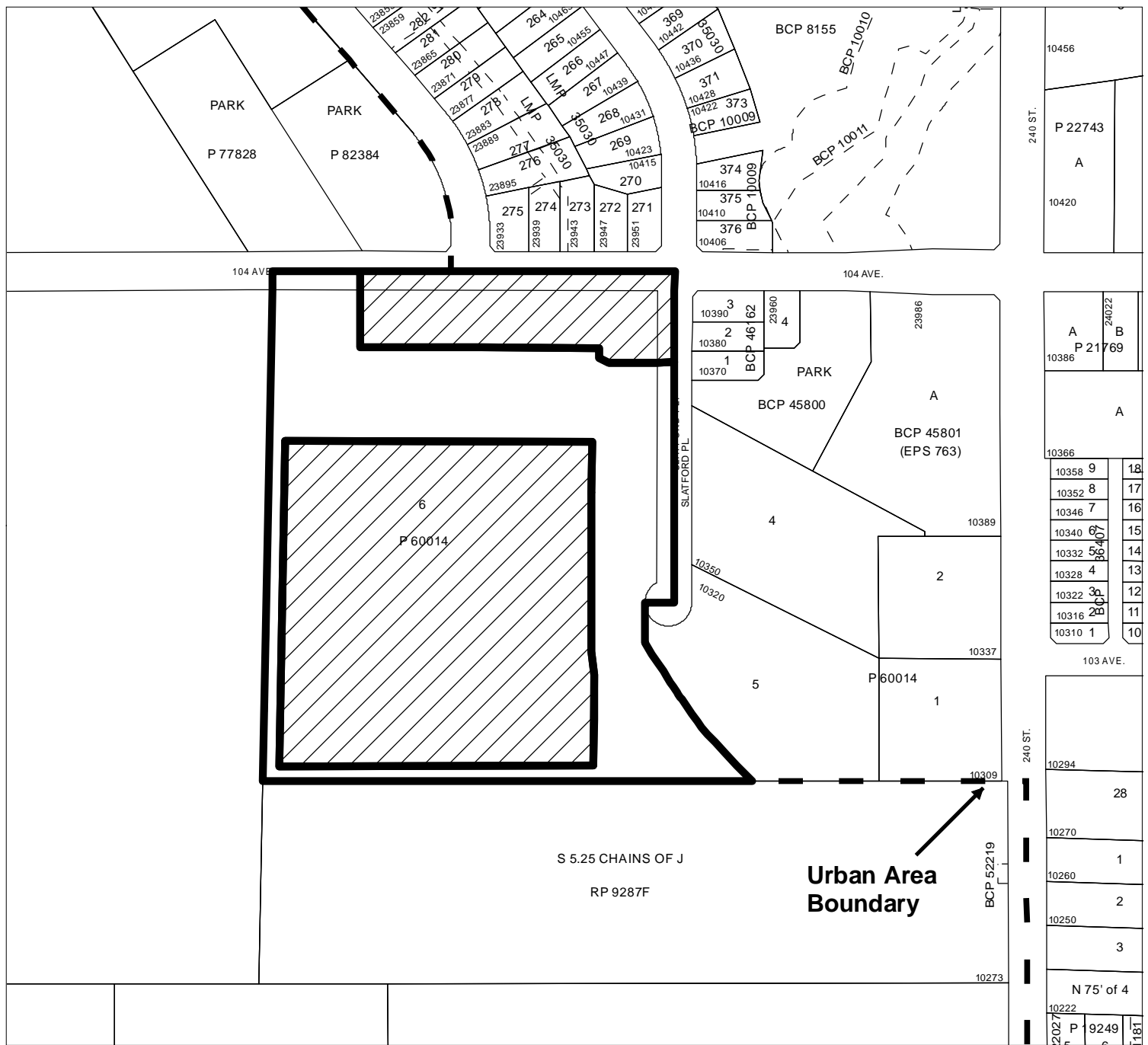
MAPLE RIDGE OFFICIAL COMMUNITY PLAN AMENDING

Bylaw No. 7120-2014

Map No. 894

Purpose: To Amend the Urban Area Boundary As Shown





MAPLE RIDGE OFFICIAL COMMUNITY PLAN AMENDING

Bylaw No. 7120-2014
 Map No. 895
 From: Agricultural

To:  Urban Residential
 Conservation



— — Urban Area Boundary



SCALE 1:3,000



PROVINCIAL AGRICULTURAL LAND COMMISSION

A meeting was held by the Provincial Agricultural Land Commission on October 27, 2010 at the offices of the Commission located at #133 – 4940 Canada Way, Burnaby, B.C.

COMMISSION MEMBERS PRESENT:

Richard Bullock	Chair
Jim Collins	Commissioner
Lucille Dempsey	Commissioner
Denise Dowswell	Commissioner
Jennifer Dyson	Vice-Chair
Gordon Gillette	Vice-Chair
Jim Johnson	Commissioner
Bert Miles	Commissioner
Jerry Thibeault	Commissioner

COMMISSION STAFF PRESENT:

Colin Fry	Executive Director
Brian Underhill	Executive Director
Tony Pellett	Regional Planner
Eamonn Watson	Land Use Planner

Planning Review ID: #175

PROPOSAL: Review draft Albion Flats concept plan endorsed by the District of Maple Ridge ("DMR") Council in the context of a package of reports submitted by DMR for review by Commission members and staff.

COMMISSION CONSIDERATION:

Context

Section 6 of the *Agricultural Land Commission Act* identifies the purposes of the Commission as: (1) to preserve agricultural land; (2) to encourage farming on agricultural land in collaboration with other communities of interest; and (3) to encourage local governments, first nations, the government and its agents to enable and accommodate farm use of agricultural land and uses compatible with agriculture in their plans, bylaws and policies.

The draft concept plan would encourage non-farm development throughout the Albion Flats area while preserving a few small, isolated fields as "edible landscapes" and possibly also encouraging the development of greenhouses on rooftops of commercial/industrial buildings. DMR's Agricultural Plan, adopted December 2009, states, "The primary goal with respect to larger, established farming operations...is to plan for their retention as farms...Limited to highly specific situations, the secondary goal...is to explore a policy of compensation from development that enables funds to be generated so that the net agricultural capability of DMR is enhanced by investment elsewhere."

CONCLUSIONS

1. That the land north of 105 Avenue has agricultural capability, is suitable for agricultural use and is appropriately designated as ALR.
2. That apart from the agricultural fairgrounds, the land south of 105 Avenue is of very limited interest to agriculture, thus previous Commission proposals for limiting land use options may be reconsidered.
3. That the draft concept plan, as proposed, will have an overall negative impact on agriculture in DMR.
4. That the draft concept plan is inconsistent with the objective of the *Agricultural Land Commission Act* to preserve agricultural land.

IT WAS

MOVED BY: Commissioner Collins

SECONDED BY: Commissioner Miles

THAT the Commission not endorse the draft concept plan entirely as submitted, but only in part;
THAT DMR be advised that while the Commission is prepared to cooperate towards future commercial or industrial development at Albion Flats, it will do so in conjunction with restoration of an agricultural future for that part of Albion Flats lying to the north of 105 Avenue;

AND THAT focusing on the area north of 105 Avenue the Commission will expect DMR to undertake a comprehensive review of drainage and stream flow conditions in the Road Thirteen Dyking District with a view to resolving issues identified in the Golder Associates overview agricultural assessment and the HB Lanaro environmental baseline report, that review to include

- preliminary consultation with Fisheries and Oceans Canada;
- preparation of an agricultural remedial action plan in consultation with the Commission, the Ministry of Agriculture, Fisheries and Oceans Canada and the land owners, such a plan to address all relevant issues including but not limited to drainage, long term access, buffering or consolidation, and
- design to ensure that traffic patterns enable practical access and use by farm vehicles;

AND THAT the Commission will expect DMR to submit an application under section 29 of the *Agricultural Land Commission Act* to exclude from the ALR the land lying south of 105 Avenue and west of 240 Street together with any remnant areas elsewhere in DMR identified by the Commission as being unsuitable for agriculture; Commission approval of such an application may be in part or in whole conditional on progress toward the foregoing action plan;

AND THAT this response does not suggest or promote any move to eliminate the use of land at Albion Flats as an agricultural fairground;

AND THAT the Commission recognizes that any implementation or action to be taken with respect to the Commission's response to the concept plan will require that DMR and land owners be responsible for complying with applicable Acts, regulations, and decisions of any authorities that have jurisdiction under an enactment.

CARRIED

Resolution # 2635/2011

CORPORATION OF THE DISTRICT OF MAPLE RIDGE

BYLAW NO. 6906-2012

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 Corporation of the District of Maple Ridge, in open meeting assembled, **ENACTS AS FOLLOWS**:

1. This Bylaw may be cited as "Maple Ridge Zone Amending Bylaw No. 6906-2012."

2. The parcel of land known and described as:

Lot 6 District Lot 405 Group 1 New Westminster District Plan 60014

and outlined in heavy black line on Map No. 1561 a copy of which is attached hereto and forms part of this Bylaw, is hereby rezoned to R-1 (Residential District) and R-2 (Urban Residential District) as shown.

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

READ a first time the 28th day of August, A.D. 2012.

READ a second time the day of , A.D. 20 .

PUBLIC HEARING held the day of , A.D. 20 .

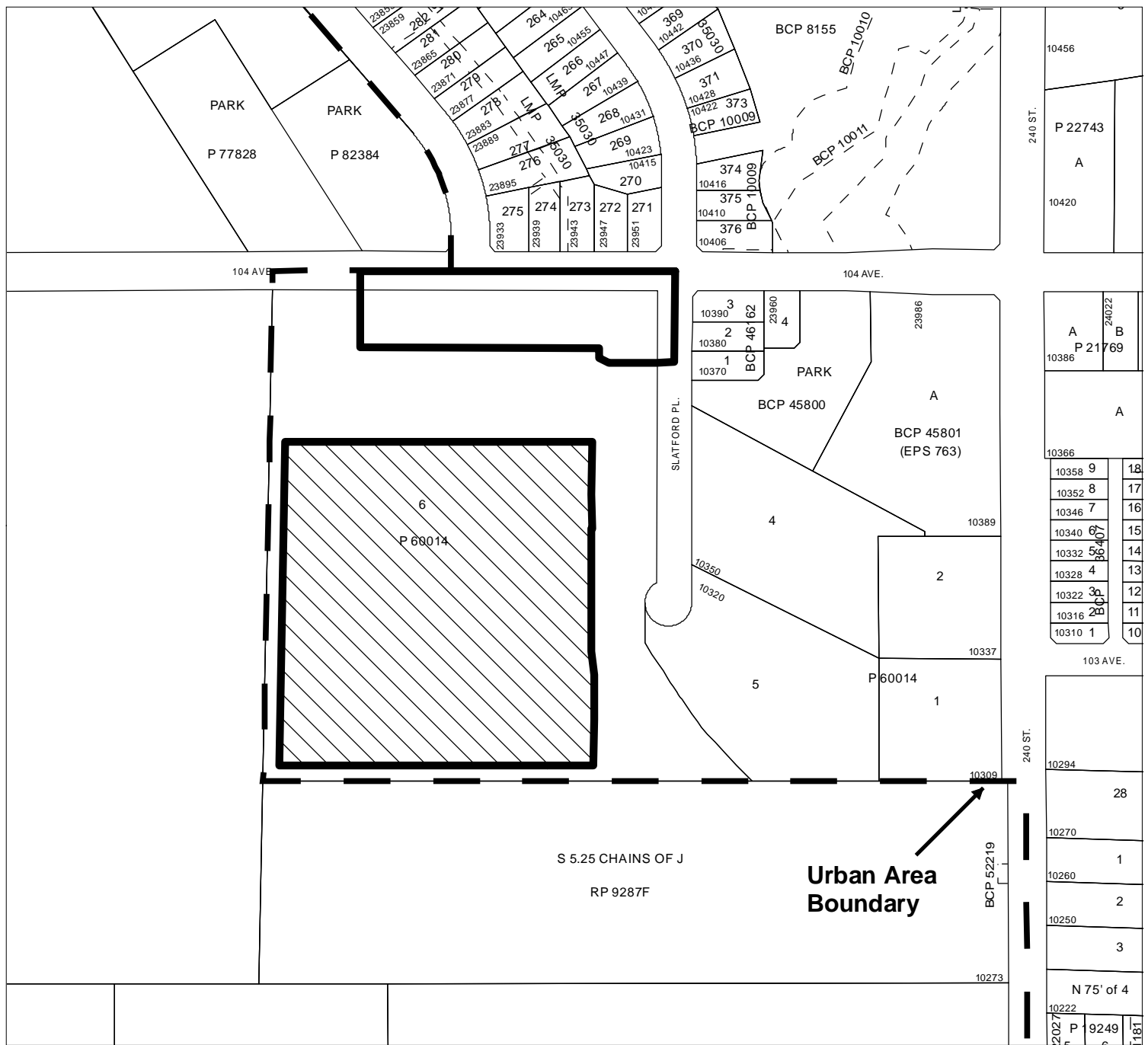
READ a third time the day of , A.D. 20 .

APPROVED by the Minister of Transportation this day of , A.D. 20 .

RECONSIDERED AND FINALLY ADOPTED, the day of , A.D. 20 .

PRESIDING MEMBER

CORPORATE OFFICER



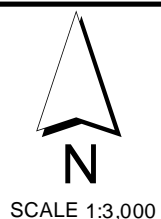
MAPLE RIDGE ZONE AMENDING

Bylaw No. 6906-2012
Map No. 1561
From: RS-3 (One Family Rural Residential)

To:  R-2 (Urban Residential District)
 R-1 (Residential District)



— — Urban Area Boundary



Zone	R-1	R-2
Front Setback	5.5	3.0 / 5.5 (garage)
Rear Setback	8.0	8.0 / 13.0 (lane)
Sideway Setback	1.2(I)	1.2(I)
	3.0(E)	3.0(E)
Min. Area (m ²)	371	315
Min. Depth (m.)	24	27
Min. Width (m.)	12	10.5 / 9.2 (lane), 13.5 / 13.2 (lane)

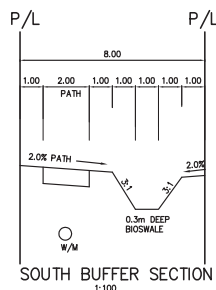
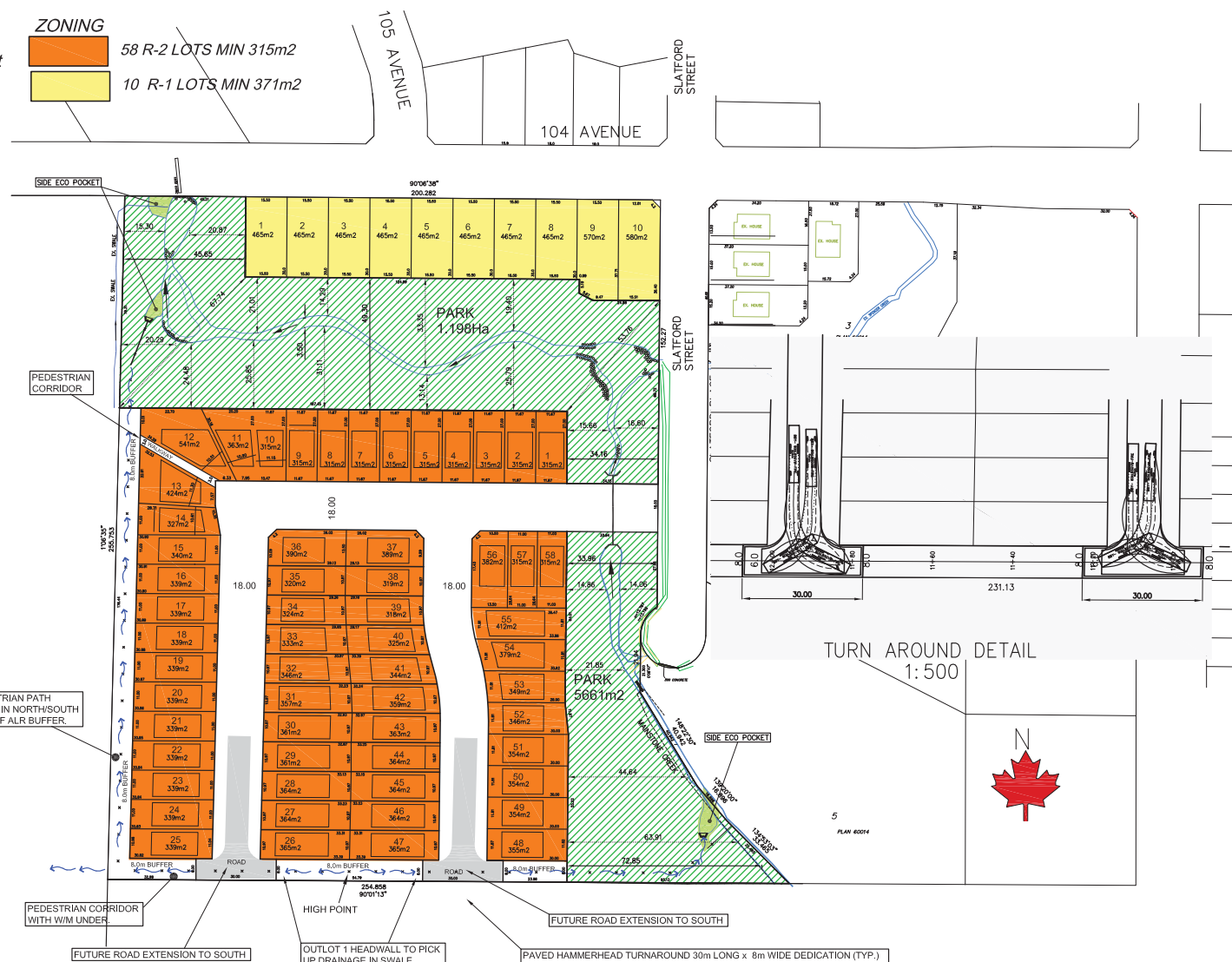
**MIN Building
Foundation Footprint**



ZONING

- 58 R-2 LOTS MIN 315m²
- 10 R-1 LOTS MIN 371m²

*External lot width i.e. adjacent to road or lane.



No	Date	Revision	BY
03	FEB 2015	NEW BOUNDARY SURVEY PLAN	AJD
02	FEB 2015	MORNINGSTAR LAYOUT	AJD
01	AUG 14/14	"AS PER FIELD CONDITIONS"	AJD

D.K. BOWINS & ASSOCIATES INC.
8955 EMERY STREET, MISSION, B.C.
V4S 1A6 FAX: 604-826-4399, FAX: 604-826-3316
EMAIL: dkbowins@shaw.ca

EXISTING	PROPOSED
STW	STW
SANITARY SEWER	SANITARY SEWER
GAS	GAS
WATER	WATER
U.G. LIGHTING	U.G. LIGHTING
U.G. HYDRO	U.G. HYDRO
U.G. TELEPHONE	U.G. TELEPHONE
MANHOLE	MANHOLE
CATCH BASIN	CATCH BASIN
WATER OR GAS VALVE	WATER OR GAS VALVE

DITCH	UTILITY POLE / ANCHOR
BASEMENT ELEV.	BASEMENT ELEV.
EDGE OF PAVEMENT	EDGE OF PAVEMENT
FENCE	FENCE
SURVEY MONUMENT	SURVEY MONUMENT
SAN. INSPECTION CHAMBER	SAN. INSPECTION CHAMBER
STREET LIGHT	STREET LIGHT

EDGE OF GRAVEL	EDGE OF GRAVEL
SLOPE	SLOPE
SHRUB	SHRUB
HEDGE	HEDGE
TREE	TREE
BUILDING	BUILDING

DRAWN	AJD
DESIGNED	DKB
CHECKED	
APPROVED	
FIELD BOOK	
SCALES	HORZ. 1:750
VERT.	-

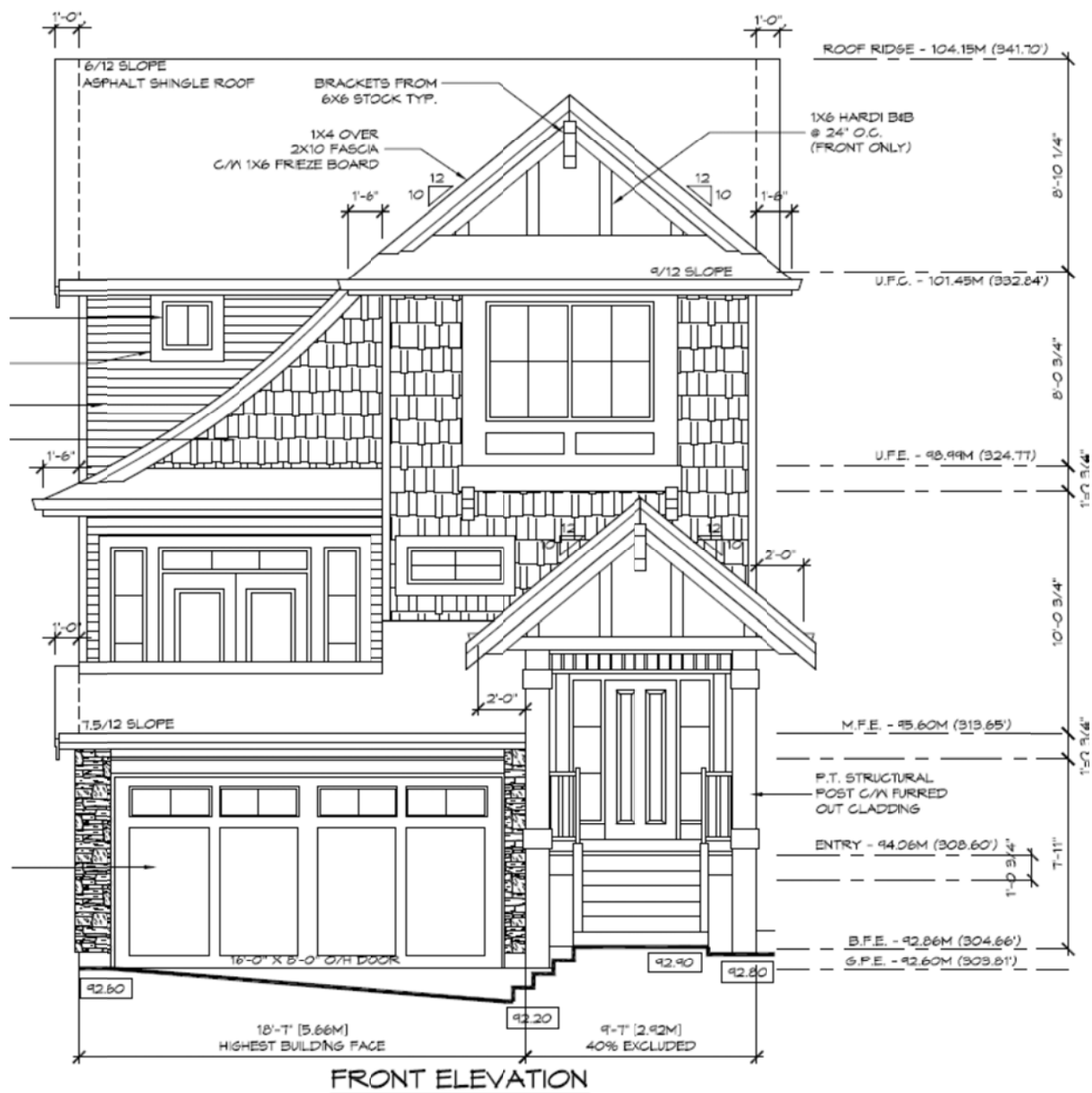
CITY OF MAPLE RIDGE
ENGINEERING DEPARTMENT

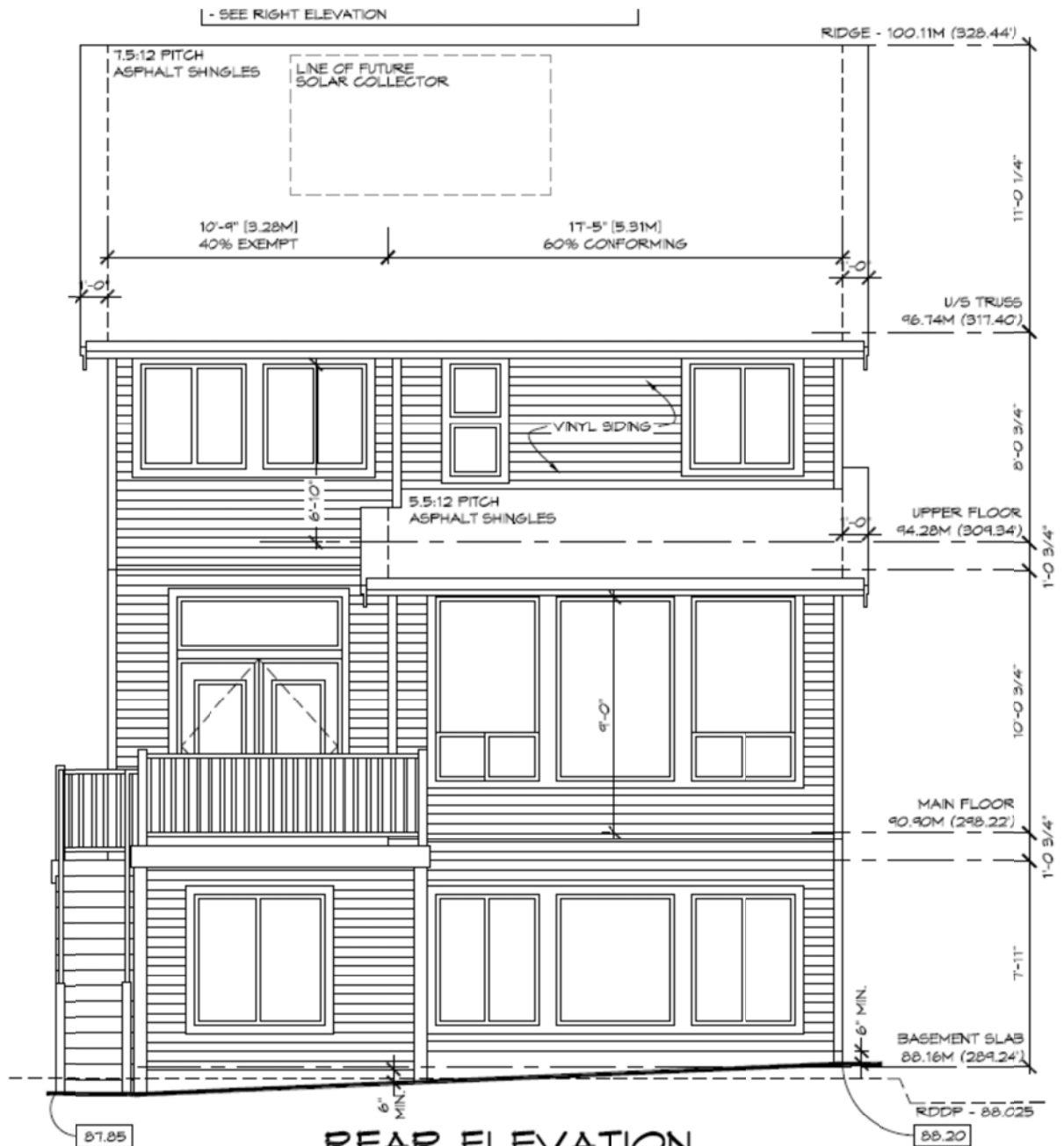
68 LOT SUBDIVISION PLAN
WYNNBROOK DEVELOPMENT

Date: APRIL 2014
SHEET OF
Dwg. No. 00

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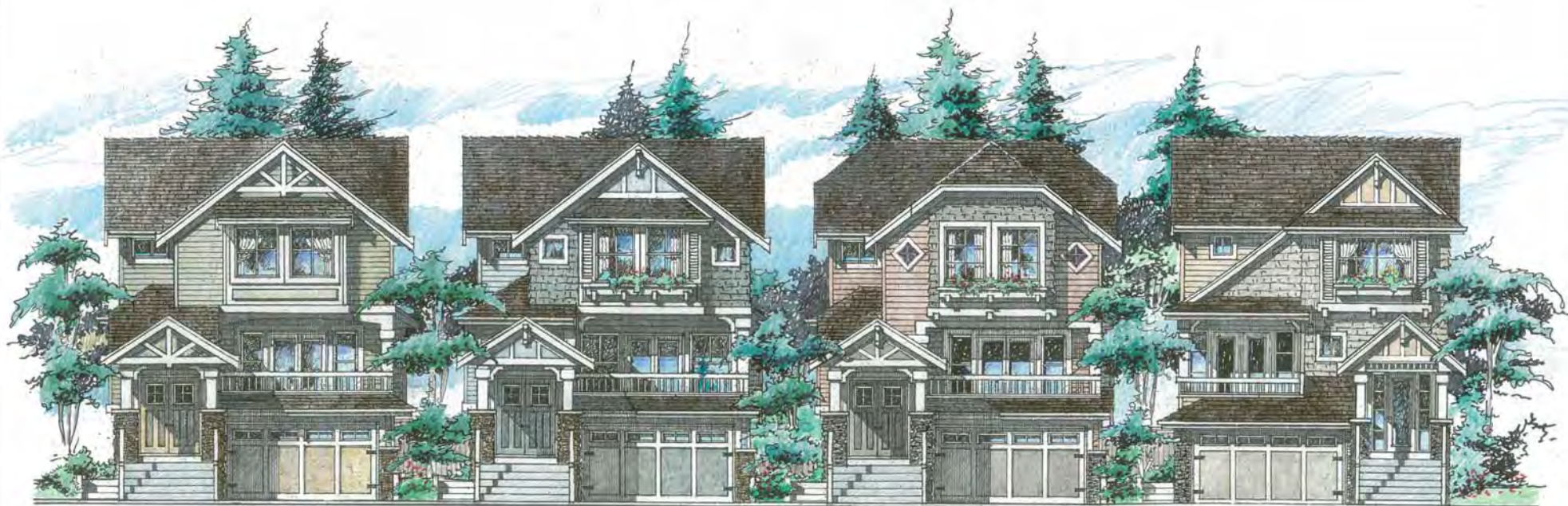
APPENDIX H





HIGHEST BUILDING FACE CALCULATION:
 WALL LENGTH = 8.59M x 0.40 = 3.44M EXCLUDED
 AVERAGE NATURAL GRADE = 88.56 + 88.50 / 2 = 88.53M
 - SEE RIGHT ELEVATION

RDGP



TYPICAL STREET ELEVATION

14'x10'

WYNNBROOK DEVELOPMENT - MAPLE RIDGE B.C.
BY MORNINGSTAR HOMES

Hobby Sept 19

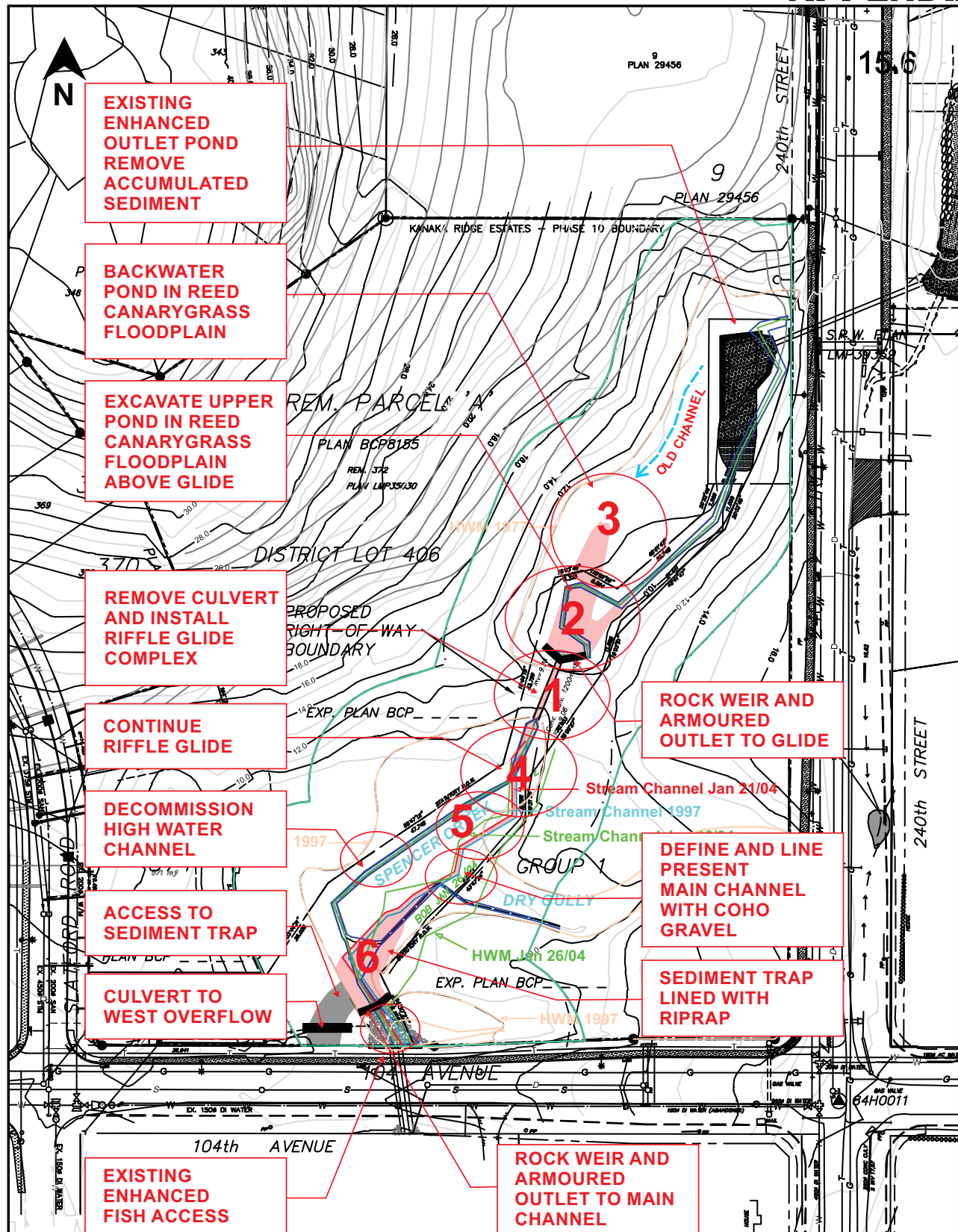
Freddy Sale & Associates Ltd.

Residential Design & Construction

1000 - 10th Avenue, Suite 100, Vancouver, B.C. V6H 1A1

Architectural & Engineering Services

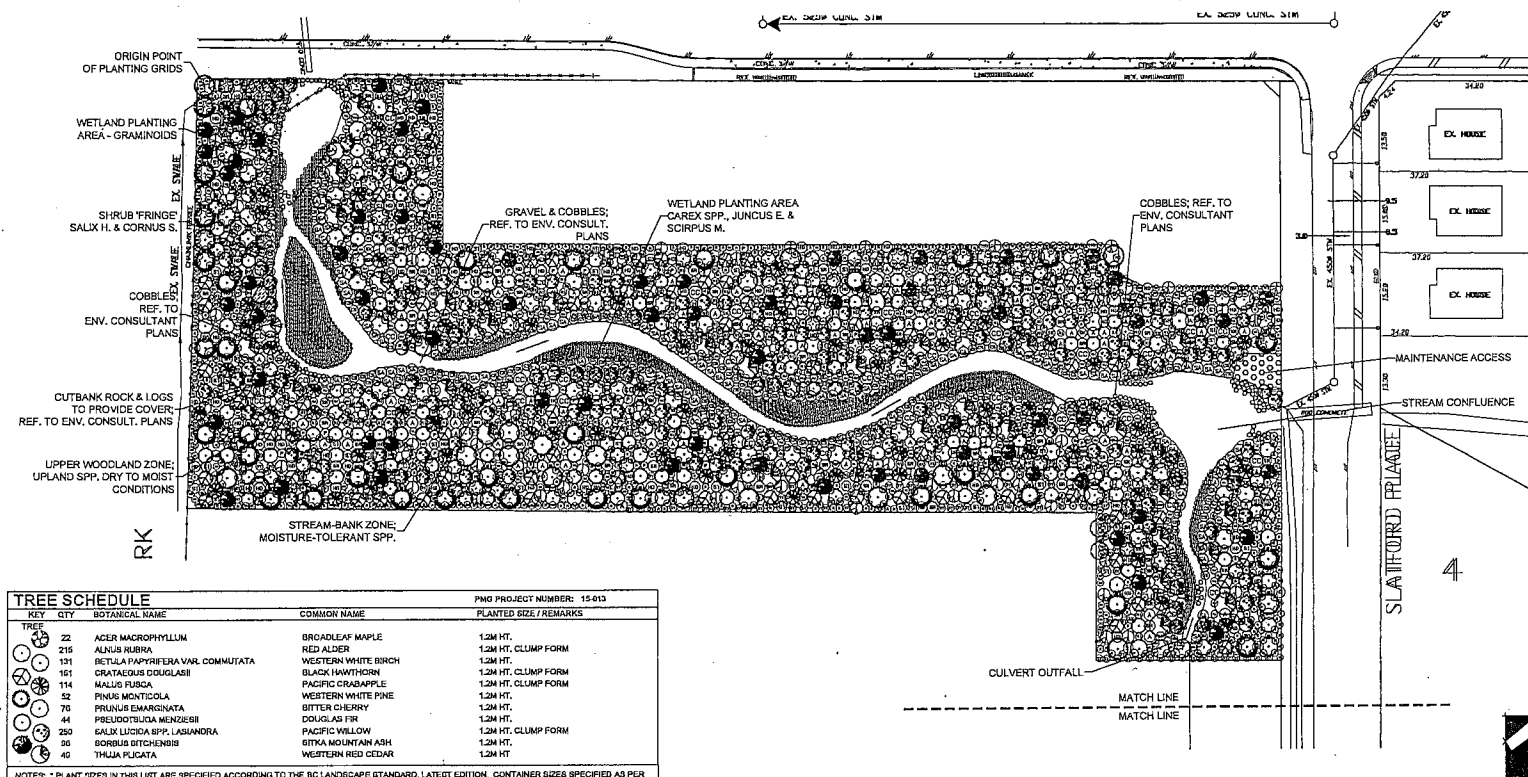
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Map 4
WYNNBROOK OFFSITE ENHANCEMENT
IN SPENCER CREEK BETWEEN 240TH STREET AND 104TH AVENUE



Surface drainage from 1997 to 2004



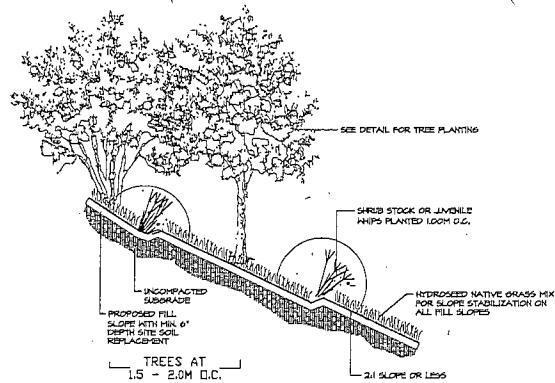
TREE SCHEDULE			PMD PROJECT NUMBER: 15-013	
KEY	CITY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
TREE				
52		ACER MACROPHYLLUM	BROADLEAF MAPLE	1.2M HT.
215		ALNUS RUBRA	RED ALDER	1.2M HT. CLUMP FORM
131		BETULA PAPPAYERIA VAR. COMMUNATA	WEATHERY WHITE BIRCH	1.2M HT.
101		CRATAEGUS DOUGLASII	BLACK HAWTHORN	1.2M HT. CLUMP FORM
14		MAULS PIRIDA	PACIFIC CHAMPAE	1.2M HT. CLUMP FORM
52		PNUS MONTICOLA	WEATHERY WHITE PINE	1.2M HT.
76		PRUNUS EMARGINATA	BITTER CHERRY	1.2M HT.
4		PRINOTUS MENZIESII	DOUGLAS FIR	1.2M HT.
250		SALIX LUCIDA RPP. LASIANDRA	PACIFIC WILLOW	1.2M HT. CLUMP FORM
6		SCORBUS BRETCHMEIERI	BITKA MOUNTAIN ASH	1.2M HT.
16		THALIA PACIFIC	WEATHERY RED CEDAR	1.2M HT.

NOTES: * PLANT ZONES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CITA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. ** REFER TO SPECIFICATIONS FOR DEFINED CROWN MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. *** SEARCH AND REVIEW: MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT PRIOR TO ORDERING. **** APPROVAL: OBTAIN WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS. TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO PROVIDING FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD, LATEST EDITION. ALL PLANT MATERIAL MUST BE DELIVERED FROM CERTIFIED DISEASE FREE NURSERY.

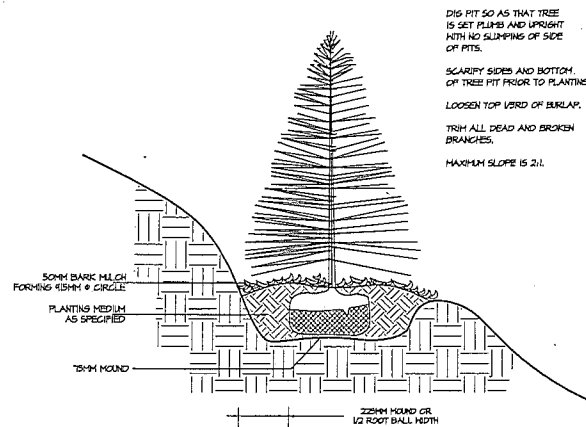
SHRUB SCHEDULE			PMO PROJECT NUMBER: 15-013	
EST	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
157		ALNUS VERRUCO BURSP, SINJATA	SITKA ALDER	#1 POT; 10CM; SHRUB FORM
160		AMELANCHER ALNIFOLIA	SAKAKID	#1 POT; 30CM HT. CLUMP FORM
202		CORYLUS ERSER	BEECHING DOGWOOD	#1 POT; 30CM
87		CORYLUS CORNUATA "TORUNATA"	BAKED HAZELUNT	#1 POT; 20CM
180		HOLEDOUGHS BIGDOLO	OCEANPRAY	#1 POT; 20CM
87		FRUNUS VIRGINIANA	CHONE CHERRY	#1 POT; 45CM
473		ROSA GYNOCHAPTIS	BALDWIN ROSE	#1 POT; 25CM
859		ROSA NUTKANA	NOOTKA ROSE	#1 POT; 25CM
455		RUBUS PARVIFLORUS	THIMBLEBERRY	#1 POT; 30CM
814		RUBUS SPECTABILIS	SALMONBERRY	#1 POT; 25CM
208		GALIX HOOKERIANA	HOOKER'S WILLOW	#1 POT; 30CM
74		SAMMUCUS CERULEA	BLUE-BERRY ELDER	#1 POT; 20CM
137		SAMMUCUS RACEMOSA	ELDERBERRY	#1 POT; 30CM
52		CORONIS BITHEDENS	SITKA MOUNTAIN ASH	#1 POT; 20CM
417		SOMNIOBACOSUS ALBUS	SNOWBERRY	#1 POT; 30CM

WETLAND PLANT SCHEDULE			PMO PROJECT NUMBER: 15-013	
BOTANICAL NAME		COMMON NAME	PLANTED SIZE / REMARKS	
GRAMINEOIDS				
(C)	250 CAREX ROSTRATA	BEAKED SEDGE	#1 POT; 30CM	
(C)	251 CAREX OXYSTACHYA	SLIMY SEDGE	#1 POT; 30CM	
(C)	252 JUNCUS EFFUSUS	COMMON RUSS	#1 POT	
(C)	253 SCIRPUS MICROCARPUS	BURLEIGH	#1 POT; 30CM	

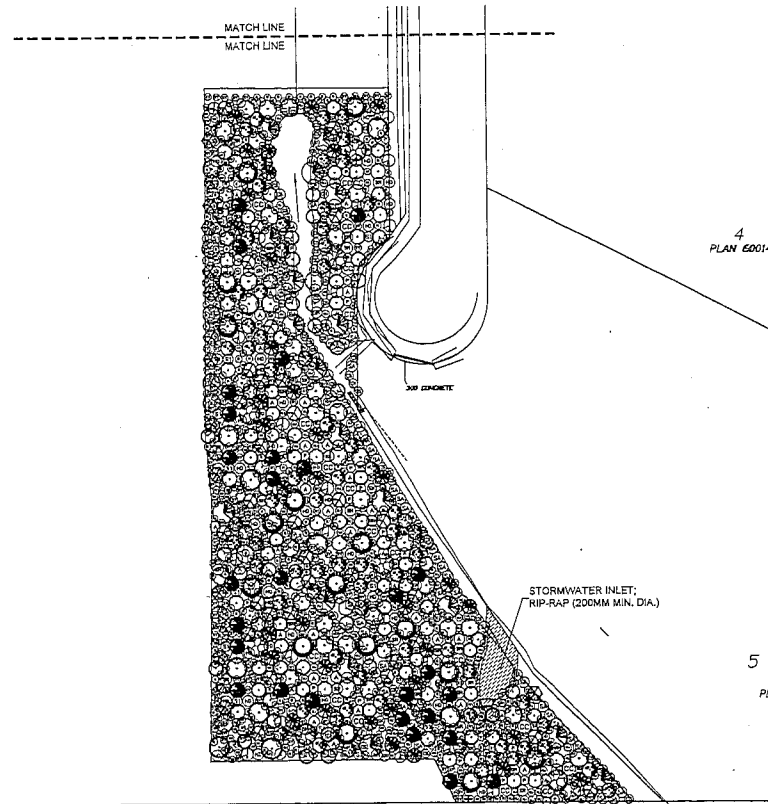
COMPOSITION REQUIREMENTS	REQ'D %		PROPOSED %	
CONIFERS	121	(>10%)	145	12%
FRUITING TREES AND SHRUBS	3002	(>50%)	4692	78%



1
L2 TREE PLANTING ON A SLOPE



2
L2 TREE PLANTING DETAIL



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pmg
LANDSCAPE
ARCHITECTS
Suite C100 - 4185 SSB Creek Drive
Burnaby, British Columbia, V5C 0G2
p: 604-294-0911 • f: 604-294-0022

SEAL:

1	DESIGNED	ADDITIONAL PLANTING IN SOUTHEAST	NO
1	DRAWN	NEW SITE PLAN	03
NO.	DATE	REVISION DESCRIPTION	DR.

CLIENT:
MORNINGSTAR HOMES

PROJECT:
WYNNBROOK DEV'L
RIPARIAN AREA PLANTING
STAFFORD PL. & 104TH AVE.
MAPLE RIDGE, B.C.

DRAWING TITLE:
LANDSCAPE
PLAN

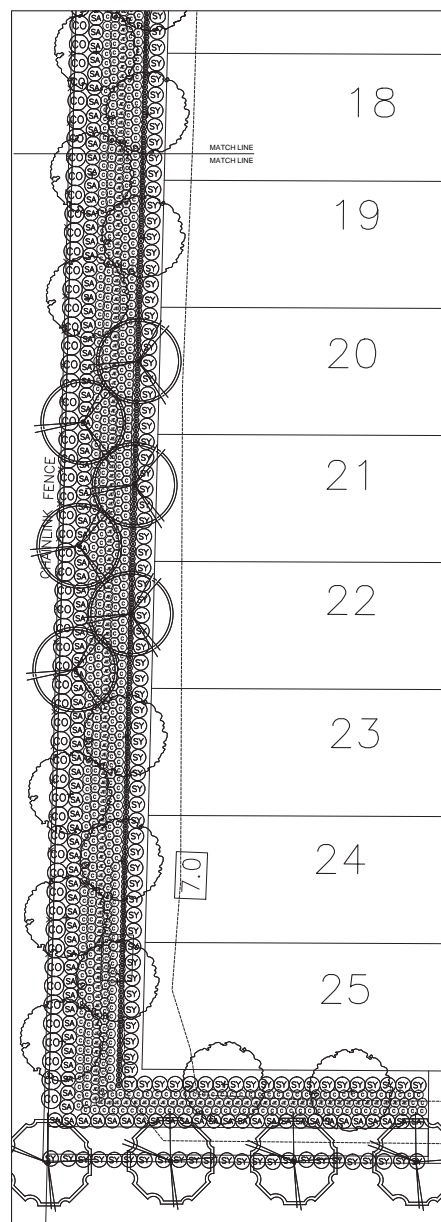
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SCALE: 1:300
DRAWN: CLS
DESIGN: CLS
CHKD: MCT OF 2

L2

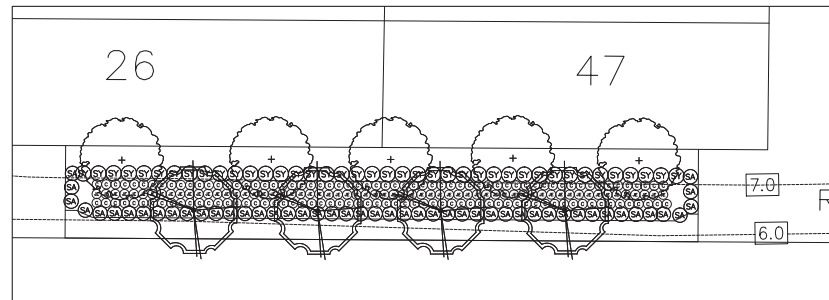
15013-12P

PMG PROJECT NUMBER:

15-013



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CLIENT:

MORNINGSTAR HOMES

PROJECT:

**WYNNBROOK DEV'L
BIOSWALE PLANTING**
STAFFORD PL. & 104TH AVE.
MAPLE RIDGE, B.C.

DRAWING TITLE:
**LANDSCAPE
SHRUB PLAN**

DATE: 15.JAN.27 DRAWING NUMBER:
SCALE: 1:200
DRAWN: CLG
DESIGN: CLG
CHKD: MCY

L2

OF 2

City of Maple Ridge

TO:	Her Worship Mayor Nicole Read and Members of Council	MEETING DATE:	April 20, 2015
FROM:	Chief Administrative Officer	FILE NO:	2015-080-DP
		MEETING:	C of W
SUBJECT:	Heritage Alteration Permit 11406 205 Street		

EXECUTIVE SUMMARY:

On February 24, 2015, Council adopted Maple Ridge Heritage Designation and Revitalization and Tax Exemption Agreement Bylaw 6962 - 2012 (the HRA Bylaw) for the Whitehead Residence at 11406 205 Street in Hammond. This bylaw contains a Heritage Conservation Plan that describes the works to be undertaken to properly conserve this heritage residence and the cultural landscaping. The Agreement states that the owner shall not alter the heritage character of the Whitehead Residence, except as permitted by a Heritage Alteration Permit (HAP) issued by the City.

The purpose of this report is to request Council authorize the issuance of a Heritage Alteration Permit, to allow the owners of the Whitehead Residence to revitalize the exterior of the house, to extend the first floor and add a second floor dormer to the residence, to construct a new foundation, and to undertake interior renovations, all in accordance with the approved Heritage Conservation Plan.

Issuance of the Heritage Alteration Permit is recommended because the proposed works are fully compliant with the Heritage Conservation Plan.

RECOMMENDATION:

That the Corporate Officer be authorized to sign and seal 2015-080-DP respecting property located at 11406 205 Street.

DISCUSSION:

a) Background Context:

Applicant:	James Rowley
Owner:	Leanne Koehn and James Rowley
Legal Description:	LOT A DL 279 GR 1 NWD PLAN EPP36837
OCP:	
Existing:	Urban Residential

Zoning:			
Existing:			RS-1 (One Family Urban Residential) and Maple Ridge Heritage Designation and Revitalization and Tax Exemption Agreement Bylaw 6962 - 2012
Surrounding Uses			
North:	Use:		Single-Family Residential
	Zone:		RS-1 (One Family Urban Residential)
	Designation		Urban Residential
South:	Use:		Single-Family Residential
	Zone:		RS-1 (One Family Urban Residential)
	Designation		Urban Residential
East:	Use:		Single-Family Residential
	Zone:		RS-1 (One Family Urban Residential)
	Designation		Urban Residential
West:	Use:		Single-Family Residential
	Zone:		RS-1 (One Family Urban Residential)
	Designation		Urban Residential
Existing Use of Property:			Two Single-Family Residential dwellings (as permitted by HRA Bylaw)
Site Area:			1,260 square metres (13,562.6 square feet)
Access:			2015 Street, 114 Avenue and rear lane parallel to 114 Avenue
Servicing:			Urban (as varied by HRA Bylaw)
Previous Applications:			

b) Project Description:

The owners propose to revitalize the exterior of the existing heritage house, to extend the first floor and add a second floor dormer to the residence, to construct a new foundation, and to undertake interior renovations to Whitehead Residence, all in accordance with the approved Heritage Conservation Plan.

c) Planning Analysis:

Heritage Conservation Policies: This application is the appropriate next step in achieving the goals and objects set out in the HRA Bylaw for the revitalization and conservation of the Whitehead Residence.

Proceeding with these works would be in accordance with the following Official Community Plan (OCP) policy:

4 - 40 Maple Ridge will encourage the conservation and designation of significant heritage structures, and natural and cultural landscape features in each neighbourhood.

The proposed works, as described in the Section 7 Conservation Recommendations and Schedule C architectural plans of the HRA produced by publicLAB Research + Design in consultation with Birmingham & Wood Assessment (together the Heritage Consultant), are all proposed to be done in accordance with Parks Canada *Standards and Guidelines for the Conservation of Historic*

Places in Canada (the Canadian Standards and Guidelines). These standards were adopted by Council on March 24, 2009, to guide and to evaluate all heritage conservation work in Maple Ridge. This is in accordance with the following OCP Policy:

- 4 - 43 *The development application review process will include an opportunity to evaluate the overall impact of proposed development on the heritage characteristics and context of each historic community or neighbourhood. Conservation guidelines and standards should be prepared to aid in this evaluation and provide a basis from which recommendations can be made to Council.*

Heritage Revitalization Bylaw: Maple Ridge Heritage Designation and Revitalization and Tax Exemption Agreement Bylaw 6962 – 2012 contains an Agreement about the owner's obligations and benefits, including a time requirement for completing identified conservation works, and a Heritage Conservation Plan that describes the works to be undertaken to properly conserve this heritage residence and tax exemptions Council approved for a period of 5 years to help offset some costs of the conservation works.

The HRA establishes the physical characteristic or Character Defining Elements that embodies and expresses the heritage value and heritage character of the Whitehead Residence, and the permitted alterations that respect these characteristics.

A summary of the Character Defining Elements identified in Section 5 Statement of Significance in the Heritage Conservation Plan are as follows:

- Cross gable form and front porch and porch details;
- Wood doors, windows and stain glass windows;
- Exterior shingle materials;
- Wood trims;
- Brick chimney; and
- Original interior materials.

Heritage Alteration Permit (HAP): The Local Government Act Sections 972 and 973 provide for the process for Council to issue HAPs as well as describing the following as to their contents:

- conditions respecting the sequence and timing of construction;
- conditions respecting the character of the alteration or action to be authorized, including landscaping and the siting, form, exterior design and finish of buildings and structures;
- if the permit is required by this Part or a bylaw or order under this Part, a requirement that the applicant provide a specified amount of security, in a form satisfactory to the local government, to guarantee the performance of the terms, requirements and conditions of the permit.

Heritage Alteration Permits are similar to Development Permits. Development Permits are to comply with the Form and Character Guidelines in the Official Community Plan, and Heritage Alteration Permits are to comply with the Heritage Conservation Plan and Character Defining Elements that form part of Heritage Revitalization Agreements. After a HAP is issued, an application can be made to the Building Department to issue a Building Permit that strictly conforms with the HAP.

In this instance, no securities are being required because this is the conservation of an owner occupied single family dwelling.

This HAP application is to permit:

- The exterior and interior to be preserved, rehabilitated and/or restored.
- Repairing the picket fence and relocating a side gate and stepping stones.
- The following alterations to be made:
 - A new foundation retaining the relationship of the Whitehead Residence to existing grades and street.
 - An extension to the rear of the Whitehead Residence of about 10 feet on the first floor for a bathroom and a larger porch; and a dormer for the existing second floor rear roof area to improve the existing space.

The alterations in the rear preserves and does not interrupt the cross-gable ridgeline, and the shed form of the addition are in keeping with the historical practices adding to gabled buildings, thus compatible with the gable house form. To tie in the addition, the porch will be detailed to replicate elements of the front porch, while also having features to read as an addition and not part of the original residence. The Heritage Consultant confirmed that this will comply with the following applicable standard of the Canadian Standards and Guidelines:

Conserve the heritage value and character-defining elements when creating any new additions to an historic place or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.

Architectural Plans have been submitted, that the Heritage Consultant confirms, comply with the Canadian Standards and Guidelines with respect to conservation standards and respect the Character Defining Elements of the Whitehead Residence. These plans, except for the floor plans not being included in this report for security reasons, are attached as Appendix B and will be attached to the Heritage Alteration Plan 2015-080-DP once issued by Council.

d) Advisory Design Panel:

The Advisory Design Panel does not review HAP applications for single family residential dwellings subject to heritage conservation.

e) Interdepartmental Issues:

The Engineering and Building Departments have reviewed the HAP application. The Engineering Department advised that a storm sewer service connection, as required under the HRA, is to be constructed before a building permit issued for the heritage conservation works. The Building Department advised that advises the addition would need to comply with the current Building Code. This does not affect the HAP and will be addressed at the building permit stage.

CONCLUSION:

The Whitehead Residence at 11406 205 Street in Hammond is a designated heritage property subject to a Heritage Revitalization Agreement between the owners and the City. The owners are eager to proceed under their Heritage Conservation Plan with the preservation, rehabilitation and/or restoration works, the new foundation and the rear building extension.

These proposed works will help preserve the identified physical features of this heritage residence, insure there will be structural soundness and make the residence more livable.

The Heritage Consultant has presented plans that are consistent with the Canadian Standards and Guidelines and respects and preserves the Character Defining Elements of the Whitehead Residence.

Therefore, the Planning Department supports the issuance of Heritage Alteration Permit 2015-080-DP.

“Original signed by Adrian Kopystynski”

Prepared by: Adrian Kopystynski, MCIP, RPP, MCAHP
Planner

“Original signed by Christine Carter”

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

“Original signed by David Pollock” for

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

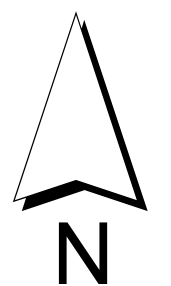
“Original signed by Jim Rule”

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

Appendix A – Subject Map

Appendix B – Heritage Alteration Permit Plans (excluding floor plans)



- Legend**
- Wetlands
 - GPS Creek Centrelines
 - Streams & Rivers (Topographic)**
 - Feature Type**
 - Indefinite Creek Centrelines
 - Ditch Centrelines
 - River Centrelines
 - Rivers & Lakes (Topographic)**
 - Feature Type**
 - Canal
 - Flooded Land
 - Lake/Reservoir
 - Marsh
 - River

Scale: 1:1,500

11406 205 Street



CITY OF MAPLE RIDGE
PLANNING DEPARTMENT

DATE: Mar 27, 2015 2015-080-DP

BY: PC

public**LAB**
DESIGN

3060 St Catherines St
Vancouver, BC
V5T 3Z1
Canada

c 778.386.0352
www.publiclab.org

17 DEC 12	Reissued for HRA + BP
25 APR 12	Issued for HRA + BP
12 SEP 11	Issued for SOS
Issue + Revision Record	

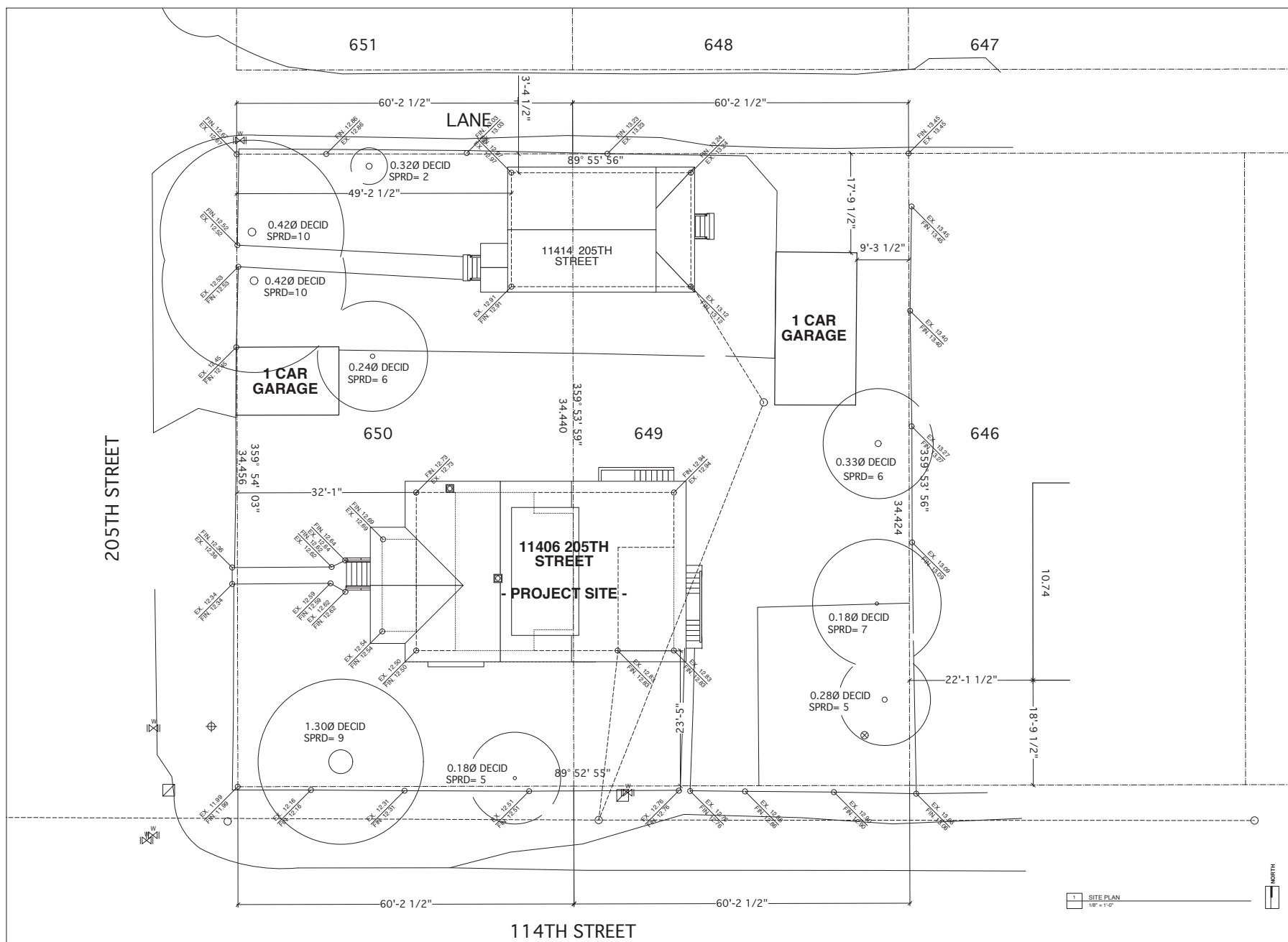
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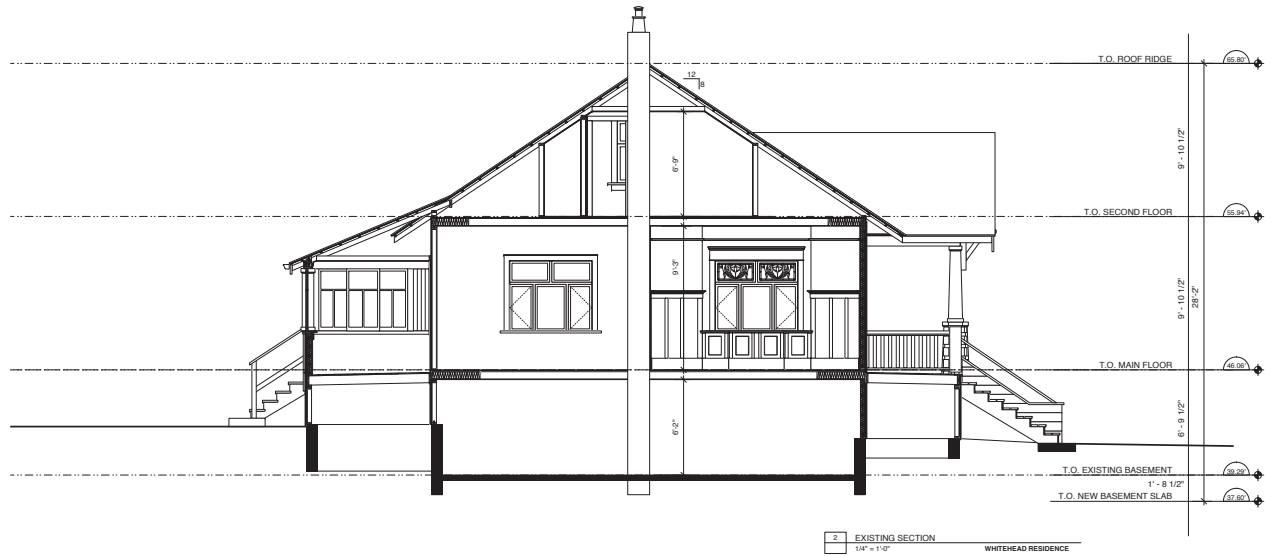
Site Plan

Koehn + Rowley Residence
11406 205th Street, Maple Ridge

1106
12 JUL 11

A-1.0





NEW DORMER ROOF ASSEMBLY

- NEW ASPHALT SHINGLE ROOF
- NEW ROOF UNDERLAY, SHINGLED TO SHED WATER
- NEW PLYWOOD SHEATHING
- NEW 1X4 CROSS STRAPPING
- NEW 2X6 RAFTERS @ 16" O.C.

NEW ROOF ASSEMBLY

- NEW ASPHALT SHINGLE ROOF
- NEW ROOF UNDERLAY, SHINGLED TO SHED WATER
- NEW PLYWOOD SHEATHING
- NEW 1X4 CROSS STRAPPING
- NEW 2X6 RAFTERS @ 16" O.C.

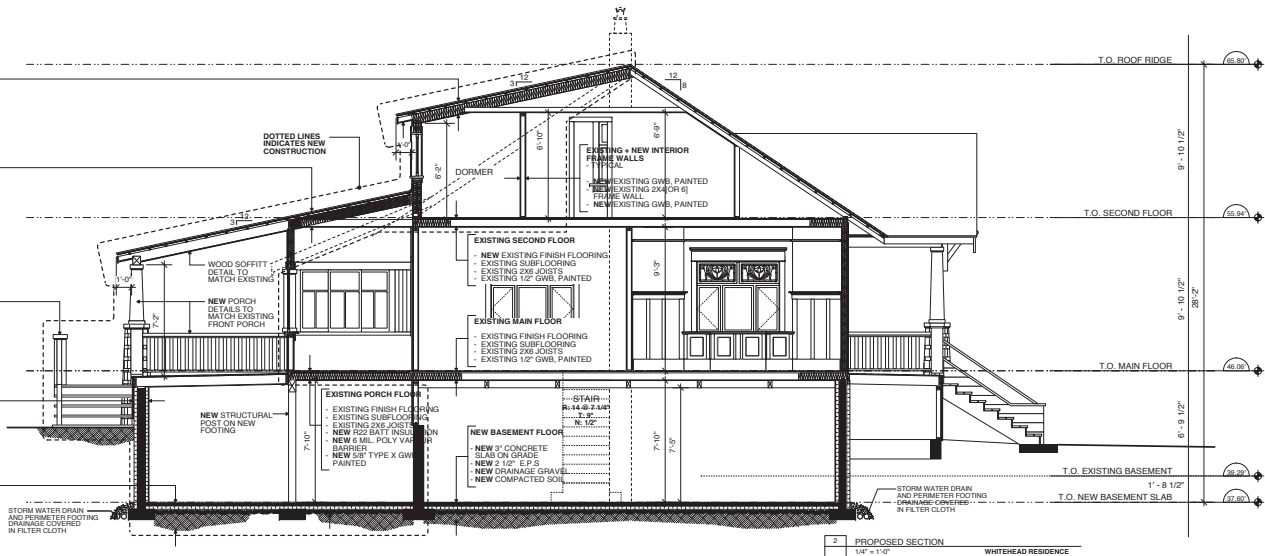
NEW WOODEN PORCH, STAIR & RAILING DETAILS

NEW EXTERIOR FOUNDATION WALL

- NEW WOOD SING
- NEW PRESSURE TREATED 1X4 @ 16" O.C.
- NEW 2 LAYERS 60 MIN. BUILDING PAPER SHINGLED TO SHED WATER
- NEW PLYWOOD SHEATHING
- NEW INSULATED CONCRETE FORM
- NEW 6 MIL. POLY VAPOUR BARRIER
- NEW 5/8" TYPE X GWB, PAINTED

NEW BASEMENT FLOOR

- NEW 2" CONCRETE SLAB ON GRADE
- NEW 2 1/2" E.P.S.
- NEW DRAINAGE GRAVEL
- NEW COMPACTED SOIL



publicLAB
DESIGN

3060 St Catharines St
Vancouver, BC
V6T 3Z1
Canada

c 778.386.0332
www.publicLAB.ca

17 DEC 12 Released for MHA - BP
25 APR 12 Issued for MHA - BP
12 SEP 11 Issued for S05

Issue + Revision Record

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Sections + Details

Koehn + Rowley Residence
11406 205th Street, Maple Ridge

1106
12 JUL 11

A-3.0

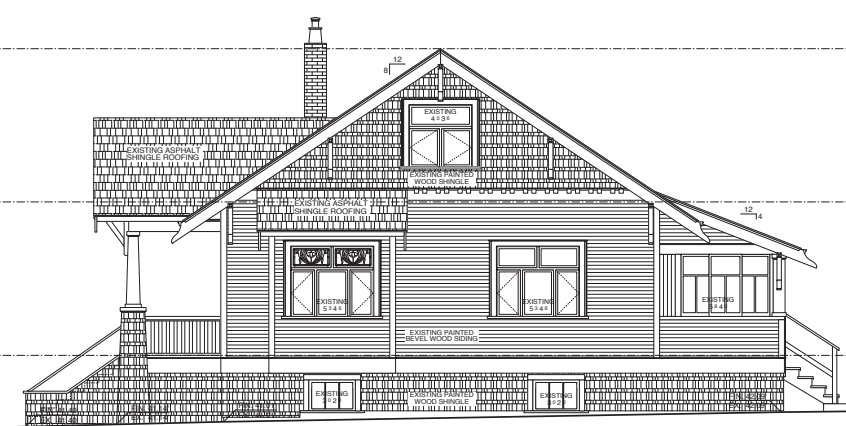
17 DEC 12	Permitted for MHA + HP
25 APR 13	Issued for MHA + HP
13 SEP 11	Issued for SCS
Issue + Revision Record	
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Existing Elevations
Koehn + Rowley Residence
11406 205th Street, Maple Ridge

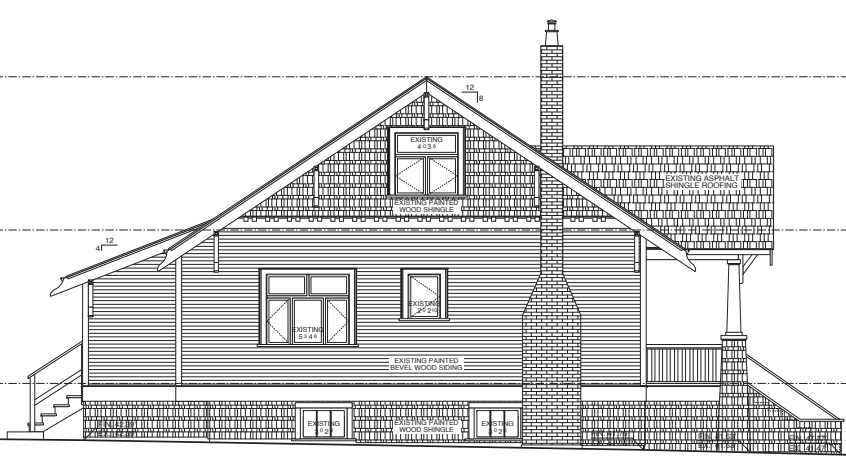
1106
12 SEP 11



4 EAST ELEVATION
1/4" = 1'-0"
WHITEHEAD RESIDENCE



4 SOUTH ELEVATION
1/4" = 1'-0"
WHITEHEAD RESIDENCE



4 NORTH ELEVATION
1/4" = 1'-0"
WHITEHEAD RESIDENCE



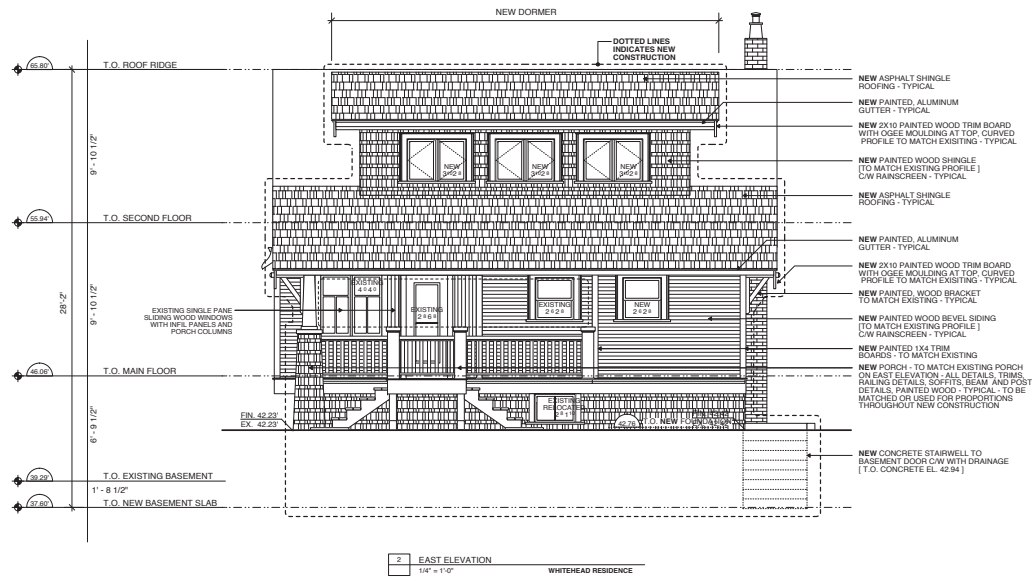
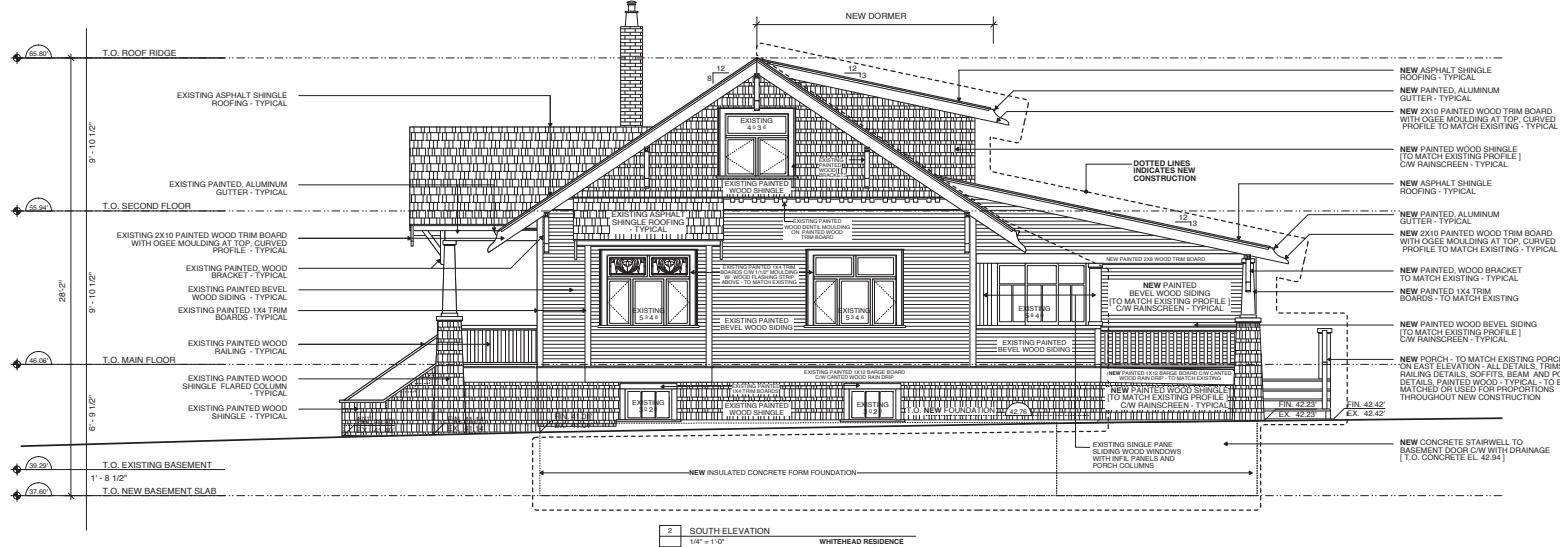
4 WEST ELEVATION
1/4" = 1'-0"
WHITEHEAD RESIDENCE

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Coehn + Rowley Residence
11406 205th Street, Maple Ridge

A-4.1





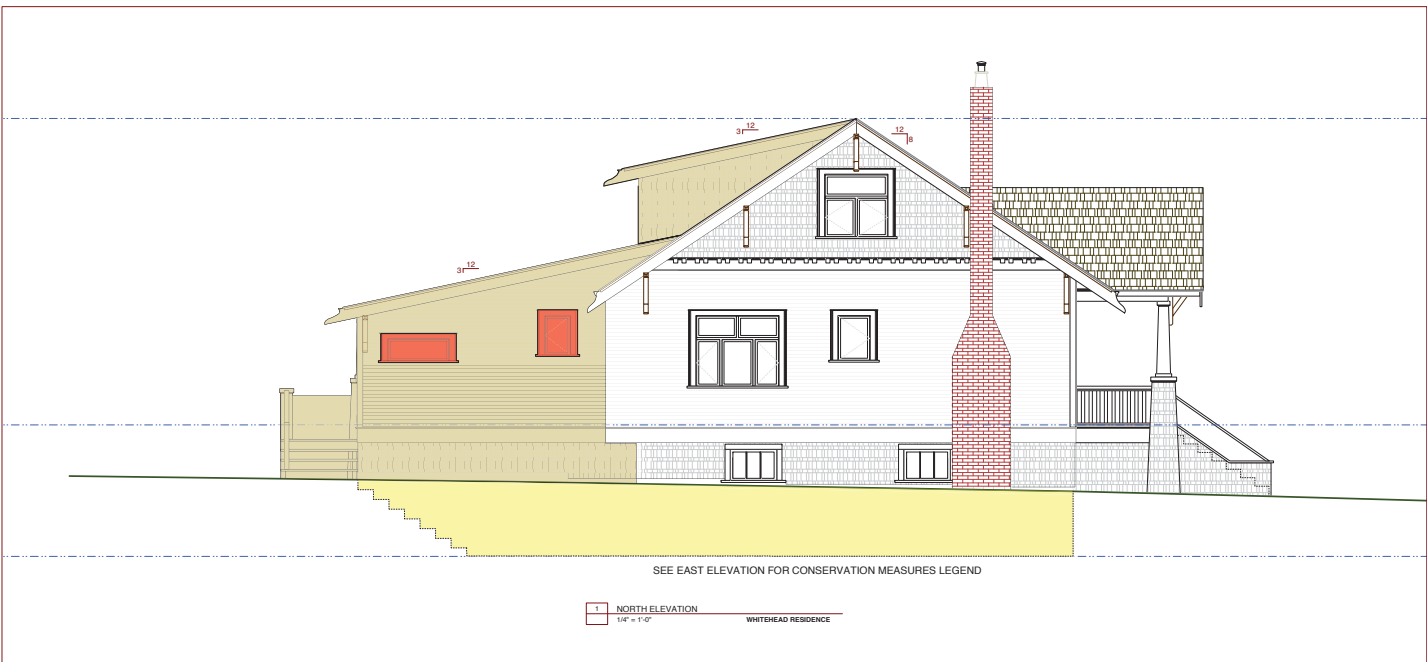
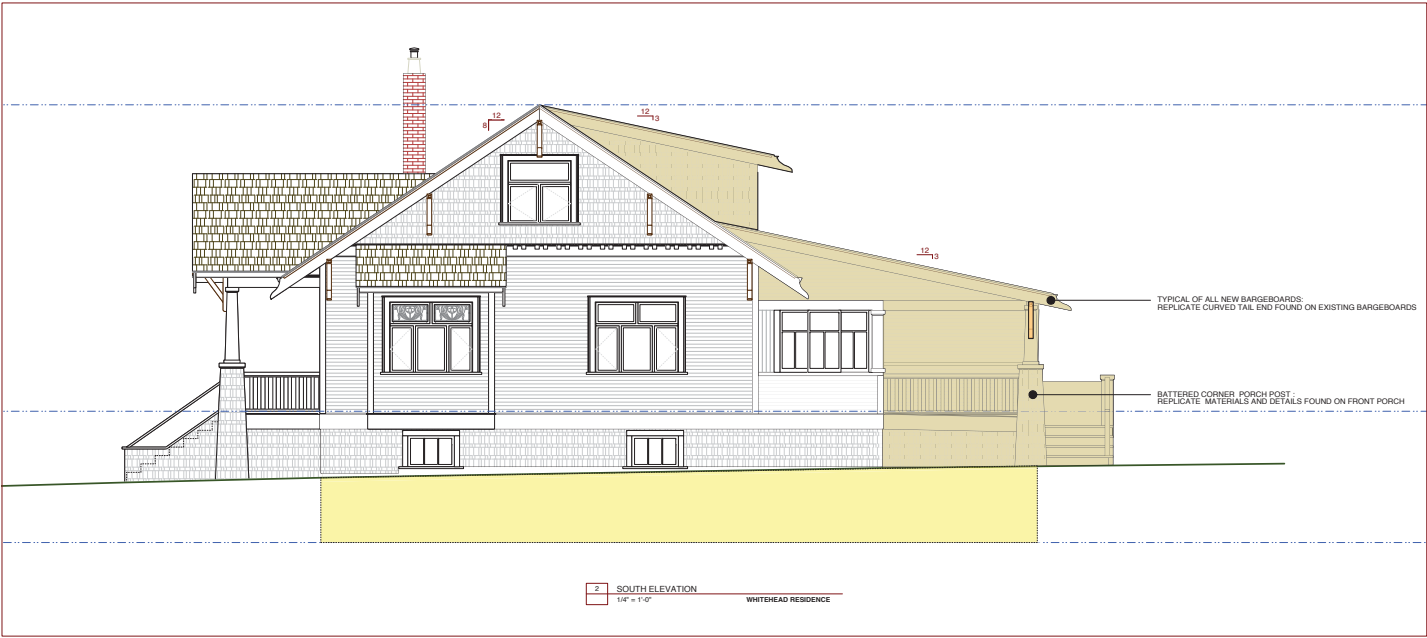
Conservation Elevations

Koehn + Rowley Residence
11406 205th Street, Maple Ridge

1106

15 FEB 12

A-4.3



CONSERVATION MEASURES LEGEND	
	ORIGINAL BUILDING FABRIC RETAINED, REFINISHED AS REQUIRED FOR GOOD MAINTENANCE
	NEW CONSTRUCTION WITH EXTERIOR TREATMENT TO MATCH EXISTING MATERIALS AND DETAILS ON ORIGINAL HOUSE
	NEW CONCRETE FOUNDATION, FINISH TO MATCH EXISTING FOUNDATION FINISH
	RELOCATED (REPAIRED IF NECESSARY) ORIGINAL WINDOW (REPLICATE IF EXISTING ORIGINAL WINDOW BEYOND REPAIR)
	NEW WINDOW WITH MATERIALS AND DETAILS REPLICATED FROM ADJACENT EXISTING ORIGINAL WINDOW

17 DEC 12	Released for MHA +BP
25 APR 12	Issued for MHA +BP
12 SEP 11	Issued for SCS

Issue + Revision Record

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Conservation Elevations


Koehn + Rowley Residence
11406 205th Street, Maple Ridge

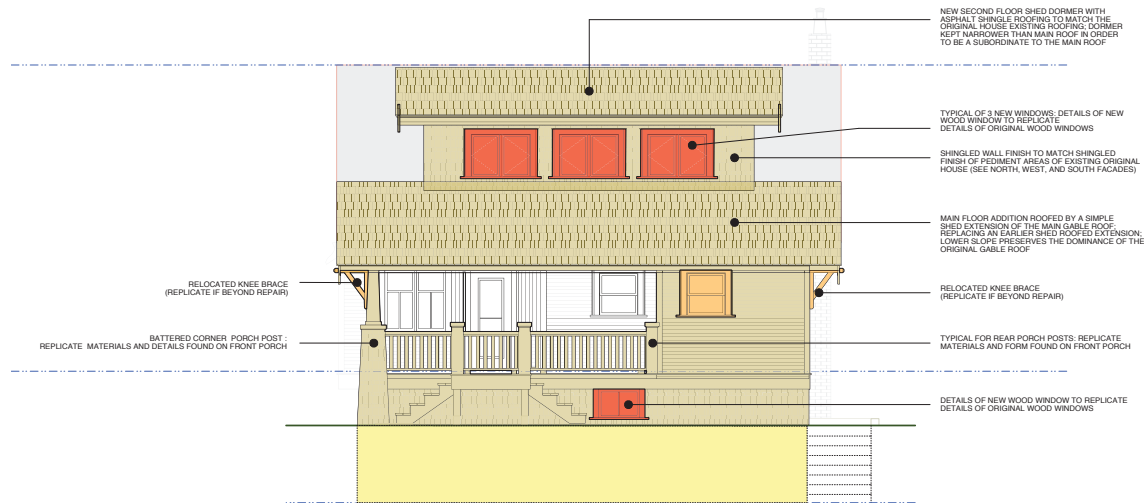
1106

15 FEB 12

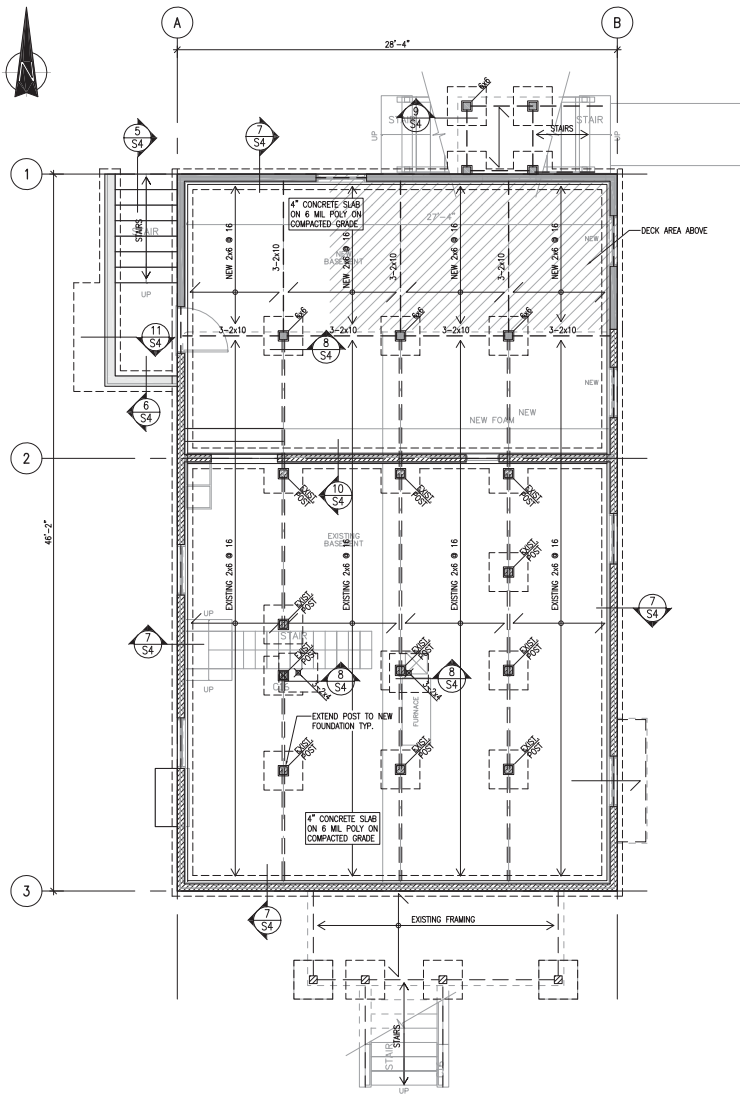
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CONSERVATION MEASURES LEGEND

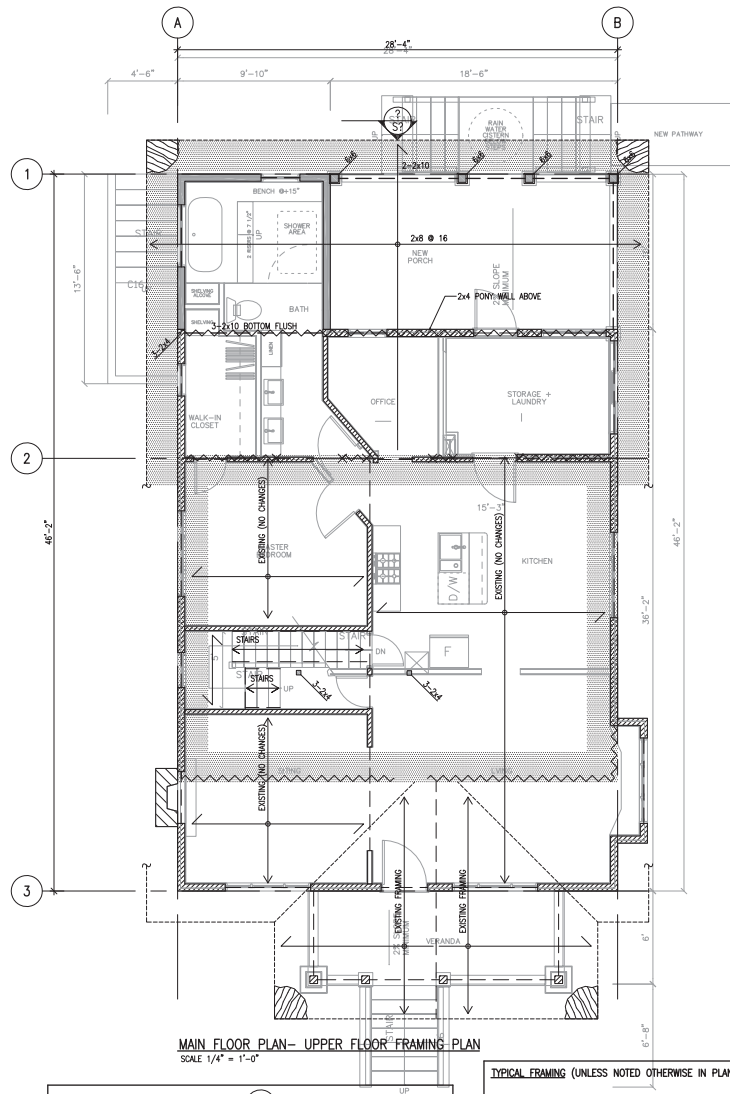
	ORIGINAL BUILDING FABRIC RETAINED; REFINISHED AS REQUIRED FOR GOOD MAINTENANCE
	NEW CONSTRUCTION WITH EXTERIOR TREATMENT TO MATCH EXISTING MATERIALS AND DETAILS ON ORIGINAL HOUSE
	NEW CONCRETE FOUNDATION; FINISH TO MATCH EXISTING FOUNDATION FINISH
	RELOCATED (REPAIRED IF NECESSARY) ORIGINAL WINDOW (REPLICATE IF EXISTING ORIGINAL WINDOW BEYOND REPAIR)
	NEW WINDOW WITH MATERIALS AND DETAILS REPLICATED FROM ADJACENT EXISTING ORIGINAL WINDOW



1 WEST ELEVATION - CONSERVATION PLAN
1/4" = 1'-0"
WHITEHEAD RESIDENCE



BASEMENT PLAN-MAIN FLOOR FRAMING PLAN
SCALE 1/4" = 1'-0"



MAIN FLOOR PLAN- UPPER FLOOR FRAMING PLAN
SCALE 1/4" = 1'-0"

SHEAR WALL SCHEDULE

SEE DETAIL 1

S4

SHEAR WALL TYPE AS NOTED IN PLAN.

WALL INTERMEDIATE SUPPORTS @ 12", BLOCK ALL PANEL EDGES
FOR NAIL GUNS DECREASE NAIL SPACING BY 1/3

SHEARWALL	1/2" PLY OR OSB,	PANEL EDGE NAILING ANCHORS TO FOUNDATION
SMB	ONE FACE	3" COMMON NAILS @ 4" 5/8" ANCHOR BOLTS @ 2'-6"
SWC	ONE FACE	3" COMMON NAILS @ 2 1/2" 5/8" ANCHOR BOLTS @ 2'-0"

TYPICAL FRAMING (UNLESS NOTED OTHERWISE IN PLAN):

FLOOR JOISTS (EXISTING)	2"x6" @ 16"	
FLOOR JOISTS	2"x6" @ 16"	
ROOF RATTERS/JOISTS	2"x6" @ 16"	
BUILT-UP BEAMS AND UNDELS	2 - 2"x10"	
INTERIOR LOAD BEARING WALLS (EXISTING)	2"x4" @ 16"	
INTERIOR LOAD BEARING WALLS	2"x4" @ 16"	
EXTERIOR WALLS	2"x6" @ 16"	
EXTERIOR WALLS (EXISTING)	2"x6" @ 16"	
GL DENOTES GULUM		
ML DENOTES MICROLAM		

publicLAB
DESIGN

3050 St Catherine St
Vancouver, BC
V6T 3Z1
Canada

c 778.386.0362
www.publicLAB.ca

2	JAN. 07/13	REVISED BUILDING PERMIT
1	MAY 25/12	BUILDING PERMIT
REV:	DATE:	ISSUED FOR:

Chlu
Hippmann Engineering Inc.
Consulting Structural Engineers

1026 West 4th Ave Vancouver B.C. V6H 1A3 T800 737 9828 P2504 T37 9822
mlh@chluhippmann.ca

project:

RENOVATION/ADDITION
11406 205TH STREET
MAPLE RIDGE, BC

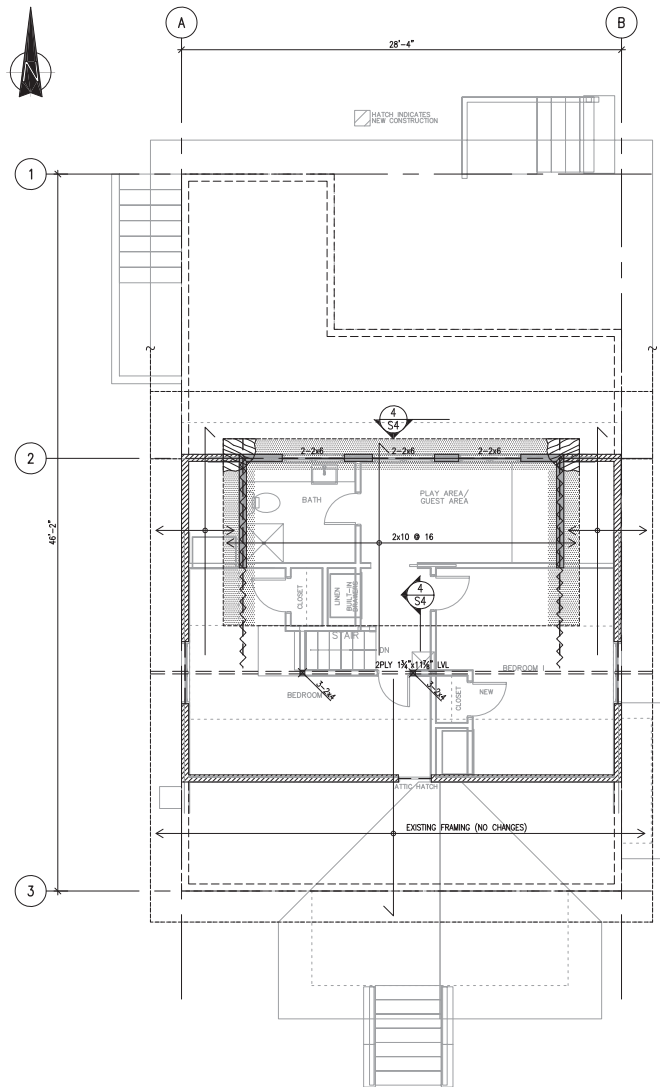
drawing title:

BASEMENT PLAN/
MAIN FLOOR FRAMING PLAN
MAIN FLOOR PLAN/
UPPER FLOOR FRAMING PLAN

SCALE:	PROJECT NO.
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C.C.	
DRAWN:	
A.C.	
CHECKED BY:	
CHE	
DATE:	
APR. 30/12	

S2

OF 4



MAIN FLOOR PLAN- UPPER FLOOR FRAMING PLAN
SCALE 1/4" = 1'-0"

SHEAR WALL SCHEDULE		SEE DETAIL	1 S4
SHEAR WALL TYPE AS NOTED IN PLAN			
WALL INTERMEDIATE SUPPORTS @ 12", BLOCK ALL PANEL EDGES FOR NAIL GUNS DECREASE NAIL SPACING BY 1/3			
SHEARWALL	1/2" PLY OR OSB,	PANEL EDGE NAILING ANCHORS TO FOUNDATION	
SMB	ONE FACE	3" COMMON NAILS @ 4" 5/8" ANCHOR BOLTS @ 2'-6"	
SWC	ONE FACE	3" COMMON NAILS @ 2 1/2" 5/8" ANCHOR BOLTS @ 2'-0"	

TYPICAL FRAMING (UNLESS NOTED OTHERWISE IN PLAN):	
ROOF R rafters/Joists	2"x8" @ 16"
BUILT-UP BEAMS AND UNTELS	2 - 2"x10"
INTERIOR LOAD BEARING WALLS (EXISTING)	2"x4" @ 16"
EXTERIOR WALLS	2"x6" @ 16"
EXTERIOR WALLS (EXISTING)	2"x6" @ 16"
GL DENOTES GLULAM	
ML DENOTES MICROLAM	

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1	MAY 25/12	BUILDING PERMIT
REV:	DATE:	ISSUED FOR:

Chlu Hippmann Engineering Inc.

Consulting Structural Engineers

1026 West 4th Ave Vancouver B.C. V6H 1A3 T5010 T57 9528 T5954 T57 9822
mh@chluphippmann.ca

project:

RENOVATION/ADDITION
11406 205TH STREET
MAPLE RIDGE, BC

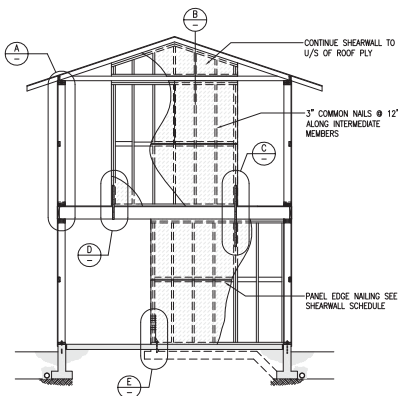
drawing title:

UPPER FLOOR PLAN/
ROOF FRAMING PLAN

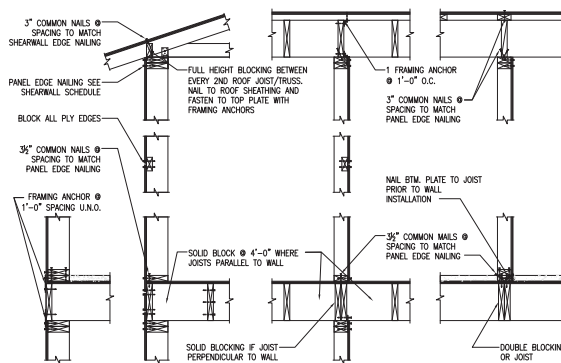
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DATE:	
APR. 30/12	

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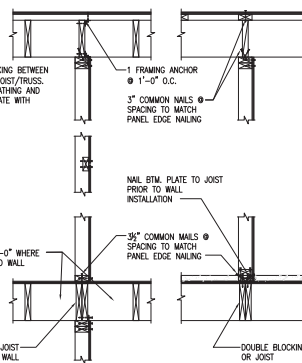
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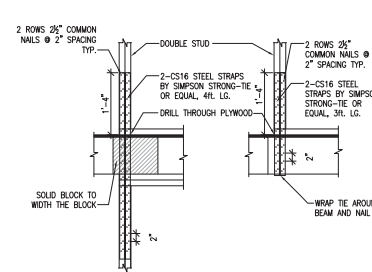
1 CONCEPTUAL SHEARWALL
SCALE 1/4"=1'-0"



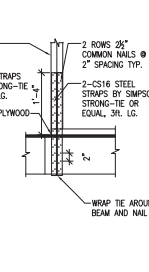
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SCALE 3/4"=1'-0"



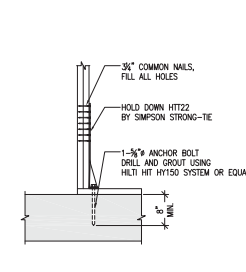
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SCALE 3/4"=1'-0"



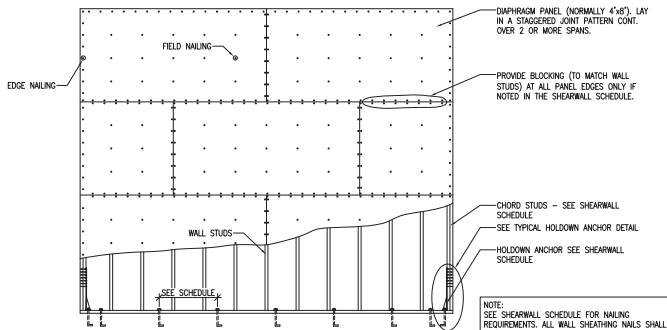
C OVER WALL
SCALE 3/4"=1'-0"



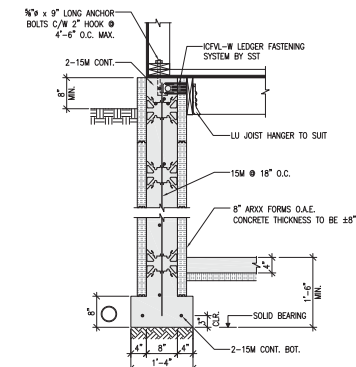
D OVER BEAM
SCALE 3/4"=1'-0"



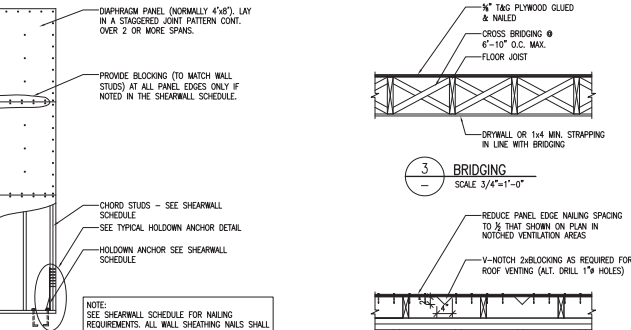
E HOLD DOWN TO CONCRETE
SCALE 3/4"=1'-0"



2 TYP. SHEARWALL ELEVATION DETAIL
SCALE 3/8"=1'-0"

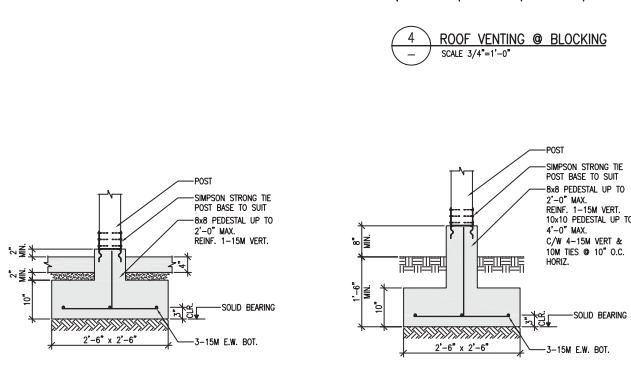


7 SECTION
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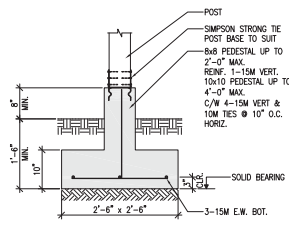


3 BRIDGING
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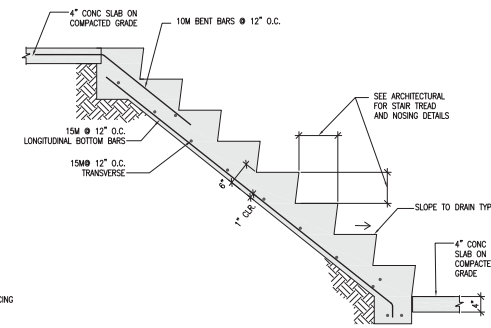
4 ROOF VENTING @ BLOCKING
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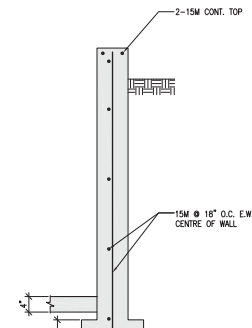
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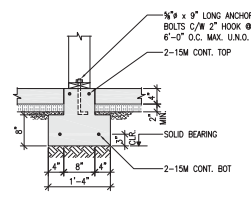
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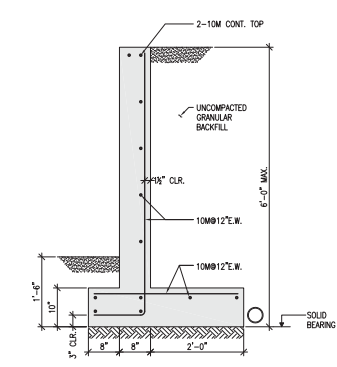
5 CONCRETE STAIRS
SCALE 3/4"=1'-0"



6 SECTION
SCALE 3/4"=1'-0"



10 SECTION
SCALE 3/4"=1'-0"



11 RETAINING WALL MAX. 6'-0" HIGH
SCALE 3/4"=1'-0"

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REV.	DATE:	ISSUED FOR:

Chlu Hippiann Engineering Inc.
Consulting Structural Engineers

1000 West 4th Ave Vancouver B.C. V6H 1A0 T5010 T57 9509 T5504 T57 9502
m@chluhippiann.ca

project:
RENOVATION/ADDITION
11406 205TH STREET
MAPLE RIDGE, BC

drawing title:
SECTIONS/DETAILS

SCALE:	PROJECT NO.
3/4"=1'-0"	12064
DESIGN:	
C.C.	
DRAWING:	
A.C.	
CHECKED BY:	
CHE	
DATE:	
APR. 30/12	

S4
OF 4

City of Maple Ridge

TO:	Her Worship Mayor Nicole Read and Members of Council	MEETING DATE:	April 20, 2015
FROM:	Chief Administrative Officer	FILE NO:	2014-118-AL
		MEETING:	C of W
SUBJECT:	Non-Farm Use Application 12266 240 Street		

EXECUTIVE SUMMARY:

This non-farm use application is for a northern expansion of the existing Meadowridge School site, which has a history of applications and incremental growth. The application pertains to the 3.9 hectare (10 acre) property located at 12266 240th Street. As the RS-3 One Family Rural Residential zoned subject property is 100 % within the Agricultural Land Reserve, the approval of the Agricultural Land Commission will be required before the use of the site can be changed from Rural Residential / Agricultural to an institutional use. Council's response to the recommendation of this report is an indication of the degree of support for the school's expansion.

This report is broadly conceptual in its scope, and relates to the first step in a larger development process. However, should this application be successful, there are significant development considerations that will need to be addressed prior to actual expansion. One of the challenges for the City has been the incremental nature of the multiple applications for the school.

It is therefore appropriate to review the Meadowridge site in its entirety, point out next steps, and note the requirements that must be met before the realization of the most recent development plan, as approved by the Agricultural Land Commission in 2013. It is important to note that the main school site, where the existing buildings are situated, is only partially within the Fraser Sewer Area and further expansion could be constrained as a result.

The subject property, located to the north of the existing school site, is not within the Fraser Sewer Area, and its development potential is limited as a consequence. The intended use of this property is for outdoor educational programs that would utilize the natural features and existing buildings on the site in the school's curriculum. Given the site's limited servicing and development potential, this change of use may be supportable, although a non-farm use application and subsequent rezoning will be required.

With these considerations, the recommendation is to forward the application to the Agricultural Land Commission.

RECOMMENDATION:

That non-farm use Application # 2014-118-AL be forwarded to the Agricultural Land Commission.

DISCUSSION:

a) Background Context:

Applicant: Meadowridge School Society

Owner:	Meadowridge School Society
Legal Description:	Lot 16, Section 22, Township 12, Plan NWP3118
OCP :	
Existing:	Agricultural
Zoning:	
Existing:	RS-3 One Family Rural Residential
Surrounding Uses	
North:	Use: Greenhouse Agriculture
	Zone: A-4 Intensive Greenhouse
	Designation: Agricultural
South:	Use: School Use
	Zone: P-1 Park and School
	Designation: 11 % Institutional 89% Agricultural
East:	Use: Farm Use
	Zone: RS-3 One Family Rural Residential
	Designation: Agricultural
West:	Use: Golf Course
	Zone: Land Use Contract
	Designation: Agricultural
Existing Use of Property:	Underutilized agricultural land
Proposed Use of Property:	School Use
Site Area:	3.9 hectares
Access:	240 th Street
Servicing:	Community water, on site septic

BACKGROUND:

Through a series of applications including: non farm use; subdivision of adjacent sites; consolidation with the parent parcel; and rezoning, Meadowridge School has grown incrementally to its current size of 7.0 hectares (17.3 acres), and is 89 % within the Agricultural Land Reserve. However, only a portion of the main school site is within the Fraser Sewer Area, and all site development that relies on sewer connection would be confined to this portion. The areas included in the Fraser Sewer Area are the original school site and the consolidated portions fronting 240th that are within the Urban Containment Boundary as designated by the Metro Vancouver Regional Growth Strategy. Metro Vancouver (Greater Vancouver Sewerage and Drainage District Board) has jurisdiction over sewer connections to this site, and would need to approve any extension of the Fraser Sewer Area.

Previous Applications:

Previous Applications to the Agricultural Land Commission showing successive growth is provided in Figure 1 below.

- Non-farm use application AL/052/00 was approved by the Commission for school use and site consolidation of 1.6 hectares (4 acres) from portions of the two properties to the south of the original school site.

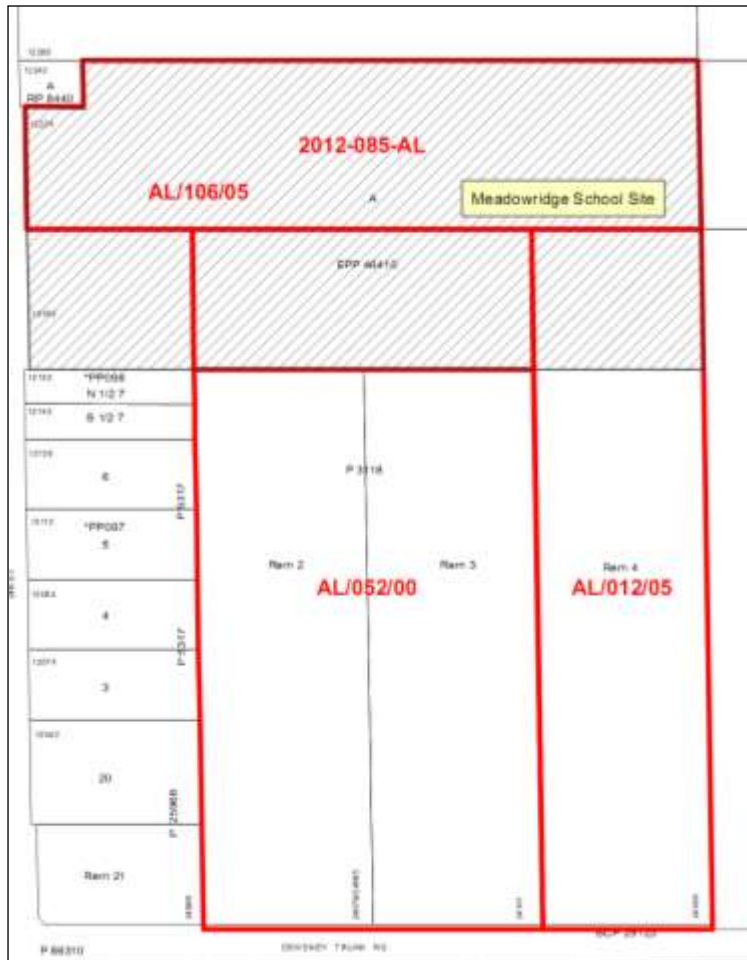


Figure 1 History of ALC applications for Meadowridge School

- Application AL/012/05 was also approved by the Commission for non-farm use and consolidation of a 0.8 hectare (2 acre) portion of the property at 24169 Dewdney Trunk Road with the original school site. This application proposed a revised development plan that placed structures where playing fields had been indicated earlier. This plan included a cafeteria, theatre, science labs, 4 classrooms, and administrative offices. The Commission approved the lot consolidation, which allowed the applicant to acquire the 0.8 hectare (2 acre) portion from the property at 24169 Dewdney Trunk Road. However, the Commission did not approve the revised development plan.
- Application AL/106/05 proposed a development plan that was consistent with the plan shown in application AL/012/05. Under Resolution #39/2006 the Commission approved Application AL/106/05 subject to the following conditions:
 - maximum enrollment of 600 students;
 - adherence to submitted development plan;
 - construction of fence and vegetative buffer adjacent to ALR lands based on ALC landscape buffer guidelines; and
 - compliance with local authority with respect to zoning and other bylaws.
- Application 2012-085-AL was for an expanded development plan and consolidation with a parcel fronting 240th Street that within the Urban Containment Boundary of the Regional Growth Strategy. This proposal included reusing the existing house on 240th Street for a uniform shop and storage. The accompanying staff report noted potential servicing deficiencies that could impact the development proposal. The Commission approved the application, and agreed to remove the cap on student enrollment. At this point, this approved development plan has not yet come to fruition.

Project Description:

The current application is for a northward expansion of the school site, onto a site that is 100 % within the Agricultural Land Reserve and is designated Agricultural. Due to its land use designation, and lack of urban services, the site is unavailable for urban levels of development. A watercourse

(Latimer Creek) traverses the site. This non-farm use application seeks to use the existing equestrian facility for educational purposes, with the following modifications:

- Repurpose the existing riding facility to an outdoor gym;
- Reuse or replace an existing stable building as an education centre;
- Upgrade the main house as staff housing;
- Convert the existing cottage for office and meeting space;
- Build creek crossings;
- Develop a running track and exercise circuit;
- Restoration of Latimer Creek; and
- Develop a demonstration forest.

b) Planning Analysis:

Policy Context

Policy 6-10 of the Official Community Plan is the most relevant to this application, as follows:

Maple Ridge will strive to maintain its agricultural land base in Maple Ridge through the following mechanisms:

- a) Supporting the Metro Vancouver Regional Growth Strategy, which includes designated agricultural land;
- b) Respecting the integrity of the urban area boundary by establishing a distinct separation between rural and urban designated areas;
- c) Designating all lands outside of the Urban Area Boundary that are within the ALR as Agriculture in the Official Community Plan. Non-farm uses approved by the Agricultural Land Commission and the District will be permitted on all land designated Agricultural;
- d) Striving for a balance between farming activity and conservation lands.

The development proposal includes eventual rezoning and consolidation of the subject site with the main Meadowridge School site in order to permit an institutional use of the site. Further dialogue about the applicant's intentions and their development considerations are as follows:

1. ***Construction of a bridge over the watercourse that would link the subject property with the school site to the south.*** The bridge is considered a structure and would require a building permit to proceed. As it would span a property line between two parcels, the bridge could not be permitted without either consolidating the two properties or relocating the bridge to the east or west where both ends of the structure could be situated on the same lot. In addition, other agencies, such as the Department of Fisheries, would have jurisdiction over the bridge construction process.
2. ***Retention of the existing dwellings (one five bedroom house and a one bedroom cottage) as rental or as an employee residence for Meadowridge School.*** Rezoning and lot consolidation with the school site could present a problem if Meadowridge School already contains a caretaker dwelling, as only one such structure is permitted per lot.
3. ***Conversion of existing agricultural structures for school uses, including an outdoor gym and outdoor education facility.*** Commission staff have confirmed that this change of use would require a non-farm use application. A rezoning to Institutional use would also likely be required.

4. **Existing small greenhouse.** This structure is permitted as an agricultural use under the current RS-3 Zone if used for growing agricultural products; however, if used as part of the school curriculum, the use could be considered assembly, and therefore compliance with zoning would be required. In addition, the structure would have to comply with BC Building Code requirements of safety for the intended use.

Next Steps:

As noted, this non-farm use application is conceptual and Council's support of the application is a necessary step in the process which includes lot consolidation and rezoning. As the proposed structural changes are relatively small, and the natural amenities of the site will be emphasized, this use could be supportable, but the occupant load must be supported by on-site servicing, as the subject property is outside of the Fraser Sewer Area. In addition, the Commission has approved further development of the main school site, although the applicant has not yet applied for a building permit. Potential servicing deficiencies have been noted in previous applications for the main school site which is outside of the Urban Area Boundary and only partially included in the Fraser Sewer Area.

c) Intergovernmental Issues:

Metro Vancouver and the Greater Vancouver Sewerage and Drainage District Board have jurisdiction over the extension of the Fraser Sewer Area. Recent dialogue with Metro Vancouver staff affirm that partially included properties may be constrained to keeping their development footprint within the included portions of the site, unless a formal application is made for inclusion. If this is the case, Meadowridge School may not be able to realize their most recent proposed plan as approved by the Commission. As demonstrated in Figures 2 and 3, the school structures proposed by this plan extend beyond the portions of the site that are included in the Fraser Sewer Area.



Figure 2 Most Recent Meadowridge Development proposal as approved by the Agricultural Land Commission

Metro Vancouver (GVS&DD) is responsible for the treatment of the sanitary sewage and established the Fraser Sewer Area (FSA) to guide municipalities on providing service to private property. The Regional Growth Strategy provides policies which restricts the FSA boundary to stay within the Urban Containment Boundary in order to protect agriculture, conservation and rural areas.

Metro Vancouver is responsible for the development and implementation of the Regional Growth Strategy. This regional plan recognizes Institutional Uses in Rural areas, however, it states the following:

Rural areas are intended to protect the existing character of rural communities, landscapes and environmental qualities. Land uses include low density residential development, small scale commercial, industrial, and institutional uses, and agricultural uses that do not require the provision of urban services such as sewer or transit. Rural areas are not intended as future urban development areas, and generally will not have access to regional sewer services.

On this basis, an application to include into the Fraser Sewerage Area a property that is within the Agricultural Land Reserve for an institutional use may be considered inconsistent with the Regional Growth Strategy.

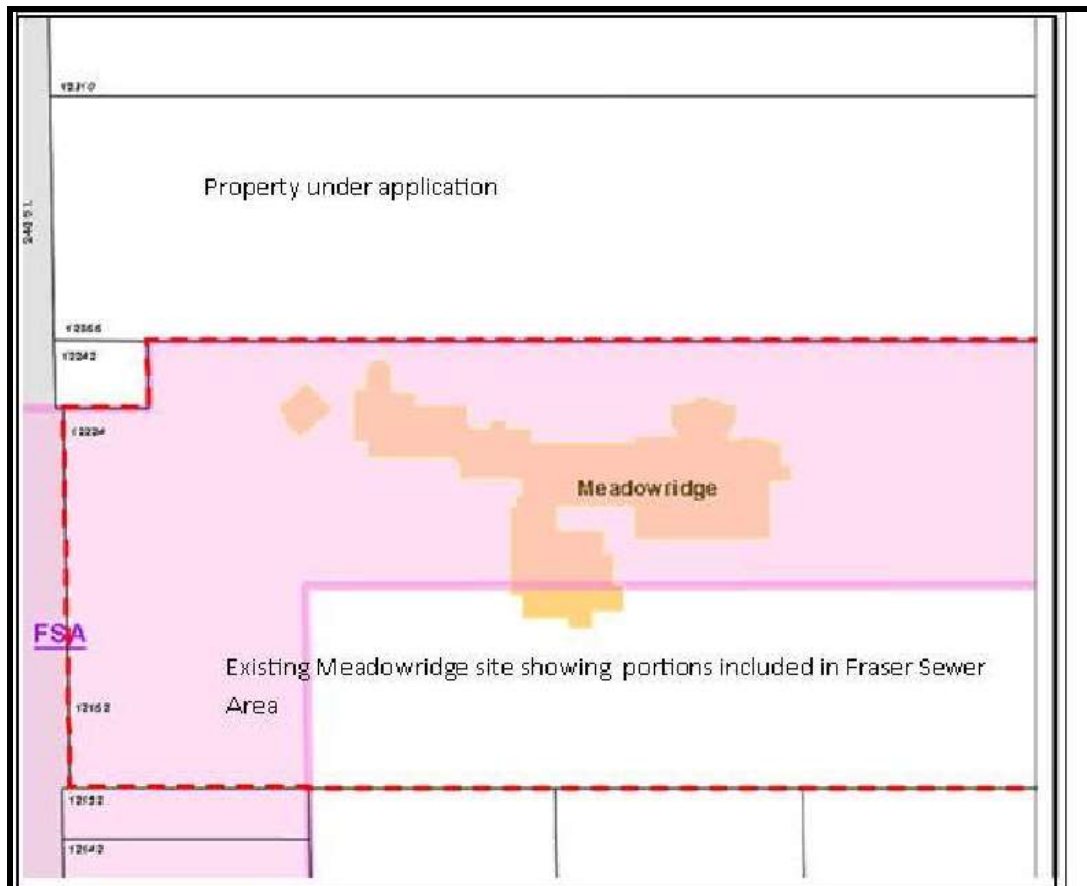


Figure 3 Meadowridge School. Partial inclusion within Fraser Sewer Area

d) Interdepartmental Implications:

Engineering Department

The Engineering Department would be responsible for applying to extend the Fraser Sewer Area to provide sanitary services to properties outside the FSA. For this purpose, a Council resolution is required "Requesting that Metro Vancouver include the property into the FSA". The request is reviewed by both the GVS&DD and Metro Vancouver Boards for technical merit and compliance with policy. If the expansion is approved the City is then notified and permitted to provide sanitary services. If the property is not included an onsite solution will be required to address the proposed development application.

The Engineering Department also administers the Subdivision and Servicing Bylaw and would review any Rezoning application within this context. It should be noted that there are provisions within this Bylaw to waive required sewer connection in Institutional Zones. However, the development proposal would have to be adequately supported by on-site servicing (i.e. septic) in order to qualify for this exemption.

On this basis, it is recommended that a requirement of a possible future rezoning of the subject property be the registration of a restrictive covenant that sets limits on occupant load as a reflection of the property's development constraints. Most particularly the septic capacity of the land would need to be determined by a professional engineer.

It should be noted that the subject property may be considered as a possible link to an east west connector to improve access to 256 Street. The actual alignment of this required access has not yet been established, but the applicant should be made aware that this location may be considered.

Licences, Permits, & Bylaws

This department is responsible for ensuring that the conversion of any existing structures are safe for the use intended, and that the available infrastructure is adequate for any new demand placed on it by this new use. The applicant intends to convert previous agricultural buildings to an assembly use as part of the curriculum of Meadowridge School. Building upgrades to meet B.C. Building Code requirements will likely be required.

Alternatives:

The recommendation is to forward this application to the Agricultural Land Commission, noting the development constraints on these properties that will remain within the Agricultural Land Reserve and are considered unavailable for urban development. As with any application, Council has the option of denying it. If denied, this application would be effectively closed, and could not proceed further.

CONCLUSION:

This non farm use application is the fifth in a long series of successive increments made by Meadowridge School. Details about the specific proposal have been discussed in this report along with development considerations. This report has outlined the next steps should the application be successful and development constraints as they apply to the subject property and to the main school site. Possible servicing deficiencies have been noted on this property and the main school site to inform the applicant that further expansion of the school site is unlikely. Council may support an

application for extension of the Fraser Sewer Area, but this decision would be exclusively under the jurisdiction of Metro Vancouver.

“Original signed by Diana Hall”

Prepared by: Diana Hall, MA (Planning), MCIP, RPP
Planner 2

“Original signed by Christine Carter”

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

“Original signed by David Pollock” for

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

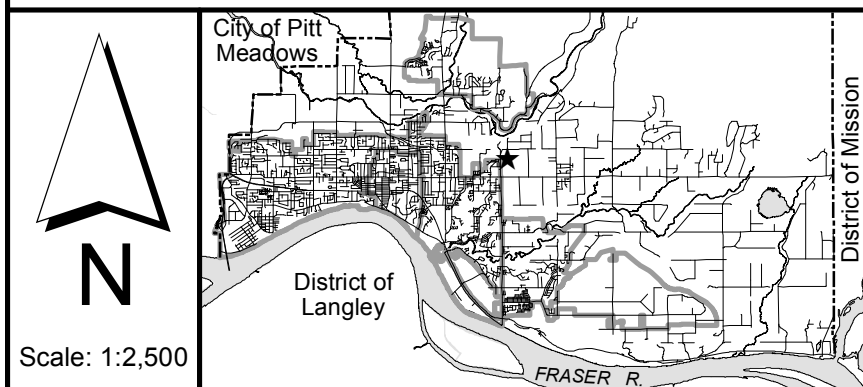
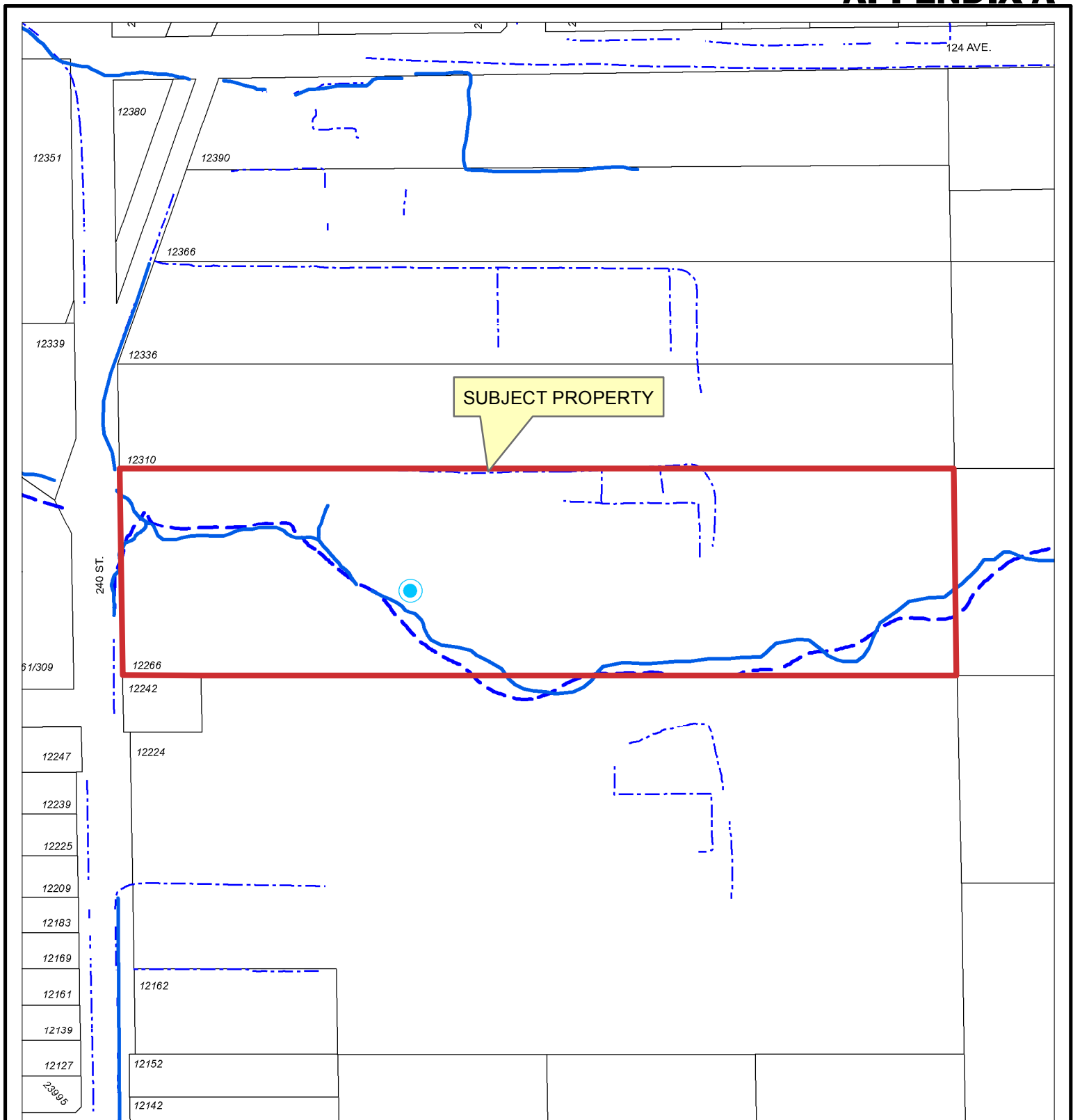
“Original signed by Jim Rule”

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

Appendix A – Subject Map

Appendix B – Applicant’s Land Use Inquiry Letter



12266 240 STREET		
	CITY OF MAPLE RIDGE	
	PLANNING DEPARTMENT	
DATE: Dec 11, 2014	FILE: 2014-118-AL	BY: PC



MEADOWRIDGE SCHOOL

December 5, 2014

Provincial Agricultural Land Commission
Room 133, 4940 Canada Way,
Burnaby, BC V5G 4K6

Re: Application for Non-Farm Use

Enclosed is our application for non-farm use authorization for the property located at 12266 240th Street, Maple Ridge, BC. This is a 3.9 hectare parcel of land within the agricultural land reserve, adjacent to Meadowridge School. Various aerial and concept photos are included with this application to indicate the setting for this property. This property is divided approximately in half by Latimer Creek, which flows through the property from west to east, and ultimately runs into the Alouette River.

This property has been operated as farm use, with the primary function as a riding stable. Due to Latimer Creek and the setbacks, this property is not ideal for farming or agricultural use.

Meadowridge School Society acquired this property in September of 2012. We are considering plans to develop educational programmes which will utilize the ecosystem of the property to enhance outdoor and experiential education, plant and animal life studies, science, math, literature and arts, and more.

The City of Maple Ridge informed us that to develop the above mentioned programmes, we should apply for an approval for non-farm use of this property, and subsequently apply to rezone the property to P-1 Institutional. At some time in the future we may decide to amalgamate this property with the school property, but would prefer not to do so at this time.

Currently on the south side of Latimer Creek towards the west of the property is an old farm house, a free-standing garage, a small cottage house, two small storage buildings, and a newly constructed polycarbonate greenhouse.

On the north side of Latimer Creek, towards the east of the property, is a stable building, a covered riding ring, and a few related covered facilities for storing various materials used in the riding activities

Currently the farm house is being renovated and will be lived in, possibly by a school staff member, the cottage is planned to serve as office space, and several small garden plots have been developed near the greenhouse with plans to actively garden this area to produce food for our school cafeteria and local families.

There are no current plans to construct any new additional structures on this property, other than a bridge across Latimer Creek to facilitate access from the east of our property to the riding ring. We do have plans to upgrade and convert some of the structures currently on the property, including converting the riding ring into an outdoor gym space and, at some time in the future, replacing the stable with a different structure to be used for instructional purposes – perhaps an open-air classroom.

Also included in our plans is to continue restoring the creek and the surrounding forest, repairing some of the damage that has occurred through years of neglect.

We request your approval of this application, and will gladly provide any additional information you may require.

Sincerely,

Don Hincks, CPA, CMA, FCMA
CFO and Business Manager



MEADOWRIDGE SCHOOL

May 22, 2014

District of Maple Ridge,
11995 Haney Place,
Maple Ridge, BC
V2X 6A9

Attention: Planning Department

RE: Land Use Inquiry Application

It has been suggested that we submit the following Land Use Inquiry letter to outline our intended use of the property located at 12266 240th Street in Maple Ridge. Our cheque for \$136.00 is attached to this letter to cover the application fee.

In September 2012, we acquired the property located at 12266 240th Street, Maple Ridge. This property is approximately 3.9 hectares (9.66 acres) and is zoned RS-3 – rural residential. When we acquired this property, it included an older 5 bedroom family residence, a small one bedroom cottage, several small outbuildings, a free-standing garage, a dilapidated barn and stable building, and a large barn stable and riding ring. Many of the buildings were in need of substantial repairs.

This property is divided by Latimer Creek which runs through the property from east to west and divides the property approximately in half. The creek is badly overgrown and strewn with debris. On the north side of the creek is the riding center, including a barn and stable, a large open riding ring, and a few incidental support structures. On the south side of the creek is the house, cabin, freestanding garage, and some small outbuildings. We demolished the stable that was on the south portion of the property as we considered it unsafe. Much of the property is a deep gully containing the creek, and is heavily forested. There is a significant presence of invasive plant species such as blackberries on much of the creek bed and banks.

After acquiring this property, we leased the operating riding centre facilities back to the seller, and it has been functioning as a business and farm. We have recently been asked by the operator to terminate the lease and allow her to discontinue the riding centre operation.

The school is contemplating our future use for this property. We are considering our education program and the various ways in which we might include this pristine wilderness in our instructional curriculum.

We do not currently anticipate any additional facility development on this property with the exception of a small greenhouse (16' by 20') for the purpose of agriculture and the construction of a bridge across the creek toward the east end of the property to provide access to the current structures of the riding ring and barn from the current school building. We are considering the conversion of the riding ring to become an outdoor gym, and the possible replacement of the barn with an outdoor education facility at some future date, though neither of these are additions, just conversions of existing structures.



MEADOWRIDGE SCHOOL

We are currently doing extensive renovations to the original house to make it more livable, and we have completed required repairs to the cottage. It will be our intention to rent the house to an employee of the school. If the cottage is not included in the rental of the house, we will find other uses for it once the house is renovated and occupied.

We have been soliciting input from various environment conservation organizations concerning plans to restore the forest and creek to their natural beauty. We would like to remove debris from the creek bed and remove invasive species from the creek banks. We have planted small garden plots on the south top of bank and intend to add the greenhouse to this area. We would like to add natural surface forest trails along the ravine on both sides for walking and running, replacing the bridge at the bottom of the ravine with a new structure, and adding a new high bridge further east to complete the circuit. Much of this planning is incorporated in the renderings attached which provide a visual presentation of the plan.

We would like to invite feedback and input from the various interested persons in the district planning group and other departments so we may consider any changes that may be required to this plan. It will be our intention in the near future to apply for amalgamation of this property with the school property, so we want to invite dialogue with any interested individuals early in the process.

We welcome the opportunity to meet with any individuals or departments that would like to provide input or discuss any elements of our plan. If considered beneficial, we are willing to host an open house information session at the school so that we could tour the site to address any questions or concerns.

Sincerely,

Don Hincks, CPA, CMA, FCMA
CFO & Business Manager

Printed on 100% recycled paper

City of Maple Ridge

TO: Her Worship Nicole Read
and Members of Council
FROM: Chief Administrative Officer
MEETING DATE: April 20, 2015
MEETING: COW
SUBJECT: Maple Ridge Ticket Information Utilization Amending Bylaw No. 7061-2014

EXECUTIVE SUMMARY:

The purpose of this report is to present the Maple Ridge Ticket Information Utilization Amending Bylaw No.7061-2014 to bring forward specific offences in various Maple Ridge Bylaws that have been recently amended and that now requires the Ticket Information Bylaw to be updated.

Since the adoption of the current Maple Ridge Ticket Information Utilization Bylaw (MTI) in December 2013, the following bylaws have been amended;

- Maple Ridge Highway and Traffic Bylaw No. 6704-2009
- Outdoor Burning Bylaw No 5535-1997
- Parks Regulation Bylaw No 7085-2014
- Zoning Bylaw No. 3510- 1985.

The Maple Ridge Highway and Traffic Bylaw No. 6704-2009 has been amended to revise Section 17 to add the offence of removing a traffic notice from a windshield or chalk marks from a tire. The wording of the MTI bylaw must match with the Highway and Traffic Bylaw to be enforceable.

The Fire Chief has reviewed the MTI Schedule 14 pertaining to Outdoor Burning Bylaw No 5535-1997 and determined that there should be additions to Schedule 29 to include other offences as well as amending the amount of the fines by decreasing some fines and increasing others to reflect the seriousness of the offences.

A new Parks Regulation Bylaw No 7085-2014 was recently adopted which has a different numbering system along with different potential offences. Therefore the existing Schedule 15 must be deleted in its entirety and replaced with a new Schedule 15 in the MTI Bylaw attached as Appendix I to this report.

Maple Ridge Zoning Bylaw No. 3510- 1985 includes Section 306.1 in the Basic Provisions section of the Bylaw, which provides the authority of Municipal Inspectors to perform inspections throughout the City. This section was not originally included in the MTI Bylaw No.6929-2012. This was an oversight and this addition to the Ticketing Bylaw is needed to correct the omission.

RECOMMENDATION(S):

That Maple Ridge Ticket Information Utilization Amending Bylaw No.7061-2014 be given first, second and third readings.

DISCUSSION:

Background Context:

The most recent amendment to the MTI Bylaw was passed in December 2014. Since that time, Council has amended Maple Ridge Highway and Traffic Bylaw No. 6704-2009 to include Section 17. The addition of Section 17 to Schedule 9 of the MTI Bylaw provides the ability to deal with persons removing a traffic notice from their vehicle or erasing chalk marks from their tires in order to avoid receiving a ticket.

After reviewing the current Schedule 14 of the MTI bylaw, the Fire Chief has requested that an additional five offences be added to the Schedule to assist them in dealing with outdoor burning violations. He has also requested that some of the fine amounts be increased and some decreased in order to allow them to deal with fires in a manner which underlines the seriousness of the offence.

A new Parks Regulation Bylaw No 7085-2014 was adopted in 2014 and therefore Schedule 15 of the MTI bylaw must be changed in order to reflect the wording of the new Parks Bylaw.

The addition of Section 306 (1) to Schedule 29 of the MTI Bylaw is necessary in order to cite the authority required by Municipal Inspectors and Officers to perform inspections in the normal course of their duties.

The MTI Bylaw needs to be updated to reflect these changes so that issued tickets will include the correct wording and refer to the applicable sections.

If the amendments are not made to the Ticketing Information Bylaw, the specified offences will be unenforceable.

CONCLUSIONS:

Maple Ridge Ticket Information Utilization Amending Bylaw No.7061-2014 ensures coordination and compliance with other City bylaws. This amendments allows for issuance of applicable tickets.

“Original signed by Robin MacNair”

Prepared by: **R. MacNair**
Manager, Bylaw and Licencing Services

“Original signed by Liz Holitzki”

Approved by: **E.S. (Liz) Holitzki**
Director: Licences, Permits and Bylaws

“original signed by David Pollock for Frank Quinn”

Approved by: **Frank Quinn, MBA, P.Eng**
General Manager: Public Works and Development Services

“Original signed by Jim Rule”

Concurrence: **J.L. (Jim) Rule**
Chief Administrative Office

RM/

Appendix I - Maple Ridge Ticket Information Utilization Amending Bylaw No. 7061-2014

City of Maple Ridge

Maple Ridge Ticket Information Utilization Amending Bylaw No.7061-2014

A bylaw to amend Maple Ridge Ticket Information Utilization Bylaw No. 6929-2012

WHEREAS the Council of the City of Maple Ridge deems it expedient to further amend Maple Ridge Ticket Information Utilization Bylaw No. 6929-2012 as amended;

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

1. This bylaw may be cited as Maple Ridge Ticket Information Utilization Amending Bylaw No. 7061-2014
2. Maple Ridge Ticket Information Utilization Bylaw. No. 6929-2012 is amended by adding to Schedule 9 after Section 16.3:

Remove notice or chalk mark – 17.1

Move vehicle within same block – 17.2

3. Maple Ridge Ticket Information Utilization Bylaw No. 6929-2012 is amended by deleting Schedule 14 in its entirety and replacing it with:

From Maple Ridge Outdoor Burning Regulation Bylaw No. 5535 - 1997

	Section	Fine
Outdoor fire	5(a)	\$1000.00
Burn noxious material	5(b)	\$500.00
Burn material brought from another location	5(c)	\$1000.00
No permit	5(d)	\$200.00
Agricultural Fire without permit	8	\$500.00
Unattended Agricultural Fire	10(c)	\$500.00
Unattended Backyard Fire	14(b)	\$200.00
Backyard Fire after dark	14(d)	\$200.00
Recreational Fire contrary to Schedule “A”	15	\$100.00
Unattended Recreational Fire	16(b)	\$100.00
Outdoor fire during Closure	19	\$500.00

4. Maple Ridge Ticket Information Utilization Bylaw No. 6929-2012 is amended by deleting Schedule 15 in its entirety and replacing it with:

From Maple Ridge Parks Regulation Bylaw No. 7085 - 2014

	Section	Fine
Enter Park when closed	8.1.1	\$100.00
Deposit refuse	8.1.3	\$100.00
Deposit any off-site refuse	8.1.4	\$300.00
Carry or discharge any weapon or dangerous toy	8.1.5	\$300.00
Cut any plant	8.1.6	\$500.00
Deface any building or wall	8.1.7	\$500.00
Damage any fixture	8.1.8	\$500.00
Start any unauthorized fire	8.1.9	\$200.00
Fail to obey any sign or signal	8.1.10	\$200.00
Post or display advertising	8.1.11	\$200.00
Use advertising vehicle	8.1.12	\$200.00
Molest or harm any animal	8.1.13	\$300.00
Possess any drug paraphernalia	8.1.14	\$200.00
Carry on any unauthorized business	8.1.15	\$200.00
Use vulgar language	8.1.16	\$500.00
Disorderly or offensive conduct	8.1.17	\$500.00
Expose genitals	8.1.18	\$300.00
Excavate in a Park	8.1.19	\$300.00
Move any Natural Park Feature	8.1.20	\$100.00
Hold procession or gathering	8.1.21	\$200.00
Operate power boat	8.1.22	\$200.00
Use tobacco within 7.5 meters of playground	8.1.23	\$200.00
Discharge of fireworks	8.1.24	\$200.00
Plant trees or shrubs	8.1.25	\$100.00
Possess or consume liquor	8.1.26	\$500.00
Use a device which constitutes a hazard	8.1.27	\$100.00
Erect any structure or tent	8.1.28	\$300.00
Obstruct any employee of the City	8.1.29	\$300.00
Use or operate device that disturbs enjoyment of Park	8.1.30	\$100.00
Urinate or defecate except in toilet facility	8.1.31	\$200.00
Swim where not permitted	8.1.32	\$100.00
Skate where not permitted	8.1.33	\$100.00
Transport goods over unprotected boulevard	9.1.1	\$300.00
Drive or ride any animal or vehicle on boulevard	9.1.2	\$150.00
Drive vehicle in excess of posted speed limit	9.1.4	\$150.00
Unleashed dog or other animal	11.1.1	\$150.00
Animal in prohibited area	11.1.2	\$150.00
Horse outside or designated area	11.1.4	\$100.00
Dog within 5 meters of playing field or sports surface	11.1.5	\$150.00
Unauthorized foot wear on a tennis court or bowling green	12.1.2	\$150.00
Play on tennis court or bowling green contrary to rules	12.1.3	\$150.00
Enter a park or facility during banning period	13.2.2	\$250.00

5. Maple Ridge Ticket Information Utilization Bylaw No. 6929-2012 is amended by adding to Schedule 29 before 306A(1)

Prevent authorized entry – 306(1)

READ A FIRST TIME this ____ day of _____, 2015.

READ A SECOND TIME this ____ day of _____, 2015.

READ A THIRD TIME this ____ day of _____, 2015.

ADOPTED this ____ day of _____, 2015.

PRESIDING MEMBER

CORPORATE OFFICER

City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: Maple Ridge Smoking Regulation Amending Bylaw No. 7151-2015

MEETING DATE: April 20, 2015
MEETING: CoW

EXECUTIVE SUMMARY:

This report is bringing forward proposed amendments to Smoking Regulation Bylaw No.6968-2013 to add an additional definition to “smoke or smoking” to ensure that the prohibition clearly includes “e-cigarettes”.

In the original draft of the parent Bylaw the definition of “smoke or smoking” is quite broad and was always intended to include e-cigarettes. The entire Bylaw including the definitions was reviewed by our solicitor and specifically staff raised the question with the solicitor regarding this definition to ensure that e-cigarettes were covered in the definition of “smoke or smoking”. Staff were assured this was the case.

However staff has been approached by the Fraser Health Officer who provided the City with a significantly more specific definition of e-cigarettes and requesting us to amend our Bylaw to use the more specific definition. Staff has reviewed this with the solicitor and although it is still their opinion that our existing definition would cover e-cigarettes the definition provided by the Fraser Health Unit is more specific and leaves no doubt as to what the Bylaw is referring to and therefore is in agreement with this amendment.

RECOMMENDATION(S):

That Maple Ridge Smoking Regulations amending Bylaw No.7151-2015 be given first, second and third readings.

DISCUSSION:

a) Background Context:

The Canadian Cancer Society has put out an article regarding e-cigarettes in which they address the questions “reduced risk or health concern?”

The formal name for e-cigarettes is Electronic Nicotine Delivery System (ENDS or more commonly “e-cigs”). This product has gained a lot of attention in the media with many questions surrounding these products. Research is underway to better understand the long-term health effects of using e-cigs. Provided within this report are some of the clarifications regarding the products.

What are e-cigarettes?

E-cigs are vapourizing devices that simulate the smoking experience. These products contain a chemical liquid solution which can include propylene glycol, vegetable glycerin, flavourings and (sometimes) nicotine. In comparing e-cigs to conventional cigarettes, it is believed that e-cigs are less harmful because they do not contain the same amount of cancer-causing carcinogenic chemicals as tobacco. The health effects of using e-cigs for the user and bystanders are presently unknown. Health Canada advises that e-cigs should not be used because they may pose health risks and have not been fully evaluated for safety, quality and effectiveness.

To date, e-cigs with nicotine may not be legally manufactured, imported or sold in Canada but are readily available in some “vaping” stores and on the Internet. Nicotine is a highly addictive substance that can have damaging effects on children, youth and pregnant women. E-cigs without nicotine may be legally sold in Canada, however, it is illegal to make a health claim for these products, such as stating that the e-cig is an effective cessation aid. Research is currently being conducted to determine potential health risks of e-cigs.

b) Citizen/Customer Implications:

The long-term health risks of e-cigarettes are unknown. E-cigarettes and other electronic nicotine delivery systems mimic the look, use and sometimes the taste of smoking a conventional tobacco cigarette. However, a lack of regulation and scientific evidence along with misleading health claims and youth marketing have raised concerns about the wide availability of this produce. Additional facts and information provided by Fraser Health are attached to this report as appendix I.

CONCLUSIONS:

The recommendations contained in this report, to support the proposed amendment Bylaw to include e-cigarettes as being specifically prohibited in the areas where smoking is prohibited as set out in the Smoking Regulation Bylaw No. 6968-2013.

“Original signed by Liz Holitzki”

Prepared by: E.S. (Liz) Holitzki
Director: Licences Permits and Bylaws

“Original signed by David Pollack for Frank Quinn”

Approved by: Frank Quinn, MBA, P.Eng
General Manager: Public Works and Development Services

“Original signed by Jim Rule”

Concurrence: J.L. (Jim) Rule
Chief Administrative Officer

City of Maple Ridge

Maple Ridge Smoking Regulation Amending Bylaw No.7151 -2015

A bylaw to amend Maple Ridge Smoking Regulation Bylaw No. 6968-2013

WHEREAS the Council of the City of Maple Ridge deems it expedient to further amend Maple Ridge Smoking Regulation Bylaw No. 6968-2013 as amended;

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

1. This bylaw may be cited as Maple Ridge Smoking Regulation Amending Bylaw No. 7151 - 2015 .
2. Maple Ridge Smoking Regulation Bylaw. No. 6968-2013 is amended in Part 4 Definitions by adding the word and definitions of “e-cigarette” following the definitions of Dwelling Unit and before the word Enforcement Officer. This shall read as follows:

“e-cigarette” means a cylinder-shaped device made of stainless steel or plastic. It is similar in appearance, use and sometimes taste to a cigarette but it contains no tobacco and does not produce smoke. It consists of a battery powered atomizer that vaporizes in a chemical liquid containing propylene glycol or vegetable glycerine, flavourings, and other chemicals such as formaldehyde and acetone. The cartridge may or may not contain nicotine.

3. Maple Ridge Smoking Regulation Bylaw No. 6968-2013 is further amended in Part 4 Definitions by adding the word “e-cigarette,” to the definitions of “Smoke” or “Smoking” following the word “cigarette,” and before the word “cigar,”

READ A FIRST TIME this ____ day of _____, 2015.

READ A SECOND TIME this ____ day of _____, 2015.

READ A THIRD TIME this ____ day of _____, 2015.

ADOPTED this ____ day of _____, 2015.

PRESIDING MEMBER

CORPORATE OFFICER

Fact Sheet

Electronic Cigarettes – A Background for Health Professionals

Electronic cigarettes (e-cigarettes) and other electronic nicotine delivery systems mimic the look, use, and sometimes the taste of smoking a conventional tobacco cigarette. The big difference is they do not contain tobacco or produce combustion or smoke; however they do expose both the smoker and bystanders to a wide variety of chemicals. However, a lack of regulation and scientific evidence along with misleading health claims and youth marketing have raised concerns about the wide availability of this product. Health Canada banned the sale of nicotine-containing e-cigarettes in 2009 yet these products remain readily available. This new nicotine delivery device has the potential to undermine efforts to change social norms around smoking within the province.

What are e-cigarettes?

They consist of a plastic or stainless steel cylinder, a battery, an atomizer that heats the liquid and turns it into vapour, and a cartridge that contains flavouring and possibly nicotine in a base of propylene glycol or vegetable glycerine, as well as other chemicals like formaldehyde, glycerol and acetone.

Who is using e-cigarettes?

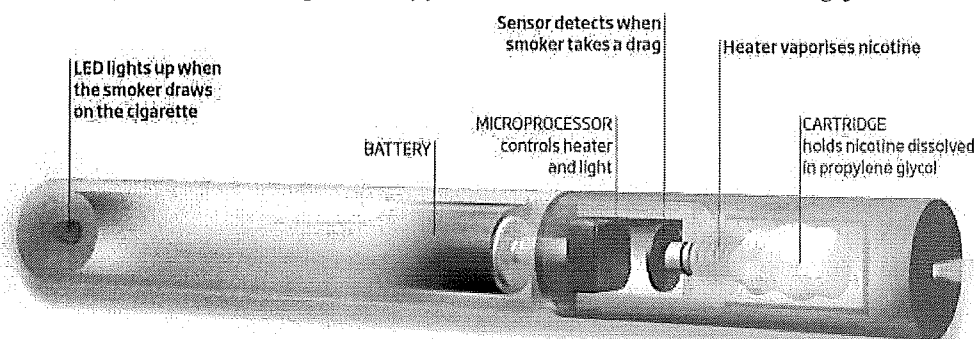
The majority of current e-cigarettes users also smoke conventional cigarettes.

- 40% of adults aged 18+ in Canada are aware of e-cigarettes and 4% have used them.
- 16% of young adults 16-30 in Canada have tried e-cigarettes.
- E-cigarette use is rapidly increasing among adults and adolescents.

Why are we concerned?

- The long-term health risks of e-cigarettes are unknown.
- Youth are being targeted through advertising and fruit and candy flavoured products.
- Smoking may become renormalized.
- E-cigarettes are marketed as smoking cessation aides without supporting evidence.
- There are no regulations to cover this burgeoning industry:
 - no manufacturing, quality control or safety standards,
 - no labelling requirements regarding contents of the cartridges, and
 - no regulations on the sale to minors.

E-cigarettes are designed to appeal to a wide audience, including youth



Adapted from: Health Canada Therapeutic Products Directorate, Health Products and Food Branch presentation: *Regulatory Status of Electronic Cigarette Products*. Interior Health Authority, 2013

Electronic Cigarettes – A Background for Health Professionals - *continued*

Why Are We Concerned cont'd

- Allowing e-cigarettes in public places undermines clean air initiatives and bylaw enforcement.
- Smokers may use e-cigarettes to maintain their addiction when otherwise they may have taken steps to quit.

What are the Health and Safety Risks?

- There is sufficient evidence to caution children, adolescents, pregnant and women of reproductive age not to use e-cigarettes due to foetal and adolescent nicotine exposure and the long-term impact on brain development.
- Short-term impacts of e-cigarette use include eye and respiratory irritation caused by exposure to propylene glycol.
- There is potential cytotoxicity of some e-solutions as a result of the concentration and number of flavourings.
- The vapour contains fine and ultrafine inhalable liquid particles, nicotine and carcinogens.
- Levels of nicotine, known carcinogens and solvents in e-cigarettes vary considerably, both between products and within the same package.
- There is a possibility of nicotine overdose through dermal exposure when replacing cartridges and of unintended overdose.
- Nicotine containing e-cigarettes often contain enough nicotine to seriously harm a child, especially if swallowed or absorbed through the skin.

Are there Potential Benefits for Current Smokers?

- Some studies suggest that e-cigarettes could be used as a smoking cessation tool, but most of these are small and lack scientific rigour.
- E-cigarettes produce lower exposure to *SOME* toxicants than conventional cigarettes.
- E-cigarettes *MAY* serve as a harm reduction method to allow smokers to cut back on cigarettes and be exposed to fewer carcinogens.

What's being done?

- E-cigarettes are regulated under Canada's Food and Drugs Act.
- E-cigarettes with nicotine cannot be legally imported, marketed or sold.
- E-cigarettes that make a health claim, such as 'they help you to quit smoking' are illegal.
- E-cigarettes with no nicotine and no health claims can be sold.
- Fraser Health has included e-cigarettes in its revised Smoking Policy.
- All levels of government have a role to play in regulating this industry, especially regarding the sale to minors and inclusion of e-cigarettes in municipal bylaws, and provincial and federal tobacco control and enforcement regulations.

References for this fact sheet are available by contacting healthyliving@fraserhealth.ca.

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: Award of a Contract for Integrated Stormwater Management Planning - South Alouette and Kanaka Creek Watersheds

MEETING DATE: April 20, 2015
FILE NO: 5255-20-061
MEETING: C.O.W.

EXECUTIVE SUMMARY:

The Province of British Columbia requires Maple Ridge and other Metro Vancouver municipalities to develop Integrated Stormwater Management Plans (ISMP's) that will support community growth in a manner that maintains or enhances watershed health. The City's approved 2014 and 2015 Capital Budgets include funding for ISMP's for the South Alouette and Kanaka watersheds. Qualified consultants were identified through a Request for Qualifications process in 2014. The four prequalified consultants responded to a subsequent Request for Proposals. An evaluation team identified the Urban Systems Limited proposal of \$376,555 plus taxes as meeting project objectives for the lowest fee. Council approval is required to award the work.

RECOMMENDATION:

THAT Contract 11-5255-20-061, Integrated Stormwater Management Planning - South Alouette and Kanaka Creek Watersheds, be awarded to Urban Systems Limited in the amount of \$376,555 plus taxes, and that an additional 5% contingency be established for this project; and further

That the Corporate Officer be authorized to execute the contract.

DISCUSSION:

a) Background Context:

Legislative Requirement to Develop Integrated Stormwater Management Plans

In the 1990's, the Greater Vancouver Sewerage and Drainage District (GVS&DD) and member municipalities worked to develop a Provincially-approved Liquid Waste Management Plan (LWMP) that would take precedence over the more restrictive Provincial Waste Management/Environmental Management Acts. In 2001, Maple Ridge Council authorized the GVS&DD to submit the LWMP to the Minister of Environment for Approval. The Minister approved the plan in 2002.

Section C39 of the 2001 LWMP committed municipalities to develop Integrated Stormwater Management Plans (ISMP's) for urban watersheds. The development of ISMP's was to be facilitated through a terms of reference template developed by a regional Stormwater Interagency Liaison Group. The terms of reference template was developed in 2005.

In 2010, the LWMP was updated and renamed the Integrated Liquid Waste and Resource Management Plan (ILWRMP). Maple Ridge Council endorsed the municipal actions of the ILWRMP in 2010. The Provincial Minister of Environment approved the document in 2011.

Section 3.4.7 of the ILWRMP requires municipalities to “Develop and implement integrated stormwater management plans at the watershed scale that integrate with land use to manage rainwater runoff.”

What is Integrated Stormwater Management Planning?

Integrated stormwater management planning is defined in *Stormwater Planning: A Guidebook for British Columbia* (Ministry of Environment, 2002):

“The purpose of an ISMP is to provide a clear picture of how to be proactive in applying land use planning tools to protect property and aquatic habitat, while at the same time accommodating land development and population growth.”

Integrated Stormwater Management Planning in Maple Ridge

In 2013, the City retained Urban Systems Limited to develop an ISMP strategy for Maple Ridge. Urban Systems identified five watersheds in Maple Ridge requiring ISMP's (see Figure One):

- South Alouette
- Kanaka
- North Alouette/Blaney
- Fraser
- Thornhill/Albion

The South Alouette and Kanaka watersheds were prioritized over the others based on their higher development rates. ISMP's for the North Alouette/Blaney, Fraser and Thornhill/Albion watersheds are scheduled for subsequent years.

Consultant Selection

Consultant selection followed the City's Purchasing Policy. The City advertised a Request for Qualifications in 2014. Six responses were received, and four consultants were prequalified. The City subsequently issued a Request for Proposals for the South Alouette and Kanaka watershed ISMP's to the four prequalified consultants. Four proposals were received in the range of \$376,555 to \$437,443. A review team evaluated each proposal utilizing pre-established evaluation criteria and concluded that the Urban Systems Proposal of \$376,555 met the project objectives for the lowest fee.

b) Business Plan/Financial Implications:

The approved 2014 and 2015 Capital Budget, under LTC 1795, provides sufficient funds for the Contract.

c) Citizens/Customer Implications:

The ISMP's will be developed with input from various stakeholders including the public, environmental stewardship groups and Council. Stakeholders will be consulted through a variety of means ranging from meetings to online surveys.

d) Strategic Alignment:

The development of ISMP's follows the vision and strategies outlined in the Corporate Strategic Plan under Smart Managed Growth. ISMP's also support the following policies from the City's OCP:

OCP Policy 5-28: Maple Ridge will consider the preparation of watershed management plans that integrate watercourse protection, stormwater management, and sediment or erosion controls on an ecosystem basis.

OCP Policy 5-33: Maple Ridge will adopt Provincial guidelines and standards for integrated rain and stormwater management and prepare an Integrated Stormwater Management Plan (ISMP) to maintain water quality and natural runoff rates in municipal watercourses.

e) Intergovernmental Relationships:

The creation of ISMP's is a Provincially-legislated requirement set out in the regional Integrated Liquid Waste and Resource Management Plan.

CONCLUSION:

The Province has mandated that Metro Vancouver municipalities complete Integrated Stormwater Management Plans (ISMP's). Further to a RFP process for the South Alouette and Kanaka watersheds, a review team has concluded that the Urban Systems' ISMP proposal of \$376,555 meets project objectives at the lowest cost. It is therefore recommended that the City accept the proposal and enter into a contract with Urban Systems Limited for the completion of the South Alouette and Kanaka ISMP's.

"Original signed by Joe Dingwall"

Prepared by: **Joe Dingwall, PEng.**
Manager of Utility Engineering

"Original signed by Trevor Thompson"

Financial: **Trevor Thompson, CGA**
Concurrence: **Manager, Financial Planning**

"Original signed by David Pollock"

Reviewed by: **David Pollock., PEng.**
Municipal Engineer

"Original signed by David Pollock" acting for:

Approved by: **Frank Quinn, MBA, PEng.**
General Manager: Public Works & Development Services

"Original signed by J.L. (Jim) Rule"

Concurrence: **J.L. (Jim) Rule**
Chief Administrative Officer

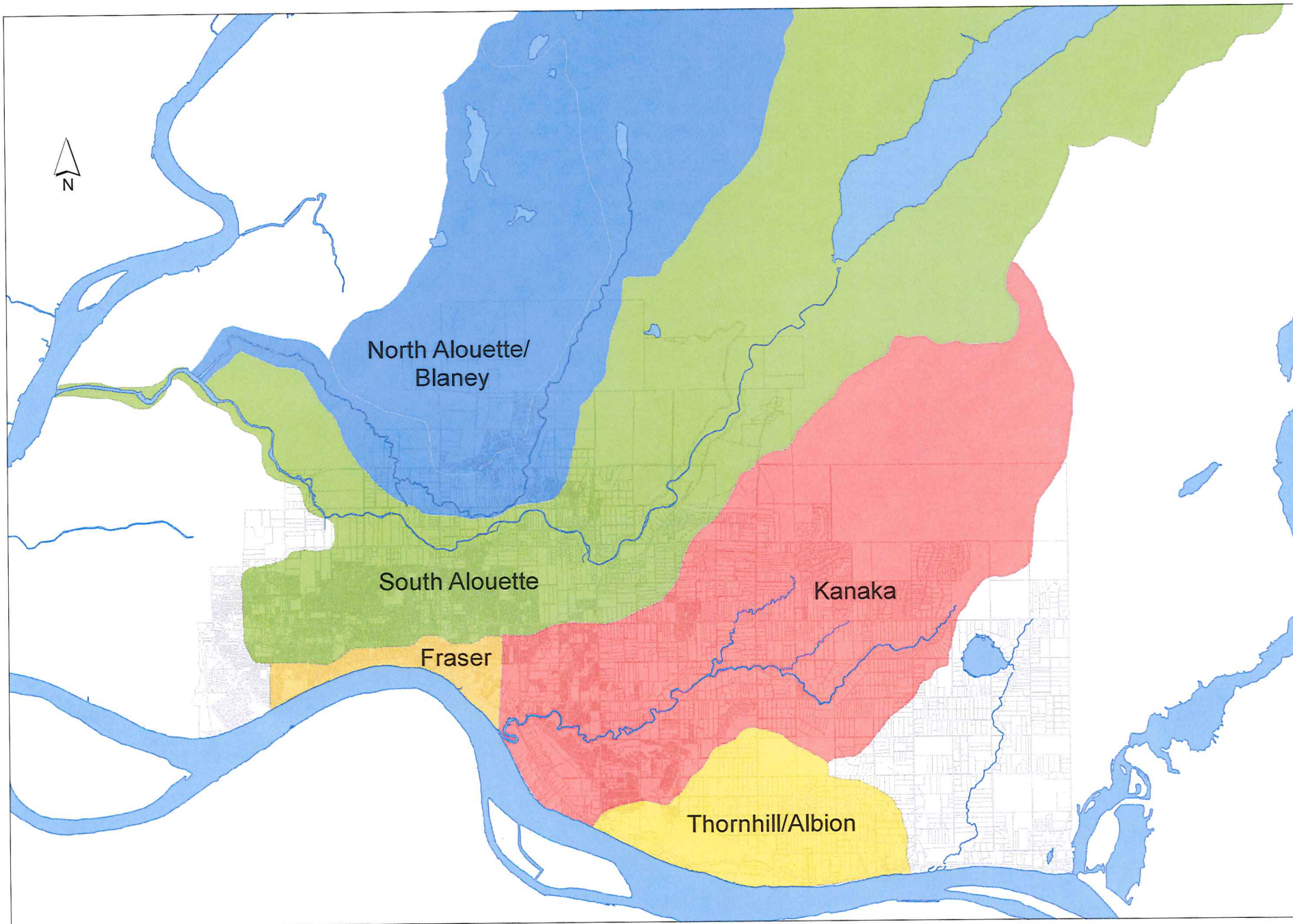


Figure One: ISMP Areas

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: Drinking Water Quality Report 2014

MEETING DATE: April 20, 2015
FILE NO: 11-5600-05
MEETING: C of W

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. A less technical brochure has also been produced and will be available on the City's website and at the Municipal Hall Customer Service Centre.

This report is for information and the attached "Drinking Water Quality Report 2014" includes an outline of the regulatory framework, water quality monitoring data for 2014, and explanatory comments on the data. A copy of the report will be placed in the public library and on the corporate website.

In 2014, water quality within the City's municipal water distribution system met the standards detailed in the BC *Drinking Water Protection Regulation*.

RECOMMENDATION:

This report is for information only and no resolution is required.

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 Lake 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.

The City's water distribution infrastructure includes approximately 400km of water main, 8 pump stations, 8 reservoirs, and 6 re-chlorination stations.

Samples from 20 locations in the distribution system are taken weekly and are analyzed by Metro Vancouver. The results are sent to the Operations and Engineering Departments and to the FHA for review. In 2014, 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.

b) Strategic Alignment:

Financial Management

Council has directed that the City provide high quality municipal services to our 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.

Smart Managed Growth

The Corporate Strategic Plan directs that municipal infrastructure be protected and managed through the preparation of appropriate plans to ensure maintenance of the system. A systematic water quality monitoring plan assists in ensuring that an effective water distribution system is managed and maintained.

Intergovernmental Relations/Partnerships

Council has directed that the City develop and maintain strong positive working relationships with the GVWD and other governmental agencies.

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 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.

CONCLUSIONS:

The City monitored drinking water quality in 2014 in accordance with the Provincial mandate. Testing indicated that all samples met the standards detailed in the provincial *Drinking Water Protection Regulation*. The “Drinking Water Quality Report 2014” 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.

“Original signed by Joe Dingwall”

Prepared by: **Joe Dingwall, PEng.**
Manager of Utility Engineering

“Original signed by David Pollock”

Reviewed by: **David Pollock, PEng.**
Municipal Engineer

“Original signed by David Pollock” acting for:

Approved by: **Frank Quinn, MBA, PEng.**
General Manager: Public Works & Development Services

“Original signed by J.L. (Jim) Rule

Concurrence: **J.L. (Jim) Rule**
Chief Administrative Officer

JD/mi

Attachment: City of Maple Ridge Drinking Water Quality Report 2014

CITY OF MAPLE RIDGE DRINKING WATER QUALITY REPORT 2014



March 10, 2015

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List of Abbreviations

L	=	litre	
mL	=	milliliter	= 10^{-3} L
g	=	gram	
mg	=	milligram	= 10^{-3} g
µg	=	microgram	= 10^{-6} g
ppb	=	parts per billion	= 1×10^{-9}
°C	=	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 2014, the City supplied water to approximately 73,500 people.

In accordance with the requirements of the BC *Drinking Water Protection Regulation*, the City sends weekly drinking water samples from 20 locations to a laboratory for analysis. Test results are communicated to the City and the Fraser Health Authority every week and documented in this annual report. In 2014, the City 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 2006 *Water Quality Monitoring and Reporting Plan for the GVRD and Member Municipalities*. In 2014, the City was in compliance with all maximum acceptable concentration limits recommended by Health Canada with the exception of water temperature.

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 permit by the Provincial Ministry of Health Services
- Engaging in water quality monitoring

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.

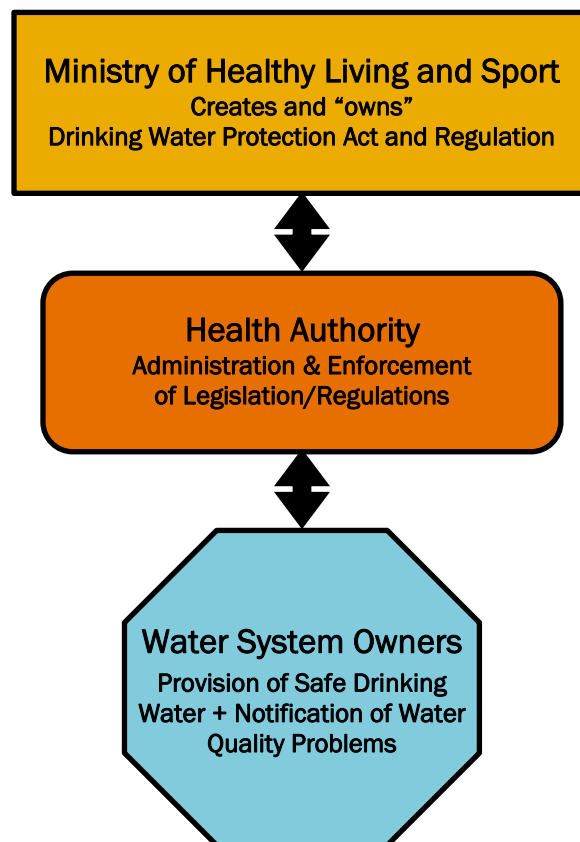


Figure 1: Agency Responsibilities for Water Quality

The City monitors drinking water quality regularly to ensure regulatory compliance. Moreover, the City checks a wide range of non-regulated water quality parameters to ensure residents are provided with water that is both safe to drink and aesthetically pleasing. Results for both regulated and unregulated parameters are presented in this report.

2.0 Background

The City is supplied with water from protected and undeveloped Metro Vancouver watersheds. Drinking water is conveyed to Maple Ridge residents through Metro Vancouver transmission mains and approximately 400km of municipal water distribution pipes.

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. While the Coquitlam watershed is the primary source of water for Maple Ridge, Metro Vancouver has the ability to convey water from the Seymour watershed to Maple Ridge in the event of a service disruption at the Coquitlam source. Metro Vancouver operates an ultraviolet (UV) light water treatment facility at the Coquitlam watershed which disinfects source water prior to it entering the distribution system.

2.2 Distribution System

The City distributes water to businesses, institutions and over 73,000 residents. Water distribution infrastructure includes approximately 400km of water mains, 8 pump stations, and 8 reservoirs. The Municipality also operates 6 re-chlorination stations to boost residual chlorine levels in the distribution system.

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

2.3 Facility Maintenance

Water quality is influenced by water system maintenance and improvement strategies that are implemented by the City's Operations and Engineering Departments.

2.3.1 Water Main Flushing

Water main flushing is a method of cleaning sediment and material accumulation from 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 21% of the distribution system using this method in 2014. In support of summer water conservation efforts, the City's annual flushing program is scheduled to take place only between October and May.

2.3.2 Reservoirs

Water reservoirs are cleaned to remove sediment and algae which may serve as nutrients to microorganisms. The City currently cleans its reservoirs on a 7 year cycle.

2.3.3 Water Main Repairs and Improvements

Water quantity, quality, and reliability can be improved through the repair and strategic replacement of water mains. Computer modeling and asset management analyses are carried out to identify future deficiencies in the system and plan improvements.

2.4 Re-Chlorination Stations

Chlorine levels are continually monitored at 6 re-chlorination stations throughout the distribution system. Additional chlorine is automatically injected into the drinking water at these locations if detected chlorine levels are too low. The re-chlorination stations are inspected daily and adjusted as necessary.

3.0 Regulated Drinking Water Quality Parameters

Metro Vancouver and the City are responsible for monitoring water quality in different parts of the regional drinking water system. Metro Vancouver is responsible for monitoring the quality of water leaving the treatment plants and within their transmission mains. The City is responsible for monitoring water quality in distribution mains throughout Maple Ridge.

The quality of water distributed within the City is monitored in accordance with requirements set out in provincial regulations. This section describes the monitoring program and water quality results for 2014.

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 as well as at Metro Vancouver's 3 sampling locations within Maple Ridge.

Sampling site locations and codes are illustrated on a map in Appendix B. Samples are taken weekly by City Operations Department staff and sent to the Metro Vancouver laboratory for analysis. Metro Vancouver staff analyze the samples and communicate the results to the City and Fraser Health Authority. Responses to unacceptable results would vary between flushing water mains and possibly issuing a boil water advisory, depending on the significance of the parameter of concern.

The monitoring program provides a representative picture of drinking water quality within regional and municipal water mains. However, it does not provide a definitive picture of drinking water quality 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 will be of different quality than those taken from municipal 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 can provide a good indication of microbial water quality. Figure 2 and Figure 3 show Metro Vancouver Laboratory technicians processing a water sample and testing it for the presence of coliform bacteria.

3.2.1 Escherichia Coli

E. coli is a type of coliform bacteria present exclusively in the feces of humans and other animals. 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 2014, no samples tested positive for *E. coli*.



Figure 2: Metro Vancouver Laboratory technician processing water sample in preparation for coliform bacteria check



Figure 3: Metro Vancouver Laboratory technician checking water sample for coliform bacteria

3.2.2 Total Coliform

The total coliform group of bacteria ranges from being fecal-specific, such as *E. coli*, to being widely distributed in 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
1 Sample in a 30 day period	No detectable total coliform per 100mL
More than 1 sample in a 30 day period	At least 90% of samples have 0 total coliform per 100mL and no sample has more than 10 total coliform per 100mL

In 2014 there were no detectable total coliform per 100mL for any samples. Table 2 lists the annual number of samples found to contain total coliform between 2006 and 2014.

Table 2: Total Coliform Results by Year

Year	Number of Samples with Total Coliform
2014	0
2013	0
2012	2
2011	1
2010	3
2009	1
2008	0
2007	5
2006	0

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 (85) exceeds the stipulated value of 73 (based on a directly serviced population of approximately 73,500). The Metro Vancouver samples taken every month within the City provide an additional point of reference. As the City's population grows, additional sampling sites will be added.

Table 3: Monitoring Frequency for the detection of *E. coli* and total coliforms

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

In monitoring unregulated drinking water quality parameters, the City exceeds the *Water Quality Monitoring and Reporting Plan for the GVRD and Member Municipalities*. This section reports on the City's non-regulatory monitoring.

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 that "free chlorine concentrations in most Canadian drinking water distribution systems range from 0.04 to 2.0 mg/L."¹

Residual chlorine concentrations are affected by various parameters such as time in the distribution system, turbidity levels, pipe material, and temperature.

Table 5 and the maps in Appendix B show that:

- In 2014, the average free chlorine residual at all stations in Maple Ridge was greater than 0.2 mg/L
- Stations 400, 441 and 449 had the greatest number of samples with chlorine residuals less than 0.2 mg/L

Detailed free chlorine residual data charted in Appendix F and tabulated in Appendix G indicates that four of the 1,246 samples had no chlorine residual. All four samples were taken at sampling stations in low-demand locations, stations 400 and 441. None of the samples with undetectable chlorine levels contained E coli or Total Coliforms, and HPC counts were relatively low (less than 500) for all samples (see Table 4).

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

Table 4: Water Quality Parameters for Samples with Undetectable Chlorine

Sample name	Sample Location	Sampled Date	Cl ₂ Free mg/L	Ecoli MF/ 100mL	HPC CFU/ mL	Temp. °C	Total Coliform MF/ 100mL	Turb. NTU
MPR-400	Powell Ave. West of 203rd Street	6-May-14	<0.01	<1	100	11	<1	0.23
MPR-400	Powell Ave. West of 203rd Street	17-Jun-14	<0.01	<1	10	14	<1	0.39
MPR-400	Powell Ave. West of 203rd Street	7-Oct-14	<0.01	<1	14	16	<1	0.39
MPR-441	132 Ave. @ Cedar Way	2-Sep-14	<0.01	<1	12	19	<1	0.22

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 all sample stations are displayed below in Table 5. Detailed turbidity data for 2014 is charted in Appendix F and tabulated in Appendix G.

Variations in turbidity within a distribution system are normal. Higher levels may be associated with turbidity in 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 turbidity level and flush the mains should high turbidity levels persist.

Table 5: 2013 Chlorine Residual and Turbidity 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	0.23	0.31	30	22	58%	42%
MPR-431	52	0.93	0.39	51	1	98%	2%
MPR-432	52	0.92	0.42	52	0	100%	0%
MPR-433	34	0.82	0.40	34	0	100%	0%
MPR-434	52	0.60	0.39	43	9	83%	17%
MPR-435	52	0.46	0.35	52	0	100%	0%
MPR-436	52	0.86	0.35	52	0	100%	0%
MPR-437	52	1.03	0.41	52	0	100%	0%
MPR-438	52	0.97	0.37	52	0	100%	0%
MPR-439	52	0.72	0.32	52	0	100%	0%
MPR-440	52	0.98	0.41	52	0	100%	0%
MPR-441	52	0.28	0.37	27	25	52%	48%
MPR-442	52	0.51	0.40	52	0	100%	0%
MPR-443	52	0.91	0.48	52	0	100%	0%
MPR-444	52	0.64	0.35	52	0	100%	0%
MPR-445	52	0.54	0.38	42	10	81%	19%
MPR-446	52	0.52	0.38	42	10	81%	19%
MPR-447	52	0.82	0.44	52	0	100%	0%
MPR-448	52	0.57	0.37	48	4	92%	8%
MPR-449	52	0.21	0.34	29	23	56%	44%
GV-071	74	0.79	0.46	74	0	100%	0%
GV-072	80	0.92	0.51	80	0	100%	0%
GV-098	70	0.53	0.42	70	0	100%	0%

4.3 Heterotrophic Plate Count

Samples are tested for the presence of heterotrophic bacteria to detect possible changes in water quality. However, Health Canada does not suggest a maximum acceptable concentration for heterotrophs. Instead, it recommends that increases in heterotrophic plate count (HPC) concentrations above baselines levels be considered undesirable.

Table 6 shows the annual number of samples with HPCs over 500 CFU/mL between 2006 and 2014. In response to HPC counts at or above the level, the City will re-test and flush water mains. HPC data for each sample taken in 2014 is provided in Appendix G.

Table 6: HPC Results by Year

Year	Number of Samples with HPC > 500 CFU/mL
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 the chlorine used to disinfect drinking water reacts with naturally occurring organic matter. Health Canada considers certain HAAs and some THMs to be possibly carcinogenic to humans. Health Canada also reports that *“High Levels of THMs may also have an effect on pregnancy. A California study found that pregnant women who drank large amounts of tap water with high THMs had an increased risk of miscarriage. These studies do not prove that there is a link between THMs and cancer or miscarriage. However, they do show the need for further research in this area to confirm potential health effects.”*²

Health Canada recommends that running average (last four quarters) for THMs and HAAs be below 100 and 80 ppb respectively. Drinking water at four locations in Maple Ridge was tested quarterly for THMs and HAAs. Running averages for all locations remained below recommended values. See Appendix C for detailed quarterly results.

4.5 pH

pH is a measure of the acid-base equilibrium of water. pH is of concern in a water distribution system because at low values water becomes corrosive while 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 7.1 to 7.3 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 and the U.S. Environmental Protection Agency (USEPA). USEPA values are referenced only where Health Canada does not recommend a limit. As shown in Appendix D, all measured metal concentrations were below the limits recommended by Health Canada and the USEPA. Neither Health Canada nor the USEPA suggest drinking water quality guidelines for calcium, cobalt, magnesium, molybdenum, nickel or potassium. Additional information related to concentrations of these metals is provided in Appendix E.

² Health Canada Website <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/envIRON/chlor-eng.php> accessed January 2015

4.7 Temperature

Health Canada sets an aesthetic objective of 15°C for drinking water. Water temperature exceeding this objective can result in consumer complaints and the growth of nuisance organisms that could lead to unpleasant tastes and odors. Figure 4 shows average monthly drinking water temperatures in Maple Ridge. In July, August, and September the average monthly temperatures were 15.9, 16.7, 16.5 respectively exceeding Health Canada's objective. Detailed temperature information is provided in Appendix G.

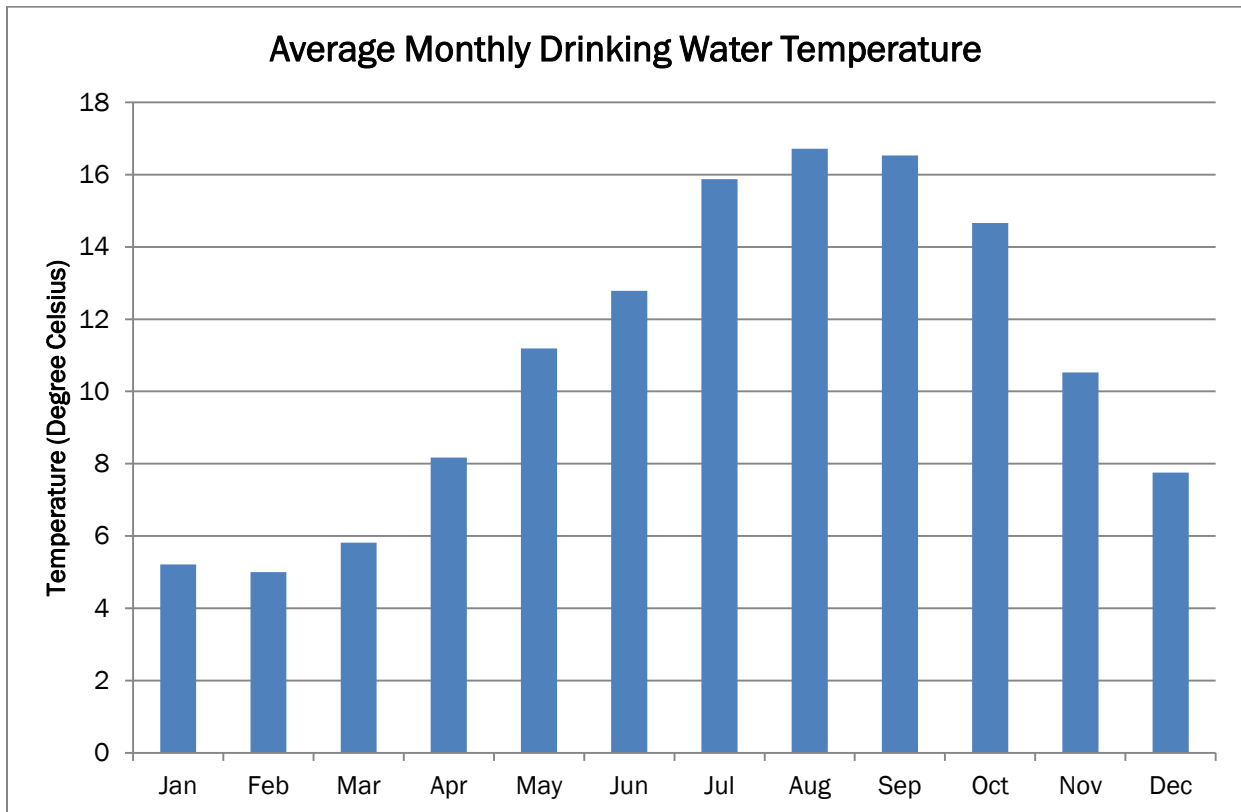


Figure 4: Average Monthly Drinking Water Temperature Chart

4.8 Vinyl Chloride

The concentration of vinyl chloride was tested in 6 samples during 2014. As indicated in Appendix D, all results were non-detectable (less than 1 µg/L), less than the Health Canada Guideline of 2 µg/L.

5.0 Response to Potential Contamination

In the event that contaminants are detected in the water distribution system, a series of protocols will be carried out to communicate the event to City, Fraser Health Authority and Metro Vancouver staff. The agencies 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.

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 H. 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 cold-water 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.

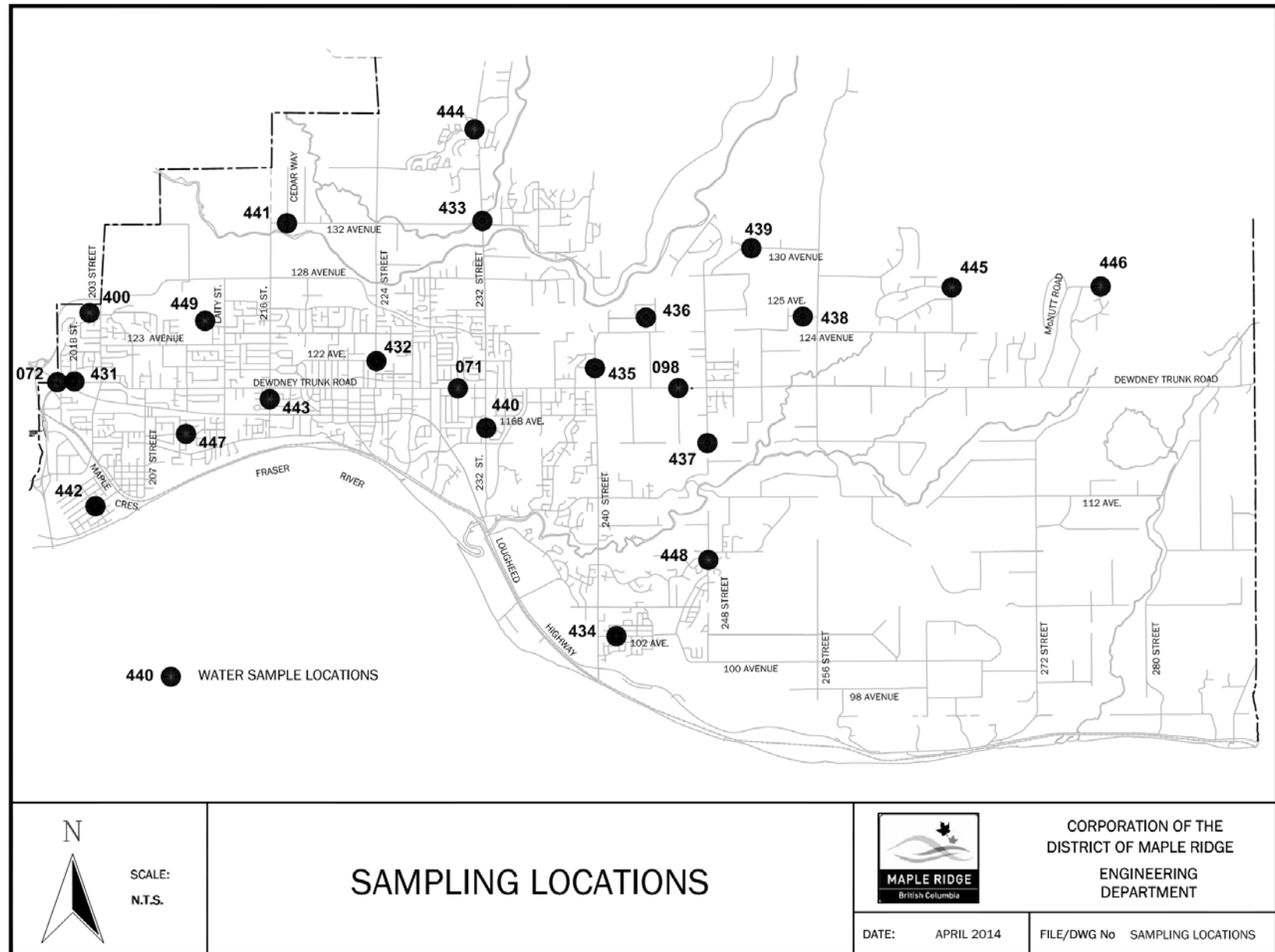
The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not the local water supply.

7.0 Conclusion

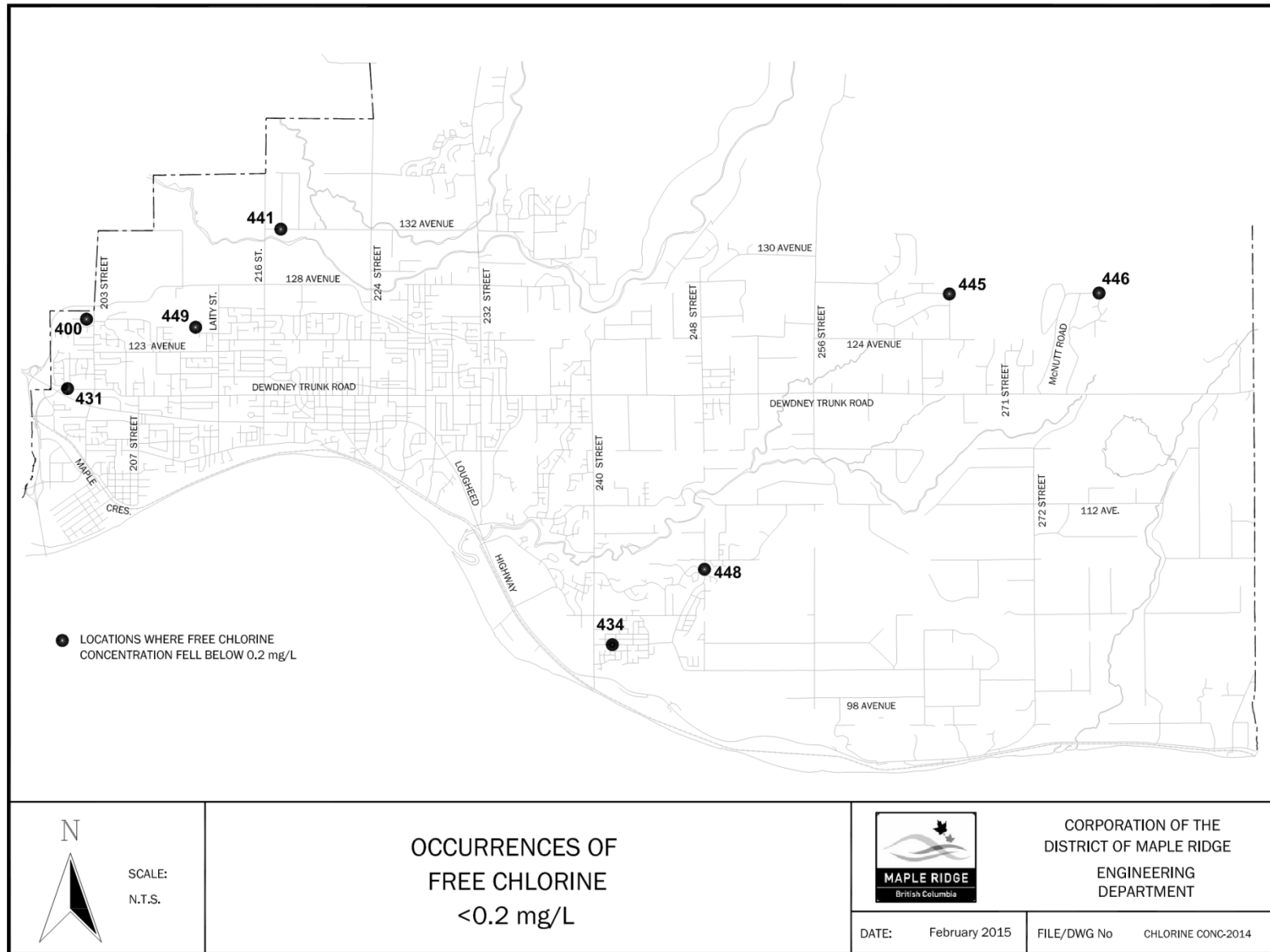
The City monitored drinking water quality in 2014 in accordance with provincial regulations. 1022 drinking water samples were obtained from the municipal water distribution system at 20 sites throughout the City. Metro Vancouver Laboratory testing indicated that all samples met Provincial *Drinking Water Protection Regulation* Standards.

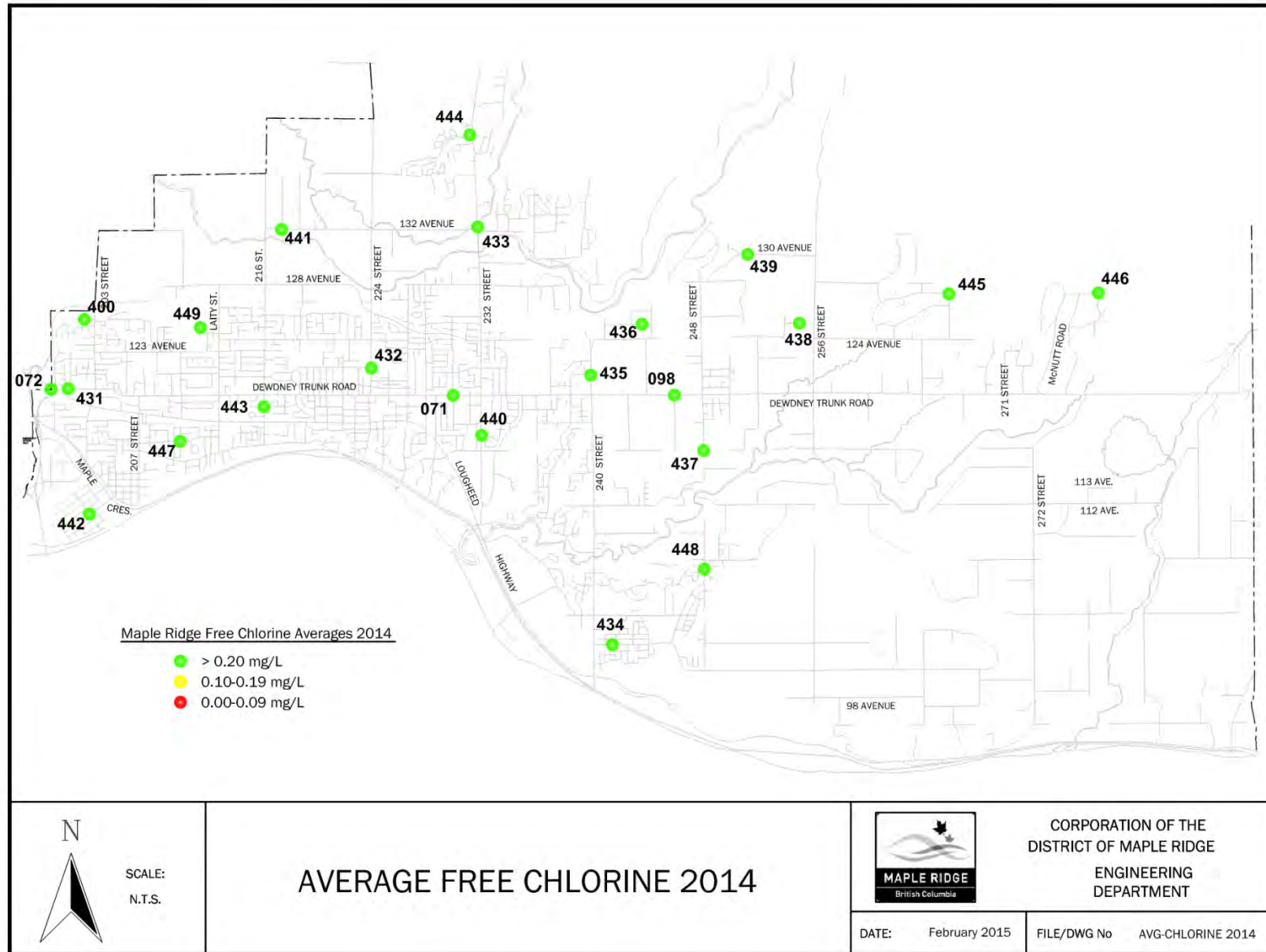


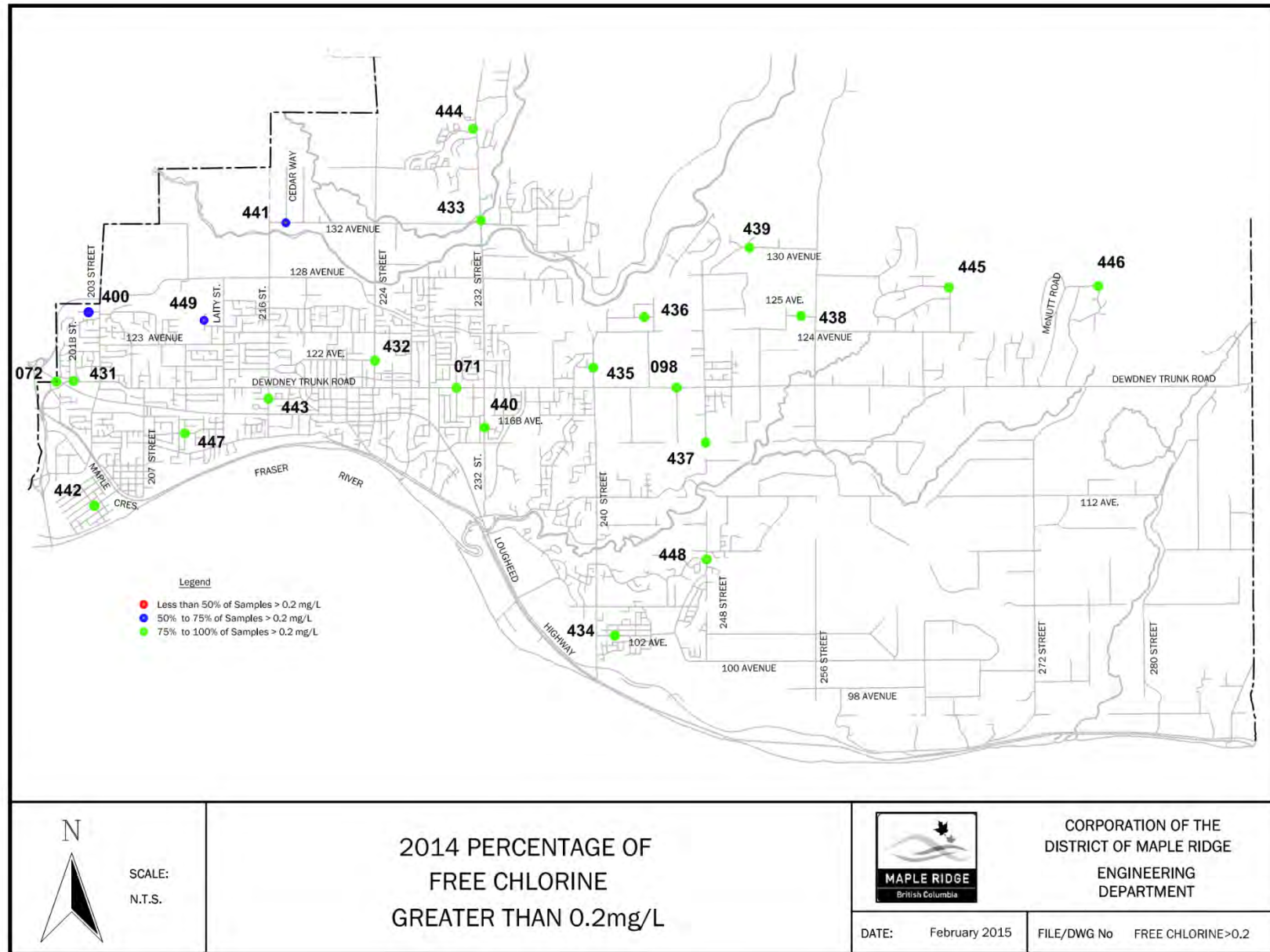
Appendix A: Sampling Station Locations



Appendix B: Residual Free Chlorine Figures







Appendix C: Disinfection By-Products and pH

Sample Site	Sample Location	Date Sampled	THM (ppb)						HAA (ppb)							pH Units	
			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)		
Maximum Acceptable Concentration (Health Canada Guidelines for Canadian Drinking Water Quality)			16					100								80	6.5-8.5
MPR-434	102 Ave. East of 241A St.	14/05/2013	<1	<1	<1	29	29		<0.5	14	<1	7	17	38			
MPR-434	102 Ave. East of 241A St.	19/09/2013	<1	<1	<1	29	30		<0.5	11	<1	12	12	35			
MPR-434	102 Ave. East of 241A St.	26/11/2013	<1	<1	<1	27	28		<0.5	16	<1	11	20	49			
MPR-434	102 Ave. East of 241A St.	04/03/2014	<1	<1	<1	28	28	29	<0.5	16	<1	9	14	41	40		
MPR-434	102 Ave. East of 241A St.	06/06/2014	<1	<1	<1	29	30	29	<0.5	14	<1	8	12	35	40		
MPR-434	102 Ave. East of 241A St.	02/09/2014	<1	<1	<1	28	29	29	<0.5	15	1	10	17	44	42		
MPR-434	102 Ave. East of 241A St.	18/11/2014	<1	<1	<1	52	53	35	<0.5	9	<1	5	46	61	45		
MPR-435	240 St. South of Abernethy Way	14/05/2013	<1	<1	<1	37	37		<0.5	18	<1	4	30	52			
MPR-435	240 St. South of Abernethy Way	19/09/2013	1	<1	<1	40	42		<0.5	14	<1	6	34	54			
MPR-435	240 St. South of Abernethy Way	26/11/2013	<1	<1	<1	38	39		<0.5	14	<1	6	31	53			
MPR-435	240 St. South of Abernethy Way	04/03/2014	<1	<1	<1	28	29	37	<0.5	17	<1	11	25	54	53	7.1	
MPR-435	240 St. South of Abernethy Way	06/06/2014	<1	<1	<1	32	33	36	<0.5	13	<1	7	17	38	50	7.2	
MPR-435	240 St. South of Abernethy Way	02/09/2014	1	<1	<1	37	38	35	<0.5	12	2	6	37	57	50	7.2	
MPR-435	240 St. South of Abernethy Way	18/11/2014	<1	<1	<1	48	49	37	<0.5	19	<1	9	38	67	54	7.1	
MPR-438	125 Ave. West off 256 St.	14/05/2013	<1	<1	<1	40	40		<0.5	21	<1	7	36	65			
MPR-438	125 Ave. West off 256 St.	19/09/2013	1	<1	<1	47	48		<0.5	21	<1	12	22	56			
MPR-438	125 Ave. West off 256 St.	26/11/2013	<1	<1	<1	41	42		<0.5	24	<1	12	38	75			
MPR-438	125 Ave. West off 256 St.	04/03/2014	<1	<1	<1	34	35	41	<0.5	19	<1	10	29	58	64	7.2	
MPR-438	125 Ave. West off 256 St.	06/06/2014	<1	<1	<1	37	38	41	<0.5	16	<1	10	20	46	59	7.2	
MPR-438	125 Ave. West off 256 St.	02/09/2014	1	<1	<1	36	37	38	<0.5	23	<1	12	37	73	63	7.3	
MPR-438	125 Ave. West off 256 St.	18/11/2014	<1	<1	<1	54	55	41	<0.5	36	<1	13	62	112	72	7.3	
MPR-440	232 St. @ 117 Ave.	14/05/2013	<1	<1	<1	27	27		<0.5	12	<1	8	12	32			
MPR-440	232 St. @ 117 Ave.	19/09/2013	<1	<1	<1	27	27		<0.5	16	<1	13	15	44			
MPR-440	232 St. @ 117 Ave.	26/11/2013	<1	<1	<1	27	28		<0.5	15	<1	10	17	44			
MPR-440	232 St. @ 117 Ave.	04/03/2014	<1	<1	<1	25	25	27	<0.5	13	<1	8	9.6	31	38		
MPR-440	232 St. @ 117 Ave.	06/06/2014	<1	<1	<1	26	27	27	<0.5	13	<1	8	12	35	39		
MPR-440	232 St. @ 117 Ave.	02/09/2014	<1	<1	<1	23	24	26	<0.5	12	<1	10	14	37	37		
MPR-440	232 St. @ 117 Ave.	18/11/2014	<1	<1	<1	39	40	29	<0.5	19	<1	11	24	55	40		

Appendix D: Metals and Vinyl Chloride

Metal Concentration

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 Total (µg/L)	Cobalt Total (µg/L)	Copper Total (µg/L)	Iron Total (µg/L)	Lead Total (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 Total (µg/L)
Maximum Acceptable Concentration (Guidelines for Canadian Drinking Water Quality)			none	6	10	1000	5000	5	none	50	none	1000	300	10	none	50	1	none	none	none	10	none	200,000	5000
Maximum Acceptable Concentration (USEPA National Secondary Drinking Water Regulations)			50-200						none		none				none			none	none	none		100		
Reason Guideline Established - Health (H) or Aesthetic (A)			A	H	H	H	H	H		H		A	A	H		A	H				H	A	A	A
MPR-431	Dewdney Trunk Rd. @ 201B St.	20-May-14	84	<0.5	<0.5	2.3	<10	<0.2	934	0.06	<0.5	6.2	47	<0.5	103	2.5	<0.05	<0.5	<0.5	108	<0.5	<0.5	5090	<3
MPR-435	240 St. South of Abernethy Way	20-May-14	81	<0.5	<0.5	2.2	<10	<0.2	1010	0.06	<0.5	15.2	47	<0.5	100	1.9	<0.05	<0.5	<0.5	108	<0.5	<0.5	5240	<3
MPR-446	128th Ave and Willow Place	20-May-14	88	<0.5	<0.5	3.9	<10	<0.2	1690	0.08	<0.5	2.8	77	<0.5	100	3.4	<0.05	<0.5	<0.5	125	<0.5	<0.5	7590	<3
MPR-431	Dewdney Trunk Rd. @ 201B St.	12-Nov-14	130	<0.5	<0.5	2.6	<10	<0.2	886	<0.05	<0.5	3.3	56	<0.5	104	2	<0.05	<0.5	<0.5	122	<0.5	<0.5	6700	<3
MPR-435	240 St. South of Abernethy Way	12-Nov-14	111	<0.5	<0.5	2.7	<10	<0.2	1040	0.05	<0.5	15.8	55	<0.5	101	1.6	<0.05	<0.5	<0.5	124	<0.5	<0.5	6940	<3
MPR-446	128th Ave and Willow Place	12-Nov-14	112	<0.5	<0.5	4.4	<10	<0.2	1800	0.08	<0.5	4.1	87	<0.5	105	2	<0.05	<0.5	<0.5	144	<0.5	<0.5	12200	3.2

Vinyl Chloride Concentration

Sample Site Number	Sample Reported Name	Sampled date	Vinyl Chloride (mg/L)
MPR-431	Dewdney Trunk Rd. @ 201B St.	10-Jun-14	<0.0010
MPR-431	Dewdney Trunk Rd. @ 201B St.	4-Nov-14	<0.0010
MPR-435	240 St. South of Abernethy Way	10-Jun-14	<0.0010
MPR-435	240 St. South of Abernethy Way	4-Nov-14	<0.0010
MPR-446	128th Ave and Willow Place	10-Jun-14	<0.0010
MPR-446	128th Ave and Willow Place	4-Nov-14	<0.0010

Appendix E: Metals without Maximum Concentration Guidelines

Neither Health Canada nor the USEPA suggest maximum concentration guidelines for calcium, cobalt, magnesium, molybdenum, nickel, or potassium in drinking water. Additional information related to these metals is provided below.

Calcium

Health Canada reports “there is no evidence of adverse health effects specifically attributable to calcium in drinking water. Insufficient data are available to set a specific value for an aesthetic objective for calcium in drinking water. A guideline for calcium has therefore not been specified – Measurements of water samples collected from 71 municipalities across Canada showed that the mean calcium concentrations were 21,400 µg/L for distributed water”.³

Cobalt

Neither Health Canada nor the USEPA publish a drinking water quality standard for cobalt. However, as a point of reference one might consider that the BC Ministry of Environment recommends that the maximum concentration of total cobalt should not exceed 110 µg/L to “protect aquatic life in the freshwater environment from acute effects of cobalt”.⁴

Magnesium

Health Canada reports “there is no evidence of adverse health effects specifically attributable to magnesium in drinking water. A guideline for magnesium has therefore not been specified. Two national surveys of drinking water supplies, encompassing 115 municipalities across Canada, were conducted in 1976 and 1977; magnesium concentrations in distributed water ranged from 200 to 59,500 µg/L”.⁵

Molybdenum

Neither Health Canada nor the USEPA publish a drinking water quality standard for Molybdenum. However, as a point of reference one might consider that the BC Ministry of Environment recommends a maximum of 50 µg/L for various water uses such as irrigation and drinking water for livestock.⁶

Nickel

Neither Health Canada nor the USEPA publish a drinking water quality standard for nickel. However, as a point of reference one might consider that the BC Ministry of Environment recommends a maximum concentration of 8.3 µg/L nickel for marine aquatic life.⁷

³ Guidelines For Canadian Drinking Water Quality – Supporting Documents – Calcium, Health Canada (1978, updated 1987)

⁴ Ambient Water Quality Guidelines for Cobalt Overview Report, BC Ministry of Environment (2004)

⁵ Guidelines For Canadian Drinking Water Quality – Supporting Documents- Magnesium, Health Canada (1978, updated 1987)

⁶ Water Quality Criteria for Molybdenum Overview Report, BC Ministry of Environment (1986)

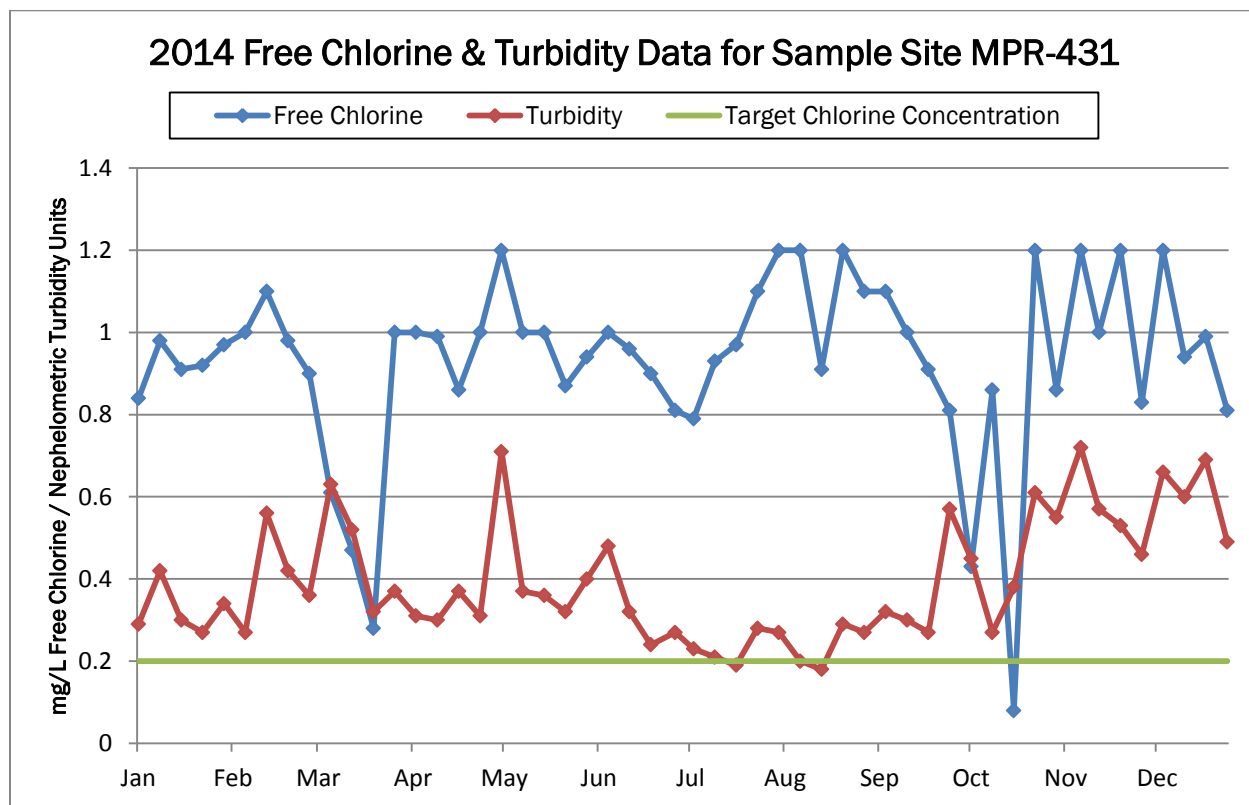
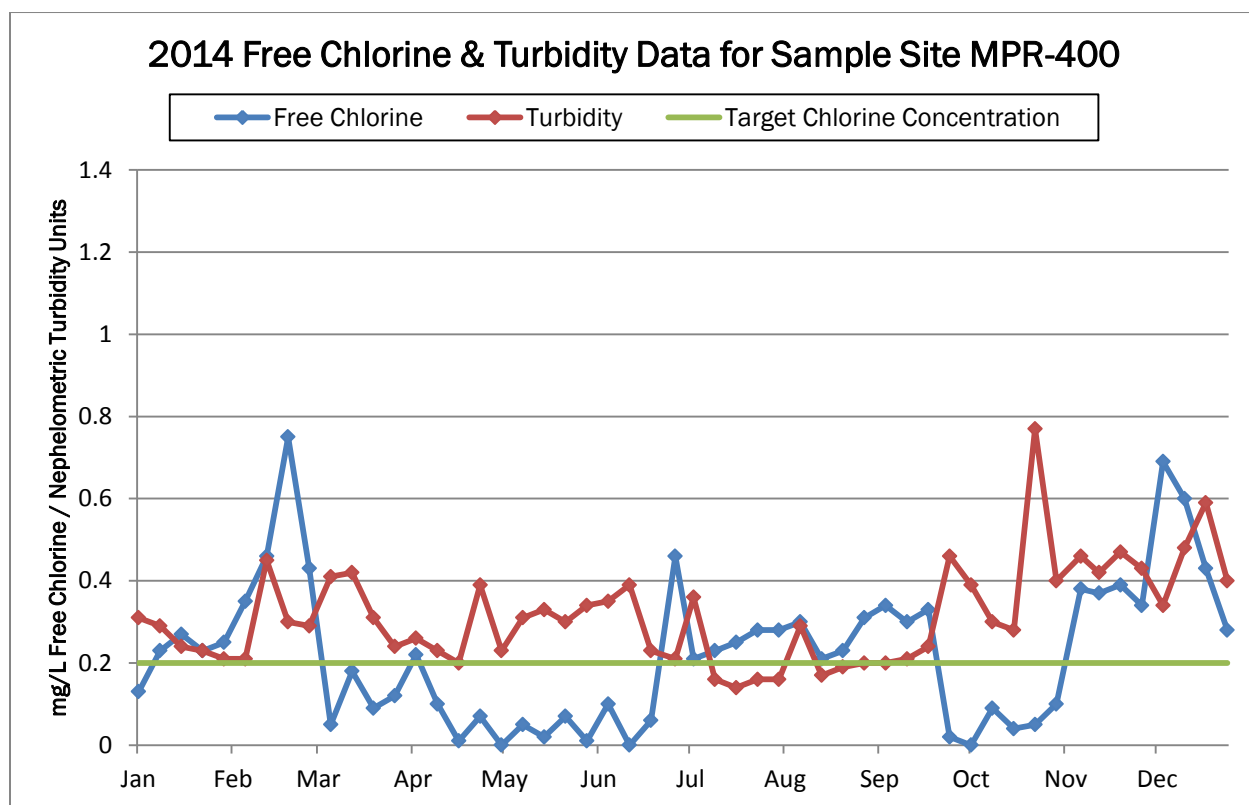
⁷ A compendium of Working Water Quality Guidelines for British Columbia, BC Ministry of Environment (2008)

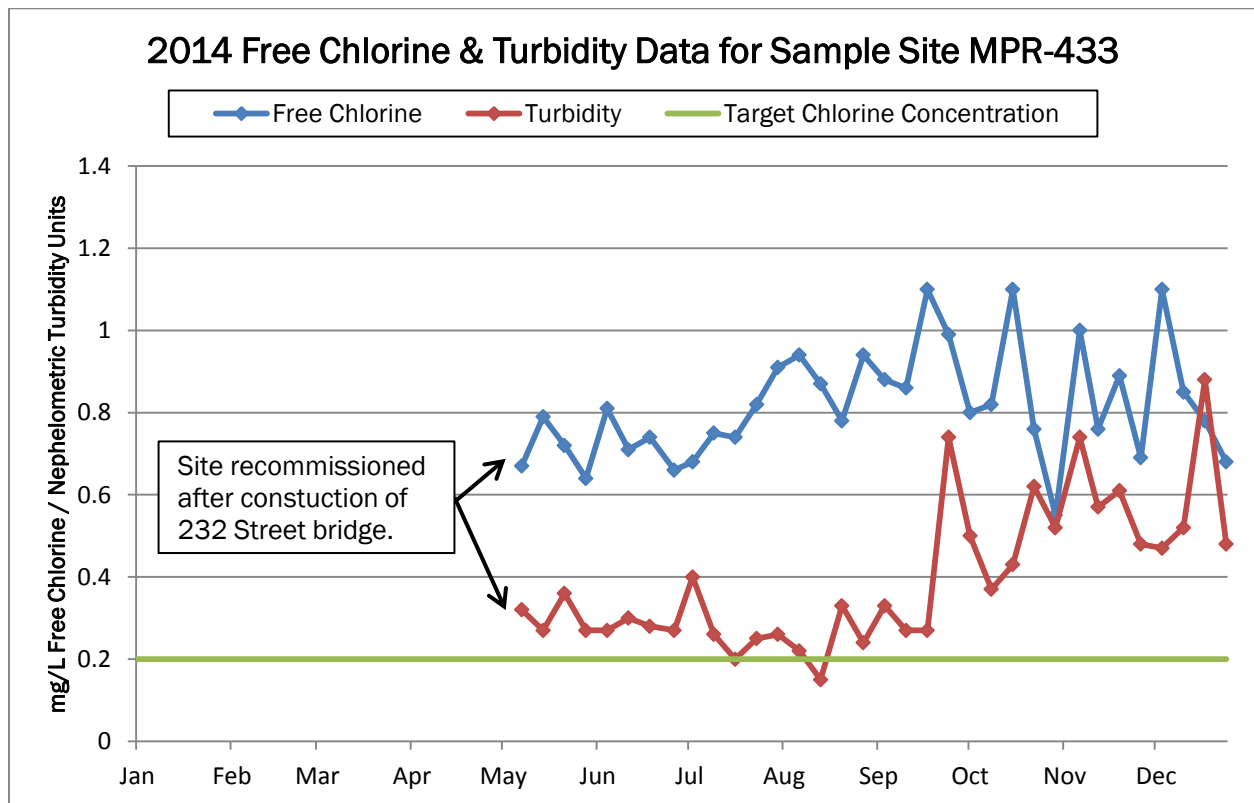
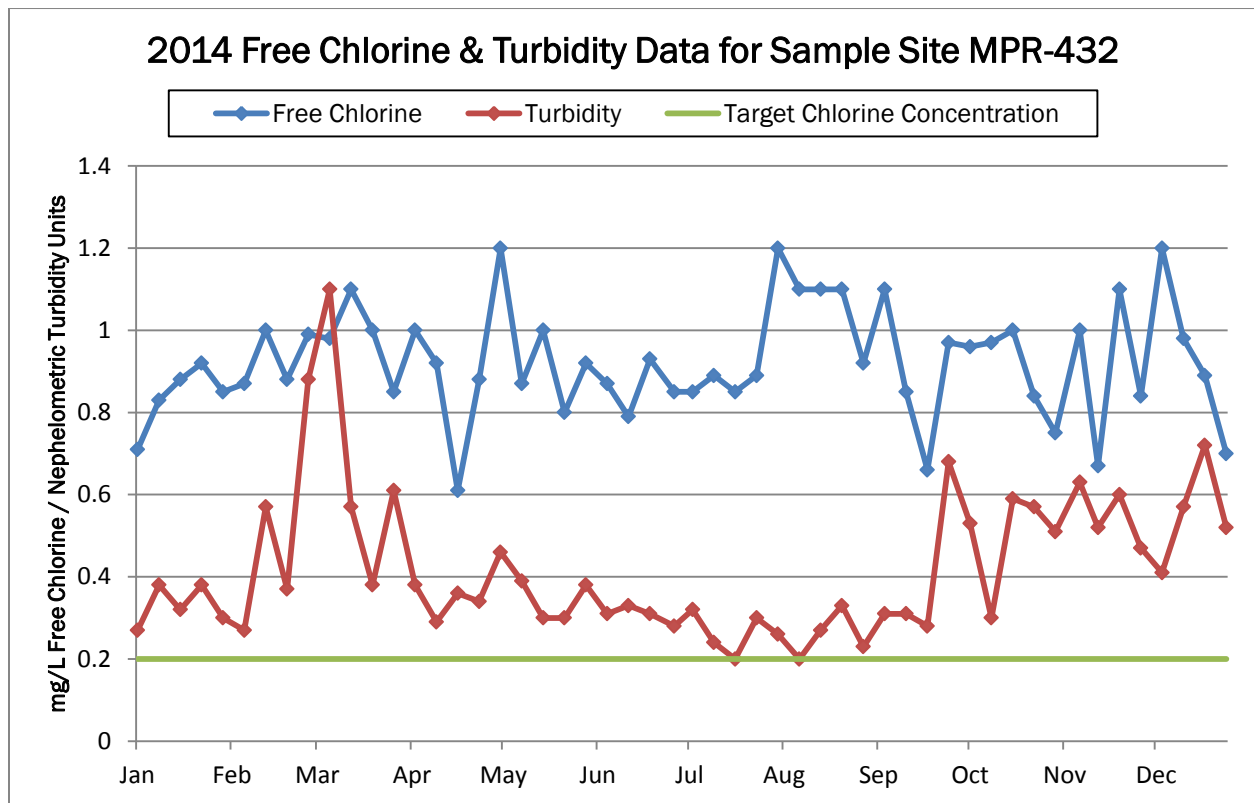
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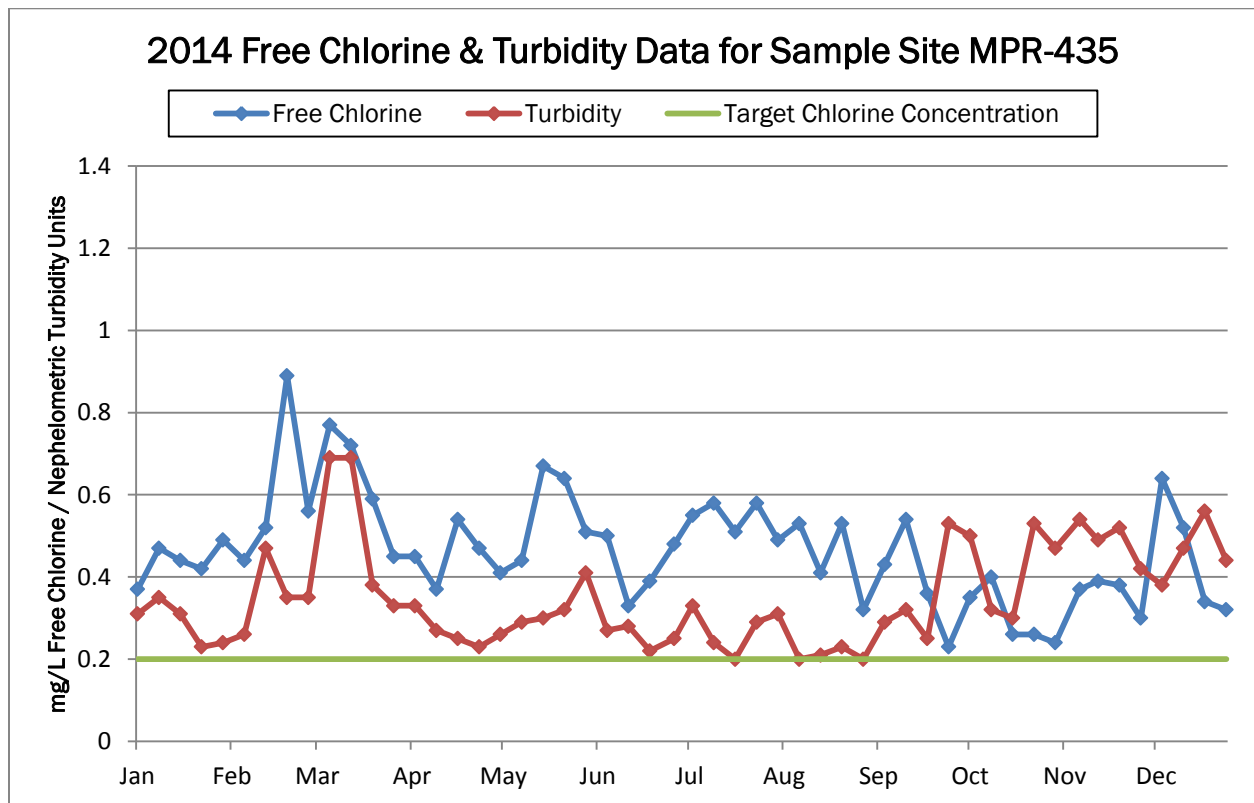
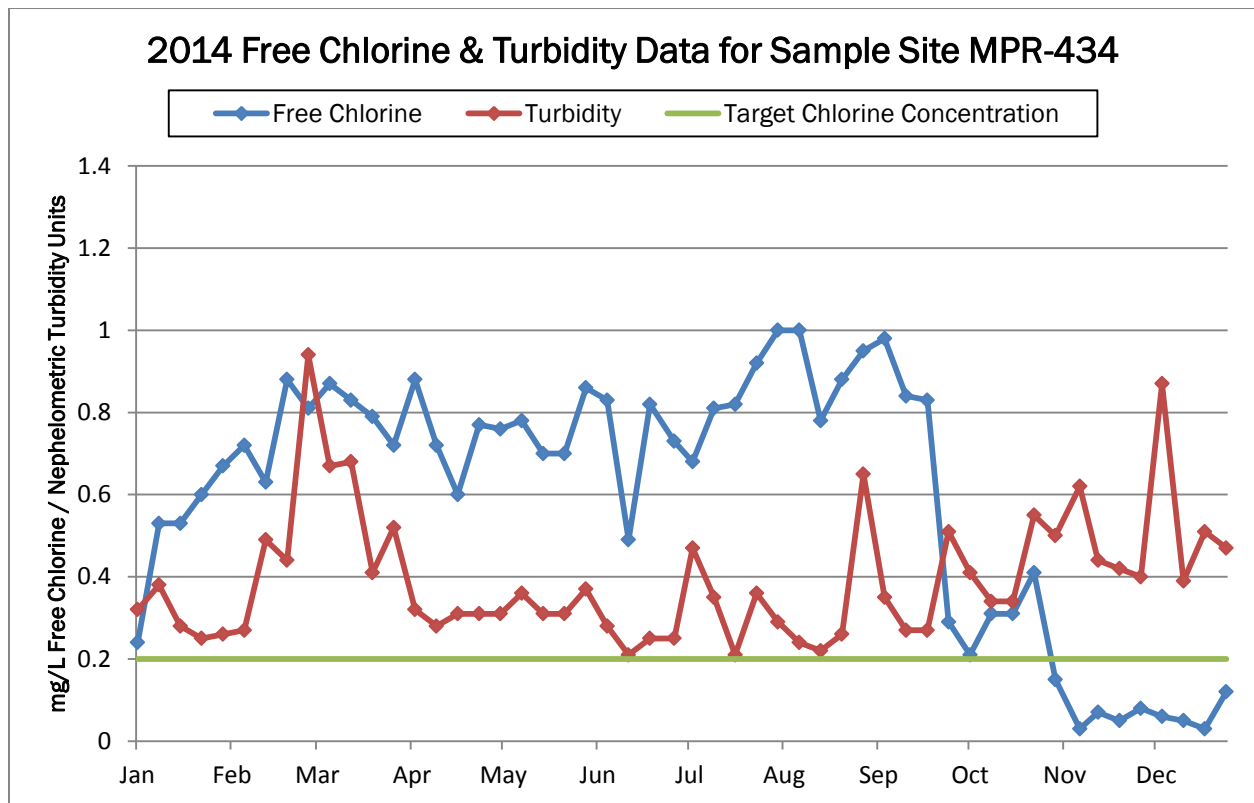
Neither Health Canada nor the USEPA publish a drinking water quality standard for potassium. However, as a point of reference one might consider that the BC Ministry of Environment recommends a maximum concentration of 373, 000 µg/L potassium for freshwater aquatic life.⁸

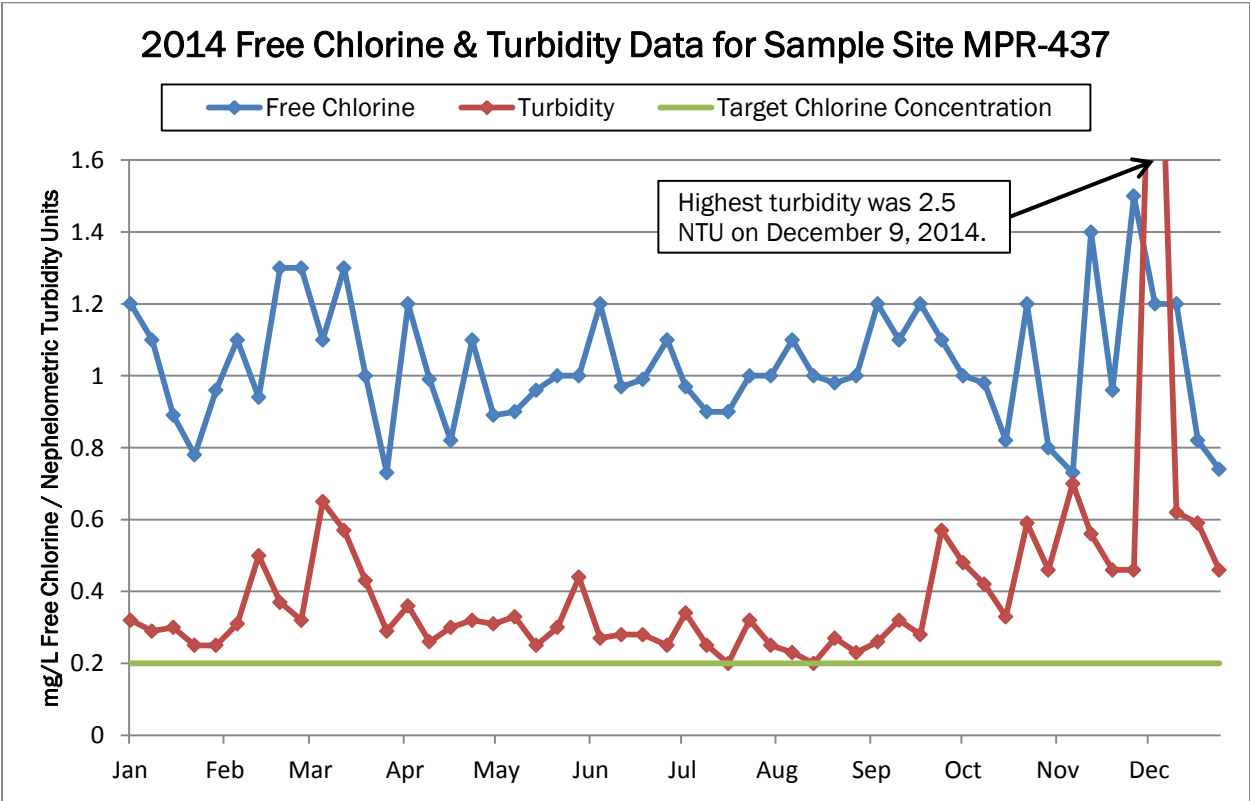
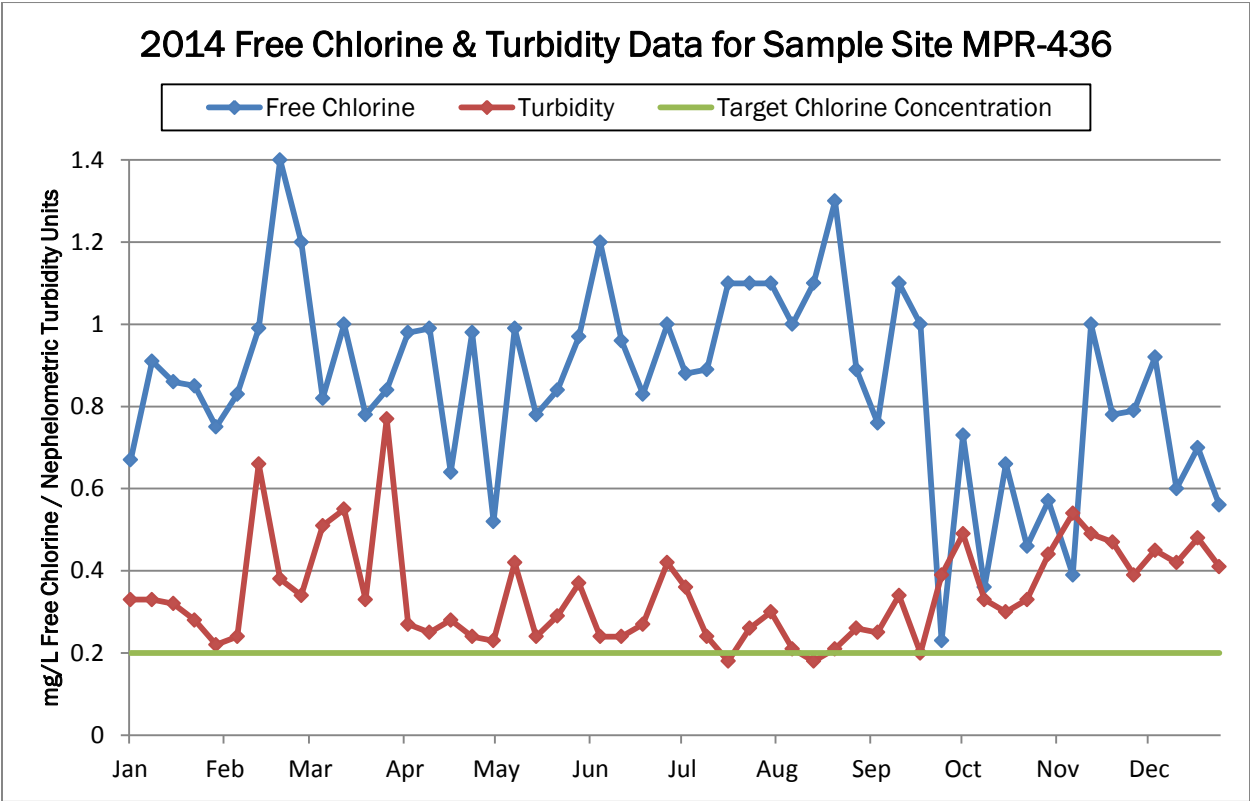
⁸ A Compendium of Working Water Quality Guidelines for British Columbia, BC Ministry of Environment (2008)

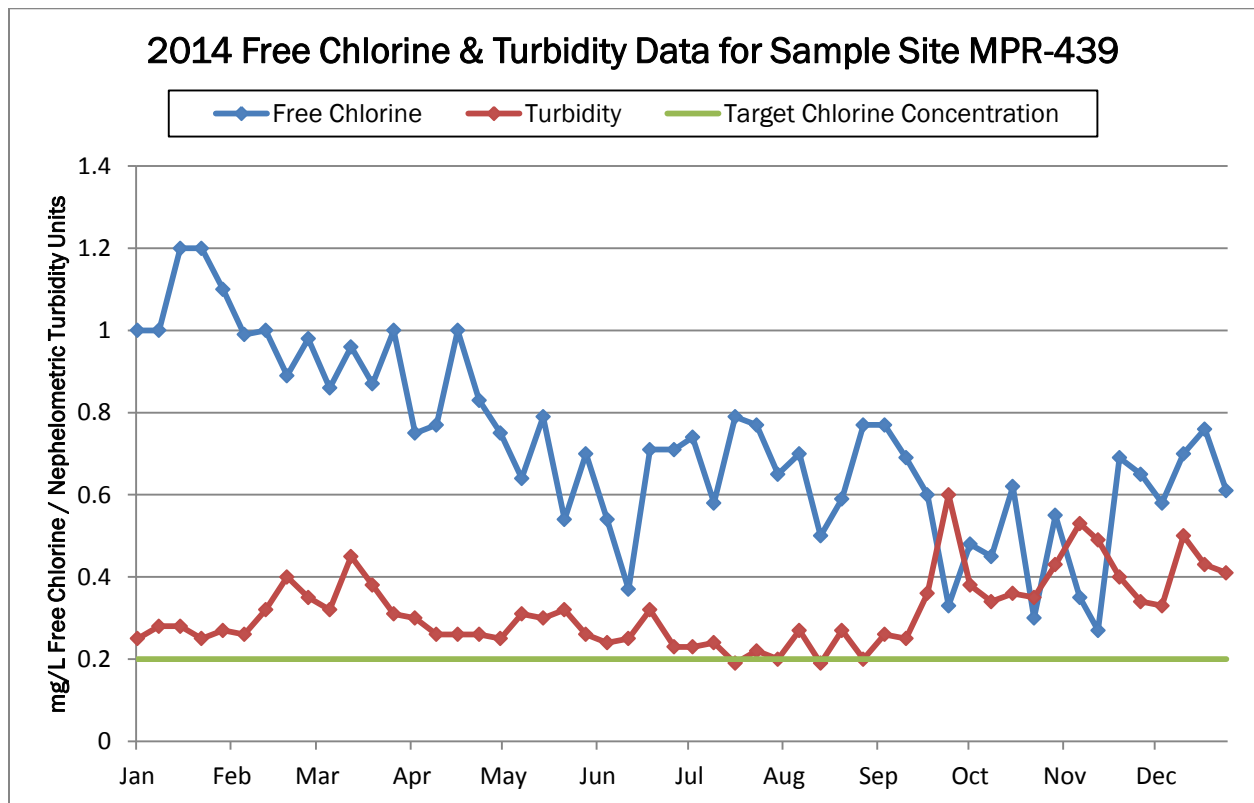
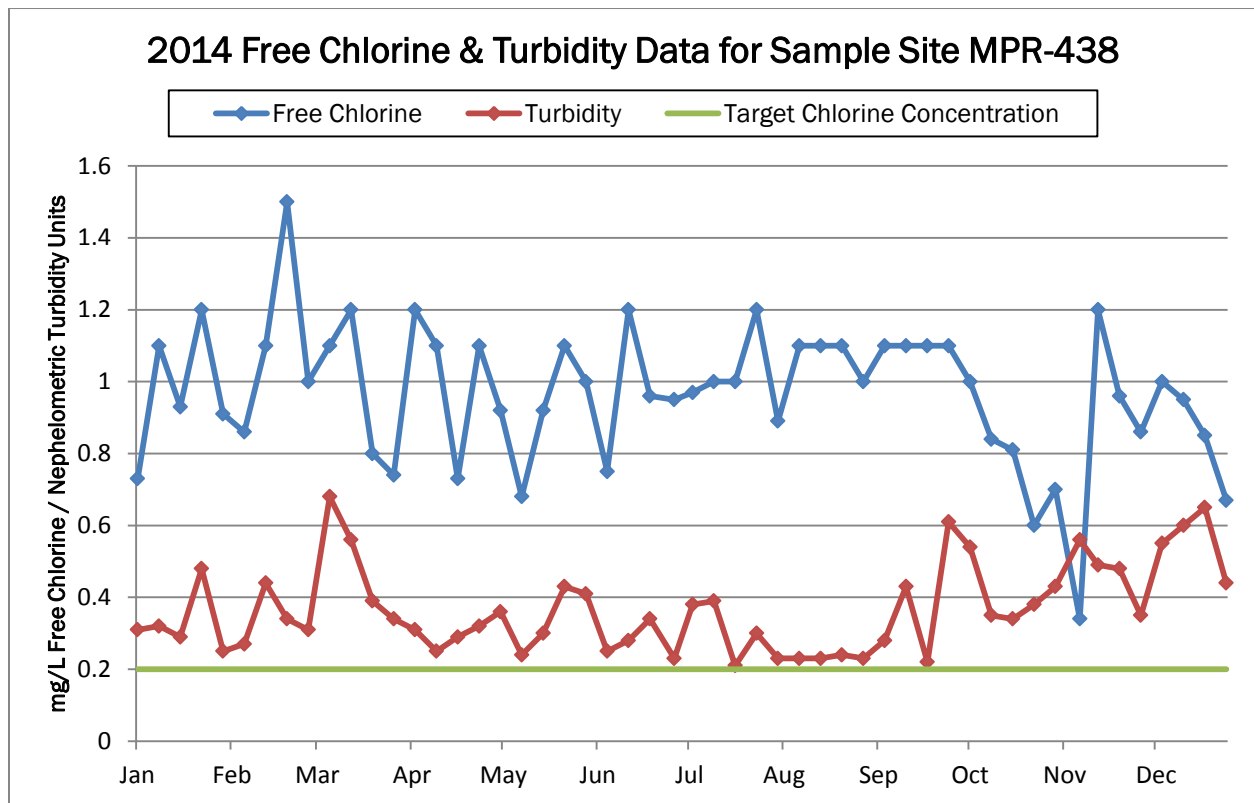
Appendix F: Free Chlorine and Turbidity Charts

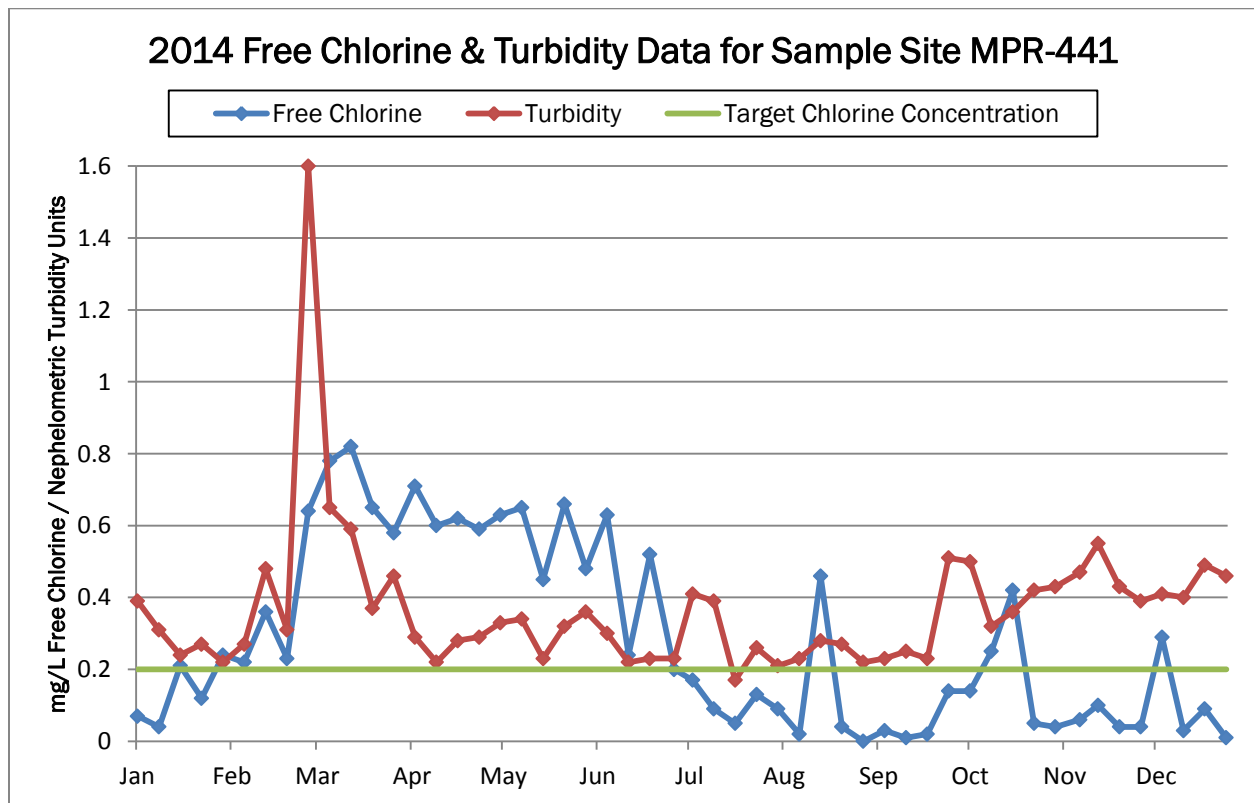
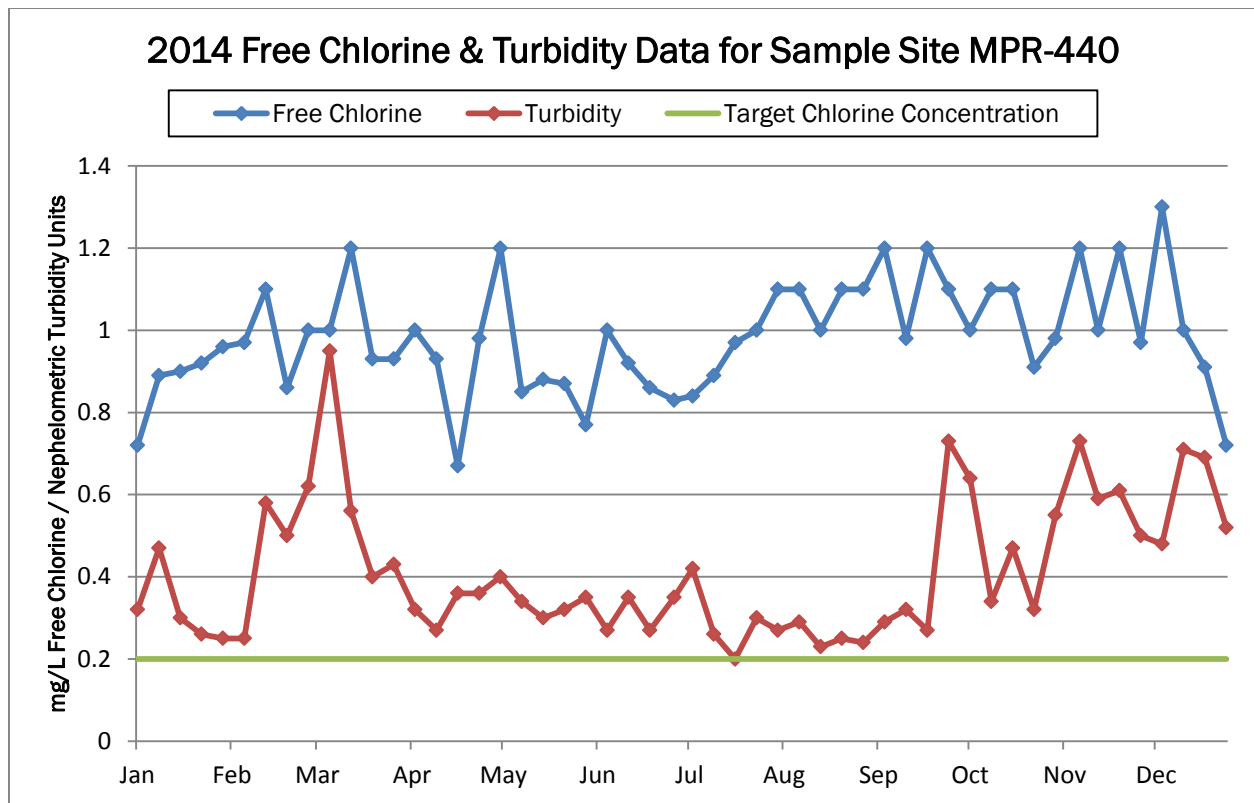


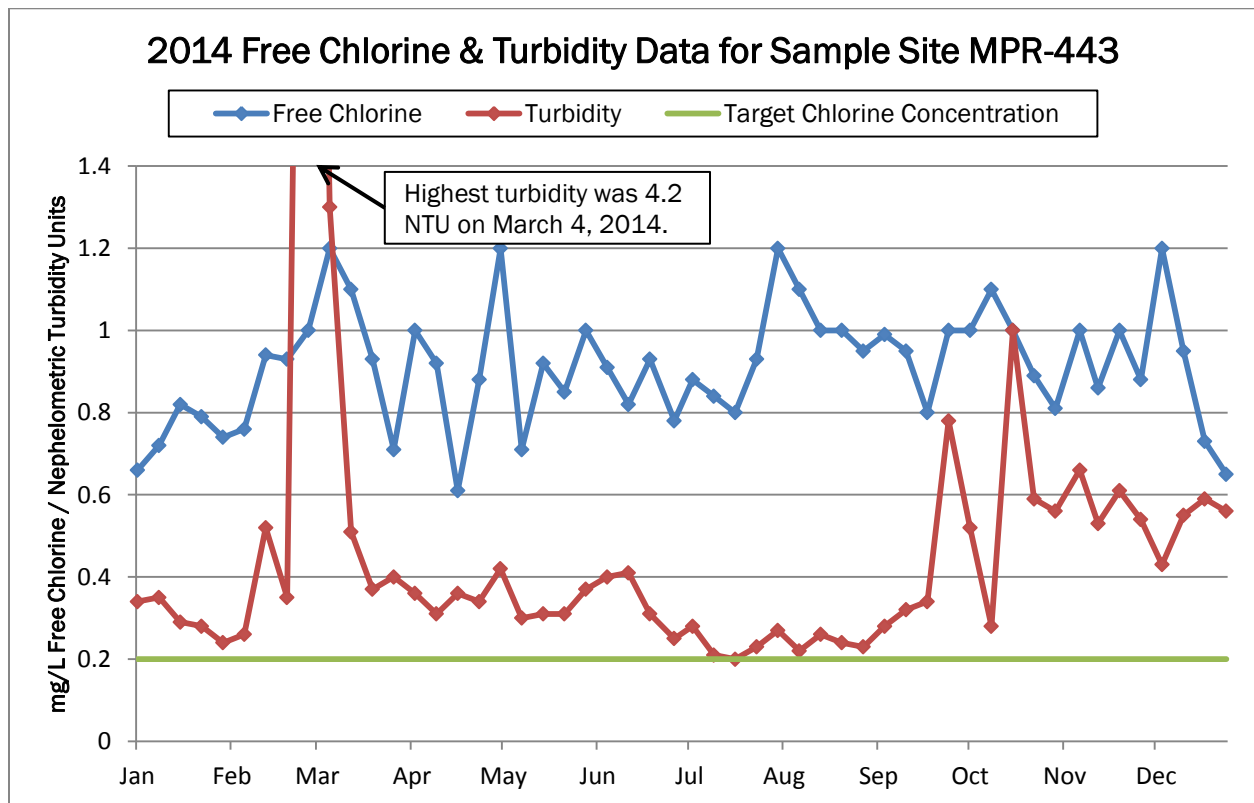
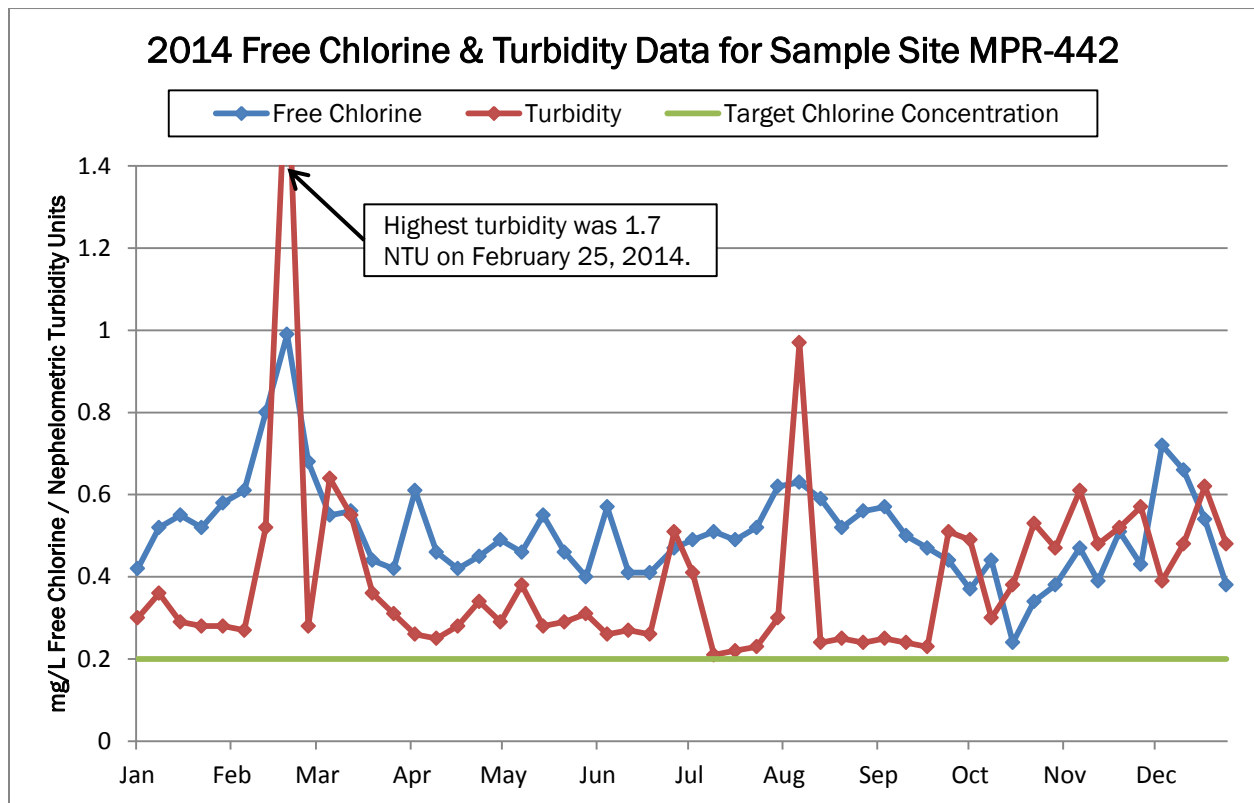


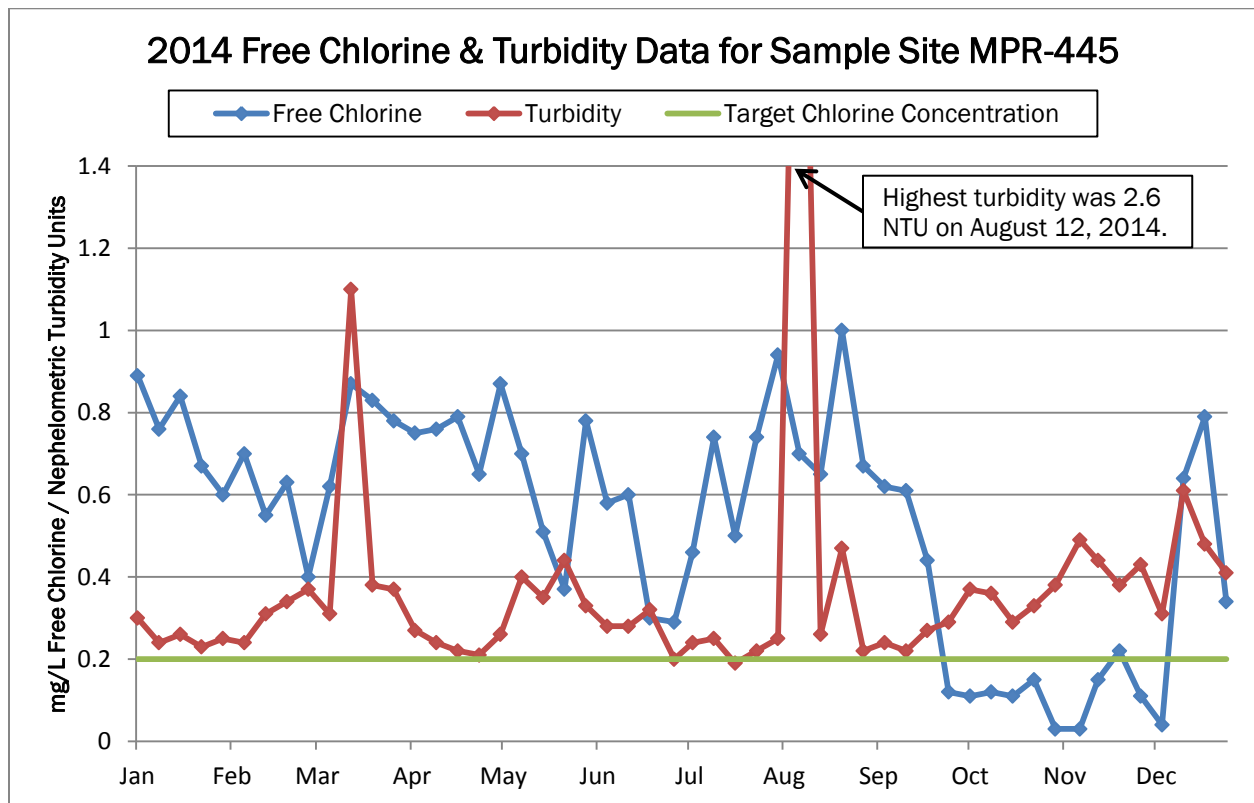
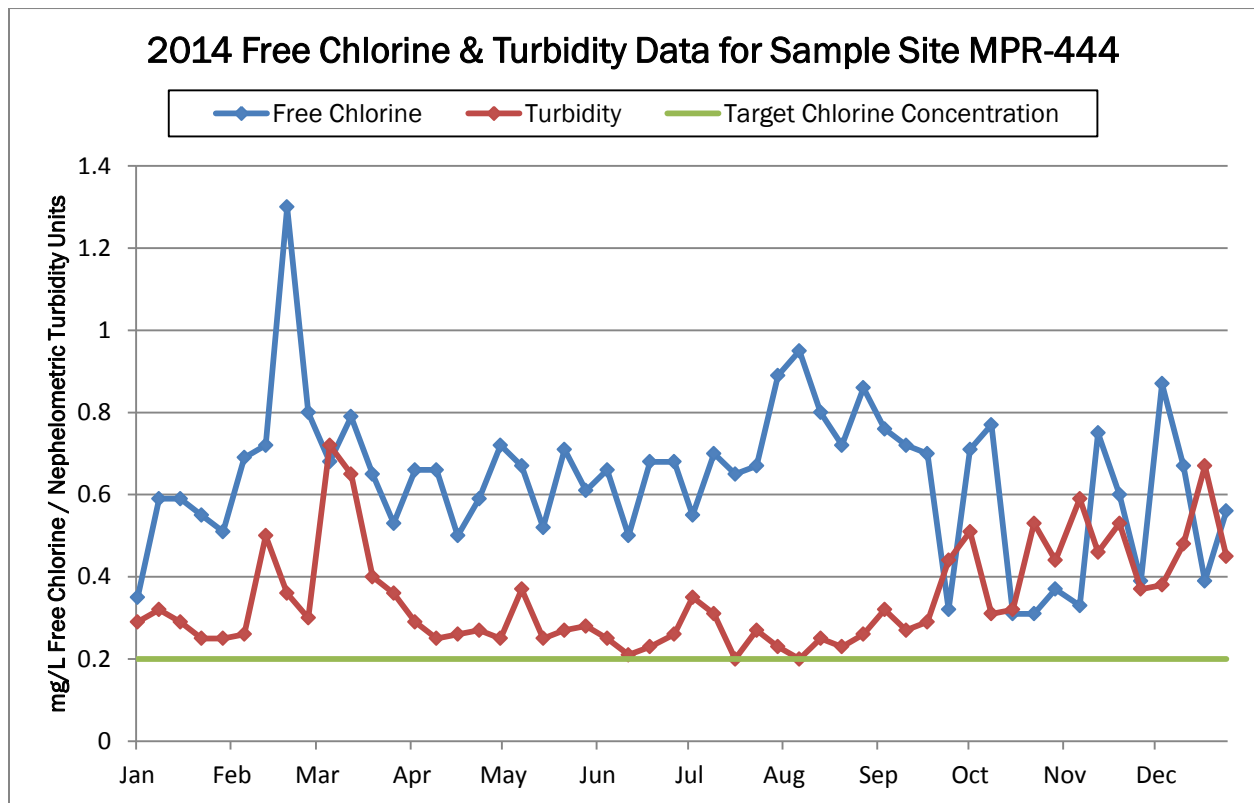


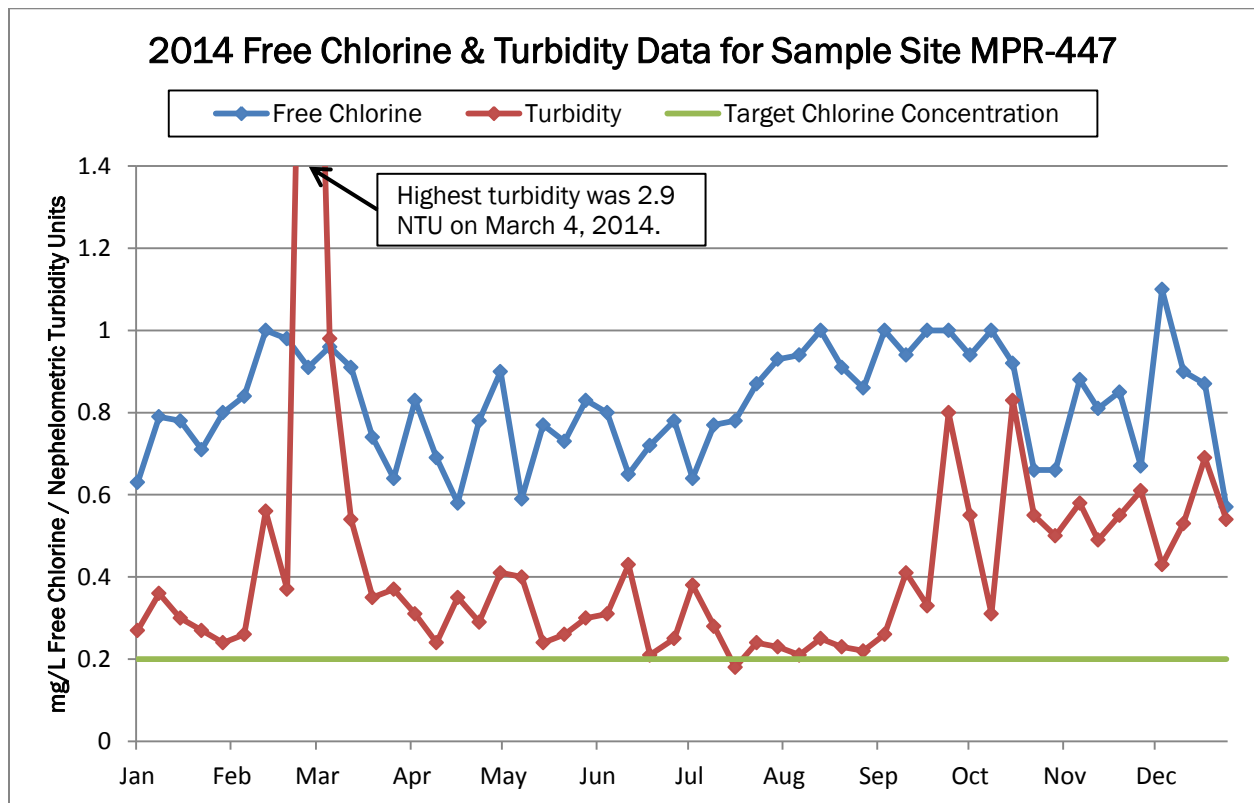
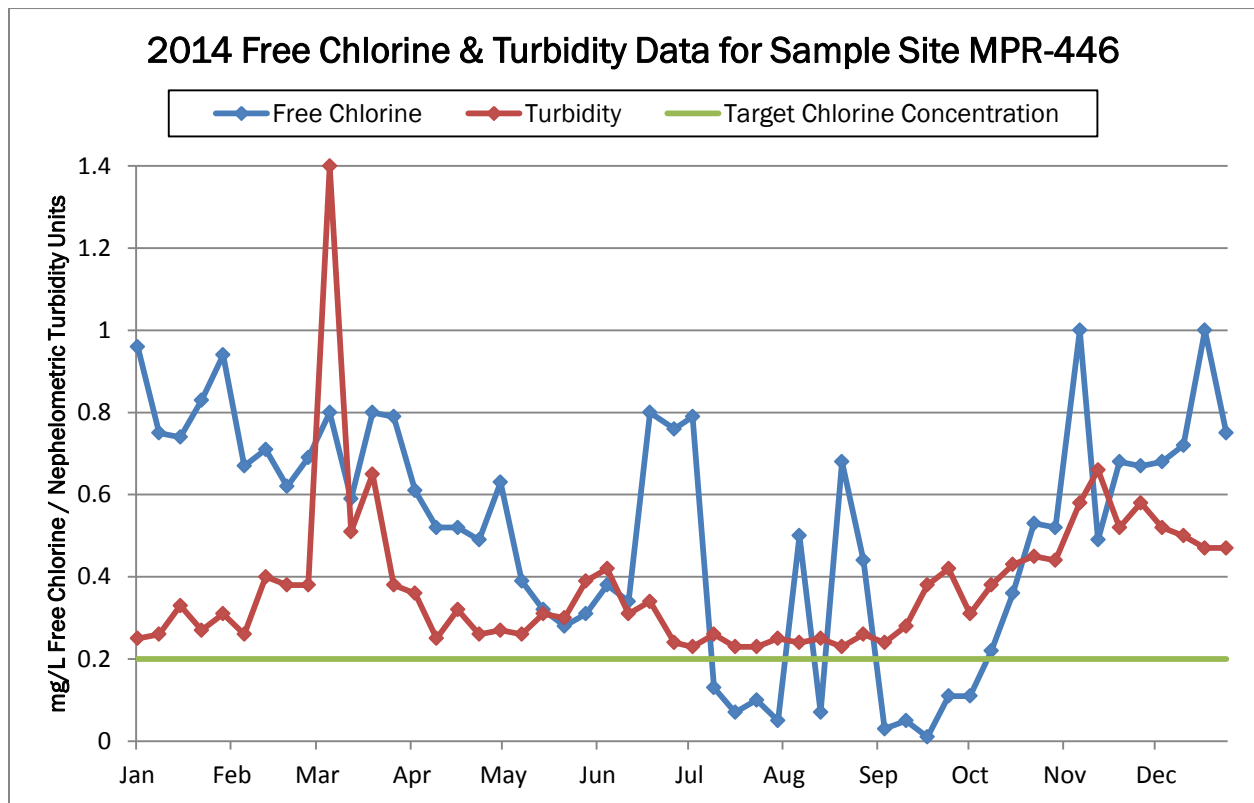


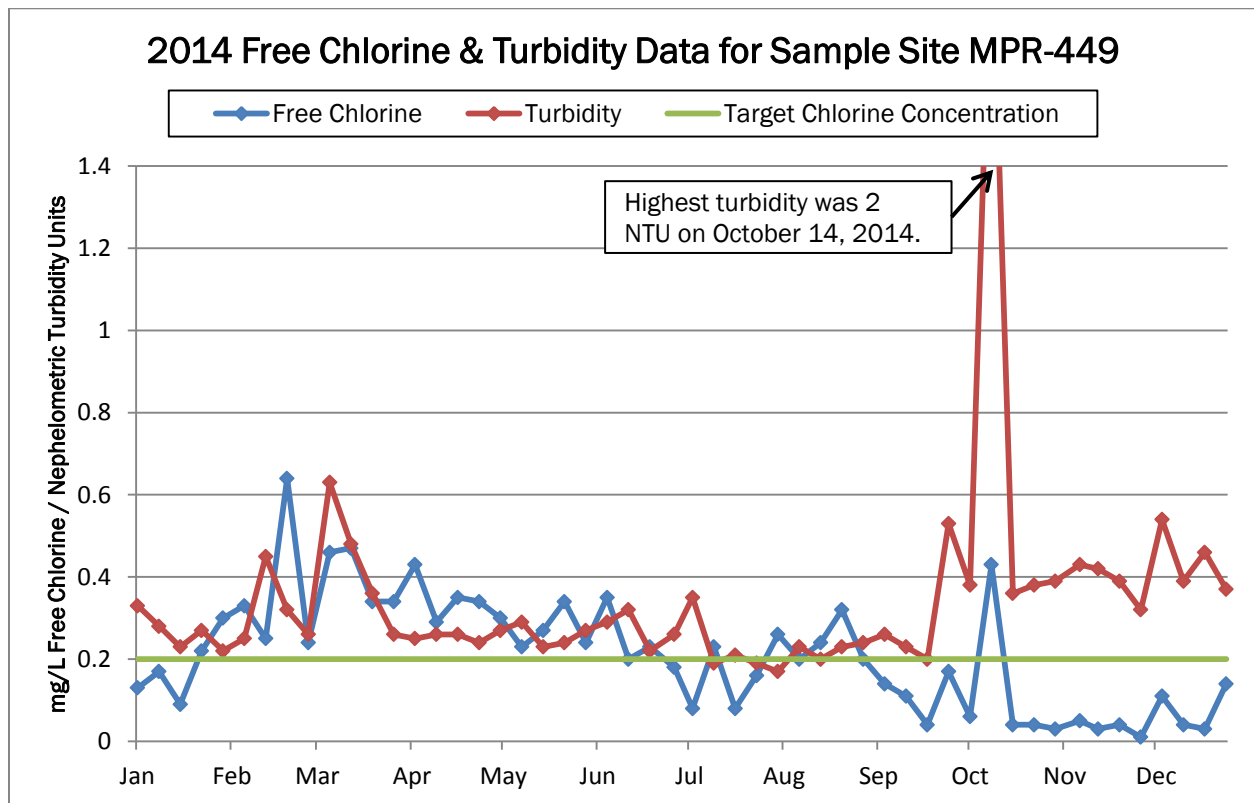
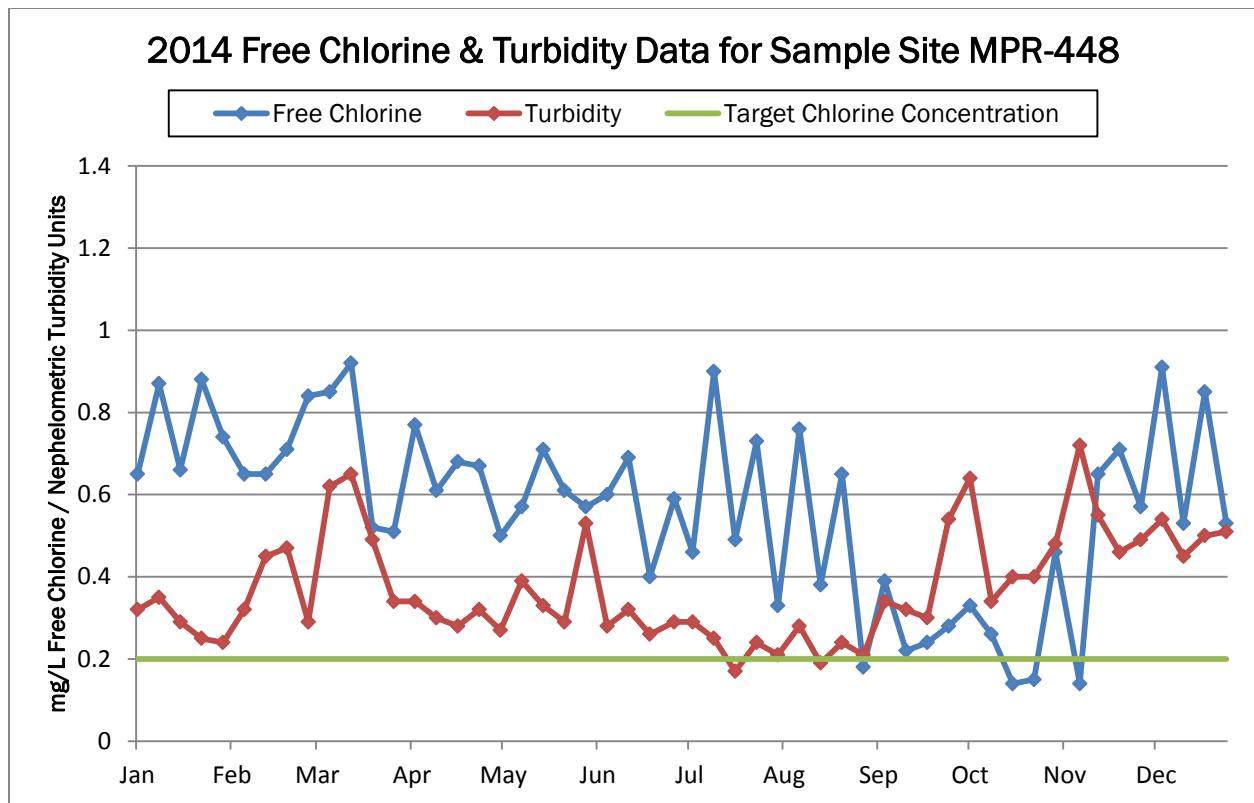


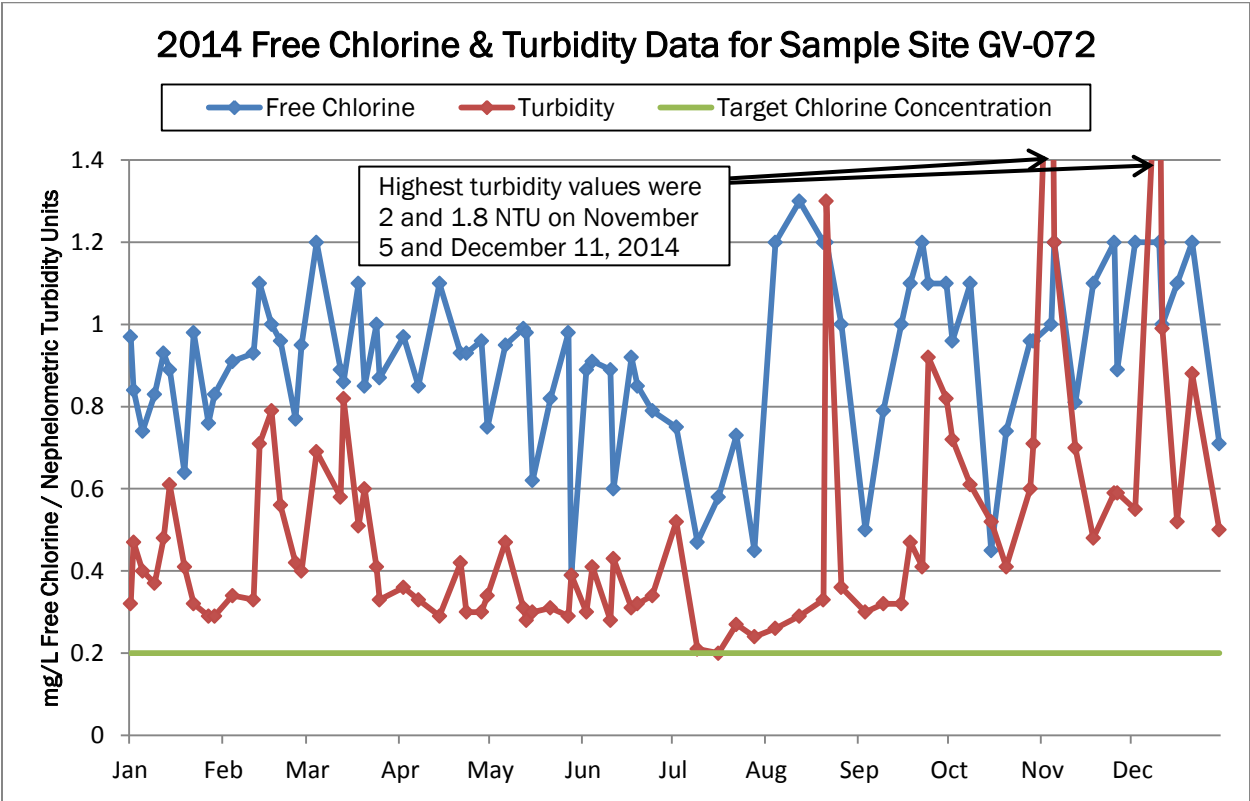
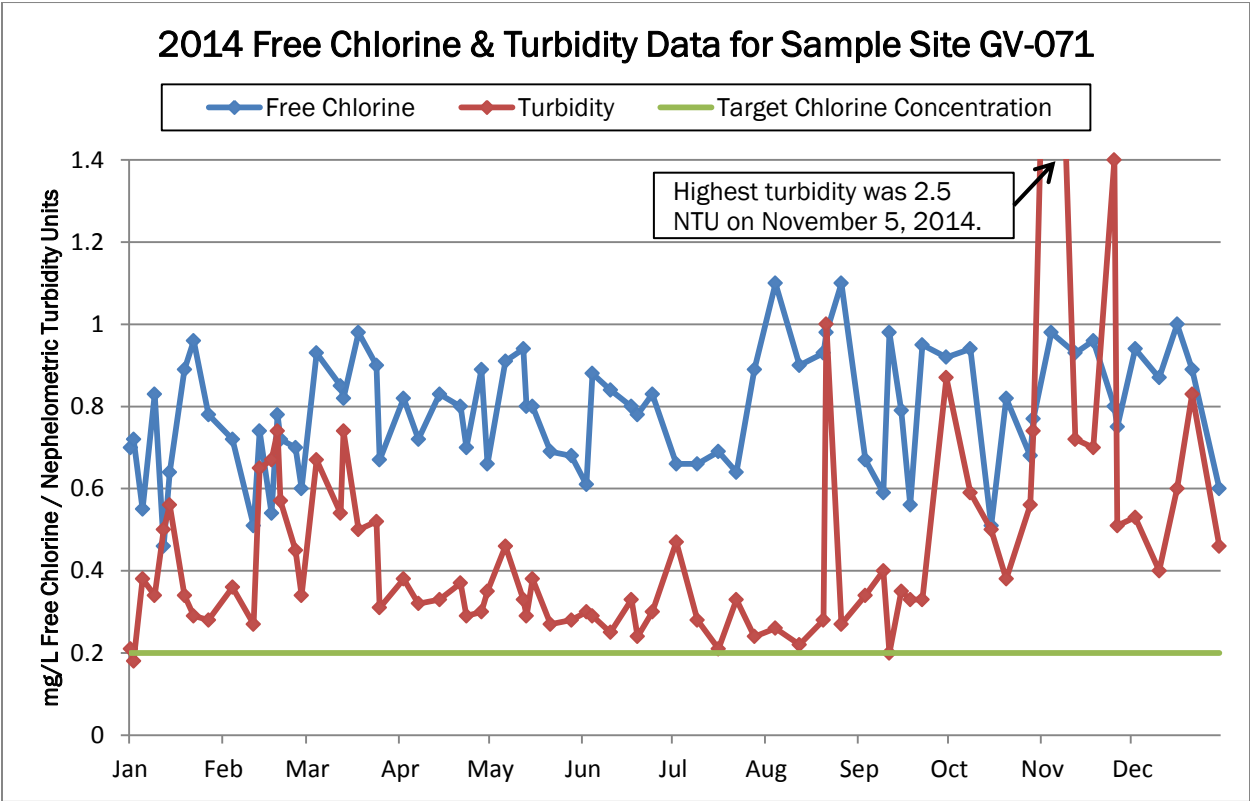


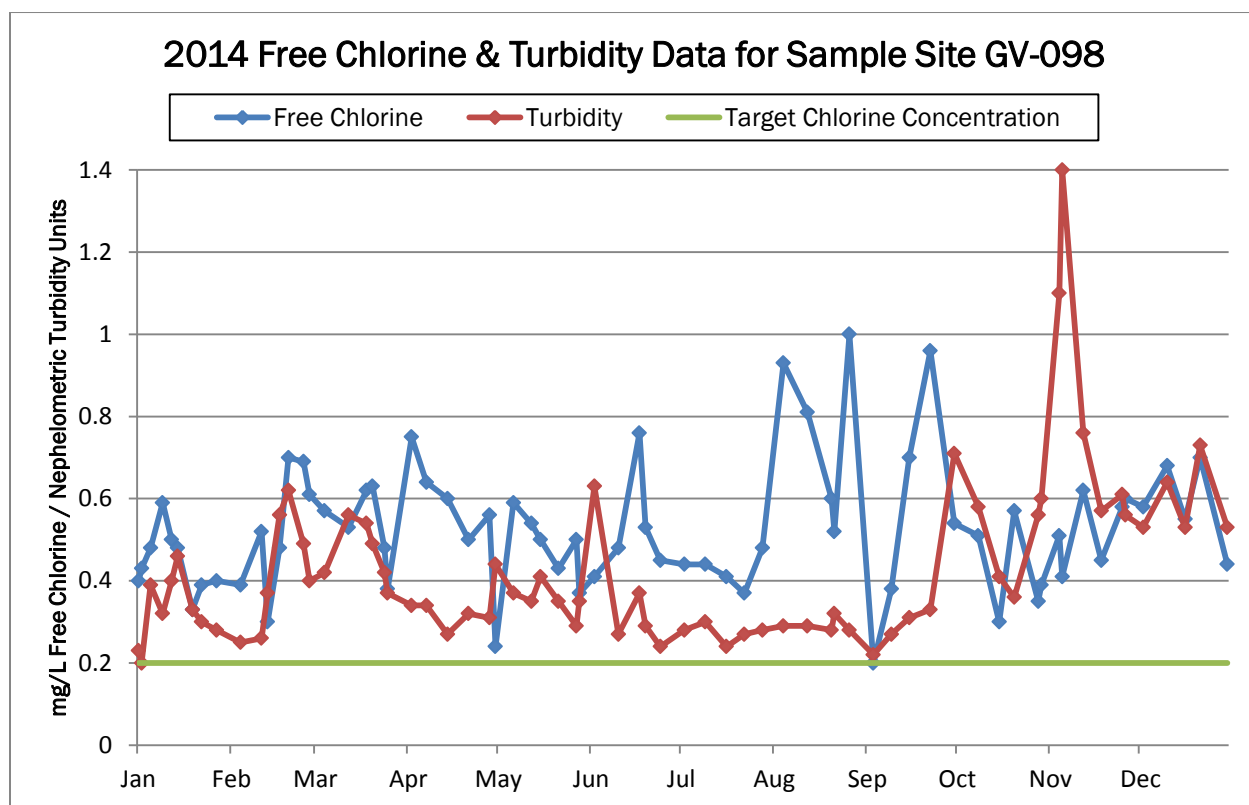












Appendix G: Weekly Sample Lab Results

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-400	Powell Ave. West of 203rd St.	7-Jan-14	0.13	<1	2	9	<1	0.31
MPR-400	Powell Ave. West of 203rd St.	14-Jan-14	0.23	<1	<2	5	<1	0.29
MPR-400	Powell Ave. West of 203rd St.	21-Jan-14	0.27	<1	<2	9	<1	0.24
MPR-400	Powell Ave. West of 203rd St.	28-Jan-14	0.23	<1	<2	9	<1	0.23
MPR-400	Powell Ave. West of 203rd St.	4-Feb-14	0.25	<1	<2	8	<1	0.21
MPR-400	Powell Ave. West of 203rd St.	11-Feb-14	0.35	<1	<2	7	<1	0.21
MPR-400	Powell Ave. West of 203rd St.	18-Feb-14	0.46	<1	<2	8	<1	0.45
MPR-400	Powell Ave. West of 203rd St.	25-Feb-14	0.75	<1	<2	7	<1	0.3
MPR-400	Powell Ave. West of 203rd St.	4-Mar-14	0.43	<1	<2	7	<1	0.29
MPR-400	Powell Ave. West of 203rd St.	11-Mar-14	0.05	<1	<2	8	<1	0.41
MPR-400	Powell Ave. West of 203rd St.	18-Mar-14	0.18	<1	<2	8	<1	0.42
MPR-400	Powell Ave. West of 203rd St.	25-Mar-14	0.09	<1	<2	8	<1	0.31
MPR-400	Powell Ave. West of 203rd St.	1-Apr-14	0.12	<1	<2	9	<1	0.24
MPR-400	Powell Ave. West of 203rd St.	8-Apr-14	0.22	<1	<2	10	<1	0.26
MPR-400	Powell Ave. West of 203rd St.	15-Apr-14	0.1	<1	<2	10	<1	0.23
MPR-400	Powell Ave. West of 203rd St.	22-Apr-14	0.01	<1	72	10	<1	0.2
MPR-400	Powell Ave. West of 203rd St.	29-Apr-14	0.07	<1	6	11	<1	0.39
MPR-400	Powell Ave. West of 203rd St.	6-May-14	<0.01	<1	100	11	<1	0.23
MPR-400	Powell Ave. West of 203rd St.	13-May-14	0.05	<1	2	11	<1	0.31
MPR-400	Powell Ave. West of 203rd St.	20-May-14	0.02	<1	62	12	<1	0.33
MPR-400	Powell Ave. West of 203rd St.	27-May-14	0.07	<1	20	13	<1	0.3
MPR-400	Powell Ave. West of 203rd St.	3-Jun-14	0.01	<1	6	13	<1	0.34
MPR-400	Powell Ave. West of 203rd St.	10-Jun-14	0.1	<1	2	14	<1	0.35
MPR-400	Powell Ave. West of 203rd St.	17-Jun-14	<0.01	<1	10	14	<1	0.39
MPR-400	Powell Ave. West of 203rd St.	24-Jun-14	0.06	<1	30	14	<1	0.23
MPR-400	Powell Ave. West of 203rd St.	2-Jul-14	0.46	<1	2	14	<1	0.21
MPR-400	Powell Ave. West of 203rd St.	8-Jul-14	0.21	<1	<2	18	<1	0.36
MPR-400	Powell Ave. West of 203rd St.	15-Jul-14	0.23	<1	<2	16	<1	0.16
MPR-400	Powell Ave. West of 203rd St.	22-Jul-14	0.25	<1	6	16	<1	0.14
MPR-400	Powell Ave. West of 203rd St.	29-Jul-14	0.28	<1	<2	16	<1	0.16
MPR-400	Powell Ave. West of 203rd St.	5-Aug-14	0.28	<1	<2	16	<1	0.16
MPR-400	Powell Ave. West of 203rd St.	12-Aug-14	0.3	<1	<2	17	<1	0.29
MPR-400	Powell Ave. West of 203rd St.	19-Aug-14	0.21	<1	14	18	<1	0.17
MPR-400	Powell Ave. West of 203rd St.	26-Aug-14	0.23	<1	4	17	<1	0.19
MPR-400	Powell Ave. West of 203rd St.	2-Sep-14	0.31	<1	LA	17	<1	0.2
MPR-400	Powell Ave. West of 203rd St.	9-Sep-14	0.34	<1	<2	17	<1	0.2
MPR-400	Powell Ave. West of 203rd St.	16-Sep-14	0.3	<1	<2	17	<1	0.21
MPR-400	Powell Ave. West of 203rd St.	23-Sep-14	0.33	<1	<2	18	<1	0.24
MPR-400	Powell Ave. West of 203rd St.	30-Sep-14	0.02	<1	4	17	<1	0.46

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-400	Powell Ave. West of 203rd St.	7-Oct-14	<0.01	<1	14	16	<1	0.39
MPR-400	Powell Ave. West of 203rd St.	14-Oct-14	0.09	<1	6	16	<1	0.3
MPR-400	Powell Ave. West of 203rd St.	21-Oct-14	0.04	<1	26	16	<1	0.28
MPR-400	Powell Ave. West of 203rd St.	28-Oct-14	0.05	<1	<2	15	<1	0.77
MPR-400	Powell Ave. West of 203rd St.	4-Nov-14	0.1	<1	2	15	<1	0.4
MPR-400	Powell Ave. West of 203rd St.	12-Nov-14	0.38	<1	<2	14	<1	0.46
MPR-400	Powell Ave. West of 203rd St.	18-Nov-14	0.37	<1	<2	10	<1	0.42
MPR-400	Powell Ave. West of 203rd St.	25-Nov-14	0.39	<1	<2	12	<1	0.47
MPR-400	Powell Ave. West of 203rd St.	2-Dec-14	0.34	<1	<2	11	<1	0.43
MPR-400	Powell Ave. West of 203rd St.	9-Dec-14	0.69	<1	<2	11	<1	0.34
MPR-400	Powell Ave. West of 203rd St.	16-Dec-14	0.6	<1	<2	10	<1	0.48
MPR-400	Powell Ave. West of 203rd St.	23-Dec-14	0.43	<1	NA	10	<1	0.59
MPR-400	Powell Ave. West of 203rd St.	30-Dec-14	0.28	<1	NA	9	<1	0.4
MPR-431	Dewdney Trunk Rd. @ 201B St.	7-Jan-14	0.84	<1	<2	6	<1	0.29
MPR-431	Dewdney Trunk Rd. @ 201B St.	14-Jan-14	0.98	<1	<2	2	<1	0.42
MPR-431	Dewdney Trunk Rd. @ 201B St.	21-Jan-14	0.91	<1	<2	6	<1	0.3
MPR-431	Dewdney Trunk Rd. @ 201B St.	28-Jan-14	0.92	<1	2	6	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	4-Feb-14	0.97	<1	<2	5	<1	0.34
MPR-431	Dewdney Trunk Rd. @ 201B St.	11-Feb-14	1	<1	2	4	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	18-Feb-14	1.1	<1	<2	5	<1	0.56
MPR-431	Dewdney Trunk Rd. @ 201B St.	25-Feb-14	0.98	<1	<2	5	<1	0.42
MPR-431	Dewdney Trunk Rd. @ 201B St.	4-Mar-14	0.9	<1	<2	5	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	11-Mar-14	0.61	<1	<2	6	<1	0.63
MPR-431	Dewdney Trunk Rd. @ 201B St.	18-Mar-14	0.47	<1	<2	7	<1	0.52
MPR-431	Dewdney Trunk Rd. @ 201B St.	25-Mar-14	0.28	<1	<2	7	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	1-Apr-14	1	<1	2	6	<1	0.37
MPR-431	Dewdney Trunk Rd. @ 201B St.	8-Apr-14	1	<1	<2	9	<1	0.31
MPR-431	Dewdney Trunk Rd. @ 201B St.	15-Apr-14	0.99	<1	<2	6	<1	0.3
MPR-431	Dewdney Trunk Rd. @ 201B St.	22-Apr-14	0.86	<1	<2	8	<1	0.37
MPR-431	Dewdney Trunk Rd. @ 201B St.	29-Apr-14	1	<1	<2	7	<1	0.31
MPR-431	Dewdney Trunk Rd. @ 201B St.	6-May-14	1.2	<1	2	8	<1	0.71
MPR-431	Dewdney Trunk Rd. @ 201B St.	13-May-14	1	<1	<2	9	<1	0.37
MPR-431	Dewdney Trunk Rd. @ 201B St.	20-May-14	1	<1	<2	9	<1	0.36
MPR-431	Dewdney Trunk Rd. @ 201B St.	27-May-14	0.87	<1	<2	11	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	3-Jun-14	0.94	<1	<2	10	<1	0.4
MPR-431	Dewdney Trunk Rd. @ 201B St.	10-Jun-14	1	<1	<2	10	<1	0.48
MPR-431	Dewdney Trunk Rd. @ 201B St.	17-Jun-14	0.96	<1	<2	13	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	24-Jun-14	0.9	<1	<2	12	<1	0.24
MPR-431	Dewdney Trunk Rd. @ 201B St.	2-Jul-14	0.81	<1	<2	14	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	8-Jul-14	0.79	<1	<2	14	<1	0.23
MPR-431	Dewdney Trunk Rd. @ 201B St.	15-Jul-14	0.93	<1	<2	15	<1	0.21

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-431	Dewdney Trunk Rd. @ 201B St.	22-Jul-14	0.97	<1	<2	15	<1	0.19
MPR-431	Dewdney Trunk Rd. @ 201B St.	29-Jul-14	1.1	<1	<2	15	<1	0.28
MPR-431	Dewdney Trunk Rd. @ 201B St.	5-Aug-14	1.2	<1	4	15	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	12-Aug-14	1.2	<1	<2	16	<1	0.2
MPR-431	Dewdney Trunk Rd. @ 201B St.	19-Aug-14	0.91	<1	<2	17	<1	0.18
MPR-431	Dewdney Trunk Rd. @ 201B St.	26-Aug-14	1.2	<1	2	16	<1	0.29
MPR-431	Dewdney Trunk Rd. @ 201B St.	2-Sep-14	1.1	<1	<2	16	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	9-Sep-14	1.1	<1	<2	16	<1	0.32
MPR-431	Dewdney Trunk Rd. @ 201B St.	16-Sep-14	1	<1	<2	17	<1	0.3
MPR-431	Dewdney Trunk Rd. @ 201B St.	23-Sep-14	0.91	<1	<2	17	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	30-Sep-14	0.81	<1	<2	17	<1	0.57
MPR-431	Dewdney Trunk Rd. @ 201B St.	7-Oct-14	0.43	<1	4	17	<1	0.45
MPR-431	Dewdney Trunk Rd. @ 201B St.	14-Oct-14	0.86	<1	<2	16	<1	0.27
MPR-431	Dewdney Trunk Rd. @ 201B St.	21-Oct-14	0.08	<1	4	16	<1	0.38
MPR-431	Dewdney Trunk Rd. @ 201B St.	28-Oct-14	1.2	<1	<2	13	<1	0.61
MPR-431	Dewdney Trunk Rd. @ 201B St.	4-Nov-14	0.86	<1	<2	12	<1	0.55
MPR-431	Dewdney Trunk Rd. @ 201B St.	12-Nov-14	1.2	<1	<2	11	<1	0.72
MPR-431	Dewdney Trunk Rd. @ 201B St.	18-Nov-14	1	<1	<2	7	<1	0.57
MPR-431	Dewdney Trunk Rd. @ 201B St.	25-Nov-14	1.2	<1	<2	9	<1	0.53
MPR-431	Dewdney Trunk Rd. @ 201B St.	2-Dec-14	0.83	<1	<2	7	<1	0.46
MPR-431	Dewdney Trunk Rd. @ 201B St.	9-Dec-14	1.2	<1	<2	8	<1	0.66
MPR-431	Dewdney Trunk Rd. @ 201B St.	16-Dec-14	0.94	<1	<2	7	<1	0.6
MPR-431	Dewdney Trunk Rd. @ 201B St.	23-Dec-14	0.99	<1	NA	7.5	<1	0.69
MPR-431	Dewdney Trunk Rd. @ 201B St.	30-Dec-14	0.81	<1	NA	6	<1	0.49
MPR-432	224 St. @ 122 Ave.	7-Jan-14	0.71	<1	2	6	<1	0.27
MPR-432	224 St. @ 122 Ave.	14-Jan-14	0.83	<1	<2	2	<1	0.38
MPR-432	224 St. @ 122 Ave.	21-Jan-14	0.88	<1	<2	6	<1	0.32
MPR-432	224 St. @ 122 Ave.	28-Jan-14	0.92	<1	<2	6	<1	0.38
MPR-432	224 St. @ 122 Ave.	4-Feb-14	0.85	<1	<2	5	<1	0.3
MPR-432	224 St. @ 122 Ave.	11-Feb-14	0.87	<1	<2	4	<1	0.27
MPR-432	224 St. @ 122 Ave.	18-Feb-14	1	<1	4	5	<1	0.57
MPR-432	224 St. @ 122 Ave.	25-Feb-14	0.88	<1	<2	4	<1	0.37
MPR-432	224 St. @ 122 Ave.	4-Mar-14	0.99	<1	<2	4	<1	0.88
MPR-432	224 St. @ 122 Ave.	11-Mar-14	0.98	<1	<2	5	<1	1.1
MPR-432	224 St. @ 122 Ave.	18-Mar-14	1.1	<1	<2	5	<1	0.57
MPR-432	224 St. @ 122 Ave.	25-Mar-14	1	<1	<2	5	<1	0.38
MPR-432	224 St. @ 122 Ave.	1-Apr-14	0.85	<1	<2	5	<1	0.61

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-432	224 St. @ 122 Ave.	8-Apr-14	1	<1	2	7	<1	0.38
MPR-432	224 St. @ 122 Ave.	15-Apr-14	0.92	<1	<2	6	<1	0.29
MPR-432	224 St. @ 122 Ave.	22-Apr-14	0.61	<1	<2	7	<1	0.36
MPR-432	224 St. @ 122 Ave.	29-Apr-14	0.88	<1	<2	7	<1	0.34
MPR-432	224 St. @ 122 Ave.	6-May-14	1.2	<1	<2	10	<1	0.46
MPR-432	224 St. @ 122 Ave.	13-May-14	0.87	<1	<2	9	<1	0.39
MPR-432	224 St. @ 122 Ave.	20-May-14	1	<1	<2	10	<1	0.3
MPR-432	224 St. @ 122 Ave.	27-May-14	0.8	<1	26	10	<1	0.3
MPR-432	224 St. @ 122 Ave.	3-Jun-14	0.92	<1	<2	10	<1	0.38
MPR-432	224 St. @ 122 Ave.	10-Jun-14	0.87	<1	<2	10	<1	0.31
MPR-432	224 St. @ 122 Ave.	17-Jun-14	0.79	<1	<2	10	<1	0.33
MPR-432	224 St. @ 122 Ave.	24-Jun-14	0.93	<1	<2	11	<1	0.31
MPR-432	224 St. @ 122 Ave.	2-Jul-14	0.85	<1	2	13	<1	0.28
MPR-432	224 St. @ 122 Ave.	8-Jul-14	0.85	<1	2	15	<1	0.32
MPR-432	224 St. @ 122 Ave.	15-Jul-14	0.89	<1	<2	15	<1	0.24
MPR-432	224 St. @ 122 Ave.	22-Jul-14	0.85	<1	<2	13	<1	0.2
MPR-432	224 St. @ 122 Ave.	29-Jul-14	0.89	<1	<2	15	<1	0.3
MPR-432	224 St. @ 122 Ave.	5-Aug-14	1.2	<1	2	14	<1	0.26
MPR-432	224 St. @ 122 Ave.	12-Aug-14	1.1	<1	<2	15	<1	0.2
MPR-432	224 St. @ 122 Ave.	19-Aug-14	1.1	<1	<2	14	<1	0.27
MPR-432	224 St. @ 122 Ave.	26-Aug-14	1.1	<1	2	18	<1	0.33
MPR-432	224 St. @ 122 Ave.	2-Sep-14	0.92	<1	2	16	<1	0.23
MPR-432	224 St. @ 122 Ave.	9-Sep-14	1.1	<1	<2	16	<1	0.31
MPR-432	224 St. @ 122 Ave.	16-Sep-14	0.85	<1	<2	16	<1	0.31
MPR-432	224 St. @ 122 Ave.	23-Sep-14	0.66	<1	<2	16	<1	0.28
MPR-432	224 St. @ 122 Ave.	30-Sep-14	0.97	<1	2	15	<1	0.68
MPR-432	224 St. @ 122 Ave.	7-Oct-14	0.96	<1	<2	15	<1	0.53
MPR-432	224 St. @ 122 Ave.	14-Oct-14	0.97	<1	<2	15	<1	0.3
MPR-432	224 St. @ 122 Ave.	21-Oct-14	1	<1	<2	13	<1	0.59
MPR-432	224 St. @ 122 Ave.	28-Oct-14	0.84	<1	<2	12	<1	0.57
MPR-432	224 St. @ 122 Ave.	4-Nov-14	0.75	<1	<2	12	<1	0.51
MPR-432	224 St. @ 122 Ave.	12-Nov-14	1	<1	<2	10	<1	0.63
MPR-432	224 St. @ 122 Ave.	18-Nov-14	0.67	<1	<2	6	<1	0.52
MPR-432	224 St. @ 122 Ave.	25-Nov-14	1.1	<1	<2	9	<1	0.6
MPR-432	224 St. @ 122 Ave.	2-Dec-14	0.84	<1	<2	7	<1	0.47
MPR-432	224 St. @ 122 Ave.	9-Dec-14	1.2	<1	<2	7	<1	0.41
MPR-432	224 St. @ 122 Ave.	16-Dec-14	0.98	<1	<2	7	<1	0.57

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-432	224 St. @ 122 Ave.	23-Dec-14	0.89	<1	NA	7	<1	0.72
MPR-432	224 St. @ 122 Ave.	30-Dec-14	0.7	<1	NA	6	<1	0.52
MPR-433	232 St. North of 130 Ave.	13-May-14	0.67	<1	<2	9	<1	0.32
MPR-433	232 St. North of 130 Ave.	20-May-14	0.79	<1	<2	10	<1	0.27
MPR-433	232 St. North of 130 Ave.	27-May-14	0.72	<1	<2	10	<1	0.36
MPR-433	232 St. North of 130 Ave.	3-Jun-14	0.64	<1	<2	11	<1	0.27
MPR-433	232 St. North of 130 Ave.	10-Jun-14	0.81	<1	<2	11	<1	0.27
MPR-433	232 St. North of 130 Ave.	17-Jun-14	0.71	<1	<2	11	<1	0.3
MPR-433	232 St. North of 130 Ave.	24-Jun-14	0.74	<1	<2	12	<1	0.28
MPR-433	232 St. North of 130 Ave.	2-Jul-14	0.66	<1	<2	13	<1	0.27
MPR-433	232 St. North of 130 Ave.	8-Jul-14	0.68	<1	2	14	<1	0.4
MPR-433	232 St. North of 130 Ave.	15-Jul-14	0.75	<1	<2	15	<1	0.26
MPR-433	232 St. North of 130 Ave.	22-Jul-14	0.74	<1	<2	13	<1	0.2
MPR-433	232 St. North of 130 Ave.	29-Jul-14	0.82	<1	<2	13	<1	0.25
MPR-433	232 St. North of 130 Ave.	5-Aug-14	0.91	<1	2	14	<1	0.26
MPR-433	232 St. North of 130 Ave.	12-Aug-14	0.94	<1	<2	15	<1	0.22
MPR-433	232 St. North of 130 Ave.	19-Aug-14	0.87	<1	<2	15	<1	0.15
MPR-433	232 St. North of 130 Ave.	26-Aug-14	0.78	<1	2	15	<1	0.33
MPR-433	232 St. North of 130 Ave.	2-Sep-14	0.94	<1	<2	15	<1	0.24
MPR-433	232 St. North of 130 Ave.	9-Sep-14	0.88	<1	<2	15	<1	0.33
MPR-433	232 St. North of 130 Ave.	16-Sep-14	0.86	<1	2	16	<1	0.27
MPR-433	232 St. North of 130 Ave.	23-Sep-14	1.1	<1	<2	16	<1	0.27
MPR-433	232 St. North of 130 Ave.	30-Sep-14	0.99	<1	<2	14	<1	0.74
MPR-433	232 St. North of 130 Ave.	7-Oct-14	0.8	<1	<2	15	<1	0.5
MPR-433	232 St. North of 130 Ave.	14-Oct-14	0.82	<1	8	15	<1	0.37
MPR-433	232 St. North of 130 Ave.	21-Oct-14	1.1	<1	<2	13	<1	0.43
MPR-433	232 St. North of 130 Ave.	28-Oct-14	0.76	<1	<2	12	<1	0.62
MPR-433	232 St. North of 130 Ave.	4-Nov-14	0.55	<1	<2	12	<1	0.52
MPR-433	232 St. North of 130 Ave.	12-Nov-14	1	<1	<2	10	<1	0.74
MPR-433	232 St. North of 130 Ave.	18-Nov-14	0.76	<1	<2	9	<1	0.57
MPR-433	232 St. North of 130 Ave.	25-Nov-14	0.89	<1	2	9	<1	0.61
MPR-433	232 St. North of 130 Ave.	2-Dec-14	0.69	<1	<2	7	<1	0.48
MPR-433	232 St. North of 130 Ave.	9-Dec-14	1.1	<1	2	7	<1	0.47
MPR-433	232 St. North of 130 Ave.	16-Dec-14	0.85	<1	<2	7	<1	0.52
MPR-433	232 St. North of 130 Ave.	23-Dec-14	0.78	<1	NA	7	<1	0.88
MPR-433	232 St. North of 130 Ave.	30-Dec-14	0.68	<1	NA	7	<1	0.48
MPR-434	102 Ave. East of 241A St.	7-Jan-14	0.24	<1	<2	6	<1	0.32

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-434	102 Ave. East of 241A St.	14-Jan-14	0.53	<1	2	3	<1	0.38
MPR-434	102 Ave. East of 241A St.	21-Jan-14	0.53	<1	<2	7	<1	0.28
MPR-434	102 Ave. East of 241A St.	28-Jan-14	0.6	<1	<2	7	<1	0.25
MPR-434	102 Ave. East of 241A St.	4-Feb-14	0.67	<1	<2	4	<1	0.26
MPR-434	102 Ave. East of 241A St.	11-Feb-14	0.72	<1	2	5	<1	0.27
MPR-434	102 Ave. East of 241A St.	18-Feb-14	0.63	<1	<2	5	<1	0.49
MPR-434	102 Ave. East of 241A St.	25-Feb-14	0.88	<1	<2	5	<1	0.44
MPR-434	102 Ave. East of 241A St.	4-Mar-14	0.81	<1	<2	5	<1	0.94
MPR-434	102 Ave. East of 241A St.	11-Mar-14	0.87	<1	<2	6	<1	0.67
MPR-434	102 Ave. East of 241A St.	18-Mar-14	0.83	<1	2	6	<1	0.68
MPR-434	102 Ave. East of 241A St.	25-Mar-14	0.79	<1	<2	6	<1	0.41
MPR-434	102 Ave. East of 241A St.	1-Apr-14	0.72	<1	<2	6	<1	0.52
MPR-434	102 Ave. East of 241A St.	8-Apr-14	0.88	<1	<2	8	<1	0.32
MPR-434	102 Ave. East of 241A St.	15-Apr-14	0.72	<1	<2	8	<1	0.28
MPR-434	102 Ave. East of 241A St.	22-Apr-14	0.6	<1	<2	8	<1	0.31
MPR-434	102 Ave. East of 241A St.	29-Apr-14	0.77	<1	<2	9	<1	0.31
MPR-434	102 Ave. East of 241A St.	6-May-14	0.76	<1	<2	10	<1	0.31
MPR-434	102 Ave. East of 241A St.	13-May-14	0.78	<1	<2	10	<1	0.36
MPR-434	102 Ave. East of 241A St.	20-May-14	0.7	<1	<2	12	<1	0.31
MPR-434	102 Ave. East of 241A St.	27-May-14	0.7	<1	<2	12	<1	0.31
MPR-434	102 Ave. East of 241A St.	3-Jun-14	0.86	<1	<2	12	<1	0.37
MPR-434	102 Ave. East of 241A St.	10-Jun-14	0.83	<1	<2	12	<1	0.28
MPR-434	102 Ave. East of 241A St.	17-Jun-14	0.49	<1	<2	12	<1	0.21
MPR-434	102 Ave. East of 241A St.	24-Jun-14	0.82	<1	<2	13	<1	0.25
MPR-434	102 Ave. East of 241A St.	2-Jul-14	0.73	<1	<2	14	<1	0.25
MPR-434	102 Ave. East of 241A St.	8-Jul-14	0.68	<1	<2	18	<1	0.47
MPR-434	102 Ave. East of 241A St.	15-Jul-14	0.81	<1	<2	18	<1	0.35
MPR-434	102 Ave. East of 241A St.	22-Jul-14	0.82	<1	<2	15	<1	0.21
MPR-434	102 Ave. East of 241A St.	29-Jul-14	0.92	<1	10	15	<1	0.36
MPR-434	102 Ave. East of 241A St.	5-Aug-14	1	<1	<2	15	<1	0.29
MPR-434	102 Ave. East of 241A St.	12-Aug-14	1	<1	<2	16	<1	0.24
MPR-434	102 Ave. East of 241A St.	19-Aug-14	0.78	<1	<2	17	<1	0.22
MPR-434	102 Ave. East of 241A St.	26-Aug-14	0.88	<1	<2	17	<1	0.26
MPR-434	102 Ave. East of 241A St.	2-Sep-14	0.95	<1	<2	16	<1	0.65
MPR-434	102 Ave. East of 241A St.	9-Sep-14	0.98	<1	<2	17	<1	0.35
MPR-434	102 Ave. East of 241A St.	16-Sep-14	0.84	<1	<2	17	<1	0.27
MPR-434	102 Ave. East of 241A St.	23-Sep-14	0.83	<1	<2	16	<1	0.27

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-434	102 Ave. East of 241A St.	30-Sep-14	0.29	<1	<2	16	<1	0.51
MPR-434	102 Ave. East of 241A St.	7-Oct-14	0.21	<1	<2	16	<1	0.41
MPR-434	102 Ave. East of 241A St.	14-Oct-14	0.31	<1	2	15	<1	0.34
MPR-434	102 Ave. East of 241A St.	21-Oct-14	0.31	<1	<2	15	<1	0.34
MPR-434	102 Ave. East of 241A St.	28-Oct-14	0.41	<1	<2	14	<1	0.55
MPR-434	102 Ave. East of 241A St.	4-Nov-14	0.15	<1	<2	13	<1	0.5
MPR-434	102 Ave. East of 241A St.	12-Nov-14	0.03	<1	72	12	<1	0.62
MPR-434	102 Ave. East of 241A St.	18-Nov-14	0.07	<1	20	7	<1	0.44
MPR-434	102 Ave. East of 241A St.	25-Nov-14	0.05	<1	190	10	<1	0.42
MPR-434	102 Ave. East of 241A St.	2-Dec-14	0.08	<1	<2	9	<1	0.4
MPR-434	102 Ave. East of 241A St.	9-Dec-14	0.06	<1	62	8	<1	0.87
MPR-434	102 Ave. East of 241A St.	16-Dec-14	0.05	<1	<2	8	<1	0.39
MPR-434	102 Ave. East of 241A St.	23-Dec-14	0.03	<1	NA	8.4	<1	0.51
MPR-434	102 Ave. East of 241A St.	30-Dec-14	0.12	<1	NA	7	<1	0.47
MPR-435	240 St. South of Abernethy Way	7-Jan-14	0.37	<1	<2	6	<1	0.31
MPR-435	240 St. South of Abernethy Way	14-Jan-14	0.47	<1	<2	1	<1	0.35
MPR-435	240 St. South of Abernethy Way	21-Jan-14	0.44	<1	<2	7	<1	0.31
MPR-435	240 St. South of Abernethy Way	28-Jan-14	0.42	<1	LA	6	<1	0.23
MPR-435	240 St. South of Abernethy Way	4-Feb-14	0.49	<1	2	5	<1	0.24
MPR-435	240 St. South of Abernethy Way	11-Feb-14	0.44	<1	<2	5	<1	0.26
MPR-435	240 St. South of Abernethy Way	18-Feb-14	0.52	<1	<2	5	<1	0.47
MPR-435	240 St. South of Abernethy Way	25-Feb-14	0.89	<1	<2	6	<1	0.35
MPR-435	240 St. South of Abernethy Way	4-Mar-14	0.56	<1	<2	5	<1	0.35
MPR-435	240 St. South of Abernethy Way	11-Mar-14	0.77	<1	<2	6	<1	0.69
MPR-435	240 St. South of Abernethy Way	18-Mar-14	0.72	<1	<2	6	<1	0.69
MPR-435	240 St. South of Abernethy Way	25-Mar-14	0.59	<1	<2	6	<1	0.38
MPR-435	240 St. South of Abernethy Way	1-Apr-14	0.45	<1	<2	7	<1	0.33
MPR-435	240 St. South of Abernethy Way	8-Apr-14	0.45	<1	<2	7	<1	0.33
MPR-435	240 St. South of Abernethy Way	15-Apr-14	0.37	<1	<2	8	<1	0.27
MPR-435	240 St. South of Abernethy Way	22-Apr-14	0.54	<1	<2	9	<1	0.25
MPR-435	240 St. South of Abernethy Way	29-Apr-14	0.47	<1	<2	9	<1	0.23
MPR-435	240 St. South of Abernethy Way	6-May-14	0.41	<1	<2	11	<1	0.26
MPR-435	240 St. South of Abernethy Way	13-May-14	0.44	<1	<2	11	<1	0.29
MPR-435	240 St. South of Abernethy Way	20-May-14	0.67	<1	<2	12	<1	0.3
MPR-435	240 St. South of Abernethy Way	27-May-14	0.64	<1	2	13	<1	0.32
MPR-435	240 St. South of Abernethy Way	3-Jun-14	0.51	<1	<2	13	<1	0.41
MPR-435	240 St. South of Abernethy Way	10-Jun-14	0.5	<1	<2	13	<1	0.27

City of Maple Ridge
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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-435	240 St. South of Abernethy Way	17-Jun-14	0.33	<1	<2	13	<1	0.28
MPR-435	240 St. South of Abernethy Way	24-Jun-14	0.39	<1	2	14	<1	0.22
MPR-435	240 St. South of Abernethy Way	2-Jul-14	0.48	<1	<2	13	<1	0.25
MPR-435	240 St. South of Abernethy Way	8-Jul-14	0.55	<1	<2	19	<1	0.33
MPR-435	240 St. South of Abernethy Way	15-Jul-14	0.58	<1	2	15	<1	0.24
MPR-435	240 St. South of Abernethy Way	22-Jul-14	0.51	<1	<2	16	<1	0.2
MPR-435	240 St. South of Abernethy Way	29-Jul-14	0.58	<1	<2	16	<1	0.29
MPR-435	240 St. South of Abernethy Way	5-Aug-14	0.49	<1	<2	15	<1	0.31
MPR-435	240 St. South of Abernethy Way	12-Aug-14	0.53	<1	2	17	<1	0.2
MPR-435	240 St. South of Abernethy Way	19-Aug-14	0.41	<1	2	18	<1	0.21
MPR-435	240 St. South of Abernethy Way	26-Aug-14	0.53	<1	<2	17	<1	0.23
MPR-435	240 St. South of Abernethy Way	2-Sep-14	0.32	<1	<2	18	<1	0.2
MPR-435	240 St. South of Abernethy Way	9-Sep-14	0.43	<1	12	17	<1	0.29
MPR-435	240 St. South of Abernethy Way	16-Sep-14	0.54	<1	<2	17	<1	0.32
MPR-435	240 St. South of Abernethy Way	23-Sep-14	0.36	<1	2	17	<1	0.25
MPR-435	240 St. South of Abernethy Way	30-Sep-14	0.23	<1	<2	17	<1	0.53
MPR-435	240 St. South of Abernethy Way	7-Oct-14	0.35	<1	<2	16	<1	0.5
MPR-435	240 St. South of Abernethy Way	14-Oct-14	0.4	<1	<2	16	<1	0.32
MPR-435	240 St. South of Abernethy Way	21-Oct-14	0.26	<1	<2	15	<1	0.3
MPR-435	240 St. South of Abernethy Way	28-Oct-14	0.26	<1	<2	14	<1	0.53
MPR-435	240 St. South of Abernethy Way	4-Nov-14	0.24	<1	<2	13	<1	0.47
MPR-435	240 St. South of Abernethy Way	12-Nov-14	0.37	<1	<2	13	<1	0.54
MPR-435	240 St. South of Abernethy Way	18-Nov-14	0.39	<1	<2	9	<1	0.49
MPR-435	240 St. South of Abernethy Way	25-Nov-14	0.38	<1	<2	10	<1	0.52
MPR-435	240 St. South of Abernethy Way	2-Dec-14	0.3	<1	4	9	<1	0.42
MPR-435	240 St. South of Abernethy Way	9-Dec-14	0.64	<1	<2	7	<1	0.38
MPR-435	240 St. South of Abernethy Way	16-Dec-14	0.52	<1	<2	8	<1	0.47
MPR-435	240 St. South of Abernethy Way	23-Dec-14	0.34	<1	NA	8.2	<1	0.56
MPR-435	240 St. South of Abernethy Way	30-Dec-14	0.32	<1	NA	7	<1	0.44
MPR-436	125 Ave. West of Ansell St.	7-Jan-14	0.67	<1	<2	6	<1	0.33
MPR-436	125 Ave. West of Ansell St.	14-Jan-14	0.91	<1	2	1	<1	0.33
MPR-436	125 Ave. West of Ansell St.	21-Jan-14	0.86	<1	<2	7	<1	0.32
MPR-436	125 Ave. West of Ansell St.	28-Jan-14	0.85	<1	2	6	<1	0.28
MPR-436	125 Ave. West of Ansell St.	4-Feb-14	0.75	<1	<2	5	<1	0.22
MPR-436	125 Ave. West of Ansell St.	11-Feb-14	0.83	<1	<2	5	<1	0.24
MPR-436	125 Ave. West of Ansell St.	18-Feb-14	0.99	<1	<2	5	<1	0.66
MPR-436	125 Ave. West of Ansell St.	25-Feb-14	1.4	<1	<2	5	<1	0.38

City of Maple Ridge
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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-436	125 Ave. West of Ansell St.	4-Mar-14	1.2	<1	<2	5	<1	0.34
MPR-436	125 Ave. West of Ansell St.	11-Mar-14	0.82	<1	<2	6	<1	0.51
MPR-436	125 Ave. West of Ansell St.	18-Mar-14	1	<1	<2	6	<1	0.55
MPR-436	125 Ave. West of Ansell St.	25-Mar-14	0.78	<1	<2	7	<1	0.33
MPR-436	125 Ave. West of Ansell St.	1-Apr-14	0.84	<1	<2	7	<1	0.77
MPR-436	125 Ave. West of Ansell St.	8-Apr-14	0.98	<1	<2	7	<1	0.27
MPR-436	125 Ave. West of Ansell St.	15-Apr-14	0.99	<1	<2	9	<1	0.25
MPR-436	125 Ave. West of Ansell St.	22-Apr-14	0.64	<1	<2	10	<1	0.28
MPR-436	125 Ave. West of Ansell St.	29-Apr-14	0.98	<1	<2	10	<1	0.24
MPR-436	125 Ave. West of Ansell St.	6-May-14	0.52	<1	<2	12	<1	0.23
MPR-436	125 Ave. West of Ansell St.	13-May-14	0.99	<1	<2	11	<1	0.42
MPR-436	125 Ave. West of Ansell St.	20-May-14	0.78	<1	<2	12	<1	0.24
MPR-436	125 Ave. West of Ansell St.	27-May-14	0.84	<1	<2	13	<1	0.29
MPR-436	125 Ave. West of Ansell St.	3-Jun-14	0.97	<1	<2	13	<1	0.37
MPR-436	125 Ave. West of Ansell St.	10-Jun-14	1.2	<1	<2	13	<1	0.24
MPR-436	125 Ave. West of Ansell St.	17-Jun-14	0.96	<1	<2	13	<1	0.24
MPR-436	125 Ave. West of Ansell St.	24-Jun-14	0.83	<1	<2	13	<1	0.27
MPR-436	125 Ave. West of Ansell St.	2-Jul-14	1	<1	<2	13	<1	0.42
MPR-436	125 Ave. West of Ansell St.	8-Jul-14	0.88	<1	<2	20	<1	0.36
MPR-436	125 Ave. West of Ansell St.	15-Jul-14	0.89	<1	4	15	<1	0.24
MPR-436	125 Ave. West of Ansell St.	22-Jul-14	1.1	<1	<2	15	<1	0.18
MPR-436	125 Ave. West of Ansell St.	29-Jul-14	1.1	<1	<2	15	<1	0.26
MPR-436	125 Ave. West of Ansell St.	5-Aug-14	1.1	<1	<2	15	<1	0.3
MPR-436	125 Ave. West of Ansell St.	12-Aug-14	1	<1	<2	16	<1	0.21
MPR-436	125 Ave. West of Ansell St.	19-Aug-14	1.1	<1	<2	17	<1	0.18
MPR-436	125 Ave. West of Ansell St.	26-Aug-14	1.3	<1	<2	16	<1	0.21
MPR-436	125 Ave. West of Ansell St.	2-Sep-14	0.89	<1	<2	16	<1	0.26
MPR-436	125 Ave. West of Ansell St.	9-Sep-14	0.76	<1	<2	16	<1	0.25
MPR-436	125 Ave. West of Ansell St.	16-Sep-14	1.1	<1	<2	16	<1	0.34
MPR-436	125 Ave. West of Ansell St.	23-Sep-14	1	<1	<2	16	<1	0.2
MPR-436	125 Ave. West of Ansell St.	30-Sep-14	0.23	<1	<2	17	<1	0.39
MPR-436	125 Ave. West of Ansell St.	7-Oct-14	0.73	<1	<2	16	<1	0.49
MPR-436	125 Ave. West of Ansell St.	14-Oct-14	0.36	<1	<2	16	<1	0.33
MPR-436	125 Ave. West of Ansell St.	21-Oct-14	0.66	<1	<2	15	<1	0.3
MPR-436	125 Ave. West of Ansell St.	28-Oct-14	0.46	<1	<2	14	<1	0.33
MPR-436	125 Ave. West of Ansell St.	4-Nov-14	0.57	<1	<2	13	<1	0.44
MPR-436	125 Ave. West of Ansell St.	12-Nov-14	0.39	<1	<2	12	<1	0.54

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-436	125 Ave. West of Ansell St.	18-Nov-14	1	<1	<2	10	<1	0.49
MPR-436	125 Ave. West of Ansell St.	25-Nov-14	0.78	<1	16	10	<1	0.47
MPR-436	125 Ave. West of Ansell St.	2-Dec-14	0.79	<1	<2	9	<1	0.39
MPR-436	125 Ave. West of Ansell St.	9-Dec-14	0.92	<1	<2	8	<1	0.45
MPR-436	125 Ave. West of Ansell St.	16-Dec-14	0.6	<1	<2	8	<1	0.42
MPR-436	125 Ave. West of Ansell St.	23-Dec-14	0.7	<1	NA	8	<1	0.48
MPR-436	125 Ave. West of Ansell St.	30-Dec-14	0.56	<1	NA	8	<1	0.41
MPR-437	248 St. @ 116 Ave.	7-Jan-14	1.2	<1	<2	5	<1	0.32
MPR-437	248 St. @ 116 Ave.	14-Jan-14	1.1	<1	<2	1	<1	0.29
MPR-437	248 St. @ 116 Ave.	21-Jan-14	0.89	<1	<2	6	<1	0.3
MPR-437	248 St. @ 116 Ave.	28-Jan-14	0.78	<1	<2	6	<1	0.25
MPR-437	248 St. @ 116 Ave.	4-Feb-14	0.96	<1	<2	5	<1	0.25
MPR-437	248 St. @ 116 Ave.	11-Feb-14	1.1	<1	<2	5	<1	0.31
MPR-437	248 St. @ 116 Ave.	18-Feb-14	0.94	<1	2	4	<1	0.5
MPR-437	248 St. @ 116 Ave.	25-Feb-14	1.3	<1	<2	5	<1	0.37
MPR-437	248 St. @ 116 Ave.	4-Mar-14	1.3	<1	<2	5	<1	0.32
MPR-437	248 St. @ 116 Ave.	11-Mar-14	1.1	<1	<2	5	<1	0.65
MPR-437	248 St. @ 116 Ave.	18-Mar-14	1.3	<1	<2	6	<1	0.57
MPR-437	248 St. @ 116 Ave.	25-Mar-14	1	<1	<2	6	<1	0.43
MPR-437	248 St. @ 116 Ave.	1-Apr-14	0.73	<1	2	7	<1	0.29
MPR-437	248 St. @ 116 Ave.	8-Apr-14	1.2	<1	<2	7	<1	0.36
MPR-437	248 St. @ 116 Ave.	15-Apr-14	0.99	<1	<2	8	<1	0.26
MPR-437	248 St. @ 116 Ave.	22-Apr-14	0.82	<1	<2	9	<1	0.3
MPR-437	248 St. @ 116 Ave.	29-Apr-14	1.1	<1	<2	9	<1	0.32
MPR-437	248 St. @ 116 Ave.	6-May-14	0.89	<1	<2	10	<1	0.31
MPR-437	248 St. @ 116 Ave.	13-May-14	0.9	<1	<2	10	<1	0.33
MPR-437	248 St. @ 116 Ave.	20-May-14	0.96	<1	<2	11	<1	0.25
MPR-437	248 St. @ 116 Ave.	27-May-14	1	<1	<2	12	<1	0.3
MPR-437	248 St. @ 116 Ave.	3-Jun-14	1	<1	<2	12	<1	0.44
MPR-437	248 St. @ 116 Ave.	10-Jun-14	1.2	<1	<2	12	<1	0.27
MPR-437	248 St. @ 116 Ave.	17-Jun-14	0.97	<1	<2	12	<1	0.28
MPR-437	248 St. @ 116 Ave.	24-Jun-14	0.99	<1	<2	12	<1	0.28
MPR-437	248 St. @ 116 Ave.	2-Jul-14	1.1	<1	<2	13	<1	0.25
MPR-437	248 St. @ 116 Ave.	8-Jul-14	0.97	<1	<2	18	<1	0.34
MPR-437	248 St. @ 116 Ave.	15-Jul-14	0.9	<1	<2	20	<1	0.25
MPR-437	248 St. @ 116 Ave.	22-Jul-14	0.9	<1	<2	14	<1	0.2
MPR-437	248 St. @ 116 Ave.	29-Jul-14	1	<1	<2	15	<1	0.32

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-437	248 St. @ 116 Ave.	5-Aug-14	1	<1	<2	15	<1	0.25
MPR-437	248 St. @ 116 Ave.	12-Aug-14	1.1	<1	<2	15	<1	0.23
MPR-437	248 St. @ 116 Ave.	19-Aug-14	1	<1	<2	16	<1	0.2
MPR-437	248 St. @ 116 Ave.	26-Aug-14	0.98	<1	<2	16	<1	0.27
MPR-437	248 St. @ 116 Ave.	2-Sep-14	1	<1	<2	16	<1	0.23
MPR-437	248 St. @ 116 Ave.	9-Sep-14	1.2	<1	<2	16	<1	0.26
MPR-437	248 St. @ 116 Ave.	16-Sep-14	1.1	<1	<2	16	<1	0.32
MPR-437	248 St. @ 116 Ave.	23-Sep-14	1.2	<1	<2	16	<1	0.28
MPR-437	248 St. @ 116 Ave.	30-Sep-14	1.1	<1	<2	15	<1	0.57
MPR-437	248 St. @ 116 Ave.	7-Oct-14	1	<1	4	15	<1	0.48
MPR-437	248 St. @ 116 Ave.	14-Oct-14	0.98	<1	<2	15	<1	0.42
MPR-437	248 St. @ 116 Ave.	21-Oct-14	0.82	<1	<2	14	<1	0.33
MPR-437	248 St. @ 116 Ave.	28-Oct-14	1.2	<1	<2	13	<1	0.59
MPR-437	248 St. @ 116 Ave.	4-Nov-14	0.8	<1	2	12	<1	0.46
MPR-437	248 St. @ 116 Ave.	12-Nov-14	0.73	<1	<2	12	<1	0.7
MPR-437	248 St. @ 116 Ave.	18-Nov-14	1.4	<1	<2	6	<1	0.56
MPR-437	248 St. @ 116 Ave.	25-Nov-14	0.96	<1	<2	9	<1	0.46
MPR-437	248 St. @ 116 Ave.	2-Dec-14	1.5	<1	<2	8	<1	0.46
MPR-437	248 St. @ 116 Ave.	9-Dec-14	1.2	<1	<2	7	<1	2.5
MPR-437	248 St. @ 116 Ave.	16-Dec-14	1.2	<1	<2	7	<1	0.62
MPR-437	248 St. @ 116 Ave.	23-Dec-14	0.82	<1	NA	7.4	<1	0.59
MPR-437	248 St. @ 116 Ave.	30-Dec-14	0.74	<1	NA	7	<1	0.46
MPR-438	125 Ave. West off 256 St.	7-Jan-14	0.73	<1	2	6	<1	0.31
MPR-438	125 Ave. West off 256 St.	14-Jan-14	1.1	<1	<2	1	<1	0.32
MPR-438	125 Ave. West off 256 St.	21-Jan-14	0.93	<1	<2	7	<1	0.29
MPR-438	125 Ave. West off 256 St.	28-Jan-14	1.2	<1	<2	6	<1	0.48
MPR-438	125 Ave. West off 256 St.	4-Feb-14	0.91	<1	<2	5	<1	0.25
MPR-438	125 Ave. West off 256 St.	11-Feb-14	0.86	<1	<2	5	<1	0.27
MPR-438	125 Ave. West off 256 St.	18-Feb-14	1.1	<1	2	4	<1	0.44
MPR-438	125 Ave. West off 256 St.	25-Feb-14	1.5	<1	4	5	<1	0.34
MPR-438	125 Ave. West off 256 St.	4-Mar-14	1	<1	2	5	<1	0.31
MPR-438	125 Ave. West off 256 St.	11-Mar-14	1.1	<1	<2	5	<1	0.68
MPR-438	125 Ave. West off 256 St.	18-Mar-14	1.2	<1	<2	6	<1	0.56
MPR-438	125 Ave. West off 256 St.	25-Mar-14	0.8	<1	<2	6	<1	0.39
MPR-438	125 Ave. West off 256 St.	1-Apr-14	0.74	<1	<2	7	<1	0.34
MPR-438	125 Ave. West off 256 St.	8-Apr-14	1.2	<1	<2	7	<1	0.31
MPR-438	125 Ave. West off 256 St.	15-Apr-14	1.1	<1	<2	8	<1	0.25

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-438	125 Ave. West off 256 St.	22-Apr-14	0.73	<1	<2	9	<1	0.29
MPR-438	125 Ave. West off 256 St.	29-Apr-14	1.1	<1	<2	8	<1	0.32
MPR-438	125 Ave. West off 256 St.	6-May-14	0.92	<1	<2	10	<1	0.36
MPR-438	125 Ave. West off 256 St.	13-May-14	0.68	<1	<2	10	<1	0.24
MPR-438	125 Ave. West off 256 St.	20-May-14	0.92	<1	<2	12	<1	0.3
MPR-438	125 Ave. West off 256 St.	27-May-14	1.1	<1	<2	12	<1	0.43
MPR-438	125 Ave. West off 256 St.	3-Jun-14	1	<1	<2	12	<1	0.41
MPR-438	125 Ave. West off 256 St.	10-Jun-14	0.75	<1	<2	13	<1	0.25
MPR-438	125 Ave. West off 256 St.	17-Jun-14	1.2	<1	<2	12	<1	0.28
MPR-438	125 Ave. West off 256 St.	24-Jun-14	0.96	<1	<2	13	<1	0.34
MPR-438	125 Ave. West off 256 St.	2-Jul-14	0.95	<1	<2	13	<1	0.23
MPR-438	125 Ave. West off 256 St.	8-Jul-14	0.97	<1	<2	18	<1	0.38
MPR-438	125 Ave. West off 256 St.	15-Jul-14	1	<1	<2	20	<1	0.39
MPR-438	125 Ave. West off 256 St.	22-Jul-14	1	<1	<2	15	<1	0.21
MPR-438	125 Ave. West off 256 St.	29-Jul-14	1.2	<1	2	15	<1	0.3
MPR-438	125 Ave. West off 256 St.	5-Aug-14	0.89	<1	4	15	<1	0.23
MPR-438	125 Ave. West off 256 St.	12-Aug-14	1.1	<1	<2	15	<1	0.23
MPR-438	125 Ave. West off 256 St.	19-Aug-14	1.1	<1	<2	16	<1	0.23
MPR-438	125 Ave. West off 256 St.	26-Aug-14	1.1	<1	<2	16	<1	0.24
MPR-438	125 Ave. West off 256 St.	2-Sep-14	1	<1	<2	16	<1	0.23
MPR-438	125 Ave. West off 256 St.	9-Sep-14	1.1	<1	<2	16	<1	0.28
MPR-438	125 Ave. West off 256 St.	16-Sep-14	1.1	<1	<2	16	<1	0.43
MPR-438	125 Ave. West off 256 St.	23-Sep-14	1.1	<1	<2	16	<1	0.22
MPR-438	125 Ave. West off 256 St.	30-Sep-14	1.1	<1	<2	15	<1	0.61
MPR-438	125 Ave. West off 256 St.	7-Oct-14	1	<1	<2	15	<1	0.54
MPR-438	125 Ave. West off 256 St.	14-Oct-14	0.84	<1	<2	15	<1	0.35
MPR-438	125 Ave. West off 256 St.	21-Oct-14	0.81	<1	<2	14	<1	0.34
MPR-438	125 Ave. West off 256 St.	28-Oct-14	0.6	<1	2	13	<1	0.38
MPR-438	125 Ave. West off 256 St.	4-Nov-14	0.7	<1	2	12	<1	0.43
MPR-438	125 Ave. West off 256 St.	12-Nov-14	0.34	<1	<2	11	<1	0.56
MPR-438	125 Ave. West off 256 St.	18-Nov-14	1.2	<1	<2	10	<1	0.49
MPR-438	125 Ave. West off 256 St.	25-Nov-14	0.96	<1	4	9	<1	0.48
MPR-438	125 Ave. West off 256 St.	2-Dec-14	0.86	<1	<2	8	<1	0.35
MPR-438	125 Ave. West off 256 St.	9-Dec-14	1	<1	<2	7	<1	0.55
MPR-438	125 Ave. West off 256 St.	16-Dec-14	0.95	<1	<2	7	<1	0.6
MPR-438	125 Ave. West off 256 St.	23-Dec-14	0.85	<1	NA	7.3	<1	0.65
MPR-438	125 Ave. West off 256 St.	30-Dec-14	0.67	<1	NA	7	<1	0.44

City of Maple Ridge
Drinking Water Quality Report 2014

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	7-Jan-14	1	<1	<2	5	<1	0.25
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	14-Jan-14	1	<1	<2	1	<1	0.28
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	21-Jan-14	1.2	<1	2	6	<1	0.28
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	28-Jan-14	1.2	<1	2	5	<1	0.25
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	4-Feb-14	1.1	<1	<2	4	<1	0.27
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	11-Feb-14	0.99	<1	<2	5	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	18-Feb-14	1	<1	<2	4	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	25-Feb-14	0.89	<1	<2	4	<1	0.4
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	4-Mar-14	0.98	<1	<2	4	<1	0.35
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	11-Mar-14	0.86	<1	<2	5	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	18-Mar-14	0.96	<1	<2	6	<1	0.45
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	25-Mar-14	0.87	<1	<2	6	<1	0.38
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	1-Apr-14	1	<1	16	7	<1	0.31
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	8-Apr-14	0.75	<1	<2	8	<1	0.3
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	15-Apr-14	0.77	<1	<2	9	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	22-Apr-14	1	<1	<2	10	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	29-Apr-14	0.83	<1	<2	10	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	6-May-14	0.75	<1	<2	11	<1	0.25
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	13-May-14	0.64	<1	<2	12	<1	0.31
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	20-May-14	0.79	<1	<2	14	<1	0.3
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	27-May-14	0.54	<1	<2	15	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	3-Jun-14	0.7	<1	<2	15	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	10-Jun-14	0.54	<1	<2	17	<1	0.24
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	17-Jun-14	0.37	<1	<2	16	<1	0.25
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	24-Jun-14	0.71	<1	<2	16	<1	0.32
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	2-Jul-14	0.71	<1	<2	17	<1	0.23
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	8-Jul-14	0.74	<1	<2	18	<1	0.23
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	15-Jul-14	0.58	<1	<2	20	<1	0.24
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	22-Jul-14	0.79	<1	<2	19	<1	0.19
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	29-Jul-14	0.77	<1	<2	19	<1	0.22
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	5-Aug-14	0.65	<1	<2	20	<1	0.2
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	12-Aug-14	0.7	<1	<2	20	<1	0.27
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	19-Aug-14	0.5	<1	<2	20	<1	0.19
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	26-Aug-14	0.59	<1	<2	19	<1	0.27
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	2-Sep-14	0.77	<1	<2	18	<1	0.2
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	9-Sep-14	0.77	<1	<2	17	<1	0.26
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	16-Sep-14	0.69	<1	<2	16	<1	0.25

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	23-Sep-14	0.6	<1	<2	17	<1	0.36
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	30-Sep-14	0.33	<1	<2	16	<1	0.6
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	7-Oct-14	0.48	<1	<2	15	<1	0.38
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	14-Oct-14	0.45	<1	<2	15	<1	0.34
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	21-Oct-14	0.62	<1	<2	15	<1	0.36
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	28-Oct-14	0.3	<1	<2	14	<1	0.35
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	4-Nov-14	0.55	<1	<2	13	<1	0.43
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	12-Nov-14	0.35	<1	<2	12	<1	0.53
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	18-Nov-14	0.27	<1	<2	8	<1	0.49
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	25-Nov-14	0.69	<1	<2	9	<1	0.4
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	2-Dec-14	0.65	<1	<2	8	<1	0.34
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	9-Dec-14	0.58	<1	<2	7	<1	0.33
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	16-Dec-14	0.7	<1	2	8	<1	0.5
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	23-Dec-14	0.76	<1	NA	7.5	<1	0.43
MPR-439	130 Ave. @ 251A St. (W. of 256 St.)	30-Dec-14	0.61	<1	NA	7	<1	0.41
MPR-440	232 St. @ 117 Ave.	7-Jan-14	0.72	<1	<2	5	<1	0.32
MPR-440	232 St. @ 117 Ave.	14-Jan-14	0.89	<1	<2	2	<1	0.47
MPR-440	232 St. @ 117 Ave.	21-Jan-14	0.9	<1	<2	5	<1	0.3
MPR-440	232 St. @ 117 Ave.	28-Jan-14	0.92	<1	<2	6	<1	0.26
MPR-440	232 St. @ 117 Ave.	4-Feb-14	0.96	<1	<2	5	<1	0.25
MPR-440	232 St. @ 117 Ave.	11-Feb-14	0.97	<1	<2	4	<1	0.25
MPR-440	232 St. @ 117 Ave.	18-Feb-14	1.1	<1	<2	5	<1	0.58
MPR-440	232 St. @ 117 Ave.	25-Feb-14	0.86	<1	<2	4	<1	0.5
MPR-440	232 St. @ 117 Ave.	4-Mar-14	1	<1	<2	5	<1	0.62
MPR-440	232 St. @ 117 Ave.	11-Mar-14	1	<1	4	5	<1	0.95
MPR-440	232 St. @ 117 Ave.	18-Mar-14	1.2	<1	<2	5	<1	0.56
MPR-440	232 St. @ 117 Ave.	25-Mar-14	0.93	<1	<2	6	<1	0.4
MPR-440	232 St. @ 117 Ave.	1-Apr-14	0.93	<1	<2	6	<1	0.43
MPR-440	232 St. @ 117 Ave.	8-Apr-14	1	<1	<2	7	<1	0.32
MPR-440	232 St. @ 117 Ave.	15-Apr-14	0.93	<1	<2	6	<1	0.27
MPR-440	232 St. @ 117 Ave.	22-Apr-14	0.67	<1	<2	8	<1	0.36
MPR-440	232 St. @ 117 Ave.	29-Apr-14	0.98	<1	<2	7	<1	0.36
MPR-440	232 St. @ 117 Ave.	6-May-14	1.2	<1	<2	8	<1	0.4
MPR-440	232 St. @ 117 Ave.	13-May-14	0.85	<1	<2	9	<1	0.34
MPR-440	232 St. @ 117 Ave.	20-May-14	0.88	<1	<2	10	<1	0.3
MPR-440	232 St. @ 117 Ave.	27-May-14	0.87	<1	<2	10	<1	0.32
MPR-440	232 St. @ 117 Ave.	3-Jun-14	0.77	<1	<2	10	<1	0.35

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-440	232 St. @ 117 Ave.	10-Jun-14	1	<1	<2	10	<1	0.27
MPR-440	232 St. @ 117 Ave.	17-Jun-14	0.92	<1	<2	11	<1	0.35
MPR-440	232 St. @ 117 Ave.	24-Jun-14	0.86	<1	<2	11	<1	0.27
MPR-440	232 St. @ 117 Ave.	2-Jul-14	0.83	<1	<2	12	<1	0.35
MPR-440	232 St. @ 117 Ave.	8-Jul-14	0.84	<1	<2	15	<1	0.42
MPR-440	232 St. @ 117 Ave.	15-Jul-14	0.89	<1	<2	15	<1	0.26
MPR-440	232 St. @ 117 Ave.	22-Jul-14	0.97	<1	<2	13	<1	0.2
MPR-440	232 St. @ 117 Ave.	29-Jul-14	1	<1	<2	13	<1	0.3
MPR-440	232 St. @ 117 Ave.	5-Aug-14	1.1	<1	<2	14	<1	0.27
MPR-440	232 St. @ 117 Ave.	12-Aug-14	1.1	<1	<2	15	<1	0.29
MPR-440	232 St. @ 117 Ave.	19-Aug-14	1	<1	<2	15	<1	0.23
MPR-440	232 St. @ 117 Ave.	26-Aug-14	1.1	<1	2	15	<1	0.25
MPR-440	232 St. @ 117 Ave.	2-Sep-14	1.1	<1	2	16	<1	0.24
MPR-440	232 St. @ 117 Ave.	9-Sep-14	1.2	<1	<2	15	<1	0.29
MPR-440	232 St. @ 117 Ave.	16-Sep-14	0.98	<1	<2	15	<1	0.32
MPR-440	232 St. @ 117 Ave.	23-Sep-14	1.2	<1	<2	16	<1	0.27
MPR-440	232 St. @ 117 Ave.	30-Sep-14	1.1	<1	<2	14	<1	0.73
MPR-440	232 St. @ 117 Ave.	7-Oct-14	1	<1	<2	15	<1	0.64
MPR-440	232 St. @ 117 Ave.	14-Oct-14	1.1	<1	<2	14	<1	0.34
MPR-440	232 St. @ 117 Ave.	21-Oct-14	1.1	<1	<2	13	<1	0.47
MPR-440	232 St. @ 117 Ave.	28-Oct-14	0.91	<1	<2	12	<1	0.32
MPR-440	232 St. @ 117 Ave.	4-Nov-14	0.98	<1	<2	11	<1	0.55
MPR-440	232 St. @ 117 Ave.	12-Nov-14	1.2	<1	<2	10	<1	0.73
MPR-440	232 St. @ 117 Ave.	18-Nov-14	1	<1	<2	9	<1	0.59
MPR-440	232 St. @ 117 Ave.	25-Nov-14	1.2	<1	<2	9	<1	0.61
MPR-440	232 St. @ 117 Ave.	2-Dec-14	0.97	<1	<2	7	<1	0.5
MPR-440	232 St. @ 117 Ave.	9-Dec-14	1.3	<1	<2	7	<1	0.48
MPR-440	232 St. @ 117 Ave.	16-Dec-14	1	<1	<2	7	<1	0.71
MPR-440	232 St. @ 117 Ave.	23-Dec-14	0.91	<1	NA	7	<1	0.69
MPR-440	232 St. @ 117 Ave.	30-Dec-14	0.72	<1	NA	6	<1	0.52
MPR-441	132 Ave. @ Cedar Way	7-Jan-14	0.07	<1	2	5	<1	0.39
MPR-441	132 Ave. @ Cedar Way	14-Jan-14	0.04	<1	<2	2	<1	0.31
MPR-441	132 Ave. @ Cedar Way	21-Jan-14	0.21	<1	<2	6	<1	0.24
MPR-441	132 Ave. @ Cedar Way	28-Jan-14	0.12	<1	<2	6	<1	0.27
MPR-441	132 Ave. @ Cedar Way	4-Feb-14	0.24	<1	<2	5	<1	0.22
MPR-441	132 Ave. @ Cedar Way	11-Feb-14	0.22	<1	<2	4	<1	0.27
MPR-441	132 Ave. @ Cedar Way	18-Feb-14	0.36	<1	<2	5	<1	0.48

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-441	132 Ave. @ Cedar Way	25-Feb-14	0.23	<1	<2	5	<1	0.31
MPR-441	132 Ave. @ Cedar Way	4-Mar-14	0.64	<1	<2	5	<1	1.6
MPR-441	132 Ave. @ Cedar Way	11-Mar-14	0.78	<1	<2	6	<1	0.65
MPR-441	132 Ave. @ Cedar Way	18-Mar-14	0.82	<1	<2	6	<1	0.59
MPR-441	132 Ave. @ Cedar Way	25-Mar-14	0.65	<1	<2	6	<1	0.37
MPR-441	132 Ave. @ Cedar Way	1-Apr-14	0.58	<1	<2	7	<1	0.46
MPR-441	132 Ave. @ Cedar Way	8-Apr-14	0.71	<1	<2	8	<1	0.29
MPR-441	132 Ave. @ Cedar Way	15-Apr-14	0.6	<1	<2	9	<1	0.22
MPR-441	132 Ave. @ Cedar Way	22-Apr-14	0.62	<1	<2	9	<1	0.28
MPR-441	132 Ave. @ Cedar Way	29-Apr-14	0.59	<1	<2	9	<1	0.29
MPR-441	132 Ave. @ Cedar Way	6-May-14	0.63	<1	<2	11	<1	0.33
MPR-441	132 Ave. @ Cedar Way	13-May-14	0.65	<1	<2	11	<1	0.34
MPR-441	132 Ave. @ Cedar Way	20-May-14	0.45	<1	<2	12	<1	0.23
MPR-441	132 Ave. @ Cedar Way	27-May-14	0.66	<1	<2	13	<1	0.32
MPR-441	132 Ave. @ Cedar Way	3-Jun-14	0.48	<1	<2	13	<1	0.36
MPR-441	132 Ave. @ Cedar Way	10-Jun-14	0.63	<1	<2	14	<1	0.3
MPR-441	132 Ave. @ Cedar Way	17-Jun-14	0.24	<1	<2	13	<1	0.22
MPR-441	132 Ave. @ Cedar Way	24-Jun-14	0.52	<1	<2	14	<1	0.23
MPR-441	132 Ave. @ Cedar Way	2-Jul-14	0.2	<1	<2	16	<1	0.23
MPR-441	132 Ave. @ Cedar Way	8-Jul-14	0.17	<1	<2	18	<1	0.41
MPR-441	132 Ave. @ Cedar Way	15-Jul-14	0.09	<1	<2	18	<1	0.39
MPR-441	132 Ave. @ Cedar Way	22-Jul-14	0.05	<1	<2	18	<1	0.17
MPR-441	132 Ave. @ Cedar Way	29-Jul-14	0.13	<1	70	18	<1	0.26
MPR-441	132 Ave. @ Cedar Way	5-Aug-14	0.09	<1	<2	19	<1	0.21
MPR-441	132 Ave. @ Cedar Way	12-Aug-14	0.02	<1	<2	19	<1	0.23
MPR-441	132 Ave. @ Cedar Way	19-Aug-14	0.46	<1	4	19	<1	0.28
MPR-441	132 Ave. @ Cedar Way	26-Aug-14	0.04	<1	8	19	<1	0.27
MPR-441	132 Ave. @ Cedar Way	2-Sep-14	<0.01	<1	12	19	<1	0.22
MPR-441	132 Ave. @ Cedar Way	9-Sep-14	0.03	<1	2	19	<1	0.23
MPR-441	132 Ave. @ Cedar Way	16-Sep-14	0.01	<1	8	18	<1	0.25
MPR-441	132 Ave. @ Cedar Way	23-Sep-14	0.02	<1	14	18	<1	0.23
MPR-441	132 Ave. @ Cedar Way	30-Sep-14	0.14	<1	<2	16	<1	0.51
MPR-441	132 Ave. @ Cedar Way	7-Oct-14	0.14	<1	4	16	<1	0.5
MPR-441	132 Ave. @ Cedar Way	14-Oct-14	0.25	<1	<2	16	<1	0.32
MPR-441	132 Ave. @ Cedar Way	21-Oct-14	0.42	<1	<2	15	<1	0.36
MPR-441	132 Ave. @ Cedar Way	28-Oct-14	0.05	<1	8	13	<1	0.42
MPR-441	132 Ave. @ Cedar Way	4-Nov-14	0.04	<1	2	13	<1	0.43

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-441	132 Ave. @ Cedar Way	12-Nov-14	0.06	<1	<2	12	<1	0.47
MPR-441	132 Ave. @ Cedar Way	18-Nov-14	0.1	<1	<2	10	<1	0.55
MPR-441	132 Ave. @ Cedar Way	25-Nov-14	0.04	<1	<2	9	<1	0.43
MPR-441	132 Ave. @ Cedar Way	2-Dec-14	0.04	<1	<2	8	<1	0.39
MPR-441	132 Ave. @ Cedar Way	9-Dec-14	0.29	<1	<2	7	<1	0.41
MPR-441	132 Ave. @ Cedar Way	16-Dec-14	0.03	<1	<2	8	<1	0.4
MPR-441	132 Ave. @ Cedar Way	23-Dec-14	0.09	<1	NA	8	<1	0.49
MPR-441	132 Ave. @ Cedar Way	30-Dec-14	0.01	<1	NA	7	<1	0.46
MPR-442	Princess St. @ Ditton St.	7-Jan-14	0.42	<1	<2	6	<1	0.3
MPR-442	Princess St. @ Ditton St.	14-Jan-14	0.52	<1	<2	3	<1	0.36
MPR-442	Princess St. @ Ditton St.	21-Jan-14	0.55	<1	<2	6	<1	0.29
MPR-442	Princess St. @ Ditton St.	28-Jan-14	0.52	<1	<2	7	<1	0.28
MPR-442	Princess St. @ Ditton St.	4-Feb-14	0.58	<1	<2	5	<1	0.28
MPR-442	Princess St. @ Ditton St.	11-Feb-14	0.61	<1	<2	5	<1	0.27
MPR-442	Princess St. @ Ditton St.	18-Feb-14	0.8	<1	<2	5	<1	0.52
MPR-442	Princess St. @ Ditton St.	25-Feb-14	0.99	<1	2	5	<1	1.7
MPR-442	Princess St. @ Ditton St.	4-Mar-14	0.68	<1	<2	5	<1	0.28
MPR-442	Princess St. @ Ditton St.	11-Mar-14	0.55	<1	<2	6	<1	0.64
MPR-442	Princess St. @ Ditton St.	18-Mar-14	0.56	<1	<2	7	<1	0.55
MPR-442	Princess St. @ Ditton St.	25-Mar-14	0.44	<1	<2	7	<1	0.36
MPR-442	Princess St. @ Ditton St.	1-Apr-14	0.42	<1	<2	7	<1	0.31
MPR-442	Princess St. @ Ditton St.	8-Apr-14	0.61	<1	<2	9	<1	0.26
MPR-442	Princess St. @ Ditton St.	15-Apr-14	0.46	<1	<2	9	<1	0.25
MPR-442	Princess St. @ Ditton St.	22-Apr-14	0.42	<1	<2	9	<1	0.28
MPR-442	Princess St. @ Ditton St.	29-Apr-14	0.45	<1	<2	10	<1	0.34
MPR-442	Princess St. @ Ditton St.	6-May-14	0.49	<1	<2	11	<1	0.29
MPR-442	Princess St. @ Ditton St.	13-May-14	0.46	<1	<2	11	<1	0.38
MPR-442	Princess St. @ Ditton St.	20-May-14	0.55	<1	<2	12	<1	0.28
MPR-442	Princess St. @ Ditton St.	27-May-14	0.46	<1	<2	13	<1	0.29
MPR-442	Princess St. @ Ditton St.	3-Jun-14	0.4	<1	<2	13	<1	0.31
MPR-442	Princess St. @ Ditton St.	10-Jun-14	0.57	<1	<2	14	<1	0.26
MPR-442	Princess St. @ Ditton St.	17-Jun-14	0.41	<1	<2	14	<1	0.27
MPR-442	Princess St. @ Ditton St.	24-Jun-14	0.41	<1	<2	14	<1	0.26
MPR-442	Princess St. @ Ditton St.	2-Jul-14	0.47	<1	<2	14	<1	0.51
MPR-442	Princess St. @ Ditton St.	8-Jul-14	0.49	<1	<2	17	<1	0.41
MPR-442	Princess St. @ Ditton St.	15-Jul-14	0.51	<1	<2	18	<1	0.21
MPR-442	Princess St. @ Ditton St.	22-Jul-14	0.49	<1	<2	15	<1	0.22

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-442	Princess St. @ Ditton St.	29-Jul-14	0.52	<1	<2	16	<1	0.23
MPR-442	Princess St. @ Ditton St.	5-Aug-14	0.62	<1	2	15	<1	0.3
MPR-442	Princess St. @ Ditton St.	12-Aug-14	0.63	<1	4	16	<1	0.97
MPR-442	Princess St. @ Ditton St.	19-Aug-14	0.59	<1	<2	17	<1	0.24
MPR-442	Princess St. @ Ditton St.	26-Aug-14	0.52	<1	2	17	<1	0.25
MPR-442	Princess St. @ Ditton St.	2-Sep-14	0.56	<1	2	17	<1	0.24
MPR-442	Princess St. @ Ditton St.	9-Sep-14	0.57	<1	2	17	<1	0.25
MPR-442	Princess St. @ Ditton St.	16-Sep-14	0.5	<1	<2	17	<1	0.24
MPR-442	Princess St. @ Ditton St.	23-Sep-14	0.47	<1	<2	18	<1	0.23
MPR-442	Princess St. @ Ditton St.	30-Sep-14	0.44	<1	<2	16	<1	0.51
MPR-442	Princess St. @ Ditton St.	7-Oct-14	0.37	<1	<2	16	<1	0.49
MPR-442	Princess St. @ Ditton St.	14-Oct-14	0.44	<1	<2	16	<1	0.3
MPR-442	Princess St. @ Ditton St.	21-Oct-14	0.24	<1	4	15	<1	0.38
MPR-442	Princess St. @ Ditton St.	28-Oct-14	0.34	<1	2	14	<1	0.53
MPR-442	Princess St. @ Ditton St.	4-Nov-14	0.38	<1	<2	13	<1	0.47
MPR-442	Princess St. @ Ditton St.	12-Nov-14	0.47	<1	<2	12	<1	0.61
MPR-442	Princess St. @ Ditton St.	18-Nov-14	0.39	<1	<2	9	<1	0.48
MPR-442	Princess St. @ Ditton St.	25-Nov-14	0.51	<1	<2	10	<1	0.52
MPR-442	Princess St. @ Ditton St.	2-Dec-14	0.43	<1	<2	9	<1	0.57
MPR-442	Princess St. @ Ditton St.	9-Dec-14	0.72	<1	<2	8	<1	0.39
MPR-442	Princess St. @ Ditton St.	16-Dec-14	0.66	<1	<2	8	<1	0.48
MPR-442	Princess St. @ Ditton St.	23-Dec-14	0.54	<1	NA	8	<1	0.62
MPR-442	Princess St. @ Ditton St.	30-Dec-14	0.38	<1	NA	7	<1	0.48
MPR-443	216 St. @ Donovan	7-Jan-14	0.66	<1	<2	6	<1	0.34
MPR-443	216 St. @ Donovan	14-Jan-14	0.72	<1	<2	2	<1	0.35
MPR-443	216 St. @ Donovan	21-Jan-14	0.82	<1	<2	6	<1	0.29
MPR-443	216 St. @ Donovan	28-Jan-14	0.79	<1	<2	6	<1	0.28
MPR-443	216 St. @ Donovan	4-Feb-14	0.74	<1	<2	4	<1	0.24
MPR-443	216 St. @ Donovan	11-Feb-14	0.76	<1	<2	4	<1	0.26
MPR-443	216 St. @ Donovan	18-Feb-14	0.94	<1	<2	5	<1	0.52
MPR-443	216 St. @ Donovan	25-Feb-14	0.93	<1	<2	5	<1	0.35
MPR-443	216 St. @ Donovan	4-Mar-14	1	<1	2	4	<1	4.2
MPR-443	216 St. @ Donovan	11-Mar-14	1.2	<1	<2	5	<1	1.3
MPR-443	216 St. @ Donovan	18-Mar-14	1.1	<1	<2	6	<1	0.51
MPR-443	216 St. @ Donovan	25-Mar-14	0.93	<1	<2	6	<1	0.37
MPR-443	216 St. @ Donovan	1-Apr-14	0.71	<1	<2	6	<1	0.4
MPR-443	216 St. @ Donovan	8-Apr-14	1	<1	<2	8	<1	0.36

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-443	216 St. @ Donovan	15-Apr-14	0.92	<1	2	7	<1	0.31
MPR-443	216 St. @ Donovan	22-Apr-14	0.61	<1	<2	8	<1	0.36
MPR-443	216 St. @ Donovan	29-Apr-14	0.88	<1	<2	8	<1	0.34
MPR-443	216 St. @ Donovan	6-May-14	1.2	<1	<2	9	<1	0.42
MPR-443	216 St. @ Donovan	13-May-14	0.71	<1	<2	10	<1	0.3
MPR-443	216 St. @ Donovan	20-May-14	0.92	<1	<2	10	<1	0.31
MPR-443	216 St. @ Donovan	27-May-14	0.85	<1	<2	10	<1	0.31
MPR-443	216 St. @ Donovan	3-Jun-14	1	<1	<2	10	<1	0.37
MPR-443	216 St. @ Donovan	10-Jun-14	0.91	<1	<2	11	<1	0.4
MPR-443	216 St. @ Donovan	17-Jun-14	0.82	<1	<2	10	<1	0.41
MPR-443	216 St. @ Donovan	24-Jun-14	0.93	<1	<2	12	<1	0.31
MPR-443	216 St. @ Donovan	2-Jul-14	0.78	<1	2	13	<1	0.25
MPR-443	216 St. @ Donovan	8-Jul-14	0.88	<1	<2	15	<1	0.28
MPR-443	216 St. @ Donovan	15-Jul-14	0.84	<1	<2	15	<1	0.21
MPR-443	216 St. @ Donovan	22-Jul-14	0.8	<1	<2	14	<1	0.2
MPR-443	216 St. @ Donovan	29-Jul-14	0.93	<1	<2	15	<1	0.23
MPR-443	216 St. @ Donovan	5-Aug-14	1.2	<1	<2	15	<1	0.27
MPR-443	216 St. @ Donovan	12-Aug-14	1.1	<1	<2	16	<1	0.22
MPR-443	216 St. @ Donovan	19-Aug-14	1	<1	<2	15	<1	0.26
MPR-443	216 St. @ Donovan	26-Aug-14	1	<1	6	16	<1	0.24
MPR-443	216 St. @ Donovan	2-Sep-14	0.95	<1	2	16	<1	0.23
MPR-443	216 St. @ Donovan	9-Sep-14	0.99	<1	<2	16	<1	0.28
MPR-443	216 St. @ Donovan	16-Sep-14	0.95	<1	4	16	<1	0.32
MPR-443	216 St. @ Donovan	23-Sep-14	0.8	<1	<2	16	<1	0.34
MPR-443	216 St. @ Donovan	30-Sep-14	1	<1	<2	14	<1	0.78
MPR-443	216 St. @ Donovan	7-Oct-14	1	<1	<2	14	<1	0.52
MPR-443	216 St. @ Donovan	14-Oct-14	1.1	<1	<2	14	<1	0.28
MPR-443	216 St. @ Donovan	21-Oct-14	1	<1	<2	13	<1	1
MPR-443	216 St. @ Donovan	28-Oct-14	0.89	<1	<2	12	<1	0.59
MPR-443	216 St. @ Donovan	4-Nov-14	0.81	<1	<2	12	<1	0.56
MPR-443	216 St. @ Donovan	12-Nov-14	1	<1	<2	10	<1	0.66
MPR-443	216 St. @ Donovan	18-Nov-14	0.86	<1	<2	6	<1	0.53
MPR-443	216 St. @ Donovan	25-Nov-14	1	<1	<2	9	<1	0.61
MPR-443	216 St. @ Donovan	2-Dec-14	0.88	<1	<2	7	<1	0.54
MPR-443	216 St. @ Donovan	9-Dec-14	1.2	<1	4	7	<1	0.43
MPR-443	216 St. @ Donovan	16-Dec-14	0.95	<1	<2	7	<1	0.55
MPR-443	216 St. @ Donovan	23-Dec-14	0.73	<1	NA	7.6	<1	0.59

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-443	216 St. @ Donovan	30-Dec-14	0.65	<1	NA	6	<1	0.56
MPR-444	Foreman Drive @ 232nd St.	7-Jan-14	0.35	<1	<2	5	<1	0.29
MPR-444	Foreman Drive @ 232nd St.	14-Jan-14	0.59	<1	<2	2	<1	0.32
MPR-444	Foreman Drive @ 232nd St.	21-Jan-14	0.59	<1	<2	6	<1	0.29
MPR-444	Foreman Drive @ 232nd St.	28-Jan-14	0.55	<1	<2	6	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	4-Feb-14	0.51	<1	<2	5	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	11-Feb-14	0.69	<1	<2	4	<1	0.26
MPR-444	Foreman Drive @ 232nd St.	18-Feb-14	0.72	<1	<2	5	<1	0.5
MPR-444	Foreman Drive @ 232nd St.	25-Feb-14	1.3	<1	<2	5	<1	0.36
MPR-444	Foreman Drive @ 232nd St.	4-Mar-14	0.8	<1	<2	5	<1	0.3
MPR-444	Foreman Drive @ 232nd St.	11-Mar-14	0.68	<1	<2	6	<1	0.72
MPR-444	Foreman Drive @ 232nd St.	18-Mar-14	0.79	<1	<2	6	<1	0.65
MPR-444	Foreman Drive @ 232nd St.	25-Mar-14	0.65	<1	<2	6	<1	0.4
MPR-444	Foreman Drive @ 232nd St.	1-Apr-14	0.53	<1	<2	7	<1	0.36
MPR-444	Foreman Drive @ 232nd St.	8-Apr-14	0.66	<1	<2	8	<1	0.29
MPR-444	Foreman Drive @ 232nd St.	15-Apr-14	0.66	<1	<2	8	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	22-Apr-14	0.5	<1	<2	8	<1	0.26
MPR-444	Foreman Drive @ 232nd St.	29-Apr-14	0.59	<1	<2	9	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	6-May-14	0.72	<1	<2	11	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	13-May-14	0.67	<1	<2	10	<1	0.37
MPR-444	Foreman Drive @ 232nd St.	20-May-14	0.52	<1	<2	12	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	27-May-14	0.71	<1	<2	12	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	3-Jun-14	0.61	<1	<2	12	<1	0.28
MPR-444	Foreman Drive @ 232nd St.	10-Jun-14	0.66	<1	<2	13	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	17-Jun-14	0.5	<1	<2	13	<1	0.21
MPR-444	Foreman Drive @ 232nd St.	24-Jun-14	0.68	<1	<2	13	<1	0.23
MPR-444	Foreman Drive @ 232nd St.	2-Jul-14	0.68	<1	<2	13	<1	0.26
MPR-444	Foreman Drive @ 232nd St.	8-Jul-14	0.55	<1	<2	15	<1	0.35
MPR-444	Foreman Drive @ 232nd St.	15-Jul-14	0.7	<1	<2	15	<1	0.31
MPR-444	Foreman Drive @ 232nd St.	22-Jul-14	0.65	<1	<2	15	<1	0.2
MPR-444	Foreman Drive @ 232nd St.	29-Jul-14	0.67	<1	2	15	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	5-Aug-14	0.89	<1	<2	16	<1	0.23
MPR-444	Foreman Drive @ 232nd St.	12-Aug-14	0.95	<1	<2	17	<1	0.2
MPR-444	Foreman Drive @ 232nd St.	19-Aug-14	0.8	<1	<2	17	<1	0.25
MPR-444	Foreman Drive @ 232nd St.	26-Aug-14	0.72	<1	2	17	<1	0.23
MPR-444	Foreman Drive @ 232nd St.	2-Sep-14	0.86	<1	<2	16	<1	0.26
MPR-444	Foreman Drive @ 232nd St.	9-Sep-14	0.76	<1	<2	17	<1	0.32

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-444	Foreman Drive @ 232nd St.	16-Sep-14	0.72	<1	<2	17	<1	0.27
MPR-444	Foreman Drive @ 232nd St.	23-Sep-14	0.7	<1	2	16	<1	0.29
MPR-444	Foreman Drive @ 232nd St.	30-Sep-14	0.32	<1	4	15	<1	0.44
MPR-444	Foreman Drive @ 232nd St.	7-Oct-14	0.71	<1	<2	15	<1	0.51
MPR-444	Foreman Drive @ 232nd St.	14-Oct-14	0.77	<1	<2	15	<1	0.31
MPR-444	Foreman Drive @ 232nd St.	21-Oct-14	0.31	<1	<2	14	<1	0.32
MPR-444	Foreman Drive @ 232nd St.	28-Oct-14	0.31	<1	<2	13	<1	0.53
MPR-444	Foreman Drive @ 232nd St.	4-Nov-14	0.37	<1	<2	12	<1	0.44
MPR-444	Foreman Drive @ 232nd St.	12-Nov-14	0.33	<1	<2	11	<1	0.59
MPR-444	Foreman Drive @ 232nd St.	18-Nov-14	0.75	<1	<2	9	<1	0.46
MPR-444	Foreman Drive @ 232nd St.	25-Nov-14	0.6	<1	<2	9	<1	0.53
MPR-444	Foreman Drive @ 232nd St.	2-Dec-14	0.39	<1	<2	8	<1	0.37
MPR-444	Foreman Drive @ 232nd St.	9-Dec-14	0.87	<1	<2	7	<1	0.38
MPR-444	Foreman Drive @ 232nd St.	16-Dec-14	0.67	<1	8	8	<1	0.48
MPR-444	Foreman Drive @ 232nd St.	23-Dec-14	0.39	<1	NA	7.4	<1	0.67
MPR-444	Foreman Drive @ 232nd St.	30-Dec-14	0.56	<1	NA	7	<1	0.45
MPR-445	127th Ave. and 266 St.	7-Jan-14	0.89	<1	<2	6	<1	0.3
MPR-445	127th Ave. and 266 St.	14-Jan-14	0.76	<1	<2	1	<1	0.24
MPR-445	127th Ave. and 266 St.	21-Jan-14	0.84	<1	<2	6	<1	0.26
MPR-445	127th Ave. and 266 St.	28-Jan-14	0.67	<1	<2	6	<1	0.23
MPR-445	127th Ave. and 266 St.	4-Feb-14	0.6	<1	<2	6	<1	0.25
MPR-445	127th Ave. and 266 St.	11-Feb-14	0.7	<1	<2	5	<1	0.24
MPR-445	127th Ave. and 266 St.	18-Feb-14	0.55	<1	6	5	<1	0.31
MPR-445	127th Ave. and 266 St.	25-Feb-14	0.63	<1	<2	5	<1	0.34
MPR-445	127th Ave. and 266 St.	4-Mar-14	0.4	<1	<2	5	<1	0.37
MPR-445	127th Ave. and 266 St.	11-Mar-14	0.62	<1	<2	5	<1	0.31
MPR-445	127th Ave. and 266 St.	18-Mar-14	0.87	<1	<2	6	<1	1.1
MPR-445	127th Ave. and 266 St.	25-Mar-14	0.83	<1	<2	7	<1	0.38
MPR-445	127th Ave. and 266 St.	1-Apr-14	0.78	<1	<2	7	<1	0.37
MPR-445	127th Ave. and 266 St.	8-Apr-14	0.75	<1	<2	8	<1	0.27
MPR-445	127th Ave. and 266 St.	15-Apr-14	0.76	<1	<2	9	<1	0.24
MPR-445	127th Ave. and 266 St.	22-Apr-14	0.79	<1	<2	9	<1	0.22
MPR-445	127th Ave. and 266 St.	29-Apr-14	0.65	<1	<2	10	<1	0.21
MPR-445	127th Ave. and 266 St.	6-May-14	0.87	<1	<2	11	<1	0.26
MPR-445	127th Ave. and 266 St.	13-May-14	0.7	<1	140	11	<1	0.4
MPR-445	127th Ave. and 266 St.	20-May-14	0.51	<1	<2	13	<1	0.35
MPR-445	127th Ave. and 266 St.	27-May-14	0.37	<1	<2	14	<1	0.44

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-445	127th Ave. and 266 St.	3-Jun-14	0.78	<1	<2	14	<1	0.33
MPR-445	127th Ave. and 266 St.	10-Jun-14	0.58	<1	<2	15	<1	0.28
MPR-445	127th Ave. and 266 St.	17-Jun-14	0.6	<1	<2	14	<1	0.28
MPR-445	127th Ave. and 266 St.	24-Jun-14	0.3	<1	<2	15	<1	0.32
MPR-445	127th Ave. and 266 St.	2-Jul-14	0.29	<1	2	15	<1	0.2
MPR-445	127th Ave. and 266 St.	8-Jul-14	0.46	<1	<2	18	<1	0.24
MPR-445	127th Ave. and 266 St.	15-Jul-14	0.74	<1	<2	19	<1	0.25
MPR-445	127th Ave. and 266 St.	22-Jul-14	0.5	<1	<2	18	<1	0.19
MPR-445	127th Ave. and 266 St.	29-Jul-14	0.74	<1	<2	18	<1	0.22
MPR-445	127th Ave. and 266 St.	5-Aug-14	0.94	<1	<2	19	<1	0.25
MPR-445	127th Ave. and 266 St.	12-Aug-14	0.7	<1	<2	19	<1	2.6
MPR-445	127th Ave. and 266 St.	19-Aug-14	0.65	<1	<2	19	<1	0.26
MPR-445	127th Ave. and 266 St.	26-Aug-14	1	<1	<2	18	<1	0.47
MPR-445	127th Ave. and 266 St.	2-Sep-14	0.67	<1	2	18	<1	0.22
MPR-445	127th Ave. and 266 St.	9-Sep-14	0.62	<1	<2	18	<1	0.24
MPR-445	127th Ave. and 266 St.	16-Sep-14	0.61	<1	<2	18	<1	0.22
MPR-445	127th Ave. and 266 St.	23-Sep-14	0.44	<1	<2	17	<1	0.27
MPR-445	127th Ave. and 266 St.	30-Sep-14	0.12	<1	6	17	<1	0.29
MPR-445	127th Ave. and 266 St.	7-Oct-14	0.11	<1	2	16	<1	0.37
MPR-445	127th Ave. and 266 St.	14-Oct-14	0.12	<1	4	16	<1	0.36
MPR-445	127th Ave. and 266 St.	21-Oct-14	0.11	<1	<2	15	<1	0.29
MPR-445	127th Ave. and 266 St.	28-Oct-14	0.15	<1	<2	14	<1	0.33
MPR-445	127th Ave. and 266 St.	4-Nov-14	0.03	<1	12	13	<1	0.38
MPR-445	127th Ave. and 266 St.	12-Nov-14	0.03	<1	6	12	<1	0.49
MPR-445	127th Ave. and 266 St.	18-Nov-14	0.15	<1	10	10	<1	0.44
MPR-445	127th Ave. and 266 St.	25-Nov-14	0.22	<1	4	10	<1	0.38
MPR-445	127th Ave. and 266 St.	2-Dec-14	0.11	<1	<2	9	<1	0.43
MPR-445	127th Ave. and 266 St.	9-Dec-14	0.04	<1	6	8	<1	0.31
MPR-445	127th Ave. and 266 St.	16-Dec-14	0.64	<1	<2	8	<1	0.61
MPR-445	127th Ave. and 266 St.	23-Dec-14	0.79	<1	NA	8	<1	0.48
MPR-445	127th Ave. and 266 St.	30-Dec-14	0.34	<1	NA	8	<1	0.41
MPR-446	128th Ave and Willow Place	7-Jan-14	0.96	<1	<2	6	<1	0.25
MPR-446	128th Ave and Willow Place	14-Jan-14	0.75	<1	<2	1	<1	0.26
MPR-446	128th Ave and Willow Place	21-Jan-14	0.74	<1	<2	6	<1	0.33
MPR-446	128th Ave and Willow Place	28-Jan-14	0.83	<1	<2	6	<1	0.27
MPR-446	128th Ave and Willow Place	4-Feb-14	0.94	<1	2	5	<1	0.31
MPR-446	128th Ave and Willow Place	11-Feb-14	0.67	<1	<2	5	<1	0.26

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-446	128th Ave and Willow Place	18-Feb-14	0.71	<1	6	5	<1	0.4
MPR-446	128th Ave and Willow Place	25-Feb-14	0.62	<1	<2	4	<1	0.38
MPR-446	128th Ave and Willow Place	4-Mar-14	0.69	<1	<2	4	<1	0.38
MPR-446	128th Ave and Willow Place	11-Mar-14	0.8	<1	<2	5	<1	1.4
MPR-446	128th Ave and Willow Place	18-Mar-14	0.59	<1	<2	6	<1	0.51
MPR-446	128th Ave and Willow Place	25-Mar-14	0.8	<1	<2	6	<1	0.65
MPR-446	128th Ave and Willow Place	1-Apr-14	0.79	<1	<2	7	<1	0.38
MPR-446	128th Ave and Willow Place	8-Apr-14	0.61	<1	<2	8	<1	0.36
MPR-446	128th Ave and Willow Place	15-Apr-14	0.52	<1	<2	8	<1	0.25
MPR-446	128th Ave and Willow Place	22-Apr-14	0.52	<1	<2	8	<1	0.32
MPR-446	128th Ave and Willow Place	29-Apr-14	0.49	<1	<2	8	<1	0.26
MPR-446	128th Ave and Willow Place	6-May-14	0.63	<1	<2	9	<1	0.27
MPR-446	128th Ave and Willow Place	13-May-14	0.39	<1	<2	10	<1	0.26
MPR-446	128th Ave and Willow Place	20-May-14	0.32	<1	<2	12	<1	0.31
MPR-446	128th Ave and Willow Place	27-May-14	0.28	<1	<2	12	<1	0.3
MPR-446	128th Ave and Willow Place	3-Jun-14	0.31	<1	<2	12	<1	0.39
MPR-446	128th Ave and Willow Place	10-Jun-14	0.38	<1	<2	13	<1	0.42
MPR-446	128th Ave and Willow Place	17-Jun-14	0.34	<1	2	12	<1	0.31
MPR-446	128th Ave and Willow Place	24-Jun-14	0.8	<1	<2	13	<1	0.34
MPR-446	128th Ave and Willow Place	2-Jul-14	0.76	<1	<2	14	<1	0.24
MPR-446	128th Ave and Willow Place	8-Jul-14	0.79	<1	<2	17	<1	0.23
MPR-446	128th Ave and Willow Place	15-Jul-14	0.13	<1	<2	19	<1	0.26
MPR-446	128th Ave and Willow Place	22-Jul-14	0.07	<1	2	16	<1	0.23
MPR-446	128th Ave and Willow Place	29-Jul-14	0.1	<1	<2	16	<1	0.23
MPR-446	128th Ave and Willow Place	5-Aug-14	0.05	<1	<2	17	<1	0.25
MPR-446	128th Ave and Willow Place	12-Aug-14	0.5	<1	<2	17	<1	0.24
MPR-446	128th Ave and Willow Place	19-Aug-14	0.07	<1	<2	17	<1	0.25
MPR-446	128th Ave and Willow Place	26-Aug-14	0.68	<1	<2	17	<1	0.23
MPR-446	128th Ave and Willow Place	2-Sep-14	0.44	<1	<2	16	<1	0.26
MPR-446	128th Ave and Willow Place	9-Sep-14	0.03	<1	<2	16	<1	0.24
MPR-446	128th Ave and Willow Place	16-Sep-14	0.05	<1	<2	16	<1	0.28
MPR-446	128th Ave and Willow Place	23-Sep-14	0.01	<1	<2	12	<1	0.38
MPR-446	128th Ave and Willow Place	30-Sep-14	0.11	<1	2	15	<1	0.42
MPR-446	128th Ave and Willow Place	7-Oct-14	0.11	<1	4	14	<1	0.31
MPR-446	128th Ave and Willow Place	14-Oct-14	0.22	<1	36	14	<1	0.38
MPR-446	128th Ave and Willow Place	21-Oct-14	0.36	<1	<2	13	<1	0.43
MPR-446	128th Ave and Willow Place	28-Oct-14	0.53	<1	<2	12	<1	0.45

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-446	128th Ave and Willow Place	4-Nov-14	0.52	<1	<2	12	<1	0.44
MPR-446	128th Ave and Willow Place	12-Nov-14	1	<1	<2	11	<1	0.58
MPR-446	128th Ave and Willow Place	18-Nov-14	0.49	<1	<2	8	<1	0.66
MPR-446	128th Ave and Willow Place	25-Nov-14	0.68	<1	<2	9	<1	0.52
MPR-446	128th Ave and Willow Place	2-Dec-14	0.67	<1	<2	8	<1	0.58
MPR-446	128th Ave and Willow Place	9-Dec-14	0.68	<1	<2	8	<1	0.52
MPR-446	128th Ave and Willow Place	16-Dec-14	0.72	<1	<2	8	<1	0.5
MPR-446	128th Ave and Willow Place	23-Dec-14	1	<1	NA	8	<1	0.47
MPR-446	128th Ave and Willow Place	30-Dec-14	0.75	<1	NA	7	<1	0.47
MPR-447	117 Ave. @ 210 St.	7-Jan-14	0.63	<1	2	6	<1	0.27
MPR-447	117 Ave. @ 210 St.	14-Jan-14	0.79	<1	<2	2	<1	0.36
MPR-447	117 Ave. @ 210 St.	21-Jan-14	0.78	<1	<2	6	<1	0.3
MPR-447	117 Ave. @ 210 St.	28-Jan-14	0.71	<1	4	7	<1	0.27
MPR-447	117 Ave. @ 210 St.	4-Feb-14	0.8	<1	2	5	<1	0.24
MPR-447	117 Ave. @ 210 St.	11-Feb-14	0.84	<1	<2	4	<1	0.26
MPR-447	117 Ave. @ 210 St.	18-Feb-14	1	<1	2	5	<1	0.56
MPR-447	117 Ave. @ 210 St.	25-Feb-14	0.98	<1	<2	5	<1	0.37
MPR-447	117 Ave. @ 210 St.	4-Mar-14	0.91	<1	8	5	<1	2.9
MPR-447	117 Ave. @ 210 St.	11-Mar-14	0.96	<1	6	5	<1	0.98
MPR-447	117 Ave. @ 210 St.	18-Mar-14	0.91	<1	<2	6	<1	0.54
MPR-447	117 Ave. @ 210 St.	25-Mar-14	0.74	<1	<2	6	<1	0.35
MPR-447	117 Ave. @ 210 St.	1-Apr-14	0.64	<1	2	7	<1	0.37
MPR-447	117 Ave. @ 210 St.	8-Apr-14	0.83	<1	<2	8	<1	0.31
MPR-447	117 Ave. @ 210 St.	15-Apr-14	0.69	<1	<2	9	<1	0.24
MPR-447	117 Ave. @ 210 St.	22-Apr-14	0.58	<1	<2	9	<1	0.35
MPR-447	117 Ave. @ 210 St.	29-Apr-14	0.78	<1	<2	9	<1	0.29
MPR-447	117 Ave. @ 210 St.	6-May-14	0.9	<1	<2	10	<1	0.41
MPR-447	117 Ave. @ 210 St.	13-May-14	0.59	<1	<2	10	<1	0.4
MPR-447	117 Ave. @ 210 St.	20-May-14	0.77	<1	<2	12	<1	0.24
MPR-447	117 Ave. @ 210 St.	27-May-14	0.73	<1	2	12	<1	0.26
MPR-447	117 Ave. @ 210 St.	3-Jun-14	0.83	<1	<2	12	<1	0.3
MPR-447	117 Ave. @ 210 St.	10-Jun-14	0.8	<1	<2	13	<1	0.31
MPR-447	117 Ave. @ 210 St.	17-Jun-14	0.65	<1	<2	12	<1	0.43
MPR-447	117 Ave. @ 210 St.	24-Jun-14	0.72	<1	<2	13	<1	0.21
MPR-447	117 Ave. @ 210 St.	2-Jul-14	0.78	<1	<2	14	<1	0.25
MPR-447	117 Ave. @ 210 St.	8-Jul-14	0.64	<1	4	18	<1	0.38
MPR-447	117 Ave. @ 210 St.	15-Jul-14	0.77	<1	<2	18	<1	0.28

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-447	117 Ave. @ 210 St.	22-Jul-14	0.78	<1	<2	15	<1	0.18
MPR-447	117 Ave. @ 210 St.	29-Jul-14	0.87	<1	<2	15	<1	0.24
MPR-447	117 Ave. @ 210 St.	5-Aug-14	0.93	<1	2	16	<1	0.23
MPR-447	117 Ave. @ 210 St.	12-Aug-14	0.94	<1	<2	17	<1	0.21
MPR-447	117 Ave. @ 210 St.	19-Aug-14	1	<1	2	17	<1	0.25
MPR-447	117 Ave. @ 210 St.	26-Aug-14	0.91	<1	<2	17	<1	0.23
MPR-447	117 Ave. @ 210 St.	2-Sep-14	0.86	<1	<2	17	<1	0.22
MPR-447	117 Ave. @ 210 St.	9-Sep-14	1	<1	<2	17	<1	0.26
MPR-447	117 Ave. @ 210 St.	16-Sep-14	0.94	<1	<2	17	<1	0.41
MPR-447	117 Ave. @ 210 St.	23-Sep-14	1	<1	<2	18	<1	0.33
MPR-447	117 Ave. @ 210 St.	30-Sep-14	1	<1	<2	15	<1	0.8
MPR-447	117 Ave. @ 210 St.	7-Oct-14	0.94	<1	<2	15	<1	0.55
MPR-447	117 Ave. @ 210 St.	14-Oct-14	1	<1	<2	15	<1	0.31
MPR-447	117 Ave. @ 210 St.	21-Oct-14	0.92	<1	<2	13	<1	0.83
MPR-447	117 Ave. @ 210 St.	28-Oct-14	0.66	<1	<2	13	<1	0.55
MPR-447	117 Ave. @ 210 St.	4-Nov-14	0.66	<1	<2	12	<1	0.5
MPR-447	117 Ave. @ 210 St.	12-Nov-14	0.88	<1	<2	11	<1	0.58
MPR-447	117 Ave. @ 210 St.	18-Nov-14	0.81	<1	<2	7	<1	0.49
MPR-447	117 Ave. @ 210 St.	25-Nov-14	0.85	<1	<2	9	<1	0.55
MPR-447	117 Ave. @ 210 St.	2-Dec-14	0.67	<1	<2	8	<1	0.61
MPR-447	117 Ave. @ 210 St.	9-Dec-14	1.1	<1	<2	7	<1	0.43
MPR-447	117 Ave. @ 210 St.	16-Dec-14	0.9	<1	<2	8	<1	0.53
MPR-447	117 Ave. @ 210 St.	23-Dec-14	0.87	<1	NA	7.5	<1	0.69
MPR-447	117 Ave. @ 210 St.	30-Dec-14	0.57	<1	NA	7	<1	0.54
MPR-448	248th St. & McClure	7-Jan-14	0.65	<1	<2	6	<1	0.32
MPR-448	248th St. & McClure	14-Jan-14	0.87	<1	<2	3	<1	0.35
MPR-448	248th St. & McClure	21-Jan-14	0.66	<1	<2	7	<1	0.29
MPR-448	248th St. & McClure	28-Jan-14	0.88	<1	<2	7	<1	0.25
MPR-448	248th St. & McClure	4-Feb-14	0.74	<1	<2	5	<1	0.24
MPR-448	248th St. & McClure	11-Feb-14	0.65	<1	<2	5	<1	0.32
MPR-448	248th St. & McClure	18-Feb-14	0.65	<1	<2	5	<1	0.45
MPR-448	248th St. & McClure	25-Feb-14	0.71	<1	<2	5	<1	0.47
MPR-448	248th St. & McClure	4-Mar-14	0.84	<1	<2	5	<1	0.29
MPR-448	248th St. & McClure	11-Mar-14	0.85	<1	<2	6	<1	0.62
MPR-448	248th St. & McClure	18-Mar-14	0.92	<1	<2	6	<1	0.65
MPR-448	248th St. & McClure	25-Mar-14	0.52	<1	<2	7	<1	0.49
MPR-448	248th St. & McClure	1-Apr-14	0.51	<1	<2	7	<1	0.34

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-448	248th St. & McClure	8-Apr-14	0.77	<1	<2	8	<1	0.34
MPR-448	248th St. & McClure	15-Apr-14	0.61	<1	<2	9	<1	0.3
MPR-448	248th St. & McClure	22-Apr-14	0.68	<1	<2	10	<1	0.28
MPR-448	248th St. & McClure	29-Apr-14	0.67	<1	<2	10	<1	0.32
MPR-448	248th St. & McClure	6-May-14	0.5	<1	<2	12	<1	0.27
MPR-448	248th St. & McClure	13-May-14	0.57	<1	<2	12	<1	0.39
MPR-448	248th St. & McClure	20-May-14	0.71	<1	<2	14	<1	0.33
MPR-448	248th St. & McClure	27-May-14	0.61	<1	<2	14	<1	0.29
MPR-448	248th St. & McClure	3-Jun-14	0.57	<1	<2	13	<1	0.53
MPR-448	248th St. & McClure	10-Jun-14	0.6	<1	<2	15	<1	0.28
MPR-448	248th St. & McClure	17-Jun-14	0.69	<1	<2	15	<1	0.32
MPR-448	248th St. & McClure	24-Jun-14	0.4	<1	<2	15	<1	0.26
MPR-448	248th St. & McClure	2-Jul-14	0.59	<1	2	15	<1	0.29
MPR-448	248th St. & McClure	8-Jul-14	0.46	<1	<2	19	<1	0.29
MPR-448	248th St. & McClure	15-Jul-14	0.9	<1	<2	18	<1	0.25
MPR-448	248th St. & McClure	22-Jul-14	0.49	<1	2	17	<1	0.17
MPR-448	248th St. & McClure	29-Jul-14	0.73	<1	<2	17	<1	0.24
MPR-448	248th St. & McClure	5-Aug-14	0.33	<1	2	18	<1	0.21
MPR-448	248th St. & McClure	12-Aug-14	0.76	<1	<2	18	<1	0.28
MPR-448	248th St. & McClure	19-Aug-14	0.38	<1	<2	18	<1	0.19
MPR-448	248th St. & McClure	26-Aug-14	0.65	<1	<2	18	<1	0.24
MPR-448	248th St. & McClure	2-Sep-14	0.18	<1	2	18	<1	0.21
MPR-448	248th St. & McClure	9-Sep-14	0.39	<1	2	18	<1	0.34
MPR-448	248th St. & McClure	16-Sep-14	0.22	<1	<2	18	<1	0.32
MPR-448	248th St. & McClure	23-Sep-14	0.24	<1	<2	18	<1	0.3
MPR-448	248th St. & McClure	30-Sep-14	0.28	<1	24	17	<1	0.54
MPR-448	248th St. & McClure	7-Oct-14	0.33	<1	<2	17	<1	0.64
MPR-448	248th St. & McClure	14-Oct-14	0.26	<1	2	16	<1	0.34
MPR-448	248th St. & McClure	21-Oct-14	0.14	<1	<2	15	<1	0.4
MPR-448	248th St. & McClure	28-Oct-14	0.15	<1	<2	14	<1	0.4
MPR-448	248th St. & McClure	4-Nov-14	0.46	<1	<2	13	<1	0.48
MPR-448	248th St. & McClure	12-Nov-14	0.14	<1	<2	12	<1	0.72
MPR-448	248th St. & McClure	18-Nov-14	0.65	<1	<2	7	<1	0.55
MPR-448	248th St. & McClure	25-Nov-14	0.71	<1	<2	10	<1	0.46
MPR-448	248th St. & McClure	2-Dec-14	0.57	<1	<2	8	<1	0.49
MPR-448	248th St. & McClure	9-Dec-14	0.91	<1	<2	8	<1	0.54
MPR-448	248th St. & McClure	16-Dec-14	0.53	<1	<2	8	<1	0.45

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-448	248th St. & McClure	23-Dec-14	0.85	<1	NA	7.8	<1	0.5
MPR-448	248th St. & McClure	30-Dec-14	0.53	<1	NA	7	<1	0.51
MPR-449	Meadow Brook North of Douglas	7-Jan-14	0.13	<1	<2	7	<1	0.33
MPR-449	Meadow Brook North of Douglas	14-Jan-14	0.17	<1	<2	3	<1	0.28
MPR-449	Meadow Brook North of Douglas	21-Jan-14	0.09	<1	<2	8	<1	0.23
MPR-449	Meadow Brook North of Douglas	28-Jan-14	0.22	<1	<2	8	<1	0.27
MPR-449	Meadow Brook North of Douglas	4-Feb-14	0.3	<1	<2	7	<1	0.22
MPR-449	Meadow Brook North of Douglas	11-Feb-14	0.33	<1	<2	6	<1	0.25
MPR-449	Meadow Brook North of Douglas	18-Feb-14	0.25	<1	<2	6	<1	0.45
MPR-449	Meadow Brook North of Douglas	25-Feb-14	0.64	<1	<2	6	<1	0.32
MPR-449	Meadow Brook North of Douglas	4-Mar-14	0.24	<1	<2	6	<1	0.26
MPR-449	Meadow Brook North of Douglas	11-Mar-14	0.46	<1	<2	7	<1	0.63
MPR-449	Meadow Brook North of Douglas	18-Mar-14	0.47	<1	<2	8	<1	0.48
MPR-449	Meadow Brook North of Douglas	25-Mar-14	0.34	<1	<2	8	<1	0.36
MPR-449	Meadow Brook North of Douglas	1-Apr-14	0.34	<1	<2	8	<1	0.26
MPR-449	Meadow Brook North of Douglas	8-Apr-14	0.43	<1	<2	9	<1	0.25
MPR-449	Meadow Brook North of Douglas	15-Apr-14	0.29	<1	<2	10	<1	0.26
MPR-449	Meadow Brook North of Douglas	22-Apr-14	0.35	<1	<2	10	<1	0.26
MPR-449	Meadow Brook North of Douglas	29-Apr-14	0.34	<1	<2	11	<1	0.24
MPR-449	Meadow Brook North of Douglas	6-May-14	0.3	<1	<2	12	<1	0.27
MPR-449	Meadow Brook North of Douglas	13-May-14	0.23	<1	<2	12	<1	0.29
MPR-449	Meadow Brook North of Douglas	20-May-14	0.27	<1	<2	13	<1	0.23
MPR-449	Meadow Brook North of Douglas	27-May-14	0.34	<1	<2	14	<1	0.24
MPR-449	Meadow Brook North of Douglas	3-Jun-14	0.24	<1	<2	14	<1	0.27
MPR-449	Meadow Brook North of Douglas	10-Jun-14	0.35	<1	<2	15	<1	0.29
MPR-449	Meadow Brook North of Douglas	17-Jun-14	0.2	<1	<2	15	<1	0.32
MPR-449	Meadow Brook North of Douglas	24-Jun-14	0.23	<1	<2	16	<1	0.22
MPR-449	Meadow Brook North of Douglas	2-Jul-14	0.18	<1	<2	16	<1	0.26
MPR-449	Meadow Brook North of Douglas	8-Jul-14	0.08	<1	<2	18	<1	0.35
MPR-449	Meadow Brook North of Douglas	15-Jul-14	0.23	<1	2	17	<1	0.19
MPR-449	Meadow Brook North of Douglas	22-Jul-14	0.08	<1	14	18	<1	0.21
MPR-449	Meadow Brook North of Douglas	29-Jul-14	0.16	<1	2	18	<1	0.19
MPR-449	Meadow Brook North of Douglas	5-Aug-14	0.26	<1	<2	18	<1	0.17
MPR-449	Meadow Brook North of Douglas	12-Aug-14	0.2	<1	4	19	<1	0.23
MPR-449	Meadow Brook North of Douglas	19-Aug-14	0.24	<1	28	19	<1	0.2
MPR-449	Meadow Brook North of Douglas	26-Aug-14	0.32	<1	6	19	<1	0.23
MPR-449	Meadow Brook North of Douglas	2-Sep-14	0.2	<1	<2	19	<1	0.24

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
MPR-449	Meadow Brook North of Douglas	9-Sep-14	0.14	<1	4	19	<1	0.26
MPR-449	Meadow Brook North of Douglas	16-Sep-14	0.11	<1	4	18	<1	0.23
MPR-449	Meadow Brook North of Douglas	23-Sep-14	0.04	<1	28	18	<1	0.2
MPR-449	Meadow Brook North of Douglas	30-Sep-14	0.17	<1	4	18	<1	0.53
MPR-449	Meadow Brook North of Douglas	7-Oct-14	0.06	<1	<2	17	<1	0.38
MPR-449	Meadow Brook North of Douglas	14-Oct-14	0.43	<1	2	17	<1	2
MPR-449	Meadow Brook North of Douglas	21-Oct-14	0.04	<1	16	16	<1	0.36
MPR-449	Meadow Brook North of Douglas	28-Oct-14	0.04	<1	46	16	<1	0.38
MPR-449	Meadow Brook North of Douglas	4-Nov-14	0.03	<1	46	15	<1	0.39
MPR-449	Meadow Brook North of Douglas	12-Nov-14	0.05	<1	28	14	<1	0.43
MPR-449	Meadow Brook North of Douglas	18-Nov-14	0.03	<1	36	9	<1	0.42
MPR-449	Meadow Brook North of Douglas	25-Nov-14	0.04	<1	40	11	<1	0.39
MPR-449	Meadow Brook North of Douglas	2-Dec-14	0.01	<1	26	11	<1	0.32
MPR-449	Meadow Brook North of Douglas	9-Dec-14	0.11	<1	4	10	<1	0.54
MPR-449	Meadow Brook North of Douglas	16-Dec-14	0.04	<1	<2	10	<1	0.39
MPR-449	Meadow Brook North of Douglas	23-Dec-14	0.03	<1	NA	9.2	<1	0.46
MPR-449	Meadow Brook North of Douglas	30-Dec-14	0.14	<1	NA	9	<1	0.37
GV-071	Haney	2-Jan-14	0.7	<1	<2		<1	0.21
GV-071	Haney	3-Jan-14	0.72	<1	140		<1	0.18
GV-071	Haney	6-Jan-14	0.55	<1	<2		<1	0.38
GV-071	Haney	10-Jan-14	0.83	<1	<2		<1	0.34
GV-071	Haney	13-Jan-14	0.46	<1	<2		<1	0.5
GV-071	Haney	15-Jan-14	0.64	<1	<2		<1	0.56
GV-071	Haney	20-Jan-14	0.89	<1	<2		<1	0.34
GV-071	Haney	23-Jan-14	0.96	<1	<2		<1	0.29
GV-071	Haney	28-Jan-14	0.78	<1	<2		<1	0.28
GV-071	Haney	5-Feb-14	0.72	<1	<2		<1	0.36
GV-071	Haney	12-Feb-14	0.51	<1	<2		<1	0.27
GV-071	Haney	14-Feb-14	0.74	<1	<2		<1	0.65
GV-071	Haney	18-Feb-14	0.54	<1	<2		<1	0.67
GV-071	Haney	20-Feb-14	0.78	<1	<2		<1	0.74
GV-071	Haney	21-Feb-14	0.72	<1	<2		<1	0.57
GV-071	Haney	26-Feb-14	0.7	<1	2		<1	0.45
GV-071	Haney	28-Feb-14	0.6	<1	<2		<1	0.34
GV-071	Haney	5-Mar-14	0.93	<1	<2		<1	0.67
GV-071	Haney	13-Mar-14	0.85	<1	<2		<1	0.54
GV-071	Haney	14-Mar-14	0.82	<1	<2		<1	0.74

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
GV-071	Haney	19-Mar-14	0.98	<1	<2		<1	0.5
GV-071	Haney	25-Mar-14	0.9	<1	<2		<1	0.52
GV-071	Haney	26-Mar-14	0.67	<1	2		<1	0.31
GV-071	Haney	3-Apr-14	0.82	<1	<2		<1	0.38
GV-071	Haney	8-Apr-14	0.72	<1	<2		<1	0.32
GV-071	Haney	15-Apr-14	0.83	<1	<2		<1	0.33
GV-071	Haney	22-Apr-14	0.8	<1	<2		<1	0.37
GV-071	Haney	24-Apr-14	0.7	<1	<2		<1	0.29
GV-071	Haney	29-Apr-14	0.89	<1	<2		<1	0.3
GV-071	Haney	1-May-14	0.66	<1	<2		<1	0.35
GV-071	Haney	7-May-14	0.91	<1	<2		<1	0.46
GV-071	Haney	13-May-14	0.94	<1	<2		<1	0.33
GV-071	Haney	14-May-14	0.8	<1	<2		<1	0.29
GV-071	Haney	16-May-14	0.8	<1	<2		<1	0.38
GV-071	Haney	22-May-14	0.69	<1	<2		<1	0.27
GV-071	Haney	29-May-14	0.68	<1	<2		<1	0.28
GV-071	Haney	3-Jun-14	0.61	<1	<2		<1	0.3
GV-071	Haney	5-Jun-14	0.88	<1	<2		<1	0.29
GV-071	Haney	11-Jun-14	0.84	<1	4		<1	0.25
GV-071	Haney	18-Jun-14	0.8	<1	<2		<1	0.33
GV-071	Haney	20-Jun-14	0.78	<1	2		<1	0.24
GV-071	Haney	25-Jun-14	0.83	<1	2		<1	0.3
GV-071	Haney	3-Jul-14	0.66	<1	<2		<1	0.47
GV-071	Haney	10-Jul-14	0.66	<1	<2		<1	0.28
GV-071	Haney	17-Jul-14	0.69	<1	<2		<1	0.21
GV-071	Haney	23-Jul-14	0.64	<1	<2		<1	0.33
GV-071	Haney	29-Jul-14	0.89	<1	<2		<1	0.24
GV-071	Haney	5-Aug-14	1.1	<1	<2		<1	0.26
GV-071	Haney	13-Aug-14	0.9	<1	<2		<1	0.22
GV-071	Haney	21-Aug-14	0.93	<1	6		<1	0.28
GV-071	Haney	22-Aug-14	0.98	<1	<2		<1	1
GV-071	Haney	27-Aug-14	1.1	<1	<2		<1	0.27
GV-071	Haney	4-Sep-14	0.67	<1	<2		<1	0.34
GV-071	Haney	10-Sep-14	0.59	<1	<2		<1	0.4
GV-071	Haney	12-Sep-14	0.98	<1	<2		<1	0.2
GV-071	Haney	16-Sep-14	0.79	<1	<2		<1	0.35
GV-071	Haney	19-Sep-14	0.56	<1	<2		<1	0.33

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
GV-071	Haney	23-Sep-14	0.95	<1	4		<1	0.33
GV-071	Haney	1-Oct-14	0.92	<1	<2		<1	0.87
GV-071	Haney	9-Oct-14	0.94	<1	<2		<1	0.59
GV-071	Haney	16-Oct-14	0.51	<1	<2		<1	0.5
GV-071	Haney	21-Oct-14	0.82	<1	<2		<1	0.38
GV-071	Haney	29-Oct-14	0.68	<1	<2		<1	0.56
GV-071	Haney	30-Oct-14	0.77	<1	4		<1	0.74
GV-071	Haney	5-Nov-14	0.98	<1	<2		<1	2.5
GV-071	Haney	13-Nov-14	0.93	<1	<2		<1	0.72
GV-071	Haney	19-Nov-14	0.96	<1	<2		<1	0.7
GV-071	Haney	26-Nov-14	0.8	<1	14		<1	1.4
GV-071	Haney	27-Nov-14	0.75	<1	2		<1	0.51
GV-071	Haney	3-Dec-14	0.94	<1	<2		<1	0.53
GV-071	Haney	11-Dec-14	0.87	<1	<2		<1	0.4
GV-071	Haney	17-Dec-14	1	<1	<2		<1	0.6
GV-071	Haney	22-Dec-14	0.89	<1	NA		<1	0.83
GV-071	Haney	31-Dec-14	0.6	<1	NA		<1	0.46
GV-072	Maple Ridge Pump Station	2-Jan-14	0.97	<1	6		<1	0.32
GV-072	Maple Ridge Pump Station	3-Jan-14	0.84	<1	<2		<1	0.47
GV-072	Maple Ridge Pump Station	6-Jan-14	0.74	<1	<2		<1	0.4
GV-072	Maple Ridge Pump Station	10-Jan-14	0.83	<1	8		<1	0.37
GV-072	Maple Ridge Pump Station	13-Jan-14	0.93	<1	2		<1	0.48
GV-072	Maple Ridge Pump Station	15-Jan-14	0.89	<1	<2		<1	0.61
GV-072	Maple Ridge Pump Station	20-Jan-14	0.64	<1	2		<1	0.41
GV-072	Maple Ridge Pump Station	23-Jan-14	0.98	<1	<2		<1	0.32
GV-072	Maple Ridge Pump Station	28-Jan-14	0.76	<1	<2		<1	0.29
GV-072	Maple Ridge Pump Station	30-Jan-14	0.83	<1	<2		<1	0.29
GV-072	Maple Ridge Pump Station	5-Feb-14	0.91	<1	<2		<1	0.34
GV-072	Maple Ridge Pump Station	12-Feb-14	0.93	<1	<2		<1	0.33
GV-072	Maple Ridge Pump Station	14-Feb-14	1.1	<1	<2		<1	0.71
GV-072	Maple Ridge Pump Station	18-Feb-14	1	<1	2		<1	0.79
GV-072	Maple Ridge Pump Station	21-Feb-14	0.96	<1	<2		<1	0.56
GV-072	Maple Ridge Pump Station	26-Feb-14	0.77	<1	<2		<1	0.42
GV-072	Maple Ridge Pump Station	28-Feb-14	0.95	<1	<2		<1	0.4
GV-072	Maple Ridge Pump Station	5-Mar-14	1.2	<1	18		<1	0.69
GV-072	Maple Ridge Pump Station	13-Mar-14	0.89	<1	<2		<1	0.58
GV-072	Maple Ridge Pump Station	14-Mar-14	0.86	<1	<2		<1	0.82

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
GV-072	Maple Ridge Pump Station	19-Mar-14	1.1	<1	2		<1	0.51
GV-072	Maple Ridge Pump Station	21-Mar-14	0.85	<1	<2		<1	0.6
GV-072	Maple Ridge Pump Station	25-Mar-14	1	<1	<2		<1	0.41
GV-072	Maple Ridge Pump Station	26-Mar-14	0.87	<1	<2		<1	0.33
GV-072	Maple Ridge Pump Station	3-Apr-14	0.97	<1	<2		<1	0.36
GV-072	Maple Ridge Pump Station	8-Apr-14	0.85	<1	<2		<1	0.33
GV-072	Maple Ridge Pump Station	15-Apr-14	1.1	<1	<2		<1	0.29
GV-072	Maple Ridge Pump Station	22-Apr-14	0.93	<1	<2		<1	0.42
GV-072	Maple Ridge Pump Station	24-Apr-14	0.93	<1	4		<1	0.3
GV-072	Maple Ridge Pump Station	29-Apr-14	0.96	<1	<2		<1	0.3
GV-072	Maple Ridge Pump Station	1-May-14	0.75	<1	<2		<1	0.34
GV-072	Maple Ridge Pump Station	7-May-14	0.95	<1	<2		<1	0.47
GV-072	Maple Ridge Pump Station	13-May-14	0.99	<1	2		<1	0.31
GV-072	Maple Ridge Pump Station	14-May-14	0.98	<1	<2		<1	0.28
GV-072	Maple Ridge Pump Station	16-May-14	0.62	<1	2		<1	0.3
GV-072	Maple Ridge Pump Station	22-May-14	0.82	<1	<2		<1	0.31
GV-072	Maple Ridge Pump Station	28-May-14	0.98	<1	<2		<1	0.29
GV-072	Maple Ridge Pump Station	29-May-14	0.39	<1	12		<1	0.39
GV-072	Maple Ridge Pump Station	3-Jun-14	0.89	<1	2		<1	0.3
GV-072	Maple Ridge Pump Station	5-Jun-14	0.91	<1	<2		<1	0.41
GV-072	Maple Ridge Pump Station	11-Jun-14	0.89	<1	<2		<1	0.28
GV-072	Maple Ridge Pump Station	12-Jun-14	0.6	<1	<2		<1	0.43
GV-072	Maple Ridge Pump Station	18-Jun-14	0.92	<1	<2		<1	0.31
GV-072	Maple Ridge Pump Station	20-Jun-14	0.85	<1	<2		<1	0.32
GV-072	Maple Ridge Pump Station	25-Jun-14	0.79	<1	12		<1	0.34
GV-072	Maple Ridge Pump Station	3-Jul-14	0.75	<1	<2		<1	0.52
GV-072	Maple Ridge Pump Station	10-Jul-14	0.47	<1	<2		<1	0.21
GV-072	Maple Ridge Pump Station	17-Jul-14	0.58	<1	<2		<1	0.2
GV-072	Maple Ridge Pump Station	23-Jul-14	0.73	<1	6		<1	0.27
GV-072	Maple Ridge Pump Station	29-Jul-14	0.45	<1	4		<1	0.24
GV-072	Maple Ridge Pump Station	5-Aug-14	1.2	<1	<2		<1	0.26
GV-072	Maple Ridge Pump Station	13-Aug-14	1.3	<1	2		<1	0.29
GV-072	Maple Ridge Pump Station	21-Aug-14	1.2	<1	<2		<1	0.33
GV-072	Maple Ridge Pump Station	22-Aug-14	1.2	<1	<2		<1	1.3
GV-072	Maple Ridge Pump Station	27-Aug-14	1	<1	<2		<1	0.36
GV-072	Maple Ridge Pump Station	4-Sep-14	0.5	<1	<2		<1	0.3
GV-072	Maple Ridge Pump Station	10-Sep-14	0.79	<1	<2		<1	0.32

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/ 100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
GV-072	Maple Ridge Pump Station	16-Sep-14	1	<1	<2		<1	0.32
GV-072	Maple Ridge Pump Station	19-Sep-14	1.1	<1	<2		<1	0.47
GV-072	Maple Ridge Pump Station	23-Sep-14	1.2	<1	2		<1	0.41
GV-072	Maple Ridge Pump Station	25-Sep-14	1.1	<1	<2		<1	0.92
GV-072	Maple Ridge Pump Station	1-Oct-14	1.1	<1	<2		<1	0.82
GV-072	Maple Ridge Pump Station	3-Oct-14	0.96	<1	6		<1	0.72
GV-072	Maple Ridge Pump Station	9-Oct-14	1.1	<1	<2		<1	0.61
GV-072	Maple Ridge Pump Station	16-Oct-14	0.45	<1	4		<1	0.52
GV-072	Maple Ridge Pump Station	21-Oct-14	0.74	<1	8		<1	0.41
GV-072	Maple Ridge Pump Station	29-Oct-14	0.96	<1	<2		<1	0.6
GV-072	Maple Ridge Pump Station	30-Oct-14	0.96	<1	8		<1	0.71
GV-072	Maple Ridge Pump Station	5-Nov-14	1	<1	8		<1	2
GV-072	Maple Ridge Pump Station	6-Nov-14	1.2	<1	96		<1	1.2
GV-072	Maple Ridge Pump Station	13-Nov-14	0.81	<1	<2		<1	0.7
GV-072	Maple Ridge Pump Station	19-Nov-14	1.1	<1	<2		<1	0.48
GV-072	Maple Ridge Pump Station	26-Nov-14	1.2	<1	<2		<1	0.59
GV-072	Maple Ridge Pump Station	27-Nov-14	0.89	<1	<2		<1	0.59
GV-072	Maple Ridge Pump Station	3-Dec-14	1.2	<1	<2		<1	0.55
GV-072	Maple Ridge Pump Station	11-Dec-14	1.2	<1	2		<1	1.8
GV-072	Maple Ridge Pump Station	12-Dec-14	1	<1	<2		<1	0.99
GV-072	Maple Ridge Pump Station	17-Dec-14	1.1	<1	<2		<1	0.52
GV-072	Maple Ridge Pump Station	22-Dec-14	1.2	<1	NA		<1	0.88
GV-072	Maple Ridge Pump Station	31-Dec-14	0.71	<1	NA		<1	0.5
GV-098	Maple Ridge Chamber Main	2-Jan-14	0.4	<1	<2		<1	0.23
GV-098	Maple Ridge Chamber Main	3-Jan-14	0.43	<1	<2		<1	0.2
GV-098	Maple Ridge Chamber Main	6-Jan-14	0.48	<1	<2		<1	0.39
GV-098	Maple Ridge Chamber Main	10-Jan-14	0.59	<1	<2		<1	0.32
GV-098	Maple Ridge Chamber Main	13-Jan-14	0.5	<1	<2		<1	0.4
GV-098	Maple Ridge Chamber Main	15-Jan-14	0.48	<1	<2		<1	0.46
GV-098	Maple Ridge Chamber Main	20-Jan-14	0.33	<1	2		<1	0.33
GV-098	Maple Ridge Chamber Main	23-Jan-14	0.39	<1	<2		<1	0.3
GV-098	Maple Ridge Chamber Main	28-Jan-14	0.4	<1	<2		<1	0.28
GV-098	Maple Ridge Chamber Main	5-Feb-14	0.39	<1	<2		<1	0.25
GV-098	Maple Ridge Chamber Main	12-Feb-14	0.52	<1	<2		<1	0.26
GV-098	Maple Ridge Chamber Main	14-Feb-14	0.3	<1	<2		<1	0.37
GV-098	Maple Ridge Chamber Main	18-Feb-14	0.48	<1	<2		<1	0.56
GV-098	Maple Ridge Chamber Main	21-Feb-14	0.7	<1	<2		<1	0.62

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Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU /mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
GV-098	Maple Ridge Chamber Main	26-Feb-14	0.69	<1	<2		<1	0.49
GV-098	Maple Ridge Chamber Main	28-Feb-14	0.61	<1	<2		<1	0.4
GV-098	Maple Ridge Chamber Main	5-Mar-14	0.57	<1	<2		<1	0.42
GV-098	Maple Ridge Chamber Main	13-Mar-14	0.53	<1	8		<1	0.56
GV-098	Maple Ridge Chamber Main	19-Mar-14	0.62	<1	<2		<1	0.54
GV-098	Maple Ridge Chamber Main	21-Mar-14	0.63	<1	<2		<1	0.49
GV-098	Maple Ridge Chamber Main	25-Mar-14	0.48	<1	<2		<1	0.42
GV-098	Maple Ridge Chamber Main	26-Mar-14	0.38	<1	2		<1	0.37
GV-098	Maple Ridge Chamber Main	3-Apr-14	0.75	<1	<2		<1	0.34
GV-098	Maple Ridge Chamber Main	8-Apr-14	0.64	<1	<2		<1	0.34
GV-098	Maple Ridge Chamber Main	15-Apr-14	0.6	<1	<2		<1	0.27
GV-098	Maple Ridge Chamber Main	22-Apr-14	0.5	<1	<2		<1	0.32
GV-098	Maple Ridge Chamber Main	29-Apr-14	0.56	<1	<2		<1	0.31
GV-098	Maple Ridge Chamber Main	1-May-14	0.24	<1	24		<1	0.44
GV-098	Maple Ridge Chamber Main	7-May-14	0.59	<1	<2		<1	0.37
GV-098	Maple Ridge Chamber Main	13-May-14	0.54	<1	<2		<1	0.35
GV-098	Maple Ridge Chamber Main	16-May-14	0.5	<1	<2		<1	0.41
GV-098	Maple Ridge Chamber Main	22-May-14	0.43	<1	<2		<1	0.35
GV-098	Maple Ridge Chamber Main	28-May-14	0.5	<1	<2		<1	0.29
GV-098	Maple Ridge Chamber Main	29-May-14	0.37	<1	<2		<1	0.35
GV-098	Maple Ridge Chamber Main	3-Jun-14	0.41	<1	<2		<1	0.63
GV-098	Maple Ridge Chamber Main	11-Jun-14	0.48	<1	<2		<1	0.27
GV-098	Maple Ridge Chamber Main	18-Jun-14	0.76	<1	<2		<1	0.37
GV-098	Maple Ridge Chamber Main	20-Jun-14	0.53	<1	<2		<1	0.29
GV-098	Maple Ridge Chamber Main	25-Jun-14	0.45	<1	<2		<1	0.24
GV-098	Maple Ridge Chamber Main	3-Jul-14	0.44	<1	<2		<1	0.28
GV-098	Maple Ridge Chamber Main	10-Jul-14	0.44	<1	<2		<1	0.3
GV-098	Maple Ridge Chamber Main	17-Jul-14	0.41	<1	10		<1	0.24
GV-098	Maple Ridge Chamber Main	23-Jul-14	0.37	<1	14		<1	0.27
GV-098	Maple Ridge Chamber Main	29-Jul-14	0.48	<1	12		<1	0.28
GV-098	Maple Ridge Chamber Main	5-Aug-14	0.93	<1	<2		<1	0.29
GV-098	Maple Ridge Chamber Main	13-Aug-14	0.81	<1	64		<1	0.29
GV-098	Maple Ridge Chamber Main	21-Aug-14	0.6	<1	<2		<1	0.28
GV-098	Maple Ridge Chamber Main	22-Aug-14	0.52	<1	<2		<1	0.32
GV-098	Maple Ridge Chamber Main	27-Aug-14	1	<1	<2		<1	0.28
GV-098	Maple Ridge Chamber Main	4-Sep-14	0.2	<1	<2		<1	0.22
GV-098	Maple Ridge Chamber Main	10-Sep-14	0.38	<1	<2		<1	0.27

Sample Name	Sample Reported Name	Sampled Date	Cl ₂ Free mg/L	E. coli MF/100mL	HPC CFU/mL	Temp °C	Total Coliform MF/100 mL	Turb. NTU
GV-098	Maple Ridge Chamber Main	16-Sep-14	0.7	<1	<2		<1	0.31
GV-098	Maple Ridge Chamber Main	23-Sep-14	0.96	<1	<2		<1	0.33
GV-098	Maple Ridge Chamber Main	1-Oct-14	0.54	<1	<2		<1	0.71
GV-098	Maple Ridge Chamber Main	9-Oct-14	0.51	<1	<2		<1	0.58
GV-098	Maple Ridge Chamber Main	16-Oct-14	0.3	<1	<2		<1	0.41
GV-098	Maple Ridge Chamber Main	21-Oct-14	0.57	<1	<2		<1	0.36
GV-098	Maple Ridge Chamber Main	29-Oct-14	0.35	<1	<2		<1	0.56
GV-098	Maple Ridge Chamber Main	30-Oct-14	0.39	<1	<2		<1	0.6
GV-098	Maple Ridge Chamber Main	5-Nov-14	0.51	<1	<2		<1	1.1
GV-098	Maple Ridge Chamber Main	6-Nov-14	0.41	<1	2		<1	1.4
GV-098	Maple Ridge Chamber Main	13-Nov-14	0.62	<1	<2		<1	0.76
GV-098	Maple Ridge Chamber Main	19-Nov-14	0.45	<1	<2		<1	0.57
GV-098	Maple Ridge Chamber Main	26-Nov-14	0.58	<1	<2		<1	0.61
GV-098	Maple Ridge Chamber Main	27-Nov-14	0.6	<1	<2		<1	0.56
GV-098	Maple Ridge Chamber Main	3-Dec-14	0.58	<1	<2		<1	0.53
GV-098	Maple Ridge Chamber Main	11-Dec-14	0.68	<1	4		<1	0.64
GV-098	Maple Ridge Chamber Main	17-Dec-14	0.55	<1	<2		<1	0.53
GV-098	Maple Ridge Chamber Main	22-Dec-14	0.7	<1	NA		<1	0.73
GV-098	Maple Ridge Chamber Main	31-Dec-14	0.44	<1	NA		<1	0.53

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



HealthLinkBC



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

ivers, 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 [#48 Cryptosporidium 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 www.health.gov.bc.ca/protect/dw_ha_contacts.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 www.HealthLinkBC.ca/healthfiles or your local public health unit.

Click on www.HealthLinkBC.ca 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.



ImmunizeBC



BC Centre for Disease Control
An agency of the Provincial Health Services Authority



District of Maple Ridge

TO: Her Worship Mayor Nicole Read and Members of Council **MEETING DATE:** April 20, 2015

FROM: Chief Administrative Officer **MEETING:** COW

SUBJECT: Rock Ridge Cell Tower – Support For Next Steps

EXECUTIVE SUMMARY:

An information memo dated February 02 was distributed to Council that gave an update on our telecommunications tower RFP and discussed the outcome of that process. That memo noted we had come to terms with SBA Inc., a tower building company, to build two cell towers on City land. One of the tower locations is beside the City water reservoir at Rock Ridge, and the other location is at the old Cottonwood landfill site. SBA has completed the public consultation requirements for the Rock Ridge tower site, and the report of the consultation effort and outcome are attached. Given there were no public objections, it is recommended that Council resolve to support the project for the next steps.

RECOMMENDATIONS:

1. That the construction and operation of a telecommunications tower at the Rock Ridge property, 13550-240 St., by SBA Inc. be supported;
2. That the Corporate Officer be authorized to sign the Licence of Occupation agreement between the City of Maple Ridge and SBA Inc.; and
3. That SBA be required to complete the following prior to undertaking construction of the tower:
 - receiving support of Industry Canada;
 - the satisfactory completion of the Natural Features Development Permit Area; and
 - the successful issuance of a building permit.

BACKGROUND:

The City undertook an RFP process last year to identify cell tower sites. The intention was to use City lands first for cell towers, to promote sharing of the towers with other service providers, and to gain secondary revenue for the City.

The successful candidate from that RFP evaluation was SBA Inc., a cell tower building and leasing company. They have agreed to terms to build 2 cell towers, one at the Rock Ridge reservoir site in Silver Valley, and another at the old Cottonwood landfill site. That agreement stipulates a monthly rent payment of \$1,400 and a revenue sharing split of 20% for added tenants beyond the first.

Prior to building the towers, SBA had to hold a public consultation session for each site, in accordance with our Telecommunications Tower Siting Protocol V2. SBA decided to complete the Rock Ridge consultation process first, to be followed by a process for Cottonwood later.

Property owners/occupants within a 350m radius of the Rock Ridge site were notified of the project, and 4 advertisements were run in the local newspapers. The public consultation session occurred on February 24th at the Yennadon School, and there was 1 attendee. Additionally, SBA received 2 comment sheets and one email. The public consultation period concluded March 31st.

Attached to this memo is the report from SBA on the process, the public comments, and the results (see attached report pages 6 and 8, Public Consultation Summary and Public Notification Radius). In summary, there were no public objections. Staff are satisfied with the consultation process and conclusions.

The next steps, to allow SBA to proceed to build and operate the tower, requires a Council resolution of support for the project. This resolution is to be sent to Industry Canada, the approval authority, so that SBA may get a radio broadcasting licence. As well, SBA will need to sign the Licence of Occupation agreement with the City.

Once approval from Industry Canada is received, and the agreement signed, SBA will need to complete the natural features Development Permit Application and take out a building permit prior to tower construction.

Once the process for the Rock Ridge site is completed, SBA will plan a public consultation exercise for the Cottonwood landfill site. Staff will follow-up with another memo at the conclusion of that process.

CONCLUSION:

The successful conclusion to the RFP and the construction of the Rock Ridge telecommunications tower will meet a variety of Council objectives. It will signal to the communications industry that Council is interested in finding a balance between community impacts and support for the industry, and It will leverage City assets and support measured entrepreneurship for community benefit.

"Original signed by John Bastaja"

Prepared by: John Bastaja
Director Corporate Support

"Original signed by Darrell Denton"

Prepared by: Darrell Denton
Property and Risk Manager

"Original signed by Paul Gill"

Approved by: Paul Gill
General Manager, Corporate and Financial Services

"Original signed by J.L. (Jim) Rule"

Concurrence: J.L. (Jim) Rule
Chief Administrative Officer



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Vancouver, B.C. V6C 0A6

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Email: briangregg@sitepathconsulting.com
www.sitepathconsulting.com

Date: April 1, 2015

To:	The City of Maple Ridge	Attention:	Properties Manager
From:	SBA Canada ULC C/O Brian Gregg, SitePath Consulting Ltd.		
RE:	Proposed 50 meter Telecommunications Tower	SBA Canada File: BC70909-B - Rockridge Reservoir	
Project:	Rockridge Reservoir		
Site Address:	13550 240 Street, Maple Ridge, BC		

SECTION 1 - PROPOSAL SUMMARY

SitePath Consulting Ltd. ("SitePath") is representing SBA Canada ULC ("SBA") regarding a proposed telecommunications tower installation on City-owned land.

Address: 13550 240 Street
Coordinates: 49° 14' 55.56 " North, 122° 33' 12.33" West
Legal Description: LT 21; SEC 27; TWP 12; NWD; PL NWP2637
PID: 010-502-327
Zoning: RS-3 – One Family Rural Residential

Objective

- In response to the City's Request for Proposal (RFP), SBA is proposing to install a new cell tower at the existing Rockridge Reservoir property.
- The proposed facility, if approved, will provide high-speed, high-bandwidth cellular service to the Maple Ridge community and improve public safety through the enablement of mobile communication with emergency responders. This is particularly important given that more than 70 percent of all calls to emergency responders are now placed through mobile devices.
- The proposed telecommunications tower will be designed to enable multiple carriers to co-locate thereby mitigating the proliferation of towers in the community.
- Initially, Rogers Communications has agreed to install their equipment on the subject proposed tower.

Description of Proposed Site

- SBA is proposing the construction of a 50-meter monopole structure at the municipal-owned Rockridge Reservoir property.
- If constructed, all of the equipment necessary to operate this facility will reside within an approximately 10.0 meter x 10.0 meter fenced compound located at the base of the monopole in the northwestern portion of the subject property directly to the northwest of the existing water tower facility.
- As the existing zoning permits "public service" uses including telephone-related utilities and there are no setback requirements for such utility structures, the proposal is permitted from a local land use policy perspective.

Property Report (13550 240 ST)

Property ID: 19161
Address: 13550 240 ST
Parcel: 73739-0000-8
Plan: NWP2637
Lot: 21
Legal: LT 21; SEC 27; TWP 12; NWD; PL NWP2637
PID: 010-502-327
LTO: A462526
Zoning: RS-3
OCPL Land Use: CONSRV. ECO
Closed to Backyard Burning: No
Within the Fraser Sewerage Area: Yes
Recycling Pickup Day: Thursday
Approx. Area: 2.768 ha.

Street (large)
Public Facility or Attraction
Railway
Major River or Lake Edge
Major River or Lake
Interior Lot Boundary
School
Park
Property
Municipal Boundary

0 262.5 525 1,050 ft
0 80 160 320 m
Scale 1:7,500

District of Maple Ridge
RidgeView 2.0
Printed: October 20, 2014

The City of Maple Ridge makes no guarantee regarding the accuracy or present status of the information shown on this map.

2

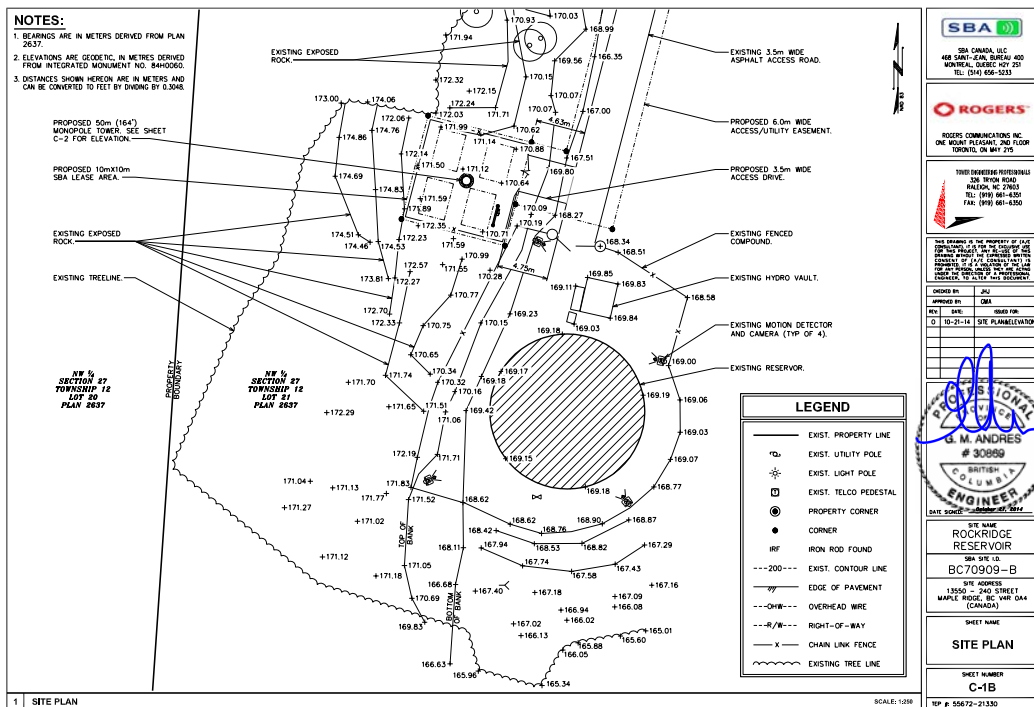
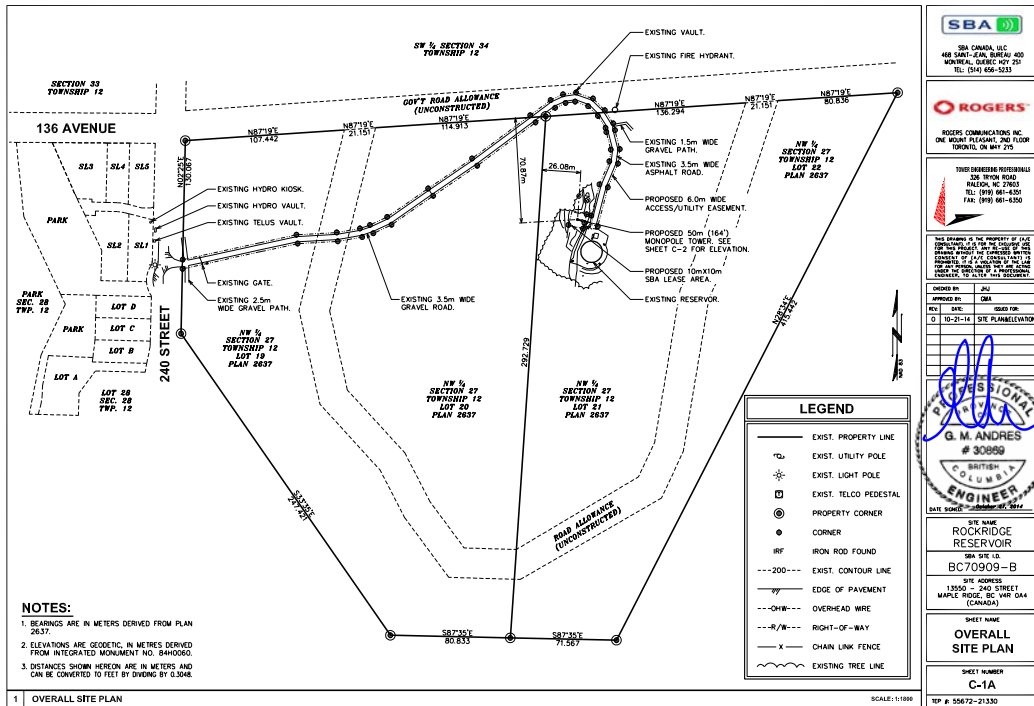
Visibility

- The upper portion of the proposed tower site may be visible within the Maple Ridge community from some of the adjacent properties.
- Given that the proposed tower location is adjacent to residential properties albeit setback significantly, SBA is proposing an aesthetically integrated monopole structure painted a colour of the City's preference.

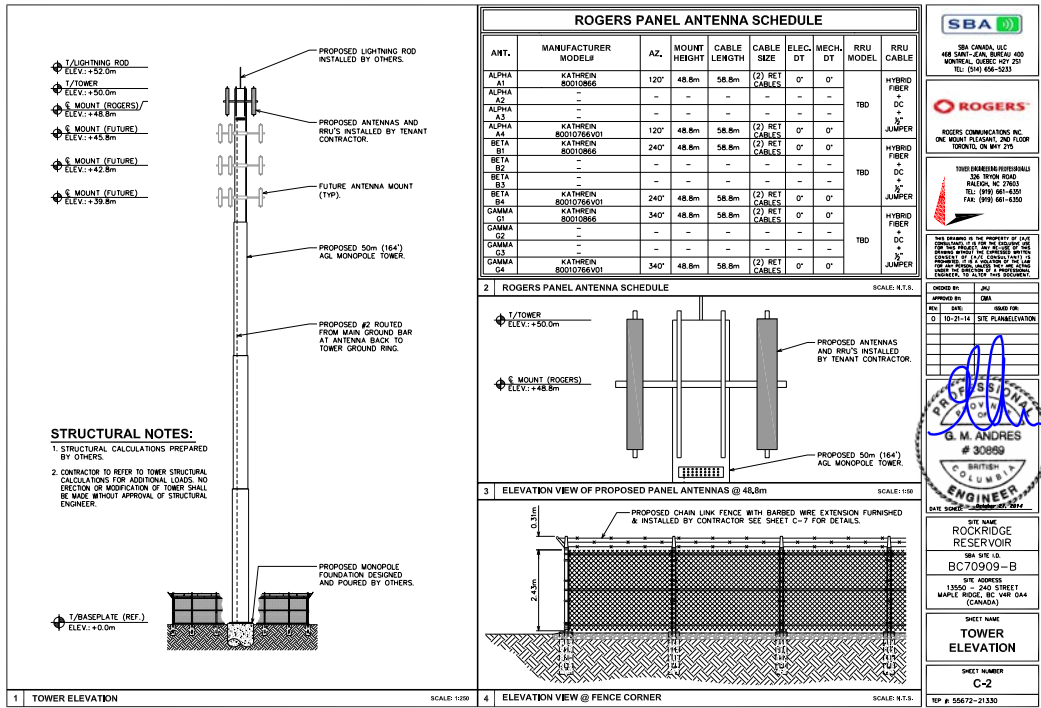
Photo Simulation (for discussion purposes only)



Site Plans (for discussion purposes only)



Elevation Plan (for discussion purposes only)



1 TOWER ELEVATION SCALE: 1/8"

2 ROGERS PANEL ANTENNA SCHEDULE SCALE: N.T.S.

3 ELEVATION VIEW OF PROPOSED PANEL ANTENNAS @ 48.8m SCALE: 1/8"

4 ELEVATION VIEW @ FENCE CORNER SCALE: N.T.S.

5 ELEVATION VIEW @ FENCE CORNER SCALE: N.T.S.

6 ELEVATION VIEW @ FENCE CORNER SCALE: N.T.S.

SECTION 2 – PUBLIC CONSULTATION SUMMARY

SBA worked closely with City staff to ensure that the public and land use authority consultation requirements noted in the City's *Telecommunication Antenna Structures Siting Protocol* have been followed.

A. Property owner notification

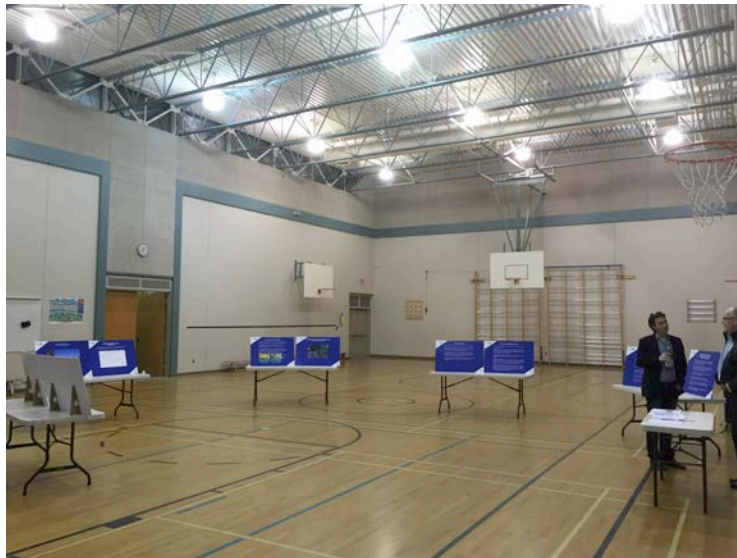
- Notification of all property owners within a 300 m radius. The notification radius was voluntarily extended to 350 m to ensure that all adjacent property owners were engaged.
- 16 owners received notification packages via regular mail (refer to the map in Appendix A).
- Non-owner occupants (e.g. renters) were also notified as the envelopes were addressed to "occupant" and labeled as specifically required in the protocol.

B. Newspaper notices

- Voluntary notices were placed in the Maple Ridge News and Maple Ridge Times for two issues in each paper to welcome broader public dialogue. This is not required in the City's protocol however the goal of including a newspaper notification was to welcome input from any interested community members.

C. Public Meeting

- A public meeting was held at Yennadon Elementary School on February 24th, 2015 from 6:00 PM until 8:00 PM. The address for Yennadon Elementary is 23347 128 Avenue, Maple Ridge.
- The public meeting was held in the elementary school gymnasium in an open house format.
- Only one (1) member of the public attended the meeting suggesting limited public interest in the subject proposal.



Above: A photo from the public meeting at Yennadon Elementary School.

- Note that a summary of the comments received and responses provided are included in this document within Appendix B.
- Please also note that scanned copies of the two (2) public comments sheets that were received are included in this document within Appendix C.

SECTION 3 – NEXT STEPS

Land Use Concurrence

Industry Canada requires SBA to consult with the City of Maple Ridge as a commenting body in the siting of antenna support structures. As a form of comment, SBA is requesting land use concurrence from the City given that SBA has met the expectations of the protocol and addressed all relevant public comments. In order to satisfy Industry Canada's requirements, land use concurrence may come in the form of Council-adopted resolution or a Council authorized letter from the City of Maple Ridge.

Although not required in order to satisfy Industry Canada, SBA has also filed a Development Permit application along with an Environmental Assessment in order to adhere to the City's approval process requirements. SBA will also submit a Building Permit application.

Construction Schedule

Construction is expected to commence shortly after the Development Permit and Building Permit are issued by the City. Construction is estimated to commence in May and should last no more than approximately three (3) months, including provisioning of power to the proposed tower facility.

Note: All property owners and occupants within a 350-meter radius of the proposed tower received notification packages via regular mail and were invited to the public meeting. The notification radius required in the protocol is 300 meters, however it was voluntarily extended to ensure that the adjacent property owners were appropriately notified.



APPENDIX B - PUBLIC COMMENTS AND RESPONSES

SBA received two (2) supportive public comment sheets as summarized below (see Appendix C). In addition to the two supportive comment sheets, SBA also received one (1) email inquiry regarding whether the proposed tower would impact the horseback riding trails in the area.

Name	Contact Information	Method of Contact	Comments Received	Responses Provided
Michael McAuley	mmcauley@shaw.ca 5-13511 240 Street Maple Ridge, BC V4R 0A4	Emailed Comment Sheet - February 14, 2015	Michael is supportive of the tower location as it will prevent him from losing connectivity which is currently a problem in the area	We thanked Michael for his comments and encouraged him to attend the public meeting on February 24
Marilyn Sander	mar.sander@shaw.ca 5-13511 240 Street Maple Ridge, BC V4R 0A4	Emailed Comment Sheet - February 14, 2015	Marilyn indicated that the proposed tower location will improve cell service to the area. She noted that this will be helpful in the event of emergencies along the trails in the area.	We thanked Marilyn for her comments and encouraged her to attend the public meeting on February 24.
Heather Tottenham	totts@smarrt.com 13550 240 Street, Maple Ridge	Emailed comments - February 19, 2015	Heather inquired as to whether the proposal will impact the existing hiking and equestrian trails. She asked whether cell service will be improved in Golden Ears Park.	We emailed Heather and confirmed that the existing trails would not be impacted as the existing access road to the existing water tower facility will be used. We also confirmed that cell service may be improved for Rogers customers in the southern portion of Golden Ears Park.

Beyond the above noted public comments, SBA also had one (1) attendee at the public meeting. The attendee expressed concerns regarding health and, as a result, SBA provided information sheets from Health Canada and the Vancouver Coastal Health Authority Chief Medical Health Officer and noted the following points:

- Canada has one of the most rigorous safety codes in the world for devices that emit radio frequency (RF) energy. Specifically, wireless carriers in Canada must comply with Health Canada's Safety Code 6 - a standard that is comparable to the European Union safety regulations.
- Safety Code 6 was developed and recently updated in 2009 by Health Canada as the exposure standard for the regulation of mobile phones, base stations, Wi-Fi and other radio communications emitting infrastructure.
- The exposure limits are the result of thorough and ongoing scientific review and are comparable to similar safety codes in Europe, the USA, Japan and Australia.
- Industry Canada has made compliance with Safety Code 6 a condition of licence for all Canadian wireless carriers.
- Regarding public safety, over 70% of all calls to 9-11 and other emergency service providers are now made through wireless communication devices.

In addition to health concerns, the open house attendee expressed concerns about whether the tower would be visible from the surrounding community. SBA noted that the top portion of the tower may be visible from some of the surrounding properties and referenced the provided photo simulation. SBA further noted that in order to provide dependable wireless service, the antennas on the tower would need to be above the tree line and natural obstacles in the area. The attendee was pleased that the tower would likely not be visible from their property, if constructed.

The also attendee inquired as to whether the tower could be located further to the east, near the Fraser Regional Correctional Centre (jail) at 13777 256th Street. SBA stated that this location is beyond the search area and would not provide the needed wireless service improvements.

COMMENT SHEET
PROPOSED TELECOMMUNICATIONS TOWER
49° 14' 55.56" North, -122° 33' 12.33" West
City of Maple Ridge
SBA CANADA FILE: BC70909-B – Rockridge Reservoir

1. Are you a cellular phone or wireless device user?

☒ Yes
☐ No

2. Do you feel this is an appropriate location for the proposed facility?

☒ Yes
☐ No

Comments

EXCELLENT LOCATION - NOW MY CELL PHONE SIGNAL
WILL HAVE GOOD STRENGTH & I WON'T LOSE CONNECTION
LIKE I DO NOW

3. Are you satisfied with the appearance / design of the proposed facility? If not, what changes would you suggest?

☒ Yes
☐ No

Comments

Additional Comments

PEOPLE USING THE TRAILS WILL HAVE CELL COVERAGE
IN CASE OF AN EMERGENCY

Please provide your name and full mailing address if you would like to be informed about the status of this proposal. This information will not be used for marketing purposes.

Name MICHAEL MCANLEY
(Please print clearly)

Mailing Address 5-13511 240 ST
MAPLE RIDGE BC
V4R 0A4

Please email to briangregg@sitepathconsulting.com
or mail to 1903 – 838 W Hastings Street, Vancouver BC V6C 0A6
ATTENTION: Brian Gregg
by March 31, 2015.

Thank you for your input.

COMMENT SHEET
PROPOSED TELECOMMUNICATIONS TOWER
49° 14' 55.56 " North, -122° 33' 12.33" West
City of Maple Ridge
SBA CANADA FILE: BC70909-B – Rockridge Reservoir

1. Are you a cellular phone or wireless device user?

- ☒ Yes
☐ No

2. Do you feel this is an appropriate location for the proposed facility?

- ☒ Yes
☐ No

Comments

LOCATION WILL PROVIDE BETTER SIGNAL STRENGTH
AND COVERAGE TO THE PEOPLE IN THIS AREA
OF MAPLE RIDGE

3. Are you satisfied with the appearance / design of the proposed facility? If not, what changes would you suggest?

- ☒ Yes
☐ No

Comments

Additional Comments

WILL PROVIDE PEOPLE WHO USE THE TRAILS BETTER
CELL COVERAGE IN CASE OF EMERGENCY

Please provide your name and full mailing address if you would like to be informed about the status of this proposal. This information will not be used for marketing purposes.

Name MARILYN SANDER
(Please print clearly)

Mailing Address 5-13511 240 ST
MAPLE RIDGE BC
V4X 0A4

Please email to briangregg@sitepathconsulting.com
or mail to 1903 – 838 W Hastings Street, Vancouver BC V6C 0A6
ATTENTION: Brian Gregg
by March 31, 2015.

Thank you for your input.

City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: Council Procedure Amending Bylaw

MEETING DATE: April 20, 2015
FILE NO:
MEETING: Committee of the Whole

EXECUTIVE SUMMARY:

At its March 30, 2015 Council Workshop, Council directed staff to amend Maple Ridge Council Procedure Bylaw No. 6472-2007 to remove Mayor and Councillor Reports from the Council Agenda. Council could also consider amending the bylaw to remove the Moment of Reflection from the Council agenda. The Moment of Reflection is often an announcement of upcoming events. Announcements can be dealt in other ways, i.e. on-line newsletters, newspaper advertisements, and social media. Attached to this report is the amending bylaw to effect these changes. Section 124 (3) of the *Community Charter* requires that Council give public notice describing the proposed changes of its procedures. If three readings are given to the amending bylaw, notice will be published in the local newspaper and posted in the public notice posting place at City Hall prior to the bylaw being considered for final reading. In addition, the notice will be posted to the City website.

RECOMMENDATIONS:

That Bylaw No. 7149-2015 be given first, second and third readings.

"Original signed by Ceri Marlo"

Prepared by: Ceri Marlo, C.M.C.

Manager of Legislative Services and Emergency Program

"Original signed by Paul Gill"

Approved by: Paul Gill, B.B.A, C.G.A, F.R.M

General Manager: Corporate & Financial Services

"Original signed by J.L. (Jim) Rule"

Concurrence: J.L. (Jim) Rule

Chief Administrative Officer

:cm

CITY OF MAPLE RIDGE

BYLAW NO.7149-2015

A Bylaw to amend the Maple Ridge Council Procedure Bylaw No. 6472-2007

WHEREAS, it is deemed expedient to amend Maple Ridge Council Procedure Bylaw 6472-2007 as amended;

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

1. This Bylaw may be cited as the "Maple Ridge Council Procedure Amending Bylaw No. 7149-2015".
2. That Maple Ridge Council Procedure Bylaw No. 6472-2007, be amended by:
 - (a) Deleting items (n) and (o) from Part 12, Section 31 - Order of Proceedings and Business, and renumbering the subsequent agenda items accordingly.
 - (b) Deleting Part 19 – Moment of Reflection, Sections 59-64, in its entirety and renumbering the subsequent parts and sections accordingly.

READ A FIRST TIME this day of, 20 .

READ A SECOND TIME this day of, 20 .

READ A THIRD TIME this day of, 20 .

ADOPTED this day of, 20 .

PRESIDING MEMBER

CORPORATE OFFICER

City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: Ridge Meadows Youth & Justice Advocacy Association Director Position

MEETING DATE: April 20, 2015
FILE NO:
MEETING: Committee of the Whole

EXECUTIVE SUMMARY:

Currently the Mayors of Maple Ridge and Pitt Meadows are appointed as directors to the Ridge Meadows Youth & Justice Advocacy Association. A 2013 decision by the British Columbia Court of Appeal clarified that a local government elected official, who is also a director of a society, has an indirect pecuniary interest in matters relating to the expenditure of public funds to that society. The elected official would, therefore, not be able to participate in those matters when they come before Council. To avoid potential conflict of interest, Council may wish to request that the role of an elected official be changed to that of a council liaison rather than a director. Pitt Meadows is considering a similar resolution. Attached for reference as Appendix A is joint bulletin from the UBCM and LGMA outlining the Court's decision and questions local governments may wish to consider as a result.

RECOMMENDATION:

That staff be directed to request that the Ridge Meadows Youth & Justice Advocacy Association amend their establishing constitution to remove local government elected officials from being directors on their board.

"Original signed by Ceri Marlo"

Prepared by: Ceri Marlo, C.M.C.

Manager of Legislative Services and Emergency Program

"Original signed by Paul Gill"

Approved by: Paul Gill, B.B.A, C.G.A, F.R.M

General Manager: Corporate & Financial Services

"Original signed by J.L. (Jim) Rule"

Concurrence: J.L. (Jim) Rule

Chief Administrative Officer

:cm

Attachment – Appendix A



The recent British Columbia Court of Appeal (BCCA) decision on conflict of interest in [*Schlenker v. Torgrimson*](#) has introduced a number of considerations for staff and elected officials when determining when elected officials may be in a conflict of interest contrary to provisions of the *Community Charter*.

The Local Government Management Association and the Union of BC Municipalities have collaborated with the Ministry of Community, Sport and Cultural Development to review the BCCA decision and identify some key questions and practical steps to assist local government elected officials and staff when applying the implications of the decision to their individual circumstances.

While we cannot provide definitive remedies or certainty of interpretation of the BCCA decision, we are hopeful that these questions and practical steps will guide discussions and assist local government officials in their considerations in circumstances where direct or indirect pecuniary interest may arise. These questions and practical steps are not in any way intended to replace legal advice.

The bulletins from a number of local government legal advisors are also included for reference.

A handwritten signature in black ink that reads "Mayor Mary Sjostrom". The signature is written in a cursive, flowing style.

Mayor Mary Sjostrom
President
Union of BC Municipalities

A handwritten signature in black ink that appears to be "Corien Speaker". The signature is written in a cursive, flowing style.

Corien Speaker, CGA
President
Local Government Management Association
of BC



BCCA Decision on Conflict of Interest – Some Questions to Consider

Purpose:

Local government elected officials and staff are assessing the implications of the British Columbia Court of Appeal's recent conflict of interest decision in *Schlenker v. Torgrimson* ("BCCA decision").

This bulletin sets out some preliminary considerations on the applicability of the BCCA decision, and some practical tips for local governments and elected officials trying to avoid or minimize risks in the type of conflict of interest situation covered by that decision.

This bulletin does not provide legal advice. Determining how the law might apply to the particular circumstances an elected official faces is ultimately a question for that person and their legal advisor.

Background:

On January 11, 2013, the BCCA decision found that 2 locally-elected Salt Spring Island (SSI) trustees were in conflict of interest. Those trustees had moved and voted on resolutions to "dedicate" monies to two non-profit societies – the SSI Water Council Society and the SSI Climate Action Council Society – for the specific purposes of running a workshop and providing a report to the Local Trust Committee. At the time of those decisions, the locally elected trustees were directors of those societies. The two societies had been incorporated to coordinate multi-party work on these matters of interest to the Local Trust Committee, and were comprised of various organizations, including local governments.

The BCCA decision overturned the lower court and found that the locally-elected trustees had an indirect pecuniary interest in those decisions because of their legal obligations as directors of the societies. Since they had failed to declare that interest and absent themselves from participation/voting, they were in contravention of the *Community Charter* rules which apply to most locally elected officials (CC Part 4, Division 6). As the trustees' term had ended and they did not run again, the court did not apply the consequence of disqualification.

Impact of the Decision

The BCCA decision establishes some important principles of law for elected officials who are directors of societies. Here are some preliminary questions that may be helpful when considering whether those principles are relevant to the specific situation or circumstances facing an elected official.

- **Is there a financial decision or matter before the council/board?**

A fundamental principle of the conflict rules in ss. 100-103 of the *Community Charter* is that an elected official is required to declare a conflict of interest and absent him/herself from participation/voting/influencing if he/she has a direct or indirect pecuniary interest: in a matter under consideration at a meeting of the council/board or meetings of other bodies covered by the rules; or in a decision, recommendation or other action to be taken by an employee or third party. That involves two elements: (1) a direct or indirect pecuniary (financial) interest, the nature of which is defined by the courts based on case law; and (2) that interest being in a matter under consideration – for example, at a meeting or by an employee. In other words, conflict does not arise simply because of a person's status as both an elected official and a director of a society; there has to be a matter in front of the local government which has financial implications for that society.

In the BCCA decision, the locally-elected trustees' financial decisions to "dedicate" monies to the societies for the specific purposes of running a workshop and providing a report were characterized as decisions to pay service contracts. Because directors of societies (like directors of business corporations) have a pecuniary interest in any contract the society is awarded and those directors have a fiduciary duty to put the society's interests first, the BCCA decision found that their duties as directors were in direct conflict with their duties as locally-elected trustees to put the public's interests first.

Not every matter in front of a council/board which relates to a society involves a financial decision covered by the BCCA decision (e.g. declaring a day of recognition in support of the society's cause). However, keep in mind that in some circumstances, non-financial interests may give rise to conflicts of interest at common law.

- **What type of body is involved?**

The BCCA decision focused on certain incorporated bodies -- societies under the *Society Act* and, by analogy, business corporations under the *Business Corporations Act*. These bodies are separate legal entities from the local government. Bodies that are created by local governments as part of the local government – such as committees and commissions – are not separate legal entities.

Not every type of incorporated body is the same -- e.g. corporations such as the Union of BC Municipalities have their own Acts, rather than being fully covered by the *Society Act* or *Business Corporations Act*.

As well, the BCCA decision does not cover bodies on which local governments are required by law to have members (e.g. library board; Municipal Finance Authority; municipal directors on regional district boards; Provincial Capital Commission; BC Transit).

- **What is the elected official's role in the society?**

The BCCA decision focused on elected officials who were also directors of societies – because directors of such incorporated bodies have a fiduciary duty to that body (i.e. to act in the best interests of the society). The position of a member of a society does not have the same inherent fiduciary duty. Whether there is a potential personal benefit for a member of a society would be determined by the particular circumstances, not directly by the BCCA decision.

These are not the only questions to ask; however, if answers to these preliminary questions indicate that the principles in the BCCA decision may apply, an elected official would need to carefully assess the situation and seek legal advice as necessary.

Practical Steps

Until there are further court decisions, it cannot be clearly known how far the principles established by the BCCA decision might apply. That uncertainty and the potential consequence of disqualification mean that caution is important; at the same time, elected officials and their local governments must be able to make the decisions needed to carry on day-to-day business.

Elected officials and their local governments may want to consider what steps could be taken to avoid or minimize the risk in situations that might be considered a conflict of interest under the BCCA decision – whether by clarifying roles or by taking care in designing relationships with non-profit societies. While there can be no guarantees that particular actions will prevent a conflict of interest situation, the following are a few practical steps to consider:

In relation to societies on which elected officials choose to be directors....

- ensure that elected officials understand the rules -- e.g. have orientations and regular legal refreshers for council/board members on conflict of interest generally, the BCCA decision and the rules for disclosing conflicts and absenting themselves from discussions;
- encourage elected officials to carefully consider the risks in retaining directorships in non-profit societies which may be seeking financial support or other decisions from the local government.

In relation to local government's ongoing membership in a society...

- consider separating the council/board's decision on its membership (and membership dues) from any decisions on whether to provide grants or other forms of financial assistance to the society.

In relation to societies to which the local government has traditionally appointed elected officials as directors...

- consider having an elected official be a non-voting “observer” or “liaison” on the society’s board rather than appointing them as a director, and provide clear terms of reference for that observer/liaison role;
- consider alternatives to appointing elected officials – e.g. appoint citizen representatives to the society’s board;
- consider alternatives to board appointments – e.g. set out in an agreement with the society the council/board’s expectations and monitor the society’s performance based on that agreement.

If you/your local government have considered or taken other practical steps, please pass them along to Nancy Taylor, Executive Director, LGMA at ntaylor@lgma.ca so that they could be available for sharing.

Conclusion

At this time, UBCM and LGMA will continue to monitor the BCCA decision’s application, and work with the provincial government to more fully understand its implications for local governments and elected officials.

City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: 2015 Tax Rate Bylaws – Maple Ridge Road 13 Dyking District and Albion Dyking District

MEETING DATE: April 20, 2015
FILE NO:
MEETING: Committee of the Whole

EXECUTIVE SUMMARY:

The City of Maple Ridge serves as Interim Trustee for Maple Ridge Road 13 Dyking District and Albion Dyking District. Levies are collected from property owners within those diking districts to maintain the dikes and equipment. Bylaws have been prepared for the collection of these levies. A 2.9% increase is proposed from the rates levied in 2014.

RECOMMENDATIONS:

That Albion Dyking District Tax Rates Bylaw No. 7147-2015 be given first, second and third readings and that Maple Ridge Road 13 Dyking District Tax Rates Bylaw No. 7148-2015 be given first, second and third readings.

DISCUSSION:

No funds are allocated in the Capital Works budget for these dikes. All works must be funded through the diking districts. Provincial grants are available but these generally require that the recipient pay 33% of all costs. In addition to funding upgrades of the dikes, it is important to build up sufficient reserves to provide for pump replacement in the event of a non-insured failure. Neither diking district has sufficient funds at this time to do so. This has necessitated moderate increases in rates to build up their reserves over multiple years.

“Original signed by Ceri Marlo”
Prepared by: Ceri Marlo, C.M.C.
Manager of Legislative Services

“Original signed by Paul Gill”
Approved by: Paul Gill, BBA, CGA
General Manager: Corporate & Financial Services

“Original signed by Russ Carmichael”
Prepared by: Russ Carmichael
Director of Engineering Operations

“Original signed by J.L. (Jim) Rule”
Concurrence: J.L. (Jim) Rule
Chief Administrative Officer

CITY OF MAPLE RIDGE

BYLAW NO. 7147-2015

A bylaw for imposing taxes upon lands in the Albion Dyking District

The Municipal Council of the City of Maple Ridge, acting as Receiver for the Albion Dyking District, enacts as follows:

1. This Bylaw may be cited for all purposes as “Albion Dyking District Tax Rates Bylaw No. 7147-2015”.
2. The following rates are hereby imposed and levied for those lands within the boundaries of Albion Dyking District:

For purposes of dyke maintenance and improvements and equipment repair and maintenance:

- (a) a rate of \$2.391 per \$1000 of assessment of land and improvements in all categories
3. If any section, subsection, clause or other part of this Bylaw is for any reason held to be invalid by the decision of a court of competent jurisdiction, such decision will not affect the validity of the remaining portions of this Bylaw.

READ a first time on the day of , 20 .

READ a second time on the day of , 20 .

READ a third time on the day of , 20 .

ADOPTED on the day of , 20 .

PRESIDING MEMBER

CORPORATE OFFICER

CITY OF MAPLE RIDGE

BYLAW NO. 7148-2015

A bylaw for imposing taxes upon lands in Maple Ridge Road 13 Dyking District

The Municipal Council of the City of Maple Ridge, acting on behalf of the Trustees for Maple Ridge Road 13 Dyking District, enacts as follows:

1. This Bylaw may be cited for all purposes as "Maple Ridge Road 13 Dyking District Tax Rates Bylaw No. 7148-2015".
2. The following rates are hereby imposed and levied for those lands within the boundaries of Maple Ridge Road 13 Dyking District:

For purposes of dyke maintenance and improvements and equipment repair and maintenance:

- (a) a rate of \$0.5223 per \$1000 of assessment of land and improvements in all categories
 - (b) a rate of \$12.00 per acre of land with a minimum charge of \$5.00.
3. If any section, subsection, clause or other part of this Bylaw is for any reason held to be invalid by the decision of a court of competent jurisdiction, such decision will not affect the validity of the remaining portions of this Bylaw.

READ a first time on the day of , 20 .

READ a second time on the day of , 20 .

READ a third time on the day of , 20 .

ADOPTED on the day of , 20 .

PRESIDING MEMBER

CORPORATE OFFICER



City of Maple Ridge

TO: Her Worship Mayor Nicole Read and Members of Council
DATE: April 20, 2015
FROM: Chief Administrative Officer
SUBJECT: Disbursements for the month ended March 31, 2015
Committee of the Whole

EXECUTIVE SUMMARY:

The disbursements summary for the past period is attached for information. All voucher payments are approved by the Mayor or Acting Mayor and a Finance Manager. Council authorizes the disbursements listing through Council resolution. Expenditure details are available by request through the Finance Department.

RECOMMENDATION:

That the disbursements as listed below for the month ended March 31, 2015 is received for information only.

GENERAL	\$ 4,792,333
PAYROLL	\$ 1,604,127
PURCHASE CARD	\$ <u>120,862</u>
	\$ <u>6,517,322</u>

DISCUSSION:

a) Background Context:

The adoption of the Five Year Consolidated Financial Plan has appropriated funds and provided authorization for expenditures to deliver municipal services.

The disbursements are for expenditures that are provided in the financial plan.

b) Community Communications:

The citizens of Maple Ridge are informed on a routine monthly basis of financial disbursements.

c) Business Plan / Financial Implications:

Highlights of larger items included in Financial Plan or Council Resolution

• Emergency Communications – Dispatch levy – 1 st quarter	\$	248,888
• First Truck Centre Vanc Inc – Freightliner single axle dump truck	\$	158,854
• Fraser Valley Regional Library – 1 st quarter member assessment	\$	653,433
• Ridge Meadows Recycling Society – Monthly contract for recycling	\$	187,464

d) Policy Implications:

Corporate governance practice includes reporting the disbursements to Council monthly.

CONCLUSIONS:

The disbursements for the month ended March 31, 2015 have been reviewed and are in order.

Prepared by: **G'Ann Rygg**
Accounting Clerk II

Approved by: **Trevor Thompson, BBA, CPA, CGA**
Manager of Financial Planning

Approved by: **Paul Gill, BBA, CPA, CGA**
GM – Corporate & Financial Services

Concurrence: **J.L. (Jim) Rule**
Chief Administrative Officer

gmr

CITY OF MAPLE RIDGE
MONTHLY DISBURSEMENTS - MARCH 2015

<u>VENDOR NAME</u>	<u>DESCRIPTION OF PAYMENT</u>		<u>AMOUNT</u>
Aptean Inc	Ross software annual maintenance fees		82,086
Arsalan Construction Ltd	Downtown road improvements - Edge St	128,241	
	Downtown road improvements - 119 Ave	4,156	
	Downtown road improvements - Selkirk Ave	5,250	137,647
BC Hydro	Electricity		118,367
BC Hydro & Power Authority	Pole relocations on 128 Ave (210 St to 216 St)	2,100	
	Pole relocations on Larch Ave at 235 St	11,241	
	Street lights on 119 Ave	1,973	15,314
BC SPCA	Contract payment		28,839
Boileau Electric & Pole Ltd	Maintenance: Banners	606	
	BMX Park	161	
	Firehalls	132	
	Leisure Centre	7,639	
	Street lights	12,798	
	Street signals	1,088	
	Whonnock Lake Community Centre	549	22,973
CUPE Local 622	Dues - pay periods 15/05 & 15/06		24,458
Chevron Canada Ltd	Gasoline & diesel fuel		52,903
City Of Pitt Meadows	PM Arena operating costshare 2014		83,894
Cobing Building Solutions	Electrical/Mechanical:		
	Leisure Centre	20,370	
	Randy Herman Building	380	20,750
Emergency Communications	Dispatch levy - 1st quarter		248,888
Falcon Hill	Security refund		51,280
Family Education & Support Ctr	Community network coordination		30,000
First Truck Centre Vanc Inc	2015 Freightliner single axle dump truck		158,854
Fitness Edge	Fitness classes & programs		18,729
FortisBC - Natural Gas	Natural gas		22,730
Fraser Valley Regional Library	1st quarter member assessment		653,433
Fred Surridge Ltd	Waterworks supplies		21,971
Golden Ears Ortho & Sports	Fitness classes & programs		15,769
Gr Vanc Sewerage & Drainage	Transfer station waste disposal	183	
	Waste discharge industrial treatment fee - Cottonwood	9,394	
	Waste discharge permit administration fee - Cottonwood	5,583	15,160
Hallmark Facility Services Inc	Janitorial services & supplies Jan 15 to Mar 14/15:		
	Firehalls	8,925	
	Library	8,442	
	City Hall	6,720	
	Operations	7,980	
	Randy Herman Building	9,345	
	RCMP	8,138	
	South Bonson Community Centre	4,830	
	Whonnock Lake Community Centre	892	55,272
Homesite Developments (Zeron)	Security refund		80,170
Image Painting & Restoration	Painting & restoration services:		
	Davidson caretaker house	10,240	
	Leisure Centre	693	
	Randy Herman Building	1,843	
	RCMP	2,450	
	Whonnock Lake Community Centre	782	16,008

<u>VENDOR NAME</u>	<u>DESCRIPTION OF PAYMENT</u>	<u>AMOUNT</u>
Jacks Automotive & Welding	Fire Dept equipment repairs	17,624
Kev Construction Ltd.	Work related to Abernethy Way property acquisitions	16,538
Machinex Recycling Service Inc	Recycling depot yard hopper & conveyor bed	68,756
Manulife Financial	Employer/employee remittance	148,803
Maple Ridge & PM Arts Council	Arts Centre contract payment	52,224
	Program revenue Feb	3,064
	Subsidized program fee	1,120
Medical Services Plan	Employee medical & health premiums	39,983
Municipal Pension Plan BC	Employer/employee remittance	430,238
North Of 49 Enterprises Ltd	Skating lesson programs	20,884
Northwest Hydraulic Consultant	Flood study Alouette Rivers	20,760
Nustadia Recreation Inc	Subsidized ice purchased by P&LS on behalf of user groups	69,995
Ocean Pipe T6045	Sewer supplies	16,834
Oracle Corporation Canada Inc	Database software license & support	16,828
Panorama LMS 4011	Strata fees Mar & Apr	21,780
Paul Bunyan Tree Services	Tree maintenance & damaged tree removal	16,417
Receiver General For Canada	Employer/Employee remittance PP15/05 & PP15/06	798,907
RG Arenas (Maple Ridge) Ltd	Ice rental Dec less public skate collections	55,882
	Youth program skate & helmet rentals	819
Ridge Meadows Recycling Society	Monthly contract for recycling	187,464
	Weekly recycling	376
	Litter pickup contract	1,723
	Recycling station pickup	297
	Roadside waste removal	95
	Toilet rebate program	178
	Earth Day display	10
Spyders Inc	Infrastructure Management Ph 1	605
	IT consulting	20,654
	Water security improvements	40,580
Union Of BC Municipalities	2015 annual dues	16,688
Warrington PCI Management	Advance for Tower common costs plus expenses	79,964
Zoom Audio Visual Networks Inc	Recording equipment & software for Council meetings	19,454
Disbursements In Excess \$15,000		4,161,041
Disbursements Under \$15,000		631,292
Total Payee Disbursements		4,792,333
Payroll	PP15/05 & PP15/06	1,604,127
Purchase Cards - Payment		120,862
Total Disbursements March 2015		6,517,322

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: 2014 Consolidated Financial Statements

MEETING DATE: 20-April-2015
FILE NO:
MEETING: COW

EXECUTIVE SUMMARY:

The 2014 Financial Statements have been prepared using the accounting standards and reporting model mandated by the Public Sector Accounting Board (PSAB). BDO Canada LLP has conducted an audit of the financial statements, which will form an integral part of the 2014 Annual Report. In order to satisfy current audit rules, Council must formally accept the financial statements before BDO can issue their audit opinion.

Financial reporting in local government serves to communicate the fiscal health and well-being of a community and there are two main documents that form part of the City's financial reporting:

- The **Financial Plan**, a forward looking document that sets out planned expenditures and how they will be paid for over the next five years, and
- The **Financial Statements**, a backwards looking document that reports on the City's financial condition at a point in time and financial performance during the year.

There are a number of key terms included in the financial statements that are important to understand before drawing any conclusions about the City's financial results for 2014:

- **Net Financial Position:** provides a snapshot of where the City stands financially in terms of the resources it held and the debt it owed at December 31. It is the difference between our financial assets and our liabilities and provides an indication of financial flexibility. If Net Financial Position is negative it is referred to as Net Debt and indicates that revenues that will be collected in the future are needed to pay for liabilities that already exist. If it is positive, it is referred to as Net Financial Assets and indicates a greater degree of flexibility.
- **Accumulated Surplus:** is the total of all the City's assets, both financial and non-financial, less our liabilities. It represents the net economic resources available for service provision. The largest element of this number is the value of our tangible capital assets, the physical assets used in day-to-day service provision; consequently, the accumulated surplus balance does not represent a source of cash available to finance our day-to-day operations.
- **Annual Surplus:** is the difference between annual revenues and expenses, as reported on the Statement of Operations. On the revenue side, we report items such as grants and development revenues received as funding for capital projects as well as the value of contributed tangible capital assets. On the expense side, only the annual cost of using those assets is recognized through amortization. The amounts expended for capital investment or renewal is not included, nor is the value of infrastructure contributed to the City through development. This accounting requirement results in a large reported annual surplus, but does not necessarily represent a cash surplus.

As part of the City's ongoing work related to the inclusion of the City's tangible capital assets on our financial statements, 2013 results have been restated to reflect better information that became

available during the year. This resulted in an increase to 2013 accumulated surplus of \$6.9 million to \$916.5 million or less than 1% of the book value of the City's tangible capital assets.

This report focuses on our Financial Statements for the 2014 fiscal year. Overall results for the year were positive. Our Net Financial Position increased by \$9.8 million to \$51.8 million and our Accumulated Surplus increased by \$31.84 million to \$948 million. The details behind these results are discussed in the body of this report.

RECOMMENDATION(S):

That the 2014 Consolidated Financial Statements be accepted.

DISCUSSION:

Financial reporting in local government serves to communicate the fiscal health and well-being of a community and there are two main documents that form part of the City's financial reporting: the **Financial Plan** and the **Financial Statements**, each with very different objectives.

The **Financial Plan** is a forward looking document that sets out the City's planned expenditures and transfers to reserves for the next five years and identifies how those expenditures and transfers will be funded. The Community Charter requires that municipalities prepare a "balanced budget", which means that the total of any proposed expenditures or transfers to reserves must not exceed the total of proposed revenues or transfers from reserves. In simple terms, the Financial Plan answers the question: "what are we going to do and how are we going to pay for it?"

In contrast, The **Financial Statements** are a backwards looking document that look at the year just ended, comparing our actual financial performance in a year to the activities identified in the Financial Plan. The Community Charter requires municipalities to prepare their financial statements in accordance with generally accepted accounting principles for local governments. In Canada, those principles are set by the Public Sector Accounting Board (PSAB). The objective of a municipality's financial statements is to report on its financial condition at a point in time and its financial performance for the year.

The different objectives of the Financial Plan and the Financial Statements, combined with the different rules guiding their preparation, can easily result in confusion when trying to compare the two documents. For example, the Financial Plan treats transfers to and from reserves as transactions, while the Financial Statements, at the consolidated level, ignore transfers as they take place within the corporate entity. It's important to keep those differing objectives and rules in mind as we now look at financial results for 2014.

The 2014 Consolidated Financial Statements present the City's results of operations during the year and the financial position as at December 31, 2014. Financial performance is compared to the Financial Plan adopted in May of 2014 as this was the plan used to set property taxation rates, and to prior year results. The transactions included in the Financial Statements are those that took place between the City and outside parties. Internal transactions, such as transfers between reserves, which are important for financial planning purposes, have been eliminated.

The City's auditors, BDO Canada LLP, have conducted an audit of the 2014 Consolidated Financial Statements and, pending Council's acceptance of the statements, will finalize their audit report. The audit report will be "unqualified" which is the highest form of assurance an auditor can provide and indicates that the statements are free of material misstatements and that readers can rely on them for decision making purposes.

There are a number of key terms included in the financial statements that are important to understand before drawing any conclusions about the City's results for 2014:

- **Net Financial Position:** provides a snapshot of where the City stands financially in terms of the resources it held and the debt it owed at December 31. It is the difference between our financial assets and our liabilities and provides an indication of financial flexibility. If Net Financial Position is negative it is referred to as Net Debt and indicates that revenues that will be collected in the future are needed to pay for liabilities that already exist. If it is positive, it is referred to as Net Financial Assets and indicates a greater degree of flexibility.
- **Accumulated Surplus:** is the total of all the City's assets, both financial and non-financial, less our liabilities. It represents the net economic resources available for service provision. The largest element of this number is the value of our tangible capital assets, the physical assets used in day-to-day service provision; consequently, the accumulated surplus balance does not represent a source of cash available to finance our day-to-day operations.
- **Annual Surplus:** is the difference between annual revenues and expenses, as reported on the Statement of Operations. On the revenue side, we report items such as grants and development revenues received as funding for capital projects as well as the value of contributed tangible capital assets. On the expense side, only the annual cost of using those assets is recognized through amortization. The amounts expended for capital investment or renewal is not included, nor is the value of infrastructure contributed to the City through development. This accounting requirement results in a large reported annual surplus, but does not necessarily represent a cash surplus.

The City's Financial Statements are comprised of the following:

- Statement of Financial Position
- Statement of Operations
- Statement of Change in Net Financial Assets
- Statement of Cash Flow
- Notes to the Financial Statements
- Segment Report
- Supporting Schedules 1-6

The Notes to the Financial Statements provide additional information for the items found on the Statement of Financial Position and the Statement of Operations and are referenced on each of these statements.

As noted earlier, the City's financial statements are prepared using the accounting standards and reporting model prescribed by PSAB. In 2009, the reporting model was changed, moving from a modified revenue and expenditure basis to a full accrual model. This new reporting model required the inclusion of previously unreported non-financial assets, such as tangible capital assets and the related amortization expense. The work required to record and value these assets is ongoing and as better information becomes available, we make sure our records are updated to reflect that. In 2014, this resulted in retroactive adjustments to 2013 results, the result of which was to increase both Annual and Accumulated Surplus by \$6.9 million to \$54.3 million and \$916.5 million respectively. It should be noted that the magnitude of these changes is less than 1% of the book value of the City's tangible capital assets.

A discussion of the Financial Statements follows:

Statement of Financial Position

The Statement of Financial Position is the public sector version of a balance sheet. One of the key indicators on this statement is the Net Financial Position. As noted above, it is calculated by

subtracting our liabilities from our financial assets and is one piece of information available to assess our financial flexibility. At the end of 2014, the City had Net Financial Assets of \$51.8 million, an increase of \$9.8 million over 2013, resulting from timing differences between revenues and the related expenditures. For example, as part of our long-term financial planning processes, we may collect revenues over time to build the financial capacity for future expenditures. This practice will increase our financial assets, and our financial position, until the expenditures occur.

The other key indicator that appears on this statement is our Accumulated Surplus, which as noted above, is the total of all our assets, both financial and non-financial, less our liabilities. This number represents the net economic resources available for service provision. The bulk of the number is comprised of the value of our tangible capital assets, meaning it does not represent cash that can be spent to support our operations. At the end of 2014 the City's accumulated surplus was \$948 million, up from \$916 million in 2013.

Key items to note on the Statement of Financial Position:

- Combined cash and cash equivalents and portfolio investments increased by \$9.1 million. This is the result of increased cash balances available to invest due to timing differences between planned and actual expenditures. (Note 1 to the Financial Statements)
- Debt decreased by \$2.67 million as set out in the Financial Plan, due to the scheduled repayment of debt, most of which relates to the Town Centre Project.

Statement of Operations

The Statement of Operations is the public sector version of an income statement, reporting revenues and expenses for the year. The difference between revenues and expenses is referred to as the annual surplus if positive, or the annual deficit if negative. It is important to note that accounting rules require us to include in revenue items such as the value of infrastructure contributed to the city through development, but on the expense side we include only the cost of using those assets through amortization, not the value of the assets received. This timing difference results in a reported annual surplus that does not represent a cash surplus. For example, in 2014, the City received contributed tangible capital assets with a value of \$23.2 million, this was recorded as revenue. On the expense side, the amortization recorded for these assets was \$436.3K. The City's 2014 annual surplus was \$31.84 million.

As noted earlier in the report, when we prepare the Financial Plan, we ensure that all planned sources of revenue are equal to all planned uses of revenue, the result referred to as a "balanced budget". Not all of the elements that result in this balanced budget are included in the Statement of Operations. Some Financial Plan transactions, such as transfers to and from reserves, are eliminated from the summary financial statements as they are internal transactions. Other items are not included as they do not meet the definition of an expense. For example our planned investment in tangible capital assets will result in an expenditure of resources, but is not an expense and not included on the Statement of Operations. The annual cost of using those assets, amortization, is an expense and is included. A reconciliation between the Financial Plan and the Financial Statements is shown in Note 15 to the Financial Statements.

The following discusses the Statement of Operations:

Consolidated Revenues – Actual \$146.5 million; Budget \$151 million

Not all monies the City receives are recorded as revenues at the time of receipt. Monies such as Development Cost Charges or Parkland Acquisition fees that are collected for specific capital works are recorded as a liability when received. When we budget for the capital expenditures that are funded from these sources we also budget to record the revenue, which results in a draw down of

the liability. If capital expenditures do not occur, no revenue is recognized and the funds remain on hand, recorded as a liability.

In 2014, consolidated revenues were below budget by \$4.5 million. This is comprised of variances in a number of categories, particularly in relation to capital. The following highlights some of the key variances:

- Development revenues below budget estimates by \$9.7 million, due to factors such as DCC liabilities not being drawn down
- Government transfers (grants) below budget estimates by \$2.3 million
- Developer contributed assets in excess of budget estimates by \$6.7 million
- User fees in excess of budget estimates by \$1.4 million

As noted above, revenues below budget estimates for grants and development revenues do not represent a cash shortfall as the related expenditures did not occur.

Consolidated Expenses – Actual \$114.65 million; Budget \$130.53 million

Expenses are comprised of general operating expenses for goods and services, labour, interest on debt and amortization of our tangible capital assets. The actual cash expended to invest in the replacement or acquisition of assets is not reflected on this statement.

In 2014, consolidated expenses were below budget by \$15.9 million. Key items contributing to this result include:

- Approximately \$6 million in capital related projects
- \$2.6 million from the RCMP contract
- Overall cost containment
- Approximately \$5 million in projects scheduled for 2014 that will proceed in 2015
- \$1 million from water purchases less than budget estimates

Statement of Change in Net Financial Assets

The change in Net Financial Position in a year is explained by the difference between revenues and expenditures. If we recognize more revenue than we expend, then net financial position will increase; if less, then it will decrease. In 2014, the City's financial position increased by \$9.8 million to \$51.8 million. It is important to keep in mind that as part of the City's long-term financial planning processes, we may collect revenues over time to build the capacity for future expenditures. This practice increases the City's financial assets, and net financial position, until the related expenditures occur.

Statement of Cash Flow

The Statement of Cash Flow explains the change in the balance of cash and cash equivalents for the year. It shows the impact the various types of transactions have on the balance. For example, the statement shows that \$24.4 million was generated from operating activities and \$19.7 million was used for capital activities.

Segment Report

The Segment Report enhances the information found on the Consolidated Statement of Operations. The information is laid out in the same fashion, but provides a finer level of detail. Municipal services have been segmented by grouping activities by function, as directed by PSAB. For example, protection of the public is achieved by activities such as bylaw enforcement and inspection services in addition to police and fire fighting services, so all of these activities are reported as part of the Protective Services segment. Revenues that are directly related to the costs of a function have been reported in each segment, including revenues related to capital investment. Expenses are broken down to the categories of goods and services, labour, debt servicing, and amortization. The Segment

Report allows us to see how much each segment contributes to the annual surplus before considering allocations of taxes and other municipal resources. As described earlier, annual surplus is the difference between annual revenues and annual expenses.

The following table shows the departments included in each segment:

Reporting Segments						
General Gov't	Protective Svc	Recreation	Planning; Public Health & Other	Transportation	Water	Sewer
Human Resources	Police	Parks	Planning	Engineering	Water	Sewer
Clerks	Fire	Leisure Svc	Recycling	Operations		
Administration	Bylaws	Youth Svc	Cemetery	Drainage		
Finance	Inspection Svc	Arts	Social Planning	Roads		
Purchasing	Emergency Svc	Library				
Information Svc						
Legislative Svc						
Economic Dev						
Communications						

The above discussion focuses on the Consolidated Financial Statements and, as noted, consists of transactions only with outside parties; internal transactions, such as transfers, are not included. It is useful to look at some areas of our organization in isolation. The following discussion touches on the General Revenue Fund, the Sewer & Water Utilities and the Reserves. While the Financial Statements don't show each element in isolation, aggregated information is shown on Schedule 1 and Schedule 3 to the Consolidated Financial Statements.

General Revenue

It is important to look at the General Revenue Fund in isolation, as to a large extent, the transactions that take place in this fund drive property taxation. As noted above, while the information about General Revenue is included in Schedule 1; information about the utilities is also included.

The Audit and Finance Committee received a detailed on March 16, 2015, noting that preliminary General Revenue results were positive and, after providing for various projects and Council identified initiatives we expected a favorable variance to budget. Final results for 2014 include a General Revenue Annual Surplus of \$627.6K. General Revenue Accumulated Surplus increased to \$7.5 million from \$6.9 million in 2013.

Sewer & Water Utilities

The Sewer & Water Utilities are self-funded business units that manage the collection and distribution of water and liquid waste as well as the related infrastructure. A large portion of the costs in the utilities are driven by the Regional District and Council has used a rate stabilization policy for a number of years. Under this policy, accumulated surplus amounts are deliberately built over a period of time in order to provide for our commitment towards larger regional projects as well as variations in our own annual infrastructure investment. This practice allows Council to smooth the impact of variations in annual spending levels on our rate payers.

The accumulated surplus balances in both utilities increased in 2014, in part due to work projects that will proceed in 2014 and in part to address future funding requirements. The accumulated surplus balance in the Sewer Utility is projected to increase over the next 4 year, while the balance in the water utility is projected to decrease as regional projects currently underway are completed and our own infrastructure commitment increases.

The following shows the accumulated surplus amounts in each of the utilities.

	2014	2013
Sewer Utility	4,662,448	3,183,533
Water Utility	6,737,009	5,802,444

Reserves

The City's reserves are an important financial planning tool and provide a mechanism to build capacity over time to undertake strategic projects. They are reviewed on a regular basis to assess their adequacy, with adjustments made when capacity permits.

The term "reserves" is often applied to both our reserve funds and reserve accounts but there are important distinctions between the two resources. Reserve Funds are statutory, meaning they are established by bylaw for specific purposes. Once monies are placed in a reserve fund they can only be used for the purpose outlined in the establishing bylaw. Reserve accounts are appropriations of surplus, established to meet specific business needs. They can be established or dissolved as Council directs to ensure that identified business needs are met and risks managed appropriately.

At the beginning of 2014, the City had \$65.1 million in total reserves, as shown on Schedule 6 to the Financial Statements. The Financial Plan contemplated these resources being drawn down by \$28.9 million, primarily to fund capital projects. At the end of 2014, City reserves total \$68.7 million, an increase of \$3.6 million. This variance is the combined results of planned capital investment that will occur in the future and end of year provisions for various operating projects and initiatives. A separate report provided detailed information on our reserves.

CONCLUSIONS:

The City's reserves are sound and long-term financial plans reflect the ability of the City to meet its future obligations. Overall results for 2014 are positive. We ended the year with an Annual Surplus of \$31.84 million, and an Accumulated Surplus balance of \$948.3 million.

"Original signed by Catherine Nolan"

Prepared by: Catherine Nolan, CPA, CGA
Manager of Accounting

"Original signed by Paul Gill"

Approved by: Paul Gill, BBA, CPA, CGA
GM, Corporate and Financial Services

"Original signed by Jim Rule"

Concurrence: **J.L. (Jim) Rule**
Chief Administrative Officer



City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council
FROM: Chief Administrative Officer
SUBJECT: 2015 Council Expenses

MEETING DATE: 20-April-2015
FILE NO:
MEETING: C.O.W.

EXECUTIVE SUMMARY

In keeping with Council's commitment to transparency in local government, the attached Schedule lists Council expenses to the end of March for 2015. The expenses included on the schedule are those required to be reported in the annual Statement of Financial Information and are available on our website.

RECOMMENDATION:

Receive for information

Discussion

The expenses included in the attached schedule are those reported in the annual Statement of Financial Information (SOFI), including those incurred under Policy 3.07 "Council Training, Conferences and Association Building". The budget for Council includes the provision noted in Policy 3.07 as well as a separate budget for cell phone and iPad usage.

"Original signed by Cheryl Ennis"

Prepared by: Cheryl Ennis
Executive Assistant, Corporate Administration

"Original signed by Paul Gill"

Approved by: Paul Gill, CPA, CGA
GM, Corporate and Financial Services

"Original signed by J.L. (Jim) Rule"

Concurrence: J.L. (Jim) Rule
Chief Administrative Officer

2015 Council Expenses

Month of Event	Reason for expense	Conferences & Seminars	Community Events	Business Meals	Cell Phones / iPads	Totals
Bell, Corisa						
January	Cell phone charges				53.50	
	iPad charges				18.19	
February	Cell phone charges				53.50	
	iPad charges				18.19	
	BC Economic Development Assoc. - Ministers Dinner		125.00			
March	Columbia Institute - High Ground Governance Forum	490.00				
	Cell phone charges				53.50	
April						
May						
June						
July						
August						
September						
October						
November						
December						
		490.00	125.00	-	196.88	811.88
Duncan, Kiersten						
January	Cell phone charges				53.61	
	iPad charges				39.59	
	Elected officials conference (Richmond)	753.75				
February	Chamber of Commerce - Transportation & Transit referendum luncheon		32.95			
	Cell phone charges				53.38	
	iPad charges				39.59	
March	Cell phone charges				53.50	
April						
May						
June						
July						
August						
September						
October						
November						
December						
		753.75	32.95	-	239.67	1,026.37

Month of Event	Reason for expense	Conferences & Seminars	Community Events	Business Meals	Cell Phones / iPads	Totals
Masse, Bob						
January						
February	Chamber of Commerce - Transportation & Transit referendum luncheon		32.95			
	BC Economic Development Assoc. - Ministers Dinner		125.00			
	Chamber of Commerce - Business Excellence Awards Gala		85.00			
March	Chamber of Commerce - Finance Ministers Lunch		32.95			
April						
May						
June						
July						
August						
September						
October						
November						
December						
		-	275.90	-	-	275.90
Read, Nicole						
January	Cell phone charges				53.50	
	iPad charges				42.80	
February	Cell phone charges				53.50	
	iPad charges				21.40	
March	Cell phone charges				53.50	
April						
May						
June						
July						
August						
September						
October						
November						
December						
		-	-	-	224.70	224.70
Robson, Gordy						
January	iPad charges				18.19	
February	iPad charges				18.19	
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
		-	-	-	36.38	36.38

Month of Event	Reason for expense	Conferences & Seminars	Community Events	Business Meals	Cell Phones / iPads	Totals
Shymkiw, Tyler						
January	Cell phone charges				58.84	
	iPad charges				18.19	
February	Cell phone charges				58.84	
	iPad charges				18.19	
	BC Economic Development Assoc. - Ministers Dinner		125.00			
March	Cell phone charges				58.84	
April						
May						
June						
July						
August						
September						
October						
November						
December						
		-	125.00	-	212.90	337.90
Speirs, Craig						
January	iPad charges				88.38	
February	Chamber of Commerce - Business Excellence Awards Gala		85.00			
	iPad charges				187.56	
March	Columbia Institute - High Ground Governance Forum	270.00				
	Cell phone charges				50.29	
April						
May						
June						
July						
August						
September						
October						
November						
December						
		270.00	85.00	-	326.23	681.23
Totals		1,513.75	643.85	-	1,236.76	3,394.36



City of Maple Ridge

TO: Her Worship Mayor Nicole Read
and Members of Council

DATE: April 20, 2015

FILE NO:

FROM: Chief Administrative Officer

ATTN: C. of W.

SUBJECT: Development Cost Charges Imposition Amending Bylaw

EXECUTIVE SUMMARY:

This bylaw amends the Development Cost Charge Imposition Bylaw to update the definition for Commercial Development. The new definition creates a better linkage to the Maple Ridge Zoning Bylaw and explicitly includes development related to marihuana cultivation. Ministry approval is required for this bylaw amendment.

Under the current Development Cost Charge Imposition Bylaw, the definition of Commercial Development was tied to BC Assessment Authorities' (BCAA) classification of Class 6, Business and Other. It is desirable to update the definition to link it to the Maple Ridge Zoning Bylaw.

A major bylaw update is expected in the near future and will include revisiting development assumptions, capital costs, infrastructure requirements and underlying DCC assumptions. It will also include a significant communication and consultation process.

RECOMMENDATION(S):

That Maple Ridge Development Cost Charges Imposition Bylaw No. 7144-2015 be given first, second and third readings and

That the Bylaw be forwarded to the Inspector of Municipalities for approval.

DISCUSSION:

a) Background Context:

The DCC rates are the outcome of a complex model involving the planning and costing of future infrastructure projects, and projecting of future development activity. The assumptions used in these models are amended as required to keep pace with changes to the underlying plans.

As our community grows, there is an increasing demand for a wide range of infrastructure. There is no direct mechanism to cover costs related to some types of infrastructure, notably public safety buildings, recreation facilities and libraries. DCCs provide the authority to recover development-related costs for roads, sewers, drainage and water works as well as parkland acquisition and park development. DCCs allow the municipality to apportion the costs of certain types of infrastructure among land developers.

Until recently all DCC rate bylaws have had to be approved by the Ministry. Rates are now permitted to be adjusted as often as annually as long as all the rate increases are less than Vancouver CPI and the bylaw was approved by the Ministry within the last four years. The last time the Inspector of Municipalities approved a DCC bylaw was in 2010. Any definition updates require Ministry approval.

In our DCC Bylaw, the rates vary according to the type of development. For instance for Commercial Development in a rural area the rate is \$21.46 per square meter of building floor space and for agricultural buildings there are no DCC charges. The purpose of this amendment is to clarify that Commercial Development, as defined in our Zoning Bylaw, will attract Commercial rates.

A major DCC Bylaw is expected in the near future, once the Capital Improvement Program has been updated to reflect the Transportation Master Plan and other long term infrastructure plans. The future major amendment will include consultation with Council, Public and Developers.

b) Desired Outcome:

A DCC Rate Bylaw that is more closely tied to legislation that the City controls and ensuring that development related to the processing, testing, packaging or shipping of marihuana is charged the Commercial Development rates for DCCs.

c) Business Plan/Financial Implications:

There is a minor implication in that City staff is no longer required to understand or rely on how BC Assessment Authority may classify certain developments to determine what DCC rate to charge.

d) Alternatives:

The existing bylaw could be left unchanged which may result in some risk of not being able to collect DCCs for certain types of development if how these developments will be classified by BC Assessment changes.

CONCLUSIONS:

This minor amendment to the DCC Bylaw is largely housekeeping but will also bring some clarity to rates classification for commercial development and specifically include development related to marihuana cultivation.

“Original Signed by Trevor Thompson”

Prepared by: Trevor Thompson, BBA, CPA, CGA
Manager of Financial Planning

“Original Signed by Paul Gill”

Approved by: Paul Gill, BBA, CPA, CGA
General Manager Corporate & Financial Services

“Original Signed by Jim Rule”

Concurrence: J.L. (Jim) Rule
Chief Administrative Officer

CITY OF MAPLE RIDGE

BYLAW NO. 7144-2015

A bylaw to amend Maple Ridge Development Cost Charges Imposition Bylaw No. 6462-2007

WHEREAS, it is deemed expedient to amend Maple Ridge Development Cost Charges Imposition Bylaw No. 6462-2007 as amended;

AND WHEREAS Council does not consider the charges imposed by this bylaw:

- a. As excessive in relation to the capital cost of prevailing standards of service;
- b. Will deter development, or
- c. Will discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land in the City.

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

1. This Bylaw may be cited for all purposes as “Maple Ridge Development Cost Charges Imposition Amending Bylaw No. 7144-2015”.
2. That Maple Ridge Development Cost Charges Imposition Bylaw No. 6462-2007 be amended by:
 - a) Deleting in its entirety the definition for “**Commercial Development**” in Section 2: Definitions and replaced with:

“means development of a parcel for commercial use as described in the Maple Ridge Zoning Bylaw or similar development that is of a commercial nature, including but not limited to uses such as accommodation, automotive, retail, food and beverage, entertainment, office, personal services, recreation, retail and the cultivation, processing, testing, packaging or shipping of marihuana.”
 - b) Replacing “District of Maple Ridge” with “City of Maple Ridge” in Section 3: Establishment of Development Cost Areas.

READ a first time this ____ day of _____, 20 .

READ a second time this ____ day of _____, 20 .

READ a third time this ____ day of _____, 20 .

APPROVED BY THE INSPECTOR OF MUNICIPALITIES this ____ day of _____, 20 .

ADOPTED this ____ day of _____, 20 .

PRESIDING MEMBER

CORPORATE OFFICER



City of Maple Ridge

TO: Her Worship Mayor Nicole Read and Members of Council
DATE: April 20, 2015
FROM: Chief Administrative Officer
ATTN: C. of W.
SUBJECT: 2015-2019 Financial Plan Bylaw

EXECUTIVE SUMMARY:

The 2015 property tax assessment roll has been received from BC Assessment which means that the 2015 property tax rates can now be set. Prior to setting these rates, it is desirable to update our financial plan to reflect decisions made by Council since the last Financial Plan's adoption.

As in previous years and as reported to Council in the year end update, funding has been provided for required projects that were budgeted for in the prior year but were not completed.

The Financial Plan is largely the outcome of Business Planning and Council's long term direction provided for financial sustainability and resiliency. Earlier this year Council was provided an updated Financial Plan Overview Report highlighting key components and considerations included in preparing the Financial Plan.

RECOMMENDATION(S):

That Maple Ridge 2015 - 2019 Financial Plan Bylaw No. 7145 - 2015 be given first, second and third readings.

DISCUSSION:

a) Background Context:

The 2014-2018 Financial Plan Bylaw was last adopted by Council in October of 2014 with the majority of the changes being to the Capital Improvement Program. The 2015 assumptions with respect to property tax and user fees for 2015 were also reaffirmed at this time. The desire was to provide some time for the incoming Council to set the strategic direction prior to getting into the details of business planning.

Since the current Council's inauguration several departments have presented to Council on their work plans and Council is undergoing an update to the strategic plan. Once this direction has been set, it is expected that the 2016-2021 Business Plans will be updated and the resulting Financial Plan will be revised, aligning to the strategic direction set by Council.

The Financial Plan is largely the outcome of Business Planning and Council's long term direction provided for financial sustainability and resiliency. Earlier this year Council was

provided an updated Financial Plan Overview Report highlighting key components and considerations included in preparing the Financial Plan. For Citizens interested in becoming more aware of how the City approaches budgeting and financing infrastructure, the report is available on our website.

b) Financial Plan Implications:

The property tax and user fee increases remain as previously planned and include:

1. The 2015 property tax increase totaling 2.97% consists of: 1.92% for general purpose, 0.5% for infrastructure replacement, 0.3% for drainage improvements and 0.25% for parks and recreation improvements.
2. Recycling rate remaining unchanged for 2015 due to the increased revenues from Multi-Materials BC.
3. 2015 utility user fee increases of 5.5% for Water and 4.6% for Sewer. Once several key regional factors are better known, future fee increases will be reviewed.

Changes to the financial plan since the publication of the Financial Plan Overview report in December include:

1. Growth in tax property revenue, largely due to new construction of 1.11%. The Financial Plan previously adopted included 2% growth each year. Appropriate reductions in operating budgets have been made.
2. As in previous years and as reported to Council in the year end update, funding has been provided for required projects that were budgeted for in the prior year but were not completed.
3. Items identified to be funded from surplus in the 2014 Year End Update report, presented to the Audit and Finance Committee on March 16, 2015 have now been provided for.
4. The budget has been updated to reflect costs of demolition of three municipal owned houses which Council recently received a report on.
5. The Capital Improvement Program amendments include:
 - The advancement of the recreation registration software replacement to 2016. The scheduling of technology projects in 2017 through 2019 have been adjusted to compensate.
 - Planned capital work and funding for Downtown Improvements Phase 4 have been adjusted. The first amendment was to reflect the funding sources as noted in the Council Resolution on February 10, 2015, most notably the grant funding with an application submitted under the New Building Canada Fund. The Sewer Capital Funding noted in the resolution has been removed as it has been determined that the sewer work originally contemplated is not required. Additional funding to leverage the grant, 2/3 grant funded, and get the remaining works done is through the Infrastructure Sustainability Reserve.

c) Desired Outcome:

A Financial Plan that accurately reflects the planned expenditures and methods of funding and is consistent with corporate strategic plans, policies and Council direction.

d) Strategic Alignment:

All department's Business Plans are prepared using the Business Planning Guidelines. These guidelines are reviewed and amended annually in consultation with Council. The Financial Plan reflects Council's Strategic Financial Sustainability Policies and Infrastructure Funding Strategy.

e) Citizen/Customer Implications:

The business plans have far reaching citizen and customer implications. The Financial Plan reflects the financial impact of the business plans. Property tax revenue and user fees are planned to increase as detailed in the above discussion.

History and projected property tax increases

	General Purpose (GP)	Infrastructure	Town Centre	Fire Levy	Drainage	Park & Rec.	Total Increase
2019	2.00%	0.70%			0.30%	0.25%	3.25%
2018	2.00%	0.70%			0.30%	0.25%	3.25%
2017	2.00%	0.70%			0.30%	0.25%	3.25%
2016	2.20%	0.50%			0.30%	0.25%	3.25%
2015	1.92%	0.50%			0.30%	0.25%	2.97%
2014	1.90%	0.50%		Inc. in GP	0.30%	0.25%	2.95%
2013	2.25%	0.50%		300,000	0.30%	0.13%	3.50%
2012	3.00%	1.00%		600,000			4.88%
2011	3.00%	1.00%		600,000			4.99%
2010	3.00%	1.00%		600,000			5.13%
2009	3.00%	1.00%		600,000			5.18%
2008	3.00%	1.00%		600,000			5.31%
2007	3.75%		1.00%	600,000			6.18%
2006	3.75%		1.00%	600,000			6.37%
2005	3.00%		1.00%	600,000			5.70%
2004	3.00%		1.00%	0			4.00%
2003	3.00%		1.00%	0			4.00%

Impact to a home assessed at \$400,000 in 2014

	2014	2015	2016	2017	2018	2019
Home Municipal Levies:						
General Purpose (Gen. & ISR)	1,767.96	1,812.25	1,861.88	1,913.11	1,966.02	2,020.64
Drainage	9.80	14.96	20.47	26.16	32.04	38.11
Parks & Recreation	7.24	10.77	15.36	20.10	25.00	30.06
Subtotal Property Taxes	1,785.00	1,837.98	1,897.71	1,959.37	2,023.06	2,088.81
User Fees						
Recycling (fixed rate)	70.20	70.20	72.15	74.15	76.20	78.30
Water (fixed rate)	501.85	529.50	558.60	589.30	621.70	655.90
Sewer (fixed rate)	322.05	335.25	349.05	363.50	378.60	394.40
Total Property Taxes and User Fees	2,679.10	2,772.93	2,877.51	2,986.32	3,099.56	3,217.41

	2015	2016	2017	2018	2019
Home Municipal Levies Increases:					
General Purpose	1.92%	2.20%	2.00%	2.00%	2.00%
Infrastructure Replacement	0.50%	0.50%	0.70%	0.70%	0.70%
Parks & Recreation	0.25%	0.25%	0.25%	0.25%	0.25%
Drainage	0.30%	0.30%	0.30%	0.30%	0.30%
Total Property Tax Increase %	2.97%	3.25%	3.25%	3.25%	3.25%
Recycling Increase %	0.00%	2.78%	2.77%	2.76%	2.76%
Water Increase %	5.51%	5.50%	5.50%	5.50%	5.50%
Sewer Increase %	4.10%	4.12%	4.14%	4.15%	4.17%
Total Property Taxes and User Fees Increase	3.50%	3.77%	3.78%	3.79%	3.80%

f) Statutory Requirements and Policy Implications:

The Financial Plan has been prepared in accordance with statutory requirements and Municipal financial policies. As required by the Community Charter, the Financial Plan Bylaw includes: disclosure of the proportions of revenue proposed to come from various funding sources, the distribution of property taxes among property classes, and the use of permissive tax exemptions.

In 2009 we reported our assets and the related amortization expense to comply with accounting rules in PSAB 3150. The Financial Plan Bylaw now includes a figure for the annual amortization expense and an offsetting entry to draw down the value of the Tangible Capital Assets. These items are accounting entries and do not represent cash being spent.

The amortization figure does have some relevance for financial planning, even if it is based on historic cost rather than replacement costs. If we compare the annual amortization expense to the amount we spend on replacement of our existing assets or transfers to reserves to later fund the same, one would see that the amortization expense is considerably more. This highlights the fact that we currently have an infrastructure funding gap which means that we are consuming more of our assets than we are replenishing. Fortunately, we have relatively new infrastructure so we have some time to bridge this funding gap.

Public consultation is an important and legislated component of preparing financial plans. Public input is invited early in the business planning process both when the business planning guidelines are presented and during business planning presentations. Input is accepted through many different mediums including: in person at the business planning presentations which were open to the public or through email, voicemail, Facebook, Twitter and regular mail. Regular feedback and interaction with the public is also taken into account in developing the business plans.

Public input into the financial plan and departmental business plans is incorporated indirectly through regular feedback and interaction with customers and the public as well as through the results of surveys. Public question and answer periods, with the use of social media have also been used.

The direction for this Financial Plan was received quite some time ago and the amendments to the plan are works that were previously budgeted and not complete by year end or property tax revenue updates based on the assessment values provided recently by the BC Assessment Authority. An advertisement will be placed in the local paper inviting comments or questions.

g) Alternatives:

A Financial Plan Bylaw needs to be adopted by Council prior to May 15 each year. Council can amend the Financial Plan Bylaw at any time. The Financial Plan Bylaw adopted prior to the Property Tax Rates Bylaw is the budget that will be used in the Annual Report.

CONCLUSIONS:

The Financial Plan is a multi-year planning, reviewing and reporting tool that represents Council's vision and commitment to providing quality services to the residents of Maple Ridge. The Plan provides a forecast of the financial resources that are available to fund operations, programs and infrastructure for the five year period.

“Original Signed by Trevor Thompson”

Prepared by: **Trevor Thompson, BBA, CPA, CGA**
Manager of Financial Planning

“Original Signed by Paul Gill”

Approved by: **Paul Gill, BBA, CPA, CGA**
General Manager, Corporate & Financial Services

“Original Signed by Jim Rule”

Concurrence: **J.L. (Jim) Rule**
Chief Administrative Officer

CITY OF MAPLE RIDGE

BYLAW NO. 7145-2015

A bylaw to establish the five year financial plan for the years 2015 through 2019

WHEREAS, through a public process in an open meeting the business and financial plans were presented;

AND WHEREAS, the public will have the opportunity to provide comments or suggestions with respect to the financial plan;

AND WHEREAS, Council deems this to a process of public consultation under Section 166 of the Community Charter;

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

1. This Bylaw may be cited as “Maple Ridge 2015-2019 Financial Plan Bylaw No. 7145-2015”.
2. Statement 1 attached to and forming part of this bylaw is hereby declared to be the Consolidated Financial Plan of the City of Maple Ridge for the years 2015 through 2019.
3. Statement 2 attached to and forming part of the bylaw is hereby declared to be the Revenue and Property Tax Policy Disclosure for the City of Maple Ridge.
4. Statement 3 attached to and forming part of the bylaw is hereby declared to be the Capital Expenditure Disclosure for the City of Maple Ridge.

READ a first time the day of , 2015.

READ a second time the day of , 2015.

READ a third time the day of , 2015.

PUBLIC CONSULTATION completed on the day of , 2015.

ADOPTED the day of , 2015.

PRESIDING MEMBER

CORPORATE OFFICER

ATTACHMENT: Statement 1, Statement 2 and Statement 3

Statement 1

Consolidated Financial Plan 2015-2019 (in \$ thousands)

	2015	2016	2017	2018	2019
REVENUES					
Revenues					
Development Fees					
Developer Contributed Assets	16,500	16,500	16,500	16,500	16,500
Developer Cost Charges	34,987	6,002	7,715	6,273	8,888
Developer Specified Projects	-	-	-	-	-
Parkland Acquisition	1,028	200	200	200	200
Contributions from Others	2,717	1,251	1,253	1,276	1,238
Development Fees Total	55,232	23,953	25,668	24,249	26,826
Property Taxes	71,072	74,815	78,932	83,035	87,286
Parcel Charges	2,852	2,950	3,051	3,145	3,241
Fees & Charges	39,049	41,052	42,795	44,613	46,560
Interest	1,868	1,883	1,898	1,913	1,928
Grants (Other Govts)	6,121	6,524	3,759	3,421	4,585
Property Sales	4,250	-	-	-	-
Total Revenues	180,444	151,177	156,103	160,376	170,426
EXPENDITURES					
Operating Expenditures					
Interest Payments on Debt	2,407	2,273	2,134	2,046	1,926
Amortization Expense	20,124	20,929	20,929	21,766	22,637
Other Expenditures	107,315	101,172	105,571	109,729	113,029
Total Expenditures	129,846	124,374	128,634	133,541	137,592
ANNUAL SURPLUS	50,598	26,803	27,469	26,835	32,834
Add Back: Amortization Expense (Surplus)	20,124	20,929	20,929	21,766	22,637
Less: Capital Expenditures	85,340	22,871	18,360	21,731	23,261
Less: Developer Contributed Capital	16,500	16,500	16,500	16,500	16,500
CHANGE IN FINANCIAL POSITION	(31,118)	8,361	13,538	10,370	15,710
OTHER REVENUES					
Add: Borrowing Proceeds	7,048	-	-	-	-
OTHER EXPENDITURES					
Less: Principal Payments on Debt	3,953	4,048	4,142	3,638	3,715
TOTAL REVENUES LESS EXPENSES	(28,023)	4,313	9,396	6,732	11,995
INTERNAL TRANSFERS					
Transfer from Reserve Funds					
Capital Works Reserve	7,967	549	549	-	-
Equipment Replacement Reserve	4,051	3,092	1,184	3,474	2,453
Fire Department Capital Reserve	1,976	-	-	-	-
Land Reserve	4,250	-	-	-	-
Local Improvement Reserve	-	-	-	-	-
Sanitary Sewer Reserve	-	-	-	-	-
Transfer from Reserve Fund Total	18,244	3,641	1,733	3,474	2,453
Less :Transfer to Reserve Funds					
Capital Works Reserve	462	2,005	2,253	2,299	2,481
Equipment Replacement Reserve	2,344	2,448	2,615	2,744	2,876
Fire Dept. Capital Acquisition	664	761	889	1,018	1,150
Land Reserve	4,255	5	5	5	5
Local Improvement Reserve	-	-	-	-	-
Sanitary Sewer Reserve	30	30	30	30	30
Total Transfer to Reserve Funds	7,755	5,249	5,792	6,096	6,542
Transfer from (to) Own Reserves	19,214	(245)	(1,998)	(2,115)	(2,734)
Transfer from (to) Surplus	(1,680)	(2,460)	(3,339)	(1,995)	(5,172)
Transfer from (to) Surplus & own Reserves	17,534	(2,705)	(5,337)	(4,110)	(7,906)
TOTAL INTERNAL TRANSFERS	28,023	(4,313)	(9,396)	(6,732)	(11,995)
BALANCED BUDGET	-	-	-	-	-

Statement 2

Revenue and Property Tax Policy Disclosure

Revenue Disclosure

Revenue Proportions	2015		2016		2017		2018		2019	
	\$ ('000s)	%	\$ ('000s)	%	\$ ('000s)	%	\$ ('000s)	%	\$ ('000s)	%
Revenues										
Property Taxes	71,072	37.6	74,815	49.5	78,932	50.6	83,035	51.8	87,286	51.0
Parcel Charges	2,852	1.5	2,950	2.0	3,051	2.0	3,145	2.0	3,241	1.9
Fees & Charges	39,049	20.6	41,052	27.2	42,795	27.4	44,613	27.8	46,560	27.2
Borrowing Proceeds	7,048	3.7	-	-	-	-	-	-	-	-
Other Sources	69,179	36.6	32,360	21.4	31,325	20.1	29,583	18.4	33,339	19.4
Total Revenues	189,200	100	151,177	100	156,103	100	160,376	100	171,426	100

Other Sources include:

Development Fees Total	56,822	30	23,953	16	25,668	16	24,249	15	26,826	16
Interest	1,868	1	1,883	1	1,898	1	1,913	1	1,928	1
Grants (Other Govts)	6,239	3	6,524	4	3,759	2	3,421	2	4,585	3
Property Sales	4,250	2	-	-	-	-	-	-	-	-
	69,179	37	32,360	21	31,325	20	29,583	18	33,339	19

Objectives & Policies

Property Tax Revenue is the City's primary revenue source, and one which is heavily reliant on the residential class. Diversification of the tax base and generation of non-tax revenue are ongoing objectives, outlined in Financial Sustainability Policy 5.52 section 6.

The Financial Plan includes property tax increases totaling 2.97% for 2015, and 3.25% from 2016 to 2019 for:

- General Purposes
- Infrastructure Sustainability
- Parks and Recreation Master Plan implementation
- Drainage Improvements

Additional property tax revenue due to new construction is also included in the Financial Plan at 1.1% in 2015 and 2% annually for 2016 through 2019. Additional information on the tax increases and the cost drivers can be found in the most recent Financial Plan Overview Report. Specific policies discussing the tax increases are included in the Financial Sustainability Plan and related policies which were adopted in 2004.

Property tax revenue includes property taxes as well as grants in lieu of property taxes.

Parcel Charges are largely comprised of a recycling charge, a sewer charge and, on certain properties, a local area service or improvement charge. Parcel charges are a useful tool to charge all or a subset of properties for a fixed or variable amount to support services. Unlike property taxation the variable amount does not need to be related to property assessment value, but can be something that more accurately reflects the cost of the service.

Statement 2 (cont.)

Revenue and Property Tax Policy Disclosure

Fees & Charges

The Business Planning Guidelines call for an increase of 5% in fees as a guideline. Actual fee increases vary depending on the individual circumstances, the type of fee and how it is calculated. Fees should be reviewed annually and updated if needed. Recent fee amendments include recreation fees, development application fees, business license fees and cemetery fees. A major amendment to the Development Costs Charges (DCC), recommended no more frequently than every five years, was completed in 2008. Minor DCC amendments are done more frequently. Some fees are used to offset the costs of providing specific services. The utility fees are reviewed annually with a view towards using rate stabilization practices to smooth out large fluctuations in rates, as set out in the Business Planning Guidelines.

Borrowing Proceeds – Debt is used where it makes sense. Caution is used when considering debt as it commits future cash flows to debt payments restricting the ability to use these funds to provide other services. The source of the debt payments needs to be considered as does the justification for advancing the project. More information on borrowing previously approved can be found in the most recent Financial Plan Overview report.

Other Sources will vary greatly year to year as it includes:

- Development fees which fund capital projects from the DCC Reserve
- Contribution from others in relation to capital
- Grants which are sought from various agencies and may be leveraged with City funds

PROPERTY TAX DISCLOSURE

Property Tax Revenue Distribution

Property Class	Taxation Revenue		Assessed Value		Tax Rate	Multiple
	('000s)		('000s)		(\$/1000)	(Rate/Res.Rate)
1 Residential	53,677	77.9%	12,004,518	91.1%	4.4713	1.0
2 Utility	540	0.8%	13,495	0.1%	40.0000	8.9
4 Major Industry	573	0.8%	17,230	0.1%	33.2682	7.4
5 Light Industry	2,808	4.1%	228,203	1.7%	12.3038	2.8
6 Business/Other	11,082	16.1%	900,715	6.8%	12.3038	2.8
8 Rec./ Non-Profit	38	0.1%	2,901	0.0%	13.1537	2.9
9 Farm	157	0.2%	4,905	0.0%	31.9560	7.1
Total	<u>68,875</u>	<u>100%</u>	<u>13,171,968</u>	<u>100%</u>		

Statement 2 (cont.)

Revenue and Property Tax Policy Disclosure

PROPERTY TAX DISCLOSURE

Objectives & Policies

Property taxes are the City's largest source of revenue and are contained by efficient business practices. Annual business planning practices are the mechanism for resource allocation decisions.

The City's Financial Sustainability Policy section 6 discusses the necessity of diversifying the tax base. Development of employment related properties is one method of diversification; therefore a key performance measurement in Strategic Economic Initiatives tracks the increased investment and development of non-residential properties.

A policy in the Financial Sustainability Plan that calls for stable tax increases and the adoption of the annual increase early in the prior year in the Business Planning Guidelines provides citizens with a more stable and predictable set of cost increases. In some cases costs are phased in over multiple years to stay within the set tax increases.

Property Tax Rates

It is policy to adjust property tax rates annually to negate the impact of fluctuations in the market values of properties. Tax rates are reduced to negate the market increases. Property tax increases are then applied at the same relative increase for all classes, unless legislation restricts the rates, as with Class 2, Utility.

The Business Class and Light Industry Class properties have the same tax rate and are treated as a composite class when setting the tax rates, as the types of businesses in each class are similar.

A review was done on the Major Industry Class rates and the recommendation from the Audit and Finance Committee and Council was a 5% property tax reduction in both 2009 and 2010 to support additional investments in the subject property and to keep rates competitive. As part of the Financial Planning discussions in December, 2013 Council authorized \$70,000 each year for five years, 2014-2018, to reduce the Major Industrial Class property tax rate.

In reviewing the tax rates to ensure competitiveness, absolute rates, tax multiples and overall tax burden are considered. The impact that assessed values have when comparing other geographical areas must be considered in a comparison of tax rates.

Permissive Tax Exemptions

Council has set policies around the use of permissive tax exemptions. These are Council Policies 5.19 through 5.24. These policies discuss Churches, Community Halls, Heritage Sites, Homes for the Care of Children and the Relief of the Aged, the Poor, the Disabled and the Infirm, Municipal Recreational Services, Private Hospitals and Daycares, Private School and Youth Recreation Groups.

Revitalization Tax Exemption Program

The Employment Land Investment Incentive Program is designed to encourage job creation by supporting private investment in buildings and infrastructure on identified "employment lands".

More information on this tax exemption can be found on our website; you may also refer to Bylaw 7112-2014.

Statement 3

Capital Expenditure Disclosure

The sole purpose of this statement is to meet legislative requirements and highlight the value of the DCC program; no other conclusions should be drawn from the figures as the information could be misleading. This disclosure is required under the Local Government Act s. 937(2); Capital costs attributable to projects to be partially funded by Development Cost Charges (DCC) must be included in the financial plan. The DCC program includes projects as far out as 2035 so the capital expenditures must be extended to match. Certain types of projects are not planned past the five year time horizon of the financial plan. Much less scrutiny is given to projects that are planned in years 2020 through 2035. Projects in these years typically exceed likely funding available.

Capital Works Program for 2020 – 2035

(in \$ thousands)

Capital Works Program	329,579
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Source of Funding

Development Fees	
Development Cost Charges	137,586
Parkland Acquisition Reserve	-
Contribution from Others	6,667
	144,253

Borrowing Proceeds	6,319
Grants	41,695

Transfer from Reserve Funds	
Capital Works Reserve	8,935
Cemetery Reserve	115
Equipment Replacement Reserve	1,060
Fire Department Capital Reserve	2,736
Recycling Reserve	250
Transfer from Reserve Funds	13,506

Revenue Funds	124,216
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Source of Funding	329,579
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City of Maple Ridge

TO: Her Worship Mayor Nicole Read and Members of Council
FROM: Chief Administrative Officer
SUBJECT: Maple Ridge 2015 Property Tax Rates Bylaw

DATE: April 20, 2015
ATTN: C. of W.

EXECUTIVE SUMMARY:

The Property Tax Rates Bylaw is required to be adopted prior to May 15 each year. The 2015 tax rates are based on the increases approved by Council in the 2014-2018 Financial Plan Bylaw. The 2015 property tax increase is 2.97%, of which 1.92% is for general purposes.

Municipal property tax rates continue to be calculated using the same methodology. The methodology being, that tax rates for each property class are adjusted for market related assessment changes and then the planned property tax increase is applied.

As part of the Financial Planning discussions in December, 2013 Council authorized \$70,000 each year for five years, 2014-2018, to reduce the Major Industrial Class property tax rate. The rationale behind this adjustment is to make the Major Industrial Class property tax rate more in line with other jurisdictions. The cedar mill is the only property in this Class.

Another adjustment is for the Utility Class, Class 2 to reflect legislated maximums on tax rates of \$40 per thousand of assessed value (or 2.5 times the business class rate, whichever is greater). This tax rate has been at the cap of 40 since 2001.

The Class 5, Light Industry and Class 6, Business/Other are treated as a composite class for the purpose of setting the municipal tax rates.

The actual increase or decrease in the property tax bill for any individual property will vary depending on change in assessed value. For residential properties, the property class appreciated by about 2.75%. Properties with increased assessments of this magnitude will see a tax levy increase of about 3%.

RECOMMENDATION:

That Maple Ridge 2015 Property Tax Rates Bylaw No. 7146-2015 be given first, second and third readings.

DISCUSSION:

The 2015 taxation revenue increase is 2.97% and consists of:

- 1.92% for general purposes,
- 0.50% for the infrastructure replacement,
- 0.30% for drainage improvements and
- 0.25% for Parks and Recreation improvements.

The Property Assessment Roll which is used in calculating the tax rates has been received from BC Assessment. Council policy is to reduce the property tax rates to reflect average market value increases in each property class. This policy has been applied to calculate the municipal tax rates included in the attached bylaw. The Residential Class assessments increased in market value by 2.77%.

Once the tax rates are adjusted for market change, the rates are increased based on the tax increase approved in the Financial Plan. Previous year's supplementary adjustments in assessed values are reviewed ensuring those changes are also considered using the same methodology.

The property tax bill includes other taxing authorities (Trans Link, BC Assessment and Municipal Finance Authority, Metro Vancouver and the Province for school taxes). The current bylaw only includes the GVRD property tax rates as it is the only one that the municipality actually sets, even though the amount and multiples are set, providing no discretion on rate setting. The others set the rates through their own bylaws and we are required to levy that rate. Council has no direct control in the amount of these levies or the methodology used in the calculations.

For illustrative purposes, the property tax levies highlighting the 2015 property tax increase for a residence valued at \$400,000 can be found in the appendix.

The Business and Light Industry Class are treated as a composite resulting in municipal tax rates that are identical. Staff will continue to review property taxes and the distribution between property classes to ensure that tax rates remain competitive.

There have been several initiatives from the province that impact property taxation or property assessments including:

- A temporary property tax deferment program was put in place for 2009 and 2010 which allows people who attest that they are experiencing serious financial difficulties due to current economic conditions, to defer their property taxes. Although this program is closed to new applicants, anyone who was approved during those two years is able to continue to defer.
- The criteria for the existing property tax deferment program was expanded to include homeowners that have children living at home, previously it was just for homeowners that were 55 or older.
- A Provincial Industrial Property Tax Credit was introduced in 2009 to reduce the school tax levy for major industrial and light industrial properties. The original 50% reduction was increased to a 60% reduction in 2011. For Light Industry Class properties the credit was reduced to 30% in 2013 and eliminated in 2014.
- The Farm Land Tax Credit, a 50% reduction in the school tax levy, was introduced for 2011 for Farm Class properties. In 2011, this saved the Farm Class Property Class about \$9,000.

The municipality has no say in these changes and is required to implement them.

CONCLUSIONS:

The property tax rates are reflective of the decisions made during the public process of business planning and decisions that are incorporated in the Financial Plan.

“Original Signed by Trevor Thompson”

Prepared by: Trevor Thompson, BBA, CPA, CGA
Manager of Financial Planning

“Original Signed by Paul Gill”

Approved by: Paul Gill, BBA, CPA, CGA
General Manager, Corporate & Financial Services

“Original Signed by Jim Rule”

Concurrence: J.L. (Jim) Rule
Chief Administrative Officer

Appendix A – Illustrative Residential Property Tax Comparison

Property Taxes on Residence assessed at \$400,000

	2014	2015	Change \$, %	
Assessed Value	\$ 400,000	\$ 411,063	\$ 11,063	2.77%
Municipal Property Taxes:				
General & Infrastructure	\$ 1,767.96	\$ 1,812.25	\$ 44.29	
Drainage Improvement	9.80	14.96	5.16	
Parks & Recreation Improvements	7.24	10.77	3.53	
Subtotal Property Taxes	\$ 1,785.00	\$ 1,837.98	\$ 52.98	2.97%
User Fees:				
Water	\$ 501.85	\$ 529.45	\$ 27.60	5.50%
Sewer	322.05	335.25	13.20	4.10%
Recycling	70.20	70.20	-	0.00%
Municipal Subtotal	\$ 2,679.10	\$ 2,772.88	\$ 93.78	3.50%
Other Agency Levies:				
BCAA, MFA	\$ 24.84	\$ 24.58	\$ (0.26)	-1.04%
GVRD	23.44	24.05	0.61	2.59%
Trans Link *	132.60	135.25	2.65	2.00%
School Tax *	821.76	826.80	5.04	0.61%
Less: Home Owner Grant	(570.00)	(570.00)	-	0.00%
Net School Taxes	\$ 251.76	\$ 256.80	\$ 5.04	2.00%
Total Property Taxes	\$ 3,111.74	\$ 3,213.56	\$ 101.82	3.27%

* The rates for School Taxes and Trans Link are not known at this time. For illustrative purposes an annual increase of 2% is used.

CITY OF MAPLE RIDGE

BYLAW NO. 7146-2015

A bylaw to establish property tax rates for Municipal
and Regional District purposes for the year 2015

WHEREAS pursuant to provisions in the Community Charter Council must, by bylaw, establish property tax rates;

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

1. This Bylaw may be cited for all purposes as "Maple Ridge 2015 Property Tax Rates Bylaw No. 7146-2015".
2. The following rates are hereby imposed and levied for the year 2015:
 - (a) For all lawful general purposes of the municipality on the assessed value of land and improvements taxable for general municipal purposes, rates appearing in Row "A" of Schedule "A" attached hereto and forming a part hereof.
 - (c) For the purposes of improving drainage services the assessed value of land and improvements taxable for general municipal purposes, rates appearing in Row "B" of Schedule "A" attached hereto and forming a part hereof.
 - (d) For the purposes of improving parks and recreation services the assessed value of land and improvements taxable for general municipal purposes, rates appearing in Row "C" of Schedule "A" attached hereto and forming a part hereof.
 - (e) For purposes of the Greater Vancouver Regional District on the assessed value of land and improvements taxable for regional hospital district purposes, rates appearing in Row "A" of Schedule "B" attached hereto and forming a part hereof.
3. The minimum taxation upon a parcel of real property shall be One Dollar (\$1.00).

READ a first time the day of , 20 .

READ a second time the day of , 20 .

READ a third time the day of , 20 .

ADOPTED the day of , 20 .

PRESIDING MEMBER

CORPORATE OFFICER

ATTACHMENTS: SCHEDULES "A" AND "B"

City of Maple Ridge
Schedule 'A' to Bylaw No. 7146-2015

Tax Rates (dollars of tax per \$1,000 taxable value)

		1	2	4	5	6	8	9
		Residential	Utility	Major Industry	Light Industry	Business/ Other	Rec/ Non-profit	Farm
A	General Municipal	4.4087	39.4395	32.8020	12.1314	12.1314	12.9694	31.5082
B	Drainage Improvements Levy	0.0364	0.3260	0.2712	0.1003	0.1003	0.1072	0.2605
C	Park & Recreation Improvements Levy	0.0262	0.2345	0.1950	0.0721	0.0721	0.0771	0.1873
Total		4.4713	40.0000	33.2682	12.3038	12.3038	13.1537	31.9560

City of Maple Ridge
Schedule 'B' to Bylaw No. 7146-2015

Tax Rates (dollars of tax per \$1,000 taxable value)

		1	2	4	5	6	8	9
		Residential	Utility	Major Industry	Light Industry	Business/ Other	Rec/ Non-profit	Farm
A	Greater Vancouver Regional District	0.0585	0.2048	0.1989	0.1989	0.1433	0.0585	0.0585