

City of Maple Ridge

**COUNCIL WORKSHOP AGENDA**

**March 31, 2020**

**11:00 a.m.**

**Blaney Room, 1st Floor, City Hall**

*The purpose of the Council Workshop is to review and discuss policies and other items of interest to Council. Although resolutions may be passed at this meeting, the intent is to make a consensus decision to send an item to Council for debate and vote or refer the item back to staff for more information or clarification. The meeting is live streamed and recorded by the City of Maple Ridge.*

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**REMINDER: March 31, 2020 Council Meeting 7:00 p.m. Council Chamber**

**1. APPROVAL OF THE AGENDA**

**2. ADOPTION OF MINUTES**

**2.1 Minutes of the March 10, 2020 Council Workshop Meeting**

**3. PRESENTATIONS AT THE REQUEST OF COUNCIL**

**3.1 Delegation: Metro 2050 (12-15 Mins)**

Metro Vancouver Regional Planning staff to present on Metro 2050.

**4. UNFINISHED AND NEW BUSINESS**

**4.1 2020 Community Emergency Preparedness Fund EOC & Training Application**

Staff report dated March 31, 2020 recommending that staff be authorized to submit an application to the Union of British Columbia Municipalities 2020 Community Emergency Preparedness Fund Emergency Operations Centre and Training Program for funding toward "Fire Hall #4 EOC Equipment" project.

#### **4.2 Housing Needs Report: Proposed Scope of Work**

Staff report dated March 31, 2020 recommending that the proposed scope of work for the City of Maple Ridge Housing Needs Assessment be endorsed.

#### **4.3 Town Centre Visioning Process**

Staff report dated March 31, 2020 recommending that the Town Centre Visioning Public Engagement Process be endorsed.

#### **4.4 Integrated Stormwater Management Plans - South Alouette River and Kanaka Creek Watersheds**

Staff report dated March 31, 2020 recommending that the South Alouette River and Kanaka Creek Integrated Stormwater Management Plan be endorsed and that staff be directed to bring forward the recommendations of the ISMP as part of future Business Plans for consideration. [Link to full version of the ISMP](#) Note: this pdf is a very large file (115MB)

#### **4.5 Maple Ridge Tree Permit Survey Update**

Staff report dated March 31, 2020 recommending that staff prepare amendments to the Tree Bylaw and process.

#### **4.6 Employment Lands: Update on Yennadon Lands Process**

Staff report dated March 31, 2020 providing an update on the Yennadon Lands Redesignation process including the proposed community engagement process and next steps.

#### **4.7 Update - Review of Purchasing Policy 5.45**

*Staff report to be distributed under separate cover.*

#### **5. CORRESPONDENCE – Nil**

#### **5.1 UPCOMING EVENTS – Nil**

#### **6 BRIEFING ON OTHER ITEMS OF INTEREST / QUESTIONS FROM COUNCIL**

7. MATTERS DEEMED EXPEDIENT
8. NOTICE OF CLOSED COUNCIL MEETING – Nil
9. ADJOURNMENT

APPROVED BY:

SN  
2020-03-24

DATE:

APPROVED BY:

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DATE:

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CHECKED BY:

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DATE:

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City of Maple Ridge

**COUNCIL WORKSHOP MINUTES**

**March 10, 2020**

The Minutes of the City Council Workshop held on March 10, 2020 at 11:02 a.m. in the Blaney Room at City Hall, 11995 Haney Place, Maple Ridge, British Columbia for the purpose of transacting regular City business.

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**PRESENT**

*Elected Officials*

Mayor M. Morden  
Councillor J. Dueck  
Councillor K. Duncan  
Councillor C. Meadus  
Councillor G. Robson\*\*  
Councillor R. Svendsen  
Councillor A. Yousef\*

*Appointed Staff*

A. Horsman, Chief Administrative Officer  
D. Boag, General Manager Parks, Recreation & Culture  
C. Carter, General Manager Planning & Development Services  
C. Crabtree, General Manager Corporate Services  
S. Nichols, Deputy Corporate Officer  
D. Pollock, General Manager Engineering Services  
T. Thompson, Chief Financial Officer

*Other staff*

F. Armstrong, Manager, Corporate Communications  
K. Baird, Tourism Coordinator  
S. Cote-Rolvink, Chief Building Official  
C. Cowles, Manager of Community Social Safety Initiatives,  
Licences & Bylaws  
W. Dupley, Director Economic Development  
M. Orsetti, Director Bylaw and Licensing Services

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Note: These Minutes are posted on the City Web Site at [www.mapleridge.ca](http://www.mapleridge.ca)

\*Councillor Yousef attended via GoToMeeting.

\*\*Councillor Robson was absent at the start of the meeting.

**1. APPROVAL OF THE AGENDA**

R/2020-083

It was moved and seconded

**That the agenda of the March 10, 2020 Council Workshop Meeting be approved as circulated.**

CARRIED



## **2. ADOPTION OF MINUTES**

### **2.1 Minutes of the February 25, 2020 Council Workshop Meeting**

R/2020-084

It was moved and seconded

**That the Council Workshop minutes of February 25, 2020 be adopted.**

CARRIED

## **3. PRESENTATIONS AT THE REQUEST OF COUNCIL**

### **3.1 Community Social Safety Initiative**

The CAO provided a brief introduction. The Acting General Manager of Corporate Administration spoke to the beginning slides of the presentation, and introduced the staff and consultants who would be speaking to various parts of the presentation.

Councillor Robson entered the meeting at 11:14 am during the presentation by Ms. Crabtree.

Councillor Meadus and Mayor Morden left the meeting at 12:32 p.m.

## **4. UNFINISHED AND NEW BUSINESS**

### **4.1 GLOW Maple Ridge Strategies and Recommendations**

Staff report dated March 10, 2020 recommending that the growth of Glow Maple Ridge be supported at an annual amount of \$35,000, funded through Accumulated Surplus, for each of the next two years, 2020 and 2021; and, that the next Financial Plan Bylaw amendment include this funding.

The Director of Economic Development provided a brief introduction. The Tourism Coordinator provided a presentation and responded to questions from Council.

Councillor Meadus reentered the meeting at 12:35 p.m. during Ms. Bairds' introduction.

Mayor Morden reentered the meeting at 12:36 p.m. during the staff presentation.

## **MAIN MOTION**

R/2020-085

It was moved and seconded

**That the growth of GLOW Maple Ridge be supported at an annual amount of \$35,000, funded through Accumulated Surplus, for each of the next two years, 2020 and 2021; and,**

**That the next Financial Plan Bylaw amendment include this funding.**

R/2020-086

It was moved and seconded

**That the foregoing motion be amended by adding the text “up to” before the text “\$35,000”.**

CARRIED

MAIN MOTION AS AMENDED

R/2020-087

It was moved and seconded

**That the growth of GLOW Maple Ridge be supported at an annual amount of up to \$35,000, funded through Accumulated Surplus, for each of the next two years, 2020 and 2021; and,**

**That the next Financial Plan Bylaw amendment include this funding.**

CARRIED

#### **4.2 Mayor and Council Recognition Program Recommendations**

Staff report dated March 10, 2020 recommending that staff be directed to expand the Parks Gift Program to include a “Mayor and Council Honour” component to celebrate the accomplishments of citizens on both undesignated amenities, such as benches and other park furnishings, in existing civic sites and proposed new assets as part of upgrades or new construction of public amenities in the community.

The Manager of Corporate Communications spoke to the staff report and responded to questions from Council.

R/2020-088

It was moved and seconded

**That staff be directed to expand the Parks Gift Program to include a “Mayor and Council Honour” component to celebrate the accomplishments of citizens on both undesignated amenities, such as benches and other park furnishings, in existing civic sites and proposed new assets as part of upgrades or new construction of public amenities in the community.**

CARRIED

R/2020-089

It was moved and seconded

**That the meeting be recessed for 30 minutes.**

CARRIED

At 1:07 p.m. the Mayor announced that the recess had ended and called the meeting to order.

The agenda was re-ordered to deal with Items 4.6 and 4.5 before item 4.3.

**4.3 Council Training, Conferences and Association Building - Policy No. 3.07**

(4.6)

Staff report dated March 10, 2020 recommending that a revised Council Training, Conferences and Association Building - Policy No. 3.07 be brought back to Council for consideration.

The Chief Financial Officer spoke to the staff report and responded to questions from Council.

R/2020-090

It was moved and seconded

**That an amended Council Training, Conferences and Association Building – Policy 3.07 be brought back to Council for consideration.**

CARRIED

Councillor Svendsen and Councillor Robson left the meeting at 2:15 p.m.

**4.4 City of Maple Ridge Visual Identity**

(4.5)

Staff report dated March 10, 2020 providing the following three options for Council consideration:

- A. Continue the roll out of the single leaf visual identifier across City assets as needed; or,
- B. Apply the 2006 visual identity (as displayed on this report) across all City assets; or,
- C. Prepare a scoping report in order to engage an outside consultant to complete a full brand review that would include the City's vision and mission statements, key brand messages and visual identity.

The Manager of Corporate Communications provided a presentation on the timeline and background of the City's visual identity program.

Councillor Svendsen and Councillor Robson reentered the meeting at 2:20 p.m. during the staff presentation.

Councillor Duncan left the meeting at 2:35 p.m. and did not return to the meeting.

R/2020-091

It was moved and seconded

**That staff prepare a report on the appearance of the final logo to be used by the City of Maple Ridge, which is to be digitally scalable and consistent throughout the organization in the fullness of time.**

CARRIED

Councillor Robson left the meeting at 3:06 p.m. and did not return to the meeting.

#### **4.5 Proposed New Sign Bylaw No. 7630-2020**

(4.3)

Staff report dated March 10, 2020 recommending that the attachment to the March 10, 2020 report titled "*Proposed New Sign Bylaw No. 7630-2020*" be forwarded to the March 31, 2020 Council Meeting.

The General Manager of Planning and Development Services provided a brief introduction. The Chief Building Officer provided a presentation and responded to questions from Council.

R/2020-092

It was moved and seconded

**That the attachment to the March 10, 2020 report titled "Proposed New Sign Bylaw No. 7630-2020" be forwarded to the March 31, 2020 Council Meeting.**

CARRIED

#### **4.6 Maple Ridge Bylaw Notice Enforcement Bylaw No. 7626-2020**

(4.4)

Staff report dated March 10, 2020 recommending that the attachment to the March 10, 2020 report titled "*Maple Ridge Bylaw Notice Enforcement Bylaw No. 7626-2020*" be forwarded to the March 31, 2020 Council Meeting.

The Director of Bylaw and Licensing Services provided a presentation and responded to questions from Council.

R/2020-093

It was moved and seconded

**That the attachment to the March 10, 2020 report titled "Maple Ridge Bylaw Notice Enforcement Bylaw No. 7626-2020" be forwarded to the March 31, 2020 Council Meeting.**

CARRIED

**5. CORRESPONDENCE – Nil**

**5.1 UPCOMING EVENTS**

Events were provided in the agenda package for Council and public.

**6 BRIEFING ON OTHER ITEMS OF INTEREST / QUESTIONS FROM COUNCIL**

**7. MATTERS DEEMED EXPEDIENT**

**8. NOTICE OF CLOSED COUNCIL MEETING**

R/2020-094

It was moved and seconded

**That the meeting will be closed to the public pursuant to Sections 90 (1) and 90 (2) of the *Community Charter* as the subject matter being considered relates to the following:**

**Section 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality;**

**Section 90(1)(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure might reasonably be expected to harm the interests of the municipality;**

**Section 90(1)(k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public;**

**Any other matter that may be brought before the Council that meets the requirements for a meeting closed to the public pursuant to Sections 90 (1) and 90 (2) of the *Community Charter* or *Freedom of Information and Protection of Privacy Act*.**

CARRIED

**9. ADJOURNMENT – 4:16 p.m.**

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M. Morden, Mayor

Certified Correct

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S. Nichols, Corporate Officer

**TO:** His Worship Mayor Michael Morden  
and Members of Council

**MEETING DATE:** March 31, 2020  
**FILE NO:** 05-1855-20

**FROM:** Chief Administrative Officer

**MEETING:** Workshop

**SUBJECT:** 2020 Community Emergency Preparedness Fund – EOC & Training Application

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**EXECUTIVE SUMMARY:**

The Province of BC supports the purchase of equipment and supplies to maintain or improve Emergency Operations Centres (EOC) and to enhance EOC capacity through the UBC Community Emergency Preparedness Funds.

**RECOMMENDATION:**

That staff be authorized to submit an application to the Union of British Columbia Municipalities 2020 Community Emergency Preparedness Fund – Emergency Operations Centre and Training Program for funding in the amount of \$16,912.00 toward 'Fire Hall #4 – EOC Equipment' project.

**DISCUSSION:**

**a) Background Context:**

The Community Emergency Preparedness Fund (CEPF) is a suite of funding programs intended to enhance the resiliency of local governments and their residents in responding to emergencies. Funding is provided by the Province of BC and is administered by UBCM.

**Emergency Operations Centre**

The goal for the City of Maple Ridge grant application is to increase redundancy in the communications system for the City of Maple Ridge's EOC. The grant is intended to strengthen links between the EOC and responders through the provision of new equipment for Fire Hall #4, which will be the community's secondary EOC centre. Grant funding will also support training initiatives related to the new equipment. The requested funding is \$16,912.00

**b) Desired Outcome(s):**

That Council approve the Community Emergency Fund – EOC application.

**c) Strategic Alignment:**

The project that will be completed with grant funding will support building a safe and resilient community.

**d) Interdepartmental Implications:**

The radio and communications equipment will be located at the Secondary EOC Centre at Fire Hall #4. This is a shared resource with Maple Ridge Fire Rescue. The Information Technology department will support the project by providing staff and volunteer training.

**e) Business Plan/Financial Implications:**

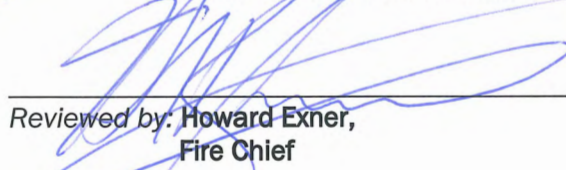
The grant amount will cover the full cost of proposed project activities.

**CONCLUSIONS:**

The City's EOC needs to build in redundancy in order to deal with potential large scale disasters. The funding required for technology upgrades can be offset by the successful application of a UBCM grant. It is recommended that Council support this grant application.



Prepared by: **James Clelland,**  
**Assistant Chief Fire Prevention and Emergency Program**




Reviewed by: **Howard Exner,**  
**Fire Chief**



Reviewed by: **Trevor Thompson,**  
**Chief Financial Officer**



Approved by: **Christina Crabtree,**  
**General Manager Corporate Services**



Concurrence: **Al Horsman,**  
**Chief Administrative Office**



# Community Emergency Preparedness Fund

Emergency Operations Centre

Applicant: City of Maple Ridge

Name of Project: Emergency Operations Centre Information Technology Upgrades

PROJECT ELEMENT A			
PROJECT PLANING & REVIEW			
Task	Timeframe	Budget	Comments
Evaluate progress of activities, timeframe, budget and challenges	On-going	0	Completed by EPC
Project administrative support	On-going	0	Completed by EPC
<b>TOTALS</b>		<b>\$0</b>	
PROJECT ELEMENT B			
COMPUTER WORKSTATIONS & DISPLAY			
Item	Type/Model #	Budget	Comments
2 - Laptops (Toughbooks)	Panasonic F2-55	7,400	\$3700 per unit
<b>TOTALS</b>		<b>\$7,400</b>	
PROJECT ELEMENT C			
AMATEUR RADIO EQUIPMENT			
Item	Type/Model #	Budget	Comments
1 - Packet modem	KPC3+	442	
1 - Adaptor cable	MFJ-5084MYV	35	
1 - Pactor modem	SCS DR-7400	2,310	
2 - AP Linear DC Power Supply	Astron RS-35	832	\$429 per unit
2 - Distribution Panels	Rig runner 4008H DC	468	\$233 per unit
1 - Antenna Switch	MFJ-1703	65	
1- 300 Watt Dummy Load	MFJ-260C	98	
3 - Dual-band antennas with clamps for 1.9" OD	Comet GP-3 VHF/UHF	591	\$197 per unit
1 - Sinclair UHF antenna for IMERS	SD312-HF2P4SNM	1,027	
2 - Sinclair antenna mounting clamps	clamp005	350	\$175 per unit
shipping costs		350	for above items
1 - Radio (AAM28UMN9WA1AN), 35W, WIFI CD	XPR 5580E 8/900M	1,021	
1 - 10A Power supply	TES SAMLEX	179	
1 - Desktop Mic	RMN5050, MOT TRBO LTD	112	
1 - MOT Desktop Tray WO/SPEAKER	GLN7318	52	
<b>PROGRAMMING FEE</b>		<b>30</b>	
VHF/UHF (UHF Packet)	ICOM IC-2730A	390	
VHF voice	ICOM IC-2300H	240	Could substitute another IC-2730A. or \$389.99 for 2730A
D-STAR VHF/UHF	ICOM ID-5100A	830	
Radio to computer cable	ICOM OPC2218LU	90	
<b>TOTALS</b>		<b>\$9,512</b>	

## CEPF MAPLE RIDGE ESS WORKPLAN BUDGET

ELEMENT A PROJECTED COST	\$0
ELEMENT B PROJECTED COST	\$7,400
ELEMENT C PROJECTED COST	\$9,512
TOTAL PROJECTED COST	\$16,912
REQUESTED SUPPORTING GRANT	\$16,912

**TO:** His Worship Mayor Michael Morden  
and Members of Council  
**FROM:** Chief Administrative Officer  
**SUBJECT:** Housing Needs Assessment: Proposed Scope of Work

**MEETING DATE:** March 31, 2020  
**FILE NO:**  
**MEETING:** Workshop

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## **EXECUTIVE SUMMARY:**

The Provincial requirement for local governments to produce a Housing Needs Assessment took effect April 16, 2019. All local governments must collect data, analyze trends and present reports that describe current and anticipated housing needs in their communities by April 2022 and every 5 years after. These Housing Needs Reports are intended to strengthen the ability of local governments to understand what kinds of housing are most needed in their communities, and help inform local plans, policies and development decisions.

To assist local governments with the new requirements, the provincial government is providing funding, administered by the Union of BC Municipalities (UBCM). Funding has been approved for the City of Maple Ridge to complete a Housing Needs Report in the amount of \$50,000. As a condition of the funding, all project activities must be completed within one year and no later than January 9, 2021.

The primary objectives of the Housing Needs Assessment is to prepare a report that will assess the local housing market conditions; identify the current and emerging housing needs within the City of Maple Ridge; compare housing supply with housing demand to determine the ability to meet future needs; identify short, medium and long-term actions to meet the housing needs across the housing continuum in Maple Ridge; and meet the provincial requirements for Housing Needs Reports.

The intent of this report is to obtain Council input and endorsement of the Housing Needs Assessment preliminary scope of work.

## **RECOMMENDATION:**

**That the proposed scope of work for the City of Maple Ridge Housing Needs Assessment be endorsed.**

### **1.0 BACKGROUND:**

#### **1.1. Housing Needs Assessment Program Overview**

The Provincial requirement for local governments to produce a Housing Needs Assessment took effect April 16, 2019. All local governments must collect data, analyze trends and present reports that describe current and anticipated housing needs in their communities by April 2022 and every 5 years after. A Housing Needs Report is intended to strengthen the ability of local governments to understand what kinds of housing are most needed in their communities, and help inform local plans, policies and development decisions. Housing needs reports are required to contain the following, based on an analysis of the information collected:

- Statements about key areas of local need, including affordable housing, rental housing, special needs housing, seniors housing, family housing, and shelters and housing for people at risk of homelessness;
- The number of housing units required to meet current and anticipated housing needs for at least the next five years, by housing type. Housing 'type' is defined as dwelling size (number of bedrooms); and
- The number and percentage of households in core housing need and extreme core housing need.

The intent of the Housing Needs Report is to provide an easily-comparable snapshot of housing needs in each jurisdiction. It provides space for local governments to identify other housing issues or needs that are not captured elsewhere.

Once complete, the Province requires that the Housing Needs Report must be received at a public Council meeting and made publicly accessible on the City's website. The Housing Needs Report must be completed by April 2022 and every 5 years after.

## 1.2. Work Completed To Date

On September 10, 2019, staff were directed to submit a grant application to UBCM to undertake a Housing Needs Assessment, in consultation with community residents, stakeholders and neighbouring First Nations.

In November 2019, staff submitted the City's Housing Needs Reports Grant Application request to UBCM, with letters of support from BC Housing, Maple Ridge – Pitt Meadows – Katzie Community Network and the Ridge Meadows Seniors Society. Funding results were announced in early 2020.

## 2.0 DISCUSSION:

### 2.1 UBCM Funding Opportunity

The City of Maple Ridge was a successful recipient of funding under the 2019 Housing Needs Reports program. The Ministry of Municipal Affairs & Housing, through UBCM, has approved funding for the City of Maple Ridge Housing Needs Assessment Report in the amount of \$50,000. **As a condition of the funding, all project activities must be completed within one year and no later than January 9, 2021.**

Costs of eligible activities that can be covered by the UBCM funding include:

- the development of a new or updated housing needs report (as required by the *Local Government Act*) including project management, data collection, research specific to the development of housing needs reports, and community engagement;
- publication of housing needs reports (editing, proofing, graphic design); and
- presentation of housing needs reports to Council.

Costs for consultants, administration, public information and training and capacity building opportunities specific to developing housing needs reports for local government staff are also eligible.

In order to complete the Provincial funding requirements by the deadline, staff envision the need for external consulting support that will add to our existing capacity. As such, staff will prepare a Request for Proposals that sets out the proposed scope of work and invites proposals from qualified firms.

## 2.2 Proposed Housing Needs Assessment Scope of Work

The proposed Housing Needs Assessment scope of work is to be framed by provincial regulation and build on past and present housing related studies developed in the City as well as the Metro Vancouver region. The primary objectives of the Housing Needs Assessment is to prepare a report that will:

- Assess the local housing market conditions;
- Identify the current and emerging housing needs within the City of Maple Ridge;
- Compare housing supply with housing demand to determine the ability to meet future needs;
- Identify short, medium and long-term actions to meet the housing needs across the housing continuum in Maple Ridge; and
- Meet the provincial requirements for Housing Needs Reports.

It is expected that the findings of the housing needs assessment report will be built on housing-related information from both quantitative and qualitative sources. As local governments are required to collect and report information on previous as well as current years, data will be sourced from Statistics Canada, BC Stats, CMHC as well as other relevant sources.

Blurb

Consultation with residents and community stakeholders will be an integral part of the planning process to obtain public input in identifying the top housing issues in Maple Ridge and potential solutions to overcome housing challenges. The community consultation process will be designed to incorporate various engaging and interactive consultation activities to reach community stakeholders and residents and will include:

- **Engagement with Neighbouring Local Governments:** The project will take a sub-regional perspective and will include consultation and engagement with the City of Pitt Meadows and the District of Mission. This will help to ensure that the final report reflects the specific needs and pressures of communities North of the Fraser. Going forward, there may be opportunities to collaborate on the collection and reporting of key measures and indicators at a sub-regional level.
- **First Nations and local Indigenous organizations:** Indigenous communities and organizations that are part of the North Fraser sub-region will be consulted as part of the overall outreach and engagement process including consideration of their specific needs both on and off reserve.
- **The Non-profit or For-profit Development Sector:** It is anticipated that at least one (1) workshop will be held with builders, developers and designers through the City's Development Liaison Committee, which includes representatives from UDI and the Homebuilders Association Vancouver (HAVAN). Industry partners, including the Condominium Homeowners Association, will also be invited to participate in a questionnaire and on-line survey.
- **Non-profit service providers, health authorities, and/or post-secondary institutions:** The City of Maple Ridge has two (2) key Advisory Committees - the Social Planning Advisory Committee (SPAC) and the Municipal Advisory Committee on Accessibility and Inclusiveness (MACAI). Both committees include broad-based community representation from across related community-based agencies and service providers, as well as other key community partners and

stakeholders. It is the intention to share the updated housing needs information with members of these Committees to help guide and inform their work.

- **Vulnerable populations:** In addition to the analysis of key social, economic, and demographic data, the successful proponent will work with the City's Social Planning and Advisory Committee and the City's Municipal Advisory Committee on Accessibility to identify specific vulnerable or 'at risk' groups who should be consulted. We will seek to engage these different groups through the development of a series of focus groups or workshops designed to gain a better understanding of existing and emerging housing needs.
- **Other:** The City will also work to invite feedback from the general public through the design and delivery of an on-line survey. An additional outcome of this work will be the refinement of the City's on-line presence as it relates to existing and emerging housing needs in Maple Ridge and will also provide easy access to information on the various housing initiatives underway in the City. The goal will be to provide an accurate and meaningful picture of current and anticipated housing needs in order to provide a better understanding of housing needs and gaps within the City of Maple Ridge.

The consultation program will commence following the completion of the Request for Proposal process and is anticipated to take place in fall 2020.

### **3.0 Strategic Alignment:**

As part of the City of Maple Ridge Strategic Plan 2019 – 2022, under its Growth theme, the implementation of strategic plans related to local infrastructure and the economy is identified as a key priority of Council.

### **4.0 Policy Implications:**

The City's Official Community Plan and Housing Action Plan (HAP) establishes as a key goal the creation of community capacity to innovate and improve access and opportunity for affordable housing and housing choice in Maple Ridge.

### **5.0 Interdepartmental Implications:**

The Planning and Parks, Recreation & Culture Departments continue to collaborate on research and policy matters to help foster greater affordable housing in Maple Ridge. Other interdepartmental efforts to create greater housing choice and offer more affordable, rental, and special needs housing options are ongoing.

### **6.0 Financial Implications:**

UBCM has approved funding for the Housing Needs Assessment Report. The City will receive a partial payment (50%) in early 2020 and the remaining payment (50%) following a satisfactory final report and financial summary submitted to UBCM. The Housing Needs Assessment is currently a part of the 2020 Workplan.

## CONCLUSION:

Housing Needs Reports are intended to strengthen the ability of local governments to understand what kinds of housing are most needed in their communities, and help inform local plans, policies and development decisions. This report outlines a Housing Needs Assessment Scope of Work that meets the provincial requirement for Council consideration and endorsement.

*A Grochowich*

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Prepared by: Amanda Grochowich, MCIP, RPP  
Planner 2

*Charles R. Goddard*  
Reviewed by: Charles R. Goddard, BA, MA  
Director of Planning

*Christine Carter*  
Approved by: Christine Carter, M.PL, MCIP, RPP  
GM Planning and Development

*Al Horsman*  
Concurrence: Al Horsman  
Chief Administrative Officer



## City of Maple Ridge

**TO:** His Worship Mayor Michael Morden  
and Members of Council  
**FROM:** Chief Administrative Officer  
**SUBJECT:** Town Centre Visioning Public Engagement Process

**MEETING DATE:** March 31, 2020  
**FILE NO:**  
**ATTN:** Workshop

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### EXECUTIVE SUMMARY:

The Town Centre Area Plan (TCAP) was adopted in 2008 with a vision for creating more density, mixed-uses, and green space, while creating a pedestrian-oriented environment. With this Plan in place, the Town Centre of Maple Ridge has been experiencing a significant amount of redevelopment and change over the past five to ten years. Maple Ridge Council has recognized this growth and change and wants to ensure that the evolution of the Town Centre is positive and leads to greater vibrancy within this core part of the community.

At the September 10, 2019 Workshop, the key features of the TCAP were presented to Council, along with examples of recent development that has proceeded under the Plan. During this Workshop, Council discussed some of the known challenges and opportunities that have both helped and hindered in making the Town Centre an inviting place for all age groups. Through the discussion there was acknowledgment that the Plan remains relevant in supporting Council's aims for this area. However, Council indicated that a visioning process would be timely as a 2020 project. The Planning Department was tasked with undertaking a public process for Town Centre Visioning in the City's 2020 Business Plan. The bylaw to confirm the 2020 Business Plan was adopted at the January 14, 2020 Council meeting. It is not anticipated that the visioning process will lead to significant changes to the Town Centre Area Plan, however, although there is potential that the process may result in identifying where minor changes would and improvements may result.

A project that is proceeding concurrently with the Town Centre Visioning process is the Community Social Safety Initiative (CSSI). The current focus of the CSSI is to undertake actions that will create positive change within the Town Centre. It is hoped that the aligned timing of the CSSI and the Town Centre Visioning process is synergistic and will help generate greater awareness, understanding and engagement. While each of these projects is approaching the Town Centre from a slightly different angle, both are aimed at creating a downtown that is safe, vibrant and welcoming for everyone.

This report outlines the Town Centre Visioning engagement process and the time anticipated for undertaking and completing this work.

### RECOMMENDATION:

**That the Town Centre Visioning Public Engagement Process be endorsed.**



## 1.0 BACKGROUND:

An extensive public consultation process for the TCAP commenced in 2003 and included several public workshops and a design charrette. The process was led by Smart Growth on the Ground, which was a collaborative of various agencies that included the Real Estate Foundation, Federation of Canadian Municipalities, Canada Mortgage & Housing Corporation, the Province of BC, and the Government of Canada, with a mandate to facilitate the creation of compact and environmentally-friendly urban neighbourhoods. Through the public consultation process, the following 8 guiding principles were developed for the plan:

1. Each neighbourhood is complete;
2. Options to our cars exist;
3. Work in harmony with natural systems;
4. Buildings & infrastructure are greener & smarter;
5. Housing serves many needs;
6. Jobs are close to home;
7. The centre is distinctive & vibrant; and
8. Everyone has a voice.

A Town Centre Concept Plan was developed from all input received and was endorsed by Council in 2005. Once the Concept Plan was endorsed, development applications were able to proceed based on the concept land use designations. The Concept Plan also provided the guide from which Area Plan policies were formed. The Town Centre Area Plan (TCAP) was adopted into the Official Community Plan (OCP) in 2008. See Schedule 1 land use plan in Appendix A and the following link to the complete TCAP maps and policies (Section 10.4) <https://www.mapleridge.ca/316/Official-Community-Plan>

The Area Plan policies are supported by Development Permit (DP) Guidelines that were also adopted into the OCP in 2008. These Guidelines provide guidance for the form and character of new development and also encourage green features be incorporated wherever possible (such as rain gardens, green roofs, green walks, and greenway routes). See link to DP Guidelines (Section 8.11) [https://www.mapleridge.ca/DocumentCenter/View/2420/08\\_OCP-Chapter-8?bidId=](https://www.mapleridge.ca/DocumentCenter/View/2420/08_OCP-Chapter-8?bidId=)

A technical parking study undertaken in 2008 found that reduced parking standards in the areas Central Business District (see link above for CBD map in Figure 2 of Section 10.4) would be appropriate based on the mix of proposed land uses and intensification of development. This change has been reflected in the City's Parking Bylaw. Additionally, Zoning Bylaw amendments were implemented upon adoption of the Area Plan that support specific policies of the Town Centre, such as a 3 storey minimum building height for multi-family and commercial uses and a maximum building height in the Port Haney area. The TCAP continues to be updated as planning approaches evolve, with one recent example being the incorporation of the new triplex, fourplex and courtyard forms into policies within the Area Plan.

Since the Area Plan was adopted, the following implementation initiatives have been undertaken to support and encourage growth:

- The Town Centre Investment Incentives Program (ran from 2011 to 2016) – this program kick started multi-family and mixed-use development within the Town Centre.
- Capital investment has been undertaken a few times in engineering and street improvements along 224<sup>th</sup> and Lougheed Highway. The initial project included an upgrade of Memorial Park along 224<sup>th</sup> Street.
- Review of the Town Centre commercial areas through the Commercial/Industrial Strategy – which confirmed we are on the right track with land use and policies.

- New park development – acquisition of park lands has occurred since plan adoption and to date we have a new Nokai Park and the Intergenerational Garden, both are just north of the Central Business District.
- Density-bonus provision for affordable housing (2019).

When the Area Plan was being developed, the neighbourhood was home to over 8,000 people. Since 2005, almost 4,000 new residents have moved to the Town Centre. Today, the population is getting close to 12,000 people with approximately 6,500 dwelling units. When the Town Centre reaches build-out capacity, it is expected to have approximately:

- 22,000 residents;
- 70 to 100 persons per hectare;
- 11,065 units;
- Close to 1 job for every dwelling unit.

Over the past five years, over 67 development projects have been approved and over 64 are currently under application and anticipated for completion within the next two to three years (see Appendix B). Approximately 12 are in the pre-application stage.

An overview of the TCAP and some examples of new development under the Plan was presented at the September 10, 2019 Council Workshop. During the meeting, Council indicated an interest in undertaking a visioning process for the Town Centre, which could provide a vision refresh by identifying opportunities for creating greater vibrancy and potential updates for the Plan. The Planning Department included a Town Centre Visioning process in the 2020 Business Plan and the Business Plan bylaw was adopted at the January 14, 2020 Council meeting.

## **2.0 DISCUSSION:**

Engaging the public through the Town Centre Visioning process will involve a series of stakeholder workshops and one pop-up broad engagement event at the Haney Farmer's Market. Dialogue Planning & Urban Design will be contracted to lead the public engagement component of the process.

### **2.1 Public Engagement Process**

The intent behind the public engagement process is to ensure a broad public engagement opportunity, along with a series of workshops focused on stakeholders within the Town Centre. The following engagement events are proposed for the Town Centre Visioning process:

1. A Scoop for Your Scoop: This broad engagement pop-up activity will be scheduled for a Saturday afternoon Haney Farmer's Market, where a colourful ice cream cart and display boards will invite attendees at the market to share their "scoop" on the future of the Town Centre in exchange for a scoop of ice cream.
2. Community Questionnaire: An online questionnaire will be made available for those who are not able to participate in the above "Scoop" event or the stakeholder workshops discussed below. The questionnaire is intended to reach as many members of the community as possible for input. Paper versions of the questionnaire will also be available at the "Scoop" event and at the City Hall reception and front counter.

### 3. Series of Stakeholder Workshops:

- a. WalkShop: This event aims to engage a range of stakeholders, including local residents, seniors, children, youth, event/festival organizers, culture/arts community, and others. Participants will be asked to take photos and videos while walking through a designated route in the Town Centre. The walk will be followed by a workshop, wherein the participants' observations will be shared and discussed. The outcomes of this workshop will be to understand what currently excites people about the Town Centre, what they see as the challenges, and to identify their big picture aspirations for the future.
- b. Business Community: Because businesses have specific needs and concerns, a business focused workshop will be undertaken. This workshop will likely be held as a breakfast event that includes a short presentation, an interactive mapping exercise, and a final interactive exercise that asks for input on what they would change, from a cultural and economic perspective, to make the Town Centre more successful.

The input received from the public engagement process will be compiled into an outcomes report and presented to Council. The outcomes report will test the findings from the engagement process and determine if these are in alignment with the existing TCAP policies and identify where there are opportunities for improvement. Additionally, this process is intended to help define "what does success mean?" in the ongoing implementation of the Town Centre Area Plan and lead to identifying indicators for measuring success.

Once the outcomes report is received by Council, recommendations for next steps in the process will also be presented for Council's consideration. This would potentially involve drafting policy changes to the TCAP and presenting to the community for their feedback through an open house event.

The public consultation process was initially anticipated to commence in early May and run through June 2020, however, due to the recent restrictions placed on public gatherings, the start date of this process has yet to be determined.

## **2.2 Town Centre Branding and Public Engagement Notifications**

Planning will work with the Communications Department on creating a Town Centre Visioning brand and webpage for sharing information with the public. This will also likely include a kick-off video that can be posted on YouTube. Broad community advertising of the process will include:

- Newspaper advertisements;
- Posters in high community traffic areas, such as the Leisure Centre, the ACT, City Hall, library, Seniors' Centre, Greg Moore Youth Centre, and distributed to Committees of Council; and
- The City's FaceBook page and on twitter.

Invites to the workshops will be targeted to specific stakeholder groups, as discussed above, with emails and/or letters addressed to each invitee.

## **2.3 Interdepartmental Collaboration**

Renewing the Vision for the Town Centre will involve several City departments in supporting and participating in the public engagement process. Additionally, the Town Centre Visioning process is anticipated to provide opportunities for combining and supporting synergies with the work that is underway on the Community Social Safety Initiative, in which many City departments are already engaged. An initial interdepartmental meeting for the Town Centre Visioning process has already occurred with the following departments and further meetings to obtain input and expertise are also anticipated:

- Economic Development;
- Engineering;
- Development and Environmental Planning;
- Culture & Recreation;
- Fire;
- Bylaws;
- Parks; and
- Communications.

It is anticipated that staff from each of these departments will be involved in participating in at least one, but likely more, of the stakeholder workshops and also provide input into the preparation of the community questionnaire.

## **3.0 STRATEGIC ALIGNMENT**

The Town Centre Visioning process is intended to engage broad participation within the community in identifying and sharing their aspirations for the Town Centre's future. This project objective, along with discussions that will take place regarding safety, vibrancy, inclusivity, and encouraging an ongoing community dialogue align with the following goals of Council's Strategic Plan:

- Community Safety;
- Growth;
- Community Pride & Spirit; and
- Natural Environment (Green Infrastructure).

## **4.0 FINANCIAL IMPLICATIONS**

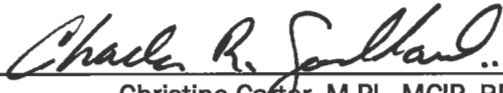
The Town Centre Visioning process is included in the City's 2020 Financial Plan and the bylaw to enact this plan was adopted at the January 14, 2020 Council meeting.


## CONCLUSION:

The Town Centre Area Plan was adopted in 2008 and established a vision for creating a pedestrian-oriented, compact, and high-density downtown for the community. While the goals of this remain relevant today, a refresh is timely. Through this process, the community will be invited to revisit and refine the original vision to ensure that as the Town Centre continues to grow, it is growing in the right direction. Commencement of this project is coinciding with some positive work currently underway in the Town Centre on the Community Social Safety Initiative (CSSI) and it is anticipated that synergies between these two projects will help support awareness and engagement in both.

  
Prepared by: Lisa Zosiak, MRM., MCIP, RPP  
Manager of Community Planning

  
Approved by: Chuck Goddard, BA, MA  
Director of Planning

  
Approved by: Christine Carter, M.PL, MCIP, RPP  
GM: Public Works & Development Services

  
Concurrence: Al Horsman  
Chief Administrative Officer

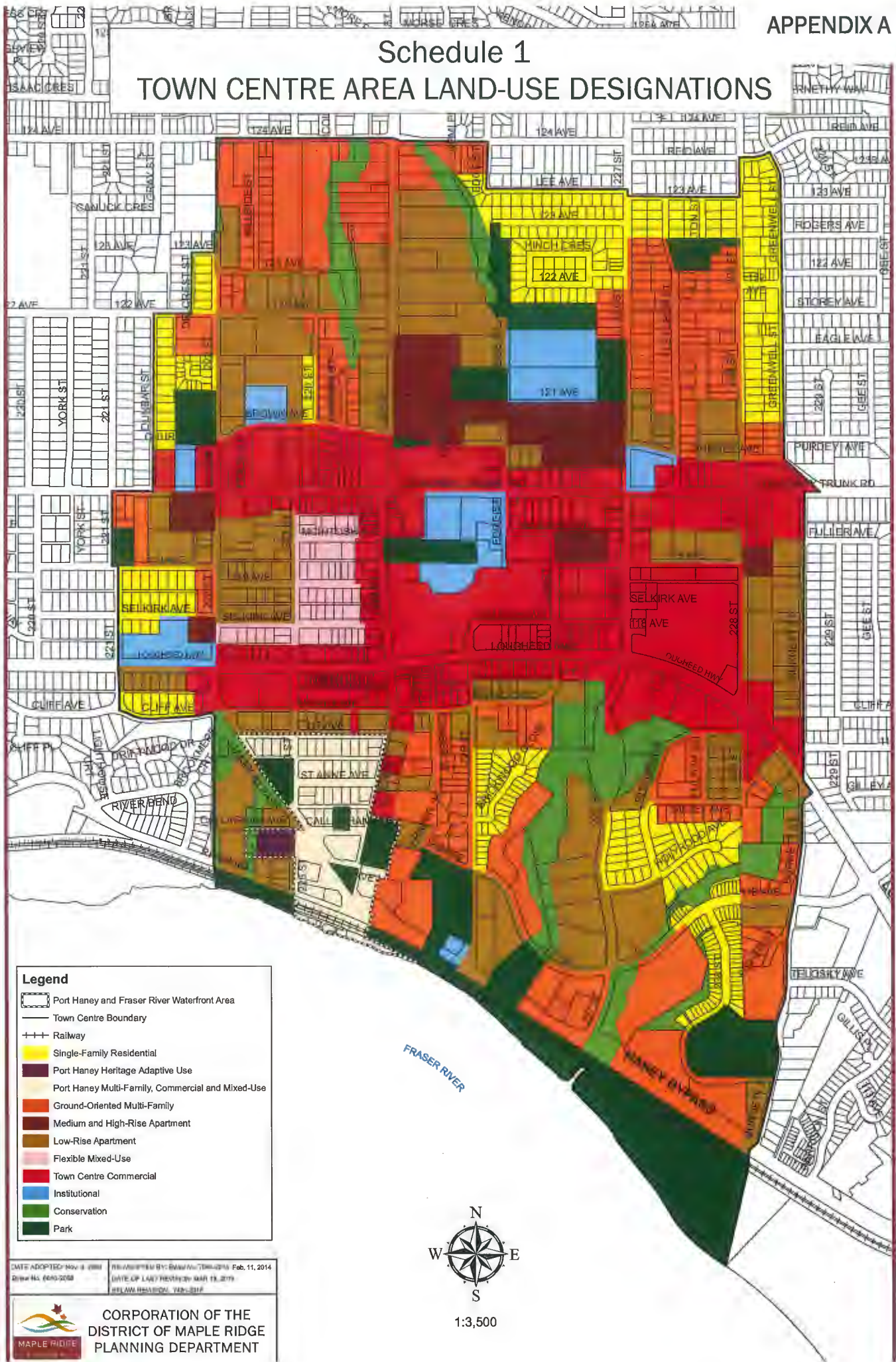
The following appendices are attached hereto:

- Appendix A: Town Centre Area Plan – Schedule 1
- Appendix B: Town Centre Development Activity – past 5 years



# Schedule 1

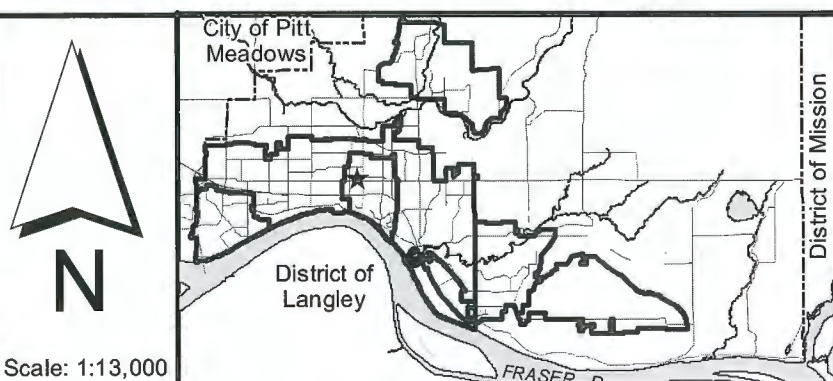
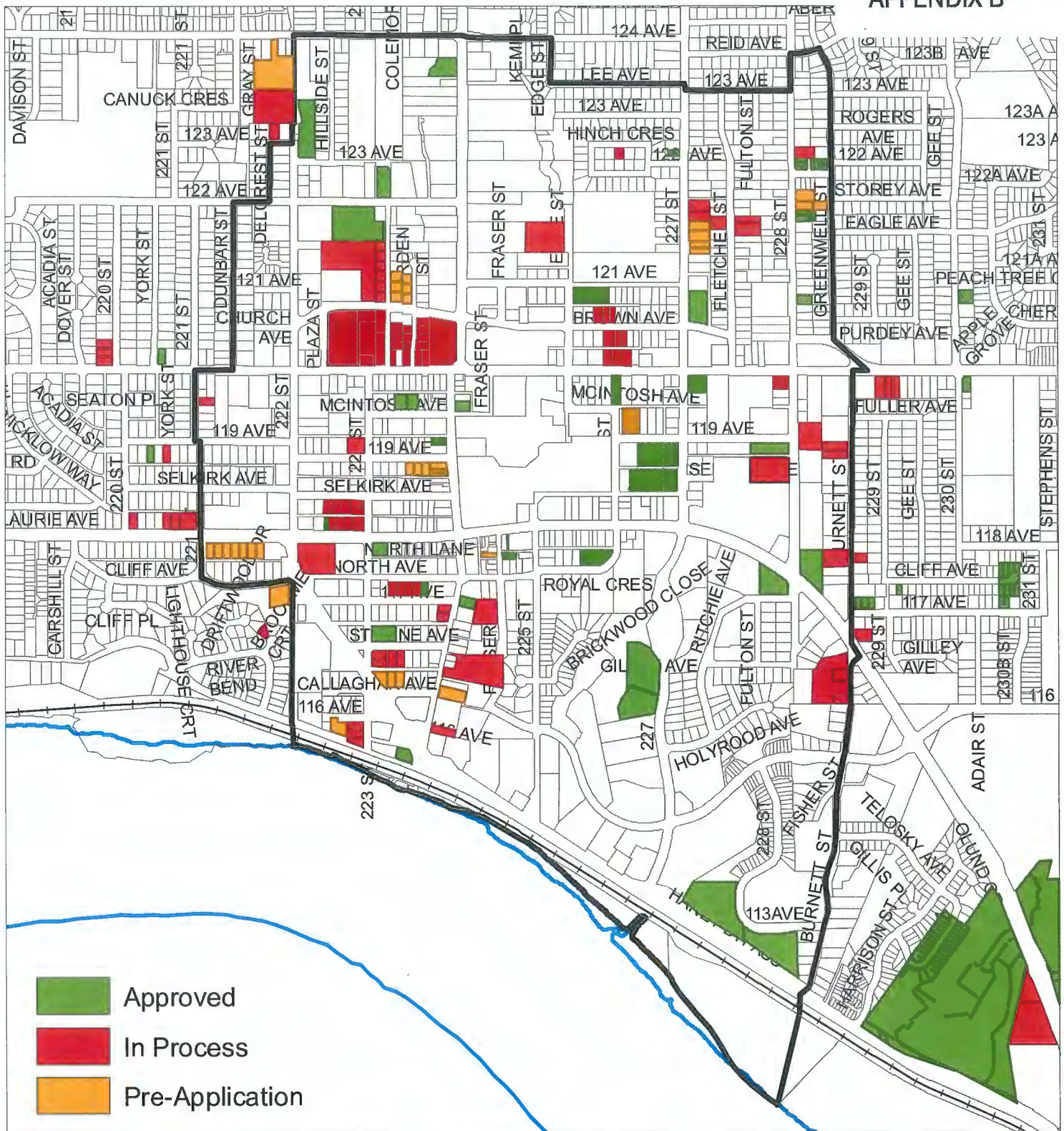
## TOWN CENTRE AREA LAND-USE DESIGNATIONS



CMTF ADOPTED Nov. 8, 2008  
 Draw No. 6840-2008

REVISOR: BY: B. H. / C. H. / D. H. / F. H. / G. H. / H. H. / I. H. / J. H. / K. H. / L. H. / M. H. / N. H. / O. H. / P. H. / Q. H. / R. H. / S. H. / T. H. / U. H. / V. H. / W. H. / X. H. / Y. H. / Z. H. / AA. H. / AB. H. / AC. H. / AD. H. / AE. H. / AF. H. / AG. H. / AH. H. / AI. H. / AJ. H. / AK. H. / AL. H. / AM. H. / AN. H. / AO. H. / AP. H. / AQ. H. / AR. H. / AS. H. / AT. H. / AU. H. / AV. H. / AW. H. / AX. H. / AY. H. / AZ. H. / BA. H. / BB. H. / BC. H. / BD. H. / BE. H. / BF. H. / BG. H. / BH. H. / BI. H. / BJ. H. / BK. H. / BL. H. / BM. H. / BN. H. / BO. H. / BP. H. / BQ. H. / BR. H. / BS. H. / BT. H. / BU. H. / BV. H. / BW. H. / BX. H. / BY. H. / BZ. H. / CA. H. / CB. H. / CC. H. / CD. H. / CE. H. / CF. H. / CG. H. / CH. H. / CI. H. / CJ. H. / CK. H. / CL. H. / CM. H. / CN. H. / CO. H. / CP. H. / CQ. H. / CR. H. / CS. H. / CT. H. / CU. H. / CV. H. / CW. H. / CX. H. / CY. H. / CZ. H. / DA. H. / DB. H. / DC. H. / DD. H. / DE. H. / DF. H. / DG. H. / DH. H. / DI. H. / DJ. 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## Active and Approved Rezoning & Development Permits

PLANNING DEPARTMENT



MAPLE RIDGE

British Columbia

[mapleridge.ca](http://mapleridge.ca)

**TO:** His Worship Mayor Michael Morden  
and Members of Council  
**FROM:** Chief Administrative Officer  
**SUBJECT:** **Integrated Stormwater Management Plan - South Alouette River and Kanaka Creek Watersheds**

**MEETING DATE:** March 31, 2020  
**FILE NO:** 11-5255-20-061  
**MEETING:** Workshop

---

#### **EXECUTIVE SUMMARY:**

The Province has encouraged the effective management of municipal watersheds by mandating that local governments in the Metro Vancouver Region develop Integrated Stormwater Management Plans (ISMPs). Accordingly, the City has retained engineering consultants Urban Systems Ltd. and Kerr Wood Leidal Associates Ltd. to develop ISMPs for watersheds that include 90% of the City's urban area. The Urban Systems Ltd. ISMP for the South Alouette River and Kanaka Creek watersheds is now complete, and the Executive Summary is attached (a link to the main report is provided on the Council Agenda). The Kerr Wood Leidal ISMP is scheduled for completion later this year.

The South Alouette River and Kanaka Creek ISMP provides an overview of watershed health and drainage system performance. The study refers to stream flow information, biological monitoring data, land use maps and aerial photo imagery in assessing the health of local streams. Hydrological and hydraulic computer models were developed to review the performance of the City's drainage systems, with consideration of future climate change. The ISMP assesses City policies and practices related to the management of rainwater from the Official Community Plan level down to the development site level, identifying successes and various opportunities for improvement. Various stakeholders were consulted during the development of the ISMP including the City's Environmental Advisory Committee, which carried a motion to support the recommendations of the ISMP in November 2019.

The ISMP provides recommendations for various actions and initiatives including encouraging implementation of Green Infrastructure, improving the City's rainwater management design criteria, implementing infrastructure capacity upgrades, monitoring stream health and erosion, and monitoring key performance indicators. By implementing the recommendations of the ISMP, the City can build upon its role as a responsible land steward while promoting the development of safe and liveable neighbourhoods.

#### **RECOMMENDATION:**

That the South Alouette River and Kanaka Creek Integrated Stormwater Management Plan be endorsed; and

That staff be directed to bring forward the recommendations of the ISMP as part of future Business Plans for consideration.



## DISCUSSION:

### a) **Background Context:**

Historical development in Metro Vancouver municipalities including Maple Ridge focused mainly on the safe conveyance of runoff from major rainstorms. This one-dimensional approach to managing rainfall has resulted in the degradation of watershed health. More recently, the science of rainwater management has advanced.

For over a decade, Maple Ridge has implemented the modern 3-tier system that maintains watershed health by managing the entire spectrum of rainfall from minor to major events. Critically, the City has also maintained watershed health by protecting environmentally sensitive areas and applying streamside protection regulations that allocate forested buffer zones adjacent streams. These efforts have proved quite successful, however challenges to achieving peak watershed health and drainage system performance persist. As such, the ISMP is a useful tool for assessing the current state of watershed health and drainage performance, identifying challenges and recommending actions for the future maintenance or for improvement of watershed health and drainage. A link to the ISMP is provided on the Council Agenda and the Executive Summary report is attached.

The ISMP provides recommendations for various actions and initiatives to maintain or improve watershed health including: encouraging the implementation of Green Infrastructure to offset development impacts, particularly in the Town Centre Area; adding flexibility and other improvements to City's rainwater management design criteria; coordinating infrastructure capacity upgrades with asset management initiatives; monitoring stream health and erosion; and monitoring of key performance indicators and adaptive management. By advancing these and the other recommendations of the ISMP, the City can build upon its role as a responsible land steward while promoting the development of safe and liveable neighbourhoods.

### b) **Desired Outcome:**

The intent of this report is to provide Council with the Executive Summary of the South Alouette River and Kanaka Creek Integrated Stormwater Management Plan as well as access to the main report; to seek endorsement of the Plan, and to recommend that staff advance the recommendations of the Plan in future Business Plans for Council's review.

### c) **Strategic Alignment:**

The development of ISMPs is listed as a key action in Natural Environment Highlights section of the City of Maple Ridge Strategic Plan for 2019-2022.

### d) **Citizen/Customer Implications:**

Citizens can benefit from the ISMP as the document recommends studies and actions for the enhancement of watershed health and drainage system performance in Maple Ridge.

### e) **Interdepartmental Implications:**

Internal stakeholders from the Engineering, Operations, Parks, Planning, and Building Departments collaborate on drainage infrastructure and watershed health, and will continue to collaborate in implementing the recommendations of the ISMP.

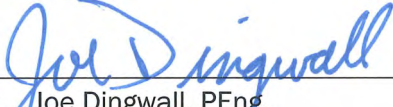
**f) Business Plan/Financial Implications:**

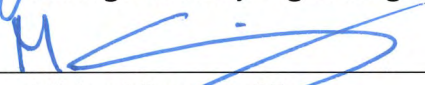
The City's existing 5 year Capital Plan allocates funding annually for drainage infrastructure replacements and capacity upgrades. The ISMP identifies targets for utilization of this funding for the enhancement of watershed health and drainage system performance.

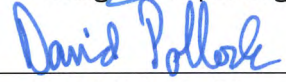
**CONCLUSION:**

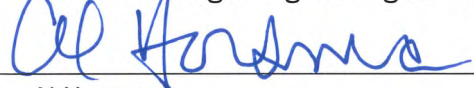
Following Provincial mandate, the City retained Urban Systems Ltd. to develop an Integrated Stormwater Management Plan (ISMP) for the South Alouette River and Kanaka Creek watersheds. The ISMP provides an overview of watershed health and drainage system performance while reviewing the effectiveness of the City's existing policies and practices. The ISMP offers a number of recommendations the City can implement to enhance the health of these watersheds.

It is recommended that Council endorse the ISMP and direct staff to bring forth the ISMP's recommended plans and budgets for consideration as part of future Business Plans.

  
\_\_\_\_\_  
Prepared by: Joe Dingwall, PEng.  
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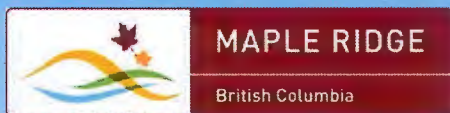
  
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**Attachments:**

- (A) Executive Summary – South Alouette River and Kanaka Creek Integrated Stormwater Management Plan

An aerial photograph of a suburban neighborhood in Maple Ridge, British Columbia. The houses are mostly two-story, with dark roofs and light-colored siding. They are surrounded by lush green trees. In the background, a range of mountains with significant snow cover is visible under a clear blue sky.

# **INTEGRATED STORMWATER MANAGEMENT PLAN**

## SOUTH ALOUETTE & KANAKA CREEK

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### **EXECUTIVE SUMMARY REPORT**

March 2020



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# 1 INTRODUCTION

## 1.1 What is an Integrated Stormwater Management Plan?

The regional objective of integrated stormwater management planning is to “strive to maintain existing watershed health and achieve no-net-loss on a watershed basis”.<sup>1</sup> To achieve this, the ISMP process examines the relationships between land use planning and development, drainage servicing, and environmental protection.

An ISMP outlines specific policies and actions to support and promote the growth of a community in a way that maintains (and ideally enhances) the health of a watershed. Because of the integrated nature of its scope and the way in which it is developed, as a policy-level document an ISMP can be a powerful tool to help a community realize its vision.

Core components of an ISMP include the following:

### Land Use

- Growth projections, land use patterns and priority watersheds
- Area Plans and active development applications

### Environment

- Identify aquatic and terrestrial habitat values and opportunities

- Senior government regulations and approvals
- Geosciences (geotechnical and hydrogeology / groundwater)
- Monitoring and watershed health tracking

### Infrastructure and Drainage Systems

- Inventory and performance assessment of existing components, including natural assets
- Identify pieces required to effectively support growth, while protecting environmental values
- Monitoring and adaptive management

### Engagement and Communication

- Establish effective inter-departmental linkages
- Leverage community members and other authorities
- Secure support from community leaders and senior officials

### Policy and Finance

- Policy and criteria to guide future growth and redevelopment
- Ensure policy documents are complete and aligned
- Implementation priorities, responsibilities, and schedules

<sup>1</sup> Metro Vancouver's Template for Integrated Stormwater Management Planning (2005)



## 1.2 Drivers for Integrated Stormwater Management Planning in the City

### Legislative Requirements

The City's initial regulatory driver for conducting ISMPs was Metro Vancouver's 2002 Liquid Waste Management Plan (LWMP), which was updated in 2010 as the Integrated Liquid Waste and Resource Management Plan (ILWRMP).

As a condition to the approval of the ILWRMP, the BC Ministry of Environment (MOE) stipulated that all member municipalities in Metro Vancouver must complete ISMPs for their urban and semi-urban watersheds. As a member municipality of Metro Vancouver, the City of Maple Ridge is required to do so. The LWMP endorses the view that stormwater is a resource that, when managed properly, can be utilized to protect and ideally enhance watershed health. The LWMP outlined an approach to integrated stormwater management planning that considered drainage, environment and land use planning functions within a watershed. The intent was to address potential stormwater management impacts on a community and its values, such as population growth and densification, recreation, agriculture, fisheries, wildlife, flood protection, transportation, and other related issues.

### City Directives Related to Watershed Health and Climate Change Adaptation

The importance of environmental values and protecting watershed health has long been recognized by the City. Through three key corporate documents – the 2013 Official Community Plan (OCP); the 2007 Corporate Strategic Plan (CSP); and the 2007 Sustainability Action Plan (SAP) – the City provides strategic direction that supports integrated

stormwater management planning. These documents include high-level objectives and policies that support ISMP objectives. The OCP places emphasis on healthy watersheds and acknowledges the significance of surrounding Crown lands and partnerships with other jurisdictions to overall sustainability. It also includes a natural features framework for watershed health. The OCP also includes statements regarding smart growth; biodiversity conservation; ecological health; movement corridors for wildlife, fish and people; climate change adaptation; economic accountability and responsibilities; natural assets; and social objectives related to liveability, and mental and physical wellbeing.

The notion of integration is inherent in the City's value statement on stewardship, which states that the City will "consider the long-term consequences of actions, think broadly across issues, disciplines and boundaries and act accordingly". This statement mirrors the core objectives of an ISMP.

In addition to these high-level directives, the City has also developed numerous bylaws and corporate policies that support integrated stormwater management, as discussed further in Section 3.0.

### Climate Change

Climate change, and the uncertainty around what exactly it will bring and when, means that communities need to take an adaptive approach to watershed management and community development. Warmer summers and changes in annual precipitation are just a couple of the anticipated impacts of climate change to communities in the Lower Mainland, and this will have implications for stream health and how stormwater is managed. Contemporary integrated



stormwater management planning needs to have some adaptive capacity to address these issues, and this is explored in the ISMP is developed.

### **Growth & Development**

A regional Urban Containment Boundary (UCB) has been established as a long-term area for urban development across Metro Vancouver. Within the UCB, nine urban centres have been identified, including the City's Town Centre. The City's OCP also identifies specific areas of growth, including the Town Centre and Silver Valley area (which are located within the South Alouette watershed) and the Albion area (which is located within the Kanaka Creek watershed). Integrated stormwater management planning is a strong tool for achieving these growth objectives as well as environmental protection.

## **1.3 An ISMP for the South Alouette and Kanaka Creek Watersheds**

This ISMP has been prepared for the South Alouette and Kanaka Creek watersheds in the City of Maple Ridge, British Columbia (BC). The City is jointly developing ISMPs for these watersheds because of the overlapping objectives and benefits the process provides to the City. The City is making a significant investment in the future of Maple Ridge and the watersheds through the development of these plans.

The Study Area is comprised of the approximately 310 square kilometers (km<sup>2</sup>), or 31,300 hectares (ha), of the South Alouette and Kanaka Creek watersheds, of which 160 km<sup>2</sup> (16,360 ha) lie within the municipal boundary of the City of Maple Ridge (Figure 1.1). Included within the watershed boundaries but beyond the jurisdiction of the City are parts of Golden





Ears Provincial Park, the City of Pitt Meadows, the District of Mission, and the University of British Columbia Research Forest. The Study Area is located within the traditional territory of the Coast Salish People, including Katzie First Nation and Kwantlen First Nation.

## 1.4 Planning Process

This ISMP was prepared in three Parts:

**Part 1** summarized the background information and established the baseline (existing) conditions of the watersheds and considerations for the ISMP as it is further developed.

**Part 2** explored the likely outcomes of future conditions through the application of planning future land use change, climate change, and potential changes in criteria or standards. This assessment provides the basis for the management strategy.

**Part 3** defines the management strategy and adaptive management framework to best address the issues identified in Part 1 and Part 2.

## 1.5 Desired Outcomes

A desired outcome of the ISMP planning process is that the ISMP is ultimately endorsed by City Council. For this to happen, the following outcomes must also be achieved:

- The ISMP aligns with and supports the City's OCP;
- Stakeholders are engaged and supportive;
- The ISMP reflects the City's unique regulatory, land use, and environmental conditions;

- Existing stormwater and environmental management practices are considered and improved upon; and
- Recommendations are justifiable, clear, feasible, prioritized, and account for the full cost.

## 1.6 Collaboration, Communication, and Engagement

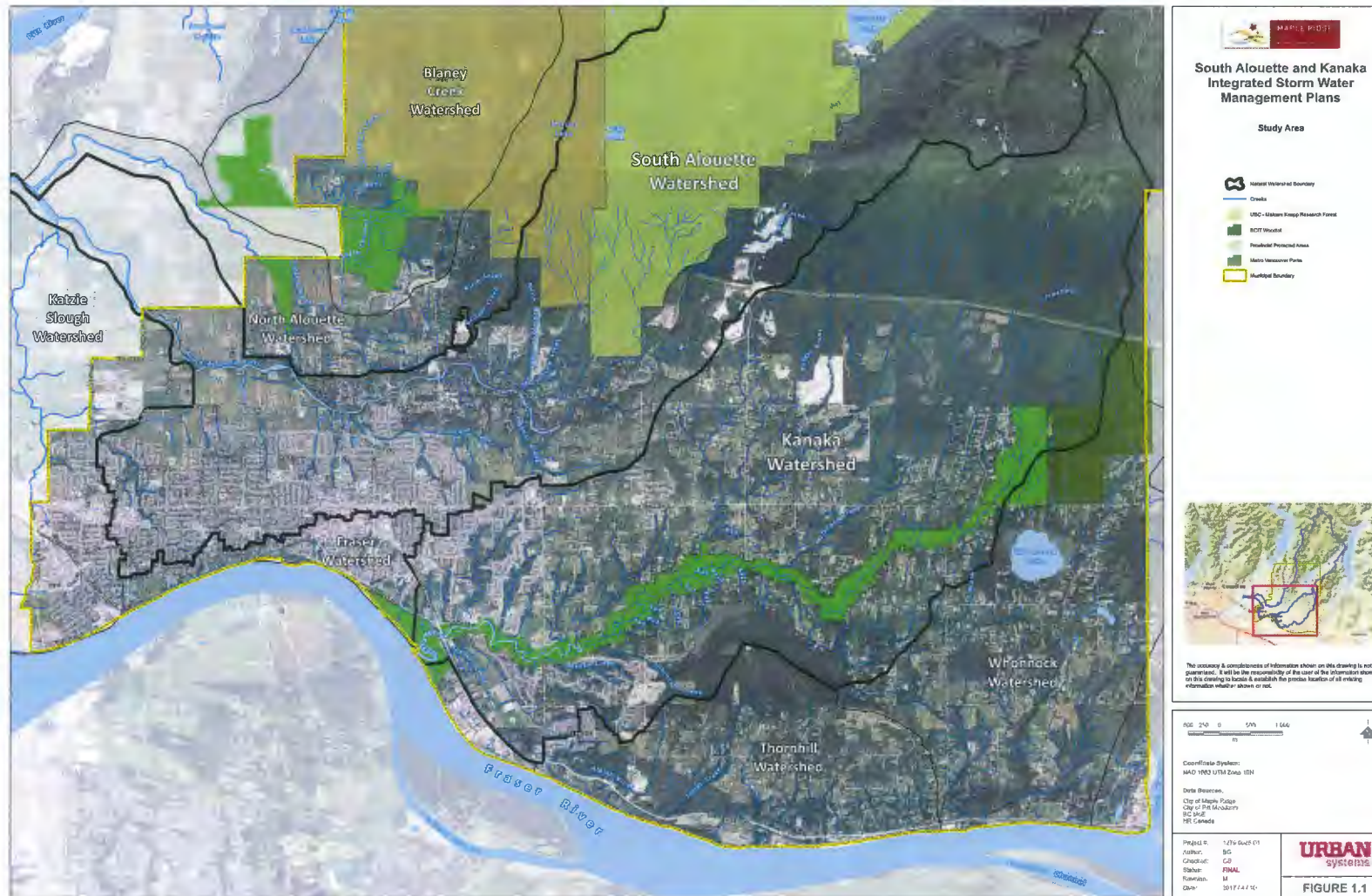
As shown by the desired outcomes above, effective collaboration, communication and engagement within the City and with external stakeholders was important. Leadership to implement the ISMP will ultimately come from the City, and inter-departmental collaboration will be required to successfully do so. Ultimately, City Council will decide whether to endorse the ISMPs. This will happen when there is understanding and support for the ISMP recommendations across City departments and the local community. Input into the ISMP process was therefore sought from all those who have an interest in the ISMP outcomes, with a strong focus on working together to achieve the desired outcomes of the process.

## 1.7 City Involvement

The project team (led within Engineering) engaged a diverse group of City staff in the development of the ISMP through a Core Advisory Team. The team was comprised of representatives from City departments with an interest in the ISMP and whose leadership will be essential to the successful implementation of the ISMP.

**Core Advisory Team:** Engineering; Planning; Parks and Leisure; Building Department

Figure 1.1 – Study Area





**Other City Departments:** Finance; Information Technology; and Communications

**Senior Advisory Team:** Corporate Management Team

**Council:** Role is to endorse the ISMP.

## 1.8 External Stakeholders

External stakeholders were engaged at key points throughout the development of the ISMP.

- Alouette River Management Society (ARMS);
- Kanaka Education and Environmental Partnership Society (KEEPS);
- Metro Vancouver Parks;
- Alouette Valley Association;
- Silver Valley Neighbourhood Association; and
- Portrait Homes, a respected representative of the local development community.

Representatives were selected based on their diverse interests in the ISMP and influence on watershed health. The participants role was to provide input on ISMP issues, opportunities, and alternatives; provide advisory support to the Core Advisory Team and project team in the development of the ISMP.

Katzie First Nation and Kwantlen First Nation were engaged through a separate government-to-government communication and engagement process.

To help assess the general public's current perceptions of the watershed and its overall health the City of Maple Ridge published a public online survey from July 19 to August 19, 2019. The survey was advertised on the City website, their Facebook page, and in the local newspaper.

## 1.9 Guiding Principles

The following guiding principles were developed to guide the communication and engagement between the project team, within the City, and with external stakeholders:

- **Clear:** Information, opportunities for participation, and expectations will be clear.
- **Open:** Communication channels will be open and two-way between the project team and stakeholders.
- **Timely:** All communications, including content and invitations for participation, will be provided in a timely manner to ensure the stakeholders can participate fully in the ISMP process.
- **Adaptive:** Communication and engagement content and techniques will be diverse and will adapt to the needs of the stakeholders and to feedback the project team receives as the project progresses.
- **Strategic:** Communications and opportunities for participation will be strategically provided to stakeholders, commensurate with their influence on the desired outcomes of the ISMP process.

## 1.10 Building On Our Foundation

The City has a long history of watershed and environmental management, having been an early adopter of the environmental management paradigm. Over the years, the City has undertaken numerous studies and planning initiatives, which has provided a strong foundation on which to develop its ISMPs. Furthermore, a comprehensive set of regional, local, and provincial/federal regulations and policies guide integrated stormwater management practices in the City.



# PART 1

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## BACKGROUND & BASELINE ASSESSMENT





## 2. OVERVIEW OF THE WATERSHEDS

### South Alouette

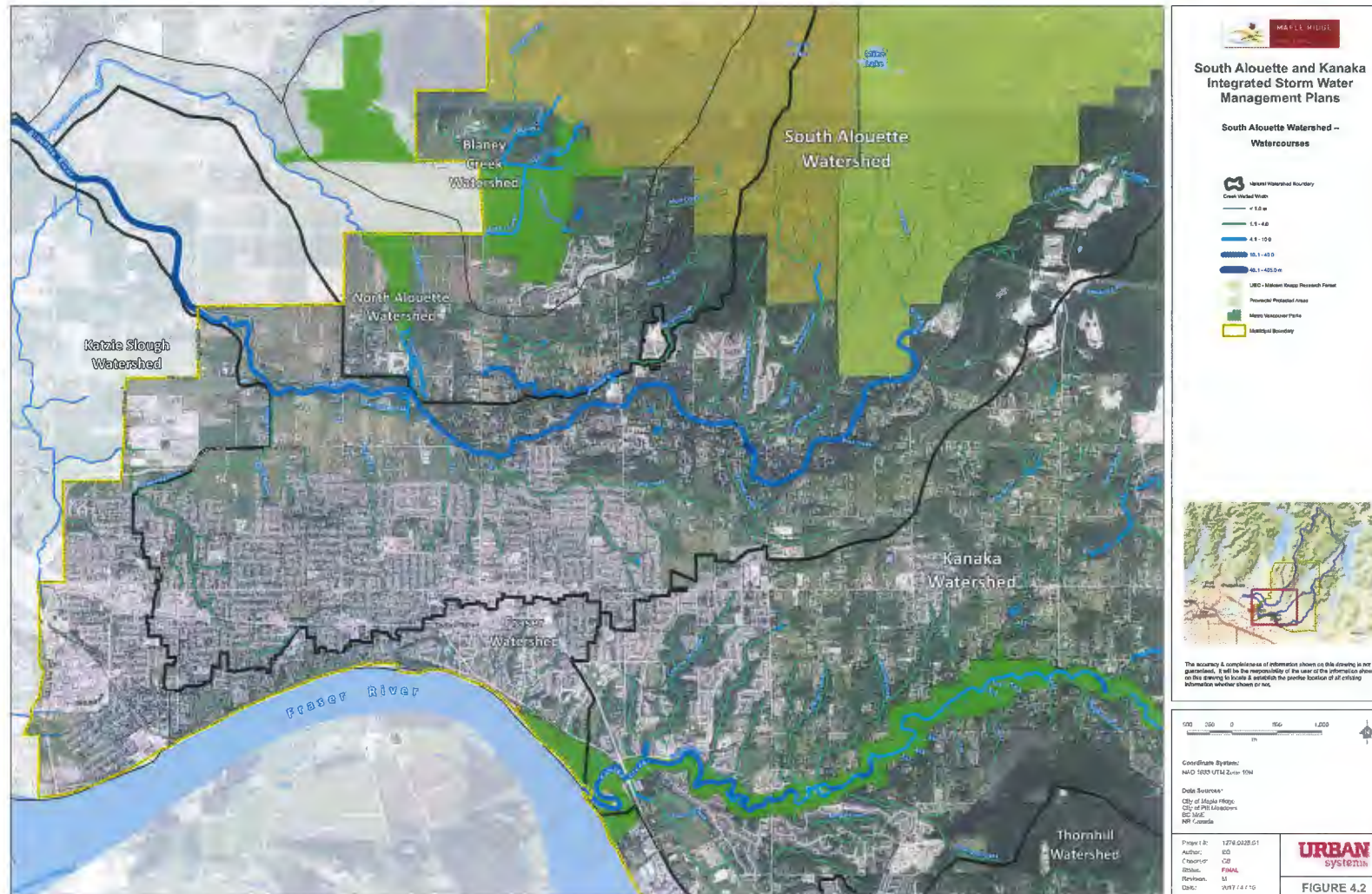
The South Alouette watershed and its watercourses are illustrated on **Figure 2.1**. The South Alouette has a stream length of approximately 31 km. There are numerous tributaries to the South Alouette River. The South Alouette River originates on Mount Robie Reid where drainage flows into Alouette Lake. Flows from Alouette Lake are controlled by the Alouette Dam, operated by BC Hydro. Flows from Alouette Lake are then conveyed west by the South Alouette river, where it converges with the North Alouette to form the Alouette River. The Alouette River flows west to the Pitt River and ultimately to the Fraser River, which conveys flows to the Salish Sea (Strait of Georgia). The Alouette River is a proclaimed BC Heritage River.

The South Alouette watershed is a large watershed, approximately 250 km<sup>2</sup> (25,128 ha) in size, of which approximately 100 km<sup>2</sup> (10,197 ha) lie within the City's municipal boundary. The remaining area falls within the jurisdiction of the City of Pitt Meadows, the District of Mission, and the Province of BC (Golden Ears Provincial Park). The South Alouette watershed is bound by the Katzie Slough watershed to the west; the Fraser watershed to the southwest; the Kanaka Creek watershed to the southeast; and the North Alouette and Blaney Creek watersheds to the north.





Figure 2.1 – South Alouette Watershed – Watercourses





### Kanaka Creek

Kanaka Creek has a length of 22 km that originates in mountainous terrain on Blue Mountain to the east of Alouette Lake, and generally flows southwest to its confluence with the Fraser River.

The Kanaka Creek watershed is approximately 60 km<sup>2</sup> (6,180 ha) in size, and it is almost wholly within the City's municipal boundary (6,160 ha). A key feature of the watershed is Kanaka Creek Regional Park, which is under the jurisdiction of Metro Vancouver and runs the length of Kanaka Creek from Dewdney Trunk Road southwest to its confluence with the Fraser River.

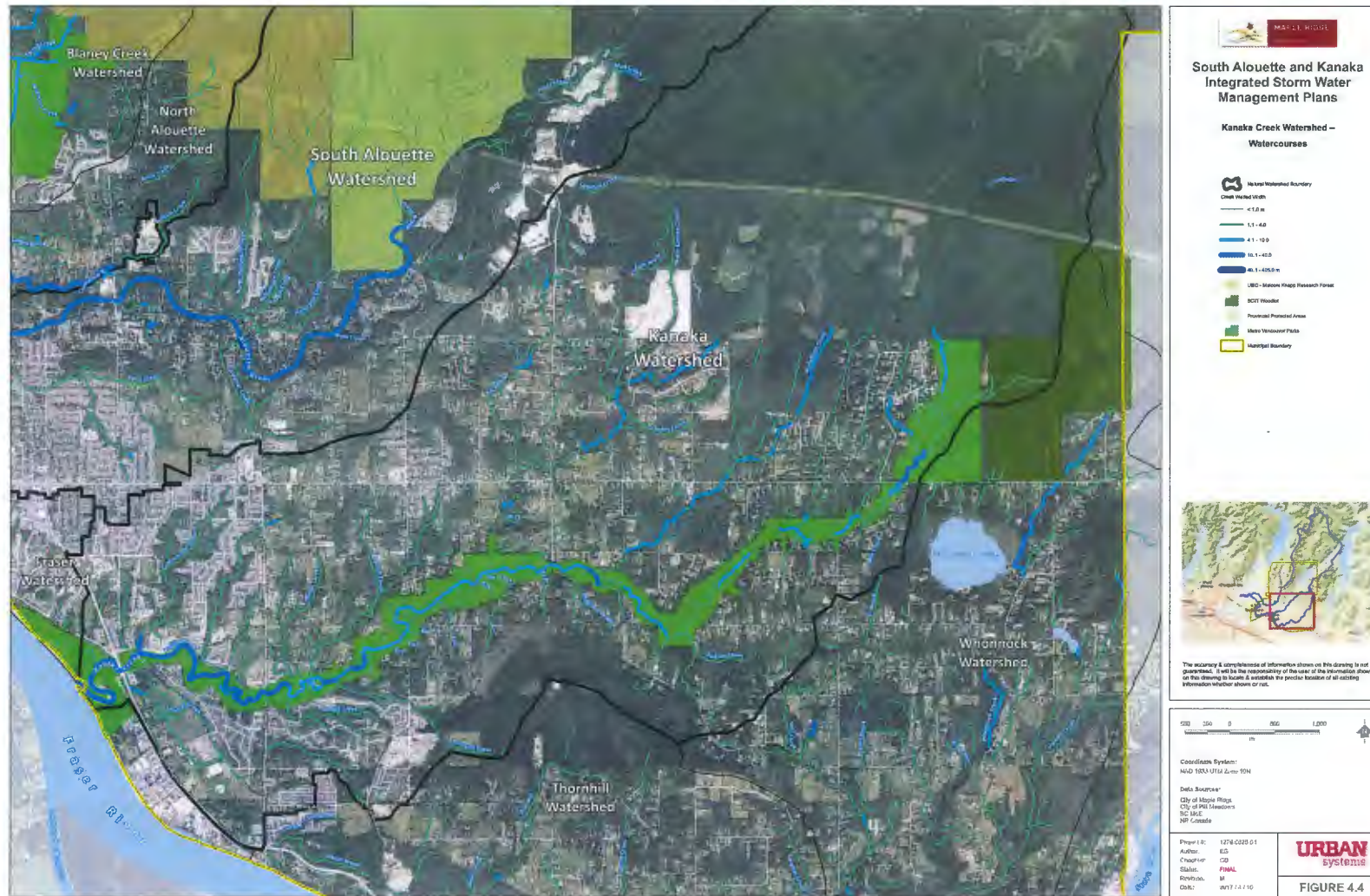
The Kanaka Creek watershed is bound by the Fraser watershed to the west; the Fraser River to the south; the Thornhill and Whonnock watersheds to the south and southeast; and the South Alouette Watershed to the northwest.

Watercourses in Kanaka Creek watershed are shown on **Figure 2.2**.





Figure 2.2 – Kanaka Creek Watershed – Watercourses

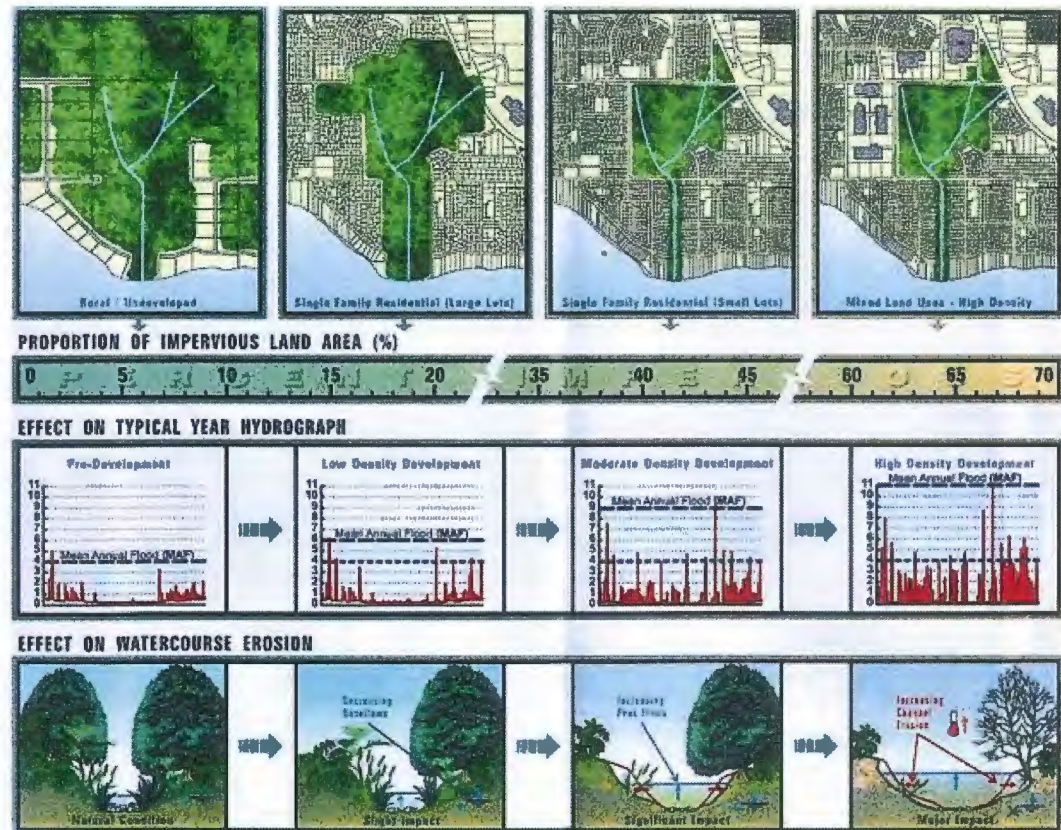




## 2.1 Effects of Land Use Change

The graphic below depicts the impacts that can occur with development and loss of vegetative cover. Vegetation and soils absorb and retain significant water, some of which is slowly released as seepage into receiving watercourse. In a natural state where vegetative cover is vast, the Mean Annual Flow is at its lowest and the receiving watercourses establish their geometry based on that flow. As development and removal of vegetation occurs, the lands ability to retain

water is reduced, thereby raising the Mean Annual Flow. The receiving watercourse then adjust their geometry to a new Mean Annual Flow, getting wider and deeper through erosion. Low Impact Development, or Green Infrastructure is to integrate water retention features into the development area to compensate for the reduction of natural vegetation and to minimize the change to the Mean Annual Flow.



(Credit to Kerr Wood Leidal for image)



## 2.2 Existing Land Use

Existing land use in the South Alouette watershed is a wide range from natural woodlot to urban centre, as portrayed in **Figure 2.3**. The Kanaka Creek watershed also has a wide range from rural to urban, as portrayed in **Figure 2.4**. The land use distribution by area for each watershed is presented in **Table 2.1** below.

**Table 2.1 – Land Use Distributions (based on City zoning)**

WATERSHED ZONE	TOTAL AREA SOUTH ALOUETTE WATERSHED (HA)		TOTAL AREA KANAKA CREEK WATERSHED (HA)	
	Total	Municipal	Total	Municipal
Agricultural	3%	3%		
Natural	88%	29%	34%	33%
Rural	3%	3%	45%	45%
Urban	5%	5%	19%	19%
Resource	1%	1%	2%	2%
Total	100%	41%	100%	99%

*Note: Within the Kanaka Creek watershed the Albion Flats area is currently within the Agricultural Land Reserve, however, City zoning is Suburban and Rural Residential.*

## 2.3 Topography

Topography in the South Alouette watershed ranges from roughly sea level in the agricultural lowlands to approximately 2,085 meters (m) above mean sea level (mamsl) in the natural uplands. Topography in the Kanaka Creek watershed ranges from 0.5 mamsl in the urban lowlands to 1,057 mamsl in the natural uplands.

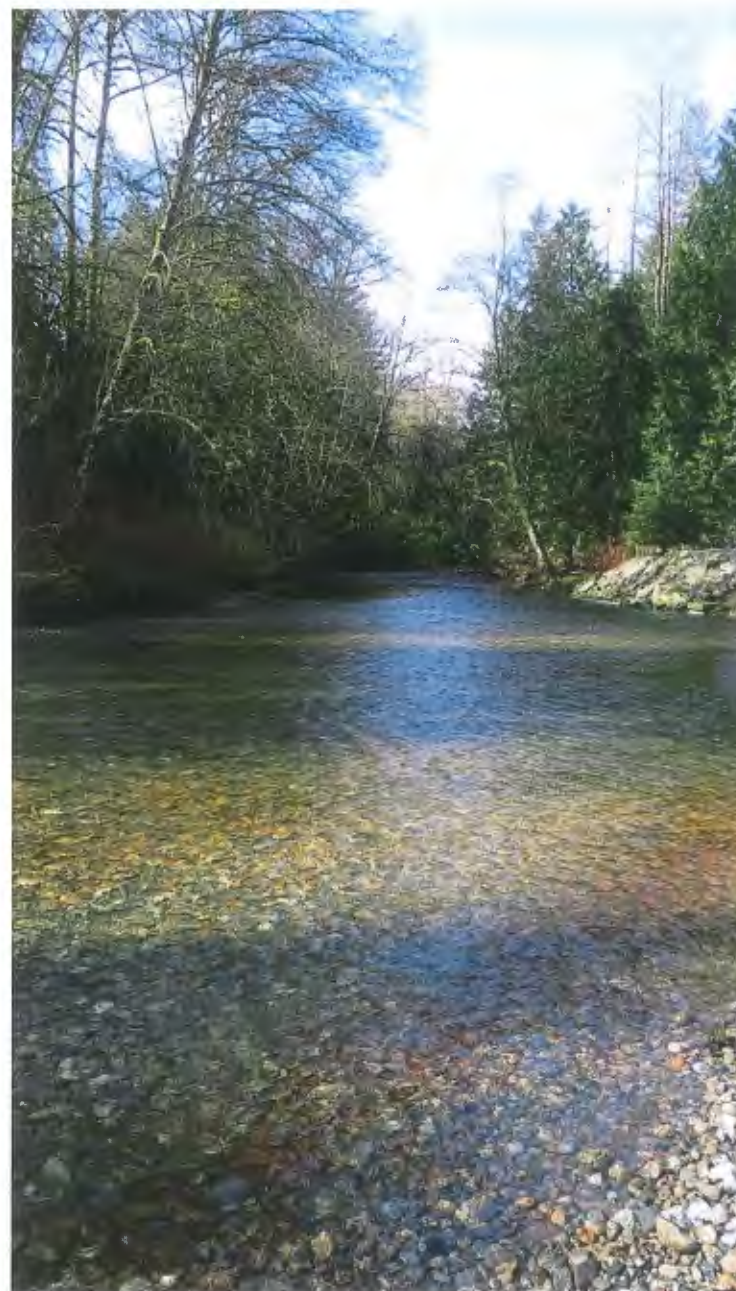




Figure 2.3 – South Alouette - Existing Land Use

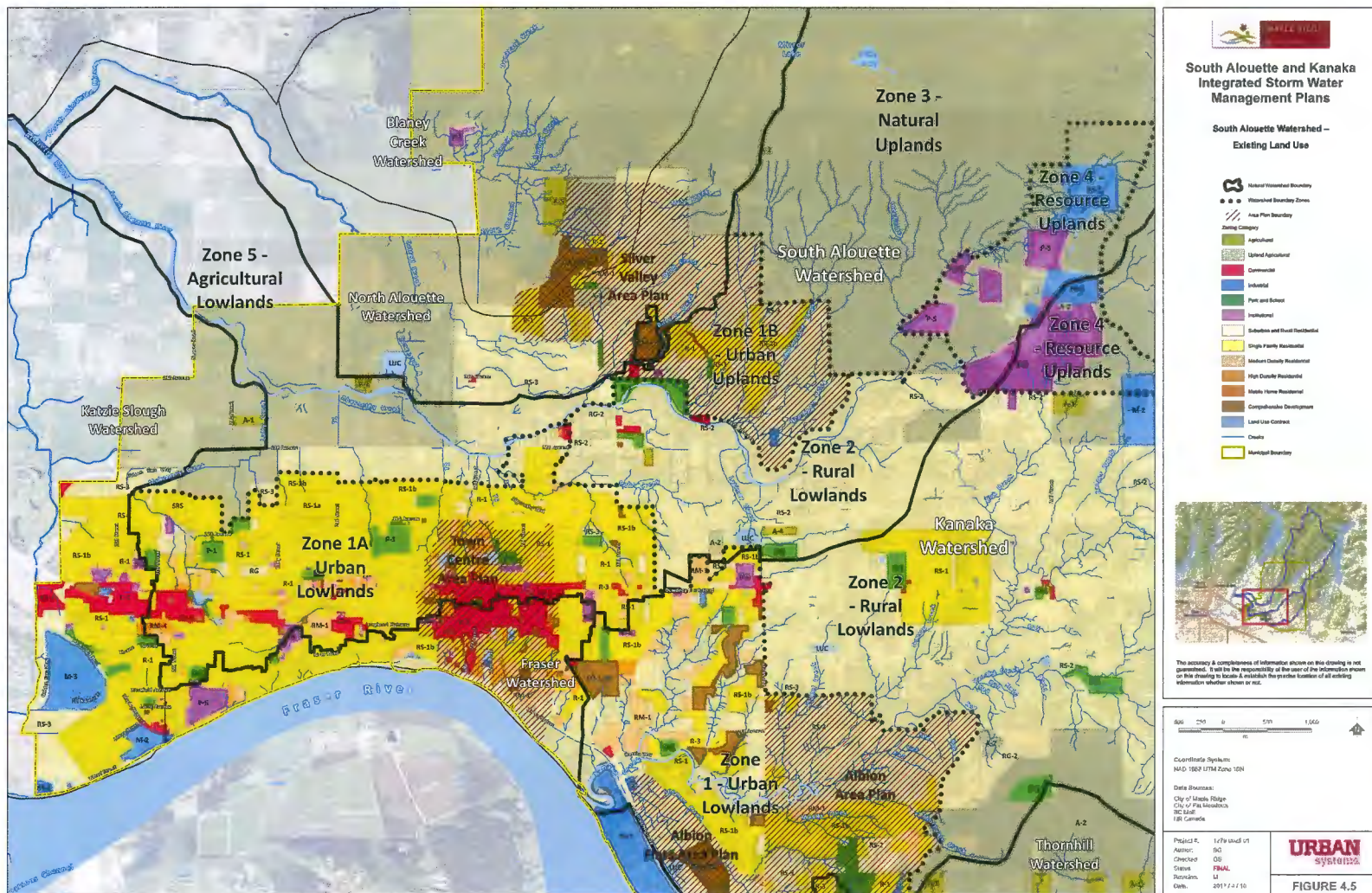
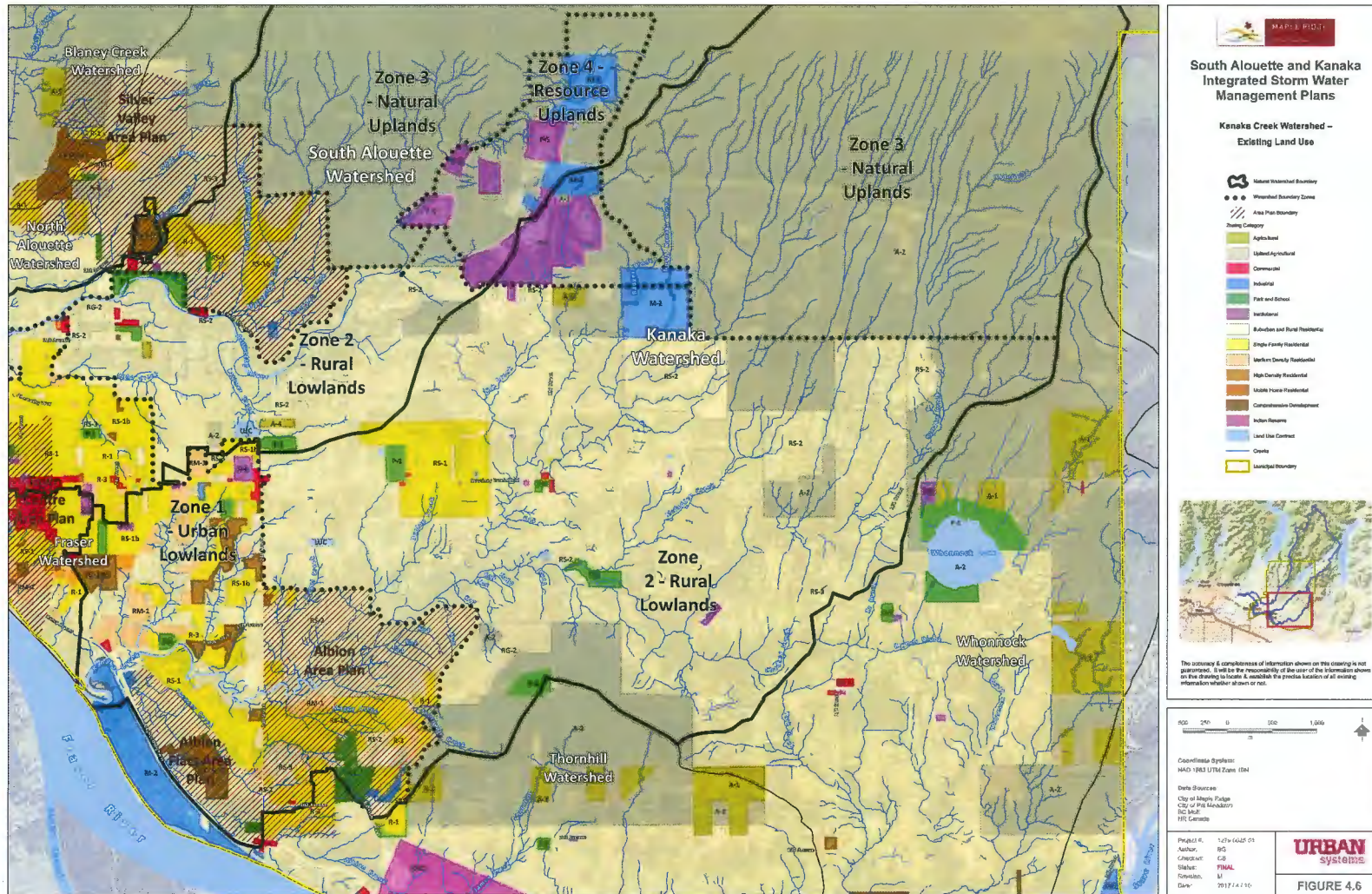




Figure 2.4 – Kanaka Creek Watershed - Existing Land Use





## 2.4 Terrestrial Systems Inventory

The South Alouette and Kanaka watersheds support a wide variety of terrestrial habitats across the range of zones previously described, from relatively undisturbed forested areas in the natural uplands, to rural and urban residential areas with riparian buffers, to agricultural lowlands behind a dike.

The riparian areas within the South Alouette and Kanaka watersheds are likely to have a diversity of wildlife species, including: black-tailed deer, black bear, river otter, mink, deer mouse, coyote, raccoon, osprey, snowy owl, ruffed grouse, numerous waterfowl species and shorebirds, garter snakes, painted turtle, western toad, red-legged frog, bullfrog, northwestern salamander, long-toed salamander and rough-skinned newt.

A search of the BC Conservation Data has indicated the following Species At Risk have confirmed habitat within the Alouette River watershed

- Mountain Sneezeweed (*Helenium autumnale*)
- Pointed Rush (*Juncus oxymeris*)
- Green Heron (*Butorides virescens*)
- Painted Turtle (*Chrysemys picta*)
- Great Blue Heron (*Ardea herodias fannini*)
- Northern Red-legged Frog (*Rana aurora*)
- Grappletail (*Octogomphus specularis*)
- Emma's Dancer (*Argia emma*)

Kanaka Creek is largely within the Kanaka Creek Regional Park. This park covers over 10 km of the length of the stream, from Dewdney Trunk Road to the Fraser River. The habitat

along the creek within this park is largely forested, with a mix of residential and agricultural land surrounding the park. Lower Kanaka Creek is a low velocity, meandering stream with wetlands and other low-lying grassy habitats. Upper Kanaka Creek flows through steeper forested terrain. A search of the BC Conservation Data has indicated the following Species At Risk have confirmed habitat within the Kanaka Creek watershed:

- Roell's Brotherella (*Brotherella roellii*);
- Green Heron (*Butorides virescens*);
- Oregon Forest Snail (*Allogona townsendiana*); and
- Northern Red-legged Frog (*Rana aurora*).

## 2.5 Aquatic Species & Habitat Inventory

The City's Environmental Management Strategy served as a strong foundation for developing the environmental inventory in this ISMP, in addition to other environmental reports and provincial databases.

The South Alouette is known to provide habitat to at least 29 fish species, including several invasive fish species. No major fish barriers are known to exist on the South Alouette with the exception of the dam at the outlet of Alouette Lake. Of the tributaries to the South Alouette River, several are fish-bearing, some of which do have fish migration barriers.

Kanaka Creek is known to provide habitat to 11 species of fish; however, given its direct connection to the Fraser River, it is likely that more species inhabit this system. Fish Habitats for each watershed are shown in **Figures 2.5 and 2.6**.

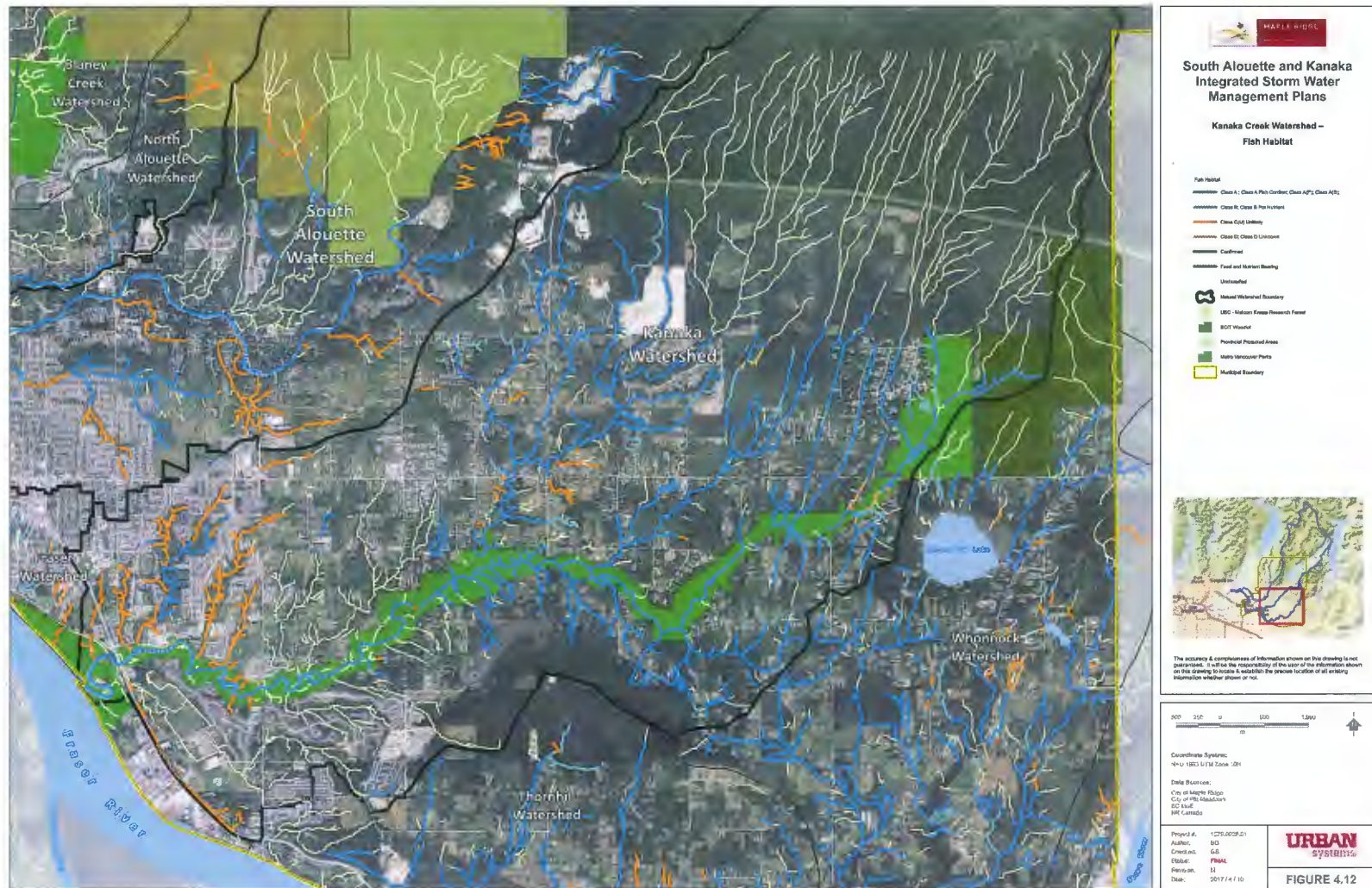


Figure 2.5 – South Alouette Watershed - Fish Habitat





Figure 2.6 – Kanaka Creek Watershed - Fish Habitat





## 2.6 Water Quality Analysis

### Recent Monitoring

In 2014 and 2015, water quality monitoring was conducted as part of an ongoing program undertaken specifically to support the ISMP program and to fulfill the requirements under Metro Vancouver's Monitoring and Adaptive Management Framework (MAMF).

Four watercourses from the South Alouette and Kanaka watersheds were selected for water quality monitoring as part of the City's monitoring and adaptive management program. These were monitored over two periods for water quality: one during wet season flows (November-December 2014) and one during dry season flows (July-August 2015). In both cases, monitoring was undertaken on a weekly basis for a period of five consecutive weeks, as per MAMF protocol, which allows for comparison with the BC Water Quality Guidelines. All four sites had mean water quality parameter values that were either approaching or exceeding guidelines in either the wet or dry season.

## 2.7 Benthic Invertebrates

Benthic invertebrates, or aquatic insects, can be used to provide an indication of the health of a stream or watershed given their diverse and abundant nature, their sensitivity to human disturbance, and the ease in their identification and sampling. A multi-metric rating system known as the "Benthic Index of Biotic Integrity" (B-IBI) measures benthic communities and assigns a score to a watershed or stream based on the presence or absence of benthic invertebrates. B-IBI has been shown to be a function of impervious area and riparian forest integrity in a given watershed, and for

these reasons it is one of three key indicators used to assess watershed health and assign a Watershed Health Tracking Score under the Template for ISMPs.

In 2015, benthic invertebrates monitoring was conducted as part of an ongoing program undertaken specifically to support the ISMP program and to fulfill the requirements under Metro Vancouver's MAMF.

Two sites from each of the South Alouette and Kanaka Creek watersheds were selected for benthic invertebrates monitoring.



Based on the biological condition rankings found in the MAMF biological conditions were fair in Dunlop Creek and Millionaire Creek, poor in Spencer Creek, and very poor in T2 Creek.

## 2.8 Watershed Health Tracking System

### Overview of the System

In addition to the general environmental inventory from the background review, monitoring results, and the site visit, the overall health of the South Alouette and Kanaka Creek watersheds was assessed using a Watershed Health Tracking System (WHTS).

Under Metro Vancouver's MAMF, an overall "biological condition rank" is assigned to the watershed based on the B-IBI score. In the absence of actual B-IBI monitoring data, a predicted B-IBI score, and therefore biological condition rank, can be determined by assessing two other key indicators of watershed health:

- Percent Riparian Forest Integrity (%RFI); and
- Impervious area, as percent total impervious area (%TIA) or percent effective impervious area (%EIA).

A high %RFI value and a low %TIA value characterize a watershed that is in very good health, and will have a relatively high predictive, and theoretically actual, B-IBI score. Conversely, watersheds with low %RFI and high %TIA are generally considered to be in poor health and will have a relatively low B-IBI score.

## OBSERVATIONS

Based on results of the WHTS, the following observations are made:

- The observed patterns of results generally correlate with the level of riparian forest and impervious area observed in each of the subcatchments sampled.
- The range in results is to be expected, with creeks most influenced by urban development having the lowest biological condition rank and those least influenced by urban development having the highest. However, results show that more recent stormwater management practices are more effective at preventing a deterioration in watershed health than older ones. Based on these results, there is an opportunity to improve watershed health in older neighbourhoods using appropriate stormwater management practices at the time of redevelopment and to infill development, such as by reducing TIA (or EIA), or increasing stream setbacks and RFI.



## 2.9 Hydrogeological Conditions

The hydrogeological conditions of a watershed (i.e., the soil and groundwater conditions) play a strong role in the watershed's response to rainfall events. Hydrogeological conditions are often highly variable, even within the same watershed, contributing to the complex nature of stormwater management.

### South Alouette

Most urban areas within the South Alouette watershed are underlain by moderately well- to well-drained soils. Some of the rural zone is moderately poor to poor draining. Agricultural areas in the watershed generally are poor to very poor draining. Soils in the natural zone are generally moderately well to rapidly draining.

### Kanaka Creek

The soils in the urban and rural areas of the Kanaka Creek watershed are variable, ranging from very poor to well-draining. Soils in the natural zone are generally moderately well to rapidly draining.

By filtering the soil properties according to drainage, texture and water table characteristics, four soil groups were distinguished, as presented in **Table 2.2**. Soils that are well to moderately well-drained with coarse textured materials in the database are likely groundwater recharge areas and may be suitable for enhanced stormwater infiltration strategies.



Table 2.2 – Soil Groups Based on Soil Drainage &amp; Flow Characteristics

SOIL GROUP	GENERAL DESCRIPTION OF SOIL DRAINAGE CHARACTERISTICS	RUNOFF CHARACTERISTIC	INFILTRATION CHARACTERISTIC
1	Imperfect to Very Poor. Seasonally high water table, flooding, seepage. Potential discharge; slow recharge, if any	High runoff	Low infiltration
2	Moderately Well to Well. Perched water table or observed seepage, indicating a confining low-permeability layer. Variable recharge or discharge, depending on season and location.	Moderate runoff	Moderately low infiltration
3	Moderately Well to Rapid. Rapid infiltration, no confining layer. Potential recharge.	Low runoff	High infiltration
4	Moderately Well to Rapid. Relatively thin overburden over bedrock or till confining layer; steep terrain. Mountain block / bedrock recharge.	High runoff	Low infiltration

The extents of these four soil groups in the South Alouette watershed are shown on **Figure 2.7** and in the Kanaka Creek watershed **Figure 2.8**.

The implications of these characteristics for stormwater runoff and discharge are summarized below:

#### Soil Group 1

Areas with poor drainage characteristics due to the prevalence of fine-grained material with low infiltration rates. These areas correspond to groundwater discharge zones primarily. Groundwater discharge or high-water table conditions will also typically occur in low-lying areas, reducing the capacity of infiltrating rainwater and runoff.

#### Soil Group 2

Areas that are well to moderately well-drained that nevertheless have a perched water table or where seepage is observed, indicating a confining impermeable layer, and likely a lack

of direct connectivity with the deeper groundwater regime. These areas likely correspond to groundwater discharge areas, locally confirmed by the presence of springs, seepage zones and seasonally high-water table.

#### Soil Group 3

Areas that are well to moderately well-drained that also display potential connectivity between the shallow and deeper groundwater regimes. These correspond to areas with the highest potential for rainwater infiltration and groundwater recharge.

#### Soil Group 4

Areas that are well or rapidly drained due to the presence of a thin overburden layer over bedrock, or consolidated till, combined with steep terrain. These are typically upland areas where recharge to the fractured bedrock aquifer system is likely to occur.



## PART 1 | BACKGROUND & BASELINE ASSESSMENT





SOUTH ALOUETTE-KANAKA CREEK ISMP





## 3. EXISTING DRAINAGE INFRASTRUCTURE

### 3.1 Overview

Drainage infrastructure in the South Alouette and Kanaka Creek watersheds was inventoried from the City's GIS data and background reports. The drainage system is generally comprised of piped infrastructure, open channels, / ditches, natural watercourses, and detention ponds. The original natural drainage patterns in the watersheds (with the exception of the undeveloped upper watersheds) have been altered over time due to development, including the addition of ditches, embankments, dikes, and land filling.

#### South Alouette

Piped infrastructure in the South Alouette watershed is shown on **Figure 2.9**. In general, runoff is directed to the piped or open channel system before discharging to surface water. For localized developments with a drainage pond, stormwater is directed first to the pond before being conveyed further downstream. In the natural uplands, runoff is generally conveyed overland to the natural watercourses, except for the Silver Valley Area, in which engineered stormwater management practices have been implemented.

Stormwater generated in the Silver Valley Area Plan has been managed according to the City's recent regulations such as the Watercourse Protection Bylaw, and industry best management practices (BMPs) for low-impact development (LID). Developments within Silver Valley have utilized stormwater management practices to meet the City's new standards for stormwater management, which has included

road-side rain gardens discharging to detention ponds and on-lot stormwater management practices.

#### Kanaka Creek

Piped infrastructure in the Kanaka Creek watershed is shown on **Figure 2.10**. In general, runoff is directed to the piped or open channel system before discharging to surface water. For localized developments with a drainage pond, stormwater is directed first to the pond before being conveyed further downstream. In the natural uplands, runoff is generally conveyed overland to the natural watercourses. The North East Albion Area Plan has been prepared on the same premise as the Silver Valley Area, with a strong emphasis on a three-tiered, distributed rainwater management source controls focused on both water quality and quantity.





Figure 3.1 – South Alouette Watershed - Piped Drainage Infrastructure

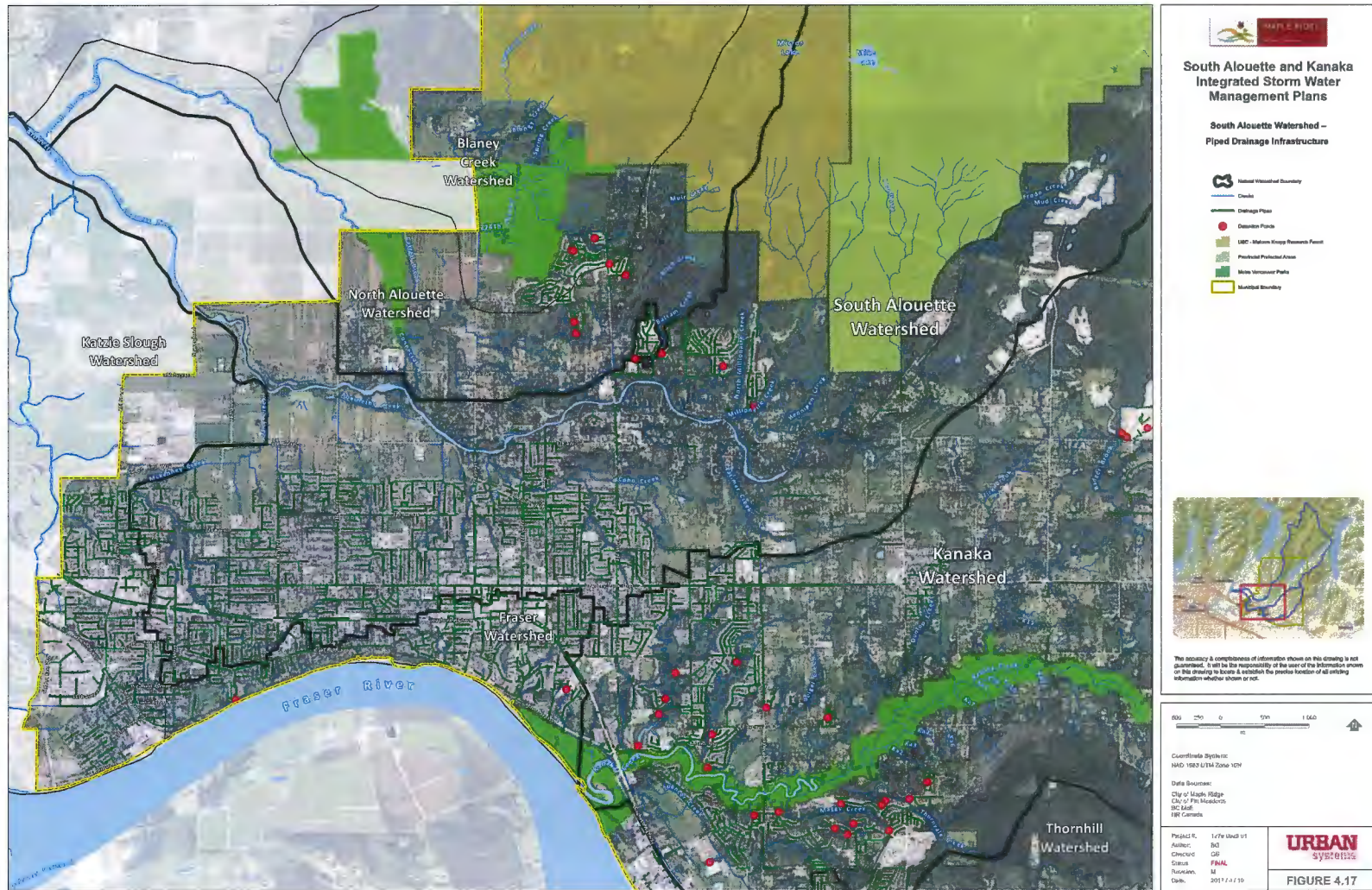




Figure 3.2 – Kanaka Creek Watershed - Piped Drainage Infrastructure





### 3.2 Known Drainage Issues

Known drainage issues as reported by City staff and external stakeholders include:

- High stream levels have been observed at Millionaire Creek and Fern Crescent (South Alouette Watershed), which is of possible concern since the upstream catchment is still developing and more impervious area is expected.
- Metro Vancouver's Kanaka Creek Regional Park Management Plan (2004) discusses concerns related to water quality, summer base flows and 'flashy' response to rain events.
- Flooding of lands in the Albion Flats area.
- Flooding in and around the Town Centre area during the 1 in 100 year event rainfall that occurred in September 2018
- Localized flooding at various locations

### 3.3 Performance Analysis

For this watershed scale study, modelling (analysis) of the trunk drainage infrastructure was conducted to determine stormwater runoff volumes and flow rates under various storm events, and to define potential improvements to drainage management practices necessary to service future growth and to adapt to climate change.

The trunk drainage system elements included manholes, pipes that are 400 mm in diameter or greater, watercourses comprising the primary system (rivers and major creeks), culverts, ditches, online flow control structures, detention ponds

connected to the truncated system, and sub-catchments.

The drainage criteria described in the City's Design Criteria Manual (Updated October 2015) were used to define standard modeling parameters and the drainage infrastructure design criteria:

- The minor system must convey runoff from a 10-year design event. This is an event that has a 10% chance of occurring in any given year. The minor system is primarily represented by storm sewers and detention ponds.
- Minor system flows must be detained and released at the 2-year predevelopment rate unless otherwise approved by the City. This is a flow that has a 50% chance of occurrence in any given year (a frequent event)..
- The major system must convey runoff from a 100-year design event. This is an event that has a 1% chance of occurrence in any given year (a rare event). The major system is primarily represented by watercourses and their culverts. It's also represented by roadway corridors. In some rare instances it may include some storm sewers as well, but generally storm sewers are not sized for the 1:100 year design event. Flows over ground surface are permitted for the major event provided they do not impact public safety or property. However, there are exceptions to this rule in floodplains, whether in the ALR or not.

#### 3.3.1 Minor System Capacity Analysis

The 10-year design storm was simulated to assess the hydraulic capacity of the existing minor drainage system

(storm sewer system and detention facilities). The results described below should not be considered definitively conclusive; rather, they point to potential capacity limitations and areas of potential concern within the system. They are not definitively conclusive because this study is being conducted at a macro scale and there are many complexities that will affect system performance at the local level. Conclusion as to their adequacy or deficiency should be reached through greater observation and assessment at a more refined level.

#### **South Alouette Watershed:**

Potential capacity limitations in the trunk piping system were found primarily in older neighbourhoods, such as the Town Centre, where other forms of stormwater management have not been applied. Limited concerns were found in the Silver Valley area where recent stormwater management practices have been applied.

#### **Kanaka Creek Watershed:**

Potential capacity limitations in the trunk piping system were limited to areas without communal storage facilities. Generally, the rest of the minor drainage system was found to perform well against the criteria it was sized for.

### **3.3.2 Major System Capacity Analysis**

The 100-year design storm was simulated to further assess performance of the system and to define where surface major flow paths are required. The results described below should not be considered conclusive; rather, they point to locations where the overland flow paths should be further assessed.

#### **South Alouette Watershed**

With exception to deeply incised ravines, natural watercourses have over bank flood-plain which will activate during major flows. This phenomena is showing in the results of the analysis for the major event. In February 2016 Northwest Hydraulic Consultants (NHC) completed a complementary study for the City titled “North Alouette and South Alouette Rivers Additional Floodplain Analysis, Phase 2 – Technical Investigations Completion Final Report”<sup>2</sup>. This was a detailed and focused study of the hydraulic performance of the floodplain which was not the intent of this ISMP. Therefore, this NHC study should be consulted for more information about the floodplain areas.

#### **Kanaka Creek Watershed**

With exception to deeply incised ravines, natural watercourses have over bank floodplain which will activate during major flows. This phenomena is showing in the results of the analysis for the major event.

In general, analysis suggests that under current conditions the systems within both the South Alouette and Kanaka Creek watersheds are performing reasonably well against established criteria. These systems are re-evaluated for predicted future conditions accounting for development and climate change in **Part 2** of this report.

<sup>2</sup> <http://www.mapleridge.ca/DocumentCenter/View/8145/North-and-South-Alouette-Rivers-Floodplain-Study?bidId=>



## 4 COMMUNITY SURVEY SUMMARY

To help assess the public's current perceptions of the watershed and its overall health the City of Maple Ridge published a public online survey from July 19 to August 19, 2019. The survey was published on the City website from July 19, 2019 to August 19, 2019, posted on Facebook August 1, 2019 reaching 1,760 people, and advertised in the local newspaper August 2, 2019 and August 7, 2019. Participation was voluntary and the City received a total of 25 responses, with most respondents living within the ISMP study area. Given the size of the area and the number of residents, 25 responses is a very small sample and not statistically significant. It may also not represent a balanced viewpoint. However, it does provide insights that there are residents with concern for the health of the watersheds and support addressing the problems.

### 4.1 Current Impacts and Awareness

Survey participants were asked about the current impact and awareness of the watersheds in their neighbourhoods. Based on our survey responses, 60% of respondents (15 out of 25) have been impacted by flooding in their neighbourhood and 88% of respondents (22 of the 25) are aware of the importance of natural features for drainage.

### 4.2 Impressions and Importance of the Watershed

Respondents were asked about their impression of the watershed health for three separate areas: rural, suburban, and urban areas. Comments were interpreted on a scale ranging from "Poor" to "Good" with additional "No Comment / No Response" and "I don't know" options.

### REPRESENTATIVE COMMENTS

"I'm not sure that enough is being done to protect these natural features from the effects of urbanization"

"The way the area is being developed puts severe pressure on the natural environment and is destroying the forests and watersheds"

"Excessive stream side development is degrading the natural flood control"

"There has been a large amount of development...where too many homes have been built too close together and not enough grass, trees, etc. has been maintained"

"New developments will be better equipped to deal with drainage and work with/around existing watershed elements"

"We need to think about using new technologies of pervious pavements and move away from using so much impervious surfaces to channel and move stormwater out of our systems"

"Too much concrete & pavement. Not enough green spaces and permeable surfaces"



Based on respondent comments, there was a common theme throughout each of the areas. The majority of respondents believe the watershed health to be poor and attribute the new developments in the area to be largely responsible for this.

In regard to the rural watershed health, 8 of 25 respondents believe the health of the watershed is poor, and 10 responses specifically mention how development has negatively impacted the watershed.

When asked about the suburban areas, 12 of the 25 respondents believe the health of the watershed to be poor, and 13 of 25 respondents mention the negative impacts of development near the watershed. A few participants speak to the fact that newer developments appear to be taking the natural drainage features into consideration and build around them, and several respondents also mention that they would like to see developers utilizing better materials and technologies to help with drainage.

The majority of survey respondents believe the watershed health in urban areas to be poor (15 of 25 respondents). Again, respondents believe the main culprit for this is development that removes natural drainage features and is too close to the waterway. Participants said that old development and infrastructure is seen as not able to address the additional runoff, and new developments are not considering or maintaining the existing natural drainage features.

### 4.3 Support for the Watersheds

Participants were asked to identify how important the health of the watershed is, and the level of investment they would support for drainage improvements. Participants

overwhelmingly responded that the health of the watershed is important to them, with more than 70% (18 of 25) saying significantly important. When asked about how much investment into drainage improvements they would support, the majority of respondents (19 of 25) would support moderate to significant investment.





## PART 2

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# FUTURE CONDITIONS ASSESSMENT





## 5 FUTURE LAND USE

The City's 2013 Official Community Plan (OCP) (Bylaw No. 7060-2014, Schedule B Generalised Future Land Use Plan) lays out how the City of Maple Ridge will grow and what and where land uses will be. Part 2 of the ISMP process assesses the City's current watershed management practices and predicts what the expected watershed outcomes are likely to be based on those practices and applying the OCP land use. These land use designations were combined with topographic and stream setback information to estimate the anticipated footprint of both Greenfield and Infill development.

### 5.1 Rainwater Management Controls and Criteria

Precipitation and watershed hydrology are highly variable. The formation of natural drainage courses and environmental health are directly linked to the magnitude and frequency of rainwater runoff. Rainfall tiers have been created for managing the complete spectrum of rainfall events; rainfall capture (source control), runoff control (detention), and flood risk management (contain and convey). These three components are described in sub-sections below.

The City's Design Criteria Manual (October 2015) specifies three levels of controls are to be applied. Beyond what is stated in the manual, a review with City staff further clarified the application of the criteria and the typical practices to achieve them, as summarized below:

#### 5.1.1 Tier A – Retain Rainwater

Tier A events are small rainfall events that are less than half the size of the Mean Annual Rainfall (MAR) and represent approximately 90% of the annual rainfall. This captured rainfall should be infiltrated, evapotranspired or re-used at the source. This is often achieved by surface features such as rain gardens or biowales, and sub-surface features such as drywells and infiltration trenches.



*Rain Garden (photo by Urban Systems Ltd.)*





*Detention Ponds (photos by Urban Systems Ltd.)*

For a variety of reasons, there are many instances where the Tier A criteria are not achievable. However, there is insufficient information currently available to represent all the exceptions in the hydrologic modeling for this study. As such, only the prescribed criteria have been represented in the technical analysis herein.

While the City does require developers to demonstrate retention of 50% MAR, it does not prescribe how it is to be achieved.

### **5.1.2 Tier B – Detain Rainwater**

Tier B events are larger rainfall events that exceed Tier A up to and including MAR. These events represent approximately 10% of the annual rainfall and result in the majority of the peak flows in downstream watercourses. Source control facilities are required to store the runoff from impervious surfaces resulting from the large rainfall events and release it at a controlled rate of a 1:2 year forested / woodlot flow. Typical



source control facilities include detention/retention ponds, oversized storm sewers, and storage tanks (on-lot and off-lot).

Tier B controls are applied to all land use designations, both for infill and Greenfield Development

### **5.1.3 Tier C – Convey Rainwater**

Tier C events are extreme storm events that exceed Tier B rainfall events and may or may not occur in any given year. At a minimum, the 1:10 year event must be detained and released at the 1:2 year predevelopment rate. Where directed by the City, the 1:100 year flow may sometimes be detained to a 1:10 year pre-development rate. However, in discussion with City staff, it is understood that a more stringent criterion of controlling the 100 year to 10 year is done in only few instances.

For Infill development, Tier C controls are not applied to single family residential but are to higher density and ICI land uses.

*Trunk Storm Sewer (photo by Urban Systems Ltd.)*



## 5.2 Current Water Quality Treatment in Maple Ridge

The Watercourse Bylaw and design criteria requires that the stormwater management plans include water treatment.

For single family developments in close proximity to an outfall the City typically sees proprietary systems installed within a roadway which become City owned.

For multi-family (townhouse, bare land strata and apartment), institutional, industrial, or commercial sites it becomes increasingly important that appropriate type and size units are utilized on site because there is typically a larger amount

of impervious surface area on site to support traffic, parking, storage of vehicles, etc. and subsequently water quality concerns associated with hydro-carbons, heavy metals, etc. Length, size, and number of roads/parking areas also comes into consideration. For these sites, usually oil/grit separators are applied, sometimes in combination with other proprietary treatment systems, all remaining on site as private systems.

From an environmental perspective, the City seeks to expand the extent of Tier A requirements to promote the use of landscaping and high-quality topsoil where possible to assist with water quality improvements.

## 5.3 Future Conditions Impact Assessment

### 5.3.1 Design Storm Events

To assess the system under future conditions, several design storm events are simulated, including single storm events, single storm events with consideration of climate change, and extended period rainfall for continuous simulations.

#### Single event storms

A broad set of design storms were modelled to determine the critical event for each system component. In addition to the minor and major event return periods, the Mean Annual Rainfall (MAR) event is modelled.

#### Climate change

One-day rainfall depths were scaled by both 10% and 20% to test system sensitivity to changing rainfall intensities. Most recent climate projection data suggests that the magnitude of design precipitation in Maple Ridge is to increase in the order of 20% by year 2050.



Despite the primary focus here being on the effects of climate change on precipitation, the potential impacts will extend to heat, drought, and wind. This further emphasizes the importance of rainwater recharge into the ground and to maximize the potential for tree canopy within the urban areas. However, plant species and landscapes will need to consider hotter drier conditions.

### 5.3.2 Future Land Use Analysis

What is most helpful to understand about the future condition is how system performance is predicted to change over current condition.

For land use change alone, hydrological and hydraulic modeling results indicate that for the 1:10 year minor event, overall changes are minimal, which signals that for the storm events considered, the City's current stormwater management criteria abate the negative effects of development.

### 5.3.3 Future Land Use with Climate Change Analysis

As described above, existing design storms were scaled up by 10% and again by 20% to simulate two different possible impacts due to climate change. The drainage system was then reassessed using the intensified MAR, 10-Year, and 100-Year design storms.

Overall future condition system performance worsened under the influence of climate change assumptions, as compared to the future baseline condition. Once land and drainage systems are saturated, there is a relatively direct relationship between precipitation and runoff. Therefore, not surprisingly, as the precipitation is scaled up, system performance gets incrementally worse.

## 5.4 Floodplain Analysis

As previously noted, Northwest Hydraulic Consultants (NHC) completed a complementary study for the City titled "North Alouette and South Alouette Rivers Additional Floodplain Analysis, Phase 2 – Technical Investigations Completion Final Report". The NHC report presents the updated 200-year (an event that has a 0.5% chance of occurrence in any given year) floodplain maps for the North and South Alouette River. Flood estimates incorporate a 10% increase in flows on all unregulated basins for projected climate change impacts to year 2100. The study made a series of recommendation around emergency planning, emergency response, managing the floodplain through regulation, and further technical assessment work.

## 5.5 Future Land Use Summary and Conclusions

### Results are summarized as follows:

- For a variety of reasons, current development practices for Low Density and Medium Density developments will not always satisfy the City criteria to retain the first 50% MAR (mean annual rainfall) precipitation. Low and Medium Density developments are by far the most dominant land use. Not achieving Tier A retention may contribute to diminished creek base flows and it puts stronger emphasis on the need to achieve Tier C criteria. In cases where on-lot Tier A is unachievable, consideration should be given to communal facilities in public lands that can attempt to satisfy the Tier A target. This will require dedicated space based on the service area and soil infiltration capacity. While a Tier C



pond may contribute to meeting Tier A targets as well, it is anticipated that additional space and facilities will be required to fully satisfy Tier A targets.

When a Developer can't meet the Tier A criteria by providing the off-site facilities either (escarpment area, geotechnical issues or smaller subdivisions), the City may then consider cash-in lieu to fund the City looking for other compensating benefits within the watershed.

- For conveyance systems, predicted future system performance remains comparable to existing condition for events up to and including the 1:10 year event. Performance worsens to a modest degree during a 1:100 year event, largely due to the fact that the standard criteria only requires flow attenuation for the 1:10 year event (Tier C). In some circumstances, the City requires attenuation of the 1:100 year event, however it is currently not well defined where that is a requirement.
- It is very difficult to fully replicate nature in a built environment. At best, new developments will near

the performance of nature, therefore Greenfield Development will not provide an opportunity to improve watershed health. The only opportunity to improve watershed health will be in infill development zones, where the application of current criteria can repair historic impacts.

- The degree to which climate change will affect precipitation is still uncertain, but climate science is showing significant increases in intensity during the wet season. Summers are also expected to get drier. Should this occur, and without the adjustment to the design of stormwater controls, impact is expected in the hydraulic performance of conveyance systems, the erosion potential in receiving streams, and watershed health.
- The City can best adapt to climate change by controlling infrastructure and development moving forward with new criteria that includes a factor for climate change, through gradual infrastructure renewal, and through flexible criteria and priority-based decisions.





# PART 3

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## RECOMMENDATIONS & IMPLEMENTATION STRATEGY





## 6 ISMP GOAL AND OBJECTIVES

As a summary recap, the goal and objectives of the ISMP provide the strategic direction for recommendations in improvements in integrated stormwater management practices and processes.

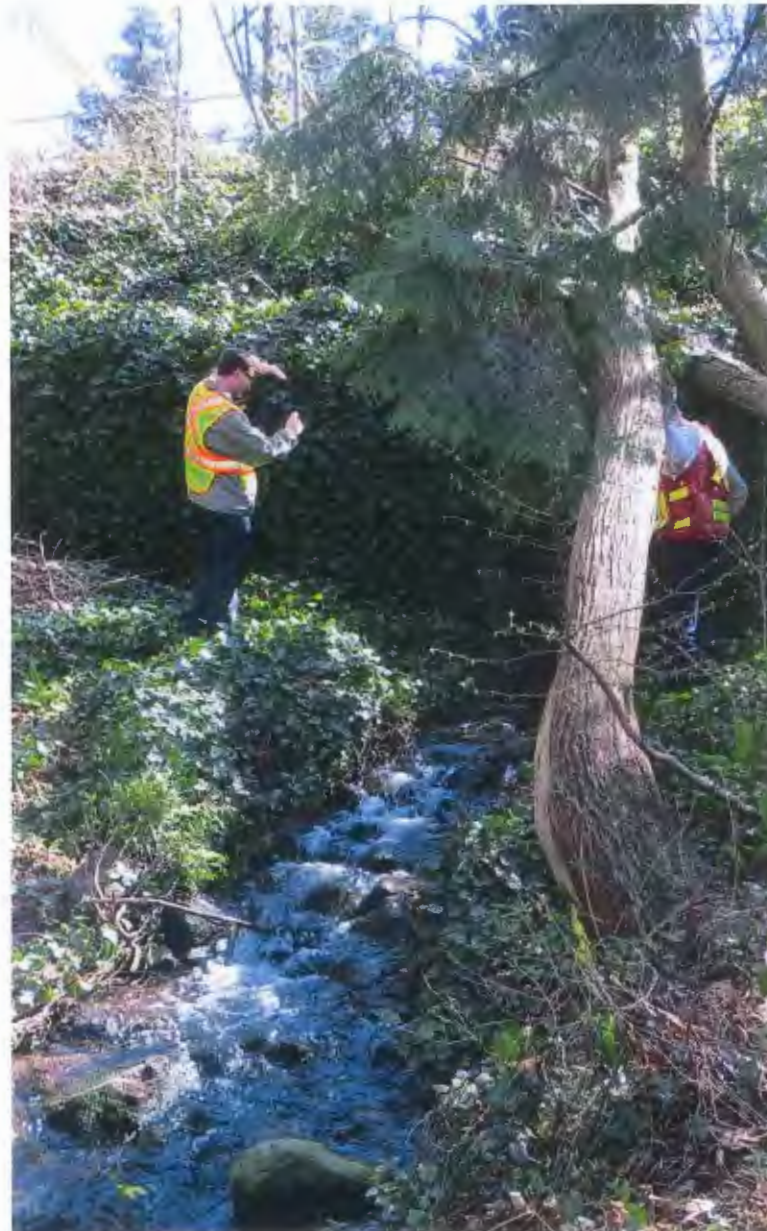
### 6.1 Goal

The primary goal of integrated stormwater management in the South Alouette and Kanaka Creek watersheds is to maintain, and ideally enhance, watershed health. It is a regulatory requirement to achieve “no net loss” in watershed health.

### 6.2 Objectives

Objectives describe what the City strives to achieve in the South Alouette and Kanaka Creek watersheds through effective integrated stormwater management:

1. Maintain watershed health in areas experiencing greenfield development
2. Enhance watershed health in areas experiencing infill development
3. Effectively manage risk to public health and safety
4. Deliver sustainable services that are adaptive to climate change





## 7 RECOMMENDED PROGRAM AREAS

Recommendations to address issues and opportunities identified, and to make progress on the goal and objectives of the ISMP, are organized into five program areas. Recommendations under each program area, and an implementation action plan, are detailed on the following pages.

1. Regulation and Enforcement
2. Asset Management
3. Environmental Monitoring
4. Collaboration, Education, and Outreach
5. Adaptive Management and Continuous Improvement

### Program Area 1: Regulation and Enforcement

As a general statement, Maple Ridge has a solid foundation of policy, goals, objectives and criteria. While some alterations to these are warranted, supplemental efforts are needed on converting the existing vision into reality through enhanced consideration for implementation, funding, and operations. Areas of particular emphasis would be Natural Assets and Green Infrastructure.

#### Natural Assets

The City has an abundance of Natural Assets that provide important benefits (services) to managing water and habitats - streams, ponds, wetlands, floodplains, forests and the like. There is an increasing movement for municipalities

to identify, value, and account for Natural Assets in their financial planning and asset management programs, and to develop leading-edge, sustainable and climate resilient infrastructure.

#### Green Infrastructure

In 2019, Council endorsed for staff to undertake a review of its Green Infrastructure Management Strategy Policy. This work is to be conducted in 2020. The City can leverage Green Infrastructure to mitigate the negative effects of development, such as redevelopment in the Town Centre, along major transportation corridors, and where new development is to occur in Greenfield areas. The added threat of climate change makes Green Infrastructure that much more important. It is expected that both on-site (private systems within the limits of a single property) and off-site (communal systems owned by the City and benefiting multiple properties) Green infrastructure will be appropriate. Multiple financial tools are available to capture costs from development.

### Program Area 2: Asset Management

Because many of the recommendations relate to asset management (for example, condition, risk, and funding), we recommend the City approach their implementation through a dedicated asset management program.

The City defines asset management in its Corporate Asset Management Policy No. 9.13 (July 11, 2017) as follows:

Asset Management (AM) is a comprehensive framework to



guide the planning, acquisition, operation and maintenance, rehabilitation, disposal and ultimate replacement of municipal infrastructure assets. The objective is to maximise asset service delivery potential, manage related risks and minimize costs of ownership while delivering acceptable levels of service in a sustainable manner that does not compromise the ability of future generations to meet their own needs.

### **Program Area 3: Environmental Monitoring**

Environmental monitoring is a core component of the ISMP because environmental data tell the City how it is doing in terms of meeting the goal and objectives of the ISMP. The City can then use the data to inform decisions about changes and improvements to its management practices as part of an



overall “adaptive management and continuous improvement” process, which is described under Program Area 5.

### **Program Area 4: Collaboration, Education, and Outreach**

These are vast watersheds that extend well beyond the City’s urban boundary and even beyond the jurisdiction of the City. Programs will not be successful without collaboration, education and outreach; internally within the City departments, and externally with stewardship groups, stakeholders, and property owners / operators.

Various City departments may collaborate to explore opportunities for siting community detention / retention facilities, or other forms of Green Infrastructure, preferably within Parks (either existing or acquired) where they can provide co-benefits. And there is also benefit for all departments involved in the enforcement or implementation of Green Infrastructure to collaborate in the Green Infrastructure Management Strategy Policy Review initiative in 2020.

Volunteer stewardship groups make a significant contribution to the environmental wellbeing of a community. The City has well established groups to which the City supports - KEEPS (Kanaka Education and Environmental Partnership Society) and ARMS (Alouette River Management Society). KEEPS in particular does a lot of education activities ([www.keeps.org](http://www.keeps.org) and <https://www.alouetteriver.org/>). Both of these groups engage in restoration projects and gives updates to Council. The City recognizes the excellent work and valued contributions that KEEPS and ARMS make to the community and will continue to support and partner with them.

With respect to other members of the public, it is often that people do not respect or support things they do not understand. The development of this ISMP included communication and engagement with a range of people, however, it is expected that a broader education and outreach program would be beneficial to help the City make progress on meeting the goal and objectives of the ISMP. This education and outreach would be both internal and external.

There is a growing awareness of the importance of integrating the site, with the stream, with the watersheds to establish a viable future with respect to integrated watershed management plans. The City should develop a communication strategy to help convey this message to the general public, to current and future decision makers, and to the development community.

### **Program Area 5: Adaptive Management and Continuous Improvement**

Adaptive management is a process of monitoring, reviewing, learning, and adjusting.

#### **Monitoring and Assessment**

Monitoring is broken into several categories, including physical (eg. are the desired flows and quality of water being achieved?), regulatory (eg. are the City's regulatory tools successfully guiding development?), and process (eg. are City staff properly informed and are inter-departmental processes in place to successfully direct the plan's implementation). Data collected should be assessed on a 5 year cycle.

### **Key Performance Targets and Indicators**

Specific performance targets are defined in criteria of established bylaw and apply largely at the site and neighbourhood level.

At a sub-watershed or watershed scale, cost effective, measurable, and reliable key performance indicators allow the City to determine whether or not the watershed vision is being achieved. Performance indicators need to be selected for things that can be observed and measured frequently. In the context of South Allouette and Kanaka Creek, recommended key performance indicators are:

- Stability of creek bed and banks
- Fewer annual service complaints due to flooding
- Increase in tree canopy as measured from aerial photos
- A positive differential between the number of trees planted to the number of trees removed
- No reduction in the riparian vegetation as measured from aerial photos
- Successful implementation of source controls with all development and building permits that require them
- Improved water quality
- Improved benthic health
- Successful implementation of the Capital Program.

#### **Adaptive Responses**

Reviewing results of the monitoring program is important to assess the specific failure mechanism, should failure



occur. Was there a poor design(s)? Has there been a significant change in weather patterns? Were there slope stability or on-site drainage design rules that prevented rainwater management design criteria from being achieved? Was there an infrastructure failure due to insufficient maintenance? Was there insufficient parcel area to achieve rainwater management goals (supplemental off-parcel areas for rainwater management need to be considered early in the land use planning process)? There can be many reasons why objectives may not be met. The response(s) need to align with the cause. It is therefore premature to articulate a specific response plan to unsatisfactory results at this time, but some fundamental responses may be as follows:

1. If watercourse erosion and environmental health do not stabilize, or preferably improve, the City may need to accelerate the implementation of communal management infrastructure through its capital program; either with high flow diversions or stormwater detention ponds. Within mature development areas land acquisition and building demolition may be required.
2. If development or building permits are being completed without successful source controls, the City needs to evaluate whether this was a procedural failure or a result of other constraints.
3. If the frequency of service calls due to structural or maintenance failure increases, the City needs to review and possibly strengthen its Asset Management Program.
4. If maintenance of private source controls is not validated, the City should consider implementing a formal Stormwater Source Control Operating Permit program.

5. If there is increased flooding not caused by structural or maintenance failure, the City may consider accelerating its pipe replacement program on a priority basis, or explore alternative mitigative measures.
6. If the funding for infrastructure change cannot keep up with demand (i.e. worsening conditions) the City needs to revisit its funding stream and look to a program that provides more reliable funding.
7. If the City is not leading by example in implementing and maintaining source controls in public spaces, the City needs to evaluate its interdepartmental collaboration, priorities, and funding.

#### **Program Area 6: Capital Planning and Infrastructure Improvements**

Hydraulic performance of storm sewer mains and culverts was determined using criteria noted in Section 5.3; coding them as green (under capacity), yellow (at capacity) or red (over capacity). For consideration of potential storm sewer improvement costs the 1:10 year event is applied for storm sewer mains and the 1:100 year event is applied for road crossing culverts. And for both storm sewer mains and culverts a comparison between the “existing condition” and “future condition with 20% climate change” is applied. Future condition assumes that stormwater controls in accordance with current municipal standards are applied to future development. A summary of performance statistics is presented in **Table 7.1** (Storm Sewers) and 7.2 (Culverts) below.

**Table 7.1 – Summary of Storm Sewer Infrastructure Performance**

STORM SEWER PERFORMANCE CODE	EXISTING CONDITION 1:10 YEAR STORM		FUTURE CONDITION WITH 20% CC 1:10 YEAR STORM	
	APPROXIMATE LENGTH OF PIPE (M)	WEIGHTED AVERAGE DIAMETER (MM)	APPROXIMATE LENGTH OF PIPE (M)	WEIGHTED AVERAGE DIAMETER (MM)
Green (under capacity)	41,000	665	34,000	664
Yellow (at capacity)	10,000	729	12,000	733
Red (over capacity)	13,000	517	18,000	525

**Table 7.2 – Summary of Culvert Infrastructure Performance**

CULVERT PERFORMANCE CODE	EXISTING CONDITION 1:100 YEAR STORM		FUTURE CONDITION WITH 20% CC 1:100 YEAR STORM	
	APPROXIMATE LENGTH OF PIPE (M)	WEIGHTED AVERAGE DIAMETER (MM)	APPROXIMATE LENGTH OF PIPE (M)	WEIGHTED AVERAGE DIAMETER (MM)
Green (under capacity)	1,351	1,365	1,196	1,350
Yellow (at capacity)	956	1,264	931	1,305
Red (over capacity)	362	879	542	997

Future system performance and identification of deficiencies reflects the combined effects of future development (infill and greenfield), climate change (20% increase in precipitation), and assumes that the City's drainage management criteria is achieved (Tier A, B, C) by future developments.

Green coded pipes are of low interest from a capacity perspective (does not consider pipe condition), yellow coded pipes are of moderate interest and red coded pipes are of high interest. For preliminary planning, only red coded pipes are considered for potential reinvestment (upgrade).

As noted in previous sections of the report, it is considered premature to reach a firm conclusion on specifically what pipes must be upgraded and when. Upgrade requirements should be confirmed by observing performance data through monitoring and conducting a risk-based assessment. This would involve local flow / water level monitoring and predictive model calibration, since it is unlikely that a design event will be observed through short term monitoring. A locally calibrated model for the areas of high interest will provide greater confidence in the prediction that this system will flood under a design event. Once requirements for



drainage system upgrades are verified, the City must evaluate infrastructure re-investment needs and reconcile this with long range financial planning.

In the existing condition, approximately 13 km of trunk storm sewers modelled (20%) are predicted undersized with respect to target levels of service, increasing to 18 km (28%) in the future with an assumed 20% increase in precipitation due to climate change.

With consideration for the future condition only, the weighted average pipe diameter is 525 mm. Using a planning level unit cost of \$3.00 per mm diameter per meter of length (inclusive of engineering and contingencies), the red coded storm sewer trunk mains have a value of \$28M.

Similarly, for road culverts, red coded pipes in the future total 542 meters with a weighted average diameter of 997 mm for 27 roadway crossings. The unit cost for culverts are very different than storm mains and are highly variable based on a variety of factors. Small culverts on local roads can perhaps be completed for something in the range of \$100,000 to \$200,000, but larger culverts on busy roads, where dewatering is required and where utilities may conflict, it is common for such culverts to cost in the range of \$200,000 to \$500,000 each. In absence of conducting design reviews for each crossing, it's suggested that a value of \$300,000 per crossing be considered for each of the 27 crossings, for a total of \$8M.

A recent rainfall and design storm tool developed by Metro Vancouver<sup>3</sup> indicates that a 20 % increase in precipitation will occur by year 2050 for a moderate climate change scenario.

<sup>3</sup> Metro Vancouver IDF Curve and Design Storm Spreadsheet, Final 2019.

This is a general statement as the predicted increase varies depending on the return period and storm duration. It is emphasized that there remains no certainty on the precise change in precipitation. All estimates are based on an ensemble of climate model predictions; each yielding variable results. Rainfall predictions will continue to evolve with climate science research. It is an accepted practice for local governments to make decisions today based on best available information. These decisions are influenced by the municipality's tolerance to risk. It is, however, recommended that regardless of the decision made today, the City commit to tracking climate change projections on a regular cycle (eg. 5 years) and making adaptive management decisions as new information dictates.



### Interpreting the Results

While this study has identified \$36M in infrastructure replacements, there are many considerations that must still be made before concluding that such replacements must be done, or when they should be done. They include:

- Analytical modeling is not an exact science. Hydrology and hydraulics are very complex processes that ideally are proven with performance monitoring and model calibration. Monitoring and calibration to date has been done at a high level, watershed scale, not at a local level where variability will exist. Areas of deficiency noted are at this point considered “points of interest” and it is recommended that a winter season flow monitoring program be conducted at these locations to allow model calibration at a local level.
- The criteria applied in assessing whether a pipe is deficient or not is based on low tolerance to surcharging during its design event; in this case a 1:10 year event for storm sewers, or an event that has a 10% of occurring in any given year. It is quite possible that some of these pipes do surcharge today, but unless they cause damage or obvious surface flooding, this surcharging goes unnoticed and is not a concern.
- Most storm sewers are designed to prevent “nuisance flooding” only, which is referred to as the “minor” system. The City of Maple Ridge has elected to use a 1:10 year event as its minor system, whereas many communities in Canada only apply a 1:5 year event.
- By designing a storm sewer system for a 1:10 year event, the storm sewers are inherently designed to surcharge

and fail on occasion, thereby activating the “major” system, which are flow paths that protect public safety and property to a 1:100 year level. The influence of climate change is a significant aspect that is changing how frequently storm sewers will surcharge.

- Given the above bullets, overland flow should be expected on occasion. Where this is predicted to occur, there is need to assess the overland flow risk to public safety and property damage and develop options to mitigate the risk (storage, conveyance upgrades, flow redirection, surface flow path improvements). This ISMP highlights potential areas of concern which should be explored in greater detail.
- For any redevelopment where overland flow is expected, the City will need to make a policy decision on whether to permit basement connections or not.

### 7.1 Summary Actions, Priorities, and Budgets

A summary table of draft recommended actions, their relative priority, and a suggested budget amount is provided on the following pages in **Table 7.3**. Only those activities that are expected to require external consultants or contractors has been budgeted. Activities internal of City functions are not and are noted as “Internal” in the table.

Actual budget requirements are subject to development of the detailed scope and deliverables. The suggested budgets herein are planning level based on conduct of similar assignments in other jurisdictions.

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**Table 7.3 – Summary of Program Areas, Actions, and Budgets**

PROGRAM AREA	ACTIONS	RELATIVE PRIORITY	SUGGESTED BUDGET
1. Regulation and Enforcement	Conduct the already scheduled “Green Infrastructure Management Strategy Policy” in 2020.	High	N/A
	Review and update the Watercourse Protection Bylaw to include appropriate on-site and off-site options for meeting 3-tier standards and water quality requirements, and how these can be coordinated with pervious area requirements and integrated into building and landscape designs.	High	\$20,000
	Further to the item above, update the Design Criteria and standards to reflect limitations and variable site conditions. Ensure criteria match practices in all departments. Map exemption areas or areas of special design consideration. Map active wells and their respective well capture zones and a statement of whether their aquifers are confined or unconfined from surface water within the urban reserve. Also adopt new design precipitation to reflect climate change. Ensure coordination with the Building Bylaw.	High	\$50,000
	Strengthen the Design Criteria with respect to stormwater quality treatment and associated performance targets, with stronger emphasis on landscape based green infrastructure where possible.	High	\$10,000
	Formulate acceptable examples and educate developers on how to develop according to the guidelines and ideas in the Town Centre Area Plan.	High	Internal
	Consider updating the Zoning Bylaw to provide adequate provisions achieving tree canopy targets.	Medium	Internal

PROGRAM AREA	ACTIONS	RELATIVE PRIORITY	SUGGESTED BUDGET
1: Regulation and Enforcement (continued)	Review City roadway network and City lands for opportunities to incorporate stormwater management features. This commitment is important for the City to be seen as leaders towards meeting its own stormwater policies and objectives. However, this will require careful consideration of increased costs and needed resources to maintain them. Budget includes screening for opportunities, internal consultation, and developing guiding policies and templates.	High	\$30,000
	Review and modify land use plans as necessary to ensure effective watershed habitat networks. Budget can be highly variable depending on processes and necessary edits. Budget provided herein is for a screening level assessment to assess opportunities for enhancement.	Medium	\$10,000
	Consider recommendation by Northwest Hydraulic Consultants (NHC) - "North Alouette and South Alouette Rivers Additional Floodplain Analysis, Phase 2 – Technical Investigations Completion Final Report".	Medium	Not available without further investigation
	Conduct dedicated study of agricultural lowlands where there is a commitment to achieve ARDSA criteria.	Medium	\$150,000
2. Asset Management	Build an inter-departmental asset management team to lead the development and implementation of asset management initiatives, with stormwater representation from Engineering and Public Works. (Asset management program has been recently launched by the City)	High	Internal
	Grow awareness among staff, elected officials, and the public of the importance of asset management and the risk of insufficient practices and funding. Budget cost is strictly to develop communication aids – basic printed material and/or PowerPoint presentation.	Low	\$5,000
	Focus inspections and condition assessments on areas of interest identified from the hydraulic modelling. Use these to inform the risk framework and subsequent decisions about operations, maintenance, and asset renewal/replacement.	Medium	Internal



PROGRAM AREA	ACTIONS	RELATIVE PRIORITY	SUGGESTED BUDGET
2. Asset Management (continued)	Gather data on water level and flow at areas of interest identified from the hydraulic modelling to confirm system performance. Use these to inform the risk framework and subsequent decisions about operations, maintenance, and asset renewal/replacement. Budget is to establish 5 stations as temporary installations over a 3 to 4 month winter period. This may be repeated over 2 or 3 consecutive years at different locations.	Medium	\$50,000 per year for 3 years
	Define stormwater levels of service. Budget is for a consultant to assist City staff through workshop discussions.	High	\$5,000
	Inventory and value the services provided by natural assets. Budget may be highly variable and significant depending on how many assets are to be reviewed, how they are to be assessed, and what in amount of information is currently available. Budget noted is a reasonable starting point which would be used to help determine need for additional financial commitments based on desired outcomes. A reference for scope consideration is Municipal Natural Assets Initiative at <a href="https://mnai.ca/">https://mnai.ca/</a>	High	\$100,000
	Quantify required stormwater funding levels.	Medium	Internal
	Develop a risk framework to inform future stormwater asset investment planning.	High	\$10,000
	Develop and implement an O&M program informed by LOS and risk. Budget may be highly variable depending on level of detail and whether document is general to cover all system, or specific and tailored to cover unique difference for each system. Budget provided is for a general document.	Medium	\$50,000

PROGRAM AREA	ACTIONS	RELATIVE PRIORITY	SUGGESTED BUDGET
2. Asset Management (continued)	Conduct a review of major overland flood paths using a risk assessment framework. This work is often done in two stages; 1) desktop analysis using digital terrain models and hydraulic modeling output and 2) site reconnaissance for areas of particular interest. Budget noted here is for stage 1 only. Budget for stage 2 would be informed by stage 1.	High	\$25,000
3. Environmental Monitoring	Conduct stream monitoring - water quality and B-IBI. Start with 3 continuous years to first establish inter-seasonal variability, then conduct on 5 year cycle. Budget is based on monitoring 4 sites as done in 2015, using the Metro Van MAMF protocols, for three continuous years.	Medium	\$100,000 spread over 3 years.
	Conduct erosion and bank stability monitoring.  Budget will depend on the extent of the watercourses monitored. Recommend that monitoring occur in fall and winter before vegetation growth to improve visibility. Budget suggested herein is for site reconnaissance and reporting in a single year. The value is based on a unit rate of \$1,000 per kilometer of channel as experienced by the City of Surrey which has conducted such studies over several years.	Low (5 year cycle)	\$150,000
	Conduct desktop monitoring of GIS-based parameters, such as riparian forest integrity, urban tree canopy, impervious surface, inventory of green infrastructure, new developments, etc. Budget assumes that all required data sets are already available in digital form.	Low (5 year cycle)	\$30,000
4. Collaboration, Education, and Outreach	Collaboration among City departments; affectively and frequently communicate in implementing the ISMP.	High	Internal



PROGRAM AREA	ACTIONS	RELATIVE PRIORITY	SUGGESTED BUDGET
4. Collaboration, Education, and Outreach (continued)	Develop a communication strategy and engage external stakeholders and the general public to further explain the importance of environmental principles and actions of the ISMP. Provide educational information to developers and permit applicants.	Medium	\$15,000
	Remain connected with the Stormwater Interagency Liaison Group (SILG).	Medium	Internal
	Instigate a watershed committee with members of Metro Vancouver Parks, Local First Nations, BC Hydro, woodlot operators, Province (Parks), District of Mission, City of Pitt Meadows, environmental stewardship groups and Woodlot Managers. A term of reference and mandate statement for their engagement should be prepared.	Medium	Internal
	Continue to support and partner with ARMS and KEEPS	High	Internal
5. Adaptive Management and Continuous Improvement	Decide on key performance indicators to be monitored and tracked	High	Internal
	Define staff champions who will lead the Adaptive Management program	High	Internal
	Implement systems to collect and store information	High	Internal
	Assess information and make adapted decisions on a 5 year cycle	Medium (5 year cycle)	Internal
6. Capital Planning and Infrastructure Improvements	Placeholder budget for replacement of infrastructure predicted to be under-capacity in the future. Replacements should be confirmed through additional monitoring and risk assessment.	TBD	\$36,000,000
Total Low Priority Budget			\$185,000
Total Medium Priority Budget			\$475,000
Total High Priority Budget			\$250,000
Total Infrastructure Replacement Preliminary Budget			\$36,000,000



## 8 CONCLUSION

Similar to other urban jurisdictions, historic development in the South Alouette and Kanaka Creek watersheds has impacted the health of natural environment systems. But the City of Maple Ridge was an early adopter of policy and criteria that strives to facilitate community growth in a more sustainable manner than it had during early settlement. Two key successes achieved to date have been progressive watercourse setbacks and designation of environmentally sensitive protection areas, and formation of three-tiered rainwater management criteria. While built examples like Silver Valley are beginning to form, the City recognizes the need to further develop its Green Infrastructure implementation strategy, with primary focus on better achieving its Tier A criteria (retaining 50% of the Mean Annual Rainfall). The City is undertaking a Green Infrastructure Management Strategy Policy Review in 2020.

In previously built urban areas, redevelopment poses an opportunity for betterment of conditions. Where there is to be Greenfield development, or conversion of rural lands to urban densities, there is a greater challenge to prevent degradation of watershed health; but certainly achievable.

Climate change poses a threat to the performance of infrastructure moving forward. Planning and infrastructure decisions near term should consider an allowance of increased winter precipitation of an additional 20% over current levels. Climate science continues to evolve and so the City should track new information and be prepared for adaptive management. Once again, the City of Maple Ridge is not alone in this challenge.







Storm sewer infrastructure is not intended to prevent flooding in all circumstances but is intended to prevent “nuisance flooding” from moderate sized storms. As such, surcharging of pipes and surface flows should be expected from time to time. It is expected to happen more frequently with the impact of climate change. This study has identified areas where surface flows are most likely to occur and the City should further investigate the potential risk of flooding at these locations and decide what actions are required, if any, to provide a flow path that is safe to public, and does not result in property damage. Designated floodplains are a special case that will continue to flood. Within the designated floodplain of a natural watercourse, the municipality has discretion to develop policy on how it wishes to manage flood

risk (eg. build dikes or manage risk through regulation such as a “flood construction level”). The creation of dikes involved several senior government regulations and would create a major commitment in perpetuity for the City as the diking authority.

This study has identified a number of recommendations in six different program areas to assist the City with improving on what it already does. These program areas include:

1. Regulation and Enforcement
2. Asset Management
3. Environmental Monitoring
4. Collaboration, Education, and Outreach
5. Adaptive Management and Continuous Learning
6. Capital Planning and Infrastructure Improvements

There are a number of priority ranked actions within each program area, totalling an estimated \$1M for all actions within program areas one through five, and an additional \$36M for infrastructure Improvements. These infrastructure improvements consider the effects of both community growth and climate change. This budget amount is recommended for long range planning, however it warrants more refined investigation through local monitoring and risk assessment to make conclusive decisions regarding the expenditure of funds to replace existing infrastructure that has not yet reached the end of its service life.

By taking actions as identified herein, the City will successfully accommodate community growth in a manner that achieves the City's goals towards environment and watershed health while minimizing its system failures and liabilities.



**mapleridge.ca**

**City of Maple Ridge**

**TO:** Mayor Michael Morden  
and Members of Council  
**FROM:** Chief Administrative Officer  
**SUBJECT:** Maple Ridge Tree Permit Survey Update

**MEETING DATE:** March 31, 2020  
**FILE NO:**  
**MEETING:** Workshop

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#### **EXECUTIVE SUMMARY:**

At the April 2, 2019 Council Workshop, Council directed:

*"That staff prepare a draft questionnaire for Council's review, followed by an email and mail-out survey to permit applicants;*

*That survey responses be provided to Council to determine whether changes to the Tree Bylaw are warranted; and,*

*That staff keep the costs relative to this process as low as possible."*

On October 8, 2019 Council reviewed and endorsed the Tree Bylaw survey questions and the process that was recommended in the staff report titled "Update on Maple Ridge Tree Bylaw Survey and Process".

Council emphasized that the purpose of the survey and review was not to create any significant changes to the current Tree Protection and Management Bylaw (Tree Bylaw), rather it was to determine whether there was an opportunity to improve efficiencies with the current tree permit process.

The 2020 Tree Bylaw Survey was forwarded via both email and mail out to all tree permit applicants, tree experts, and development consultants who were involved in a tree permit application over the past two and a half years. Survey stakeholders were given six weeks to submit their comments.

Out of approximately 1500 tree permit applications over the past two and a half years, 70 survey responses and written comments were provided to the City of Maple Ridge in addition to approximately a dozen verbal and written comments by applicants as well as from some tree permit complainants. A copy of the Tree Bylaw Survey is attached in Appendix A. The survey results and summary of the written comments are found in Appendix B. The original written responses are found in Appendix C.

This report provides an updated summary of survey results, including written feedback and comments received on the 2020 Tree Bylaw Survey. It also includes recommendations for improvements to the tree permit process and Tree Bylaw.

#### **RECOMMENDATION:**

**That staff be directed to prepare Amendments to the Tree Bylaw and process as identified in the Recommendations for Consideration of the report entitled "Maple Ridge Tree Permit Survey Update", dated March 31, 2020.**

**4.5**



## **BACKGROUND:**

As mentioned previously in this report, at the April 2, 2019 and October 8, 2019 Council Workshops, Council directed that survey responses be provided to Council to determine whether changes to the Tree Bylaw and/or process were warranted.

Previous to this 2020 Tree Bylaw survey, three other Tree Bylaw update reports had been prepared for Council to determine whether efficiencies or changes were required to the Tree Bylaw or Tree Permit process. The first feedback was provided about five years ago on June 07 2015 through a Community Questionnaire on the Tree Bylaw. The second report was prepared and received by Council on November 14, 2017 along with some proposed Tree Bylaw amendments. The Tree Bylaw was revised and updated on December 12, 2017 to help address any concerns or updates required. The third Tree Bylaw update report was received by Council April 2, 2019.

It was at this last meeting, that Council directed staff to carry out the most recent Tree Bylaw Survey. In order to address concerns raised by Tree Permit applicants, Council directed that input from all tree permit applicants and stakeholders be undertaken to determine whether additional updates were required.

The tree bylaw survey process included input from the following stakeholders:

- Tree experts that work in the community;
- Development consultants involved with the tree permit process through development applications;
- Land owners and the general public involved with a tree permit over the past two and half years in addition to comments received and recorded over the past two and half years from phone conversations, front counter inquiries, emails and from ongoing tree permit application site visits; and
- Tree permit applicants utilizing the City's website and front counter comments.

## **DISCUSSION:**

Council noted at the April 2, 2019 Workshop that some elements of the tree permit process might need to be potentially updated to help improve efficiencies and effectiveness of the Tree Bylaw. The purpose of the current Tree Bylaw Survey is to hear back from permit applicants and tree permit stakeholders to identify current strengths and challenges associated with the process.

### **Tree Bylaw Consultation Results**

Overall, there was a good response to the survey with a total of 72 survey forms that were completed and returned to the City. In addition, there were approximately 20 tree permit application comments that were submitted over the past two and a half years.

The approved Tree Bylaw Survey questions are found in Appendix A. The Tree Survey results and written comments are found in Appendix B. This includes a breakdown of written comments into stakeholder groups including land owners, tree experts, and development applicants. In general there were some common themes and feedback from all of the stakeholder groups as well as some unique perspectives within each of the stakeholder categories. More detailed breakdown of common and unique feedback based on stakeholder groups can be found in Appendix B.

There were some general themes with respect to likes and dislikes which this report has included below for Council's consideration. The following is an interpretation of feedback by staff based on the total numbers of repeated comments received and communications over the past two and half years:

### 1. Efficiency of the Tree Bylaw Process

Overall, the majority of the feedback about overall efficiencies of the Tree Bylaw process was generally positive. Forty six percent either strongly agreed or agreed that the process was efficient. Twenty seven percent were neutral on this question. Combined together, both positive and neutral responses related to efficiency of the process totaled 73%. Twenty seven (27%) percent of the respondents did not think the tree permit process was efficient.

The majority of the positive support came largely from non development tree permit applicants whereby 32/56 responses either agreed or strongly agreed that the process was efficient. In the general written feedback, the most common written feedback was about how 'helpful and friendly' City Tree Permit staff were helping applicants through the permit process and how 'straight forward' the permit process was.

Some residents and tree experts were hoping the City could eventually go to an online tree permit process. From an efficiency perspective, there was some criticism from a couple of the respondents about how long it took to carry out an appeal process for permits that were denied and the cost of the additional arborist reports to satisfy the permit process requirements.

### 2. Ongoing Pride in Natural Environment but some flexibility required.

There continues to be lots of pride about the natural environment and various benefits trees provides to the community, neighborhoods, and land owners as a whole. Reason why people moved here. Important for future generations to enjoy and inherit natural landscapes current generations have. Forest cover and trees are important for natural beauty but also for recreation, shade, air quality, habitat for wildlife, local flooding and drainage management, privacy, property values, etc. Also important to ensure the Tree Bylaw continues to allow land owners to manage routine maintenance and choose how many trees and which type of trees are appropriate for private lots.

### 3. Right Tree Right Place.

Larger or significant size trees within smaller urban lots may not be suitable or appropriate for retention/protection especially if minimum useable yard space or within falling distance of residential structures. Urban areas likely need better guidance on tree replacement options.

### 4. Retention or Protection of Trees.

Permit process still mimics more of a tree cutting bylaw rather than a tree protection bylaw. Explore more effective ways of retaining larger trees especially large clusters of trees on development lands, within urban areas, and rural lands where possible. Consider better incentives for land owners and developers, improve standards and requirements for long term survival of protected trees. Provide more stringent retention requirements for rural lands where cumulative tree clearing still appears to be taking place.

### 5. Reduce Permit Time and Fees for Tree Permit Applicants

Some urban non-development tree permit applicants requested opportunity for doing an on line tree permit process and fee payment. Also for non development urban lots, consider smaller permit fees for first 3 permit size trees in urban areas since rural area residents get first 10 trees cut for free.

## **RECOMMENDATIONS FOR CONSIDERATION:**

Although the majority of the survey respondents noted that the permit process was largely efficient and straight forward in their opinion, if Council is looking for some changes to the permit process that can help with efficiencies identified in the Tree Bylaw Survey, there are some options below that might help achieve this.



Some options may require additional resources that can be addressed through the business planning process but most options can be handled through inter-departmental assistance.

The following options are recommended for Council's consideration as follows:

**Support Additional Public Outreach.**

1. Support more public education and outreach on tree bylaw & permit requirements. For example, develop a municipal communications initiative on the importance of urban forests and benefits associated with trees, tree canopy cover, how to maintain a tree or plant a suitable replacement tree, how to choose a good tree professional, update handouts on the tree permit process for different stakeholders?

**Update Tree Permit Appeal Process.**

2. Change tree permit denial and appeal process to support a more timely and cost effective response. For example, to avoid unnecessary delays waiting for available Council workshop dates, preparation of staff reports, and mail outs to neighbours, Council could choose a more efficient option whereby the Director of Planning could initially determine the appeal decision. Should the Director decide to uphold the permit denial decision, the appeal could still go to Council with a brief update.

**Change Tree Permit Fees.**

3. Reduce resident non-development permit fee for urban areas. Reduce from \$50 + \$25 per tree removed, to \$50 for first 3 trees, \$100 if over 3 trees.
4. Create an online application and payment option for the Tree Bylaw Permit process.
5. No permit fees for cottonwoods, alder or *hemlock* tree species, unless they are significant (greater than 70 cm and healthy) or in a watercourse or steep slope protection area. A tree permit would still be required to track removals and determine if replacements are required.

**Update Protection and Replacement Guidelines.**

6. Update replacement tree species guidelines to better fit / suit size of lot and land uses.
7. Create clear municipal standards, guidelines, and best practices to improve survival of protected trees on developable portions of site, especially trees that are supposed to be retained in exchange density bonus provisions.
8. Change tree protection fencing standards to include eco-friendly options of metal fencing or other re-useable types of fencing.

**Identify, Measure, and Monitor Tree Bylaw and Tree Permit Performance Results.**

9. Support ongoing collaboration and efficiencies between the Parks Operations section and Tree Bylaw Permit staff to help protect and manage municipal street trees as well as trees on municipal lands.
10. Explore cost effective ways to identify, measure and monitor tree canopy cover (gains and losses) across the City and various neighborhoods. This information could help the City determine if we are meeting and managing tree canopy cover objectives. It can also help keep track of quantitative and qualitative benefits and cost savings municipal trees are providing. Some resources may be required through the business planning process for this.

## ALTERNATIVE RECOMMENDATION:

An alternative recommendation in case Council does not wish to pursue further changes to the Tree Bylaw or Tree Permit process is as follows:

**That the *Tree Bylaw Survey and Consultation Update report* dated March 31, 2020 be received for information.**

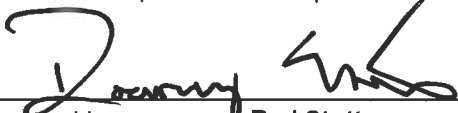
## CONCLUSION:


Pursuant to Council direction, the 2020 Tree Bylaw survey was forwarded to all tree permit applicants, tree experts, and development consultants who have been involved in a tree permit in the past two and a half years. Of the approximate 1500 applications, 70 survey responses and written comments were received.

The survey suggests that the majority of respondents felt the process was positive, however comments were made that suggested there were some improvements that could be made to the Bylaw and process. As a result of the review, staff have identified ten recommendations that if implemented could result in increased efficiencies to the Bylaw and process.

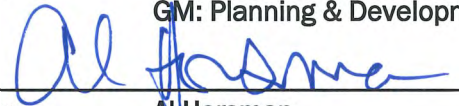
It is noted that some of the recommendations can be done fairly quickly (i.e. amendments to the Bylaw, appeal process, fees, and guidelines), while others will require more time and can be explored or implemented as part of future work should Council direct staff to do so (i.e. preparation of a scoping report to discuss opportunities for identifying, measuring and monitoring tree canopy). Lastly, staff recommend working with the Information Technology Department to establish online application and fees.

In general, the findings of the Tree Bylaw Survey exercise show that the broader opinion of tree permit applicants is generally very positive with respect to efficiencies based on the submissions and feedback received. A number of minor improvements have been recommended that could be explored or implemented as part of future work should Council direct staff to do so.

  
Prepared by: Rod Stott  
Environmental Planner 2

  
Reviewed by: Chuck Goddard  
Director of Planning

  
Reviewed by: Christine Carter, M.PL, MCIP, RPP  
GM: Planning & Development Services

  
Concurrence: Al Horsman  
Chief Administrative Officer

The following appendices are attached hereto:

- Appendix A - Tree Bylaw Survey
- Appendix B - Summary of Survey Results and Comments by Stakeholder Group
- Appendix C - Tree Bylaw Survey written comments



# TREE BYLAW SURVEY

With the assistance of the following tree bylaw survey, the City would like to hear back from the permit applicants to determine whether additional changes are warranted to the Tree Protection and Management Bylaw.

Based on feedback from the previous consultation processes, the current Tree Bylaw was intended to assist community stakeholders with the following issues, opportunities, and objectives:

- **Safe & Standardized Practices:** To reduce negative impacts both on site and off site from large scale clearing as well as irresponsible and unsupervised tree cutting practices on small scale sites;
- **Form and function of significant sized or mature healthy trees:** Promote retention of a portion of the significant and permit size trees on sites where possible especially on new developments to retain form and character of neighborhoods.
- **Tree canopy retention balance:** retain a minimum tree canopy cover ratio through replanting requirements to help offset costs to the larger community and taxpayers;
- **Create a level playing field for tree experts:** To help encourage responsible, consistent standard of care for tree management and cutting practices.
- **Flexible exemptions and appropriate options for tree permit applicants:** No two sites are the same and landowners struggle with different challenges. Develop and promote a cost effective, progressive, and fair or reasonable Tree Bylaw and permit process for land owners.

Tree Permit Types	
Development including subdivisions, town houses, large scale buildings, or clearcutting or removal of more than 20 trees	Non Development includes residential lots with no development permits or building permits

The survey should take approximately 10 minutes to complete. With your feedback, the information gathered through this survey will inform future discussion put forward to Council for their consideration. Please take the time to provide your responses and comments so that we can take your opinions into consideration.

The survey can be completed online here: [mapleridge.ca/1878](http://mapleridge.ca/1878) or a hardcopy can be submitted/mailed to City Hall (11995 Haney Place, Maple Ridge V2X 6A9). The survey will be available until December 6, 2019. A copy of the staff report that was presented at Council Workshop on this topic can be viewed here: [INSERT WEBLINK HERE](#).

We thank you for your cooperation. If you have any questions about the survey, please contact the City of Maple Ridge Planning Department at [planning@mapleridge.ca](mailto:planning@mapleridge.ca) or by phone 604-467-7341.

The information provided on this survey is being collected in accordance with Section 26(e) of the *Freedom of Information and Protection of Privacy Act* for the purpose of planning and evaluating the Tree Bylaw permitting process within the City of Maple Ridge. If you have any questions about the collection, use or disclosure of this information, please contact Freedom of Information and Protection of Privacy staff, at 604-467-7482 or [foi@mapleridge.ca](mailto:foi@mapleridge.ca).



# TREE BYLAW SURVEY

1. Tell us about yourself. Please select all that apply:

- ☐ Development Industry Representative (Developer, Consultant, etc.)
- ☐ Tree Expert/ Professional (Forester, Arborist, Feller/Contractor)
- ☐ Resident
- ☐ Other: \_\_\_\_\_

2. How have you been involved with the Tree Bylaw permitting process? Please select all that apply:

- ☐ Development Tree Permit Application
- ☐ Non Development Tree Permit Application
- ☐ Tree Professional
- ☐ Other: \_\_\_\_\_

3. In your opinion, is the Tree Bylaw permitting process efficient?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A

4. Overall, what are your comments or suggestions on the Tree Bylaw permitting and appeal process?

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5. If you are a tree professional, how does the Tree Bylaw permitting process in the City of Maple Ridge compare to other municipalities? What are your suggestions and comments?

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Thank You!

We appreciate your feedback, if you have any questions about the survey, please contact the City of Maple Ridge Planning Department at [planning@mapleridge.ca](mailto:planning@mapleridge.ca) or by phone 604-467-7341.



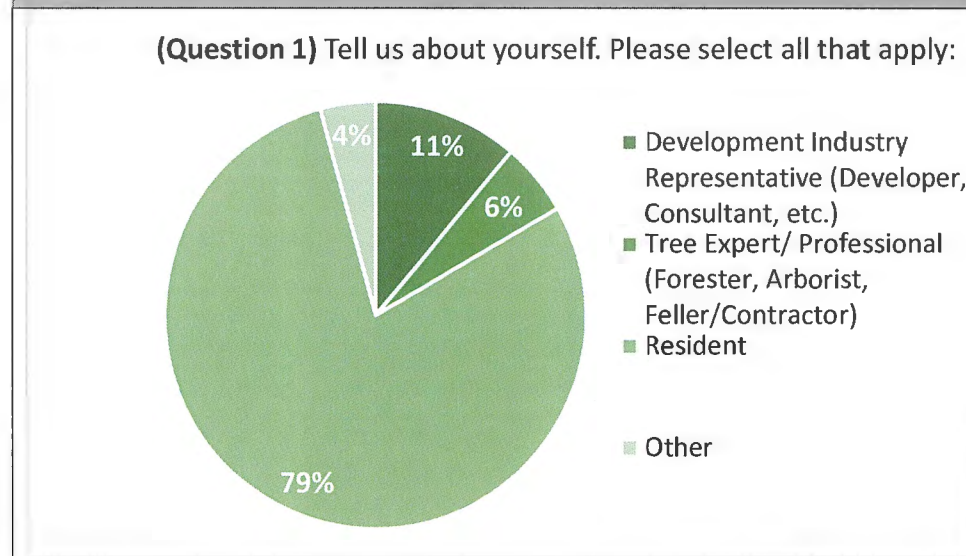
MAPLE RIDGE  
BRITISH COLUMBIA



## Tree Survey Results

Question One. Tell us about yourself.

(Question 1) Tell us about yourself. Please select all that apply:	Percentage	Total
Development Industry Representative (Developer, Consultant, etc.)	11%	8
Tree Expert/ Professional (Forester, Arborist, Feller/Contractor)	6%	5
Resident or general public tree applicant	79%	56
Other (tree permit complainant, strata landscape coordinator)	4%	3
Total	100%	72

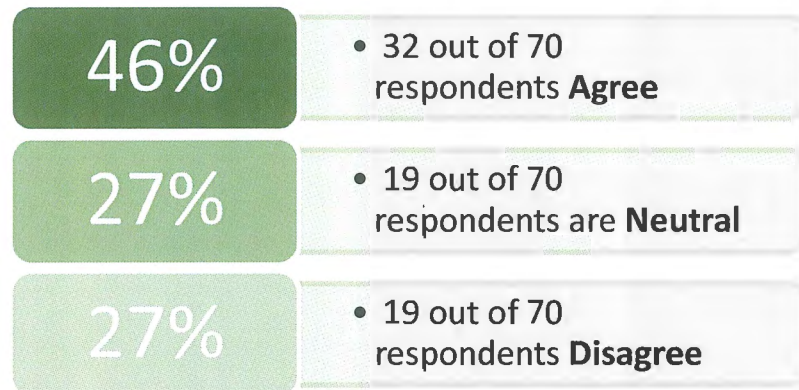


Question Two. How have you been involved in the tree permit process?

(Question 2) How have you been involved with the Tree Bylaw permitting process? Please select all that apply:	Percentage	Total
Development Tree Permit Application	11%	8
Non Development Tree Permit Application	79%	57
Tree Professional	7%	5
Other (permit complainants, strata landscape coordinator)	3%	2
Total	100%	72

### Question Three. In your opinion, is the Tree Bylaw permitting process efficient

Survey Response. Two responses for question three were left blank so total score is out of 70.



Combined together, positive and neutral responses for efficiencies totaled 73% which were largely from tree permit applicants. Although the survey questions involving written comments did not ask for feedback on staff, there was lots of positive comments about how helpful City staff were with the permit process and straight forward the permit process was.

#### Tree Professionals (Professional Foresters, Arborists & Tree Contractors (5)):

1. Straight forward permit process and staff are helpful (3/5)

#### Residents with non-development applications (56):

1. No complaints, easy process and quick – 23
2. Helpful and flexible staff – 9

#### Development Industry (5)

1. Tree protection permit process fairly straight forward. Staff are really helpful. -3/5

Survey results and feedback for both questions four and five has also been broken down by stakeholder group. The most common themes have been highlighted and introduced as part of the first five items. Staff have identified the total number of common responses where possible for each stakeholder group. In some cases survey respondents did not reply to specific questions and this is reflected in the number of responses for each stakeholder group.

Additional items that received two or less comments were also included in the summary of feedback. A copy of the survey results can be found in Appendices B.

### Question Four. Overall, what are your comments or suggestions on the Tree Bylaw permit and appeal process?

#### Tree Professionals (Professional Foresters, Arborists & Tree Contractors (5)):

1. Stricter clear guidelines needed around protection or when a tree can be removed (4)
2. Significant trees (large and healthy) offer benefits to the community that can take multiple decades for replacement trees to provide the same benefits. (3)
3. Makes sense to work towards a municipal tree canopy cover performance target through protection and replacement requirements (3)



4. Tree cutting and clearing too lenient in rural area. Allowing 10 trees per year over a few years with no permit results in larger scale clearing taking place. Not taking into consideration potential for blow down on neighboring properties (3)
5. Should be zero tolerance for topping trees, cutting without permits, & poor pruning jobs. Need stronger rules for tree professionals having ISA certification to improve practices.(2)

**Other themes and comments:**

- Greater effort should be provided to protect these larger trees where possible, especially on larger sites where space is available.
- Removal of some edge trees can open up an area to potential hazards i.e. blow down. This applies to developments and non-development sites. Better controls required in these situations. Good to see effective root protection zones on development sites
- Difficult to retain or replace trees on smaller denser urban lots when buildings and impervious surfaces often take up the entire site.
- Include hemlocks over 50cm DBH as part of the potential danger trees with no permit fees if trees are within striking distance of a structure
- Smaller urban lots – right tree right place so protection of significant sized trees on smaller lots should potentially include emphasis on appropriate replacements instead.
- Would like ability to submit application and credit card payment on-line
- Place more responsibility on arborists and reduce site visit requirements on municipal staff.
- Newly planted replacement trees in developments should have appropriate space for root growth, long term survival, and appropriate fencing and signage around the site.

**Residents with non-development applications (56):**

1. No complaints, easy process – 16
2. Helpful and flexible staff – 9
3. Residents should be able to manage their own trees or with minimum interference - 5
4. Enforce on weekends; lots of unpermitted removals happen on weekends – 5
5. Tall trees in close proximity to homes on small lots not a good mix. – 3

**Other key themes and comments:**

- Need more education and outreach to public and professionals regarding permit process.
- Like cottonwood and alder exemption, should include older hemlocks as well.
- Developers should be held to higher standard to retain more trees, especially larger size clusters of trees if they are significant in size.
- New developments can remove trees too easily in rural areas on non ALR lands.
- Still effectively a tree removal management bylaw not a tree protection and management bylaw. Need better protection for trees.
- Would like ability to apply and pay on line
- Infringement of property rights, should not need a permit to remove trees. Money grab.
- Need higher priority for damaged and hazard trees (*staff note – these trees already are higher priority, can often be removed by just sending in picture to staff*)

- City should continue to encourage protection and replacement of trees. Needs to keep track of numbers and performance for tree canopy cover.
- Didn't know about appeal process (*staff note - all denials are sent a letter outlining the appeal process*)
- Should not have to pay for dangerous or dead trees (*staff note – all dangerous, diseased and dead trees can be removed without a permit and fee*); and
- Costly with arborist report (*staff note – Arborist only required if need confirmation that tree is high risk or if tree located within protected ESA area*)

### **Development Industry (8)**

1. Tree protection permit process fairly straight forward and staff are helpful (3)
2. More clarity around removal in close proximity to steep slopes, parks & forest required (2)
3. More lenience on removals for infill lots and encourage appropriate replacements instead (2)
4. Inefficient for small subdivision projects to go through a tree management plan. Staff should rely more on expert opinions with fewer checks (2)
5. More incentives for protection of significant sized trees and supporting space on medium and larger size development lots in exchange for greater density. (2)

### **Other key themes and comments:**

- tree protection requirements not always clear nor always practical especially for retention of significant trees around developable portions of a site.
- Should not require Arborist; City should provide that service.
- Tree protection fencing should include more eco-friendly options
- Adds costs to development applications. Reduce the fees.

### **Question 5. If you are a tree professional, how does the Tree Bylaw permitting process in the City of Maple Ridge compare to other municipalities? What are your suggestions and comments? /(5)**

1. Other cities have more restrictions around tree cutting and protection than Maple Ridge. This is still primarily a tree removal bylaw and not a tree protection bylaw but good to see it has tree replacement and tree canopy cover requirements.(3)
2. Tree canopy cover targets are a really good idea and some cities are already doing this while other communities are starting to following suit. (3)
3. Rural areas should require stronger regulations to ensure lands are not being cleared over time for speculation to make way for future development (2)
4. Better flexibility, tools required in urban infill areas and smaller urban lots to ensure appropriate protection and replacement takes place. Potential for urban forest management strategy that is being used by other cities (2); and
5. More standardized certification should be required for arborists and contractors to ensure appropriate practices taking place (2)

### **Other key themes and comments**

- City needs a way to effectively measure, monitor, and manage how the City is doing with its tree canopy cover over time in certain areas. Also, may want to consider an urban forest



management strategy like other cities are doing to manage the municipal forests, urban trees, street trees, and canopy cover targets in the future.

- More incentives and stronger regulations required to retain larger clusters of trees in developments especially where density bonus provisions have been provided. Ensure appropriate space and mitigation is provided around these clusters for survival.
- Either increase number of City arborists to properly administer, manage and enforce the tree bylaw or place more responsibility onto the tree experts, (foresters/arborists) to manage the sites and issues.

Comments from Tree Permit applicants and tree experts is also provided below based on feedback from site visits and correspondence over the past five years since 2015, along with emails to staff from permit applicants, tree experts, development consultants, and complainants regarding cutting on neighboring properties. The bulk of this feedback is consistent with what the City heard five years ago and in the questionnaire completed in 2015/2016.

***Ongoing Stakeholder/ Applicant Feedback.*** Over the past few years, there has been some common ground with respect to shared concerns and feedback on the tree permit process and tree bylaw. Some common feedback and comments shared with staff through previous questionnaires, site visits, and front counter discussions included the following:

- Ongoing general support for the current Tree Management Bylaw with respect to protection, replacement, and management measures especially for development related activity because trees continue to provide important benefits to the community such as liveability, climate change resiliency, and natural beauty.
- More flexibility required for non development permit applicants in urban areas with smaller lots to take out significant sized trees or inappropriate tree species.
- New development and larger scale tree removal applications within suburban and rural areas should be required to retain more healthy significant size trees where possible rather than automatically reverting to replanting or cash in lieu.
- Overall, there appears to be less negative impacts and more responsible tree management practices for new development and non development permit applicants including poor tree cutting practices by unqualified practioners. This should ultimately help the City, landowners, and neighbors to reduce potential costs, risks and nuisance issues related to inappropriate tree clearing and irresponsible tree cutting practices.
- Need better strategy, regulations, and incentives to help with protection and/or replacement measures to deal with ongoing impacts from tree removal that is likely going to take place within urban infill areas. Consider rezoning requirements and urban forest management strategies that are being used by other municipalities.
- Applaud the City of Maple Ridge efforts to catch up with other municipalities in terms of how it regulates and manages the urban forest. Tailor it to local context and unique qualities that residents came to the City for in the first place.
- There is increasing knowledge and recognition that urban forests and trees on both public and private lands provide important benefits, services and cost savings to the local business community, home owners, various demographic groups at risk from health concerns, and future generations of citizens. Public interest in creating more green spaces for new area plans, neighbourhoods, streets, and sites.

Tell us about yourself. Please select all that apply:	How have you been involved with the Tree Bylaw permitting process? Please select all that apply:	In your opinion, is the Tree Bylaw permitting process efficient?	Overall, what are your comments or suggestions on the Tree Bylaw permitting and appeal process?	If you are a tree professional, how does the Tree Bylaw permitting process in the City of Maple Ridge compare to other municipalities? What are your suggestions and comments?
Tree Expert/ Professional (Forester, Arborist, Feller/Contractor);	Development Tree Permit Application;	Neutral	I think the bylaw is very confusing for most people who are not familiar with it, and it is too lenient in the rural area. The <70 cm DBH no permit clause makes no sense and is damn near impossible to enforce.	The City of Richmond has a really good tree protection bylaw. It's linear and easy to understand, and the built in stop work order clause is effective when it comes to enforcement and compliance for development. Surrey also has a very strong bylaw, but I find that it's too lenient on the development community and punitive to homeowners trying to do regular maintenance on their properties.
Tree Expert/ Professional (Forester, Arborist, Feller/Contractor);Resident;	2 years;Tree Professional;	Neutral	Stricter guidelines for when a tree can be removed. Zero tolerance for topping. Pruning guidelines in bylaw to allow for warnings and fines to be issued when there are pruning infractions. These fines and letters would hopefully go to the tree care professional not the homeowner. Mandatory that any tree care worker in Maple Ridge be ISA certified. This would eliminate a lot of topping and pruning that is happening around the city. Further incentive to retain trees and large areas of native soil on large lots that are being redeveloped.	I am a resident of maple ridge but am also a bylaw arborist in another municipality. In comparison the city I work for has a much stronger bylaw but with very different lot sizes and types. We have pruning and topping guidelines, all work must be by and ISA certified arborist, require arborist reports for all development regardless of lot size, type or tree size or number. Our bylaw allows us to ticket for numerous offenses. We have two streams of applicants - resident and non-resident (developer). This allows us to have two different levels of deposits. Resident applicant deposits cap at \$10K where as developers have no cap. Two things I applaud Maple Ridge for is the tree protection zone of DBH x 18 and all trees planted as part of development sites are protected. The city I work is has small urban lots where DBH x 6 is our minimum TPZ. I also think protecting trees that are planted as part of landscape plans for large scale developments is a great way to regain the lost canopy cover. This is something we would personally really like to change in our city but would need an amendment through council to do so. A tree bylaw division also needs a minimum of 3 people to function efficiently. One person to focus solely on paperwork and file management, the other two as arborist for inspections and permit reviews.
Tree Expert/Professional	Tree Professional for development and non development sites;	Agree	Overall, the permit process is straight forward but some components of the tree bylaw are less clear. Municipal staff are great at providing help and direction with permit process. Not familiar with the appeal process but in my opinion some flexibility is required for non development smaller urban lots. More emphasis on protection within larger lots and replacement of appropriate tree species within smaller urban lots or dense urban areas. Protection of appropriate species and sized trees makes sense for non development and development sites in urban infill areas. City might want to consider more incentives for developers and property owners to retain larger clusters of healthy significant sized trees but provide sufficient space and protection for long term survival. Density bonus for tree retention should result in clear benefits not liability for City.	Not as strong or clear as other municipalities with respect to protection especially larger trees but much better than before. Staff helpful in guiding through tree permit process. Urban areas difficult to retain trees on lots where new development occurring because insufficient space to protect or replace trees on sites since building footprint and surrounding impervious area take up the majority of the site. Some cities have zoning requirements to ensure minimum green space on site or they provide neighborhood level green spaces for tree retention and planting. Tree canopy cover requirements and performance target makes more sense. If the objective is to meet minimum tree canopy cover targets in urban infill areas then the City might want to consider a way to measure and monitor this.
Tree Expert/ Professional (Forester, Arborist, Feller/Contractor);	Development Tree Permit Application;Non Development Tree Permit Application;	Strongly Agree	I have concerns with properties in rural areas being allowed to clear 10 trees a year under 70 cm DBH, no questions asked. A developer would use this opportunity over several years to clear the property. Even homeowners will go through the process of clearing their land in anticipation that it will sell to a developer at higher value. These could be rare or high value trees that don't normally reach a DBH of 70 cm. Increasing the number of replacement trees with tree DBH and the consideration for pre-existing canopy in tree replacement count is good. Consider replacement tree numbers per lot size similar to city of Vancouver as opposed to a percentage per hectare. Smaller lots will have more difficulty with replacements whereas larger lots have more room for replacements. This appears to be a Tree Removal Bylaw and not a Tree Protection Bylaw. Maybe I glazed over it. But where does it state the criteria that must be met for a tree removal to be granted. Most municipalities state that the tree must meet certain criteria to be granted a removal permit. Ex. conflicts with utilities, hazardous, deadstanding, etc. You will want to consider placing more than \$600 in securities on retained trees as that will not have much impact with a developer. Have a mechanism in place for if the removal of a tree is declined and they want to appeal.	This tree bylaw is having the city take on a lot of the inspections and the city will want to ensure that they are staffed appropriately. Many cities have instead chosen to put the onus on the project arborist to perform the inspections with the city arborist only performing spot inspections to ensure compliance. Some cities require project arborist to perform tree replacement inspections and follow-up inspection at project completion to ensure compliance. Many are even requiring monthly inspections by project arborist. Only requiring an arborist report after 5 trees have been removed in an urban area places a lot of liability on the city. Removal of trees can open up surrounding trees to windthrow. I would suggest that it be a requirement that the TPB be staked as it will easily be moved during construction for convenience. Our municipality has had developers pose as homeowners to clear land for development. I would recommend that you ensure that this bylaw is not set up for people to take advantage of this. I didn't see mention of standards for work within the CRZ of protected trees. Will an arborist need to supervise this? Are structural roots protected under this bylaw?
Tree Expert/ Professional (Forester, Arborist, Feller/Contractor);	Tree Professional;	Agree	I like that Cottonwood and Alders are exempt from being considered a protected species, but I'd like to see Hemlock included on that list. As we know they are the most prone to complete tree failure and also one of the pioneer species.	Overall the permit application process is very good. Perhaps it's already available, but I'd like to be able to submit permits online. Other municipal bylaws define a hedge (more than 3 trees, less than 1.4 m apart). As we know Cedars can quickly grow to greater than 20 cm and some properties require 'topping' to maintain them. When dealing with townhouse or apartment complexes, other Municipalities may not require permit to remove a tree that was not part of the original landscape plan or protected during construction. Often homeowners/landscape committees plant inappropriate trees in the wrong spots. Also, all trees on these complexes should be protected, even under 20 cm diameter. Finally, on these sites, the council be allowed to replace trees that should not have been planted in the first place. Too many times we have large Red maples planted in 'finger' beds that will quickly cause damage. If these trees are replaced by them causing damage there should be lenience with permitting cost as long as there is a comprehensive planting plan. I always appreciate Michelle's quick response to my questions! Everyone I've dealt with has been great.



Resident;	Non Development Tree Permit Application;	Agree	The process was very straightforward. I have no complaints. I went to the Municipal offices and filled out a hard copy form. Staff was very helpful in filling out the form. I was notified by email that my permit was ready for pick up and I picked it up at the municipal offices and had the tree professional remove the tree. I advised the arborist when the tree was removed and the process was complete.	
Resident;	Non Development Tree Permit Application;	Disagree	"Neutral" is the proper spelling. You could make the process free, if the arborist agrees with the resident that the tree in question is dead, or dangerous.	
Resident;	Non Development Tree Permit Application;	Neutral	Eliminate the permit fee for private residences when less than 3 trees are involved. Have a process that allows municipal staff to take action on weekends when "illegal" tree removal is reported to the municipality. Set up a reporting hot line, that is manned 7 days a week. When possible encourage or stipulate the planting of new trees ( 2 for 1) when a tree is removed.	NA
Home owner since 1974 in Mple Rdge;Resident;	I once applied for tree removal due to driveway damage from roots but was denied even though I wanted to replant;	Nuetral	I dont know enough to comment on the overall program however all residents should be held accountable to follow the rules. My two neighbours have removed trees without permits, one because she didn't like to clean up leaves and wanted to increase her driveway. The other recently hacked up her tree and it's on her curb for free pickup on the city's program. I don't feel this is fair.	Not applicable
Resident;	Development Tree Permit Application;	Strongly Disagree	I think it's ridiculous. As a private property owner, it should be within my own right to remove a tree that is both impacting public property and private property and utilities lines. I am all for keeping trees and maintaining our cities green space. But as a homeowner that owns my property I should have the right to remove a tree from my own yard. The city is doing a very poor job of managing it's green spaces, if the city wants additional trees then they can plant more in public green spaces and stop forcing owners to abide by rules that can be downright absurd, especially with regards to a property that is less than a half acre. Smarten up Maple Ridge and get with it.	
Resident;	Resident removal of dead trees ;	Agree	Many people are not aware of the bylaw and figure that it does not apply to them.  More education for resident and tree professionals that Maple Ridge has a tree bylaw. Came across professionals that would cut the trees and if someone complains, then deal with the rules. This does not give me confidence in the professionals, when they do not follow the guidelines.	
Resident;	Non Development Tree Permit Application;	Disagree	The tree I removed was leaning significantly as it grew, to the point it was in danger of toppling in strong winds. It is a money grab to charge a fee to residents for being proactive to reduce risks of damage or injury. It is no wonder residents shy away from being safety conscious and just leave things until injuries or damage occurs, and just let insurance deal with the aftermath. I can see if more than one tree was being removed....	
Resident;	Non Development Tree Permit Application;	Strongly Disagree	In 2019 we applied for a permit to remove 7 trees from our yard. As part of our application we advised that a certified arborist (the same one the City uses) had advised that 3 of the trees are a hazard. The City decided to grant the permit for all the trees except those 3. We will continue to apply for a permit for these 3 trees as they are a hazard to both our house and our neighbor's house.	
Resident;	Non Development Tree Permit Application;	Strongly Agree	quick and clear process	
Resident;	Non Development Tree Permit Application;	Nuetral	No comment as I only applied once. I have no background against which to place any opinion	N/A
Resident;	Non Development Tree Permit Application;	Nuetral	I was unaware of an appeal process. The permit process was ok. We would have liked to take down the more detrimental trees in our yard. I think home owners wanting to better the yard should be able to take more down.	

Resident;	Non Development Tree Permit Application;	Strongly Agree	<p>I had no problems with the process. It was quick and efficient. I had two trees which had to be dealt with. One was an emergency removal due to winter storm damage. The other was also storm damaged but not an emergency. The city staff were quick to respond to my enquiries and extremely helpful in explaining the process. The web page made finding the additional info I needed simple. The current process worked for me without difficulty.</p> <p>However, I do note the process for protection of established trees can potentially be subverted. One probable example is a property being redeveloped further up the street where I live. The large tree on the corner was marked and fenced off to be protected during the construction. However, the developer cut very deeply into the ground right at the tree fence line, even though the space was not needed on that side to lay the foundation. The deep cut was left for over a year. Without soil support the tree did not get enough moisture and died. The old tree has now been cut down. The new mega house has been built and still the tree has not been replaced. I'm not sure what can be done to prevent tree removal caused by abusing the tree so it dies, becomes a hazard and then has to be removed but would like to see something to prevent this type of abuse. I have seen other instances in Maple Ridge of abuse of a tree in order to facilitate removal where it would not normally occur.</p>	
Resident;	Non Development Tree Permit Application;	Agree	Ability to apply or pay online.	
Resident;	Non Development Tree Permit Application;	Agree	It went smoothly for me. I've seen many trees cut down in my neighbourhood and have wondered if the bylaw is really helping save trees. Seems like every new building takes down all the trees on the lot, or ends up doing that.	
Resident;	Non Development Tree Permit Application;	Agree	the process for removing one very mature cedar tree from my property was fair and straight forward. I'm not overly familiar with the process related to development applications, however, observing what has occurred with small developments in our neighbourhood and with larger developments generally, I'm concerned that restrictions appear to be insufficient and more monitoring/inspections are required.	
Resident;	Non Development Tree Permit Application;	Strongly Disagree	had to wait 3 months for dangerous dead tree removal permit.and was told there were no other dangerous later 5 trees fell on roof still dealing with roof	not tree professional but have dropped over 50 myself safely and accurately on my property in the caribo
Resident;	Non Development Tree Permit Application;	Strongly Agree	very efficient process	
Resident;	Non Development Tree Permit Application;Tree Professional;	Agree	Overall it was easy process to get permit. The replacement rules are a problem to replace huge trees on a 40 ft. Lot. I'm concerned about roots in my and my neighbors service lines, there is not a lot of room for growth.	
Resident;	Non Development Tree Permit Application;	Agree		
Resident;	Non Development Tree Permit Application;	Agree	It worked ok.	
Resident;	Non Development Tree Permit Application;	Disagree	For damaged or high risk trees the turn around time for the permit approval needs to be deemed a higher priority then others.	
Resident;	Non Development Tree Permit Application;	Agree	The permit was granted based on the tree removal companies assessment. I feel this is appropriate. Especially if the employee issuing the permit is not an arborist. The bylaw officer did not visit the property.	N/A
Resident;	Non Development Tree Permit Application;	Agree	Process was easy to follow and I received desired results based on the information that I provided.	
Resident;	Non Development Tree Permit Application;	Disagree	<p>Trees should be looked at through safety first and aesthetics last. Owners should be allowed to maintain the minimum set trees per lot size and ALSO have a choice to take one down that is becoming too large for the lot and replace with a new tree to maintain the greenery in the neighbourhood. There are millions of trees in Maple Ridge and to have these large and potentially hazardous is silly. Why do you need to control our choice for safety, more light on our property, less cleanup/ maintenance of property, storm sewer problems (leaves and needles in lines into municipal storm). This is our City and our choice. Let us decide about our property, not someone who is paid by us to listen but makes their own decision. This should be a helpful situation and make a plan to satisfy everyone, not just say no.</p>	



Resident;	Non Development Tree Permit Application;	Neutral	Overall it was an easy process to get permit.	
Development Industry Representative (Developer, Consultant, etc.);	Development Tree Permit Application;	Agree	<p>I had a limited experience, but it was a very good one. In Mar 2017, involving a pair of trees for an initial demolition on the Burnett development site. I worked with Scott Salisbury (sewers) &amp; Gail Szostek, both of whom were helpful. For a sewer disconnect, because of the 8ft depth of dig, and its close proximity to drip lines, we were required to remove a pair of tall Sitka spruce, for safety purposes. Because those trees are near street, they would be eventually be removed as they sit on land to be dedicated for public road &amp; sidewalk. Despite the small permit, there were a few discretionary items, and fortunately, staff had enough flexibility within the bylaw to be reasonable &amp; cooperative. Firstly, there was some internal departmental confusion on "when" the trees should be felled, and it was resolved that it be done after disconnect, and immediately after demolition. Secondly, two other trees, distant from the dig, but near the demolition were also identified for eventual removal for new housing, and staff were cooperative enough to consider waiving the requirement for temporary tree protection fencing, although out of good faith we erected the fencing.</p> <p>Year &amp; half later, in that big windstorm In Dec 2018, a tall, 2ft diam Doug Fir toppled. It was adjacent to the 2 spruces, who's stumps were left and surrounding ground undisturbed. Fortunately, it fell northward, onto the now-vacant 11633 Burnett, where the demo'd cottage was sited. It took down our development sign and the protective fencing, which required replacement &amp; repair. Had it fallen towards the adjacent dwelling, where children sleep in upper storey bedrooms, it could easily have been fatal. Large native conifers - which have shallow roots and lack deep taps - belong in contiguous forests, not isolated in urban areas. That is particularly hazardous in compacted &amp; clay-based soils of Maple Ridge. The solution is replanting with 2-3 storey trees such as cherry, dogwood, magnolia, mimosas, lilacs, Jap maples, etc.</p>	
Development Industry Representative (Developer, Consultant, etc.);Resident;	Development Tree Permit Application;	Neutral	The main concern would be making the process too onerous and punitive for future development which only adds to the end user costs. The city must maintain a practical approach to achieve a reasonable balance.	
Development Industry Representative (Developer, Consultant, etc.);Resident;	Development Tree Permit Application;	Neutral	The fees are too high for permits. Replanting is a good idea. The weed trees like poplar, alder and others should have no regulation. Also the rule should allow 3 trees per acre per year without a permit.	
Development Industry Representative (Developer, Consultant, etc.);	Development Tree Permit Application;	Agree	<p>City staff are excellent.</p> <p>The Tree Protection Bylaw is not environmentally efficient. For example, the tree protection fencing standard calls for a plastic mesh attached to 2x4's to surround all SPEA or tree protection zones. If you consider the lifespan of plastic fencing, 99% of which ends up in the landfill after several months of use, the plastic remains on earth for hundreds of thousands of years. If we choose not to use this fencing, the risk for damaging trees would increase, however with proper instruction from crew managers, the trees may not necessarily be cut down. If a few trees were accidentally cut down, they could be replanted and regrow 1000 times over before the protection fencing would BEGIN to break down in the landfill.</p> <p>When considering inefficiencies, the whole picture should be reflected on. If we are trying to save trees, why are we forced to use 2x4's made of wood to protect trees? If we are trying to retain trees and reduce the City's carbon footprint, then why are we forced to use petroleum based fencing?</p> <p>Perhaps the tree protection fencing specifications should be changed to reflect more eco-friendly methods, for example: instead of plastic and wood protection fencing, use reusable rented metal fencing, or rebar and flagging tape, or traffic cones, or burlap fencing?</p>	

Development Industry Representative (Developer, Consultant, etc.);Resident;	Development Tree Permit Application;Non Development Tree Permit Application;	Disagree	The Tree Bylaw is inefficient especially on smaller projects. As a developer we are required to obtain an Arborist and get them to draft a report as to which trees should be retained and which should go. The City Tree Staff will then respond with their own opinion on the reports and give direction as to how they want the reports altered to meet their agenda (we've built projects around ornamental hedges which were forced to be retained and covenanted; this compromises the integrity and purpose of the whole process). Thus, there seems to be no point in hiring a Tree professional, as the City essentially takes on the liability by suggesting revisions and protect trees not worth keeping. This makes for a very in-efficient process because of the back and fourth between the City and Tree Professionals. The City should trust and rely on the tree professionals or fully take on the job themselves. In addition, the City should allow for trees to be taken down which interfere with infill development. The purpose of the re-planting measures within the by-law are to re-plant trees that are removed. Overall, I would like to see more reliance on the Tree professional's reports and a softer stance on tree removal if the trees are dangerous, diseased or are affecting the ability to develop an infill piece of property.	
Development Industry Representative (Developer, Consultant, etc.);	Development Tree Permit Application;	Neutral	More clarity on slope areas, non by law trees.	
Development Industry Representative (Developer, Consultant, etc.);	Development Tree Permit Application;	Disagree	More incentives should be provided for protection on developable portion of site	
Development Industry Representative (Developer, Consultant, etc.);	Development Tree Permit Application;	Disagree	No comment	
Development Industry Representative (Developer, Consultant, etc.);	Development Tree Permit Application;	Disagree	no comment	
Resident;	Non Development Tree Permit Application;	Strongly Disagree	I was never informed of any "appeal process" regarding what was required and charged for to obtain and carry out tree removal on my property. Also I don't need an arborist to tell me what is a cottonwood or alder. I would suggest a copy of the tree bylaw be issued at the time a building permit is issued.	
Resident;	Non Development Tree Permit Application;	Disagree	This is just a money grab by the city to soak residents of yet another tax.	
Resident;	Non Development Tree Permit Application;Tree Professional;	Agree	seemed to work well and care seemed to be taken that tree removal was cautiously looked at.	
Resident;	Non Development Tree Permit Application	Agree	I had a very positive experience with City Hall over our concerns and hope to continue that in the future.	
Resident;	Non Development Tree Permit Application;	Neutral	<p>The tree bylaw stipulates that if a tree is removed that it must be replaced with a local native species. In my case, I had a tree removed which posed a potential hazard to my home. We have a number of very tall firs and cedars on and adjacent to our property, so I am not sure why this was deemed necessary. It was almost impossible to find a native species tree in any of the local nurseries. They just don't sell them. And a tree of the specified size would be expensive and extremely difficult to plant in our yard as 50% of the yard is on a 30 to 45 degree slope, and getting machinery to the site would be impossible.</p> <p>The loss of the tree, and another one that came down in a wind storm a few years back, has benefitted the vegetation on the slope, all sorts of things are able to grow there now that some light has been let in. Before nothing would grow, and the surface would just get muddy in the rain. Allowing vegetation to grow will help stabilize the slope and prevent erosion. Sometimes removing a tree can be beneficial to the environment. I am just saying that more consideration needs to be given to the nature of the site before stipulating that even more trees need to be planted on that site if one is removed.</p> <p>There should also be some protection for homeowners if a neighbor does not take responsibility for the health of their own trees or the damage his/her trees may do to adjacent properties. I believe that, as it stands now, if my neighbors tree falls on my house I have no legal recourse to ask for damages. Tall trees and homes are not necessarily always a good mix.</p>	



Resident;	Non Development Tree Permit Application;	Nuetral	We had to complete this process just for topping a couple of dangerous trees and of course did the necessary paperwork and steps, however wish to comment on the bylaw itself. It is quite noticeable the significant amount of tree removal that is taking place in MR's new "development" goals. It appears fairly easy for developers to completely clear trees just to do close quarter (ie. townhouse) developments. As a resident trying to maintain personal property it seems unfair to have to go through the hoops just to care for existing trees when developers can do the process and completely wipe out a grove of trees.	
Resident;	Non Development Tree Permit Application;	Strongly Agree	I have two huge tree in between on middle of two house please if I need to trim down half because I feeling is not safety please let me know what happened one day will fall down thanks	
Resident;	we had to applied to get a tree cut down;	N/A	I think the trees on your own property you have the right to do with it what you want. I don't believe you need a tree permit You did not need a permit when you came and trim some of our trees down.  I myself this the tree bylaw is way to much.	
Resident;	A tree fell down and almost hit my house. ;	Nuetral	Try to protect the trees and the natural environment, and improve the efficiency of permitting to cut the dangerous trees.	
Resident;	Non Development Tree Permit Application;	Agree	My only connection was to get permission to cut down a large alder tree that was dying & replace it with another tree. I have no complaints about the process.	-1
Resident;	Development Tree Permit Application;	Agree	Worked well for me. Very reasonable City Environment Manager.	-2
Better termed as: "Resident Tax Payer";	Non Development Tree Permit Application;Tree Professional;	Strongly Disagree	Just another layer of unnecessary City Hall bureaucracy, that pus a further burden on the Tax Payer of this City. If the existing Planning And Building Departments where doing the job that they are "Tasked" with, this is a totally unnecessary layer, poor management at the "Top End" of the chain of authority.  I have been trimming and pruning trees, hedges, shrubs at my house for over forty-four years with no issues until this last year. I am a at that age where it is only wise to hire this work out. I hired an approved arborist to do the annual pruning, he would not do the work without the City Hall Approval process. My objection to this process, as a Tax Payer why should I be paying a field bureaucrat to come to my house to inspect and take pictures of my trees and then assign trimming instructions for a very experienced arborist (very likely a lot more field experience than the field bureaucrat), and return trip, all in a City vehicle, an additional expense to the Tax Payer. Again an example of VERY POOR management at City Hall.  Driving around the City and looking at our once beautiful, wonderful farm land (240th St. as only one example) torn apart by development is heart breaking, row housing, future slums, developers making Huge dollars on our once wonderful committee. I would ask the question, where is City Hall's Planning Department, where is the ALC, I guess "money talks". On the Tree subject, my point being, developers to have that "Magic Wand" at City Hall for tree removal?.\$?  I understand that my approach to this "Tree Bylaw" is of a very negative view, but City Hall must understand and respect the Tax Payers of this Committee and get the management of this ever growing bureaucracy under control, creating this additional "Layer" makes NO sense.	-3
Resident;	Non Development Tree Permit Application;	Agree	I have trees - Cedar variety 50% are dead 50%. The Bylaw should allow cutting down of these trees without having to hire an arborist. I have tried to save then & have topped 2X. I have lived with these trees 43 years but climate change - a drop in the water table, and drought are killing them. Anyone can tell they are dying.	-4
Resident;	Non Development Tree Permit Application;	Strongly Agree	I appreciated that they give me an extension of time to plant replacement trees since the local nurseries were low on choices of trees in early spring. I think a 30' high tree should qualify for 1 tree instead of 1/2 tree on a city residential lot. Trees are very important for our health & beauty & /environment. Thank you for letting me take the tree down when the roots grew to our perimeter drain of house.	-5
Resident;		Agree	I found the process I needed to navigate through worked better than I thought. We sought advice and assistance from tree professionals which helped out enormously.	-6
Resident;	needed a sick and rotten tree removed;	Agree	For my case a bit of a waste of time. this involved a small tree and the feller insisted I get a permit to cut it down. Later, the city arborist came to check the size, and city refunded my \$50.00	Note: The size of the tree can not always be determined by looking on the aerial photographs at City Hall (7)

Resident;	Non Development Tree Permit Application;	Strongly Disagree	The tree bylaw is too restrictive. People love trees, I love trees but we/I do not want them too close to the house or too much work or potential hazard. If I don't want too many trees in my yard the should not be a restriction. Thank you. The "replacement" rule of 10 trees to replace ONE is ridiculous.	-8
Resident;	Non Development Tree Permit Application;	Nuetral	Tree-man applied on my behalf - I knew there was a bylaw but knew none of the rules.	-9
Resident;	Non Development Tree Permit Application;	Nuetral	I feel that if you have a tree that is dangerous or unhealthy you should not have to pay a permit fee. You have no choice to take it down, for safety reasons.	-10
Strata;Resident;	Development Tree Permit Application;	Strongly Agree	In order to obtain a permit we had to hire an arborist to identify at risk trees. This was very expensive. One wonders why the City arborist could not have performed this function for our "at risk" trees.	-11
Resident;	problem trees;	Nuetral	I don't have enough experience in the process; not enough trees taken down.	-12
Resident;		Strongly Disagree	Had to buy a permit to take a tree down then pay hundreds \$\$ of dollars for replacement trees. Our neighbour has a tree dropping needles, pollen buds etc all over our driveway and cars but will not buy a permit to remove the tree!!	-13
Resident;	Non Development Tree Permit Application;	Agree	Not clear Exemptions - all trees require permit except where exemptions apply. Then last line = up to 10 permit trees/yr on rural lots if >.5 ha, trees... Why are they called 10 'permit' trees - does this mean one still needs permit? although it says they don't. Possibly define 'permit' trees for this statement also not clear - if land in ALR & to be used for farming purposes is the 30% canopy cover waived? I thin trees within 4 - 5 meters of structures should be waived. Possibly 70 cm tree size allowance is a bit generous.	Submitted by Lorne Smith, 26728 Ferguson ave, Maple Ridge (14)
Resident;	Non Development Tree Permit Application;	Disagree	On standard sized residential lots, it was ridiculous that we were required to get permission to remove a problem tree on our own land, in a well established area with plenty of existing trees around. Friends were here from Australia (homeowners) at the time and they were astounded that a \$50 permit was required and that we had to wait for an arborist's "permission". When the arborist did come to survey the tree she pulled up in her car and didn't get out. So she was just confirming we had the tree? After we planted a replacement tree and sent in photo to verify, we never received a response. So this is just a make-work project and waste of tax-payer dollars.	
Resident;	Non Development Tree Permit Application;	Nuetral	I see this process as an erosion of homeowners' property rights. If the "city" needs to increase the canopy start with their own properties and also work with new developments. I could see a use for this process if there was a way to ensure proper safety measures are being used to "fall" a substantial tree. In my experience the City of Maple Ridge has been more realistic in their expectations than another City I have worked with and Michelle was extremely good to work with and supported both the existing bylaw and the residents' needs/desires.	
Resident;	Non Development Tree Permit Application;	Strongly Disagree	The staff and the fees made the process very difficult	
Resident;	Non Development Tree Permit Application;	Strongly Disagree	It should respect private property rights as being the paramount criteria in decision making process.	Not applicable
Resident;	Non Development Tree Permit Application;	Strongly Disagree	The city should respect private property rights.	
Resident;	Non Development Tree Permit Application;	Nuetral	I had second growth hemlock 65'-85' high near my house showing signs of dying. They were dangerous in my view. I needed a permit to remove them because they were not completely dead. I live on acerage (3 acres) half of it treed. I don't think applying your existing policy is fair for someone in my circumstance.	-15
Resident;	Non Development Tree Permit Application;	Agree	I think it worked well for everyone involved but it was costly with an arborist. As a single lot holder I think going forward any single lot owner should be able to cut down any 1 tree on their lot each year with a permit as long as it is replaced. Any size tree.	-16
Resident;	Permit for Tree Removal (an old oak tree);	N/A	I paid \$50 for two very rude tree "experts" to tell me what I already knew. - that the problem oak tree on my property was considered too big to remove because of the bylaw. Their reason: the canopy was needed. But they couldn't tell me if the tree was sick or unsafe. I've been paying taxes in Maple Ridge for decades + my parents paid taxes here for decades before me. And yet, when I want a high nuisance tree removed, the TREE is more important than ME.	n/a (17)



## Tree Bylaw Survey for Permitting Process - Long Form Answer Matrix (Question 4)

#	4. Overall, what are your comments or suggestions on the Tree Bylaw permitting and appeal process?
1	I think the bylaw is very confusing for most people, and it too lenient in the rural area. The <70 cm DBH no permit clause makes no sense and is damn near impossible to enforce.
2	Stricter guidelines for when a tree can be removed. Zero tolerance for topping. Pruning guidelines in bylaw to allow for warnings and fines to be issued when there are pruning infractions. These fines and letters would hopefully go to the tree care professional not the homeowner. Mandatory that any tree care worker in Maple Ridge be ISA certified. This would eliminate a lot of topping and pruning that is happening around the city. Further incentive to retain trees and large areas of native soil on large lots that are being redeveloped.
3	I have concerns with properties in rural areas being allowed to clear 10 trees a year under 70 cm DBH, no questions asked. A developer would use this opportunity over several years to clear the property. Even homeowners will go through the process of clearing their land in anticipation that it will sell to a developer at higher value. These could be rare or high value trees that don't normally reach a DBH of 70 cm. Increasing the number of replacement trees with tree DBH and the consideration for pre-existing canopy in tree replacement count is good. Consider replacement tree numbers per lot size similar to city of Vancouver as opposed to a percentage per hectare. Smaller lots will have more difficulty with replacements whereas larger lots have more room for replacements. This appears to be a Tree Removal Bylaw and not a Tree Protection Bylaw. Maybe I glazed over it. But where does it state the criteria that must be met for a tree removal to be granted. Most municipalities state that the tree must meet certain criteria to be granted a removal permit. Ex. conflicts with utilities, hazardous, deadstanding, etc. You will want to consider placing more that \$600 in securities on retained trees as that will not have much impact with a developer. Have a mechanism in place for if the removal of a tree is declined and they want to appeal.
4	The process was very straightforward. I have no complaints. I went to the Municipal offices and filled out a hard copy form. Staff was very helpful in filling out the form. I was notified by email that my permit was ready for pick up and I picked it up at the municipal offices and had the tree professional remove the tree. I advised the arborist when the tree was removed and the process was complete.
5	"Neutral" is the proper spelling. You could make the process free, if the arborist agrees with the resident that the tree in question is dead, or dangerous.
6	Eliminate the permit fee for private residences when less than 3 trees are involved. Have a process that allows municipal staff to take action on weekends when "illegal" tree removal is reported to the municipality. Set up a reporting hot line, that is manned 7 days a week. When possible encourage or stipulate the planting of new trees ( 2 for 1) when a tree is removed.
7	I dont know enough to comment on the overall program however all residents should be held accountable to follow the rules. My two neighbours have removed trees without permits, one because she didn't like to clean up leaves and wanted to increase her driveway. The other recently hacked up her tree and it's on her curb for free pickup on the city's program. I don't feel this is fair.
8	I think it's ridiculous. As a private property owner, it should be within my own right to remove a tree that is both impacting public property and private property and utilities lines. I am all for keeping trees and maintaining our cities green space. But as a homeowner that owns my property I should have the right to remove a tree from my own yard. The city is doing a very poor job of managing it's green spaces, if the city wants additional trees then they can plant more in public green spaces and stop forcing owners to abide by rules that can be downright absurd, especially with regards to a property that is less than a half acre. Smarten up Maple Ridge and get with it.
9	Many people are not aware of the bylaw and figure that it does not apply to them. More education for resident and tree professionals that Maple Ridge has a tree bylaw. Came across professionals that would cut the trees and if someone complains, then deal with the rules. This does not give me confidence in the professionals, when they do not follow the guidelines.
10	The tree I removed was leaning significantly as it grew, to the point it was in danger of toppling in strong winds. It is a money grab to charge a fee to residents for being proactive to reduce risks of damage or injury. It is no wonder residents shy away from being safety conscious and just leave things until injuries or damage occurs, and just let insurance deal with the aftermath. I can see if more than one tree was being removed....
11	I like that Cottonwood and Alders are exempt from being considered a protected species, but I'd like to see Hemlock included on that list. As we know they are the most prone to complete tree failure and also one of the pioneer species.
12	In 2019 we applied for a permit to remove 7 trees from our yard. As part of our application we advised that a certified arborist (the same one the City uses) had advised that 3 of the trees are a hazard. The City decided to grant the permit for all the trees except those 3. We will continue to apply for a permit for these 3 trees as they are a hazard to both our house and our neighbor's house.
13	quick and clear process

14	No comment as I only applied once. I have no background against which to place any opinion
15	I was unaware of an appeal process. The permit process was ok. We would have liked to take down the more detrimental trees in our yard. I think home owners wanting to better the yard should be able to take more down.
16	I had no problems with the process. It was quick and efficient. I had two trees which had to be dealt with. One was an emergency removal due to winter storm damage. The other was also storm damaged but not an emergency. The city staff were quick to respond to my enquiries and extremely helpful in explaining the process. The web page made finding the additional info I needed simple. The current process worked for me without difficulty.  However, I do note the process for protection of established trees can potentially be subverted. One probable example is a property being redeveloped further up the street where I live. The large tree on the corner was marked and fenced off to be protected during the construction. However, the developer cut very deeply into the ground right at the tree fence line, even though the space was not needed on that side to lay the foundation. The deep cut was left for over a year. Without soil support the tree did not get enough moisture and died. The old tree has now been cut down. The new mega house has been built and still the tree has not been replaced. I'm not sure what can be done to prevent tree removal caused by abusing the tree so it dies, becomes a hazard and then has to be removed but would like to see something to prevent this type of abuse. I have seen other instances in Maple Ridge of abuse of a tree in order to facilitate removal where it would not normally occur.
17	Ability to apply or pay online.
18	It went smoothly for me. I've seen many trees cut down in my neighbourhood and have wondered if the bylaw is really helping save trees. Seems like every new building takes down all the trees on the lot, or ends up doing that.
19	the process for removing one very mature cedar tree from my property was fair and straight forward. I'm not overly familiar with the process related to development applications, however, observing what has occurred with small developments in our neighbourhood and with larger developments generally, I'm concerned that restrictions appear to be insufficient and more monitoring/inspections are required.
20	had to wait 3 months for dangerous dead tree removal permit.and was told there were no other dangerous later 5 trees fell on roof still dealing with roof
21	very efficient process
22	Overall it was easy process to get permit. The replacement rules are a problem to replace huge trees on a 40 ft. Lot. I'm concerned about roots in my and my neighbors service lines, there is not a lot of room for growth.
23	N/A
24	It worked ok.
25	For damaged or high risk trees the turn around time for the permit approval needs to be deemed a higher priority then others.
26	The permit was granted based on the tree removal companies assessment. I feel this is appropriate. Especially if the employee issuing the permit is not an arborist. The bylaw officer did not visit the property.
27	Process was easy to follow and I received desired results based on the information that I provided.
28	Trees should be looked at through safety first and aesthetics last. Owners should be allowed to maintain the minimum set trees per lot size and ALSO have a choice to take one down that is becoming too large for the lot and replace with a new tree to maintain the greenery in the neighbourhood. There are millions of trees in Maple Ridge and to have these large and potentially hazardous is silly. Why do you need to control our choice for safety, more light on our property, less cleanup/ maintenance of property, storm sewer problems (leaves and needles in lines into municipal storm). This is our City and our choice. Let us decide about our property, not someone who is paid by us to listen but makes their own decision. This should be a helpful situation and make a plan to satisfy everyone, not just say no.



29	<p>City staff are excellent.</p> <p>The Tree Protection Bylaw is not environmentally efficient. For example, the tree protection fencing standard calls for a plastic mesh attached to 2x4's to surround all SPEA or tree protection zones. If you consider the lifespan of plastic fencing, 99% of which ends up in the landfill after several months of use, the plastic remains on earth for hundreds of thousands of years. If we choose not to use this fencing, the risk for damaging trees would increase, however with proper instruction from crew managers, the trees may not necessarily be cut down. If a few trees were accidentally cut down, they could be replanted and regrow 1000 times over before the protection fencing would BEGIN to break down in the landfill.</p> <p>When considering inefficiencies, the whole picture should be reflected on. If we are trying to save trees, why are we forced to use 2x4's made of wood to protect trees? If we are trying to retain trees and reduce the City's carbon footprint, then why are we forced to use petroleum based fencing?</p> <p>Perhaps the tree protection fencing specifications should be changed to reflect more eco-friendly methods, for example: instead of plastic and wood protection fencing, use reusable rented metal fencing, or rebar and flagging tape, or traffic cones, or burlap fencing?</p>
30	N/A
31	More clarity on slope areas, non by law trees.
32	I was never informed of any "appeal process" regarding what was required and charged for to obtain and carry out tree removal on my property. Also I don't need an arborist to tell me what is a cottonwood or alder. I would suggest a copy of the tree bylaw be issued at the time a building permit is issued.
33	This is just a money grab by the city to soak residents of yet another tax.
34	seemed to work well and care seemed to be taken that tree removal was cautiously looked at.
35	<p>The tree bylaw stipulates that if a tree is removed that it must be replaced with a local species. In my case, I had a tree removed which posed a potential hazard to my home. We have a number of very tall firs and cedars on and adjacent to our property, so I am not sure why this was deemed necessary. It was almost impossible to find a native species tree in any of the local nurseries. They just don't sell them. And a tree of the specified size would be expensive and extremely difficult to plant in our yard as 50% of the yard is on a 30 to 45 degree slope, and getting machinery to the site would be impossible.</p> <p>The loss of the tree, and another one that came down in a wind storm a few years back, has benefited the vegetation on the slope, all sorts of things are able to grow there now that some light has been let in. Before nothing would grow, and the surface would just get muddy in the rain. Allowing vegetation to grow will help stabilize the slope and prevent erosion. Sometimes removing a tree can be beneficial to the environment.</p> <p>I am just saying that more consideration needs to be given to the nature of the site before stipulating that even more trees need to be planted on that site if one is removed.</p> <p>There should also be some protection for homeowners if a neighbor does not take responsibility for the health of their own trees or the damage his/her trees may do to adjacent properties. I believe that, as it stands now, if my neighbors tree falls on my house I have no legal recourse to ask for damages. Tall trees and homes are not necessarily always a good mix.</p>
36	<p>The Tree Bylaw is inefficient especially on smaller projects. As a developer we are required to obtain an Arborist and get them to draft a report as to which trees should be retained and which should go. The City Tree Staff will then respond with their own opinion on the reports and give direction as to how they want the reports altered to meet their agenda (we've built projects around ornamental hedges which were forced to be retained and covenanted; this compromises the integrity and purpose of the whole process). Thus, there seems to be no point in hiring a Tree professional, as the City essentially takes on the liability by suggesting revisions and protect trees not worth keeping. This makes for a very in-efficient process because of the back and fourth between the City and Tree Professionals. The City should trust and rely on the tree professionals or fully take on the job themselves. In addition, the City should allow for trees to be taken down which interfere with infill development. The purpose of the re-planting measures within the by-law are to re-plant trees that are removed. Overall, I would like to see more reliance on the Tree professional's reports and a softer stance on tree removal if the trees are dangerous, diseased or are affecting the ability to develop an infill piece of property.</p>
37	<p>We had to complete this process just for topping a couple of dangerous trees and of course did the necessary paperwork and steps, however wish to comment on the bylaw itself. It is quite noticeable the significant amount of tree removal that is taking place in MR's new "development" goals. It appears fairly easy for developers to completely clear trees just to do close quarter (ie. townhouse) developments. As a resident trying to maintain personal property it seems unfair to have to go through the hoops just to care for existing trees when developers can do the process and completely wipe out a grove of trees.</p>
38	<p>I have two huge tree in between on middle of two house please if I need to trim down half because I feeling is not safey please let me know what happened one day will fall down thanks</p>

39	<p>I think the trees on your own property you have the right to do with it what you want. I don't believe you need a tree permit You did not need a permit when you came and trim some of our trees down.</p> <p>I myself this the tree bylaw is way to much.</p>
40	Try to protect the trees and the natural environment, and improve the efficiency of permitting to cut the dangerous trees.
41	
42	My only connection was to get permission to cut down a large alder tree that was dying & replace it with another tree. I have no complaints about the process.
43	Worked well for me. Very reasonable City Environment Manager.
44	<p>I had a limited experience, but it was a very good one. In Mar 2017, involving a pair of trees for an initial demolition on the Burnett development site. I worked with Scott Salsbury (sewers) &amp; Gail Szostek, both of whom were helpful. For a sewer disconnect, because of the 8ft depth of dig, and its close proximity to drip lines, we were required to remove a pair of tall Sitka spruce, for safety purposes. Because those trees are near street, they would be eventually be removed as they sit on land to be dedicated for public road &amp; sidewalk.</p> <p>Despite the small permit, there were a few discretionary items, and fortunately, staff had enough flexibility within the bylaw to be reasonable &amp; cooperative. Firstly, there was some internal departmental confusion on ~when~ the trees should be felled, and it was resolved that it be done after disconnect, and immediately after demolition.</p> <p>Secondly, two other trees, distant from the dig, but near the demolition were also identified for eventual removal for new housing, and staff were cooperative enough to consider waiving the requirement for temporary tree protection fencing, although out of good faith we erected the fencing.</p> <p>Year &amp; half later, in that big windstorm In Dec 2018, a tall, 2ft diam Doug Fir toppled. It was adjacent to the 2 spruces, who's stumps were left and surrounding ground undisturbed. Fortunately, it fell northward, onto the now-vacant 11633 Burnett, where the demo'd cottage was sited. It took down our development sign and the protective fencing, which required replacement &amp; repair. Had it fallen towards the adjacent dwelling, where children sleep in upper storey bedrooms, it could easily have been fatal. Large native conifers - which have shallow roots and lack deep taps - belong in contiguous forests, not isolated in urban areas. That is particularly hazardous in compacted &amp; clay-based soils of Maple Ridge. The solution is replanting with 2-3 storey trees such as cherry, dogwood, magnolia, mimosas, lilacs, Jap maples, etc.</p>
45	<p>Just another layer of unnecessary City Hall bureaucracy, that pus a further burden on the Tax Payer of this City. If the existing Planning And Building Departments where doing the job that they are "Tasked" with, this is a totally unnecessary layer, poor management at the "Top End" of the chain of authority.</p> <p>I have been trimming and pruning trees, hedges, shrubs at my house for over forty-four years with no issues until this last year. I am a at that age where it is only wise to hire this work out. I hired an approved arborist to do the annual pruning, he would not do the work without the City Hall Approval process. My objection to this process, as a Tax Payer why should I be paying a field bureaucrat to come to my house to inspect and take pictures of my trees and then assign trimming instructions for a very experienced arborist (very likely a lot more field experience than the field bureaucrat), and return trip, all in a City vehicle, an additional expense to the Tax Payer. Again an example of VERY POOR management at City Hall.</p> <p>Driving around the City and looking at our once beautiful, wonderful farm land (240th St. as only one example) torn apart by development is heart breaking, row housing, future slums, developers making Huge dollars on our once wonderful committee. I would ask the question, where is City Hall's Planning Department, where is the ALC, I guess "money talks". On the Tree subject, my point being, developers to have that "Magic Wand" at City Hall for tree removal?\$\$</p> <p>I understand that my approach to this "Tree Bylaw" is of a very negative view, but City Hall must understand and respect the Tax Payers of this Committee and get the management of this ever growing bureaucracy under control, creating this additional "Layer" makes NO sense.</p>
46	<p>I have trees - Cedar variety 50% are dead 50%. The Bylaw should allow cutting down of these trees without having to hire an arborist. I have tried to save then &amp; have topped 2X. I have lived with these trees 43 years but climate change - a drop in the water table, and drought are killing them. Anyone can tell they are dying.</p>



47	I appreciated that they give me an extension of time to plant replacement trees since the local nurseries were low on choices of trees in early spring. I think a 30' high tree should qualify for 1 tree instead of 1/2 tree on a city residential lot. Trees are very important for our health & beauty & /environment. Thank you for letting me take the tree down when the roots grew to our perimeter drain of house.
48	I found the process I needed to navigate through worked better than I thought. We sought advice and assistance from tree professionals which helped out enormously.
49	For my case a bit of a waste of time. this involved a small tree and the feller insisted I get a permit to cut it down. Later, the city arborist came to check the size, and city refunded my \$50.00
50	The tree bylaw is too restrictive. People love trees, I love trees but we/I do not want them too close to the house or too much work or potential hazard. If I don't want too many trees in my yard the should not be a restriction. Thank you. The "replacement" rule of 10 trees to replace ONE is ridiculous.
51	Tree-man applied on my behalf - I knew there was a bylaw but knew none of the rules.
52	I feel that if you have a tree that is dangerous or unhealthy you should not have to pay a permit fee. You have no choice to take it down, for safety reasons.
53	In order to obtain a permit we had to hire an arborist to identify at risk trees. This was very expensive. One wonders why the City arborist could not have performed this function for our "at risk" trees.
54	I don't have enough experience in the process; not enough trees taken down.
55	Had to buy a permit to take a tree down then pay hundreds \$\$ of dollars for replacement trees. Our neighbour has a tree dropping needles, pollen buds etc all over our driveway and cars but will not buy a permit to remove the tree!!
56	Not clear Exemptions - all trees require permit except where exemptions apply. Then last line = up to 10 permit trees/yr on rural lots if >.5 ha, trees... Why are they called 10 'permit' trees - does this mean one still needs permit? although it says they don't. Possibly define 'permit' trees for this statement also not clear - if land in ALR & to be used for farming purposes is the 30% canopy cover waived? I thin trees within 4 - 5 meters of structures should be waived. Possibly 70 cm tree size allowance is a bit generous.
57	On standard sized residential lots, it was ridiculous that we were required to get permission to remove a problem tree on our own land, in a well established area with plenty of existing trees around. Friends were here from Australia (homeowners) at the time and they were astounded that a \$50 permit was required and that we had to wait for an arborists's "permission". When the arborist did come to survey the tree she pulled up in her car and didn't get out. So she was just confirming we had the tree? After we planted a replacement tree and sent in photo to verify, we never received a response. So this is just a make-work project and waste of tax-payer dollars.
58	I see this process as an erosion of homeowners' property rights. If the "city" needs to increase the canopy start with their own properties and also work with new developments. I could see a use for this process if there was a way to ensure proper safety measures are being used to "fall" a substantial tree. In my experience the City of Maple Ridge has been more realistic in their expectations than another City I have worked with and Michelle was extremely good to work with and supported both the existing bylaw and the residents' needs/desires.
59	The fees are too high for permits Replanting is a good idea The weed trees like poplar, alder and others should have no regulation Also the rule area should allow 3 trees per acre per year without a permit
60	The staff and the fees made the process very difficult
61	It should respect private property rights as being the paramount criteria in decision making process.
62	The city should respect private property rights.
63	
64	The main concern would be making the process too onerous and punitive for future development which only adds to the end user costs. The city must maintain a practical approach to achieve a reasonable balance.
65	I had second growth hemlock 65'-85' high near my house showing signs of dying. They were dangerous in my view. I needed a permit to remove them because they were not completely dead. I live on acerage (3 acres) half of it treed. I don't think applying your existing policy is fair for someone in my circumstance.
66	I think it worked well for everyone involved but it was costly with an arborist. As a single lot holder I think going forward any single lot owner should be able to cut down any 1 tree on their lot each year with a permit as long as it is replaced. Any size tree.
67	I paid \$50 for two very rude tree "experts" to tell me what I already knew. - that the problem oak tree on my property was considered too big to remove because of the bylaw. Their reason: the canopy was needed. But they couldn't tell me if the tree was sick or unsafe. I've been paying taxes in Maple Ridge for decades + my parents paid taxes here for decades before me. And yet, when I want a high nuisance tree removed, the TREE is more important than ME.

**TO:** His Worship Mayor Michael Morden  
and Members of Council  
**MEETING DATE:** March 31, 2020  
**FILE NO:** 2016-195-CP  
**FROM:** Chief Administrative Officer  
**MEETING:** Workshop  
**SUBJECT:** Employment Lands: Update on Yennadon Lands process

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**EXECUTIVE SUMMARY:**

On June 18, 2019, staff provided a verbal update to Council on the outcomes of the June 6, 2019 Workshop with Yennadon Landowners, namely that there were strong levels of support for an employment future – although some expressed interest only in the OCP amendment and not in redeveloping their properties in the short term.

At the June 18, 2019 Council meeting, Council directed staff to undertake an employment land use redesignation process and consultation strategy for the Yennadon Lands. As of the June 18, 2019 Council meeting, Council directed that any new applications, or those already in-stream that have not reached third reading, be deferred until any potential OCP amendments are presented at Public Hearing and given third reading, with the exception of applications that propose future employment land uses.

This report provides an update on the Yennadon Lands Redesignation process including the proposed community engagement process and next steps.

**RECOMMENDATION:**

**For information only.**

**1.0 CONTEXT:**

**1.1 Background**

At the May 10, 2016 Council meeting, staff were directed to initiate a process to redesignate 13 subject properties generally located at 128th Avenue and 232nd Street (hereafter referred to as the Yennadon Lands – See area map in Appendix A) towards an employment land use designation. The direction was in keeping with the City's Commercial & Industrial Strategy: 2012-2042, which could facilitate the creation of a unique opportunity for a campus-style business park in the future.

On April 16, 2019 staff provided Council with a general update on an Employment Lands Process underway in the City of Maple Ridge, which included a focus on the suitability of the Yennadon Lands for future employment purposes. At that meeting, the Yennadon Lands were referred back to staff to meet with the landowners to assess their interest for the lands.

A Landowners Workshop was held at Yennadon Elementary on June 6, 2019 from 6 – 8pm. Twelve letters were sent out to the landowners, representing all 13 properties, inviting them to attend. At the Workshop, 18 people attended representing 11 of the properties.

On June 18, 2019, staff provided a verbal update to Council on the outcomes of the June 6, 2019 Workshop with Yennadon Landowners, namely that there were strong levels of support for an



employment future – although some expressed interest only in the OCP amendment and not in redeveloping their properties in the short term.

Key questions from the property owners were related to:

- The timing of the redesignation process going forward;
- Clarity on the steps in an employment land use redesignation process;
- The criteria which will be used as the basis for making future land use decisions and evaluating each property; and
- Information on the difference between an employment land use process and individual OCP / Rezoning applications, as some interest was expressed in pursuing a shared OCP/Rezoning application should the employment land use process not proceed.

At the June 18, 2019 Council meeting, Council directed staff to undertake an employment land use redesignation process and consultation strategy for the Yennadon Lands (See Appendix B for a copy of Council Workshop Resolution). As of the June 18, 2019 Council meeting, Council directed that any new applications, or those already in-stream that have not reached third reading, be deferred until any potential OCP amendments are presented at Public Hearing and given third reading, with the exception of applications that propose future employment land uses.

## 1.2 Site Description

The Yennadon Lands are comprised of 13 properties. They range in size from 0.5 ha (1.5 acres) to 4 ha (10 acres). The total land area is 25.4 hectares (63 acres). The subject properties are located outside of and adjacent to the City's Urban Area Boundary, but are largely within the Region's Urban Containment Boundary (see Section 5.1 for additional details).

The existing uses on the lands range from single family use to vacant underutilized lands, according to BC Assessment data. The properties abut urban single family development on the west and south boundaries; Agricultural Land Reserve to the east and north, and suburban single family lots on the north side of 128 Avenue. A historic commercial node as well as Yennadon Elementary School are located within 200-400 m of the subject properties.

Currently, the subject properties are designated Agricultural in the OCP and are zoned RS-3 (One Family Rural Residential) and RS-2 (One Family Suburban Residential). All of the properties, except one property located near the northeast corner of the area, are located outside the Agricultural Land Reserve (see Section 5.2 for additional details).

## 2.0 DISCUSSION

### 2.1 Proposed Employment Land Redesignation Process

As discussed on June 18, 2019 the general steps of the Yennadon Lands Redesignation process would be to:

1. Review suitable and sensitive employment land uses.
2. Discuss possible employment visions with the community.
3. Outline potential land use policy and regulatory amendments



## **2.2 Work-to-Date**

With increasing interest in the Yennadon Lands Redesignation process, staff have been fielding questions from interested community members, relevant professionals and landowners since fall 2019. An e-mail distribution list is established for interested community members to register, who will receive regular updates throughout the process.

It should be noted that Council Policy 6.30, which outlines the decision-making framework for undertaking an area planning process, sets a limit of only undertaking one area planning process at a time. However, in 2019 the Planning Department was able to accommodate two area planning processes concurrently by using consulting firms. The North East Albion Area Planning process and the Loughheed Transit Corridor Study. Work on both of these area planning processes continued into the late fall of 2019. While the North East Albion Concept Plan was endorsed by Council on October 1, 2019, the Loughheed Transit Corridor Concept Plan is still in draft form with an update to Council scheduled for May 12, 2020. With much of the work being completed on the North East Albion and Loughheed Corridor concept plans, Planning staff turned their attention to the Yennadon Lands process in early 2020.

Throughout early 2020, staff have been reviewing background information relevant to the Yennadon Lands Redesignation process. MVH Urban Planning & Design Inc. has been engaged to assist with the community engagement process, which will consist of two workshops, a charette, and a public open house with complementary community questionnaire. Staff have set up an Interdepartmental Working Group to inform this planning process and to assist the consultant with the community engagement activities.

As of the completion date for this report, a workshop for the Interdepartmental Working Group, scheduled for March 25<sup>th</sup>, was intended to proceed with social distancing measures put into place for the consultant and staff. The intent of this workshop is to discuss an initial site assessment and construct a framework that will form the preliminary concepts and background material for the proposed community engagement events. The outcomes of the Interdepartmental Working Group will be reported to Council at the March 31, 2020 Council Workshop.

## **2.3 Proposed Community Engagement Process**

Following the Interdepartmental Working Group's meeting with the consultant, the following community engagement activities are anticipated to take place over an approximate two to three month period:

- Workshop with Landowners
  - Will further determine support for the employment lands redesignation process as well as examine ideas, opportunities and challenges associated with the Yennadon Lands.
  - Landowners will be invited by email and/or through the post.
- Workshop with Community Members
  - Will discuss possible concerns, ideas and buffer considerations for the Yennadon Lands. Key participants will include the members from the development and real estate industries, local business community, adjacent landowners, as well as local area residents and community members at large.
  - Participants will be invited via regular City of Maple Ridge communication channels, including posting material in the local newspaper, providing social media and online announcements, as well as sending invites to Stakeholder groups, including those on the e-mail distribution list.



- Open House to review Concepts
  - Following the two workshops, the consultant team will develop concept drawings and supporting information necessary for a Public Open House. The intent of the Open House will be to ensure a broad outreach and feedback loop from the various stakeholders from their review of the Concepts.
  - Community invitation will involve regular City of Maple Ridge communication channels, including posting material in the local newspaper, providing social media and online announcements, as well as sending invites and updates to those on the e-mail distribution list.

Results of the Open House will be folded into a Summary Report and presented to Council.

## **2.4 Next Steps**

Next steps in the proposed engagement process will be to announce the two Workshop Dates and open the registration process. Public notification will involve regular City of Maple Ridge communication channels, including posting material in the local newspaper, providing social media and online announcements, as well as sending invites and updates to those on the e-mail distribution list. The City's Employment-related webpages will also be kept up-to-date to keep the community informed of the process.

This public process will commence once public gatherings are permitted. In the interim, background work is being done to advance a plan for this area.

## **3.0 STRATEGIC ALIGNMENT**

Implementing strategic plans related to local infrastructure and the economy, including the City's commercial and industrial land base, is a Council priority as established under its Growth pillar of the 2019-2022 City of Maple Ridge Strategic Plan.

## **4.0 POLICY IMPLICATIONS**

The Yennadon Lands are located outside of, and adjacent to, the City's Urban Area Boundary (UAB). The adjacency of the properties to the existing UAB lends itself to the possible expansion of the Boundary at this location.

The proposed OCP land use redesignation of the Yennadon Lands to an employment future is supported through the recommendations of the Commercial & Industrial Strategy and the existing industrial policies in the OCP. OCP policies 6-41 and 6-42 speak to identifying additional employment lands within the City, and sets out compatibility criteria used to determine feasibility of new employment land. Specifically, the subject properties align with the intent of the current OCP policies for inclusion as employment lands, as the lands are generally flat, have access to an arterial and collector roadways, and servicing runs adjacent to the properties.

While new applications are deferred pending the area planning process, applications proposing employment uses will be brought to Council for consideration. Application 2019-119-RZ (12791 232 Street) received first reading on July 9, 2019 for the development of a two storey commercial building at the corner of 128<sup>th</sup> / 232<sup>nd</sup> Street. This application will be able to come before Council for consideration of second reading, irrespective of the timeline for Yennadon Lands public consultation process.

Application 2019-119-RZ, as well as any future employment development applications in this area, are required to undergo a municipal rezoning process, at which time the applicant would need to undertake more detailed studies of the area. Such studies may include, but not be limited to,

geotechnical assessments, servicing and infrastructure studies, agricultural impact assessments, significant tree and habitat assessments, etc.; all to ensure that any future proposed land uses do not negatively impact existing soils, groundwater, and habitats. As well, future applicants may also be required to obtain a development permit to regulate the form and character of new buildings.

## **5.0 INTERGOVERNMENTAL IMPLICATIONS**

### **5.1 Metro Vancouver**

The Regional Growth Strategy (RGS), titled “Metro Vancouver 2040: Shaping Our Future”, manages growth by establishing growth boundaries throughout the region.

The Yennadon Lands are largely located within the Region’s Urban Containment Boundary, but are located outside of the Region’s Fraser Sewerage Area, which delineates properties that are able to connect to the regional sanitary system (see Appendix C for the Region’s Urban Containment Boundary). An application by the City, to the Greater Vancouver Sewerage & Drainage District Board, is required to achieve regional approval to include the Yennadon Lands within the Fraser Sewerage Area for more intensive employment activities to take place at this site. This would occur as part of the bylaw amendment process following the community consultation process.

Two properties in the northeast corner of the Yennadon Lands are currently outside of the Region’s Urban Containment Boundary. These properties will require a land use designation change at the Metro Vancouver level as well as an adjustment to the Urban Containment Boundary to permit employment uses.

In the fall of 2019, the City submitted formal requests to Metro Vancouver for permission for both properties to connect to the sanitary sewer system. One is in the preliminary stage of a rezoning application and the other is an active farm wishing to connect to the existing sewer fronting their property on 128 Ave due to the age and condition of their 50 year old onsite septic system

### **5.2 Agricultural Land Commission**

In 2004, the Agricultural Land Commission permitted 12 of the 13 Yennadon Land properties to be removed from the Agriculture Land Reserve. This was a voluntary process, so only those property owners that chose to participate went through the exclusion process. As such, one property in the northeast corner of the Yennadon Lands will need to go through the ALC exclusion process to permit employment uses on that site.

## **6.0 INTERDEPARTMENTAL IMPLICATIONS**

Community Planning staff have been working collaboratively with our Development & Environment colleagues as well as with Engineering, Parks, Recreation & Culture, Building and Economic Development staff, on the pursuit of employment opportunities at the Yennadon Lands. It is anticipated that these departments will continue to be involved throughout the Yennadon Lands Redesignation process. Additionally, staff from the Communications Department will continue to provide support with community outreach and communication initiatives.

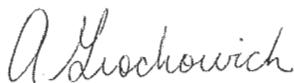


## 7.0 FINANCIAL IMPLICATIONS

The ongoing pursuit of employment lands, specifically with the Yennadon Lands, is included in the Planning Department 2020 Work Program. While it is expected that much of the planning work will be completed in-house, outside consultant resources will be required to assist with the engagement efforts and the creation of the land use concepts. Such consultant work will be accommodated through existing internal budgets.

### CONCLUSION:

On June 18, 2019, staff provided a verbal update to Council on the outcomes of the June 6, 2019 Workshop with Yennadon Landowners. Council then directed staff to undertake an employment land use redesignation process and consultation strategy for the Yennadon Lands. This report provides an update on the Yennadon Lands Redesignation process, including the community engagement activities anticipated to take place over an approximate two to three month period (i.e. Workshop with Landowners; Workshop with Community Members; and Open House to review Concepts).



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Prepared by: **Amanda Grochowich, MCIP, RPP**  
**Planner 2**



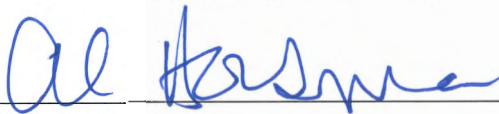
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Reviewed by: **Charles R. Goddard, BA, MA**  
**Director of Planning**



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Approved by: **Christine Carter, M.PL, MCIP, RPP**  
**GM, Planning & Development Services**



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Concurrence: **Al Horsman**  
**Chief Administrative Officer**

Appendix A: Map: Yennadon Lands  
Appendix B: Council Workshop Resolution: June 18, 2019 (Item 4.1)  
Appendix C: Map: Regional Urban Containment Boundary for Yennadon Lands

# APPENDIX A



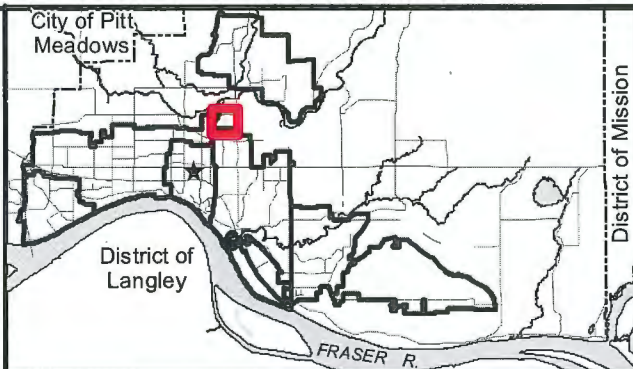
## Legend

- Agricultural Designation OCP
- ALR

The City of Maple Ridge makes no guarantee regarding the accuracy or present status of the information shown on this map.



Scale: 1:4,000



## Land Use

PLANNING DEPARTMENT



MAPLE RIDGE

British Columbia

[mapleridge.ca](http://mapleridge.ca)

FILE: YennadonLands.mxd

DATE: Mar 19, 2020

BY: DT



### Appendix B

City of Maple Ridge

Council Workshop Resolution – Item 4.1 – June 18, 2019

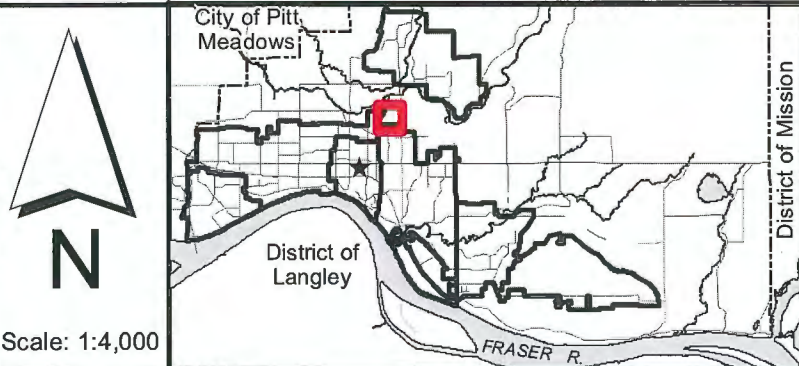
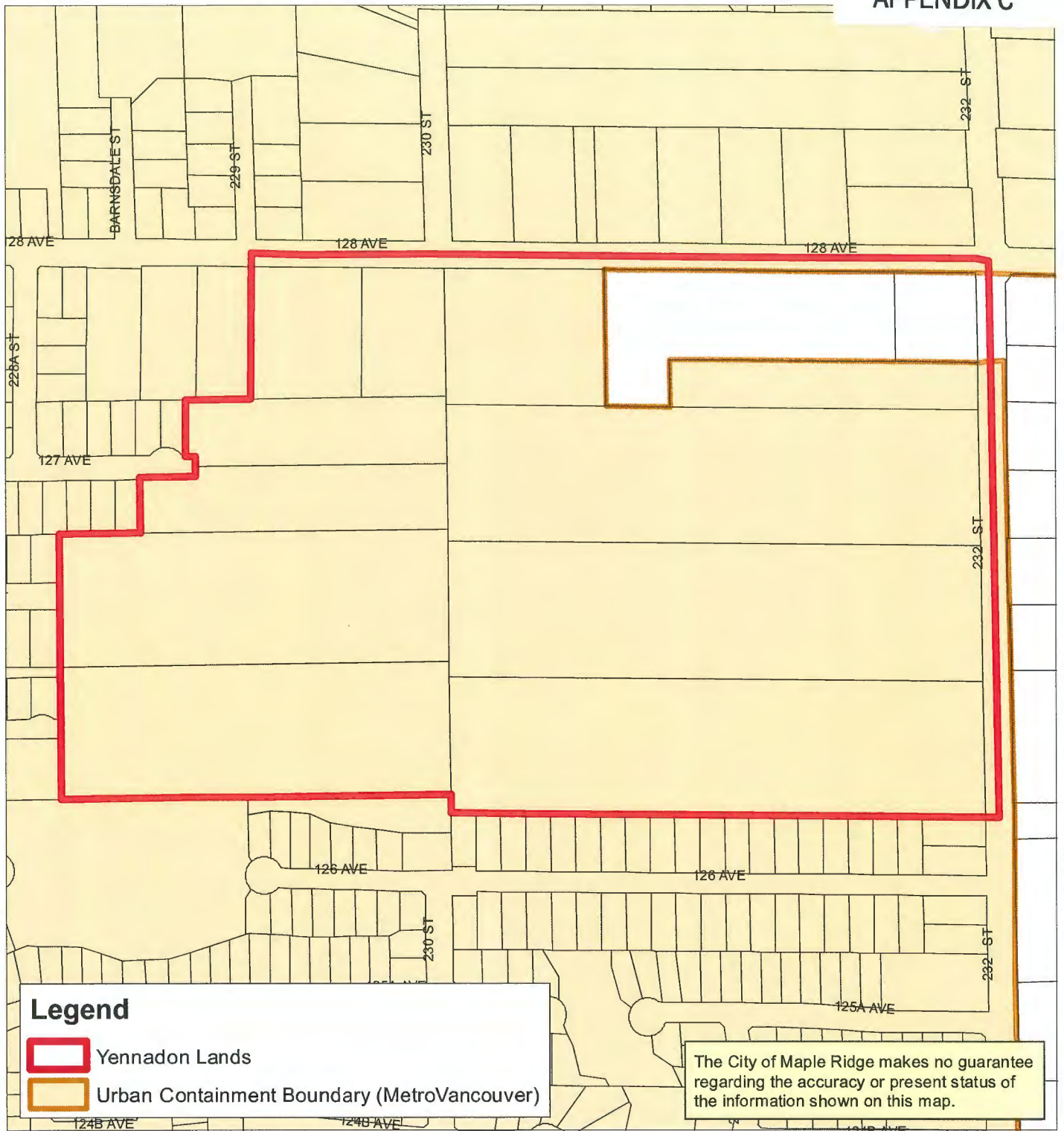
That staff be directed to undertake an employment land use redesignation process and consultation strategy for the Yennadon Lands, located generally at 128th Avenue and 232nd Street;

That new applications, or those already in-stream (unless reached third reading), be deferred until any potential OCP amendments are presented at Public Hearing and given third reading, with the exception of applications that propose future employment land uses; and

That, in respect of Section 475 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. Boards of Education, Greater Boards and Improvements District Boards; and
- vi. The Provincial and Federal Governments and their agencies.

and in that regard it is recommended that the only additional consultation to be required in respect of this matter beyond the early posting of the proposed Official Community Plan amendments on the City's website, together with an invitation to the public to comment, is the undertaking of a public consultation process in support of an "Employment Land Use Redesignation Process: Yennadon Lands".



Urban Containment Boundary (Metro Van)



FILE: YennadonLands.mxd  
DATE: Mar 19, 2020

BY: DT

N

Scale: 1:4,000

**TO:** His Worship Mayor Michael Morden  
and Members of Council  
**FROM:** Chief Administrative Officer  
**SUBJECT:** Interim Report - Purchasing Policy 5.45

**MEETING DATE:** March 31, 2020  
**FILE NO:** 01-0340-50  
**MEETING:** Council Workshop

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**EXECUTIVE SUMMARY:**

At the Council Workshop held on May 7, 2019, Council approved a recommendation **"That the Purchasing Policy 5.45 be revised as discussed in the staff report dated May 7, 2019 and brought back for Council consideration"**.

The purpose of this this interim report is two-fold:

1. As an interim measure, and to support business continuity in the near term, that Council adopt the recommended changes to the Acquisition Dollar Amount Approval Thresholds.
2. To provide Council with an overview of recommended changes to the Purchasing Policy specifically related to the threshold for publically advertised bids, the acquisition approval threshold, and to provide Council an opportunity for feedback prior to staff bringing an updated policy forward for adoption.

It recommended that thresholds for the acquisition approval amounts requiring Council authorization be increased from \$150,000 to \$2.5 Million, for those procurement contracts that are within established budgets. A quarterly procurement report will be provided to Council to ensure the process will continue to be transparent and Council fully informed. The threshold for the Chief Administrative Officer would be adjusted to less than \$2.5 million, General Managers to \$500,000 and Directors to \$75,000.

**RECOMMENDATION:**

**That Council adopt the recommended changes to the Acquisition Dollar Amount Approval Thresholds as an interim measure; and further**

**That the recommendations noted in the staff report dated March 31, 2020, titled "Interim Report – Purchasing Policy 5.45" be approved and that staff bring forward an updated Purchasing Policy for Council consideration.**

**a) Background and Discussion:**

At the Council Workshop held on May 7, 2019, Council approved the recommendation **"That the Purchasing Policy 5.45 be revised as discussed in the staff report dated May 7, 2019 and brought back for Council consideration"**.



As outlined in the May report, the process of updating the policy involved researching what other municipalities are doing, reviewing the work of the AGLG, and meeting with key departments to seek their input. We wanted to know what was currently working well, where the pressure points were and if there were other areas of concern. Those meetings have been completed and the following general themes emerged:

- An increase in acquisition approval thresholds is desired;
- The process to award contracts is exhaustive – requiring multiple approvals levels;
- The bidding process through to contracting is extremely lengthy, increasing costs and risk of delay in project delivery;
- The threshold for direct awarding of consulting services contracts is too low;
- Recognition of limited department resources in Purchasing;
- Additional efforts are necessary in streamlining the procurement process utilizing existing methods such as standing offers agreements, prequalified vendors, and term renewal options;
- Staff are appreciative of the support through the procurement process, and consistent feedback from the Purchasing staff.

As a result of the research it was evident that a more comprehensive, modernized Purchasing Policy would be required to achieve the desired efficiencies and alignment with best practices.

Of particular note are the recommended changes to the Purchasing Policy which are specifically related to the threshold for publically advertised bids and the acquisition approval thresholds. Due to the significant changes being recommended, the intent of this report is to provide Council with an update on the process, highlight the changes being recommended by staff, and to afford Council an opportunity for feedback prior to bringing an updated policy forward for adoption.

The following list provides a summary of the recommended changes to the Purchasing Policy related to:

#### 1) Thresholds for Publically Advertised Bids

The New West Partnership Trade Agreement (NWPTA), the Canadian Free Trade Agreement (CFTA) and the Comprehensive Economic and Trade Agreement (CETA) have had a direct impact on the City's procurement process. Our current policy requires that a public bid process be undertaken for all purchases over \$100,000, and it is recommended that this be revised to require a public process for purchases of goods & services of \$75,000 or more and for construction of \$200,000 or more. In addition, trade agreements assess the initial contract value and include optional renewal years to assess the bid advertising threshold, whereas current Policy considers the annual value of the contract. The policy threshold revisions for publically advertised bids will align with the established minimum limits prescribed by NWPTA to ensure compliance and to avoid confusion during the procurement process.

#### 2) Consulting Services and Professional Services Contracts

Consulting and professional services contracts will be awarded on the basis of demonstrated competence and qualifications for the type of services to be rendered. Staff are required to evaluate proposals by pre-established criteria with the recommendation of award to the firm that

presents the best value to the City. Under our current Policy staff are permitted, with their General Managers approval, to direct award consulting and professional services contracts valued less than \$20,000. Following discussions with departments and research of other like sized municipalities it is recommended that this be increased to \$50,000. This will permit staff to better meet operational needs, increase efficiencies and is consistent with other municipalities such as the City of Abbotsford, City of New West and the City of Victoria.

### 3) Schedule A – Acquisition Dollar Amount Approval Threshold

The acquisition thresholds set in our current Purchasing Policy refers to the approvals required for various dollar values of procurement. Other than in the case of emergencies, budget approval is required before procurement begins.

Following discussions with departments, the desire for increased efficiency, timeliness and reduction of risks within the procurement process was consistent feedback from key departments. Increasing these thresholds will be of significant added value for the efficient delivery of procurement projects and services.

Data compiled by the BC Municipal Purchasing Group indicates that 40% of local governments do not require Council approval of a contract for procurement of goods, services and construction, regardless of the value, providing that the project and contract value is within the approved financial plan. Those local governments are: City of Coquitlam, Township of Langley, City of New Westminster, City of North Vancouver, District of North Vancouver, City of Port Coquitlam, City of Port Moody, City of Victoria and District of West Vancouver. Staff view this as a best practice for like sized municipalities, however there is a recognition that adopting this approach would be a significant philosophical shift in practice for the City, consequently staff are not recommending we adopt this approach at this time.

At present, the Purchasing Policy requires Council approval for the award of a procurement contract valued at \$150,000 and over, and staff recommend adopting a more conservative approach and increase this to \$2.5 million, providing the related project is included in the approved financial plan. The approval threshold for the Chief Administrative Officer would be adjusted to less than \$2.5 million, General Managers to \$500,000 and Directors to \$75,000.

This closely aligns with Metro Vancouver and City of Vancouver which have set limits that range in excess of \$2 million. In order to ensure the continuation of openness and transparency, information regarding procurement contracts valued between \$150,000 and \$2.5 million would be provided to Council in a quarterly report and continue to be included in the existing Contract and Agreements Registry. In this way, the process will continue to be transparent and Council fully informed.

The primary advantage of this approach is that it will increase the ability of staff to deliver procurement services in an efficient and timely manner when awarding contracts, reduce risks in the procurement process while remaining transparent. Council will continue to rely on the expertise of staff involved in the procurement process, together with the approval of the CAO at the higher acquisition approval threshold, to select a vendor based on the process set out in the solicitation document (if applicable)/or based on market research and purchasing expertise, which in turn will provide for Council to increase its effective governance.

Given the emerging pandemic response, adopting the recommended increases to the approval thresholds on an interim level will allow for further efficiencies in maintaining day to day business during the pandemic response.

**b) Strategic Alignment:**

The objective is to ensure that the Purchasing Policy aligns with the city's objectives and to ensure that the delivery model presented will function effectively and efficiently, minimize risks to the City, while ensuring transparency.

**c) Citizen/Customer Implications:**

Implementing this change will ensure that the procurement of goods, services and construction by staff continues to provide best value for the use of public funds.

**d) Interdepartmental Implications:**

Departments will collaborate with Purchasing to assist in cataloging procurement contract data on a quarterly basis to ensure timely reporting to Council.

**e) Business Plan/Financial Implications:**

The recommended change to the procurement approval threshold contemplated for the updated Purchasing Policy suggests the discussion around the capital program during business planning will need to change. The impacts of this have been discussed with the Chief Financial Officer to ensure that the changes can be achieved.

Recommendations of award of a procurement contract that exceed approved financial plan will continue to require Council approval prior to award.

**f) Policy Implications:**

These recommended changes will bring City practices into alignment with applicable trade agreements and benefit from increasing efficiencies through the adoption of modernized practices.

**g) Alternatives:**

An alternative, which staff view as a best practice for like sized municipalities, is to forego the requirement for acquisition approval by Council for procurement that is within the approved financial plan. Staff are not recommending this approach at this time as there is a recognition that this alternative would be a significant philosophical shift in practice.



## CONCLUSION:

The advantage of an updated policy incorporating the recommendations outlined in this report include effective governance, opportunities for increased efficiencies, reduction in risk while maintaining an open and transparent procurement process.



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Prepared by: **Daniela Mikes, SCMP, CRM**  
**Manager of Procurement**



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Approved by: **Catherine Nolan, CPA, CGA**  
**Corporate Controller**



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Concurrence: **Christina Crabtree**  
**Acting General Manager Corporate Services**



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Concurrence: **Al Horsman**  
**Chief Administrative Office**