



A G E N D A

Thursday, March 15, 2018

in the Regional District Office Boardroom, 1981 Alaska Avenue, Dawson Creek, BC

Commencing at 10:30 a.m.

1. CALL TO ORDER: Director Goodings to Chair the meeting
2. DIRECTOR'S NOTICE OF NEW BUSINESS:
3. ADOPTION OF AGENDA:
4. ADOPTION OF MINUTES:
M-1 Electoral Area Directors' Committee Minutes of February 15, 2018 (Page 1)
5. BUSINESS ARISING FROM THE MINUTES:
BA-1 BC Hydro Update
6. DELEGATIONS
D-1 11 a.m. - Chris Maundrell and Chris Hawkins, Adlard Environmental Ltd. Grant Writer Services
7. CORRESPONDENCE:
8. REPORTS:
R-1 November 29, 2017 - Chris Cvik, Chief Administrative Officer - Policy and Procedure for Electoral Area Specific Issues (referred from February EADC Meeting) (Page 7)
R-2 January 8, 2018 - Deborah Jones-Middleton, Protective Services Manager - Feasibility of expansion of the Charlie Lake Rural Fire Protection Area (referred from January EADC Meeting) (Page 13)
R-3 February 13, 2018 - January 9, 2018 - Deborah Jones-Middleton, Protective Services Manager - Charlie Lake Fire Road Rescue and First Medical Responder Service Provision Feasibility (referred from January EADC Meeting) (Page 42)
R-4 Shawn Dahlen, Deputy Chief Administrative Officer - Area B Potable Water Budget Update (Page 60)
R-5 March 6, 2018 - Claire Negrin, Planning Services Manager - Progress Report on the Zoning Bylaw Consolidation Project (Page 88)
9. DISCUSSION ITEMS:
DI-1 Economic Development Projects – Staff Resourcing
DI-2 Changing EADC Meeting Dates
DI-3 Site Surveys and Fence Regulations for Building Permits
DI-4 PNG update and Rural Gasification.
DI-5 Policy on Congratulation Letters
DI-6 North Peace Leisure Pool Commission
DI-7 Farmington Oil and Gas Impacts
DI-8 Revitalization of the Agricultural Land Reserve and Agricultural Land Commission Meeting
DI-9 BC Flood and Wildfire Review (-19 from Regional Board Meeting) (Page 112)
10. NEW BUSINESS:
11. DIARY: (Page **116**)
12. ADJOURNMENT:



PEACE RIVER REGIONAL DISTRICT

ELECTORAL AREA DIRECTORS' COMMITTEE MEETING MINUTES

DATE: February 15, 2018

PLACE: Regional District Office Boardroom, Dawson Creek, BC

PRESENT:

DIRECTORS: Karen Goodings, Electoral Area 'B' (Chair)
Kimberly Wylie, Alternate, Electoral Area 'C'
Leonard Hiebert, Electoral Area 'D'
Dan Rose, Electoral Area 'E'

STAFF: Shawn Dahlen, Deputy Chief Administrative Officer
Tyra Henderson, Corporate Officer
Crystal Brown, Electoral Area Manager
Fran Haughian, Communications Manager/Commission Liaison
Deborah Jones-Middleton, Protective Services Manager
Paulo Eichelberger, General Manager of Environmental Services
Barb Coburn, Recording Secretary

ABSENT:

DIRECTORS: Brad Sperling, Electoral Area 'C'

CALL TO ORDER Crystal Brown, Electoral Area Manager called the meeting to order at 10:35 a.m.

ELECTION OF CHAIR

Crystal Brown, Electoral Area Manager called for nominations

MOVED by Director Rose, SECONDED by Alternate Director Wylie,
That Karen Goodings, Director, Electoral Area B be nominated as Chair for Electoral
Area Directors' Committee for 2018.

Hearing no further nominations, Director Goodings was declared Chair for the Electoral
Area Directors' Committee. Director Goodings assumed the Chair.

ADOPTION OF AGENDA

February 15, 2018
Agenda

MOVED by Director Hiebert, SECONDED by Director Rose,
That the Electoral Area Directors' Committee agenda for the February 15, 2018
meeting be adopted:

CALL TO ORDER:

Election of Chair

DIRECTOR'S NOTICE OF NEW BUSINESS:

ADOPTION OF AGENDA:

ADOPTION OF MINUTES:

M-1 Electoral Area Directors' Committee Minutes of January 24, 2018

March 15, 2018

ADOPTION OF AGENDA (CONTINUED)

BUSINESS ARISING FROM THE MINUTES:

BA-1 BC Hydro

BA-2 Grant Writer Proposal

DELEGATIONS CORRESPONDENCE:

C-1 January, 29, 2018 – Ministry of Forests, Lands, Natural Resource Operations and Rural Development– BC Rural Development Strategy – Online Engagement (Regional Board referral)

C-2 February 9, 2018 - Grimes Well Services Ltd. - Summary of Thefts/Vandalism 2017

REPORTS:

R-1 January 9, 2018 - Deborah Jones-Middleton, Protective Services Manager - Expansion of the Dawson Creek Rural Fire Protection Area Feasibility (referred from January EADC Meeting)

R-2 November 29, 2017 - Chris Cvik, Chief Administrative Officer - Policy and Procedure for Electoral Area Specific Issues (referred from January EADC Meeting)

R-3 January 10, 2018 - Paulo Eichelberger, General Manager of Environmental Services - North Pine Tower - Next Steps for Usage

DISCUSSION ITEMS:

DI-1 Electoral Area Forum

DI-2 PNG - Areas to Investigate for Providing Natural Gas to Residents

DI-3 Possible Water Referenda in Area D

DI-4 Community Roundtables - Spring Dates

DI-5 Rural Roads - Update

DI-6 Farmers Advocacy Funding

DI-7 Kordyban Lodge

DI-8 Electoral Area Forum update

DI-9 Economic Development Projects – Staff Resourcing (Horticulture Study, Gotta Go, and Rural Roads)

NEW BUSINESS:

NB-1 Agricultural Land Commission

NB-2 Fortis

NB-3 Electoral Area Directors' Committee Meeting Date

NB-4 Agricultural Advisory Committee

COMMUNICATIONS:

DIARY:

ADJOURNMENT:

CARRIED.

ADOPTION OF MINUTES

M-1

EADC meeting minutes of
January 24, 2018

MOVED by Director Rose, SECONDED by Director Hiebert

That the Electoral Area Directors' Committee Meeting minutes of January 24, 2018 be adopted.

CARRIED.

BUSINESS ARISING:

BA-1

BC Hydro Equipment

Director Goodings advised that she would contact BC Hydro to obtain a date for them to meet with herself and Mr. Manfred Stief, preferably in the Peace River Regional District Fort St. John office, regarding ownership and moving of hydro equipment on private property and will advise the Directors of the date.

March 15, 2018

BUSINESS ARISING (CONTINUED)

BA-2
Grant Writer

MOVED by Director Rose, SECONDED by Director Hiebert,
That the Electoral Area Directors' Committee recommend to the Regional Board that the Regional Board award the "Grant Writer Services, Request for Proposal #26-2017" contract to Adlard Environmental in the amount of \$79,280, excluding taxes, for a term ending December 31, 2018; to cover Grant Writing services for the Peace River Regional District, specifically Electoral Areas B, C, D, E; Hudson's Hope; and Taylor, and that the Chair and Chief Administrative Office be authorized to sign the contract on behalf of the Peace River Regional District.

CARRIED.

CORRESPONDENCE:

C-1
Rural Development
Strategy

MOVED by Director Rose, SECONDED by Director Hiebert,
That the Electoral Area Directors' Committee recommend to the Regional Board that the Board provide a written submission to the Ministry of Forests, Lands and Natural Resource Operations request for feedback regarding Rural Development stating that communication, education, health and transportation are key factors to be addressed for the development of a strategy to attract and retain youth and young adults in rural communities and to create opportunities for them to build their futures.

CARRIED.

C-2
Grimes Well Services Ltd.
- Summary of Thefts

MOVED by Director Hiebert, SECONDED by Director Rose,
That the Electoral Area Directors' Committee recommend to the Regional Board that the North and South Peace Oilmen's Associations, and other applicable organizations within the Regional District, be invited to a meeting to discuss the impacts of increased property crimes including theft on the area's petroleum industry, with the goal to identify possible solutions, including asking Oil and Gas industry employees to track all incidents in a database and report all thefts to the RCMP to trigger a file number; and further, that this meeting be organized and hosted by the PRRD, funded through 1110 Legislative Regional – Line Item 217 Board Hosted Workshops and Events as an action taken to gain additional background information and data in support of the PRRD resolution regarding Provincial Policing that was submitted to NCLGA.

CARRIED.

REPORTS:

R-1
Expansion of Dawson
Creek Rural Fire
Protection Area
Feasibility

MOVED by Director Hiebert, SECONDED by Director Rose,
That the Electoral Area Directors' Committee recommend to the Regional Board that staff be directed to initiate discussions with the City of Dawson Creek to determine its interest in providing fire protection services to the Briar Ridge and South Dawson rural areas to determine the estimated resources and costs that would be required to provide the service; further, that staff report the results back to the Electoral Area Directors' Committee meeting.

CARRIED.

March 15, 2018

REPORTS (CONTINUED):

R-2
Policy and Procedure for Electoral Area Specific Issues

MOVED by Director Hiebert, SECONDED by Alternate Director Wylie,
That the November 29, 2017 Report from Chris Cvik, Chief Administrative Officer regarding Policy and Procedure for Electoral Area Specific Issues be received for information.

CARRIED.

MOVED by Director Rose, SECONDED by Director Hiebert,
That the November 29, 2017 Report from Chris Cvik, Chief Administrative Officer regarding Policy and Procedure for Electoral Area Specific Issues be referred to the March Electoral Area Directors' Committee meeting, which at that time, Chris Cvik will bring back additional information.

CARRIED.

R-3
North Pine Tower

MOVED by Director Rose, SECONDED by Director Hiebert,
That the Electoral Area Directors' Committee recommend to the Regional Board that staff be authorized to negotiate agreements with secondary users currently renting or intending to rent space on the North Pine Tower, subject to the results of the wind-loading study.

CARRIED.

Adjourn

The meeting was adjourned for lunch at 12 p.m.

Reconvene:

The meeting reconvened at 12:57 p.m.

DISCUSSION ITEMS

DI-1
Electoral Area Forum

MOVED by Director Rose, SECONDED by Director Hiebert,
That the Electoral Area Directors' Committee recommend to the Regional Board that the letter sent by Director Goodings to capture her comments made to the UBCM Ad-Hoc Committee on Alternate Unelected Electoral Area Directors at the Electoral Area Directors' Forum in Richmond January 30/31 be received by the Board for information. (See March 8 consent agenda)

CARRIED.

DI-2
PNG

MOVED by Director Hiebert, SECONDED by Director Rose,
That the maps provided by Aden Fulford, GIS Coordinator be reviewed at the March meeting in order to identify locations where the supply of natural gas may be of interest to the residents.

CARRIED.

DI-3
Possible Water Referendum in Electoral Area D

MOVED by Director Hiebert, SECONDED by Alternate Director Wylie,
That the discussion regarding a possible water referendum for Electoral Area D be diarized to the June Electoral Area Directors' Committee meeting.

CARRIED.

DISCUSSION ITEMS (CONTINUED)

- | | |
|---|---|
| DI-4
Community Roundtables -
Spring Dates | The Directors discussed the feasibility of holding roundtable discussion during an election year. It was decided that Director Hiebert and Director Sperling would finish their community meetings this spring. Director Goodings and Director Rose will postpone until later in the fall. |
| DI-5
Rural Roads - Update | The Directors discussed the conditions of the roads in the region. It was decided to discuss this topic after a Regional Board discussion of the subject. |
| DI-6
Farmers Advocacy
Funding | MOVED by Director Rose, SECONDED by Director Hiebert,
That the Electoral Area Directors' Committee recommend to the Regional Board that the Peace River Regional District approach the Province to request that the Memorandum of Understanding between the PRRD, Ministry of Agriculture, and Ministry of Energy, Mines, and Petroleum Resources relating to the Farmers' Advocacy Office be amended to specify that the office be funded 100% by the Provincial Government in 2019 and beyond.

CARRIED. |
| DI-7
Kordyban Lodge | MOVED by Director Rose, SECONDED by Director Hiebert
That the discussion topic Kordyban Lodge be referred to the Rural Budgets Administration Committee.

CARRIED. |
| DI-9
Economic Development
Projects | The Directors briefly discussed the role of the Electoral Area Manager on Economic Development projects, such as rural roads and horticulture. It was decided to forgo further discussion until after the February 21, 2018 Board Meeting. |
|
NEW BUSINESS | |
| NB-1
ALC - Ministry of
Agriculture's Advisory
Committee. | MOVED by Director Rose, SECONDED by Director Hiebert,
That the Electoral Area Directors' Committee recommend to the Regional Board that each Electoral Area Director respond individually to the Minister of Agriculture's Advisory Committee Revitalizing the Agricultural Land Reserve and the Agricultural Land Commission Discussion Paper for Stakeholder Consultation and Public Engagement through the provided on-line survey.

CARRIED. |
| NB-2
Fortis - Energy Moment | MOVED by Director Hiebert, SECONDED by Director Rose,
That the handout from Fortis BC be received for information.

CARRIED. |
| NB-3
EADC Meeting Dates | MOVED by Alternate Director Wylie, SECONDED by Director Hiebert,
That the discussion regarding future Electoral Area Directors' Committee and Rural Budgets Administration Committee meetings be held on the third Tuesday of each month, with agendas being published on the Friday prior to the meeting, be referred to the March Electoral Area Directors' Committee meeting.

CARRIED. |

March 15, 2018

NEW BUSINESS (CONTINUED)

NB-4
Agricultural Advisory
Committee Workshop

MOVED by Director Hiebert, SECONDED by Director Rose,
That the Electoral Area Directors' Committee recommend to the Regional Board that
the Board authorize Director Hiebert to speak at the Agricultural Advisory Committee
workshop in Kelowna on February 27, 2018, regarding successes and challenges of
having an Agricultural Advisory Committee established.

CARRIED.

ADJOURNMENT: The Chair adjourned the meeting at 2:32 p.m.

Karen Goodings, Chair

Barb Coburn, Recording Secretary

March 15, 2018



REPORT

To: EADC

Date: November 29, 2017

From: Chris Cvik, CAO

Subject: Policy and Procedure for Electoral Area Specific Issues

RECOMMENDATION(S):

1. That the Electoral Area Directors Committee (EADC) recommend to the Regional Board that the Policy for Electoral Area Specific Tasks; which outlines the process to request a task of the Electoral Area Manager and defines the template to be used for letters from an Electoral Area Director, be approved.
2. That the Electoral Area Directors Committee (EADC) recommend to the Regional Board that the revised Terms of Reference (TOR) for the Electoral Area Director's Committee be approved.

BACKGROUND/RATIONALE:

Given that the Electoral Areas have a full-time manager, it was felt that a policy be developed to assist the Manager and Electoral Area Directors to understand when items need to go to the Board for approval versus what can be actioned directly by the Electoral Area Manager based on direction from an electoral area director.

DISCUSSION:

The draft Policy contains some guiding principles including:

- The Electoral Area Manager can issue letters or work on tasks directed by an electoral area director when the nature of the request is specific to only one Electoral Area and does not require more than two (2) hours of time from other staff.
- Issues that are common to more than one Electoral Area will continue to be forwarded to the Board for approval if there are specific recommendations or action items.
- Electoral Area specific communication/letters cannot be contrary to an established position of the Board.
- Electoral Area specific communication will be issued on plain white paper without the PRRD letterhead and be addressed at the top "From the Office of Electoral Area XX".

If the Board approves the Policy, the Terms of Reference for the Electoral Area Directors' Committee also needs to be amended to reflect that actions specific to a single electoral area do not need to be ratified by the Regional Board and can be actioned by the Electoral Area Manager.

OPTIONS:

1. That the Electoral Area Directors' Committee (EADC) recommend that the Board approve the Policy to address Electoral Area Specific Tasks.
2. That the Electoral Area Directors' Committee (EADC) recommend that the Board approval of the revised Terms of Reference (TOR) for the Electoral Area Director's Committee.
3. That the Electoral Area Directors' Committee (EADC) recommend changes to the draft Policy before submitting to the Board for approval.

STRATEGIC PLAN RELEVANCE:

- ☐ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☐ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☐ Foster Collaboration on services with municipalities and electoral areas.
- ☒ Establish a strategy for coordinated advocacy on identified issues.
- ☐ Manage parks and trails in the region.
- ☐ Support the agricultural industry within the regional district.
- ☐ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S): N/A

COMMUNICATIONS:**OTHER CONSIDERATION(S):**From the Board Approval Policy and Procedure Template**1. POLICY:**

A policy is a guiding principle that governs the administration of the PRRD, reflecting the vision, goals and objectives of the PRRD. Policies reflect service level (budget) and/or key terms of service. The PRRD Board approves and defines all policies.

2. PROCEDURE

The procedure is an approved process to enforce or administer rules established by policy. Procedure outlines a logical process for administrative staff to follow. The CAO, or designate, is assigned authority to approve "procedural" changes within each of approved policies of the Board.

Peace River Regional District Statement of POLICY and PROCEDURE			
Department:	Administration	Policy No.	
Section:	Electoral Area Directors	Issued:	
Subject:	Electoral Area Communication	Effective:	
Board Resolution # and Date:	Policy for Electoral Area Specific Tasks	Page:	1 of 3
		Replaces:	
Issued by:		Dated:	
Approved by:			

1 POLICY

- 1.01 Requests by an Electoral Area Director for support on electoral area specific tasks (i.e., projects, communication, etc.) are to be discussed:
 - a) at an Electoral Area Directors Meeting (EADC) or Rural Budgets Administration Committee (RBAC) Meeting; or
 - b) when a project or communication is time sensitive, the electoral area director wanting to issue a communication or request work on an electoral area specific initiative shall seek the support of the other three electoral area directors. (This support can be obtained electronically or via telephone.)
- 1.02 If support is provided by the majority of the electoral area directors, the electoral area director can direct the Electoral Area Manager to process the communication or work on the specific task.
- 1.03 Issues that are common to more than one electoral area must be forwarded to the Board for approval before the Electoral Area Manager or other staff actions the items.
- 1.04 Electoral area specific communication or initiatives cannot be contrary to an established position of the Board.
- 1.05 Electoral area specific communication will be issued on plain white paper without the PRRD letterhead and be addressed at the top as "From the Office of Electoral Area XX".
- 1.06 All communication using the Peace River Regional District logo must to be approved by the Board.
- 1.07 Communication and project task requests resulting in more than two (2) hours of staff time must be approved by the Board. This does not apply to the Electoral Area Manager's time.

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Peace River Regional District Statement of POLICY and PROCEDURE			
Department:	Administration	Policy No.	
Section:	Electoral Area Directors	Issued:	
Subject:	Electoral Area Communication	Effective:	
Board Resolution # and Date:	Policy for Electoral Area Specific Tasks	Page:	2 of 3
		Replaces:	
Issued by:		Dated:	
Approved by:			

2 PURPOSE

- 2.01 The Purpose of this “Statement of Policy and Procedure” is to:
- outline the processes that must be adhered to for the electoral area directors to direct work to the Electoral Area Manager or other Peace River Regional District staff; and
 - define the template that will be used for letters from the Electoral Area Directors.

3 SCOPE

- 3.01 The scope applies to communication and work tasks requested or issued by the Electoral Area Directors.

4 RESPONSIBILITY

- 4.01 The Electoral Area Manager is responsible to ensure the Policy is adhered to.

5 DEFINITIONS

- 5.01 Time Sensitive – An issue is time sensitive if a response is required before the next regularly scheduled EADC or RBAC meeting.
- 5.02 Electoral Area Specific – Subject of any communication or action that is unique to a single electoral area only.

6 REFERENCES and RELATED STATEMENTS of POLICY and PROCEDURE

- 6.01 Bylaw No. 1853, 2009 Rural Budgets Administration.
- 6.02 Electoral Area Directors Committee (EADC) Terms of Reference.

March 15, 2018

Peace River Regional District Statement of POLICY and PROCEDURE			
Department:	Administration	Policy No.	
Section:	Electoral Area Directors	Issued:	
Subject:	Electoral Area Communication	Effective:	
Board Resolution # and Date:	Policy for Electoral Area Specific Tasks	Page:	3 of 3
		Replaces:	
Issued by:		Dated:	
Approved by:			

7 PROCEDURE

- 7.01 When specific electoral areas communication initiatives are approved by EADC or RBAC, the Electoral Area Director will work with the Electoral Area Manager to finalize and distribute the communication.



Electoral Area Director's Committee TERMS OF REFERENCE

ROLE OF THE COMMITTEE

The Electoral Area Directors' Committee will meet to address issues of a rural nature.

STRUCTURE OF THE COMMITTEE

1. Members: The Electoral Area Directors' Committee membership shall be elected representatives from Electoral Area 'B', Electoral Area 'C', Electoral Area 'D' and Electoral Area 'E'.
2. Meetings:
 - a) The Electoral Area Directors' Committee will meet to address issues of a rural nature.
 - b) Meetings will be open to the public.
 - c) The Electoral Area Directors' Committee will be chaired by an Electoral Area Director elected by the committee participants.
 - d) The Electoral Area Directors' Committee will hold meetings the third ~~Thursday~~ **Monday** of each month or at the call of the Chair.
 - e) All recommendations of the Committee shall be determined by majority vote of the Electoral Area Directors.
3. Procedures:
 - a) Electoral Area Directors' Committee meetings will be funded through the Legislative - Electoral Area budget under "Electoral Area Business." Only Electoral Area Directors will be compensated for attending meetings.
 - b) Agenda items for the Electoral Area Director's Committee meetings will include items that are:
 - i) referred to the meeting by resolution of the Regional Board; or
 - ii) of a purely rural nature.
 - b) Items for the regular agenda **from staff** must be provided to Administration by noon the ~~Friday~~ **Tuesday** prior to the scheduled meeting.
 - c) **New Business Items for the regular agenda from Directors must be provided to the Electoral Area Manager for report drafting by 2:00 pm one week prior to the scheduled Agenda publishing. (See Schedule A)**
 - d) **Staff will publish the Agenda the Friday prior to the schedule meeting.**
 - e) Staff will prepare minutes and forward recommendations to the Regional Board for consideration.
 - f) Committee recommendations will be ratified by the Regional Board prior to staff action being undertaken, unless previously authorized by a referring Board resolution **or is specific to a single Electoral Area as per the Policy for Electoral Area Specific Issues.**

March 15, 2018

SCHEDULE A
Electoral Area Director's Committee
Agenda Build Schedule *Example*

Monday	Tuesday	Wednesday	Thursday	Friday
				Director's New Business Items Due to the Electoral Area Manager for Report Drafting (2:00 pm)
	Staff Reports Due (12:00 pm)	Admin. Vetted Reports Returned to Staff (1:00 pm). To be signed off by staff and submitted to CAO (4:30 pm)	Agenda Build	Electoral Area Manager Reviews Agenda (3:00 pm) Agenda Publish (4:30 pm)
Scheduled Committee Meeting				

March 15, 2018



REPORT

To: Chair and Directors

Date: January 8, 2018

From: Deborah Jones-Middleton, Protective Services Manager

Subject: Feasibility Study to determine expansion of the Charlie Lake Rural Fire Protection Area

RECOMMENDATION(S):

That the Electoral Area Directors Committee recommend that the Board direct staff to:

1. research the cost and locations of installing water sources in strategic locations within the current Charlie Lake Rural Fire Protection Area;
2. research the cost of implementing a Superior Tanker Shuttle Service for the Charlie Lake Rural Fire Protection Area; and
3. initiate discussions with the City of Fort St. John regarding the options and costs to utilize, improve and expand the fire hydrant system in the Charlie Lake Rural Fire Protection Area;

and report the findings back to a future Electoral Area Directors Committee meeting.

BACKGROUND/RATIONALE:

At the February 16, 2017 Rural Budgets Administration Committee the following motion was carried:

“That the Rural Budgets Administration Committee commit from the Fair Share Feasibility funds, \$20,000, with \$10,000 from Electoral Area ‘B’ and \$10,000 from Electoral Area ‘C’ to conduct a feasibility study to examine expanding the Charlie Lake Rural Fire Protection Area.”

Dave Mitchell and Associates was hired to perform the feasibility study and they have provided the following recommendations:

1. Install water access points via cisterns and dry hydrants in strategic locations in the existing and proposed expanded areas of the Charlie Lake Rural Fire Protection Area.
 - a. Dave Mitchell and Associates identified several locations around Charlie Lake that could be considered for installation of dry hydrants. (see page 11)
2. “Implement a Superior Tanker Shuttle Service (STSS) Accreditation for the Charlie Lake Rural Fire Protection Area.”

With STSS Accreditation, a minimum of three tenders (water tankers) of appropriate capacity along with identified water supply points within 5 kilometers of a residence, may improve the resident’s insurance rating from a 3B to a 3A, which often results in a reduced insurance rate for property owners.

If a dry hydrant is installed on a lake or cistern a residence within 300 metres will automatically receive a 3A rating regardless of the STSS Accreditation as the property would be considered protected by a hydrant system. The 3A rating often results in a reduced insurance rate for property owners.

March 15, 2018

Staff Initials:

Dept. Head:

CAO:

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3. “Discuss the impact of expanding the Charlie Lake Rural Fire Protection Area regarding the impact to the existing Mutual Aid Agreements with the City of Fort St. John and the District of Taylor.”

Both the Fort St. John and District of Taylor Mutual Aid Agreements with the Peace River Regional District will require reconsideration if there is to be a change to the Charlie Lake Rural Fire Protection Area.

4. consider increasing the Charlie Lake Rural Fire Protection Area to the following areas:

Phase 1 Areas to consider for inclusion in the Charlie Lake Rural Fire Protection (in priority order)

a. Area 1

Area 1 straddles Highway 97 and is immediately adjacent to the current fire protection area. It is apparent that the 8-kilometre polygon is quite close and that all this area is within 13 kilometres of the CL FD Hall. Coverage of this area is recommended as a timely response to the 60 properties and the 168 residents is possible from the CLFD hall.

b. Area 2

Area 2 is small, containing one property. This area is within 8 kilometres of the fire hall and the addition of this area to the fire protection area is recommended.

c. Area 3

Area 3 is very large, with many parts of it at a considerable distance by road network from the CLFD fire hall. The following portions of Area 3 should be considered for inclusion in the fire protection area: the identified areas that are within 13 kilometers and 15 kilometers from the Charlie Lake Fire Hall.

(i) Highway 29

Portions of Highway 29 immediately west and outside of the current fire protection boundary are within 13 kilometres of the fire hall. Coverage to include at least that portion should be considered. It is noted that a portion of the CLFD’s existing service area is also beyond 8 kilometres from the fire hall but within 13 kilometres.

(ii) Highway 97

The area along Highway 97 immediately north of Area 1 should be considered to at least the 13 kilometre mark.

(iii) Area North of Beaton Provincial Park

The area immediately north of Beaton Provincial Park includes a portion that is within 8 kilometres of the fire hall as well as portions

that are within 13 and 15 kilometres. It is recommended that the PRRD consider adding the portion within 8 kilometres as well as that within 13 kilometres to the response area.

(iv) Range Road 271

The area of Range Road 271 north of Township Road 248 includes a portion within 13 kilometres as shown and this should be considered for inclusion within the fire protection area.

(v) Township Road 246

There is a section of Township Road 246 within Area 3 that is also within 8 kilometres of the fire hall and this should be included in a revision of the fire protection area.

Phase 2 Areas to consider for inclusion in the Charlie Lake Rural Fire Protection Area

a. Range Road 267

Range Road 267 north of Township Road 246 contains sections that are 13 kilometres from the fire hall which should be considered for inclusion in a revised fire protection area with consideration given to those properties up to 15 kilometres distant.

b. Rose Prairie Road

Expansion to Rose Prairie Road and Old Montney Road properties that are within 13 kilometres from the fire hall should be considered, with consideration given to areas up to 15 kilometres distant.

c. Old Fort

Very little of the portion of Area 4 that includes Old Fort is within 13 kilometres of the fire hall and not all of it is even within 15 kilometres. Some consideration should be given to including this iarea in the fire protection area .

Phase 3 Areas to consider for inclusion in the Charlie Lake Rural Fire Protection

a. Barrette Road

The portion of Barrette Road being considered for inclusion is all beyond 15 kilometres from the fire hall and it may be considered for inclusion at some point in the future.

The Director for Electoral Area 'C' and Electoral Area 'D' have requested staff to ask the Rural Budgets Administration Committee to consider funding a feasibility study to provide fire protection to all of Area 'C' and a portion of Area 'D'. Staff recommends delaying a decision on the expansion of the Charlie Lake Rural Fire protection Area until this feasibility study has been completed and all recommendations can be considered together.

OPTIONS:

Provide further direction to staff.

STRATEGIC PLAN RELEVANCE:

- ☐ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☒ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☐ Foster Collaboration on services with municipalities and electoral areas.
- ☐ Establish a strategy for coordinated advocacy on identified issues.
- ☐ Manage parks and trails in the region.
- ☐ Support the agricultural industry within the regional district.
- ☐ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

The cost of accomplishing the recommendation would be staff time to research the information, assess the costs, and report back to the Electoral Area Directors Committee.

COMMUNICATIONS CONSIDERATION(S):

None

OTHER CONSIDERATION(S):

None

Attachments: Dave Mitchell and Associates feasibility study: Charlie Lake Volunteer Fire Department Fire Protection Area Review



PEACE RIVER
REGIONAL DISTRICT

Charlie Lake Volunteer Fire Department
Fire Protection Area Review

Dave Mitchell & Associates Ltd.

December 2017

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Executive Summary

The Peace River Regional District (the “PRRD”) is considering increasing the size of the fire protection area for the Charlie Lake Fire Department (the “CLFD” or the “Department”) in four specific areas. Protection for one of these areas (Area 1) is at the request of area residents. The issue of extending a fire department’s service boundaries is primarily driven by the question of whether an effective response, one which increases or improves life safety and the protection of property, is possible.

Responses by fire services are time critical and the ability to provide effective rescue and fire suppression declines relative to the time it takes to arrive on scene and commence emergency response activities. Even a response delayed by distance, however, ensures that an incident will be contained, preventing a structure fire from becoming a risk to neighbours or the forest interface. It also will improve life safety for residents. As an additional consideration, the expanded service also may enable some residents to obtain reductions in the cost of their residential insurance premiums.

In evaluating the matter of potentially expanding the fire protection area there are several considerations. The first is that providing the service to an area not currently protected will, at a minimum, ensure that some response is provided to potentially effect rescue and commence fire suppression. Fire propagation within structures is well understood as is the notion that effectiveness in rescue and fire suppression declines with distance travelled, as a result of the time delay involved.

Under the Fire Underwriters Survey (the “FUS”) system, single family residences which are more than 8 kilometres from a fire hall are rated as unprotected and generally are not eligible for a reduced premium. Although we are aware of situations in BC where insurance premium relief has been provided for premises up to 13 kilometres from a fire hall, this is not the stated position of the FUS.¹ As such, the possibility of insurance cost reductions for residences which are beyond 8 kilometres from the fire hall would need to be confirmed with the individual insurers or underwriters.

The analysis of the four areas being evaluated for possible service expansion applied four distance measurements from the fire hall: up to 8 kilometres; up to 13 kilometres; up to 15 kilometres; and more than 15 kilometres. It is recommended that the CLFD fire protection area be extended up to 13 kilometres, and that the possibility of extension to 15 kilometres be considered. Expansion beyond 15 kilometres likely should be deferred. For those properties within 8 and 13 kilometres there may be an opportunity for an insurance premium reduction. For all properties, there would be the opportunity to provide a degree of rescue and fire suppression though the effectiveness of the response is reduced based on distance.

The current service area was reviewed by the FUS in 2015 and was found to be deficient in terms of the water system to support fire suppression. The provision of a water system either by

¹ Individual insurance underwriters may differ from the FUS approach.

hydrant or tanker is a fundamental requirement for fire suppression and the water system provides 30% of the assessment of a fire department. Improvements to the water system should be a high priority for the CLFD and the PRRD and should include implementation of tanker shuttle service within the region, utilizing the adjacent fire departments if possible. Access to water could include cisterns as identified by the FUS as well as dry hydrants at a number of locations on either side of Charlie Lake.

The FUS survey was discussed with the executive of the Department to update the status of various recommendations. A significant number of these included a thorough review and plan to add water access points as well as to implement a tanker shuttle system and these have yet to be implemented. Given the low FUS rating, improvements to the level of service within the existing fire protection area must be considered a first priority.

Another issue that must be considered is the effect that any extension of the fire protection district will have on the existing mutual aid agreements. Each of these has explicit language that limits the responding department's response to the area described within the current agreement. As such, unless the agreements are amended, there would be no mutual aid support for the expanded service area.

For these reasons, the PRRD should consider increasing the area covered by the CLFD subject to clarifying the impact on the mutual aid agreements and further improvements to the existing fire protection area. Increasing the size of the fire protection areas should also not be unlimited, as there is a serious decline in effectiveness beyond a certain point.² Finally, any expectation of insurance premium savings will need to be confirmed with insurance providers.

² The PRRD should, however, consider permitting extra-jurisdictional responses where the fire or incident threatens or potentially threatens the fire service area. Appropriate operational guidelines would need to be developed and there should be a reporting process established, where such a response is undertaken.

Background

The CLFD is subject to oversight and direction by the PRRD and operates within a local service area established by bylaw. The PRRD taxes service area residents to recover the costs of operating the Department. The Department operates from a single fire hall and is located immediately west of Fort St John as shown in Figure 1. It also provides first fire response to a lumber mill west of the North Peace Airport as shown in the red circle.



Figure 1: Charlie Lake Fire Protection Area

The PRRD is considering an extension of the fire protection area to include a larger portion of Area B and Area C. At present these areas are not currently protected by the CLFD.

Enlarging the fire response area would enable the CLFD to provide a response where none presently exists and may result in a reduction in fire insurance premiums. The FUS provide ratings of fire services based on many factors including distance by road network from a recognized fire hall.³ Their stated position is that a residential property which is more than 8 kilometres from a recognized fire hall is considered unprotected and thus not discounted in terms of a fire insurance premium. Individual underwriters, however, are free to approach the issue differently and there are several instances where it is reported that a discount has been provided for a structure up to 13 kilometres in other parts of the province.

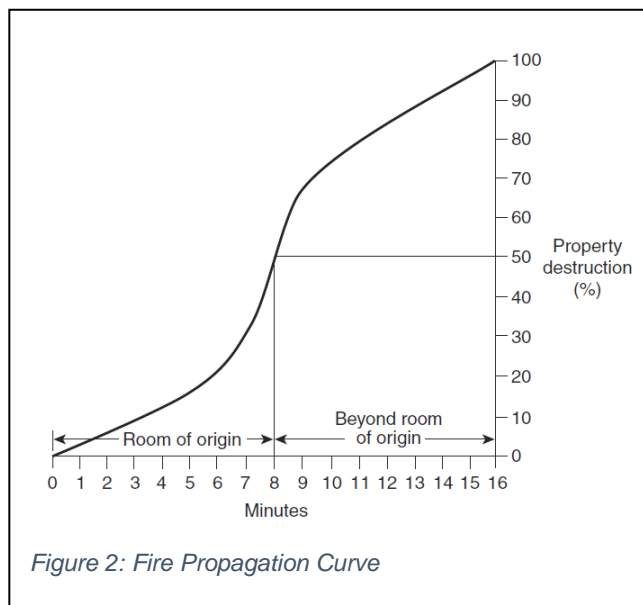
Regardless of whether any discounted premium arises from a response beyond 8 kilometres, the arrival of a fire department will provide a level of comfort to the property owner and potentially effect a rescue, prevent the further spread of a fire and limit damage.

³ http://www.fireunderwriters.ca/home_e.asp

Response Standards—NFPA

The standards of service that apply to the fire service include those related to response time objectives. These are defined by the National Fire Protection Association (the “NFPA”) and include time intervals for 911 call handling, dispatch, turnout of crews and travel to the scene.

Each of these will be described in further detail in the following sections however a key element for all fire responses is the relationship between time and the degree of fire damage. This is illustrated in Figure 2 which shows the rate of change / percentage of destruction from the time at which a fire ignites. This fire propagation model is well documented and explains why each element of fire response is critical because at or about eight minutes from ignition a fire will flashover and extend beyond the room of origin. This increases the risk to the resident as well as to the firefighter, and certainly increases the amount of resulting damage.



The relationship between the deployment of sufficient firefighters within a defined timeframe relative to fire loss and injury has been documented by the NFPA and this is shown in Table 1. From this it can be seen that confining a fire to the room of origin results in an average dollar loss of \$2,993.

Flame Spread	Civilian Deaths	Civilian Injuries	Average Dollar Loss per Fire
Confined fire or flame damage confined to object of origin	0.65	13.53	\$1,565
Confined to room of origin, including confined fires and fires confined to object	1.91	25.32	\$2,993
Beyond the room but confined to the floor of origin	22.73	64.13	\$7,445
Beyond floor of origin	24.63	60.41	\$58,431

Table 1

Fires which extend beyond the room of origin but which are contained to the floor of origin result in an average dollar loss of \$7,445 while fires which extend beyond the floor of origin result in an average dollar loss of \$58,421⁴.

Similarly, where a fire is held to the room of origin civilian fire deaths do not exceed 1.91 per thousand fires, but where the fire extends beyond the room of origin there are 22.73 deaths per thousand fires. In terms of injuries we expect 25.32 per thousand fires when the fire is held to the room of origin but this increases to 64.13 when the fire extends beyond that.

This data is shown graphically in Figure 3 in terms of dollar loss per 1,000 fires and in Figure 4 in terms of injuries and deaths per 1,000 fires.

In summary, fire damage, injuries and fatalities are mitigated by the promptest possible arrival of a competent fire department.

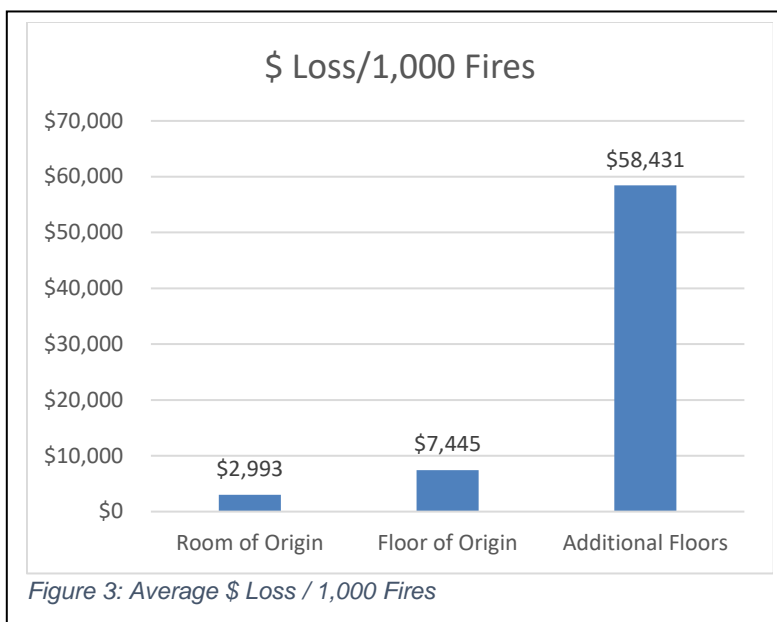


Figure 3: Average \$ Loss / 1,000 Fires

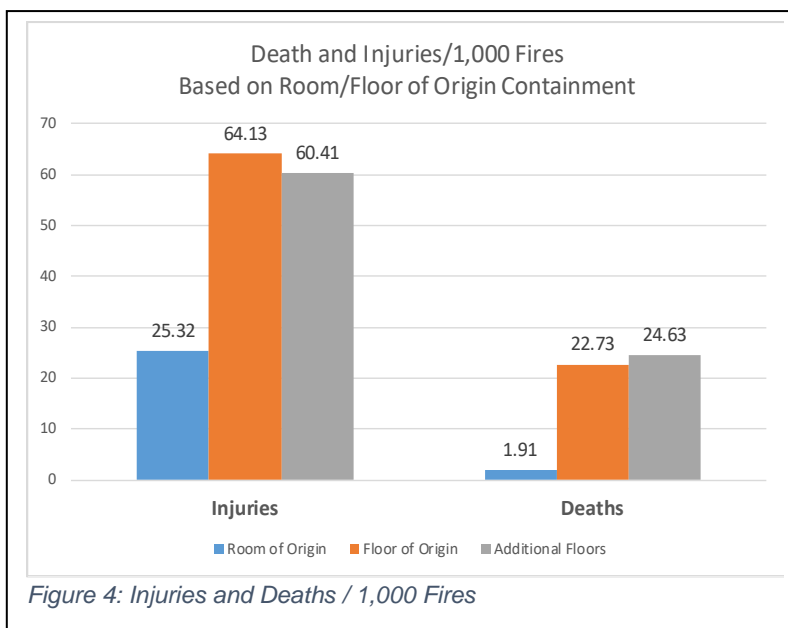


Figure 4: Injuries and Deaths / 1,000 Fires

⁴ The data used in this table is for the United States; there is no similar aggregation of national data in Canada.

Response Standards—Fire Underwriters

The FUS reviewed the CLFD in 2015 and rated the Department in terms of Dwelling Protection Grade (“DPG”) and Public Fire Protection Classification⁵ (“PFPC”).⁶ The DPG rating was split between a 5 (unprotected) and 3B (semi-protected) and the PFPC rating was 9. The poor PFPC rating arose mainly from the lack of a recognized water supply. In that regard, FUS recommended improvements to the water supply which have not yet been achieved. In this regard, however, they noted:⁷

One of the most beneficial recommendations is to complete Superior Tanker Shuttle Service (STSS) Accreditation in addition to tank installations. Achieving STSS Accreditation would result in an improved Grade of DPG 3B(S) being published.
[emphasis added]

An improvement to DPG 3B(s) is accepted as being equivalent to 3A, typically resulting in additional savings for residential homeowners on their insurance premiums. Work to improve the water system is currently being considered, but is not yet complete and the FUS has not yet resurveyed the CLFD.

The following analysis will consider the extension of the fire protection area beyond its current limits and provide a series of recommendations. To be clear however, the determination of insurance premium savings is solely within the control of the insurance industry, which is generally guided by the FUS rating system.

FUS Recommendations Summary

The FUS provided a total of 28 recommendations summarized in the Table 2.

Table 2

Item #	General Section	Status
1	Apparatus	Complete, pending approval by FUS
2	Apparatus	Not required at present, ongoing review
3	Apparatus	Complete
4	Inspection & Maintenance OGS	In progress
5	Record Keeping	Complete
6	Apparatus	Not complete
7	Hose Testing	Complete
8	Record Keeping	Complete

⁵ Applies to multi-family residences, commercial and industrial properties.

⁶ Fire Underwriters Survey, *Charlie Lake FPA, 2015* (August 2015) (the “FUS Survey”). “DPG” is the rating applied to single family residences, where “1” is the best and “5” is unprotected. The “PFPC” rating is applied to multi-family residences and commercial and industrial properties and “1” is the best, while “10” is unprotected.

⁷ FUS Survey, page 6.

Item #	General Section	Status
9	Record Keeping	Complete
10	Training	In progress
11	Training	In progress
12	Department OGs	In progress
13	Record Keeping	In progress
14	Pre-Incident Planning	In progress
15	Water Supply	Non-compliant/not started
16	Fire Prevention	In progress
17	FireSmart Program	In progress
18	Inspection Bylaw	In progress
19	Water Supply	Non-compliant/not started
20	Water Supply	Non-compliant/not started
21	Water Supply	Non-compliant/not started
22	Water Supply	Non-compliant/not started
23	Water Supply	Non-compliant/not started
24	Water Supply	In progress
25	Water Supply	In progress
26	Water Supply	Non-compliant/not started
27	Water Supply	Non-compliant/not started
28	Water Supply	Non-compliant/not started

Of these, 11 out of 28 pertain to water system/supply improvements which in turn account for 30% of the overall grading by the FUS. Two of the 11 are in progress while for the remaining nine the Department is non-compliant.

For this reason, the FUS recommended that the Department complete the process to achieve accreditation for STSS which if achieved would improve their rating from 5 (unprotected) to 3B(s) which equates to a 3A rating. Such a rating would provide property owners within the 3B(s) area with an improvement in insurance costs.

Water Supply

The FUS as noted made a number of recommendations that include:

- Requiring water tank installations for new developments (19)
- Implement Fire Flow Bylaw or Water Supply Guidelines for the Charlie Lake Fire Protection Area (20)
- Complete Independent Review of Upgrading Water System to Provide Public Fire Protection (21)⁸
- Complete Independent Review of Installing a Dry Hydrant on Charlie Lake (22)

⁸ The water system used by Charlie Lake is owned by the City of Fort St. John, therefore Charlie Lake Fire Department is not able to implement bullet two and three above.

- Install Water Tanks with Hydrant/Dry Hydrant Installations within the Charlie Lake Fire Protection Area (23)
- Install Tanks within the Fire Protection Area and Complete STSS Accreditation (27)
- Complete Water Supply Master Plan (28)

These requirements were reviewed with the Chief and Deputy in terms of the accessibility to Charlie Lake for dry hydrants. On review, there are multiple easements on the east and west side of the lake that could be considered as part of a master plan for water supply. Some consideration should be made in terms of the slope of the shore but as observed, a number of them appear favorable and could be part of compliance with recommendations 22 and 23.

The Peace River Interactive Web Map was accessed to confirm apparent⁹ easements and these include the following which are summarized in Figure 5 which follows.

West Side of Charlie Lake

1. East end of Lakeshore Drive
2. Palm Avenue east of Lakeshore Drive
3. Forest Avenue east of Lakeshore Drive
4. King Avenue east of Lakeshore Drive
5. Plum Avenue east of Charlie Lake Crescent
6. Charlie Lake Crescent between 13373 and 13377

East Side of Charlie Lake

7. Paradise Street between 13239 and 13245
8. Paradise Street at the west end of Rainbow Avenue
9. Paradis Street south of 13129

⁹ The easements are not identified as such but were assumed to exist where there was an open, accessible road access between visible parcels.

The locations of the easements are shown in Figure 5.

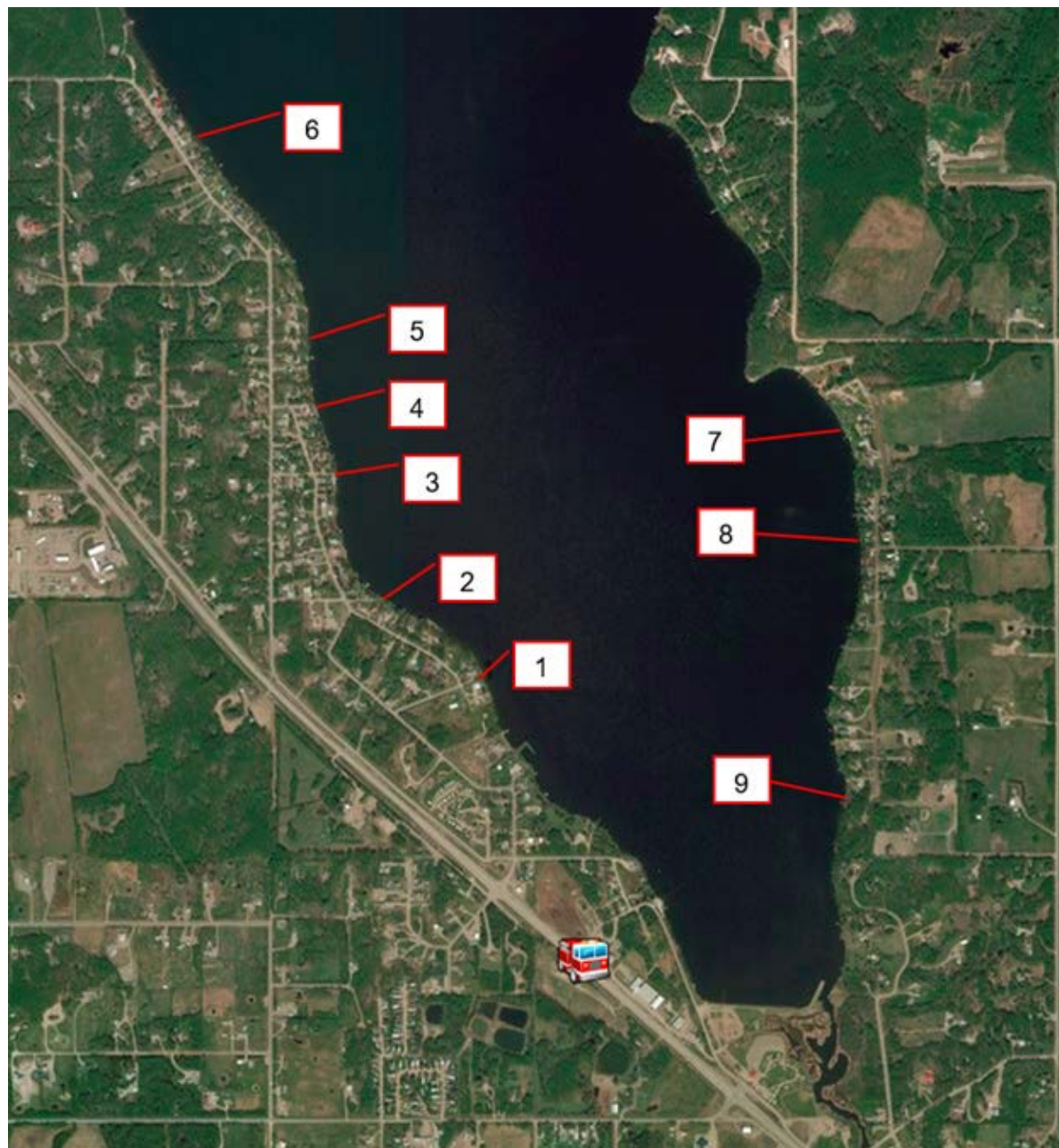


Figure 5

Superior Tanker Shuttle Service Accreditation

STSS accreditation is recognized by the FUS as being equivalent to hydrant protection.¹⁰ This accreditation has been obtained by a number of fire services in the province and, where they are compliant in terms of water flow and distance, they are equivalent to the DPG Grade 3A which is considered “fully protected”, as opposed to DPG 3B, which is a semi-protected rating. The difference in insurance costs between semi- and fully-protected can be as much as 30%.

For the STSS accreditation to generate an insurance premium discount, the FUS requires the property to be within eight kilometres of a fire station and five kilometers of a water supply point. Achieving an STSS accreditation would provide a more secure water supply within the sub-regional area in addition to a potential reduction in fire insurance premiums. Accreditation is normally granted by the FUS for a period of five years¹¹.

The accreditation would require a minimum of three Tenders of appropriate capacity along with identified water supply points. Achieving this capacity would require an optimized response by the Department and if possible supported by FSJ and Taylor to provide this within the regional area.

Having the ability to provide a consistent water supply by tanker shuttle would be a benefit for both the PRRD service areas which are protected by the CLFD as well as Fort St John and Taylor as this would assure an additional uninterrupted water supply capability regardless of whether accreditation is obtained or not.

Forest Interface Risk

There is a significant wildland interface risk in the Charlie Lake area. This was demonstrated in 2016 with two significant interface fires: Charlie Lake forest fire - 250ha, and the Beaton Airport Road fire at over 15,000 ha. Both fires had the capability of destroying homes and structures in the region. Charlie Lake is surrounded by the forest interface which is made up of mixture of black spruce and popular trees. The fire risk from an interface fire is greatest in the summer months but can happen at any time as demonstrated in 2016.

The CLFD has recognized the risk and has moved forward with appropriate training for it's members: S-100 and the OFC Wildland firefighting courses. The department has also purchased equipment that will be appropriate for working in the forestry interface: a skid pack complete with hose, pump and water tank which is carried in the back of the Deputy Chief's pickup truck. The department has also just taken delivery of an all terrain ATV also with a skid pack for use in interface fires.

¹⁰ Ibid.

¹¹ To be clear, STTS accreditation can only be granted by the FUS but regardless of whether accreditation is obtained or not, the ability to provide an enhanced water shuttle will be a benefit to any firefighting response.

The fire department should become even more active in spreading the Fire Safe educational program to the community. This will encourage the public to take responsibility for reducing interface fire risk on their own properties.

Level of Service

The level of service has been set at Full Service by the PRRD as the Authority Having Jurisdiction (the “AHJ”). Full Service is the highest of the three levels of service and the requirements have been provided. The authorizing policy also notes the requirement for a regular audit at section 7.5.

The ‘Level of Service Policy’ will be reviewed annually to ensure that all Fire Departments are meeting the requirements of the ‘British Columbia Fire Service Minimum Training Standards Structure Firefighters Competency and Training Playbook’¹².

Full service requires that all training and assessment is documented, and the Department is to be commended for the work it has done to date to record this information. The development of pre-plans is also underway, and these should be completed for every structure that is more complex than a residence.

Analysis

The PRRD covers a very large area and this analysis is limited to four specific areas. For these areas, responses by road network have been generated using 5, 8, 13 and 15-kilometre polygons and these are color-coded as shown in Figure 6.

For each of the following areas the number of civic addresses has been identified by the PRRD and based on a multiplier of 2.8,¹³ the number of residents has been calculated. The total number of residents by this measure would be 2,139.



¹² Board Policy, page 4.

¹³ The multiplier of 2.8 was provided by the PRRD GIS department, July 28, 2017.

The following section will list and discuss a number of locations within Areas 1, 2 and 3 to be considered within an extended fire protection area and these are summarized in Figure 7 which follows.

Area 1

See map reference 1.

This area is immediately north of the current fire protection area and is located on both sides of Highway 97 to the northern limit at the intersection of Range Road 283. This area has 60 civic addresses and so the estimate for its population is 168. The entire area shown is beyond 8 kilometres from the fire hall and thus would be rated by the FUS as DPG 5, which is unprotected.

When the travel distances from the fire hall are overlaid it is apparent that the 8-kilometre coverage (yellow) comes very close to Area 1 and that all the area would be within 13 kilometres.

Area 2

See map reference 2.

Area 2 has a single property and based on the multiplier the population for this property is 2.8 (3.0). Area 2 is within the 8-kilometre coverage from the fire hall and it likely would receive the same DPG rating as the CLFD's existing fire service area (DPG 3B).

Area 3

This area contains 641 civic addresses, which equates to a population of 1,795. Given the size of this area, the FUS coverage will be examined in a series of views to follow. In summary however, much of this Area 3 is well beyond 20 kilometres from the fire hall and so any additions to the fire protection coverage should be considered in stages, based on the available road network.

Highway 29

See map reference 3.

The area with the salmon pink shading is outside of the current fire protection area, but is part of Area 3 and being considered for inclusion. The response polygons from the fire hall show that all of this area is beyond 8 kilometres (yellow). The 13-kilometre (red) and 15-kilometre (grey) polygons are shown and, as noted previously, individual insurance brokers or underwriters may consider some part of this eligible for a degree of premium relief.

It should be noted that some properties within the current CLFD fire protection area are also outside of the 8-kilometre limit, including Bluejay Street and Zolinski Avenue.

Highway 97

See map reference 4.

This area is adjacent to Highway 97 north of Area 1. The 13-kilometre coverage extends to the intersection of Township Road 250 and Highway 97 and includes parts of Wolsey Subdivision and Stoddard Creek Road.

The 15-kilometre travel distance polygon includes Township Road 250 to the intersection of Range Road 287. The area along Highway 97 is also included to and beyond Range Road 285.

Area North of Beaton Provincial Park

See map reference 5.

This area is immediately north of Beaton Provincial Park. The portion shown in salmon pink is outside of the current fire protection area but is being considered as part of Area 3. At the very bottom of this section, the 8-kilometre travel polygon (yellow) is shown and some part of that projects into Area 3.

The 8-kilometre (yellow), 13-kilometre (red) and 15-kilometre (gray) response polygons are shown. A small portion of this area is within 8 kilometres and much of the rest within 13 kilometres.

Range Road 271

See map reference 6.

The area along Range Road 287 north of Township Road 248 to north of Township Road 250 is shown and illustrates that all of this area as well as Valley Vista Road is within 13-kilometres of the fire hall.

Township Road 246

See map reference 7.

One portion of Township Road 246 is within the current fire protection coverage; an eastern extension of that is not and is part of the request for Area 3. The 8-kilometre response polygon extends for approximately 1.5 kilometres into Area 3. Beyond this, to the junction with Montney Road the road is within 13-kilometres of the fire hall.

One portion of Township Road 246 is within the current fire protection coverage; an eastern extension of that is not and is part of the request for Area 3. The 8-kilometre response polygon extends for approximately 1.5 kilometres into Area 3. Beyond this, to the junction with Montney Road the road is within 13-kilometres of the fire hall.

Range Road 267

See map reference 8.

In terms of coverage on Range Road 267 and Montney Road north of Township Road 246, the 13-kilometre polygon extends north along Township Road 248; the 15-kilometre polygon extends a further 2 kilometres on Montney Road.

Rose Prairie Road

See map reference 9.

The 13- and 15-kilometre response polygons on Rose Prairie Road are illustrated on the map and this shows that Road Prairie Road and Old Montney Road would be within 13 kilometres of the fire hall.

North of Montney Creek to beyond Cox Road would be within 15 kilometres.

Area 4

The final area for consideration is Area 4. This area contains 62 civic addresses which equates to approximately 174 residents.

Old Fort

See map reference 10.

The portion shown in the salmon pink background is the area under consideration and from this it can be shown that the 13-kilometre coverage extends just about 0.5 kilometres into Area 4. The 15-kilometre travel polygon extends further along Old Fort Road, but not quite to River Drive.

Properties beyond that including those on Old Fort Loop, Trapper Road and River Drive, which are more than 15 kilometres from the fire hall.

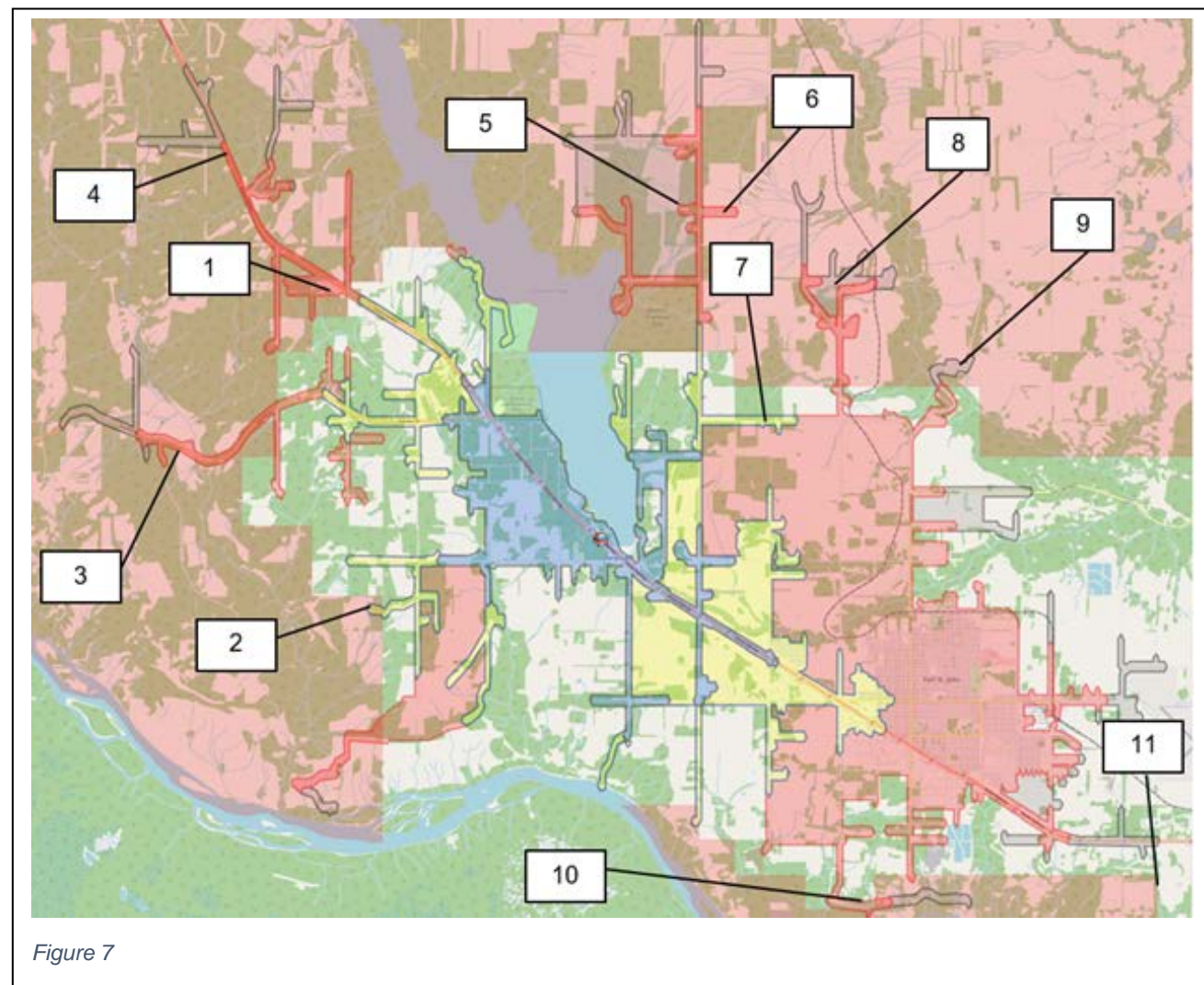
Barrette Road

See map reference 11.

The portion of Area 4 that includes Barrette Road south of Highway 97 is shown in the reference map. This entire portion of Area 4 is more than 15-kilometres from the CLFD fire hall with the nearest part of Barrette Road at about 15.5 kilometres distant.

Map Overview

The map shown in Figure 7 summarizes the sections within Areas 1, 2, 3 and 4 that are being considered. The travel distance by road network from the Charlie Lake fire hall are shown where



the blue polygon represents 5 kilometres, yellow represents 8, the darker red outline represents 13 and the grey outline represents 15 kilometres.

Mutual Aid Agreements

The CLFD is covered by a mutual aid agreement with the Fort St John Fire Department (the “FSJ”), dated May 8, 2017, and one with the District of Taylor Fire Department (the “Taylor”) dated April 11, 2017. Each of these agreements is for a five-year term and neither has an automatic renewal. The agreements also note that the fire protection boundaries cannot be altered without written consent of the other party and, without this consent, aid responses to the additional areas will not be provided. The content of the two agreements are substantively identical, except as noted below.

Fort St John

The mutual aid agreement with FSJ is similar to the one with Taylor in the majority of its terms of agreement with the following exceptions.

The FSJ agreement has a specific exemption for the Canfor sawmill. The definition of the “Charlie Lake Protection Service Area” in section 1 notes that it “...specifically and intentionally excludes the properties owned and operated by Canfor Sawmill...”.

The agreement is also very specific in terms of the portions of the PRRD that FSJ will respond to and explicitly notes that responses to additional areas may not occur without their written consent at section 7.

Any changes to the Portion of the Charlie Lake Protection Service Area shown in Schedule ‘B’ requires the consent in writing of the City of Fort St. John to be considered included in the service area of this City/PRRD (Charlie Lake) Mutual Aid Agreement. For certainty, if consent is not given in writing, Primary Mutual Aid will not apply to the additional area and Emergency Resources will not be provided.

The term “Primary Mutual Aid” is defined as comprising one engine, one tender and/or one Wildland unit, and for Ft. St. John, involves a response by its duty crew. Where a response is provided that is considered to be in excess of “Primary Mutual Aid” for commercial or industrial properties, section 8(ii) provides that the costs of such responses are to be reimbursed, with costs calculated based on the current year’s BC Inter-Agency Working Group Reimbursement Rates.

The protection area is noted as Schedule A to the Agreement.

Taylor

The agreement with Taylor has similar language but is bilateral in terms of potential changes to the response areas unlike the FSJ agreement in which the language is unilateral.

Any changes to the Charlie Lake Fire Protection Service Area or the District of Taylor Fire Protection Area requires a duly authorized amendment to this agreement. For certainty, if consent is not given in writing, the agreement is not amended, Primary

Mutual Aid will not apply to the additional area(s) and Emergency Resources will not be provided.¹⁴

The protection area is noted as Schedule A to the Agreement.

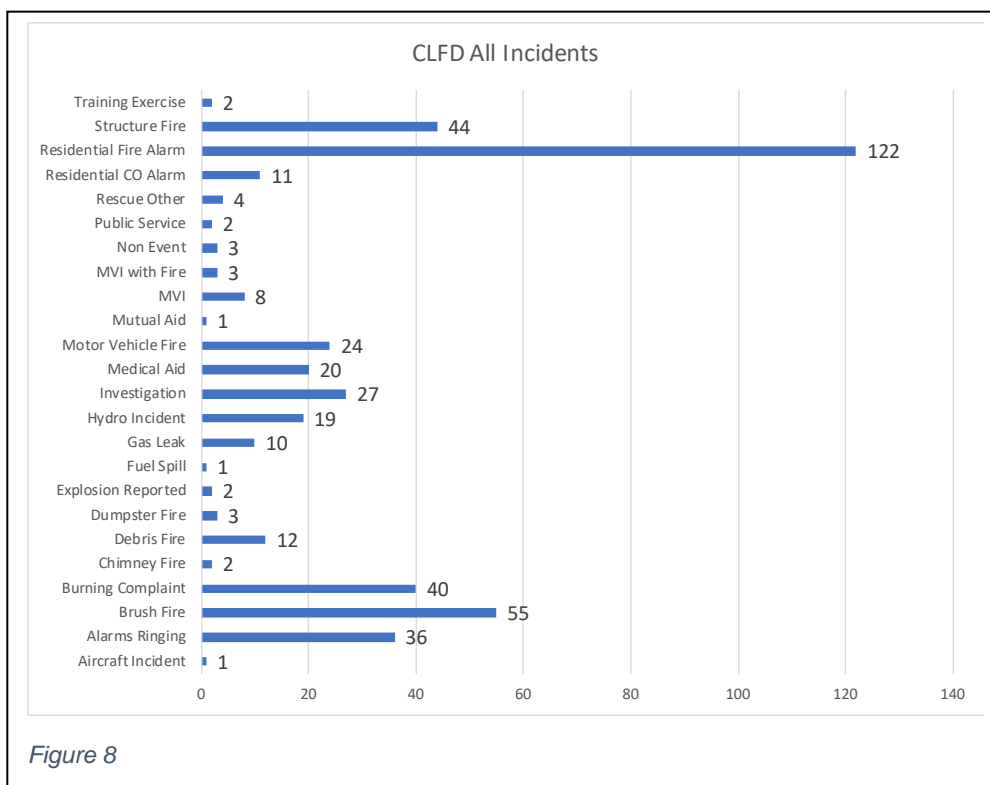
Existing CLFD Responses

The Department has been dispatched for a number of years by FSJ which provided a data set for the period 2010 to 2016¹⁵.

This data was reviewed to determine the call volume based on the existing agreed level of service. The data indicates that responses are to a broad range of call types as shown in Figure 8.

From this it can be seen that the majority of responses

(37.4%) are for Alarms, either Residential Fire Alarms, Alarms Ringing or Residential CO Alarms.



Non-structural fire responses which includes Brush Fires and Dumpster Fires total 58, or 11.8%. Fires in structures including Structure Fires and Chimney Fires are 11.1% of the total, at 50 over the period. The data from the FSJ Computer Aided Dispatch system (the "CAD") indicates that over the period that CLFD responded to a total of 24 incidents classified as Medical Aid or Rescue Other, comprising 5.3% of total responses. As well the Department responded to 11 calls classified as MVI or MVI with Fire, representing 2.6% of all responses.

¹⁴ PRRD/Taylor Mutual Aid Agreement, page 5.

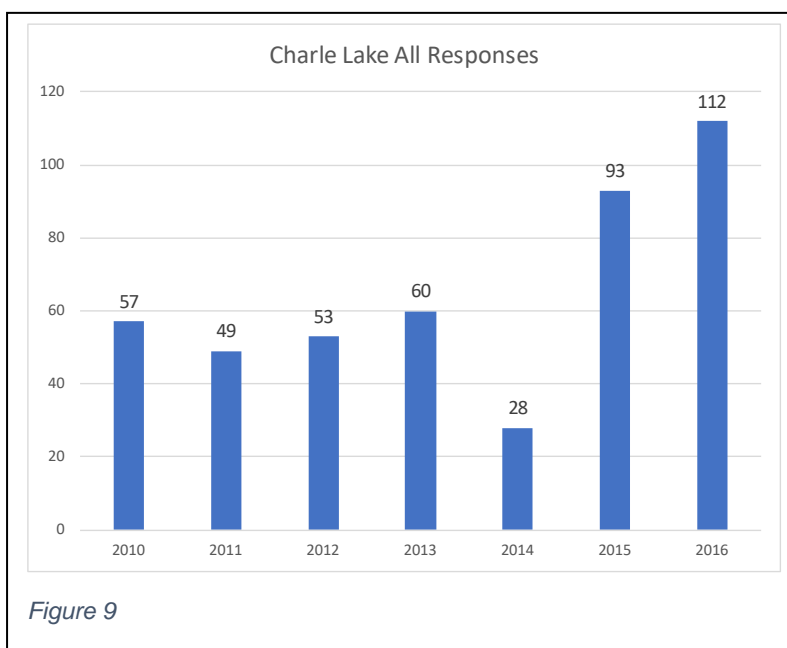
¹⁵ Note that the data set was incomplete for the year 2014, comprising only the last four months and so for the purposes of year over year call volume calculations, that year is omitted. In terms of counting the total number of responses over the six-year period, 2014 is included.

Responses by Year

Responses by the Department have increased annually as shown in Figure 9, with the exception of 2014 which as noted previously lacks the response data from January to August.

The average number of responses for 2010 to 2013 is 54.75. For the period 2015 and 2016 it is 102.5; essentially the call volume has doubled.

Over this period the Department has responded to 50 fires reported in structures¹⁶ which amounts to an average of 8.3 per year. These incident types are the ones that normally would require the response by all members of the Department. Other types such as Public Service (2), Burning Complaint (40), Residential CO Alarm (11), Investigation (27) and others may not require a total response.



Service Impact

The proposed increase to the fire protection area for the CLFD has the potential to provide coverage to an additional 764 properties with an estimated 2,129 residents as shown in Figure 10, depending on how many of the four areas are included.

Area	Properties	Estimated Residents
1	60	168
2	1	3
3	641	1,795
4	62	174
Total	764	2,139

Figure 10

The impact to the CLFD by adding some or all of the areas, will be to increase the call volume. That said, the degree of accuracy in such an estimate is a challenge. In general terms, the most common 'driver' for fire department responses is population but that is also coupled with the age

¹⁶ This includes structure fires and chimney fires.

and condition of property in terms of response to fires. The population of Charlie Lake for the existing fire protection area was determined to 3,315 in the 2015 FUS report¹⁷. On that basis the total population for Charlie Lake and the four areas is shown in Figure 11.

	Population	% of Charlie Lake	2016 Responses	Estimated Responses
Charlie Lake	3,315		112	
Area A	168	5.1%		5.7
Area B	3	0.1%		0.1
Area C	1,795	54.1%		60.6
Area D	174	5.2%		5.9
		64.6%		72.3
Total Population	5,455			
Total Responses	184			

Figure 11: Estimated Increase in Responses for Areas A, B, C, D

From this it is possible to estimate that the number of responses by the CLFD if all four areas were added, might amount to 72 over the year, or about 6 per month. Given that the Department attends approximately eight fires in structures in an average year we might expect that number to increase by five to a total of 12, or about one a month.

Apparatus & Staffing

The apparatus and staffing were reviewed by the FUS in 2015 and it was noted that “*The Charlie Lake Fire Department is well staffed*”.¹⁸ Since that time the Chief has reported that the Department has continued to upgrade the skills of the company officers with two achieving NFPA 1021 and others in progress. The current structure with a fire chief, a deputy chief as well as a complement of volunteer captains, lieutenants and fire fighters is appropriate and found in many other departments the consultants have worked with¹⁹.

In terms of apparatus the Department is compliant, with the exception of an aerial ladder device as shown in Figure 12. As noted previously this is not a requirement for the current fire protection area²⁰ and would not be a requirement for the extension of coverage to Areas A, B, C or D.

¹⁷ FUS report, page 31.

¹⁸ FUS report, page 34.

¹⁹ In some volunteer fire departments, the position of deputy chief is sometimes not filled, instead there are one or more positions as assistant chief and below that captains and lieutenants.

²⁰ The one exception is the contracted response to the Canfor Mill.

Assignment	Manufacturer	Function	Pump Capacity	Water Tank
Engine 1	International 1999	Engine	1,050	1,000
Engine 2	Sterling 2006	Engine/tender	1,050	2,000
Tender 1	Freightliner 2014	Tender	1,250	1,500
Tender 2	Ford 1987	Tender	840	1,500
Squad 3	GMC 2014	Bush truck	100	200
Rescue 1	Ford 550 2005	Rescue/Rehab.	N/A	N/A
Squad 1	GMC 2014	Command	N/A	N/A
Bush 1	GMC 2007	Bush truck	100	100
Bush 2	Ranger UTV 2016	Bush ATV	100	75

Figure 12

Of this apparatus, Engine 1 is due for replacement in 2018; Tender 2 is overdue but scheduled for 2020. Engine 2 is a tandem-axle unit which presents issues in terms of additional licensing as well as its turning radius. One option would be to sell this unit to a jurisdiction that requires a larger unit, and to replace it with a single-axle engine/tender.

Summary

The proposed expansion of the existing fire protection area would significantly extend the service boundaries of the CLFD. While it would include some properties within 8 kilometres of the fire hall, most would be further away, with some more than 15 kilometres from the hall. In general, under the FUS system, properties more than 8 kilometres from a recognized fire hall, are rated as unprotected and do not receive any reduction in insurance premiums. Some individual underwriters, however, do provide reduced insurance rates in rural settings, where the property is within ~13 kilometres of a recognized hall. The principal intent behind the service expansion, however, is to improve life safety and protect property. Even though the travel distances exceed those recognized by FUS, the provision of an emergency response will still provide improved protection for residents of the extended service area.

The question of whether insurance premiums would be reduced for properties in the expanded service areas is up to the individual insurance underwriters. Regardless of the potential insurance saving it is clear based on the NFPA documentation that the earliest arrival of a competent fire department will lessen the impact of fire injuries and fatalities as well as damage.

The PRRD may then wish to consider an extension of the existing fire protection area for the two reasons that 1) it will provide an increase in public safety and 2) may result in a partial reduction of insurance premiums. However, any contemplated increase in the fire response areas will also require the agreement of FSJ and Taylor if the PRRD wishes those departments to continue to provide a mutual aid response. The mutual aid agreements explicitly state that without this consent, a "Primary Mutual Aid Response" will not be provided to the new areas.

Recommendations

It is recommended that the PRRD consider increasing the CLFD fire protection area in the following areas subject in all cases to clarifying the degree to which this extension may or may not impact their mutual aid agreements with FSJ and Taylor.

Area 1

Area 1 straddles Highway 97 and is immediately adjacent to the current fire protection area. It is apparent that the 8-kilometre polygon is quite close and that all this area is within 13 kilometres. Coverage of this area is recommended as a timely response to the 60 properties and the 168 residents is possible from the CLFD hall.

This area could be a first priority.

Area 2

Area 2 is small, containing one property. This area is within 8 kilometres of the fire hall and the addition of this area to the fire protection area is recommended.

This area could be a first priority.

Area 3

Area 3 is very large, with many parts of it at a considerable distance by road network from the CLFD fire hall. The following portions of Area 3 should be considered for inclusion in the fire protection area:

Highway 29

Portions of Highway 29 immediately west and outside of the current fire protection boundary are within 13 kilometres of the fire hall. Coverage to include at least that portion should be considered. It is noted that a portion of the CLFD's existing service area is also beyond 8 kilometres from the fire hall but within 13 kilometres.

This area could be a first priority.

Highway 97

The area along Highway 97 immediately north of Area 1 should be considered to at least the 13 kilometre mark.

This area could be a first priority.

Area North of Beaton Provincial Park

The area immediately north of Beaton Provincial Park includes a portion that is within 8 kilometres of the fire hall as well as portions that are within 13 and 15 kilometres. It is recommended that the PRRD consider adding the portion within 8 kilometres as well as that within 13 kilometres to the response area.

This area could be a first priority to at least 13 kilometres.

Range Road 271

The area of Range Road 271 north of Township Road 248 includes a portion within 13 kilometres as shown and this should be considered for inclusion within the fire protection area.

This area could be a first priority to at least 13 kilometres.

Township Road 246

There is a section of Township Road 246 within Area 3 that is also within 8 kilometres of the fire hall and this should be included in a revision of the fire protection area.

This area could be a first priority.

Range Road 267

Range Road 267 north of Township Road 246 contains sections that are 13 kilometres from the fire hall which should be considered for inclusion in a revised fire protection area with consideration given to those properties up to 15 kilometres distant.

This area could be a second priority.

Rose Prairie Road

Expansion to Rose Prairie Road and Old Montney Road properties that are within 13 kilometres from the fire hall should be considered, with consideration given to areas up to 15 kilometres distant.

This area could be a second priority.

Area 4

Area 4 contains two areas for consideration as follows.

Old Fort

Very little of the portion of Area 4 that includes Old Fort is within 13 kilometres of the fire hall and not all of it is even within 15 kilometres. Some consideration of including this in the fire protection area should be considered.

This area could be a second priority.

Barrette Road

The portion of Barrette Road being considered for inclusion is all beyond 15 kilometres from the fire hall and it may be considered for inclusion at some point.

This area could be a third priority.

Conclusion

The issue of extending a fire department's service boundaries is primarily driven by the question of whether an effective response, one which increases or improves life safety and the protection of property, is possible. In general, the longer that it takes a fire department to arrive at the scene of an incident, the greater the damage that is likely to occur and the greater the risk of injury or death. Even so, the provision of a confirmed emergency response ensures that an incident will be contained, preventing a structure fire from becoming a risk to neighbours or the forest interface. It also will improve life safety for residents. As an additional consideration, under the FUS system, insurance premiums are reduced where a residential property is located within 8 kilometres of a fire hall, with some individual insurers or underwriters extending this protected zone as far out as 13 kilometres.

In the present review, the possible extension of the CLFD fire protection coverage for Areas 1, 2, 3 and 4 was broken down into zones based on travel distance from the fire hall. One property was within 8 kilometres, while most were within 13 – 15 kilometres from the hall. Some portions of the proposed Areas exceeded a travel distance of 15 kilometres from the hall.

Coverage up to 13 kilometres should be seriously considered; the PRRD, in consultation with the CLFD and area residents, may want to extend coverage as far as 15 kilometres, as shown in the maps above. Extension beyond 15 kilometres, while possible, probably should be deferred.

While extension of the CLFD fire protection areas to include Areas A, B, C and D is recommended, the more immediate priority for the Department is to address the issues raised by the FUS in terms of water supply. These include the development of cisterns and other water supply points including dry hydrants at various locations as well as the implementation of the tanker shuttle service to provide a continuous flow of water at any structure fire. This should be implemented and then accreditation from FUS as a Superior Tanker Shuttle Service should be sought²¹. Development of a master water plan (recommendation 21) will require the assistance of a third-party with expertise in planning such systems for public fire protection.

A further requirement will be to ensure annual compliance with the level of service agreed by the PRRD which is Full Service. The Department has taken a number of steps to record training in a compliant software package and to address the level of supervision by company officers. Compliance with this level of service which is the highest level and comparable to many cities with career personnel is complex and will require a great of diligence.

²¹ Superior Tanker Shuttle Accreditation applies within defined travel limits and can result in a significant reduction in fire insurance premiums. Beyond those travel limits a tanker shuttle will still provide a continuous water supply where none is currently in place enhancing fire protection and life safety but without a consequent reduction in premiums.



REPORT

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To: Electoral Area Directors Committee

Date: January 9, 2018

From: Deborah Jones-Middleton, Protective Services Manager

Subject: Charlie Lake Fire Road Rescue and First Medical Responder Service Provision Feasibility

RECOMMENDATION(S):

1. That the Electoral Area Directors Committee recommend that Board direct staff to investigate the number and type of calls attended by the BC Ambulance Service in the Charlie Lake Rural Fire Protection Area and provide a report back to the Electoral Area Directors Committee on the costs and benefits if the Charlie Lake Fire Department were to expand its services to include First Medical Response.
2. That the Electoral Area Directors Committee recommend that Board direct staff to enter discussions with the City of Fort St. John regarding the Charlie Lake Fire Department providing road rescue service within the Charlie Lake Rural Fire Protection Area, and Fort St. John continuing road rescue service to the area outside of the Charlie Lake Rural Fire Protection Area;

and report the findings back to a future Electoral Area Directors Committee meeting.

BACKGROUND/RATIONALE:

At the April 20, 2017 Regional Budgets Administration Committee meeting the following motion was carried:

"That the Rural Budgets Administration Committee approve that \$10,000 be provided from Area C Peace River Agreement funds for the purpose of conducting a study to examine the feasibility of Charlie Lake Fire providing road rescue and medical first responder services.

Dave Mitchell and Associates were hired to perform the feasibility study. They have provided the following recommendation:

"In terms of additional services, implementation of RR (Road Rescue) or FMR (First Medical Response) could be considered, in that order. Considering the risk of a fire or leak of hazardous materials that is always present in an accident, the addition of RR to the Department's mandate makes sense. The Chief has advised that the Department could offer this service as it has trained personnel and appropriate equipment. Addition of FMR is a more complex issue as noted and will require a further dialogue with BCAS to quantify the number and types of responses in the area as well as their current on-scene times for such events."

The Charlie Lake Fire Department currently trains volunteers in Road Rescue as it is required to obtain NFPA 1001 Level 2 certification and in First Medical Response to provide medical response to injured firefighters before BC Ambulance attends a scene. Charlie Lake Fire Department currently has:

- 16 members trained to NFPA 1001 which includes Road Rescue training;
- 11 members First Responder Qualified and Emergency Medical Association Certified;

Staff Initials:

Dept. Head:

CAO:

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- The 2018 Charlie Lake Fire Department Budget includes funds to train the remaining firefighters in both services.

OPTIONS:

Provide direction to staff.

STRATEGIC PLAN RELEVANCE:

- ☐ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☒ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☐ Foster Collaboration on services with municipalities and electoral areas.
- ☐ Establish a strategy for coordinated advocacy on identified issues.
- ☐ Manage parks and trails in the region.
- ☐ Support the agricultural industry within the regional district.
- ☐ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

The cost of the recommendation is approximately 3 hours of staff time.

COMMUNICATIONS CONSIDERATION(S): None.

OTHER CONSIDERATION(S):

Attachments: Dave Mitchell and Associates feasibility study: Charlie Lake Volunteer Fire Department Service Review and Options

March 15, 2018



PEACE RIVER
REGIONAL DISTRICT

Charlie Lake Volunteer Fire Department Service Review and Options

Dave Mitchell & Associates Ltd.

December 2017

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Executive Summary

The Peace River Regional District (the “PRRD”) is reviewing service options for the Charlie Lake Fire Department (the “CLFD” or the “Department”) including the possible addition of Road Rescue (the “RR”) and First Medical Response (the “FMR”). In both cases this would be within the fire protection area however this response area may be increased in size to include response to an additional four areas¹. In the case of RR and FMR these services are currently provided by the Fort St John Fire Department (the “FSJ”) and the BC Ambulance Service (the “BCAS”) respectively.

If the response area is increased there will be a need to assess the impact on the existing mutual aid agreements with Fort St John and Taylor. Each of these has explicit language that limits the responding department’s response to the area described within the current agreement. As such, unless the agreements are amended, there would be no mutual aid support for the expanded service area.

The Department is currently authorized by policy to provide firefighting, public education, pre-planning, high-angle rescue only for Canfor and lift assists at the request of the BC Ambulance Service (the “BCAS”). Road Rescue is currently provided by FSJ and FMR is provided by the BCAS. In terms of its provision of firefighting, the Department is authorized as a Full Service fire department as outlined in the requirements of the Office of the Fire Commissioner (the “OFC”) Playbook.

The service area was reviewed by the Fire Underwriters Survey (the “FUS”) in 2015 and was found to be deficient in terms of the water system to support fire suppression. The provision of a water system either by hydrant or tanker is a fundamental requirement for fire suppression and the water system provides 30% of the assessment of a fire department. Improvements to the water system should be the first priority for the CLFD and the PRRD and should include implementation of tanker shuttle service within the region, utilizing the adjacent fire departments if possible. Once that level of service is addressed, the Department may wish to consider RR and FMR.

In terms of additional services, RR would add approximately 17 responses per year and would be within the Department’s current capability. Their arrival on scene at these incidents would be in support of BCAS which would have primary responsibility for patient treatment. The Department’s role would be to assist as required and to take primary responsibility for scene safety, fire suppression as required and mitigation of any spilled gasoline, diesel or other hazardous substances.

Provision of FMR should be considered but not implemented until such time as the potential call volume is clarified with BCAS and a determination made as to the types of calls at which the Department could provide a timely service. Lacking any response data for the current deployment of BCAS, it may be the case that there is no service gap that could be bridged by

¹ These areas are addressed in a separate report by Dave Mitchell & Associates.

having the CLFD provide an FMR service. The provision of this additional service should also reflect the wishes of the local residents who were surveyed as part of the review in 2011 and at that time did not support the provision of RR or FMR; see the following section: Public Expectations. Finally, it should be recognized that the primary remit of the CLFD is fire service and its priority should be to address those issues identified by the FUS and to ensure it continues to meet the requirements of the Playbook for Full Service.

The impact of a significant increase in the total call volume of the Department would need to be understood in terms the ability to call back volunteers many more times that is currently the case. Furthermore, and depending on the level of acuity chosen, the Department would need to ensure appropriate training and certification in addition to completing an indemnification agreement with BCAS. However, without any response data from BCAS it is very difficult to calculate the number of additional response or the equipment and training costs.

Background

The CLFD is subject to oversight and direction by the PRRD and operates within a local service area established by bylaw. The PRRD taxes service area residents to recover the costs of operating the Department. The Department operates from a single fire hall and is located immediately west of Fort St John as shown in Figure 1. It also provides first fire response to a lumber mill west of the North Peace Airport as shown in the red circle.



Figure 1: Charlie Lake Fire Protection Area

The PRRD is considering service options for the Department that could include the provision of FMR, RR or both within the fire protection area. At present these areas are provided by the Fort St John Fire Department (the “FSJ”) in the case of RR and the BC Ambulance Service provides medical response.

Addition of either of the two proposed services will have an impact on the existing level of service which has been revised over time to establish the Department and define the levels of service. The service level is currently defined in policy dated 29 May 2017 and the CLFD is

authorized to be a Full Service fire department within the meaning of the Office of the Fire Commissioner Playbook (the “Playbook”). Full Service is the highest of three levels and requires extensive training and assessment and detailed requirements are listed in Appendix 2—The Playbook Requirements for Full Service.

The Department is authorized to undertake the following levels of services within the Charlie Lake Fire Protection Service Area².

1.4 Charlie Lake Fire Department is authorized to undertake the following levels of services within the Charlie Lake Fire Protection Service Area.

- i. Firefighting
- ii. Wildland and Urban Interface Firefighting
- iii. High Angle Rescue – Canfor Responses Only
- iv. Mutual Aid
- v. Public Service Response
- vi. Hazardous Materials Response – Awareness Level Only
- vii. First Responder for firefighter aid or aid to a victim at an authorized level of service incident
- viii. Medical Lift Assist when requested by BC Ambulance
- ix. Pre-Fire Planning
- x. Public Education
- xi. Firefighter Training

As written the level of service does not authorize RR or FMR for the public with the exception of a lift assist on request by BC Ambulance³.

² Peace River Regional District Rural Fire Department Firefighting Service Level & Training Policy, report dated 29 May, 2017.

³ This is similar to Dawson Creek which has not adopted FMR, but will respond to a specific request by BC Ambulance.

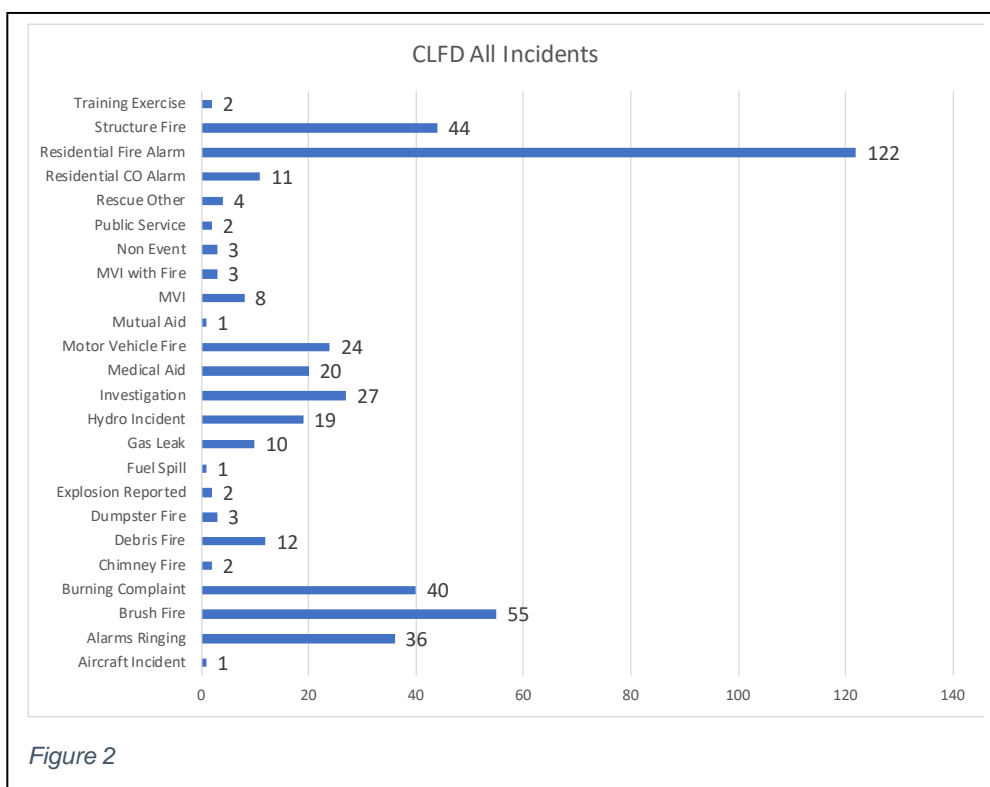
Existing CLFD Responses

The Department has been dispatched for a number of years by FSJ which provided a data set for the period 2010 to 2016⁴.

This data was reviewed to determine the call volume based on the existing agreed level of service. The data indicates that responses are to a broad range of call types as shown in Figure 1.

From this it can be seen that the majority of responses

(37.4%) are for Alarms, either Residential Fire Alarms, Alarms Ringing or Residential CO Alarms.



Non-structural fire responses which includes Brush Fires and Dumpster Fires total 58, or 11.8%. Fires in structures including Structure Fires and Chimney Fires are 11.1% of the total, at 50 over the period. The data from the FSJ Computer Aided Dispatch system (the “CAD”) indicates that over the period that CLFD responded to a total of 24 incidents classified as Medical Aid or Rescue Other, comprising 5.3% of total responses. As well the Department responded to 11 calls classified as MVI or MVI with Fire, representing 2.6% of all responses.

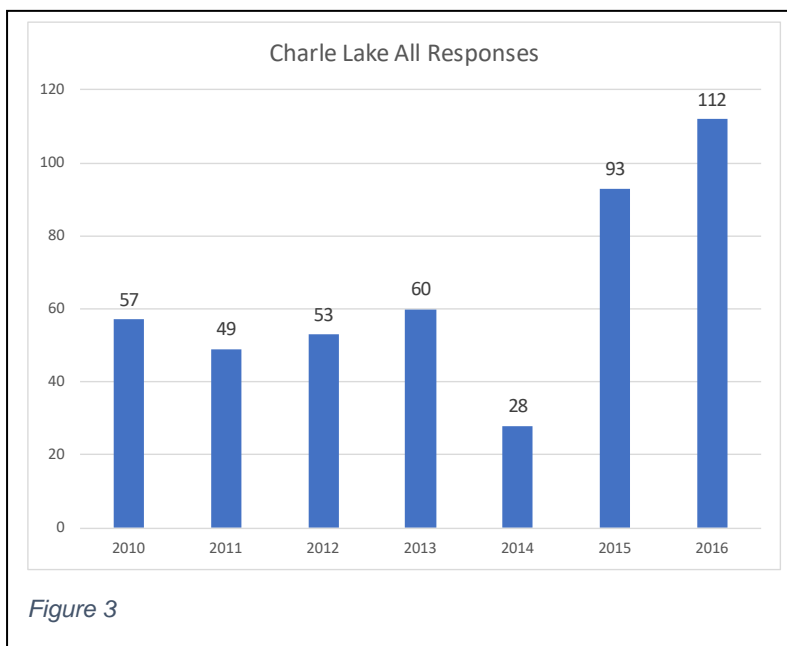
It should be noted that these responses are those tracked in the CAD system and it is possible that these were received by FSJ from the electronic interface with the BC Ambulance Service (the “BCAS”) CAD system but not dispatched because of a dispatch policy. For this reason, it is recommended that the CLFD should review its existing responses records to confirm the responses, by type that it has a record of attending.

⁴ Note that the data set was incomplete for the year 2014, comprising only the last four months and so for the purposes of year over year call volume calculations, that year is omitted. In terms of counting the total number of responses over the six-year period, 2014 is included.

Responses by Year

Responses by the Department have increased annually as shown in Figure 3, with the exception of 2014 which as noted previously lacks the responses data from January to August.

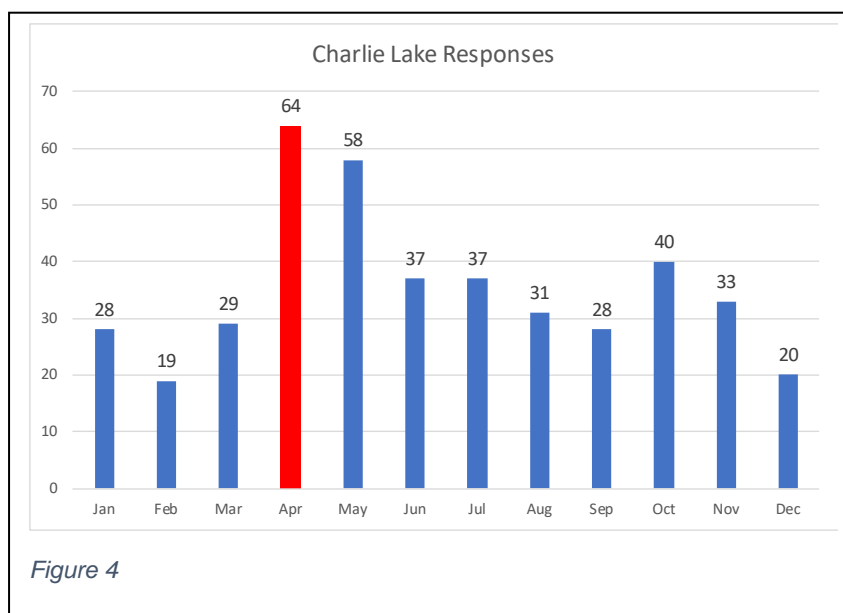
The average number of responses for 2010 to 2013 is 54.75. For the period 2015 and 2016 it is 102.5; essentially the call volume has doubled.



Responses by Month

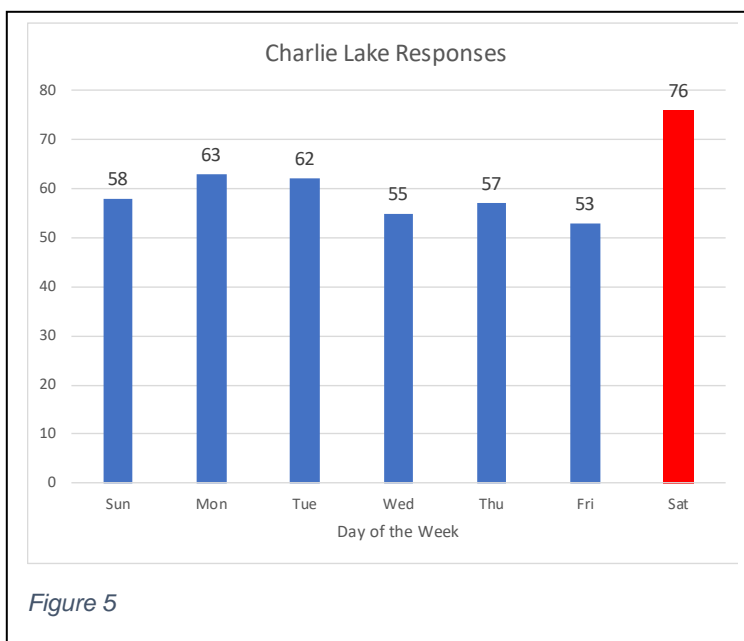
Responses by the CLFD vary considerably during the year as shown in Figure 4.

These range from a peak of 64 in April and 58 in May to a low of 19 in February and 20 in December.



Responses by Day of the Week

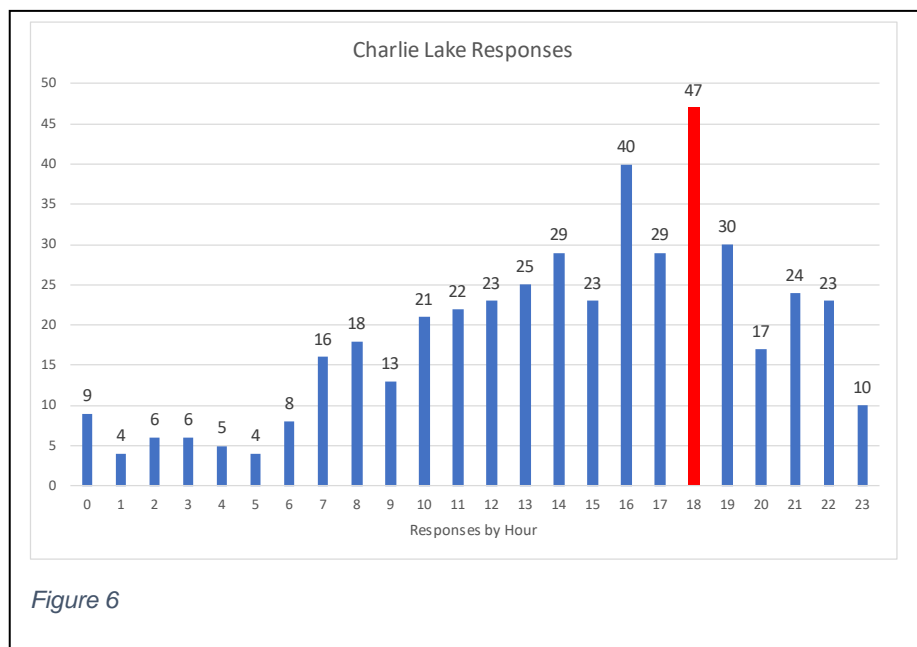
Responses by day of the week are more typical of most fire departments with a peak at the end of the week and less call volume mid-week.



Responses by Hour

CLFD responses by hour are shown in Figure 6. This type of distribution by hour is fairly typical of a fire department that performs a limited number of FMR calls.

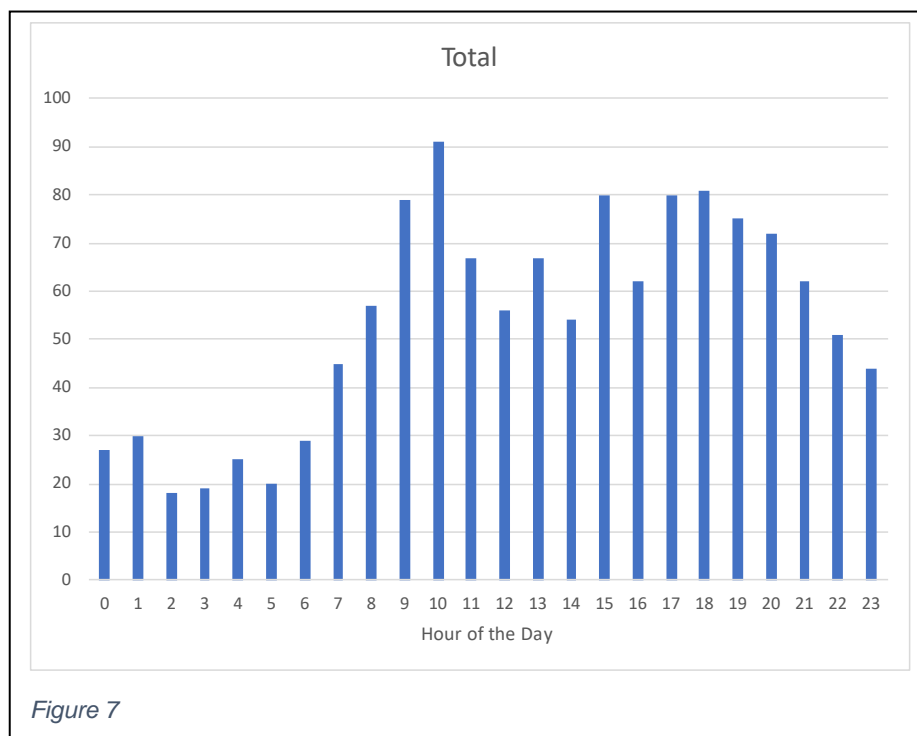
Most departments which include FMR within their scope experience a peak in call volume from around 10:00 until mid-afternoon.



One example from another fire department the consultants have recently worked with is shown in Figure 7. The difference between the shape of the two graphs is largely comprised of an additional level of FMR responses.

If the PRRD chooses to implement FMR it is likely that the distribution of response by the Department will

change in a reasonably similar way. This will have an impact on available resources not just in terms of an additional call volume but also when during the day they will be required.



Road Rescue Response Estimate

Road Rescue in Charlie Lake is currently provided by the FSJ. This is part of their mandate to provide RR in a larger portion of the PRRD and they have provided response data for 2015 and 2016. For this period the total number of RR responses totals 34 as summarized in Table 1.

Table 1

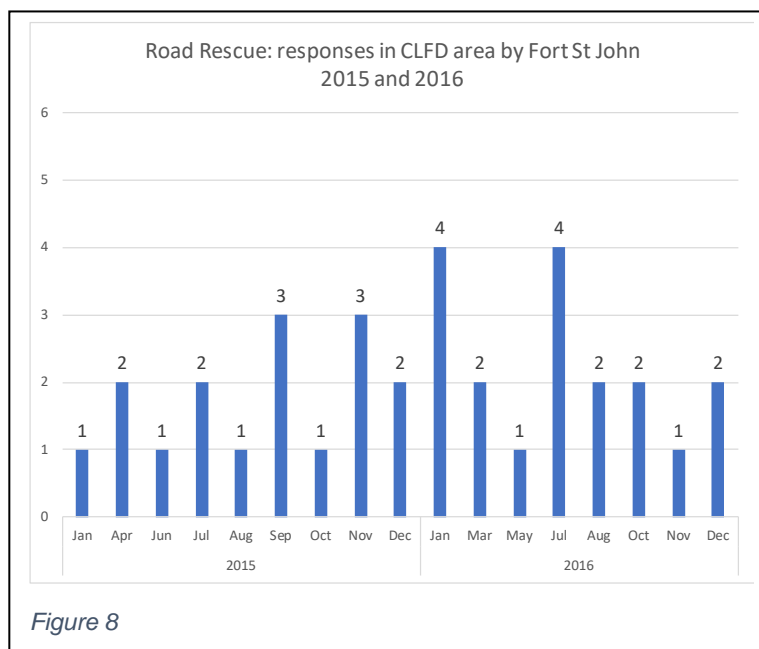
Year/Month	Count
2015	
Jan	1
Apr	2
Jun	1
Jul	2
Aug	1
Sep	3
Oct	1
Nov	3
Dec	2
2015 Total	16

2016	
Jan	4
Mar	2
May	1
Jul	4
Aug	2
Oct	2
Nov	1
Dec	2
2016 Total	18
Grand Total	34

Responses by Year and Month

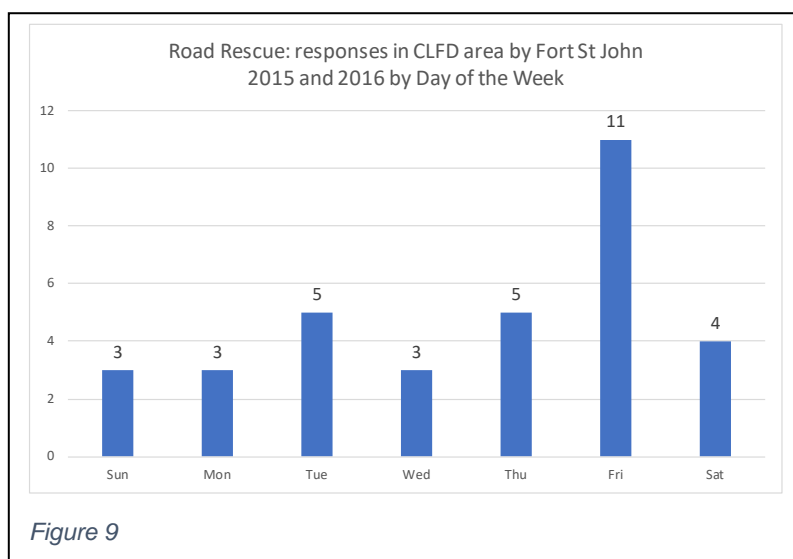
The distribution of RR responses is not even, as shown in Figure 8.

For example, RR responses only occurred in nine months in 2015 and eight months in 2016.



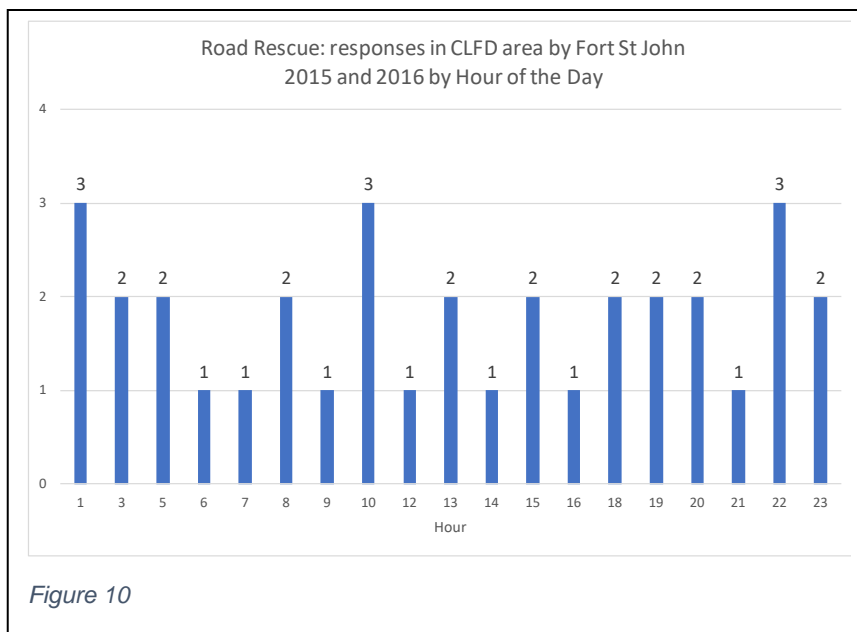
Responses by Day

Responses by day of the week are shown in Figure 9 with the highest volume occurring on Friday with 11 responses; more than double the next busiest days which are Tuesday and Thursday with five each.



Responses by Hour

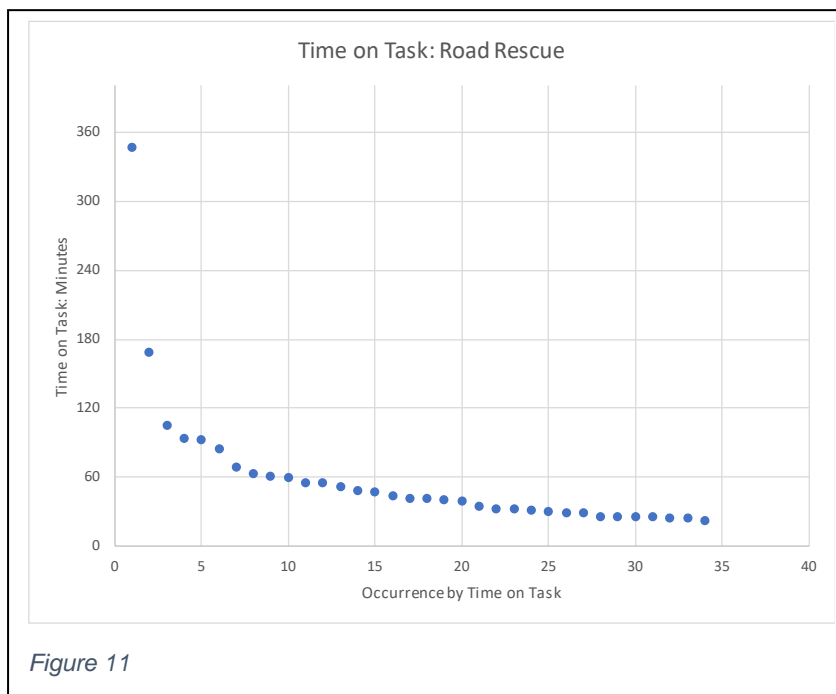
Responses by hour are shown in Figure 10. What this suggests is that the RR responses are evenly spaced throughout the day unlike what would be anticipated with FMR incidents.



Incident Duration

The data also provides information on the duration of the RR incidents and this provides a level of detail that should be factored into a decision to implement this program. The time on task for these incidents over the two-year period is summarized in Figure 11.

In this two-year period the average time on task was 59 minutes, the minimum 23 minutes and the maximum 347 minutes. Twenty five of these responses were one hour or less in duration.



Public Expectations

At the present time, and by its bylaw and policy the Department provides fire response and is not currently mandated to provide RR or FMR. As part of the 2011 review⁵, the community was surveyed to gauge the level of satisfaction with the existing service and to clarify public expectations. The survey included the following questions:

3. At present, the FD provides fire suppression services. Would you support the idea of the department providing other services, such as medical first responder & road rescue – understanding that to do so will involve higher taxes?				
RESPONSES	YES	NO	UNSURE	BLANK
	58	86	23	1

For question 3, inquiring about support for medical first responder & road rescue (FMR and RR), 86 (51%) were not in support, with 58 (35%) in support.

4. Do you support the idea of the FD conducting fire safety inspections of public buildings and local business to ensure that they meet Fire Code requirements and to preplan for emergencies?				
RESPONSES	YES	NO	UNSURE	BLANK
	124	31	12	1

Question 4 tested support for the Department conducting fire safety inspections and for this question 124 (74%) were in favor, 31 (18%) were opposed.

6. Would be in favour of the RD exploring the idea to create a “regional” fire department by margining Charlie Lake’s department with Fort St. John and possibly Taylor?				
RESPONSES	YES	NO	UNSURE	BLANK
	77	48	41	2

The final question explored the issue of the formation of a regional fire department and on this question 77 (46%) were in favour, with 48 (29%) opposed.

On balance, there was support for the Department’s existing mandate and service delivery; there was support for the Department to conduct safety inspections and support for the PRRD to administer the Department as well as for a regional fire service. In terms of additional services such as FMR and RR, the majority of those who responded were not in favour in 2011.

Analysis

The following analysis will review each of the previous sections in terms of the current and proposed future service mandate for the Department.

Service Mandate

The mandate for the CLFD is prescribed in a policy dated 29 May 2017 which authorizes the Department to be Full Service. The policy also outlines the services which the Department can offer and they include firefighting, training, pre-planning, high-angle rescue for Canfor and

⁵ Governance, Administrative and Operational Review conducted by Dave Mitchell & Associates Ltd.

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hazardous materials response to the awareness level. Road rescue is not within the service mandate, nor is FMR with two exceptions. Members of the Department may provide FMR to a firefighter or to a victim at an incident; they may also provide a lift assist at the request of BCAS.

The potential addition of RR and/or FMR to the service mandate are discussed further in a following section suffice it to say that they are not presently within the service mandate. Addition of either of them would require a change in policy.

Road Rescue

At present RR is provided by FSJ within Charlie Lake and for the past two years has average 17 responses. This service is not currently within the mandate⁶ of the CLFD but should be considered for several reasons.

First, the service mandate does provide for firefighting within the service area and this is always a risk with a motor vehicle incident (the “MVI”) given the potential for spills of gasoline or diesel or for impairment of electrical systems. Second, the Department is confident that it has sufficient apparatus and personnel trained to operate this service⁷. This was reviewed with the Fire Chief who noted that the Department has suitable rescue tools and trained personnel. Third, although RR is currently provided by FSJ there is always the chance that department may be committed to other incidents within the city which potentially could delay a response in Charlie Lake.

First Medical Response

First Medical Response for Charlie Lake is currently within the mandate of the BCAS and the impact of adding this to the Department’s mandate is very complex. First, it is more difficult to ascertain the potential call volume in this area as that has not been provided and so there is no practical way to calculate the potential service impact for the Department.

Within the province, and where the service is authorized, fire departments choose to respond to one of five major responses types ranging from Alpha with the lowest acuity through Bravo and Charlie, to Delta and Echo with the highest acuity.

The consultants are not aware of any fire department that responds to all five levels; most choose to respond to Delta and Echo and often not all sub-types within those. Within the five levels of acuity, the BCAS event codes describe more than 1,700 variants.

⁶ The 2011 survey found 31% of residents supported implementation of RR and FMR with 51% opposed, the remainder undecided.

⁷ In our recent experience with an auto extrication course in the Interior, the cost was \$3,500 for a weekend program with local instructors plus around \$1,000 for 10 vehicles for practice.

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The response codes of Alpha through Echo describe the relative severity and the type of response, either 'routine' or 'lights and siren'. One model uses the following to describe the

Alpha	Non-Life-Threatening
Bravo	Possibly Life-Threatening
Charlie	Life-Threatening
Delta	Serious Life Threat
Echo	Life Status Questionable

Figure 12

progression from non-emergency to emergency response.

The medical protocol used by BCAS continues to be revised and most recently had 1,729 possible diagnoses within 33 general descriptions.

Table 2

Code	General Type	Variations
01	Abdominal Pain/Problems	16
02	Allergies/Envenomations	41
03	Animal Bites/Attacks	19
04	Assault	48
05	Back Pain	10
06	Breathing Problems	40
07	Burns (Scald) Explosion	88
08	CO/Inhalation/HAZMAT/CBRN	112
09	Cardiac Arrest	56
10	Chest Pain/Chest Discomfort	14
11	Choking	31
12	Convulsions/Seizures	36
13	Diabetic Problems	15
14	Drowning/Near Drowning	82
15	Electrocution/Lightning	24
16	Eye Problems/Injuries	8
17	Falls	108
18	Headache	128
19	Heart Problems/A.I.C.D.	16
20	Heat/Cold Exposure	22
21	Hemorrhage/Lacerations	42
22	Inaccessible Incident/Entrapment	72
23	OD/Poisoning	75
24	Pregnancy/Childbirth/Miscarriage	40
25	Psychiatric	64

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Code	General Type	Variations
26	Sick Person	50
27	Stab/GSW/Penetrating Trauma	84
28	Stroke (CVA/TIA)	210
29	Traffic Incident	113
30	Traumatic Injuries	17
31	Unconscious/Fainting (Near)	14
32	Unknown Problem (Person Down)	6
33	Interfacility/Palliative Care	28
	Total	1,729

In our experience those fire departments that choose to respond to FMR expect to review each of these 1,729 variations and determine which ones they wish to respond to. Then, depending on the nature of these, their training, equipment and periodic certification is derived.

For departments that choose to respond to FMR, the call volume from this type often approaches 50% of the total call volume. This could potentially increase the CLFD's responses to 200 or more and in some fire departments this has a negative impact on volunteer firefighters.

Implementation of FMR by the CLFD should be considered, but it will be necessary to understand the impact in terms of call volume and this will require a response review with the BCAS. One element of this review will be an understanding of response times by BCAS within Charlie Lake to clarify whether the CLFD would arrive prior to, simultaneous or after the arrival of the ambulance.

Depending on the level of service provided, the Department will need to ensure that it has sufficient personnel, training⁸ and ongoing recertification⁹ as required to support this service and that it is prepared to sign an agreement with BCAS. It will also need to ensure public support for this service; such support was not reflected in the 2011 survey.

Summary

The CLFD is defined as a Full Service fire department with a service mandate that includes aspects of firefighting but which does not explicitly authorize either RR or FMR. Road Rescue is provided by FSJ, FMR by the BCAS. The service mandate also prescribes an annual audit to ensure the Department continues to meet the Playbook requirements noted in Appendix 2—The Playbook Requirements for Full Service.

⁸ In our recent experience the Red Cross has provided FMR training for fire departments in BC and the cost for this may approach \$800 per member. A firm price should be obtained prior to authorization. As well there are a number of service providers in BC some of which may offer the program for different rates.

⁹ In a similar way our recent experience in terms of costs for recertification is \$400 per member.

R-3

The Department's call volume is increasing steadily, and it is addressing the recommendations of the most recent FUS report many of which have been completed or are in progress. At the same time 11 out of 28 recommendations relate to providing a water supply sufficient to support fire suppression.

The water supply in any jurisdiction accounts for 30% of the total rating of a fire department by the FUS and as a first priority the Department and the PRRD are encouraged to address this shortage by the implementation of cisterns, water-fill points and by implementation of a tanker shuttle service.

In terms of additional services, implementation of RR or FMR could be considered, in that order. Considering the risk of a fire or leak of hazardous materials that is always present in an accident, the addition of RR to the Department's mandate makes sense. The Chief has advised that the Department could offer this service as it has trained personnel and appropriate equipment. Addition of FMR is a more complex issue as noted and will require a further dialogue with BCAS to quantify the number and types of responses in the area as well as their current on-scene times for such events.



REPORT

To: Chair and Directors

Date: February 13, 2018

From: Shawn Dahlen, Deputy Chief Administrative Officer

Subject: Area B Potable Water Budget Update

RECOMMENDATION(S):

That the Electoral Area Directors Committee and Regional Board receive the Area B potable water budget update for information.

BACKGROUND/RATIONALE:

On August 24, 2017 the Regional Board awarded the contract for Public Potable Water Tank Loader Facilities – Engineering Services to Urban Systems Ltd. in the amount of \$226,183.00, excluding taxes. It was noted under the Financial Considerations of the report that once a preferred concept was determined, the extent of optional items such as survey, geotechnical, environmental monitoring and an operation and maintenance plan would have to be determined. It was also noted that any additional optional items determined would add additional costs to the engineering services and project, based on the extent of the services required. These additional costs were not required as part of the request for proposal as a concept and final design determine the extent and viability of the aforementioned options.

OPTIONS:

N/A

STRATEGIC PLAN RELEVANCE:

- ☐ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☐ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☐ Foster Collaboration on services with municipalities and electoral areas.
- ☐ Establish a strategy for coordinated advocacy on identified issues.
- ☐ Manage parks and trails in the region.
- ☐ Support the agricultural industry within the regional district.
- ☒ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

The Regional Board awarded the Engineering Services contract to Urban Systems Ltd. for \$226,183.00, excluding taxes. The next lowest qualified bidder was WSP who had done the original Bulk Tank Loader Facilities Feasibility Study. Their price came in at \$497,990.00. If they had been successful, they would have also been pursuing optional items not required to be bid on in the request for proposal. The difference between the two bids is \$271,807.00.

March 15, 2018

Staff Initials:

Dept. Head:

CAO:

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Additional expenditures to date as a result of extra works:

Additional concept and cost estimate	\$7,500.00
Site visits for 72hr well monitoring	\$2,300.00
Separate RFP for building and treatment equipment	\$16,500.00
Geotechnical investigation	\$42,309.00
Topographic survey	\$23,654.00
Water licensing	\$32,000.00
Design Brief	\$5,000.00
Total	\$129,263.00

Note: The process of an additional RFP for building and treatment equipment showed a savings of over \$600,000.00 compared to original cost estimates.

Construction Services – Optional Work Remaining for Consideration:

Operation and maintenance plan	\$6,600.00
Maintenance management plan	\$6,600.00
Emergency response plan	\$6,600.00
Contract preparation between PRRD and contractor	\$7,800.00
Total	\$27,600.00

COMMUNICATIONS CONSIDERATION(S):

An additional financial update may follow in the spring as a result of the consideration of additional Construction Services – Optional Work, as presented in the Financial Considerations.

OTHER CONSIDERATION(S):

Staff continues to work toward land acquisition at Buick and Rose Prairie. The review of the water supply agreement between Whitecap Resources and the Peace River Regional District has been initiated.

Attachments:

Urban Systems Ltd. Area B Potable Water Truckloading Facility – Budget Update – Professional and Capital Fees

MEMORANDUM

Date: January 12, 2018
 To: Shawn Dahlen, Deputy CAO, PRRD
 cc: Kim Zackodnik, EIT., Urban Systems
 From: Jaime Adam, P. Eng.
 File: 0601.0074.02
 Subject: Area B Potable Water Truckloading Facility – Budget Update – Professional and Capital Fees

As requested this memo provides a budget update for the Area 'B' Potable Water Truckloading Facility project. It will provide a breakdown of the following information:

- Professional Fees (total and for each site)
 - Conceptual Design Phase – what fees have been spent, and remaining work for be done
 - Water System RFP (Optional Work) – what fees have been spent, remaining work to be done
 - Detailed Design Phase– Anticipated Fees including optional work
 - Tender Preparation Phase – Anticipated Fees including optional work
 - Construction Phase – Anticipated Fees including optional work
 - Schedule – Proposed schedule to complete all work outlined above
- Capital Fees (total and for each site)
 - Water Treatment Systems – Anticipated Fees – total and for each site
 - Civil and Site works – total and for each site

1.0 Professional Fees

1.1 Conceptual Design Phase - Fees

This phase of the project is now complete. Three options were prepared by Urban Systems and reviewed with PRRD staff. During the review it was determined the next best step was to complete an RFP for the water treatment systems to obtain best pricing for the 5 sites (proposed as optional work in section 4.1 of our proposal). The preparation of the RFP document was completed by Urban Systems for \$16,500 (plus GST). Some additional work was completed during this phase of the project, resulting in additional scope and fees. These additional fees are broken down below. These additional fees have not yet been approved by the PRRD or billed to the PRRD, and we are respectfully requesting approval of these fees.

Table 1. Conceptual Phase – Additional Work

Conceptual Design – Additional Scope Description	Additional Scope Associated Fees
Additional concept option sketches and cost estimates	\$7,500

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Additional Site Visits x 2 (with PRRD staff and to retrieve data loggers for Kala Groundwater)	\$2,300
Total Cost of Additional Work	\$9,800

Below is a summary of the costs associated with the Conceptual Design Phase. This includes the additional fees outlined above as well as the approved fees for the Water System RFP.

Table 2. Conceptual Design Budget Summary

Conceptual Design Phase – Tasks	Budgeted Fees	Fee Spent to December 31, 2017	Fee remaining to be billed
Concept Development and Cost Estimates	\$68,408	\$68,408	\$0
RFP for Water Treatment Systems – optional scope	\$16,500	\$15,874	\$626
Additional Scope (Table 1)	\$9,800	\$0	\$9,800
Total Fees	\$94,708	\$84,282	\$10,426

1.2 Detailed Design and Tender Preparation Phase - Fees

The detailed design phase of this project has not yet begun. Our proposed budget, as outlined in our proposal for this phase of the project (exclusive of optional work) is \$96,740. During recent conversations with the PRRD, we were requested to identify fees for proposed optional work as outlined in our proposal. Table 3 below outlines the proposed fees for the optional work.

Table 3. Detailed Design and Tender Preparation Phase – Optional Work Proposed Fees

Detailed Design and Tender Preparation Phase – Optional Work Tasks	Proposed Professional Fees
Geotechnical Investigation – SNC Lavalin	\$42,309*
Topographic Survey – Tryon Group	\$23,654*
Water Licencing	\$32,000**

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Design Brief	\$5,000
Total Cost of Optional Items	\$102,963

*Please note – this cost includes a 5% mark up for Urban Systems to administer the subconsultant invoices as well as an allowance of \$1,000 for Urban Systems to coordinate the subconsultant as needed.

**Please note – this includes licencing for 4 sites as the PRRD has completed an application for the Prespatou site already. It also includes an allowance of \$4,000 for each site's licensing fees with the Ministry.

Table 4 below outlines a summary of all fees for the Detailed Design and Tender Preparation Phase fees, including all optional items outlined in Table 3 above.

Table 4 – Detailed Design and Tender Preparation Phase – Professional Fees Summary

Detailed Design and Tender Preparation Phase – Tasks	Proposed Professional Fees
Proposed Fees – as outlined in our submitted proposal	\$96,740
Proposed Fees – Optional Items	\$102,963
Total Professional Fees	\$199,703

1.3 Construction Management Services Phase - Fees

This phase of the project has not yet begun. Our proposed budget, as outlined in our proposal for this phase of the project (exclusive of optional work) is \$60,985. This fee estimate was made with the following assumptions outlined in our proposal:

- 12 week construction schedule for all five sites;
- The PRRD uses the same contractor for all 5 sites;
- Part time inspection of 2 full days per week
- Commissioning will require 1 day per site

This includes fees for contract administration, inspection services, station commissioning, record drawings as well as preparation of an RFP document for procurement of operator services for the PRRD for the 5 stations. Our proposal also included some optional items for the PRRD to consider for the construction phase of the project. Below is a summary of the optional items along with the associated fees.

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Table 5 – Construction Management Services Phase – Optional Work Proposed Fees

Construction Services Phase – Optional Work Tasks	Proposed Professional Fees
Operation and Maintenance Plan	\$6,600
Maintenance Management Plan	\$6,600
Emergency Response Plan	\$6,600
Contract Preparation between PRRD and successful operations contractor	\$7,800
Total Cost of Optional Items	\$27,600

Table 6 below provides a summary of all fees associated with the Construction Services phase of this project. It also includes all optional items.

Table 6 – Construction Services Phase – Professional Fees Summary

Construction Management Phase – Tasks	Proposed Professional Fees
Proposed Fees – as outlined in our submitted proposal	\$60,985
Proposed Fees – Optional Items	\$27,600
Total Professional Fees	\$88,585

1.4 Professional Fees Summary

Below provides a summary of the proposed professional fees for all phases of the project outlined above, including all optional items. It also includes a summary of all fees spent to December 31, 2017 as well as proposed fees outstanding.

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Table 7 – Professional Fees Summary

Professional Scope	Proposed Professional Fees	Fees Billed to December 31, 2017	Remaining Fees to be billed
Conceptual Design – proposal scope	\$68,408	\$68,408	\$0
Conceptual Design – additional work	\$9,800	\$0	\$9,800
Conceptual Design – optional scope	\$16,500	\$15,874	\$626
Detailed Design and Tender – proposal scope	\$96,740	\$0	\$96,740
Detailed Design and Tender – optional scope	\$102,963	\$0	\$102,963
Construction Services – proposal scope	\$60,985	\$0	\$60,985
Construction Services – optional scope	\$27,600	\$0	\$27,600
Total Professional Fees	\$382,996	\$84,282	\$298,714

1.5 Professional Fees Summary – Based by Site

Below is a breakdown of the fees for each site based on the total Proposed Professional Fees of \$382,996 shown above.

Table 8 – Summary of Professional Fees – Based on Site

Project Site	Professional Fees per Site
Prespatou Site	\$53,616
Boundary Lake Site	\$61,280

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Feye Spring Site	\$61,280
Rose Prairie Site	\$103,410
Buick Creek Site	\$103,410
Total Professional Fees	\$382,996

1.6 Project Schedule

Along with the budget update for this project, we have included an update to the project schedule. Due to the addition of some optional items, the schedule has been revised to reflect the time required to complete all tasks. A summary table is provided below to highlight key milestone dates. It only includes from detailed design onward, as the conceptual design phase is now considered complete

Table 9 – Proposed Project Schedule

Key Milestone	Proposed Schedule Milestone Date
Topographic Survey	February 5 th , 2018
Geotechnical Investigation complete with report	February 26 th , 2018
Detailed Design 90% Complete – meeting with PRRD staff	February 16 th , 2018
Draft Tender Document to PRRD staff	February 23 rd , 2018
Finalize Design Drawings (once Geotech report received)	February 28 th , 2018
Tender Document Finalization and Post to MERX	March 5 th , 2018
Class 'B' Construction Cost Estimate	March 5 th , 2018
Agency Review and Permit Application Submission	March 5 th , 2018
Tender Closing and Project Award	April 2 nd – 6 th , 2018
Construction Management Services	June 2018 – September 2018
Commissioning, Project Closeout and Record Drawings	October, 2018
Preparation of RFP and Contract for facility operations	August – October 2018

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2.0 Capital Costs

Class 'D' Cost Estimates were developed during the conceptual design phase of the project. After the RFP for treatment suppliers was completed, the estimates were updated to reflect the revised water treatment cost components. Detailed cost estimates and assumptions for each site are attached in Appendix B. The Water Treatment category below includes the Flowpoint scope of work, offloading, site installation, electrical servicing, well development (as required) and general requirements (bonding and mobilization). The Civil and Site Works category below includes building preparation, site gravels, ditching and culverts. A summary of the cost estimates for each site are identified in Table 9 below, including a 25% contingency.

Table 10 – Capital Cost Estimates – Based on Site

Project Site	Water Treatment	Civil and Site Works	Contingency (25%)	Total Cost
Prespatou	\$ 407,000	\$ 101,800	\$ 127,200	\$ 636,000
Boundary Lake	\$ 403,000	\$ 33,120	\$ 109,100	\$ 545,300
Feye Spring	\$ 314,500	\$ 132,400	\$ 111,800	\$ 558,700
Rose Prairie	\$ 352,000	\$ 192,100	\$ 136,100	\$ 680,200
Buick Creek	\$ 396,100	\$ 170,600	\$ 141,700	\$ 708,400
Grand Total - 5 Sites	\$ 1,874,600	\$ 690,100	\$ 641,300	\$ 3,128,600

3.0 Total Project Cost

Below is a summary of the total cost of this project. This includes both professional fees and capital fees for all five sites.

Table 11 – Total Project Cost

Cost Component	Cost
Professional Fees – All Sites	\$382,996
Capital Costs – All Sites	\$3,128,600
Total Cost – All Sites	\$3,511,596

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Below is a summary of total cost of the project based on the sites.

Table 12 – Total Project Cost – Based on Site

Project Site	Professional Fees	Capital Costs	Total Cost
Prespatou Site	\$53,616	\$636,000	\$689,616
Boundary Site	\$61,280	\$545,300	\$606,580
Feye Spring Site	\$61,280	\$558,700	\$619,980
Rose Prairie Site	\$103,410	\$680,200	\$783,610
Buick Creek Site	\$103,410	\$708,400	\$811,810
Total Costs	\$382,996	\$3,128,600	\$3,511,596

We trust this meets your needs for budgeting purposes. Should you have any questions or require any additional information, please feel free to contact us.

We look forward to working together on the next phase of the project.

Sincerely,

URBAN SYSTEMS LTD.



Jaime Adam, P. Eng
Project Leader



Kimberly Zackodnik, E.I.T.
Project Engineer

/jla
Enclosure

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March 15, 2018

Appendix A
Subconsultant Proposals

Jaime Adam

From: Brian Elliott <belliott@tryongroup.ca>
Sent: Thursday, December 21, 2017 11:38 AM
To: Jaime Adam; 'Joe Mottishaw'
Cc: 'Andrew Hall'
Subject: RE: PRRD - Bulk Water Stations - Topographic Survey

Hi Jaime.

I can complete the survey of the 5 sites for \$21,653 + tax. We are closing for two weeks over Christmas break, but are back on January 8th. Please let me know if you have any questions.

Thank you for the opportunity to provide a cost for this work. Have a great xmas and new years.

Brian

From: Jaime Adam [mailto:jadam@urbansystems.ca]
Sent: December-20-17 9:20 PM
To: Joe Mottishaw <jmottishaw@tryongroup.ca>
Cc: Andrew Hall <ahall@tryongroup.ca>; Brian Elliott (belliott@tryongroup.ca) <belliott@tryongroup.ca>
Subject: FW: PRRD - Bulk Water Stations - Topographic Survey

Hi Joe

I have been trying to contact both Andrew and Brian regarding this work for over a week with no luck. An out of office says Andrew is gone.....no idea how long and to contact Brian.....also with no luck.

Can you help me or steer me to who can?

I will assume if I don't hear back in the next few days, you aren't interested.

Cheers

Jaime

From: Jaime Adam
Sent: Tuesday, December 19, 2017 11:33 AM
To: Andrew Hall <ahall@tryongroup.ca>
Subject: FW: PRRD - Bulk Water Stations - Topographic Survey

Thoughts on this?

Jaime

From: Jaime Adam
Sent: Friday, December 15, 2017 1:41 PM
To: Andrew Hall <ahall@tryongroup.ca>
Subject: PRRD - Bulk Water Stations - Topographic Survey

March 15, 2018

Hi Andrew,

I hope this email finds you well.

Urban Systems is currently working with the PRRD on the design and construction of 5 potable water bulk fill stations within electoral area 'B'. 3 of these stations are existing raw water stations that will be upgraded (Prespatou, Fey Spring, Boundary), the other 2 are brand new potable water truck fill stations (Buick and Rose Prairie). We have completed the conceptual design and cost estimates for the 5 stations. We would like to invite Tryon to submit a work program, fee estimate and schedule to complete the topographic survey component of the project. We anticipate it would include the following:

- Topographic survey for each of the 5 sites as follows:
 - Prespatou – within the currently fenced area, also the Triad Road for 20 m east and west of the site (CL, shoulders and ditch lines), all facilities and utilities, topo for the proposed wastewater storage area
 - Boundary Lake – truck fill site, access road to Cecil Lake Road (CL, shoulders and ditches), all facilities and utilities
 - Fey Spring – within the proposed new station area (refer to sketches). Imperial Avenue Road for 20 m east and 100 m west of the site (CL, shoulders and ditch lines), all existing facilities and utilities, tree lines
 - Rose Prairie – within the proposed fenced area, progress energy access road from 259 Road north to well head shack, Pengrowth riser, 259 Road for 20 m north and south of the site (CL, shoulders and ditch lines), all facilities and utilities,
 - Buick Creek - within the proposed fenced area, Buick Road for 20 m east and west of the site (CL, shoulder and ditch lines), both well heads, tree lines

I have included an ftp site link that contains both the most updated conceptual sketches of the work we have done, as well as the previous work completed by WSP. This will help you get an idea of the scope of work and location of each site.

["ftp://prrd_bulk_stations:bulkwater@ftp.urbansystems.ca"](ftp://prrd_bulk_stations:bulkwater@ftp.urbansystems.ca)

Username: prrd_bulk_stations

Password: bulkwater

To DOWNLOAD files, click the link above to open in your browser.

Alternately, to both UPLOAD and DOWNLOAD files, right-click and copy the link above then paste it into the address field of Windows File Explorer and hit enter.

PLEASE NOTE THAT THIS FTP SITE AND USERNAME WILL BE AUTOMATICALLY DELETED AFTER 2 WEEK(S).

Please let me know if you are interested in helping on this. If so, I will need your work program, fee estimate and schedule. I would like to have it all submitted to the PRRD (Shawn Dahlen) no later than December 22, 2017 (they are aiming for the completion of design and tender by end of Feb). Can you please let me know if that is possible? If you have any questions or wish to discuss this further, please let me know.

Have a good day

Jaime

March 15, 2018

Jaime Adam, P. Eng.
Project Leader



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If you are not the intended recipient or agent, do not rely on, distribute, or copy any part of this e-mail. If you received this e-mail in error, please delete the message, and if possible let me know it has been received in error. Many thanks.

March 15, 2018

January 4, 2018

Project: 625389-0277

Urban Systems Ltd.
 10808 100th Street
 Fort St. John, BC V1J 3Z6

ATTENTION: Jaime Adam, P.Eng.

**REFERENCE: Proposal for Geotechnical Investigation
 Peace River Regional District Potable Water Stations**

As requested, SNC-Lavalin Inc. (SNC-Lavalin) is pleased to provide this proposal and cost estimate to Urban Systems Ltd. (USL) for geotechnical engineering services in support of the proposed upgrade and construction of five potable water stations in the Peace River Regional District (PRRD).

1 Background and Project Information

Based on information provided by USL, there are five sites slated for upgrade and construction in the Peace River Region. These five sites are listed in Table 1 below, along with approximate GPS coordinates for their locations.

Table 1: Potable Water Station Locations

Water Station Name	Northing (m)*	Easting (m)*
Prespatou	6306426	613121
Boundary Lake	6245293	680233
Feye Spring	6237410	675282
Rose Prairie	6261596	637450
Buick Creek	6292315	608586

*NAD83 Zone 10V UTM coordinates

Prespatou, Boundary Lake, and Feye Spring sites are currently active raw water truck fill stations; only the Prespatou site has an existing small potable water bottle fill station attached to it. It is understood that upgrades to the sites may include upgrade or removal of the existing infrastructure, dependent on existing infrastructure and required water supply. There are no existing water station facilities at the Rose Prairie and Buick Creek sites; it is expected that existing wells at these sites will be incorporated into the potable water station design.

March 15, 2018

Infrastructure





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Urban Systems Ltd. – Page 2 of 7
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Project 625389-0277

1.1 Prespatou

The Prespatou Site is located approximately 6 km SW of Prespatou on Triad Road and 93 km North of Fort St. John, and is accessed by highway BC-97-N, Prepatou Road and Triad Road. The site is currently an active water truck fill station that includes a small potable water bottle fill station. The proposed upgrade of the site includes the construction of a 40 m x 40 m wastewater storage pond on the east side of the existing parking area of the site, and an upgrade to the treatment system and storage for the water filling station. The new treatment package is expected to be founded on screw piles and gravel. Upgrades to the site are expected to also include new culverts across the access roads to allow adequate drainage around the site, and new perimeter fencing.

1.2 Boundary Lake

The Boundary Lake Site is located approximately 60 km east of Fort St. John on Cecil Lake Road. The site is currently an active water truck fill station. The proposed upgrade of the site includes an upgrade to the treatment system and storage for the water filling station. The new treatment package is expected to be founded on screw piles and gravel. Upgrades to the site are expected to also include new deep and shallow utility line installation and new perimeter fencing.

1.3 Feye Spring

The Feye Spring site is located approximately 70 km east of Fort St. John and within the road right-of-way along the south side of Imperial Road. The site is currently an active water truck fill station. The proposed upgrade of the site includes the construction of an underground storage tank, a new treatment system and storage for the water filling station. Upgrades to the site are expected to also include new deep and shallow utility line installation and new perimeter fencing.

1.4 Rose Prairie

The Rose Prairie site is located approximately 30 km North of Fort St. John on the 259 Road. There are no existing water truck fill facilities at this site. After the proposed water truck fill facility is developed, the PRRD will own and operate the well. The proposed site includes the construction of a 40 m x 40 m wastewater storage pond on the eastern limit of the site footprint, a new treatment system and storage for the water filling station and graveled truck loading area. The new treatment package is expected to be founded on screw piles and gravel. Other development at the site is expected to include new deep and shallow utility line installation, new drainage ditch construction around the site, and new perimeter fencing.





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Urban Systems Ltd. – Page 3 of 7
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Project 625389-0277

1.5 Buick Creek

The Buick Creek site is located approximately 3 km east of Buick Community on the south side of Buick Creek Road and 76 km north of Fort St. John. There are no existing water truck fill facilities at this site. The proposed site includes the construction of a 40 m x 40 m wastewater storage pond on the south side of the site footprint, a new treatment system and storage for the water filling station and graveled truck loading area. The new treatment package is expected to be founded on screw piles and gravel. The site is expected to also include new deep and shallow utility line installation, new culverts across the access roads to allow adequate drainage around the site, and new perimeter fencing.

2 Proposed Work Plan

The proposed work plan is divided into three general tasks for each site. The following sections provide further details for each task and site, as appropriate.

2.1 Task 1 – Field Investigation

In general the field investigation at each site is expected to include one to three boreholes per site, dependent on subsurface conditions encountered, proposed development at the site, and accessibility for a drill rig. This cost estimate allows for one half day of drilling at each site, including travel from Fort St. John. Hotel accommodations and daily per diems are not expected costs for this project.

This cost estimate assumes that boreholes may be advanced by solid stem drilling; hollow stem drilling may be required dependent on subsurface conditions. Regular sampling with standard penetration testing (SPT) is proposed for the length of each borehole; one Shelby tube sample is expected to be collected at a depth of about 2.5 m to 3.0 m, if appropriate, in each borehole. This proposal does not allow for the installation of piezometers, and boreholes will be backfilled with a mixture of cuttings and bentonite chips. The final depth of the boreholes may be adjusted in the field at the discretion of the geotechnical engineer dependent on the subsurface conditions encountered.

This proposal and cost estimate assumes that the drilling subcontractor is expected to provide snow clearing to access the borehole locations. All other access permits and permissions are assumed to be provided by others, at no additional cost to SNC-Lavalin. Estimated costs for the drilling subcontractor may be reduced if the snow is cleared in advance by PRRD to each borehole location.

SNC-Lavalin proposes to conduct a BC One Call for each site a minimum of five days in advance of the field investigation program. Known private underground utility locations should be provided by USL and marked in the field by others, in advance of the field program and at no additional cost to SNC-Lavalin. This proposal allows for an underground utility check to be conducted by the drilling contractor at each borehole location.



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Urban Systems Ltd. – Page 4 of 7
January 4, 2018

Project 625389-0277

2.1.1 Prespatou

The proposed work plan at the Prespatou site includes advancing up to three (3) boreholes. The intention is to advance two of the boreholes to about 5 metres below ground surface (mbgs) at the proposed wastewater storage site and water treatment plant locations, respectively, and a third borehole to a depth of about 2 mbgs near the centre of the existing parking area to confirm current subsurface conditions.

Access to the Prespatou site is expected to be along the existing access road for the truck filling station, borehole locations may be constrained by the existing perimeter fence and infrastructure (overhead power lines and underground utilities). This proposal assumes that the field investigation at the Prespatou site will occur on the same day as the field investigation at the Buick Creek site.

2.1.2 Boundary Lake

The proposed work plan at the Boundary lake site includes advancing one (1) borehole to about 5 mbgs, and possibly (should time permit) a second borehole to about 2 mbgs. The location of the deeper borehole is the proposed water treatment plant location. The second shallower borehole is proposed near the centre of the existing parking area to confirm subsurface conditions of the existing parking area.

Access to the Boundary lake site is expected to be the existing access road for the truck filling station owned by Whitecap Resources, borehole locations may be constrained by the existing perimeter fence and infrastructure (overhead power lines and underground utilities).

2.1.3 Feye Spring

The proposed work plan at the Feye Spring site includes advancing two (2) boreholes to depths of about 5 mbgs each. The proposed locations of the boreholes are at the proposed underground wastewater storage tank site and water treatment plant location, respectively.

Access to the Feye Spring site is expected to be along the existing access road for the truck filling station, borehole locations may be constrained by the existing perimeter fence and infrastructure (overhead power lines and underground utilities). This proposal assumes that the field investigation at the Feye Spring site will occur on the same day as the field investigation at the Boundary Lake site.

2.1.4 Rose Prairie

The proposed work plan at the Rose Prairie site includes advancing two (2) 5 m boreholes, each to about 5 mbgs. The proposed borehole locations are in proximity to the proposed wastewater storage pond site and water treatment plant location.





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Access to the Rose Prairie site is expected via 259 road, borehole locations may be constrained by the existing perimeter fence and infrastructure (overhead power lines and underground utilities). This proposal assumes that the field investigation at the Rose Prairie site will occur on a third half day.

2.1.5 Buick Creek

The proposed work plan at the Buick Creek site includes advancing two (2) boreholes, each to a depth of about 5 mbgs. The proposed borehole locations are at the proposed wastewater storage pond site and water treatment plant location.

Access to the Buick Creek site is expected via Buick road, borehole locations may be constrained by the existing perimeter fence and infrastructure (overhead power lines and underground utilities). This proposal assumes that the field investigation at the Buick Creek site will occur on the same day as the field investigation at the Prespatou site.

2.2 Task 2 – Laboratory Testing

Select samples collected during the field investigation will be submitted to our local Fort St. John geotechnical laboratory for soils index testing that is expected to include moisture contents, grain size analyses, and Atterberg limits. This cost estimate does not include an allowance for consolidation testing.

2.3 Task 3 – Reporting

Following the geotechnical investigation, SNC-Lavalin proposes to provide a separate geotechnical report for each site, prepared based on a consistent template. Each report is expected to provide the factual results of the geotechnical investigation, and based on our interpretations of those results, geotechnical comments and recommendations in support of the proposed development. Recommendations are expected to include, but shall not be limited to:

- › Granular structure for the parking area;
- › Backfill and compaction for utility trenches;
- › Depth of stripping;
- › Berm design considerations for wastewater storage ponds; and
- › Foundation considerations.

3 Cost Estimate

Estimated costs for the scope of work outlined above are expected to be about \$39,420 for all five sites, excluding applicable taxes. Table 2 below provides a breakdown of the estimated costs by site and by task for your reference.





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Table 2: Estimated Cost Breakdown

	Prespatou	Boundary	Feye Spring	Rose Prairie	Buick Creek	Total per Task
Task 1 - Field Investigation	\$3,928	\$3,923	\$3,923	\$3,943	\$3,963	\$19,680
Task 2 - Laboratory Testing	\$634	\$634	\$634	\$634	\$634	\$3,170
Task 3 - Reporting	\$3,314	\$3,314	\$3,314	\$3,314	\$3,314	\$16,570
Total per Site	\$7,876	\$7,871	\$7,871	\$7,891	\$7,911	\$39,420

This cost estimate assumes that all field investigation work at all five sites will be conducted during the same field program. Delay or postponement of a portion of the field investigation work is expected to incur increased costs; SNC-Lavalin reserves the right to adjust the price accordingly.

The scope of work will be completed in accordance with the Professional Service Agreement (Attachment 1).

4 Schedule

SNC-Lavalin is available to commence the scope of work outlined above within about one week of receiving signed authorization to proceed and dependent on drill rig availability. The field investigation is expected to be conducted over three (3) consecutive work days, dependent on weather and accessibility. Reporting for each site is expected to be complete within about two weeks of completion of laboratory testing. Testing and reporting for specific sites may be prioritized based on client requirements.





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5 Closure

We trust this proposal and cost estimate provides you with the information you require at this time.

Prepared By:

Reviewed By:

Stacey Charlton, P.Eng., PMP

Geotechnical Engineer

Environment & Geoscience
Infrastructure

Damien Engelbrecht

Senior Geological Engineer

Environment & Geoscience
Infrastructure

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Attachment

- 1: Professional Services Agreement



Attachment 1

Professional Services Agreement

March 15, 2018

Appendix B
Detailed Cost Estimates and Assumptions

Appendix B – Detailed Cost Estimates and Assumptions

The cost estimates below are built off the same The Class ‘D’ Cost estimates below (and summarized above in the main memo) include the following key assumptions:

- No water treatment is required for reject water – only seasonal storage is required;
- Gravel structures are assumed and will need to be confirmed after completion of the geotechnical report;
- Off-loading and site installation, electrical servicing, well development, and screw piles are allowances, and confirmed costs will be finalized during detailed design;
- A 10% markup was included for the treatment package to cover Contractor markup; and
- General Requirements has been included under Section B – Water Treatment in the amount of 5% for the total capital costs of the project to account for markup, overhead and bonding requirements.

Table B1: Prespatou Class D Cost Estimates – Breakdown

Item	Description	Unit	Amount	Unit Price	Proposed Cost
A. Site Upgrades					
1	Clearing and Grubbing	m2	0	\$ 2	\$ 0
2	Stripping	m3	0	\$ 5	\$ 0
	Subbase gravel structure (300mm)	m2	0	\$ 30	\$ 0
3	Base gravel structure (150mm)	m2	1,400	\$ 20	\$ 28,000
4	Ditching	lm	30	\$ 30	\$ 900
5	600 mm CSP culverts	lm	20	\$ 100	\$ 2,000
6	Screw piles and gravels under building	ls	1	\$ 10,000	\$ 10,000
7	Process piping to tie well in - tie in	ea	1	\$ 300	\$ 300
8	Wastewater piping to storage pond (150 mm)	lm	20	\$ 300	\$ 6,000
9	Wastewater storage pond (40x40)	m3	2,400	\$ 20	\$ 48,000
10	Fencing	lm	180	\$ 20	\$ 3,600
11	Gates	ea	0	\$ 2,000	\$ 0
12	Bollards	ea	3	\$ 1,000	\$ 3,000
	Subtotal A - Site Upgrades				\$101,800
B. Water Treatment - Flowpoint					
	Treatment Package including commissioning and 10%				
1	Contractor markup	LS	1	\$ 373,000	\$373,000
2	Off-loading, site installation	LS	1	\$ 7,500	\$7,500
3	Electrical Servicing	LS	1	\$ 1,500	\$1,500
4	Well Development	LS	1	\$ -	\$0
5	General Requirements (5% of Total Cost)	LS	1	\$ 25,000	\$25,000
	Subtotal B - Flowpoint				\$407,000
	Sub-Total A + B				\$508,800
	Contingency (25%)				\$127,200
	Grand Total				\$636,000

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Table B2: Boundary Lake Class D Cost Estimates – Breakdown

Item	Description	Unit	Amount	Unit Price	Proposed Cost
A. Site Upgrades					
1	Clearing and Grubbing	m2	300	\$ 2	\$ 600
2	Stripping	m3	90	\$ 5	\$ 450
3	Subbase gravel structure (300 mm)	m3	168	\$ 30	\$ 5,040
4	Base gravel structure (150 mm)	m3	84	\$ 20	\$ 1,680
5	Ditching	lm	0	\$ 30	\$ -
6	Screw piles and gravels under building	ls	1	\$ 10,000	\$ 10,000
7	Process piping to tie well in (150mm)	lm	1	\$ 350	\$ 350
8	Tie to Tervita line - wastewater (6 inch)	lm	20	\$ 350	\$ 7,000
9	Backflow prevention on Tervita	ea	1	\$ 5,000	\$ 5,000
10	Fencing	lm	0	\$ 100	\$ -
11	Gates	ea	0	\$ 2,000	\$ -
12	Bollards	ea	3	\$ 1,000	\$ 3,000
Subtotal A - Site Upgrades					\$ 33,120
B. Water Treatment - Flowpoint					
	Treatment Package including commissioning and 10%				
1	Contractor markup	LS	1	\$ 373,000	\$ 373,000
2	Off-loading, site installation	LS	1	\$ 7,500	\$ 7,500
3	Electrical Servicing	LS	1	\$ 1,500	\$ 1,500
4	Well Development	LS	1	\$ -	\$ -
5	General Requirements (5% of Total Cost)	LS	1	\$ 21,000	\$ 21,000
Subtotal B - Flowpoint					\$ 403,000
Sub-Total A + B					\$ 436,200
Contingency (25%)					\$ 109,100
Grand Total					\$ 545,300

TableB3: Feye Spring Class D Cost Estimates – Breakdown

Item	Description	Unit	Amount	Unit Price	Proposed Cost
A. Site Upgrades					
1	Clearing and Grubbing	m2	3,000	\$ 2	\$ 6,000
2	Stripping	m3	1,260	\$ 5	\$ 6,300
3	Subbase gravel structure (300mm)	m3	360	\$ 30	\$ 10,800
4	Base gravel structure (150mm)	m3	180	\$ 20	\$ 3,600
5	Ditching (site drainage and wastewater)	lm	100	\$ 12	\$ 1,200
6	Screw piles and gravels under building	ls	1	\$ 10,000	\$ 10,000
8	Process piping to tie spring in (150mm)	lm	10	\$ 350	\$ 3,500
13	Wastewater piping to storage tank (150 mm)	lm	10	\$ 300	\$ 3,000
14	Wastewater storage tank	ea	1	\$ 85,000	\$ 85,000
15	Fencing	lm	0	\$ 100	\$ -
16	Gates	ea	0	\$ 2,000	\$ -
12	Bollards	ea	3	\$ 1,000	\$ 3,000
Subtotal A - Site Upgrades					\$ 132,400
B. Water Treatment - Flowpoint					
1	Treatment Package	LS	1	\$ 283,500	\$ 283,500
3	Off-loading, commissioning, shipping allowance	LS	1	\$ 7,500	\$ 7,500
4	Electrical Servicing	LS	1	\$ 1,500	\$ 1,500
5	Well Development	LS	1	\$ -	\$ -
5	General Requirements (5% of Total Cost)	LS	1	\$ 22,000	\$ 22,000
Subtotal B - Flowpoint					\$ 314,500
Sub-Total A + B					\$ 446,900
Contingency (25%)					\$ 111,800
Grand Total					\$ 558,700

Table B4: Rose Prairie Class D Cost Estimates – Breakdown

Item	Description	Unit	Amount	Unit Price	Proposed Cost
A. Site Upgrades					
1	Clearing and Grubbing	m2	0	\$ -	\$ -
2	Stripping	m3	900	\$ 5	\$ 4,500
3	Subbase gravel structure (300 mm)	m2	1300	\$ 30	\$ 39,000
4	Base gravel structure (150 mm)	m2	1300	\$ 20	\$ 26,000
5	Ditching (site drainage and to ditch)	lm	70	\$ 12	\$ 840
6	600 mm CSP culverts	lm	32	\$ 100	\$ 3,200
7	Screw piles and gravels under building	ls	1	\$ 10,000	\$ 10,000
8	Process piping to tie well in (150mm)	lm	60	\$ 300	\$ 18,000
9	Process piping and pump to tie residential service in	ls	1	\$ 5,000	\$ 5,000
10	Wastewater piping to storage pond (150 mm)	lm	20	\$ 300	\$ 6,000
11	Wastewater storage pond (40x40)	m3	2400	\$ 20	\$ 48,000
12	Fencing	lm	265	\$ 100	\$ 26,500
13	Gate - relocation	ea	1	\$ 2,000	\$ 2,000
14	Bollards	ea	3	\$ 1,000	\$ 3,000
Subtotal A - Site Upgrades					\$ 192,040
B. Water Treatment - Flowpoint					
1	Treatment Package	LS	1	\$ 283,500	\$ 283,500
2	Off-loading, site installation	LS	1	\$ 7,500	\$ 7,500
3	Electrical Servicing	LS	1	\$ 20,000	\$ 20,000
4	Well Development	LS	1	\$ 10,000	\$ 10,000
5	Wastewater Disposal Pump	LS	1	\$ 5,000	\$ 5,000
5	General Requirements (5% of Total Cost)	LS	1	\$ 26,000	\$ 26,000
Subtotal B - Flowpoint					\$ 352,000
Sub-Total A + B					\$ 544,100
Contingency (25%)					\$ 136,100
Total A + B - Flowpoint					\$ 680,200

Table B5: Buick Creek Class D Cost Estimates – Breakdown

Item	Description	Unit	Amount	Unit Price	Proposed Cost
A. Site Upgrades					
1	Clearing and Grubbing	m2	800	\$ 2	\$ 1,600
2	Stripping	m3	870	\$ 5	\$ 4,350
3	Site Grading	m2	600	\$ 10	\$ 6,000
4	Fence Removal	ls	1	\$ 500	\$ 500
5	Subbase gravel structure (300mm)	m2	1,200	\$ 30	\$ 36,000
6	Base gravel structure (150mm)	m2	1,200	\$ 20	\$ 24,000
7	Ditching (site drainage and to Snyder Creek)	lm	40	\$ 12	\$ 480
8	600 mm CSP culverts	lm	31	\$ 100	\$ 3,100
9	Screw piles and gravels under building	ls	1	\$ 10,000	\$ 10,000
10	Process piping to tie well in (150mm)	lm	15	\$ 300	\$ 4,500
11	Wastewater piping to storage pond (150 mm)	lm	10	\$ 300	\$ 3,000
12	Wastewater storage pond (40x40)	m3	2,400	\$ 20	\$ 48,000
13	Fencing	lm	260	\$ 100	\$ 26,000
14	Gates	ea	0	\$ 2,000	\$ -
15	Bollards	ea	3	\$ 1,000	\$ 3,000
Subtotal A - Site Upgrades					\$ 170,530
B. Water Treatment - Flowpoint					
1	Treatment Package including commissioning and shipping	ls	1	\$ 321,600	\$ 321,600
2	Off-loading, site installation	ls	1	\$ 7,500	\$ 7,500
3	Electrical Servicing	ls	1	\$ 20,000	\$ 20,000
4	Well Development	ls	1	\$ 20,000	\$ 20,000
5	General Requirements (5% of Total Cost)	ls	1	\$ 27,000	\$ 27,000
Subtotal B - Flowpoint					\$ 396,100
Sub-Total A + B					\$ 566,700
Contingency (25%)					\$ 141,700
Total A + B - Flowpoint					\$ 708,400



REPORT

To: Electoral Area Directors Committee

Date: March 6, 2018

From: Claire Negrin, Planning Services Manager

Subject: **Progress Report on the Zoning Bylaw Consolidation Project**

RECOMMENDATION(S):

1. That staff be directed to commence agency consultation activities associated with the Zoning Bylaw Consolidation Project.
2. That staff be directed to develop a schedule for Zoning Bylaw Consolidation Project workshops to provide the Electoral Area Directors an opportunity to review all proposed consolidation items.

BACKGROUND/RATIONALE:

The purpose of the attached report is to provide an update on the progress that has been made towards completion of the Zoning Bylaw Consolidation Project. The project was initiated at the September 7, 2017 Regional Board Meeting by the following resolution:

ZONING BYLAW UPDATE AND CONSOLIDATION RD/17/09/07

MOVED/SECONDED/CARRIED.

"That the Zoning Bylaw update and consolidation process be commenced, with the Electoral Area Directors' Committee acting as the Steering Committee for the project."

In summary, the Zoning Bylaw Consolidation Project update report states:


- The Zoning Bylaw Consolidation Project will combine the five existing bylaws into one.
- Having one zoning bylaw will be simpler and more efficient to work with and to update, this will make things easier for the public, landowners, developers, regional staff, and elected officials.
- Regional staff have been working through the first phase of the project by comparing the zones from the existing zoning bylaws and recommending new consolidated zones.
- Staff have commenced the following next steps:
 - Review definitions and general provisions;
 - Update the mapping;
- Staff are seeking EADC direction to proceed with the following next steps:
 - Agency consultation (Oil and Gas Commission, Agriculture Land Commission, local Airport Authorities, Ministry of Transportation and Infrastructure, PRRD internal departments)
 - Workshops with EADC.

OPTIONS:

No other options are recommended at this time.

March 15, 2018

Staff Initials: 

Dept. Head: 

CAO: 

Page 1 of 2

STRATEGIC PLAN RELEVANCE:

- ☐ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☐ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☒ Foster Collaboration on services with municipalities and electoral areas.
- ☒ Establish a strategy for coordinated advocacy on identified issues.
- ☒ Manage parks and trails in the region.
- ☒ Support the agricultural industry within the regional district.
- ☐ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

See Regional Zoning Bylaw Project Page from the 2018 Budget.

COMMUNICATIONS CONSIDERATION(S):

Communications and Engagement Plans to be developed in Q4-2018.

Attachments:

1. Zoning Bylaw Consolidation Project: Update Report
2. Regional Zoning Bylaw Project Page
3. Proposed Commercial Zones – Consolidation Matrix (green)
4. Commercial Zone – Comparison Charts (blue)

March 15, 2018



PEACE RIVER REGIONAL DISTRICT

Zoning Bylaw Consolidation Update Report

March 2018

diverse. vast. abundant.

March 15, 2018

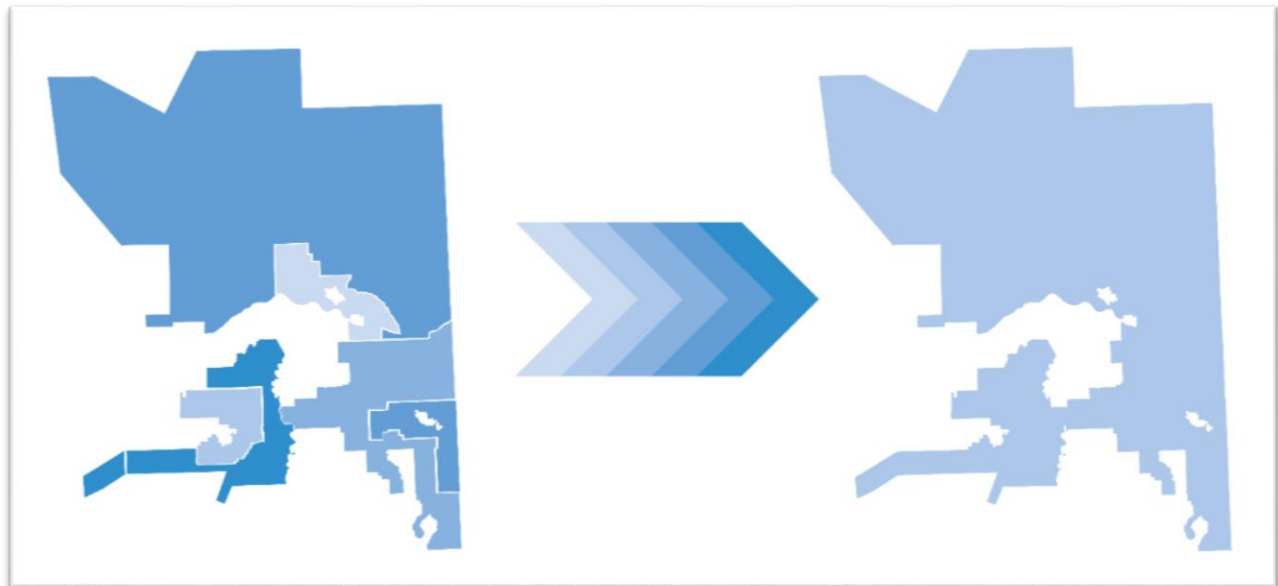
Introduction

The Peace River Regional District (PRRD) currently has five active Zoning Bylaws which apply to different areas within the region. The active Zoning Bylaws within the PRRD are as follows:

- Bylaw 1343, 2001 (Fringe);
- Bylaw 1000, 1996 (Rural);
- Bylaw 479, 1986 (Dawson Creek Rural);
- Bylaw 506, 1986 (Chetwynd Rural);
- Bylaw 85, 1979 (a small area of Chetwynd Rural).

Having five different active Zoning Bylaws within the PRRD causes confusion and extra work for the public, developers, staff, administration, and elected officials. It also creates inconsistencies between areas. Residents and businesses within the PRRD are very mobile; businesses may have multiple locations and will operate throughout the region, and it can be quite confusing when different rules apply for different areas of the Regional District.

Figure 1 New Zoning Bylaw Boundaries

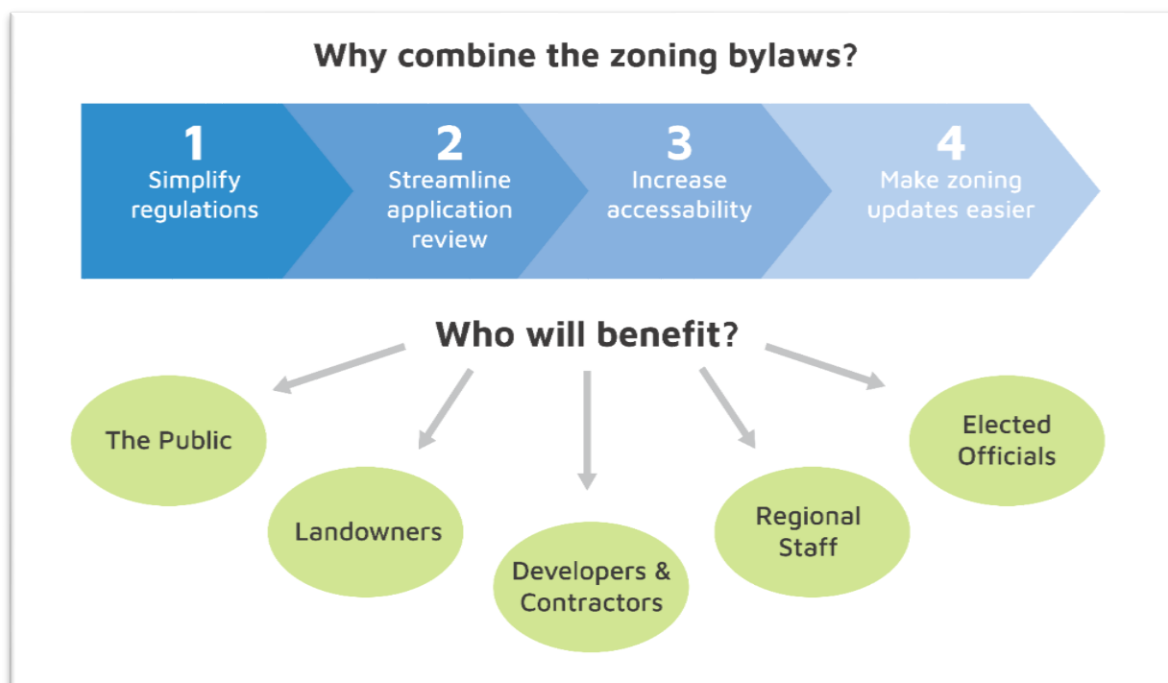


As such, the purpose and benefits of consolidating the zoning bylaw are to:

- Simplify regulations;
- Streamline application review;
- Make zoning regulations more accessible to all users; and,
- Make it easier and more efficient to complete future zoning updates.

Since the approval of the Zoning Consolidation Project in November 2017, the planning department has started the process of bringing together the 5 existing zoning bylaws.¹ There has been research and analysis done to identify major inaccuracies, overlaps, and gaps, in order to allow for the future Regional Zoning Bylaw to be consistent and accurate. This report will describe the process to-date, present an initial review of the information consolidated thus far, and outline the next steps.

Figure 2: Purpose & Benefits of the Project



Consolidation Sections

The following are the different parts of the Zoning Bylaws that will be reviewed and updated as part of the Zoning Bylaw Consolidation process:

1. Zones
2. Definitions
3. General Provisions
4. Mapping

Zones Review: Methodology

Planning, bylaw enforcement, and building inspection staff have gathered in a series of meetings in order to review each comparison table.

¹ For the purposes of this project, Zoning Bylaw 85 was grouped together with Zoning Bylaw 506.

The following steps are used to review and updated every zone/definition/provision and regulation found within all of the zoning bylaws:

- Step 1: Group together similar zones from the existing zoning bylaws (i.e. all 'Local Commercial' zones)
- Step 2: Place them in a comparison chart
- Step 3: Review comparison charts for similarities and differences among zones
- Step 4: Make recommendations for new consolidated zones

Step 1: Group together similar zones from the existing zoning bylaws

All of the existing zones in all of the zoning bylaws were reviewed, then similar zones are grouped together. The existing zoning bylaws differ in the number and names of zones, but the greatest effort was made to ensure that like zones were matched.

Step 2: Place them in a comparison chart

A chart was developed to display and organize information found in the existing bylaws. These charts display the contents of each zone, allowing for thorough analysis and comparison of each regulation.

Example Comparison Chart Heading:

C-1 Local Commercial Zone					
Bylaw 1343	Bylaw 1000	Bylaw 479	Bylaw 506	Consolidated	Discussion
C-1 Local Commercial	NC Neighbourhood Commercial	C-1 Local Commercial & C-4 Rural Commercial	C-1 Local Commercial	C-1 Local Commercial	

Example Comparison Chart Heading:

C-3 Neighbourhood Pub Zone					
Bylaw 1343	Bylaw 1000	Bylaw 479	Bylaw 506	Consolidated	Discussion
C-3 Neighbourhood Pub Commercial	N/A	C-3 Public House Commercial	N/A	C-3 Neighbourhood Pub	

In addition to the comparison charts, a 'Consolidation Matrix' was developed which displays all proposed zones under the same land use category (residential, commercial, industrial, etc.).

Example Consolidation Matrix Heading:

Commercial Zones				
C-1 – Local Commercial	C-2 – Highway Commercial	C-3 – Neighbourhood Pub	C-4 – Recreation Commercial	Discussion

Step 3: Review comparison charts for similarities and differences among zones

Using the Comparison Charts, the uses and regulations in each zone were compared and analyzed. All regulations were reviewed, including primary uses, accessory uses, minimum parcel sizes, maximum floor areas, permitted number of dwellings, and setbacks.

As much as possible, when regulations between different Bylaws do not match, the less restrictive regulation is usually chosen. This is done in order to reduce the number of non-conforming lots once the new Regional Zoning Bylaw is adopted.

Step 4: Make recommendations for the consolidated zone

In a series of meetings, the Development Services team has reviewed and made recommendations for the proposed Regional Zoning Bylaw. Where changes to existing regulations are proposed, discussion or reasoning for that recommendation is provided.

When a recommendation cannot be made, the issue is highlighted as needing follow-up. For example: agriculture regulations that require input from the Agricultural Land Commission; oil and gas regulations that will require input from the Oil and Gas Commission; or, when further direction will be sought from EADC.

Other Consolidation Sections

Similar methodology will be used to review the other sections of the zoning bylaws.

Definition Review

Every use and specific term used throughout the Zoning Bylaw should be defined. The four existing Zoning Bylaws have different definitions, out of date definitions, or are missing important definitions. The Zoning Bylaw Consolidation will ensure that all uses and other key terms have definitions, and that they are clear and up-to-date.

Keys points:

- All uses without an existing definition will be given one.
- Every effort will be made to ensure new definitions will capture existing permitted uses.

General Provisions Review

Some regulations contained within the zoning Bylaw apply throughout all zones, and are therefore contained in the front end of the document as General Regulations. These regulations will all be compared and updated following the same process as for the zone comparisons. These general regulations include home based business, accessory floor area, secondary suite sizes, and parking and loading.

Mapping Update

The zoning mapping shows which zoning rules apply to which parcels of land. The mapping also provides a visual representation of the zoning and is the simplest way for the public to

understand the Zoning Bylaw. Planning staff have begun working with the GIS team to create new digital Regional Zoning Bylaw maps.

Next Steps

Agency Consultation

Agency Consultation will take place to ensure that the Regional Zoning Bylaw represents the best and most accurate information from other sources. Below is a list of agencies that have been identified to be consulted:

- Oil and Gas Commission
- Agriculture Land Commission
- Airport Authorities
- Ministry of Transportation and Infrastructure
- PRRD Internal Departments

Workshops with EADC

A series of workshops are proposed with EADC to work through all of the consolidation activities. The Planning department would like to discuss and set up these workshops for the spring, based on the availability of EADC members, and based on their desired level of involvement.

Develop Public Engagement Plan

A Public Engagement plan is required to determine how best to consult with area residents regarding the Zoning Bylaw Consolidation Project. The planning department will work with the communications department to develop this plan, in consultation with the Electoral Area Directors.



Regional Zoning Bylaw

2018-2019

Project Description	<p>Management of Development 01-2-6100-XXX</p> <p>A project that will consolidate the four existing Zoning Bylaws into one document, and update all zoning regulations. Proceeding with the Regional Zoning Bylaw was approved by Resolution RD/17/09/07, at the September 7, 2017 Regional Board meeting.</p>			
Budget	<p>2018: \$23,000 (legal research, initial communications)</p> <p>2019: \$77,000 (Public, agency and stakeholder consultations, final legal review)</p>			
Project Lead	<p>Planning Services Manager (with assistance of Student Planner)</p>			
Department(s), commissions, advisory groups	<p>Development Services prepared in house. EADC to be Steering Committee</p>			
Bylaw, motion or approved plan	<p>September 7, 2017 Regional Board Meeting: ZONING BYLAW UPDATE AND CONSOLIDATION RD/17/09/07 MOVED Director Rose, SECONDED Director Johansson, That the Zoning Bylaw update and consolidation process be commenced, with the Electoral Area Directors' Committee acting as the Steering Committee for the project. CARRIED.</p>			
How does the project link to the strategic plan?	<p>Not specifically included since Strategic Plan content has not been updated since May 2017 to reflect September 7, 2017 resolution.</p>			
Timeline	2018-2019			
Year	<p>Q1 (2018)– Review of existing bylaws; research and preparation of draft provisions</p>	<p>Q2 (2018)– Research and preparation of draft provisions; review w/ Steering Cmte</p>	<p>Q3 – Research and preparation of draft provisions; review w/ Steering Cmte</p>	<p>Q4 – Draft #1; Communications and Engagement plans for 2019</p>

March 15, 2018



Regional Zoning Bylaw

2018-2019

Decision Process	Regular updates to Steering Committee with final adoption by Regional Board
Engagement Levels	<ul style="list-style-type: none">Consult with public, stakeholders and agencies
Engagement Plan	An engagement strategy will be developed for the project.
Communications Plan	A communication strategy will be developed for the project.

March 15, 2018

Recommended Commercial Zones				
Permitted Uses				
C-1 – Local Commercial	C-2 – Highway Commercial	C-3 – Neighbourhood Pub	C-4 – Recreational Commercial	COMMENTS/ DISCUSSION
	Animal Hospital			
	Automotive Service Station			
			Bed and Breakfast	
Business Office	Business Office			
	Campground		Campground	
	Car Wash			
			Club, Lodge	
Convenience Store	Convenience Store			
			Community Hall	
	Commercial Nursery, Greenhouse or Garden Centre			
Dwelling Unit	Dwelling Unit		Dwelling Unit	
			Equestrian Facilities	
Gallery, or Studio	Gallery, or Studio			
Gas Bar	Gas Bar			
	Hotel, or Motel			
	Instrumentation , small equipment sales, rentals and services			
	Kennels			
			Marina, Yacht Club	
	Meat Cutting and Packing, excluding Abattoir			
		Microbrewery		
	Neighbourhood Pub	Neighbourhood Pub		
	Liquor Store			
Personal Service Establishment	Personal Service Establishment			
	Religious Centre			
			Recreation Area or activity including but not limited to: ski resorts, arena, sports complex, golf course, tennis course, swimming pools, outdoor recreation fields	
			Resort	
Restaurant	Restaurant	Restaurant	Restaurant	
Retail Sales	Retail Sales			Formerly “Tea and Craft Shoppe”
	Sales, rental, servicing and repairs of automobiles, recreation vehicles and boats			
	Vehicle Sales			

Accessory Uses				
C-1 – Local Commercial	C-2 – Highway Commercial	C-3 – Neighbourhood Pub	C-4 – Recreational Commercial	COMMENTS/ DISCUSSION
			Car Wash	
			Convenience Store	
		Dwelling Unit		
Bed and Breakfast		Bed and Breakfast		
		Beer and/ or Wine Store		
			Gas Bar	
Home Based Business				Pending updated Home Based Business regulations
			Hotel, or Motel	
	Limited Outdoor Storage			
			Liquor Store	
			Neighbourhood Pub	
			Personal Service Establishment	
			Restaurant	
			Retail Sales	
			Sales, rentals, servicing and repairs or recreation vehicles and boats	
Secondary Suite				
			Staff Accommodations	

Minimum Lot Size				
Local Commercial Zone – C1	Highway Commercial – C2	Neighbourhood Pub – C3	Recreational Commercial – C4	COMMENTS/ DISCUSSION
1.6 hectares (4 acres)	1.6 hectares (4 acres)	1.6 hectares (4 acres)	1.6 hectares (4 acres)	
1000 sq. metres (0.25 acres) when the parcel is connected to a community sewage system	1000 sq. meters (0.25 acres) when the parcel is connected to a Community Sewage System	0.4 hectare (1 acre) where the parcel is connected to a community sewage system		

Floor Area				
Local Commercial – C1	Highway Commercial – C2	Neighbourhood Pub – C3	Recreational Commercial – C4	COMMENTS/ DISCUSSION
Floor area of a Convenience Store not exceed 225 sq. meters (2400 sq. ft.)			Floor area of Convenience Store in this zone shall not exceed 255sq. metres (2400 sq. ft.)	
Floor area for Retail Sales, Gallery or Studio, or Personal Service Establishment not exceed 100 sq. metres (1076 sq. ft.)				

Number of Dwellings				
Local Commercial – C1	Highway Commercial – C2	Neighbourhood Pub – C3	Recreational Commercial – C4	COMMENTS/ DISCUSSION
One Dwelling Unit	One Dwelling Unit	One Dwelling Unit	One Dwelling Unit	

Height & Setbacks				
Local Commercial Zone – C1	Highway Commercial – C2	Neighbourhood Pub – C3	Recreational Commercial – C4	COMMENTS/ DISCUSSION
Height	Height	Height	Height	
10 metres (32.8 ft.)	12 metres (40 ft.)	10 metres (32.8 ft.)	20 metres (65.5 ft.)	
Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 5 metres (17 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	
Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 5 metres (17 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (17 ft.)	

C-1 – Local Commercial Zones						
Permitted Uses						
Bylaw 1343 (C-1 Local Commercial)	Bylaw 1000 (NC Neighbourhood Commercial)	Bylaw 506 (C-1 Local Commercial)	Bylaw 479 (C-1 Local Commercial)	Bylaw 479 (C-4 Rural Commercial)	Consolidation	Description/Reasoning
Dwelling Unit(s)		Single Family Dwelling	Single family dwelling	Single Family dwelling	Dwelling Unit	
				Two family dwelling	Remove	
Convenience Store	Convenience Store, including gas bar	Convenience Store including gas bar	Convenience store including gas bar	General Store	Convenience Store	Gas Bar permitted
Gas Bar				Fuel Sale Gasoline service station	Gas Bar	
Restaurant	Restaurant			Restaurant	Restaurant	
				Meat cutting and packing, excluding the slaughtering of animals	Remove	A butcher shop would be permitted under retail sales.
				Retail sale of farm and garden supplies; Retail Sale of building materials	Remove	Included in Retail Sales with size specification.
Tea and Craft Shoppe					Retail Sales	Size limited (under 100m²)
					Gallery, or Studio	Size limited (under 100m²)
					Personal Service Establishment	Size limited (under 100m²)
				Public Use	Remove	Permitted everywhere
				Business office	Business office	
		Bed and breakfast accommodations	Bed and breakfast accommodations	Bed and breakfast accommodations	Accessory use	
		Home occupation and home industry	Home occupation and home industry	Home Occupation	Accessory use	
		Accessory buildings	Accessory building	Accessory building	Remove	Permitted everywhere

Accessory Uses						
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Bylaw 479	Consolidation	Description/Reasoning
Accessory building and Accessory structure;					Remove	Permitted everywhere
Bed and Breakfast accommodation					Bed and Breakfast	
Home based Business					Home based business	Pending updated Home Based Business regulations
	Dwelling unit in conjunction with a convenience store or restaurant				Primary use	
	Limited agriculture				Remove	Move to General Provisions
Secondary Suite					Secondary Suite	

Minimum Lot Size						
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Bylaw 479	Consolidation	Description/Reasoning
1.8 hectares (4.5 acres) where there is no community sewage system	1.8 hectares (4.5 acres) where there is no community sewage system	1.8 hectares (4.5 acres)	1.8 hectares (4.5 acres)	1.8 hectares (4.5 acres)	1.6 hectares (4 acres)	1.6 hectares to reflect changes to Northern Health Authority requirements
0.4 hectare (1 acres) when the parcel is connected to a Community Sewage System	1000sq. metres (0.25 acres) when the parcel is connected to a community sewage system.				1000 sq. metres (0.25 acres) when the parcel is connected to a community sewage system	

Floor Area						
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Bylaw 479	Consolidation	Description/Reasoning
Floor area of all accessory building max 200 square metres (2153 sq. ft.)	No accessory building shall have a floor area greater than 75 square metres (807 sq. ft.)	The combined total floor area of all accessory buildings on a parcel used for the purposes of conducting a home occupation and a home industry shall not exceed 300 square metres (3,228 square feet)	The combined total floor area of all accessory buildings on a parcel used for the purposes of conducting a home occupation and a home industry shall not exceed 300 square metres (3,228 square feet)	The combined total floor area of all accessory buildings on a parcel used for the purposes of conducting a home occupation and a home industry shall not exceed 300 square metres (3,228 square feet)	Remove	Pending updated Home Based Business regulations
Floor area of a convenience store not exceed 225 sq. meters (2400 sq. ft.)					Floor area of a Convenience Store not exceed 225 sq. meters (2400 sq. ft.)	
Floor area of a Tea and Craft Shoppe not exceed 100 sq. metres (1076 sq. ft.)					Floor area for Retail Sales, Gallery or Studio, or Personal Service Establishment will not exceed 100 sq. metres (1076 sq. ft.)	
	Notwithstanding any other regulation in this bylaw no dwelling unit in this zone shall have a floor area greater than described in the following table Parcel Size Max Floor Area < 0.1ha 100sq.m > 0.1 ha 300sq.m				Remove	

Number of Dwellings						
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Bylaw 479	Consolidation	Description/Reasoning
One single family dwelling on a parcel	One single family detached dwelling unit or One private apartment unit contained within the above mentioned commercial activities	One single family dwelling is permitted;	One single family dwelling is permitted;	One single family dwelling or two family dwelling is permitted, but not both	One Dwelling Unit	

Height & Setbacks						
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Bylaw 479	Consolidation	Description/Reasoning
Height	Height	Height	Height	Height		
10m (32.8 ft.)	10m (32.8 ft.)	10m (32.8 ft.)	10m (32.8 ft.)	10m (32.8 ft.)	10m (32.8 ft.)	
Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	
Rear 5 metres (17 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 5 metres (17 ft.)	
Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	Exterior Side 5 metres (17 ft.)	
Rear 5 metres (17 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 5 metres (17 ft.)	

C-2 – Highway Commercial					
Permitted Uses					
1343 (C-2 General Commercial)	Bylaw 1000 (HC Highway Comm)	Bylaw 506 (C-2 Highway Comm)	Bylaw 479 (C-2 Highway Comm)	Consolidation	Description/Reasoning
Tourist Accommodation	Hotel, motel	Hotel	Hotel	Hotel, or Motel	Clear definition needed
Restaurant	Restaurant	Restaurant	Restaurant	Restaurant	
Automotive service station	Automobile parts supply service station			Automotive Service Station	
Convenience store	Convenience store including gas bar	Convenience store including gas bar	Convenience store including gas bar	Convenience Store	Gas Bar is permitted
Gas bar		Gasoline service station	Gasoline service station	Gas Bar	
Car wash	Car wash establishment	Car wash establishment	Car wash establishment	Car Wash	
	Liquor licensed premises			Neighbourhood Pub (Liquor Primary)	Need to update wording
Liquor Store	Liquor agency store			Liquor Store	
Garden Centre	Commercial nursery	Commercial nurseury and greenhouse	Commercial nursery and greenhouse	Nursery, greenhouse, garden centre	
Campground	Campground	Campground	Campground	Campground	
Retail Sales Establishment	Retail sales establishment	Retail Sales	Retail Sales	Retail Sales	
Sales, rental, servicing and repairs of automobiles, recreation vehicles and boats				Sales, rental, servicing and repairs of automobiles, recreation vehicles and boats	
				Vehicle Sales	
Meat cutting and packing, excluding abattoir				Meat cutting and packing, excluding abattoir	
Building Material Supply Facility				Remove	Included in Retail Sales
Business Office				Business Office	
Personal Service establishment	Personal Service establishment			Personal Service Establishment	
Animal Hospital	Animal Hospital			Animal Hospital	
Instrumentation , small equipment sales, rentals and services;				Instrumentation , small equipment sales, rentals and services	
Gallery, or studio related to art, music, recording dance, fitness or recreation				Gallery, or Studio	
Taxi Dispatch Office				Remove	Move to Service Industrial Zone
Recycle Centre				Remove	Move to Service Industrial Zone
Funeral Parlour Limited				Remove	Move to Service Industrial Zone
	Kennels			Kennels	
	Religious Centre			Religious Centre	
	Home industry; Home occupation	Home industry and home occupation	Home occupation and home industry	Remove	
	Bed and breakfast accommodations	Bed and breakfast accommodations	Bed and breakfast accommodations	Remove	
	A dwelling unit	Single family dwelling, Two family dwelling	Single family dwelling, two family dwelling	Dwelling Unit	
		Accessory buildings	Accessory buildings	Remove	Permitted everywhere
		Public Use	Public Use	Remove	Permitted everywhere

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Accessory Uses					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
Accessory building and Accessory structure;				Remove	Permitted Everywhere
Dwelling Unit(s)				Primary use	
				Limited Outdoor Storage	

Minimum Lot Size					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
1.8 hectares (4.5 acres) where there is no community sewage system	1.8 hectares (4.5 acres) where there is no community sewage system	1.8 hectares (4.5 acres)	1.8 hectares (4.5 acres)	1.6 hectares (4 acres)	1.6 hectares to reflect changes to Northern Health Authority requirements
0.4. meters (1 acres) when the parcel is connected to a Community Sewage System	1000 sq. meters (0.25 acres) when the parcel is connected to a Community Sewage System			1000 sq. meters (0.25 acres) when the parcel is connected to a Community Sewage System	

Floor Area					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
The aggregate floor area of all accessory buildings shall not exceed 200 square meters (2153 sq. ft.)	Floor area of all accessory building max 75 square metres (807 sq. ft.)	Total floor area of all accessory buildings on a parcel used for the purpose of conducting a home occupation and a home industry shall not exceed 300 square meters (3,228 square feet)	The total combined total floor area of all accessory buildings on a parcel used for the purposes of conducting a home occupation shall not exceed 200 square metres (2,153 square feet)	Remove	Pending updated Home Based Business regulations
	Notwithstanding any other regulation in this by-law no dwelling unit in this zone shall have a floor area greater than described in the following table Parcel Size Max Floor area < 0.1 ha 100sq.m > 0.1 ha 300sq.m			Remove	

Number of Dwellings					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
Not more than one single family dwelling on a parcel, either detached or contained within one of the principal uses listed above.	One single family detached dwelling unit or One private apartment unit contained within the above mentioned commercial activities	One single family dwelling or One two family dwelling	One single family dwelling or One two family dwelling	One Dwelling Unit	

Height & Setbacks					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
Height	Height	Height	Height	Height	
12 metres (40 ft.)	10 metres (32.8 ft.)	10 metres (32.8 ft.)	10 metres (32.8 ft.)	12 metres (40 ft.)	
Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 5 metres (17 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 5 metres (17 ft.)	
Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 5 metres (17 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 5 metres (17 ft.)	

C-3 – Neighbourhood Pub Commercial Zones					
Permitted Uses					
Bylaw 1343 (C-3 Neighbourhood Pub Commercial Zone)	Bylaw 1000 (N/A)	Bylaw 506 (N/A)	Bylaw 479 (C-3 Public House Commercial Zone)	Consolidation	Description/Reasoning
			Accessory Building	Remove	Permitted everywhere
			Bed and Breakfast accommodations	Accessory use	
			Home Occupation	Remove	Pending updated HBB regulations
Neighbourhood Pub			Public house	Neighbourhood Pub	
Restaurant			Restaurant	Restaurant	
			Single Family Dwelling	Accessory use	
				Microbrewery	Definition and research needed

Accessory Uses					
Bylaw 1343	Bylaw 1000	Bylaw 1343	Bylaw 479	Consolidation	Description/Reasoning
Accessory building and Accessory structure				Remove	Permitted everywhere
Dwelling Units				Dwelling Unit	
Beer and/or wine store				Beer and/or Wine Store	

Minimum Lot Size					
Bylaw 1343	Bylaw 1000	Bylaw 1343	Bylaw 479	Consolidation	Description/Reasoning
1.8 hectares with not community sewage systems			1.8 hectares (4.5 acres)	1.6 hectares (4 acres)	1.6 hectares to reflect changes to Northern Health Authority requirements
0.4 hectare (1 acre) where the parcel is connected to a community sewage system				0.4 hectare (1 acre) where the parcel is connected to a community sewage system	

Floor Area					
Bylaw 1343	Bylaw 1000	Bylaw 1343	Bylaw 479	Consolidation	Description/Reasoning
The aggregate floor area of all accessory buildings shall not exceed 200 square meters (2153 sq. ft.) (except dwelling units)			Combination floor area of all accessory buildings on a parcel used for the purpose of conduction a home occupation shall not exceed 200 square metres (2,153 square ft.)	Remove	

Number of Dwellings					
Bylaw 1343	Bylaw 1000	Bylaw 1343	Bylaw 479	Consolidation	Description/Reasoning
One single family dwelling is permitted on a parcel			One single family dwelling is permitted	One Dwelling Unit	

Height & Setbacks					
Bylaw 1343	Bylaw 1000	Bylaw 1343	Bylaw 479	Consolidation	Description/Reasoning
Height	Height	Height	Height	Height	
10 metres (32.8 ft.)			10 metres (32.8 ft.)	10 metres (32.8 ft.)	
Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	
Front 7 metres (23 ft.)			Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)			Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or			Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 7 metres (23 ft.)			Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	
Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	
Front 7 metres (23 ft.)			Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)			Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or			Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 7 metres (23 ft.)			Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	

C-4 – Recreational Commercial					
Permitted Uses					
Bylaw 1343 (C-4 Recreational Commercial)	Bylaw 1000 (RC- Regional Commercial)	Bylaw 506 (C-5 Recreation Commercial)	Bylaw 479 (C-5 Recreational Commercial)	Consolidation	Description/Reasoning
Tourist Accommodation		Hotel	Hotel	Accessory use	
Restaurant	Restaurant	Restaurant	Restaurant	Accessory use	
Convenience Store		Convince store including gas bar	Convenience store including gas bar	Accessory use	
Gas Bar	Service stations, fuel sales	Gasoline service station		Accessory use	
Campground	Campground	Campground, park, playground	Campground, park, playground	Campground	Park and Playground are a public use, permitted everywhere
	Commercial Nursery			Remove	
	Meat cutting and packing, excluding abattoirs			Remove	
Sales, rentals, servicing and repairs or recreation vehicles and boats				Accessory use	
	Retail sales of building materials			Remove	
	Liquor agency store			Accessory use	
	Liquor licensed premises			Accessory use	
Community hall				Community Hall	
Commercial Recreation Facility	Commercial recreation facilities			Remove	Included in definition of Recreation Area or Activity
Equestrian Facilities	Equestrian Centre			Equestrian Facilities	
Personal Service Establishment				Accessory use	
Car Wash				Accessory use	
	Wholesale establishment			Remove	
	Golf Courses	Recreation area or activity including but not limited to: ski resorts, arena, sports complex, golf course, tennis course, swimming pools, outdoor recreation fields	Recreation area or activity including but not limited to: ski resorts, arena, sports complex, golf course, tennis course, swimming pools, outdoor recreation fields	Recreation Area or Activity including but not limited to: ski resorts, arena, sports complex, golf course, tennis course, swimming pools, outdoor recreation fields	
	Marina and float plane berths	Marina yacht club	Marina, Yacht club	Marina, Yacht Club	
	Private clubs and lodges	Club, lodge	Club, lodge	Club, Lodge	
	Resorts	Resort	Resort	Resort	
		Guest ranch	Guest ranch	Remove	Guest Ranch included under Resort
		Open land recreation	Open land recreation	Remove	Public Use or passive use, permitted everywhere
		Accessory buildings	Accessory building	Remove	Permitted everywhere
		Single family dwelling	Single family dwelling	Dwelling Unit	
		Bed and breakfast accommodations	Bed and breakfast accommodations	Bed and Breakfast	
		Home occupation	Home occupation	Remove	

Accessory Uses					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
Accessory building and accessory structure				Remove	Permitted everywhere
Dwelling Units	A dwelling unit			Primary use	
Retail Sales				Retail Sales	
Bed and Breakfast accommodation	Bed and breakfast accommodations			Primary use	
	Home occupation; home industry			Remove	
				Staff Accommodations	

Minimum Lot Size					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
1.8 hectares (4.5 acres)	1.8 hectares (4.5 acres)	1.8 hectares (4.5 acres)	1.8 hectares (4.5 acres)	1.6 hectares (4 acres)	1.6 hectares to reflect NHA reg’s

Floor Area					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
Floor area of all accessory buildings shall not exceed 200 square metres (2153 sq. ft.) (excluding dwelling units)	Floor area of all accessory building max 75 square metres (807 sq. ft.)	Total floor area of all accessory buildings on a parcel used for the purpose of conducting a home occupation and a home industry shall not exceed 300 square meters	Total floor area of all accessory buildings on a parcel used for the purpose of conducting a home occupation and a home industry shall not exceed 300 square meters	Remove	To be addressed in General Provisions section
Floor area of convenience store in this zone shall not exceed 255sq. metres (2400 sq. ft.)				Floor area of convenience store in this zone shall not exceed 255sq. metres (2400 sq. ft.)	
	Notwithstanding any other regulation in this by-law no dwelling unit in this zone shall have a floor area greater than described in the following table Parcel Size Max Floor Area < 0.1 ha 100sq.m > 0.1 ha 300sq.m			Remove	

Number of Dwellings					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
One single family dwelling on a parcel, either detached or contained within one of the principal uses	One single family detached dwelling One private apartment unit contained within the above mentioned commercial activities	One single family dwelling is permitted;	One single family dwelling	One Dwelling Unit	
Gross density for campground, extended term shall not exceed 30 camp spaces/ha.				Remove	To be addressed in General Provisions section

March 15, 2018

Height & Setbacks					
Bylaw 1343	Bylaw 1000	Bylaw 506	Bylaw 479	Consolidation	Description/Reasoning
Height	Height	Height	Height	Height	
20 metres (65.5 ft.)		20 metres (65.5 ft.)	20 metres (65.5 ft.)	20 metres (65.5 ft.)	
Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	Primary Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	
Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	Accessory Setbacks	
Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	Front 7 metres (23 ft.)	
Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	Interior Side 3 metres (10 ft.)	
Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	Exterior Side 5 metres (17 ft.) or	
Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	Rear 7 metres (23 ft.)	



REPORT

To: Chair and Directors

Date: February 27, 2018

From: Trish Morgan, General Manager of Community Services

Subject: **BC Flood & Wildfire Review**

RECOMMENDATION(S): [All Directors - Corporate Unweighted]

That the Regional Board authorize that a letter be sent to the BC Flood and Wildfire Review to provide feedback on the 2017 and 2016 flood and fire seasons and that staff work with the Chair to draft the letter.

BACKGROUND/RATIONALE:

The Province of BC is conducting an independent review of the 2017 flood and wildfire season. Although the Peace River Regional District was not directly impacted by the 2017 floods and fires, a number of our staff assisted other local governments and provincial agencies with response activities and the response can also include feedback regarding the Peace River Regional District's experience with flooding and wildfires in 2016 - the warm-up event to the 2017 floods and wildfires.

After the wildfires in the Okanagan in 2003, the "Filmon Report" (which was a review of the 2003 wildfires) made a number of recommendations that led the Province to make significant changes to the *Emergency Program Act* and *Local Government Emergency Management Regulation*. One of the most significant changes was the requirement imposed upon ALL regional districts in BC to have plans in place to respond and recover from emergencies and disasters. It is likely that Province will make significant changes following the 2017 floods and fires and that the changes will again impact regional districts. Accordingly, this is the Peace River Regional District's opportunity to provide feedback.

Deadline for written submissions is March 16, 2018. Information was sent to local governments directly involved in the wildfires in 2017 but not all others in BC, therefore this information is just now coming forward to the Board. On the website, www.bcfloodfirereview.ca it states that submissions can also be made through an online survey and engagement site, however, this has not yet been activated. A "Feedback Guide" has been developed that identifies the focus areas of the review (see attachment).

Note that at the August 24, 2017 meeting of the Regional Board, the following motion was passed:

That the Regional District advocate, with the Ministry of Forests, Lands, Natural Resource Operations and Rural Development, for implementation of fire prevention and mitigation measures, such as prescribed burning, ditch and road right-of-way maintenance as proactive solutions to reduce wildfires in the Province.

OPTIONS:

- 1) That the Regional Board authorize that a letter be sent to the BC Flood and Wildfire Review to provide feedback on the 2017 and 2016 flood and fire seasons and that staff work with the Chair to draft the letter.

- 2) That the Board not authorize a letter to be sent to the BC Flood and Wildfire Review to provide feedback on the 2017 and 2016 flood and fire seasons.
- 3) That the Board provide direction to staff.

STRATEGIC PLAN RELEVANCE:

- ☐ Ensure that the Solid Waste Management Plan is operating on a fiscally defensible basis.
- ☒ Ensure effective execution of Public Safety and Emergency Services initiatives.
- ☐ Foster Collaboration on services with municipalities and electoral areas.
- ☐ Establish a strategy for coordinated advocacy on identified issues.
- ☐ Manage parks and trails in the region.
- ☐ Support the agricultural industry within the regional district.
- ☐ Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

None.

COMMUNICATIONS CONSIDERATION(S):

None.

OTHER CONSIDERATION(S):

Attachments:

BC Flood & Wildfire Review Feedback Guide



BC FLOOD AND WILDFIRE REVIEW

Feedback Guide

Overview:

The Government of BC has launched the BC Flood and Wildfire Review – a strategic review of flood and wildfire practices in the Province – to be led by an independent team with a focus on the 2017 flood and wildfire season. The review is seeking feedback on how government can better prevent, prepare for and respond to future flood and wildfire events, leading up to the 2018 season.

If you would like to provide the review with feedback – either verbally, through a meeting with the co-chairs, or via a written submission – we encourage you to tailor your response to the key focus areas established in the review Terms of Reference.

Background

About the BC Flood and Wildfire Review

The 2017 flood and wildfire events were the worst recorded to date in British Columbia, resulting in the displacement of more than 65,000 people, response costs totaling greater than \$600M, and the declaration of a provincial state of emergency. The demonstrated effort and commitment resulted in significant fatigue, stress, and an overall impact on residents, First Nations, contractors, industry, and government staff. The review is mandated to examine and learn from these events through a combination of citizen engagement and technical research.

BC Flood and Wildfire Review objectives:

- Set the stage to reduce the risk of another flood and wildfire season like that of 2017.
- Assess 2017 performance in the context of the pillars of emergency management – planning and preparedness, prevention and mitigation, response, and recovery – to identify both successes, and areas for improvement.
- Listen to the experiences of individuals and communities, and learn from them and from other jurisdictions.

- Make recommendations that will lead to improvements to governance systems, regulations, policy, and leadership practices, that will help both to mitigate and prevent future flood and wildfire events, and to react and respond to them when they do occur.

Areas for feedback

The review Terms of Reference specify key focus areas for the review's inquiry and public engagement. Those areas include: planning and preparedness, prevention and mitigation, response, and recovery. An outline of these topic areas is provided below for your reference when developing feedback.

We would also like to hear about similar feedback activities taking place in your communities, and about key stakeholders we could involve in the review process going forward.

In addition to in-person engagement, written and online feedback opportunities will be provided. These alternatives will ensure that all British Columbians are able to offer their feedback.



Review Terms of Reference

– Key focus areas

1. Planning and preparedness – please consider governance, process, communications, and capacity and resources (both financial and human) as you answer the following questions:

- What worked and didn't work in 2017?
- What can be improved to better plan and prepare for floods and wildfires in your communities?
- What planning and preparedness efforts, leading up to 2017, were satisfactory and should be continued/enhanced?

2. Prevention and mitigation – please consider management practices, economic costs and benefits, and capacity and resources (both financial and human) as you answer the following questions:

- Leading up to the 2017 season, what prevention and mitigation efforts were undertaken in your community? Were some more effective than others?
- What could be improved to help to prevent and mitigate floods and wildfires in your communities in the future?
- Which prevention and mitigation efforts were effective in the 2017 season and should be continued/enhanced?

3. Response – please consider governance, process, internal and external organizational communications, tactical efforts, and capacity and resources (both financial and human) as you answer the following questions:

- What worked and didn't work in 2017?
- How can the response to floods and wildfires be improved in your communities?
- What response efforts were satisfactory and should be continued/enhanced?

4. Recovery – consider governance, process, internal and external organizational communications, and capacity and resources (both financial and human) as you answer the following questions. Please also consider the differing impact on communities, businesses and individuals, as well as both the short-term (restoring community services and cleanup) and long-term (health, economic, societal) aspects of recovery:

- What efforts worked (and continue to work) well following the 2017 season? What efforts were ineffective?
- What do you see as recovery challenges in the next two to five years?
- What recovery efforts were effective and should be continued/enhanced?

Recent engagement activities:

- Have there been any recent data collection or engagement activities in your community pertaining to emergency services? If so, please specify.

Future review engagement and key stakeholders

- Who are the key stakeholders we should be speaking with in your community?
- Would you be interested in assisting with communication for the community events?

bcfloodfirereview.ca

Updated: February 16, 2018

ELECTORAL AREA DIRECTORS' COMMITTEE

DIARY ITEMS

	<u>Topic</u>	<u>Notes</u>	<u>Diarized</u>
1.	North Pine TV Tower		August 17, 2107
2.	Internet		November 16, 2017
3.	Tour for the Water Advisory Committee Members	Arrange a final meeting 6 to 8 months after operation begins; to close the loop	November 16, 2017
4.	Meetings with Ministers and MLA's		November 16, 2107
5.	Cell Towers within the Region		December 14, 2017
6.	Electoral Area D Water Referendum	To be discussed at the June EADC meeting	February 14, 2108