

**CORPORATION OF THE CITY OF COURTENAY
COUNCIL MEETING AGENDA**

DATE: Tuesday, May 20, 2014
PLACE: City Hall Council Chambers
TIME: 4:00 p.m.

1.00 ADOPTION OF MINUTES

1. Adopt May 12, 2014 Regular Council Meeting Minutes

2.00 INTRODUCTION OF LATE ITEMS

3.00 DELEGATIONS

1. C. V. Conservation Strategy Steering Committee re: City's 2014 State of the Environment Report
2. Michael McLellan re: CV Transit and level of service
3. Dawn Stevens, Active Comox Valley Coordinator re: Bike to Work Week

4.00 STAFF REPORTS

Pg #

(a) Community Services

(b) CAO and Legislative Services

- 3 1. East Courtenay Fire Hall/Training Centre Project

(c) Development Services

- 75 2. Cycling Task Force Update

(d) Financial Services

(e) Engineering and Operations

5.00 EXTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

- 81 1. Response from Minister of Transportation re: Passenger Rail Service

6.00 INTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

- 83 1. Memorandum - 2014 City of Courtenay State of the Environment Report

7.00 REPORTS/UPDATES FROM COUNCIL MEMBERS INCLUDING REPORTS FROM COMMITTEES

8.00 RESOLUTIONS OF COUNCIL

9.00 UNFINISHED BUSINESS

10.00 NOTICE OF MOTION

11.00 NEW BUSINESS

93 1. Province Wide Earthquake Preparedness Consultation Community Sessions

99 2. Letter from Brent Cunliffe re: Maple Pool

12.00 BYLAWS

13.00 ADJOURNMENT

Ward, John

From: Dawn Stevens- Active Comox Valley Coordinator <info@activecomoxvalley.ca>
Sent: May-02-14 8:05 AM
To: Ward, John
Subject: May 20 council meeting

Delegation

Good morning John, my name is Dawn Stevens and I am the Bike to Work Week organizer for the Comox Valley. Bike to Work Week is an amazing event that illustrates how all our local municipalities can come together and create an amazing week for the entire community to enjoy. I would like to speak to Courtenay City Council about the week long events and invite them to join us for a ride that would highlight the new Fitzgerald bike lane, as well as invite them to join us for the final BBQ on Friday May 30.

Thank you for your consideration.

--



Dawn Stevens
Active Comox Valley Coordinator
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<http://www.activecomoxvalley.ca/>

Help Active Comox Valley set goals to increase active living by answering ten quick questions:

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THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council

File No.: 760-20

From: Chief Administrative Officer

Date: May 20, 2014

Subject: East Courtenay Fire Hall/Training Centre Project Review Committee – Report and Recommendations

PURPOSE:

The purpose of this report is to provide Council with a report on the work undertaken by the East Courtenay Firehall/Training Centre Project Review Committee, and with the Committee's resulting recommendations for Council consideration.

POLICY ANALYSIS:

The East Courtenay Firehall/Training Centre Project Review Committee was established by Council in November 2012 with a mandate to review the proposed construction of a satellite fire hall and training grounds in East Courtenay.

EXECUTIVE SUMMARY:

Over the past year and a half, the Select Committee of Council has actively reviewed the proposed East Courtenay Fire Hall and Training Centre project proposal. To date, the Committee has completed Objectives 1 through 7 of the Committee's Terms of Reference, and has now directed staff to prepare a report to Council detailing the Committee's work accomplished to date, along with their recommendations to Council for Council consideration.

CAO RECOMMENDATIONS:

That based on the May 20, 2014 staff report "East Courtenay Satellite Fire Hall/Training Centre Project Review Committee – Report and Recommendations" Council approves OPTION 1 in regards to approval of the following Committee recommendations:

1. *That the City of Courtenay review Bylaw No. 2556 to ensure that the Courtenay Fire Department is granted authority to provide specific services as determined by Council; and*
2. *That the City of Courtenay construct a scenario based fire training ground at the Waters Place site without further delay so firefighter training can be proactively managed to most effectively meet the City's firefighter training needs; and*
3. *That the Courtenay Fire Department develop a practical fire officer training program which complements the Comox Fire Training Centre firefighter training program; and*
4. *That the Council approves Phasing Option 1 – CFD Fire Training Ground Proceed with the design and construction of the Courtenay Fire Training Ground without delay in 2014 to be ready for service in early 2015; and finally*

5. *That, subject to further design and cost review, the planning for an East Courtenay Fire Hall start in 2015, and be constructed in 2016 with a target ready for service date of early 2017.*

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David Allen". The signature is fluid and cursive, with the first name "David" and last name "Allen" clearly distinguishable.

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

In June of 2012, the proposed East Courtenay Firehall and Training Centre Project was presented to Council along with the February 2012 Project Definition Report prepared by Fletcher Pettis Consultants Ltd. At that time, the proposed scope of the project included space for the Comox Valley Ground Search and Rescue and the Comox Valley Emergency Program organizations, both of whom had expressed interest for inclusion in the proposed facility during the initial consultation phase.

Subsequent to discussion, Council passed the following resolution:

“That Council approves proceeding with the design and construction of the East Courtenay Fire Hall/Training Centre with the training centre to be completed by the end of fiscal year 2014, and completion of the fire hall to be by the end of fiscal year 2015; and

That Council approves meeting with representatives of the Comox Valley Emergency Program and the Comox Valley Ground Search and Rescue to ascertain whether these functions will be part of the space requirements of the new facility.”

Carried

While Council was supportive, subsequent commentary from the public and neighbouring communities indicated that Council needed further time to review and assess the project and the need for the project scope as proposed. To that end, and in November 2012, Council established the East Courtenay Fire Hall/Training Centre Project Review Committee and appointed Councillors Ambler, Anglin, Theos to sit on the committee along with staff representatives Fire Chief Bardonnex and Director of Financial Services Manthey.

The Committee's Terms of Reference mandated them to review and provide Council with input on the following:

1. Location of the second fire hall/training centre facility
2. Review of the proposed East Fire Hall/Training Centre Project
3. Review of fire halls and/or training centres in other similar communities
4. Compatible uses to be considered for inclusion in the fire hall facility – ie. fire response, training centre, emergency program, search and rescue, ambulance service.
5. Opportunities for interface with neighbouring responders
6. Financial considerations
7. Development of construction timelines

DISCUSSION:

Since establishment in November 2012, the Select Committee has reviewed information, undertaken site visits, engaged with the Town of Comox, and has solicited two independent consultant reports to assist in their review and assessment of the project.

The Committee has now completed their review of the project and is prepared to provide its input and recommendations for consideration by Council.

Report on Committee Work

Specifically the Committee has completed the following:

- 1) Review of detailed information on the Courtenay Fire Department and areas serviced by the fire department including the structure of the department, duties and services performed, service areas and population, mutual aid agreements, and response levels and times. It was noted that while the department/City has not adopted the NFPA1720 standard, we do use the nine minute total response time as a department guideline.
- 2) Review of the historic growth patterns and planning for emergency services in the City:
 - Twenty years ago, North Island College was just starting construction, and Lerwick Road did not connect through to the Town of Comox.
 - Twenty years ago, only the 5th street bridge existed. The 17th Street bridge was added by the Province, however there are still delays in crossing the river. 17th bridge has 30,000-35,000 crossings per day, and 5th street bridge has 10,000-15,000 crossings per day.
 - Population of the City has doubled in the past twenty years – with most growth occurring in East Courtenay.
 - Commercial build out in East Courtenay including Home Depot, Costco, Thrifty's, North Island College and the new Regional Hospital to be constructed in the coming years.
 - The City's mapping identifies transportation corridor and emergency services planning. The Ryan/Lerwick Corridor has been identified as the location for future emergency services facilities.
 - Growth in South Courtenay and the Arden corridor continues to grow and places increased demands on the Courtenay Fire Department.
- 3) Review of the proposed Waters Place site for an East Courtenay Fire Hall.
 - When Lerwick Road was built out and connected to the Town of Comox, the City re-evaluated the suitability of land owned at Idiens/Lerwick for use in providing fire response to East Courtenay.
 - The decision then made was that the more effective fire services location would be in the vicinity of Ryan Road and Lerwick Road.
 - The City then sold the Idiens property and purchased the land currently owned on Waters Road immediately off of Lerwick Road.
- 4) Review of an alternate site for an East Courtenay Fire Hall
 - Four alternate sites were reviewed, and detailed consideration was given to a site along Ryan Road and the future intersection of Mission Road as a possible alternative site for a future fire hall.
 - However, both the Fire Underwriters Survey Report and the FireWise Consulting Ltd report found that the Waters Road site provided a better location for a fire hall and emergency response than the alternate Ryan Road site for the following reasons:
 - Most cost effective site for taxpayers.
 - Zoning is correct.
 - Service response and capacity achieved a better grade using the Waters Place site for fire response.
 - The VIHA traffic study had taken into consideration the traffic movements to allow for a fire station at Waters Place
 - Potential noise concerns relating to the operation of a fire hall and training ground at Waters site are mitigated on three sides and approximately half of the fourth side by commercial/institutional development. The Committee felt that potential

impact on residential from the north east corner of the property could effectively be mitigated through sound attenuation landscaping and sound barriers.

5) Meeting with Mayor Ives, CAO Kanigan, and Fire Chief Schreiner from the Town of Comox to investigate:

- i. Usage of the Comox Volunteer Department for East Courtenay fire response to East Courtenay
 - The Town of Comox offer of service to the City of Courtenay is based on “Automatic Aid” – a system where both departments are simultaneously dispatched to a call. Once Courtenay Fire Department arrived on site, Comox Fire-Rescue would return to base, if not further needed at the site.
 - Comox Fire-Rescue has indicated that assured Monday-Friday daytime volunteer response would be more challenging to provide. Most of their volunteers are more available overnight and weekends.

Committee Observations:

- Review of the “nine minute” target response circle indicates that Comox Fire-Rescue could only reach a portion of south-east section of East Courtenay properties in advance of the Courtenay Fire Department. This would not provide a 100% solution for East Courtenay fire response at the targeted response time.
 - The Automatic Aid service would not be free - billing for each response from the Town of Comox would be calculated based on the department time consumed, equipment used, and number of crew deployed.
- ii. Usage of the Comox Fire-Rescue Training Centre to meeting the 100% of the training needs for the Courtenay Fire Department volunteers.
 - The Committee toured the Comox Fire Rescue Training Centre on July 8, 2013
 - The Comox facility was started in 1998, and has developed into a regional training facility
 - The Comox facility contains a live fire building, a five story tower building, a three story tower building, a cold smoke search building/fitness centre, and a pumper test pit.
 - Training courses provided include skills based training: “fire attack classes”, hazmat operations course, START (Survival Training and Rescue Techniques) program.
 - The facility provides courses/programs required for certifying firefighters to NFPA 1001 Standard
 - The facility provides Justice Institute of BC certified courses, and has a contract with JIBC to deliver these courses.
 - Construction of an auto extrication pit is planned

Committee Observations:

- The Courtenay Fire Department uses the Comox Training Facility for “skills based” live fire and hazmat training, and this would continue.
- The proposed Courtenay “scenario based training grounds” would not compete with the Comox Training Centre, it would offer training complementary to the skill based training as well as offer officer level training not available at the Comox centre.
- The proposed training grounds in East Courtenay would provide “scenario based” training courses for complex multiple crews and equipment scenarios.
- The Comox Training Facility is compact, and within the area, space can be an issue.

6) Review of the proposed East Courtenay Training Grounds and the Courtenay Fire Department need for scenario based training

- Top priority for volunteer fire departments and retention of volunteers, is ensuring that sufficient realistic scenario training can be provided.
- The Comox Fire training centre is used for live fire and hazmat training, and Courtenay will still use that facility for these two training categories.
- The Comox site does have challenges and is restrictive in how many of volunteers can attend at one time. In addition, for Courtenay Fire Department response planning, we need to be careful how many volunteers we send out of town at any one time.
- To maintain a volunteer fire department, a significant future challenge will be to create the correct, appropriate and sufficient capacity to provide all of the training required. Courtenay Fire Department's Tuesday night training provides only 72 hours of total training in a calendar year. That, along with the retirements of the skilled/experienced long-service fire fighters who are retiring, is creating a future training gap and risk to the department.
- *Simulated real-scenario training*, such as that proposed for the East Courtenay training centre, will be necessary in meeting future training requirements and training capacity, both for volunteers and for fire officer training.
- Courtenay has very few simulator/scenario based training opportunities – most training is "skills" based, such as that provided at the Comox Training Centre.

Committee Observations:

- Courtenay Fire Chief Bardonnex confirms that, in his view, the proposed training grounds should be prioritized ahead of the construction of a satellite fire hall.
- Ultimately this is about saving "firefighter" lives – volunteers need enough training to get home safely.

7) Review of Compatible Uses to be considered for inclusion in the Fire Hall Facility

- i. Other organizations reviewed included the Comox Valley Emergency Program, BC Ambulance, and Ground Search and Rescue.
- ii. These organizations have indicated they do not wish to be included in planning for a satellite fire hall.

The scope and cost of the project has been now reduced to exclude space for these two organizations.

8) Engagement of Independent Consultants

A. Opta Information Intelligence, Municipal Consulting Services

Purpose: To prepare a Fire Underwriters Survey Report and rate fire protection service for the areas protected by the Courtenay Fire Department.

The Committee noted that the Fire Underwriters Survey is an extremely technical 209 page report, and is primarily written for the use of the insurance industry in establishing insurance premiums for an area. Attached to this report are the Executive Summary and the sixteen recommendations contained in the Courtenay Fire Insurance Grade Update Report.

Of note in this report are the following:

- a) The addition of a second fire station within the City of Courtenay and with its current fire apparatus fleet would result in an improvement for first due engine response to properties in

the eastern portion of the City. Additional credit can be received for fire insurance purposes if a second fire station was built in the City of Courtenay [Recommendation 8.2-4].

- b) Recommendation 8.2-9 Improve Training Facilities: The City of Courtenay is encouraged to develop training facilities and props within its municipality that will allow the Courtenay Fire Department to train to realistic scenarios that would be expected within their municipality.
 - (1) The Courtenay Fire Department does not have adequate props and facilities for training within its municipality to provide realistic fire fighting training. The Courtenay Fire Department utilizes Live Fire Training facilities in the Town of Comox and credit was achieved for use of the facility. However, the following props and facilities were not available within Courtenay to the Courtenay Fire Department:
 - (a) Smoke facilities and alternative for protective Breathing Apparatus Training
 - (b) Wet Drill facilities
 - (c) Pumper test facilities
 - (d) Flammable liquid fire facilities
 - (2) Ideally for fire insurance grading purposes, training props and facilities should be located within the municipality of the fire department.
- c) The survey details a total of 16 recommendations for improvement of the overall level of public fire protection as well as fire insurance grading classifications.
- d) An improved municipal fire insurance grading classification benefits private residential and commercial through lower insurance premiums as a result of the related improvements to a community's ability to deliver effective fire protection services.

B. FireWise Consulting Ltd

Purpose: To review and assess all documentation and information compiled to date, and provide the Committee with a report on their findings as well as their independent recommendations for action.

The 46 page report prepared by FireWise Consulting Ltd is attached for Council information, and makes the following recommendations:

Recommendation:

5.0.1 That the City of Courtenay review Bylaw No. 2556 to ensure that the Courtenay Fire Department is granted authority to provide specific services as determined by Council.

Recommendation:

7.1.1 That the City of Courtenay construct a scenario based fire training ground at the Waters Place site without further delay so firefighter training can be proactively managed to most effectively meet the City's firefighter training needs.

Recommendation:

7.3.1 That the Courtenay Fire Department develop a practical fire officer training program which complements the Comox Fire Training Centre firefighter training programs.

Recommendation

12.0.1 That the City of Courtenay construct a satellite fire hall on the Waters Place property as per Council Resolution of June 11, 2012 with a target in service date of 2017.

Phasing Option 1 – CFD Fire Training Ground: Proceed with the design and construction of the Courtenay Fire Training Ground without delay in 2014 to be ready for service in early 2015.

Phasing Option 2 – East Courtenay Fire Hall: The East Courtenay Fire Hall planning to start in 2015 and built in 2016 ready for service for early 2017.

The FireWise consultants emphasized that there is a definite need for the proposed training grounds and satellite fire hall in East Courtenay. They stressed that an increased risk for fire events will exist during the construction phase of the new hospital. Additionally, with East and West Courtenay response limited by two bridge crossings, and with the population and growth in East Courtenay now exceeding that of West Courtenay, their opinion was that the proposed projects should proceed sooner rather than later.

Committee Recommendations

At their meeting of May 12th, 2014, the Committee reviewed the report from FireWise Consulting Ltd and have approved the following recommendations to be brought forward for Council consideration:

1. *That the City of Courtenay review Bylaw No. 2556 to ensure that the Courtenay Fire Department is granted authority to provide specific services as determined by Council; and*
2. *That the City of Courtenay construct a scenario based fire training ground at the Waters Place site without further delay so firefighter training can be proactively managed to most effectively meet the City's firefighter training needs; and*
3. *That the Courtenay Fire Department develop a practical fire officer training program which complements the Comox Fire Training Centre firefighter training program; and*
4. *That the City of Courtenay proceed with the design and construction of the Courtenay Fire Training Ground without delay in 2014 to be ready for service in early 2015; and finally*
5. *That, subject to further design and cost review, the planning for an East Courtenay Fire Hall start in 2015, and be constructed in 2016 with a target ready for service date of early 2017.*

FINANCIAL IMPLICATIONS:

Staff have been monitoring similar fire hall/training grounds projects currently underway in the communities of View Royal, Central Saanich, and most recently East Sooke. Based on the cost experience reported by those communities, it is evident that the Class D costs reported in the February 2012 Fletcher Pettis Project Definition Report may be substantially greater than what will actually be required.

Subject to further design and cost definition at a Class C level or greater, Staff believe that the reduced project will incur costs that will be closer to:

Site preparation	\$1,510,984
Training Grounds	\$ 965,891
Firehall	<u>\$3,215,125</u>
	<u>\$5,692,000</u>

Based on this, and presuming 100% of the capital funding required would be borrowed, the property tax impact is estimated to be as follows:

Site preparation/training grounds \$2.5 M Annual Debt payment \$182,000	\$10 increase / average residential property
Construct satellite fire hall \$3.2 M Annual debt payment \$237,000	\$13 increase / average residential property
Total Debt \$5.7 Million; Total debt payment \$419,000	Total property tax impact \$23/average residential property

Council's attention is drawn to the fact that this increase in annual debt payments could be mitigated entirely through the 2015 retirement of prior debt undertaken in 2000 related to the museum renovations, construction of Firehall No. 1 (Cumberland Road), and renovations to the Sid Williams Theatre. The retirement of these payments next year frees up \$423,000 in annual debt payments by 2016.

In addition to the capital outlay for construction, and once the fire hall is in service, the general operating budget would need to include provisions for additional personnel and operation of the satellite fire hall. The operating costs can be estimated once the final size of the building has been determined.

ADMINISTRATIVE IMPLICATIONS:

Staff resources have been utilized to work with the Committee in their review of the proposed project. Should Council support proceeding as recommended by the Committee, further staff time will be committed to the works required. Communications planning and information for the public should also be prepared for distribution.

STRATEGIC PLAN REFERENCE:

The need for fire response facility on the east side of Courtenay has been a long standing concern as identified by Council in its past and current Strategic Plans:

2005 Strategic Plan:

Acquire property for secondary/future firehall & ambulance site

Action Taken: The acquisition of a 3.359 Acre Site located at 220 Waters Place was completed in 2005. Previously owned property located on Idiens Way was sold.

2008-2009 Strategic Plan:

Plan for the long term needs for fire services/RCMP/ambulance/emergency services. Initiate a process to review the feasibility for a long-term satellite fire hall. Carry out needs study for training site and fire hall at the satellite fire hall location.

2009-2011 Strategic Plan:

Outline a strategy (funding and implementation) to develop a new fire hall and ambulance facility in East Courtenay.

Action Taken: The firm of Fletcher Pettis Consultants Ltd was engaged to develop a project definition report, conceptual design, and Class D costing analysis.

2012-2014 Strategic Plan

Ensure protective services meet community needs. Create a combined emergency services building in East Courtenay for Fire Department, Ambulance, CV Ground Search and Rescue, and Comox Valley Emergency Program.

Action Taken: Staff and the firm of Fletcher Pettis Consultants Ltd reported to Council in June 2012, and Council was provided with a copy of the project definition report. Council passed a resolution in support of moving the project forward.

Sept 2013 Strategic Corporate Priorities:

The East Courtenay Fire Service: Analysis Report to Council is Council's #3 Strategic Priority.

OFFICIAL COMMUNITY PLAN REFERENCE:

4.11.3 Fire and Rescue

To improve fire fighting capacity, consideration will be given to the development of a fire hall on the eastern side of the City.

REGIONAL GROWTH STRATEGY REFERENCE:

Goal 7: Public Health and Safety

The regional district operates five volunteer fire departments and has working arrangements with member municipalities and improvement districts within the regional district to provide fire service. The location of new developments and provisions of services should be considered in the location of new developments.

Supporting Policy #7C-2

Support coordinated efforts to identify and eliminate fire service gaps in the region.

CITIZEN/PUBLIC ENGAGEMENT:

The construction of a second fire hall and training ground in the City of Courtenay will require long-term borrowing. A public approval process is required to undertake the related borrowing. Information in regards to the project would also be made available to the public via the City's website. Neighbourhood consultation to inform and engage to determine potential sound attenuation needs would be appropriate.

OPTIONS:

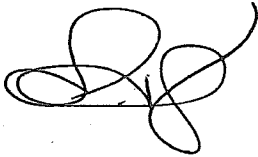
OPTION 1: That Council approves the recommendations of the East Courtenay Fire Hall/Training Centre Project Review Committee as follows:

- 1. That the City of Courtenay review Bylaw No. 2556 to ensure that the Courtenay Fire Department is granted authority to provide specific services as determined by Council; and*
- 2. That the City of Courtenay construct a scenario based fire training ground at the Waters Place site without further delay so firefighter training can be proactively managed to most effectively meet the City's firefighter training needs; and*
- 3. That the Courtenay Fire Department develop a practical fire officer training program which complements the Comox Fire Training Centre firefighter training program; and*

4. *That the Council approves Phasing Option 1 – CFD Fire Training Ground Proceed with the design and construction of the Courtenay Fire Training Ground without delay in 2014 to be ready for service in early 2015; and finally*
5. *That, subject to further design and cost review, the planning for an East Courtenay Fire Hall start in 2015, and be constructed in 2016 with a target ready for service date of early 2017.*

OPTION 2: That Council determines an alternate approach to moving forward.

Prepared by:



Tillie Manthey, BA, CPA, CGA

Director, Financial Services/Deputy CAO

Attachments:

1. April 2014 City of Courtenay Fire Insurance Grade Update Report, Executive Summary and Recommendations, Opta Information Intelligence, Municipal Consulting Services
2. April 2014 City of Courtenay East Courtenay Fire Training Ground / Fire Hall Project, Fire Wise Consulting Ltd.

**City of Courtenay
Fire Insurance Grade Update Report**

2014

FINAL

FOR PUBLIC RELEASE

April 2014 Final-Public



Municipal
Consulting
Services

1. SCOPE OF OUR ENGAGEMENT

The City of Courtenay contracted the services of Opta Information Intelligence (formerly IAO) to evaluate the Courtenay community's public fire protection programs. The purpose of the assessment is to determine whether the community's current fire insurance grading classifications are representative of the fire protection programs and fire protection resources that are currently in place within the community. A fire insurance grading review is a key part of the assessment process.

The significant findings of the Fire Underwriters Survey review were requested to be outlined within a report format. The report will provide an update on the City of Courtenay's fire insurance grading assignments and make recommendations aimed at improving the level of public fire protection and improving the fire insurance grading classifications.

1.1. Acknowledgement

Opta Information Intelligence and Fire Underwriters Survey wishes to thank the City of Courtenay, the Courtenay Fire Department, and the Comox Valley Regional District for their valuable assistance in conducting this survey and preparation of this report.

1.2. Distribution of Use

This report, along with the findings and conclusions, contained herein, is intended for the sole use of the City of Courtenay and the Courtenay Fire Department to assist in the public fire protection planning needs of the community.

Judgements about the conclusions drawn, and opinions presented in this report should be made only after considering the report in its entirety. This report is Private and Confidential and is intended for the exclusive use of the City of Courtenay and the Courtenay Fire Department.

You may not copy, sell, reproduce, distribute, retransmit, publish, modify, display, prepare derivative works based on, re-post or otherwise use any of the Report Content, in any way for any public or commercial purpose without the express written consent of Opta Information Intelligence and Fire Underwriters Survey.



1.3. Reliance and Limitation

We have relied on the general accuracy of information provided by stakeholders including the City of Courtenay, the Courtenay Fire Department and the Comox Valley Regional District without independent verification. However, we have reviewed this information for consistency and reasonableness. The accuracy of our conclusions is dependent upon the accuracy and completeness of this underlying data. Therefore, any discrepancies discovered in this data by the reader should be reported to us and this report amended accordingly, as warranted.



2. EXECUTIVE SUMMARY

This report outlines the significant findings of the Fire Underwriters Survey carried out for the City of Courtenay. The City of Courtenay requested Fire Underwriters Survey to conduct a survey to evaluate the current public fire protection programs and fire protection resources within the municipality for the purpose of updating the fire insurance grades. In addition, the report provides recommendations for improvement of the overall level of public fire protection as well as fire insurance grading classifications.

Fire Underwriters Survey offices maintain data from surveys on fire protection programs throughout all municipalities across Canada. The results of these surveys are used to establish the Public Fire Protection Classification (PFPC) and Dwelling Protection Grade (DPG) for each community. The Public PFPC is a numerical grading system scaled from 1 to 10. Class 1 is the highest grading possible and Class 10 indicates that little or no fire protection is in place. The DPG is a numerical grading system scaled from 1 to 5. One (1) is the highest grading possible and five (5) indicates little or no fire protection is provided.

The Public Fire Protection Classification of the City of Courtenay has been improved to 4 and the Dwelling Protection Grade 3A has been maintained. The Courtenay Fire Department and the City of Courtenay are to be congratulated at improving its fire insurance grades. A number of conclusions and recommendations have been made as a result of our assessment to aid the City of Courtenay and the Courtenay Fire Department in improving its fire insurance grades further if so desired.

The following table shows each of the four fire insurance grading areas and the credit that the City of Courtenay received. The second table illustrates the credit range for each Public Fire Protection Classification.



Area of Grading	Weight within Grading	Credit Received 2014	Relative Classifications 2014
Fire Department	40	23.82	5
Water Supply	30	18.92	4
Fire Safety Control	20	14.80	3
Fire Service Communications	10	7.42	3
Total Credit Score		62.23	

Overall PFPC	Credit Range Per PFPC Grade
1	90.00 – 100.00
2	80.00 – 89.99
3	70.00 – 79.99
4	60.00 – 69.99
5	50.00 – 59.99
6	40.00 – 49.99
7	30.00 – 39.99
8	20.00 – 29.99
9	10.00 – 19.99
10	0.00 – 9.99

As part of the fire insurance grading review, the City of Courtenay requested a to review of the impact a second fire station in East Courtenay would have on the Public Fire Protection Classification and Dwelling Protection Grade of the City of Courtenay and its contract fire protection areas of the Comox Valley Regional District.

The addition of a second fire station within the City of Courtenay and with its current fire apparatus fleet would result in an improvement for first due engine response to properties in the eastern portion of the City.

Second due engine response remained consistent with the addition of a second fire station at either location. Total concentration credit decreased slightly with the addition of a second fire station within the City. However, the reduction in percent was due to the repositioning of fire apparatus which



resulted in some Required Fire Flow points being outside of the ideal distance of an engine apparatus for total concentration.

The Response Distance Standards of 2.5 km, 5 km, and 8 km were also reviewed. The addition of a second fire station would ensure all properties are within 8 km in the City of Courtenay. However, in the contract fire protection areas of the Comox Valley Regional District, the addition of the second station did not have a significant impact. Forty five percent of properties were outside of 8 km in road travel distance. With a considerable percentage of properties beyond 8 km and being predominantly single family residential (Personal Lines) the Courtenay Fire Department and Comox Valley Regional District may wish to discuss establishing a satellite fire station in either of the Tsolum Farnham or Merville fire protection areas to improve fire department response.

	City of Courtenay			Fire Protection Areas		
	Cumberland Road FS	Cumberland Rd & Ryan Rd	Cumberland Rd & Waters Pl	Cumberland Road FS	Cumberland Rd & Ryan Rd	Cumberland Rd & Waters Pl
First Due Engine	48.43%	77.58%	90.15%	5.27%	5.27%	5.87%
Second Due Engine	92.48%	92.48%	92.48%	14.63%	14.63%	14.63%
Total Concentration Engine (remaining apparatus needed)	72.41%	70.98%	71.31%	21.98%	21.60%	21.81%
First Due Ladder	53.72%	53.72%	53.72%	-	-	-
Total Concentration Ladder (remaining apparatus needed)	0.00%	0.00%	0.00%	-	-	-
Within 2.5km of Fire Hall	46.84%	72.01%	84.02%	3.30%	3.30%	3.61%
Within 5km of Fire Hall	88.19%	99.84%	99.83%	28.91%	30.89%	33.87%
Within 8km of Fire hall	99.97%	100.00%	100.00%	55.07%	55.24%	56.25%

Depending on the chosen location by the City of Courtenay and the Courtenay Fire Department additional credit would be achieved for fire insurance grading purposes within the fire insurance grading item reviewing the distribution of companies.

The City of Courtenay also requested to review the training facilities and props available within and outside of the City of Courtenay for the Courtenay Fire Department. The Courtenay Fire Department does not have adequate props and facilities for training within its municipality to provide realistic fire fighting training.



The Courtenay Fire Department utilizes Live Fire Training facilities in the Town of Comox and credit was achieved for use of the facility for fire insurance grading purposes. However, the following props and facilities were not available to the Courtenay Fire Department:

- Smoke facilities and alternative for protective B.A. Training
- Wet drill facilities
- Pumper test facilities
- Flammable liquid fire facilities

The City of Courtenay is encouraged to develop training facilities and props within its municipality that will allow the Courtenay Fire Department to train to realistic scenarios that would be expected within their municipality.



2.1. Summary of Recommendations

Recommendation	Page	Fire Insurance Grading Weighting	Grading Item	Potential Credit Received Depending on Degree of Implementation
8.2-1 Provide Additional Engine Apparatus	48	Medium	PFPC - FD-1/FD-4	0 to 78 credit points
8.2-2 Provide a Reserve Engine Apparatus	48	Low	PFPC - FD-1/FD-4	
8.2-3 Provide a Reserve Ladder Apparatus	51	Low	PFPC - FD-2	0 to 18 credit points
8.2-4 Improve Distribution of Resources with Additional Fire Station in City of Courtenay	56	High	PFPC - FD-3	0 to 74 credit points
8.2-5 Consider Establishing a Satellite Fire Station in the Comox Valley Regional District	57	Medium	DPG	Additional properties eligible for improved insurance savings
8.2-6 Train and Qualify Additional Firefighters to Officer Positions	69	Medium	PFPC - FD-6	0 to 59 credit points
8.2-7 Improve Total Available Fire Force	73	High	PFPC - FD-7/FD-8	0 to 241 credit points
8.2-8 Ensure Officers are Certified to NFPA 1021 Level 1 and Level 2	84	Medium	PFPC - FD-13	0 to 50 credit points
8.2-9 Improve Training Facilities	84	Medium	PFPC - FD-13	0 to 53 credit points
9.2-1 Improve Reliability of Power Supply	100	Medium	PFPC - WS-3	Courtenay-CVRD 0 to 10 credit points Sandwick 0 to 49 credit points
9.2-2 Provide physical available fire flow testing in accordance with NFPA 291 or Hydraulic Model Results for Review	102	Medium	PFPC - WS-6	Courtenay-CVRD 0 to 240 credit points Royston 0 to 350 credit points Sandwick 0 to 490 credit points
9.2-3 Frequency of Available Fire Flow Testing	102	Low	PFPC - WS-6	
9.2-4 Improve Reliability of Principal Mains	104	Medium	PFPC - WS-7	Courtenay-CVRD 0 to 50 credit points Royston 0 to 75 credit points Sandwick 0 to 88 credit points
9.2-5 Upgrade Water mains in Weak Areas	107	Medium	PFPC - WS-8	Sandwick 0 to 73 credit points
9.2-6 Improve Hydrant Distribution	110	Medium	PFPC - WS-11	Courtenay-CVRD 0 to 111 credit points Royston 0 to 305 credit points Sandwick 0 to 285 credit points
10.1-1 Improve Inspection Frequency Policy	117	Medium	PFPC - FSC-2	0 to 134 credit points credit points



Recommendation 8.2-1 Provide Additional Engine Apparatus

The engine service requirements for fire insurance grading have not been fully met with the Courtenay Fire Department's existing apparatus fleet. The Courtenay Fire Department may wish to improve its fire fighting capabilities by acquiring additional apparatus. Fire apparatus should be ULC listed, be of an appropriate age, have an adequate pumping capacity, and be proven reliable. Doing so may help to provide an adequate level of fire protection and potentially improve the fire insurance grade for the community.

The Courtenay Fire Department received credit for 2.83 Engine Company. Credit up to the maximum amount of 1.17 can still be awarded for this grading item.

Acquiring additional fire apparatus is a serious matter that requires careful consideration. There are many factors to consider and fire insurance grading is only one such factor.

Recommendation 8.2-2 Provide a Reserve Engine Apparatus

To ensure an adequate response when a fire department has its engine apparatus out for repair, a fire department should have a reserve engine apparatus equipped, maintained and ready for replacement purposes if its primary engine is out of service. At a minimum one engine apparatus should be kept in reserve for each eight engine apparatus which would include a single engine apparatus having a replacement apparatus.

For the Courtenay Fire Department to receive maximum credit in this portion of the engine service grading item, a reserve engine of reasonable age would be required.

Recommendation 8.2-3 Provide a Reserve Ladder Apparatus

To ensure an adequate response when a fire department has its ladder apparatus out for repair, a fire department should have a reserve ladder apparatus equipped, maintained and ready for replacement purposes if its primary ladder is out of service. At a minimum one ladder apparatus should be kept in reserve for each five ladder apparatus which would include a single ladder apparatus having a replacement apparatus.

For Courtenay Fire Department to receive maximum credit in this portion of the ladder service grading item, a reserve ladder would be required.

Recommendation 8.2-4 Improve Distribution of Resources with Additional Fire Station in City of Courtenay

Personal Lines and Commercial Lines insured properties located in the eastern area of the City of Courtenay did not receive full credit due to the number of excessive responses that were not within the recommended responses distances for first due, second due, and total concentration for engine and ladder companies.

Additional credit can be received for fire insurance grading purposes if a second fire station was built in the City of Courtenay.



Recommendation 8.2-5 Consider Establishing a Satellite Fire Station in the Comox Valley Regional District

Credit that the Courtenay Fire Department could received was reduced slightly due to the number of Required Fire Flow points beyond first due engine response and total concentration engine response in the Merville and Tsolum Farnham fire protection areas. To improve credit within this grading item, the Courtenay Fire Department and the Comox Valley Regional District may wish to consider establishing a satellite fire station in the Merville Fire Protection Area or Tsolum Farnham Fire Protection Area to improve fire department response.

As the majority of properties within the Merville or Tsolum Farnham fire protection areas are beyond 8 km in road travel of a recognized fire station that provides response, a satellite fire station would extend the 8 km coverage within the Dwelling Protection Grade system and allow property owners in the Comox Valley Regional District to be eligible for reduced fire insurance premiums as it relates to Personal Lines and Commercial Lines property insurance.

Recommendation 8.2-6 Train and Qualify Additional Firefighters to Officer Positions

The Courtenay Fire Department received credit for 4 career officers when measured against the 20 career officers needed based on a shift factor of 4. The Courtenay Fire Department can receive additional credit up to the maximum if it increases the total number of Company Officers on the fire department. Credit can be received though a combination of career and auxiliary officers.

A fire department should have sufficient Company Officers available and assigned to provide one on duty response with each required engine or ladder company. The Company Officers should be adequately trained, preferably in accordance with NFPA 1021: *Standard for Fire Officer Professional Qualifications, 2009 Edition* or recent edition to receive full credit for fire insurance grading purposes.

Recommendation 8.2-7 Improve Total Available Fire Force

The Courtenay Fire Department is credited with 13.17 fire fighter equivalent units in its available fire force out of the maximum it can receive of 30. Courtenay Fire Department can receive additional credit up to the maximum if it improves its available fire force. Credit can be obtained through career and auxiliary members.

Note that the available fire forces can be improved through additional volunteers up to 50% of the required fire force. (In the case of the Courtenay Fire Department, the required force is 30, so the maximum available fire force that can be provided through volunteers and other FFEU sources is 15.)

Providing additional staffing either being career or auxiliary is a serious matter that requires careful consideration. There are many factors to consider and the fire insurance grading is only one such factor.



Recommendation 8.2-8 Ensure Officers are Certified to NFPA 1021 Level 1 and Level 2

Officers should be adequately trained, preferably in accordance with NFPA 1021: *Standard for Fire Officer Professional Qualifications*, 2009 Edition or recent edition to receive full credit for fire insurance grading purposes.

Recommendation 8.2-9 Improve Training Facilities

The Courtenay Fire Department does not have adequate props and facilities for training. The following props and facilities are recommended to be developed with the City of Courtenay:

- Smoke facilities and alternative for protective B.A. Training
- Wet drill facilities
- Pumper test facilities
- Flammable liquid fire facilities

Training facilities should be developed by the fire department in relation to the level of fire risk within the community so that realistic fire fighting training can be conducted.

It is recommended that facilities for drill and training be readily available for purposes that include necessary buildings or structures for ladder work, smoke and breathing apparatus training, use of pumper and hose lines, lecture space, etc. If the fire department were to develop its own training facilities it is recommended NFPA 1402 *Guide to Building Fire Service Centres*, recent edition be used for development.

Ideally for fire insurance grading purposes training props and facilities should be located within the municipality of the fire department. Credit can be received for the use of training facilities and props in neighbouring communities if the fire department has access to use them. To receive full or partial credit training facilities and props should be within 8 km of the municipal boundary. If training facilities and props are beyond 8 km, credit can still be achieved but sufficient fire department coverage must be maintained within the municipality when fire department resources are outside of the community for training purposes.

Recommendation 9.2-1 Improve Reliability of Power Supply

To receive additional credit up to the maximum is this grading item water purveyors may wish to consider improving reliability in power supply to ensure that adequate pressures and required fire flows in conjunction with the maximum day demand can be continually provided throughout the water distribution system (Courtenay-CVRD and Sandwick) during an electrical power outage.

Recommendation 9.2-2 Provide Physical Available Fire Flow Tests in Accordance with NFPA 291 or Hydraulic Modeled Results for Review

For FUS to determine if additional credit can be obtain for each of the water distribution systems, physical available fire flow test results or hydraulic model results of available fire flows should be submitted for review. If physical available fire flow tests are completed, they should be completed and documented in accordance with NFPA 291: *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, recent edition to receive full credit for fire insurance grading purposes.



Recommendation 9.2-3 Frequency of Available Fire Flow Testing

Routine available fire flow testing should be completed on water supply systems that provide public fire protection. At a minimum available fire flow test should be conducted every 5 years in accordance with NFPA 25: *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, recent edition and NFPA 291: *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, recent edition.

NFPA 25 Reference 7.3.1 Tests

7.3.1 Underground and Exposed Piping Flow Tests. Underground and exposed piping shall be flow tested to determine the internal condition of the piping at minimum 5-year intervals.*

7.3.1.1 Flow tests shall be made at flows representative of those expected during a fire, for the purpose of comparing the friction loss characteristics of the pipe with those expected for the particular type of pipe involved, with due consideration given to the age of the pipe and to the results of previous flow tests.

7.3.1.2 Any flow test results that indicate deterioration of available water flow and pressure shall be investigated to the complete satisfaction of the authority having jurisdiction to ensure that the required flow and pressure are available for fire protection.

NFPA 291 Reference 4.13 Public Hydrant Testing and Flushing

4.13.1 Public fire hydrants should be flow tested every 5 years to verify capacity and marking of the hydrant.*

4.13.2 Public fire hydrants should be flushed at least annually to verify operation, address repairs, and verify reliability.

Recommendation 9.2-4 Improve Reliability of Principal Mains

Redundancy of principal mains and water sources is important to ensure adequate pressures and flows can be continually provided throughout the community during foreseeable perils and system failures. Areas of the water distribution systems should be reviewed to determine mains that are most important and improve redundancy for those mains. Redundancy can be accomplished through redundant mains or by providing additional local storage that would be available to the distribution system in the event of water main or source failures.

A break in the water mains will affect the ability of the water system to provide required fire flows to those portions of the municipality. The water purveyors may wish to develop alternative measures to ensure reliability for public fire protection and fire insurance grading purposes. Additional credit can be received in this grading up to the maximum if principal water mains were twinned or storage on the distribution system was improved. Twinning of water mains or improving storage on the distribution system may also grant credit in other grading items.

Recommendation 9.2-5 Upgrade Water mains in Weak Areas

Water mains less than 150 mm in diameter do not have adequate fire flow capacities for firefighting purposes. To reduce the risk of fire flows being overly restricted through small portions of pipe, all new water lines and lateral



branches should be a minimum of 150 mm (6 inches). Pre-existing pipes that are smaller should be upgraded on a priority basis.

Recommendation 9.2-6 Improve Hydrant Distribution

Additional credit can be received for each of the water distribution systems if additional hydrants were added to the water systems to improve distribution. To receive maximum credit hydrant distribution for communities should be accordance with the Standard Hydrant Distribution table listed in Appendix B, FUS – 1999 Water Supply for Public Fire Protection.

Recommendation 10.1-1 Improve Inspection Frequency Policy

Additional credit up to the maximum can be received if the fire prevention inspection policy of high risk life safety and high risk

Fire Underwriters Survey recommends the following inspection frequency to receive maximum credit for fire insurance grading purposes:

National Building Code of Canada			Minimum Inspection Frequency
Group	Division	Description of Major Occupancies	
A	1	Assembly occupancies intended for the production and viewing of the performing arts	6 months
A	2	Assembly occupancies not elsewhere classified in Group A	6 months
A	3	Assembly occupancies of the arena type	6 months
A	4	Assembly occupancies in which occupants are gathered in the open air	6 months
B	1	Care or detention occupancies in which persons are under restraint or are incapable of self-preservation because of security measures not under their control	6 months
B	2	Care or detention occupancies in which persons having cognitive or physical limitations require special care or treatment	6 months
C	—	Residential occupancies	6 months
D	—	Business and personal services occupancies	12 months
E	—	Mercantile occupancies	12 months
F	1	High-hazard industrial occupancies	3 months
F	2	Medium-hazard industrial occupancies	6 months
F	3	Low-hazard industrial occupancies	6 months

Details are provided in Appendix H – Recommended Frequency of Fire Prevention Inspections



City of Courtenay East Courtenay Fire Training Ground Fire Hall Project



April 2014

Prepared by:

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1.0 EXECUTIVE SUMMARY

The City of Courtenay provides Fire and Rescue Services to just over 24,000 residents in the city itself and an additional 10,700 residents in 3 contracted areas adjacent to the city. As part of this report we reviewed City and fire department policies and procedures, zoning applicable to the proposed site, the official community plan and the fire department budget. In addition, the Project Definition Report by Fletcher Pettis Consultants and the draft Fire Underwriter Survey Report were also reviewed. While this report offers additional information and suggestions regarding governance and current operational capabilities of the Courtenay Fire Department, the two main areas of focus surround the decision to construct a second fire station in East Courtenay and the development of a training ground on the same property.

On June 11, 2012 Council passed a resolution to “*approve proceeding with the design and construction of the East Courtenay Fire Hall/Training Centre*”. In March 2014 the East Courtenay Fire Hall/Training Centre Project Review Committee contracted FireWise Consulting Ltd to review the Project Definition Report (Fletcher Pettis), the draft Fire Underwriters Survey Report and other pertinent information relevant to this project and to make recommendations that would assist the Committee in making its final report to council.

With regard to the choice of sites between Ryan Road and Waters Place we concur with the Fire Underwriters Survey that the Waters Place location is the preferred site for both a new second fire station and a new training ground development.

We believe the training ground is a good long term investment for the City of Courtenay. The project as proposed will offer decades of training opportunities for firefighters and workers in other City of Courtenay departments such as Public Works for confined space

training. The site is considerably larger than the training site in Comox and as such offers increased opportunity for multi-engine company scenario based training. The Courtenay Fire Department would still use the Comox facility for “live fire” training but most other firefighter training and skills maintenance drills would take place at the new training grounds. A new properly planned training ground would complement the Comox facility by offering other training not available through the Comox Training Centre or elsewhere in the immediate area.

Building your own facility offers control over future training costs, scheduling availability and the ability to build training props to cover off specific risks factors that may be unique to the City of Courtenay (Hazardous processes etc.) Courtenay Firefighters are trained to the National Fire Protection Association (NFPA) Firefighter, 1001 Standard Level II. New recruits are expected to complete this level of training within two years of becoming a regular member of the department. The undertaking by the department to achieve this goal is commendable and is a positive reflection on the current leadership within the fire department. The new training ground will offer an enhanced opportunity for front line officers and incident commanders to maintain and improve their leadership skills. Given the annual attrition rate and the additional firefighters required to populate a second fire station, building the training grounds first would be appropriate in order to facilitate what will probably be the largest rookie training class in department history.

A second fire station located in east Courtenay makes both fiscal and operational sense for the following reasons.

Should a significant seismic event or flooding occur, a second station in east Courtenay would ensure at least some degree of fire/rescue services for the area where currently more than 50% of the city’s population reside. In a seismic type of an event, it is possible both access bridges over the river between east and west Courtenay could be compromised and your mutual aid partners will likely be overwhelmed by demands for service in their own immediate jurisdictions.

The economic drivers for your community that operate in this area will benefit from the increased level of service.

There may be an opportunity for insurance rate premium reductions based on response distances for businesses and for some residents located in East Courtenay.

While it is true that service levels will be more equitable for East Courtenay residents, a second station also will improve the operational readiness throughout the city. The ability for fire services to respond to an incident from two geographically separated fire stations can be extremely beneficial from both a tactical and liability perspective. An additional new engine at this fire station will also build in redundancy when other engines are out of service and increased capacity when the fleet is at full strength.

Current and future development in the north east part of the city will be better served from decreased response travel distance and accessibility.

The City of Courtenay operates a well-equipped, well trained and well managed fire department. Considering the significant development and population growth east of the Puntledge/Courtenay River System we believe Council's decision in July 2012 to proceed with a second fire station is appropriate and will offer significant positive benefits for its citizens. Development of a training ground on the same site as a second fire hall is also a sound strategy to provide an area for both current and future firefighters to learn and maintain the skills necessary to safely and efficiently provide fire and rescue services to the City and its fire protection contract areas.

"A fire department does not exist for what it does; it exists for what it may have to do."

Neil Hintze, FDNY Battalion Chief

1.1 SUMMARY of RECOMMENDATIONS

Recommendation:

5.0.1 That the City of Courtenay review Bylaw No. 2556 to ensure that the Courtenay Fire Department is granted authority to provide specific services as determined by Council.

Recommendation:

7.1.1 That the City of Courtenay construct a scenario based fire training ground at the Waters Place site without further delay so firefighter training can be proactively managed to most effectively meet the City's firefighter training needs.

Recommendation:

7.3.1 That the Courtenay Fire Department develop a practical fire officer training program which complements the Comox Fire Training Centre firefighter training programs.

12.0.1 Recommendation

That the City of Courtenay construct a satellite fire hall on the Waters Place property as per Council Resolution of June 11, 2012 with a target in service date of 2017.

Phasing Option 1 – CFD Fire Training Ground

Proceed with the design and construction of the Courtenay Fire Training Ground without delay in 2014 to be ready for service in early 2015.

Phasing Option 2 – East Courtenay Fire Hall

The East Courtenay Fire Hall planning to start in 2015 and built in 2016 ready for service for early 2017.

2.0 INTRODUCTION

The City of Courtenay contacted FireWise Consulting Ltd. (FWC) as a professional service experienced in the fire protection field and as a neutral third party to review relevant documents and information pertaining to the development and construction of a Courtenay Fire Department Training Ground and a second fire hall in east Courtenay.

A resolution passed by Courtenay City Council on June 11, 2012 was to proceed with the design and construction of the fire training ground and fire hall. On November 5, 2012 Council passed a second resolution to create a select committee to review the project proposal.

FWC met with City of Courtenay Financial Officer and Fire Chief Don Bardonex and Deputy Chief Kurt MacDonald to establish the scope of the project and to gather information. It was expressed that time is of the essence and that an unbiased opinion in the form of a report with recommendations from a neutral third party experienced in the fire protection field was needed.

The deliverables in the report are to specifically review and address:

1. The need for a satellite fire hall in East Courtenay;
2. The need for a scenario based training ground;
3. Recommendations on site location; and
4. Recommendations on the phasing option for construction of the fire training grounds and satellite fire hall.

Work on this report started immediately by gathering documents, interviewing staff and touring the community and the Comox Fire Training Centre.

2.1 DISCLAIMER

This report is being submitted for your review and consideration. FWC makes no representation or warranty to the Recipient with respect to the information and shall not be liable for any errors or omissions in the information or the use thereof.

3.0 BACKGROUND

The City of Courtenay with a current population of just over 24,000 has a land base of 29.4 sq. km containing over 12,000 properties. In addition the contracted fire service area protected by Courtenay Fire Department covers an area of 153.7 sq. km and has a population of 10,696. The Courtenay Fire Department is established under the Fire Protective Services Bylaw # 2556, 2008.

Courtenay Fire Department provides Fire and Rescue services from one fire hall located at 650 Cumberland Road. A total of 6 career and 36 paid on call volunteer firefighters respond to both emergency and non-emergency calls within the City of Courtenay and surrounding contracted fire protection districts. The Courtenay Fire Department delivers services using 3 Engines, 1- 75 foot Quint (Ladder Truck with pumping capabilities), 1 water tender, 1 heavy rescue, 2 command units and 3 small vehicles.

The community is divided geographically east and west by the Courtenay and Puntledge Rivers. Access between the east and west sides of the community is provided by two bridges, one at 5th Avenue and a second at 17th Street. In recent years the development of the east side of Courtenay has resulted in property increased improvement values and a population marginally exceeding those in west Courtenay.

The recent historical growth experienced in Courtney exceeds both the provincial and national average and future growth is projected in the Official Community Plan (OCP) to be between 1.5% and 3.5% per annum. This growth in both east and west areas of Courtenay will continue to increase demands for fire service delivery.

4.0 COMMUNITY RISK ASSESSMENT

A cursory fire risk assessment in the City of Courtenay was undertaken to determine if the fire department is equipped, staffed and trained to meet the most likely to occur type of fire/rescue event. The City of Courtenay is essentially divided into East and West Courtenay with the division being the Puntledge/Courtenay River system.

The local economy is primarily a service based economy with no major single industry such as a pulp mill or mine as the major employer for the region. The largest area employer is CFB Comox located on the east side of the Town of Comox.

Courtenay has a higher than average retirement community population which adds to the stability of the local economy. There are many commercial enterprises that provide a wide range services to region. There are residential subdivisions located throughout the City with the 831 acre Crown Isle Resort and Golf Community in East Courtenay being a high profile development in the heart of East Courtenay.

The downtown core has many older retail and office buildings some of which have significant historical value to the community. Some of the buildings do pose a fire risk but with the City of Courtenay fire inspection and prevention program, the risks are manageable.

A few blocks west of the Courtenay fire hall lie the E&N Railway tracks. The rail road runs completely through the City of Courtenay from south to north. At the time of this report, the E&N rail line is not operating so it does not pose too much of a problem, however, plans are in place to upgrade the rail bed plus some bridges so it can resume operations. A rail line running through a community is a concern to a fire department because of the cargo that may be carried plus there is a risk for trains to cause sparks igniting fine fuels along the right of way during the dry months. Along any rail road there is also the likelihood for motor vehicle accidents at rail road crossings.

On the west bank of the Courtenay River, near the estuary lies the Courtenay Airpark. This City owned facility operated, by the Courtenay Airpark Association, has hangar space and fuel available for the recreational aviators that use this airfield. The airpark is not

considered to be an overwhelming fire risk however aircraft incidents do require some specialized fire and rescue training to efficiently mitigate.



On the south side of the City there are several large retail shopping centres along Cliffe Avenue with well-travelled arterial roads leading up to the Inland Island Highway and the Village of Cumberland. To the west and north of the “downtown” area there are mature residential

neighborhoods and multiple apartment or condo units. In the City of Courtenay, apartments, condos and low income housing units appear to be the greatest concern with respect to fire incidents.

North Island College has a modern campus in East Courtenay and a new 153 bed hospital situated in East Courtenay is planned to open in 2017. There are also major retail outlets, big box stores such as Superstore, Costco, Home Depot and several automobile dealerships located in East Courtenay. In addition to the large commercial enterprises there is the Crown Isle Resort and Golf Community which houses permanent homes and short term rental units in addition to hotel villas for tourists.

The City of Courtenay Official Community Plan states; *“Residential growth is expected to continue as the demand for new housing will be driven by the desire of external individuals seeking a milder climate and opportunities provided in the Comox Valley.*

The majority of new housing will occur through the subdivision of larger vacant lots. The recent trend has seen the majority of this development to occur in East Courtenay. With the amount of developable land in East Courtenay this trend will likely continue”.

Automobile crashes continue to be a common occurrence which Courtenay Fire Department is dispatched to. According to ICBC, there were 1,900 motor vehicle accidents in Courtenay in 2012 resulting in 580 injuries plus another 20 incidents involving pedestrians. As the community grows this type of incident will continue to occur.

It is fortunate that Courtenay Fire Department has access to a good water system in its primary response area, and it routinely dispatches a water tender to areas of its response district which do not have hydrants. Courtenay Fire Department does have mutual aid agreements with neighboring fire departments who can be called for more resources as required.

Analysis of recent fires indicate that Courtenay Fire Department has the equipment for mitigating the most likely to occur incident. It is obvious however that with all the fire rescue equipment located on the west side of the river and only two bridge crossings, the east side is vulnerable. The flood experience of November, 2009 is still fresh in the minds of Courtenay Fire Department as they recall having to stage fire/rescue equipment in East Courtenay. If another major seismic event happens such as the earthquake of 1946, the bridges may be compromised and an engineering assessment completed before traffic will be allowed to use them.

Although a formal risk assessment was not conducted by FWC, it would appear from our tour of the district that Courtenay Fire Department is adequately equipped for structural fire suppression, and auto extrication but has limited wild land interface suppression capability. A risk management issue identified however is that all the fire rescue equipment is centralized in West Courtenay.

5.0 BYLAWS

Courtenay Fire Department derives its authority to operate from the City of Courtenay Bylaw No. 2556. This bylaw establishes the fire protection regulations but does not specifically state what services Courtenay Fire Department is authorized to provide. Perhaps in the definitions section the following may be considered to clearly define fire protection in the bylaw. +

“fire protection” means all aspects of fire safety and includes,

- (a) fire prevention,*
- (b) firefighting,*
- (c) fire suppression,*
- (d) BC Fire Code, fire hazard and fire safety inspections, including inspections required by the Fire Services Act and this bylaw,*
- (e) pre-fire planning,*
- (f) fire investigation,*
- (g) inspecting, monitoring and advising on hazardous materials storage and handling,*
- (h) public education and information in relation to fire safety and prevention,*
- (i) training, advising and other development of Members in relation to the activities listed as (a) to (h) in this definition,*
- (j) Authority to enter in to Mutual Aid or Automatic Aid agreements,*

Recommendation:

5.0.1 That the City of Courtenay review Bylaw No. 2556 to ensure that the Courtenay Fire Department is granted authority to provide specific services as determined by Council.

6.0 COUNCIL POLICY

Similar to most municipalities, City Council has adopted specific policies. Policies are a guideline for City employees to follow in making decisions in the best interests of Courtenay. Policies provide a framework for the delegation of decision making, eliminate misunderstanding, reduce uncertainties and enable goals and objectives to be met. Policies should be outcome focussed with considerable latitude exercised in decision making, dependent upon circumstances, otherwise they will simply be procedural rules. In making decisions however, the intent of the policy must be understood and followed. Many policies have been created after an action was taken which seemed like the “right thing to do at the time” but the decision may have been called into question later resulting in a policy.

The purpose of policies are intended to:

- promote common understanding of Council’s policy objectives
- provide direction to allow Administration to meet Council’s policy objectives
- facilitate better and more timely decisions
- ensure uniformity in the interpretation and implementation of policy
- allow personnel to know what is expected of them
- ensure that similar situations are handled consistently
- promote delegation of decision making to the level that must face the problem or situation when it arises
- encourage coordination and integration of actions and plans within and across functional area and departments

- address problems or situations that are repetitive or recurring

Council policies for the fire department are often inadvertently overlooked and there is often an expectation that the fire department is doing things appropriately. Financial policies are generally in place to ensure financial accountability but further policies are required to provide the necessary direction from Council to CFD. The provision of fire rescue services requires considerable preparation before any emergency response is made. Fire and rescue incidents are high risk, low frequency events often with severe consequences when things go wrong. It is therefore important that Council policies for the fire department are in place. Without clear policies from Council, a fire department will self-assign which may be contrary to the wishes of Council which could expose the City to unnecessary liability.

Council policy should provide the framework for the fire rescue service to operate including a clearly defined list of services, limitations of service, geographic response areas, partnerships and training standards.

7.0 TRAINING

7.1 Training Standards

Through a Ministerial Order the Province of BC has identified that the National Fire Protection Association (NFPA) training standards are recognized across the Province. NFPA 1001 and 1002 are the most widely used firefighter training standards. NFPA 1001 outlines the minimum job performance requirements for firefighters whose duties are primarily structural in nature. NFPA 1002 identifies the minimum job performance requirements for firefighters who drive and operate fire apparatus.

CFD has set a very high standard for its firefighters based on NFPA Standards. The curriculum for these standards is both academic and practical. Examinations on theory are one component but many subjects in this standard have a practical evaluation

component where recruit practical skills are evaluated. A CFD fire training ground would enable CFD to meet their recruit training objectives and allow veteran firefighters to maintain their skill competencies and mentor recruits.

A scenario based fire training ground would provide opportunity for CFD to train officers in a cost effective manner adding to the sustainability of the fire service.

Caution:

Many local jurisdictions adopt some or all of NFPA's fire codes and standards. Routinely, these communities update to new versions of the standards. Where an agency does so generally, it may automatically and inadvertently, adopt all changes to them (thus incorporating NFPA¹ 1001, 1002, 1710 or 1720); alternatively, the agency may have to take an affirmative act to adopt the applicable standard. Of particular concern, some fire departments (as a matter of department policy) may start to use the standard as a guide to their activities without consulting with their governing bodies or their legal counsel, and without awareness of the liabilities and obligations this could impose on their local agencies. As the local subject expert on relevant fire service standards, the Fire Chief should ask legal counsel to review department policies in addition to the code and policy adoption process for their jurisdictions, and have legal counsel advise the fire department accordingly, so that the AHJ can act purposefully in considering whether to adopt all or any part of any NFPA or any other Standard as written.

NFPA 1710 and 1720 are the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career and Volunteer Fire Departments, respectively. These two standards attempt to define levels of service, deployment capabilities, and staffing levels for career and volunteer departments.

¹ NFPA 1001: Standard For Fire Fighter Professional Qualifications; NFPA1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public By Career Fire Departments; NFPA 1720 – Volunteer Fire Departments

Short cuts in training must be avoided and training must be as realistic as possible. Emergency service personnel will instinctively revert to their training in high risk high consequence events.

Scenario-based training works by structuring training to mirror how the job is actually performed. Each lesson is introduced via a realistic scenario that requires firefighters to utilize a variety of skills simultaneously. Scenario-based training is an amalgamation of knowledge and skills-based training, incorporating psychomotor coordination and reinforcing a survival mind-set in the student.

7.2 Training Ground

Training firefighters is not optional. Once a community has decided to establish a fire department it also accepts the responsibility to provide appropriate staffing, equipment and training. It must meet a reasonable standard of care.

Fire department training in BC continues to evolve and the industry standard for both career and volunteer firefighters has dramatically increased in the last 20 years. This demand is required to meet the regulated expectations of WorksafeBC, to provide for increased public and firefighter safety and to meet the fast changing and dangerous physical environments in which firefighters are asked to engage.

In reviewing the Project Definition Report from Fletcher Pettis Consultants Ltd. and the Fire Underwriters Survey – City of Courtenay Fire Insurance Grade Update Report 2014 from SMC –Opta (FUS), in general we support the conclusions and observations made.

Scenario based training is widely accepted as best practice for firefighter and fire officer



training for fire ground operations. This is where education, experience and hands on training all come together in a controlled, safe atmosphere. Lessons learned and skills acquired here will have a direct positive result on outcomes experienced in the community.

As part of our process we viewed the site located at Waters Place and concur that this makes an excellent choice for siting of a second fire station and training ground facility. The training area site is large enough to facilitate scenarios using multiple engine and ladder companies. This is particularly important to developing officers' skills for their command roles at real events. The site plan 2b (Fletcher Pettis report) is well laid out and provides enough space to conduct multiple training activities simultaneously and with enough separation to achieve this safely.

With regard to props, the use of natural gas is becoming the accepted norm for scenario based firefighter training. For this application and because of the physical properties of natural gas it is a safer choice of fuel than propane in that it is lighter than air and will dissipate quickly in the event of an unplanned escape. Propane is heavier than air and will collect in lower geographic features of buildings or the topographic features of the site or land adjoining the site. Hydrocarbon based fuels are being used less because of their impact on the environment and the possible negative impact on neighboring properties to the training ground. The combustion of non-carbon based materials is consistent with the goals to reduce greenhouse gas emissions set out in the City's Official Community Plan.

The fire service has become the "go to resource" in most communities for many emergency based challenges. In addition to historical firefighting duties, today's fire departments are called on to provide services for auto extrication, flood relief, landslide events, confined space, technical rescue, high angle rescue, hazardous materials and first medical response.

Good quality training not only prepares firefighters to do the work asked of them but also has a significant impact on volunteer retention. The cost including time and financial

commitment from the City to train a volunteer firefighter is substantial. The retention of these individuals is vital to ensuring a core group of workers who are highly trained and experienced.

Section 11 Recruiting and Retention in this report has more information on how important training is in the retention of members. Table 2

in Section 11 reveals the years of service of CFD

members. The current training program will have a new recruit able to assist at incidents within one year of joining even though they are still considered recruits for at least two years. As part of the sustainability of the CFD, more new recruits need to be taken on. A 16-18 month training schedule is required for new firefighting staff.



We understand that Courtenay has used the Comox Firefighter Training Facility for some of their drill needs. The programs offered by Comox to many outside fire departments and the amount of training that has been accomplished in that facility is highly remarkable. But does it negate the need for Courtenay to have their own training ground? In our opinion, it does not.

Having your own training ground for your fire department has many advantages.

1. You control your own destiny in that your facility can be designed to provide training for risks that may be unique to your community.
2. The physical footprint of the Courtenay Fire Training Ground is larger and therefore is more conducive to complex scenarios that involve multiple pieces of apparatus and multiple fire companies.
3. Scheduling and availability is determined by the City of Courtenay Fire Department.
4. Policy regarding use, care and control of the training facility practices and procedures are determined by the City of Courtenay.
5. The cost of training will be controlled by the City of Courtenay.

6. Other city departments such as public works can use the facility to qualify and practice confined space procedures and other technical programs encountered in their work.

Recommendation:

7.1.1 That the City of Courtenay construct a scenario based fire training ground at the Waters Place site without further delay so firefighter training can be proactively managed to most effectively meet the City's firefighter training needs.

Recommendation 7.1.1 rationale to build on the Waters Place site is simple.

- The land is owned by the City.
- It is properly zoned to allow for this type of facility.
- It is adequate in size and located in an area with good access to major thoroughfares.
- Servicing costs for utilities will be substantially lower than the Ryan Road alternate site.
- Site preparation would be far less than the suggested alternate site.
- It is flanked by other commercial enterprises with a small exposure to some residences that would actually benefit by having a fire station in such close proximity.
- Impact on the environment will be minimal.
- It conforms to the Official Community Plan.

7.3 Fire Officer Training

Fire Officer training is a component that is identified in the FUS draft report as an area that would benefit from improvement. Fire Officer training to the NFPA 1021 Standard is available from several sources but such training is primarily academic. While the academic component of officer training is important, it must have a practical component for fire officers to effectively learn how to lead in stressful situations. With a scenario

based fire training ground, command and control capabilities of officers can be evaluated in controlled events using stressful simulations which involve multiple engines and ladder companies.

Evaluating an incident commander during an incident is problematic. Command officers need the opportunity to learn how to command, maintain control and have situational awareness in stressful simulations before they assume command of an incident. Fire events are high risk, low frequency, time compressed in nature with little time to think things through. Command decisions must be made sometimes with very little information. As incident commanders are generally fire officers, they need the opportunity to train as officers in charge in real life situations in order to avoid death or injuries and to minimize property loss.

Recommendation:

7.3.1 That the Courtenay Fire Department develop a practical fire officer training program which complements the Comox Fire Training Centre firefighter training programs.

8.0 FUS REPORT

A draft report from Fire Underwriters Survey was supplied as part of this review. This comprehensive report provides valuable information with respect to all aspects of the City of Courtenay and the Courtenay Fire Department and makes recommendations on how the fire service could be enhanced resulting in possible reductions of fire insurance premiums.

Fire Underwriters Survey™ (FUS) is a national organization administered by OPTA Information Intelligence, formerly CGI Insurance Business Services, formerly the Insurers' Advisory Organization and Canadian Underwriters Association. FUS provides

data on public fire protection for fire insurance statistical work and underwriting purposes of subscribing insurance companies. Subscribers of Fire Underwriters Survey represent approximately 85 percent of the private sector property and casualty insurers in Canada.

Fire Underwriters Survey™ Certified Fire Protection Specialists conduct detailed field surveys of the fire risks and fire defenses maintained in built up communities (including incorporated and unincorporated communities of all types) across Canada and the results of these surveys are used to establish a Public Fire Protection Classification™ (PFPC) for each community. While Fire Underwriters Survey is not involved in rate making matters, the information provided through the Fire Insurance Grading Index is a key factor used in the development of Commercial Lines property insurance rates. The PFPC is also used by underwriters to determine the capacity of risk they are willing to assume in a given community or section of a community.

The overall intent of the PFPC system is to provide a standardized measure of the ability of the protective facilities of a community to prevent and control the major fires that may be expected to occur by evaluating in detail the adequacy, reliability, strength and efficiency of the protective facilities and comparing the level of protection against the level of fire risk in the built environment.

The Fire Underwriters Survey also uses PFPC information to develop the Dwelling Protection Grade (DPG), which is utilized by Personal Lines insurers in determining property insurance rates for detached dwellings (with not more than two dwelling units). The Dwelling Protection Grade is a measure of the ability of the protective facilities of a community to prevent and control the structure fires in detached dwellings by evaluating the adequacy, reliability, strength and efficiency of the protective facilities and comparing the level of protection against the level of fire risk associated with a typical dwelling.

The fire insurance grading system used does not consider past fire loss records but, rather, fire potential based on the physical structure and makeup of the built environment.

There are two insurance classifications to be concerned with, residential DPG and PFPC. Of these two classifications, the City of Courtenay has attained the highest possible classification of 3A for the area within the City protected with fire hydrants without going to a fully career staffed fire department.

One of the criterion for this grade is the distance from a fire hall which is 8 kilometers. Almost all of the residential housing units within the City of Courtenay are within this recommended distance.

However, the same is not so for the commercial and public buildings and this is one area where the City of Courtenay could improve the community fire insurance rating for the PFPC. The recommended distance to a commercial or public building from a fire hall is 2.5 kilometers with the maximum distance of 5 kilometers. The FUS draft report makes recommendations that an East Courtenay Fire Hall would mean the commercial and public properties would likely experience reduced fire insurance premium rates if they are located within 5 kilometres of a fire hall.

The FUS report also makes a recommendation that Courtenay Fire Department should have another engine in its fleet to meet the overall required fire flows for the City.

FWC concurs with the recommendations of FUS report with respect to adding an East Courtenay Fire Hall and the Courtenay Fire Training Ground.

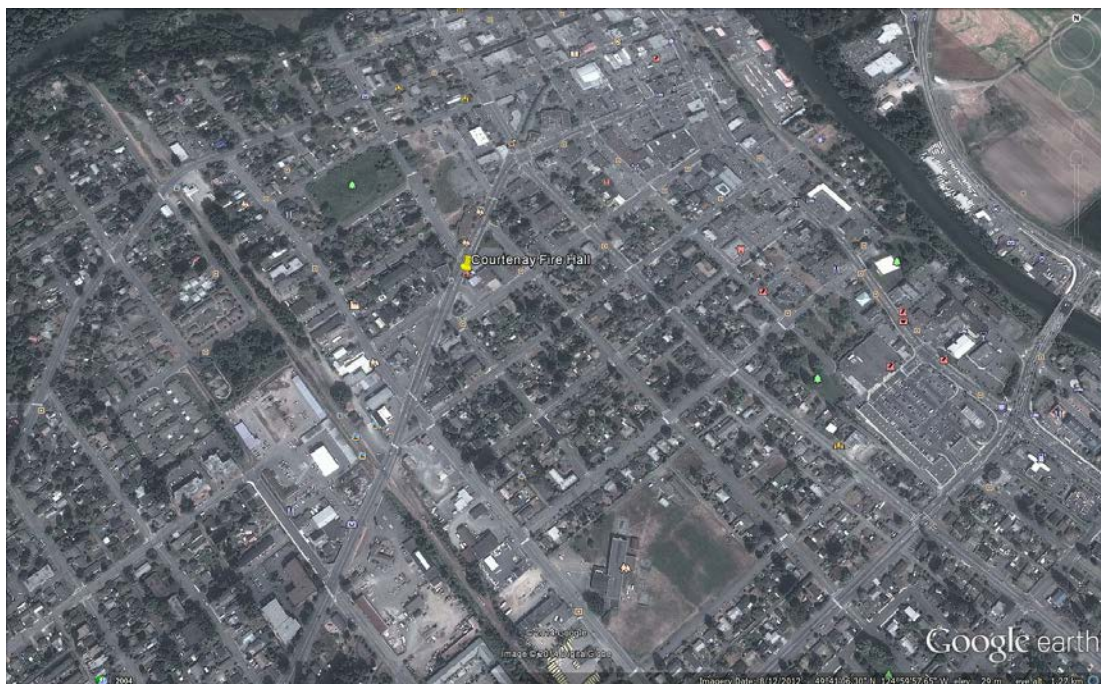
Fire insurance rates now also consider using community loss experience ratings and other factors including personal circumstances of the insured and not simply the rating of the community fire department. If more capacity is added to the Courtenay Fire Department, the benefit to be realized with respect to reduced insurance rates will be for the commercial and public building owners and occupants. In general terms, any

increase in taxes to fund the new fire training ground and fire hall in East Courtenay should be offset somewhat by reduced PFPC insurance premiums.

9.0 FACILITIES

Located at 650 Cumberland Road, the Courtenay fire hall is situated on the edge of “downtown”. To the north and west are light industrial and commercial properties while directly to the east are offices. The fire hall site is on a triangular shaped lot with single family dwellings to the south across 10th Street.

In consideration of the residential area to the south, most fire outdoor fire department training takes place on the Cumberland Road side of the fire hall. The training tower is also located on the northeast corner of the property. The location of the Cumberland Road fire hall does not allow any for type of burning for training purposes and no possibility for hands on auto extrication training to take place.



The fire hall itself is a well designed and built facility that will serve the community well for many years as the administration and department headquarters. It has a large meeting training room on the second floor where training lectures and workshops can be held.

10.0 FIRE APPARATUS

CFD has 6 major fire apparatus and 5 support vehicles. The following table lists the apparatus with specific information to each unit.

Unit ID	Type	Year	Pump Size	Tank Size	Manufacturer	ULC	Age
11	Engine	1995	1050	500	Superior	Yes	19
12	Ladder	2002	1700	500	Smeal	Yes	12
13	Reserve Engine	1988	1050	500	Superior	Yes	26
14	Water Tender	2007	500	1700	Commercial	No	7
15	Engine	2008	1900	800	Fort Garry	Yes	6
71	Rescue	2012	N/A	N/A	Fort Garry	No	2

Table 1

The fire apparatus is well maintained and kept in excellent condition. The pumps and valves are serviced annually and CFD is fortunate to have an Emergency Vehicle Technician (EVT) as one of the full time staff who carries out a routine preventative maintenance program.

CFD has a solid capital asset plan in place so all capital purchases are entered into the plan and a service life identified. At the time of this report, the City and CFD have an Invitation for Tenders to purchase a new engine to replace Engine 11 which is at the end of its service life and will then become CFD's reserve engine once a new engine is in service.

If an East Courtenay fire training ground was developed, Engine 13 which is a 1988 engine, could become a dedicated training engine for use at the training facility. Despite the age of Engine 13, it has been kept in excellent condition and could function as an engine to supply pressurized fire streams.

As noted in the FUS report, at least one additional fire apparatus will be required if a new East Courtenay fire hall is constructed. We concur with this recommendation.

A new engine similar to Engine 15 or the new engine currently being solicited in an Invitation to Tender would be appropriate for the East Courtenay Fire Hall.

11.0 RECRUITING AND RETENTION

Recruiting and retaining members is one of the biggest concerns most volunteer fire departments currently have. CFD currently show thirty six volunteers and six career staff on the roster. The City of Courtenay is obligated to provide for a regular system of fire safety inspections of its public buildings. The career staff are charged with performing inspections in addition to other job functions such as organizing and tracking training of all personnel and updating pre-fire plans. They also carryout routine maintenance of equipment and enter data into the department record management system. Fire department staff review new building plans and developments with a focus on fire safety issues such as sprinkler connections, access for fire department vehicles etc.

CFD is like most volunteer staffed departments in that there is always turnover of personnel for a variety of reasons. Attracting new recruits is not as challenging as ensuring they can be retained. From information supplied to us by CFD there were nine new recruit firefighters taken on in 2013 who have started in the training program.

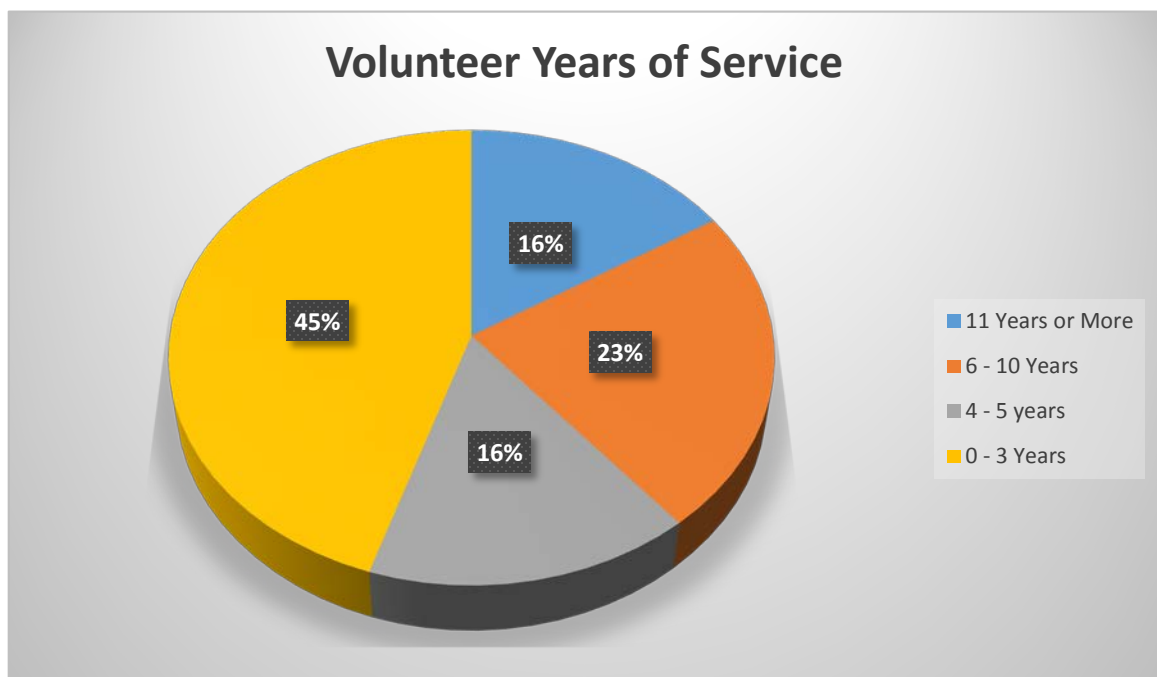


Table 2 – Years of Service

Analysis of the figures supplied to us reveal that 61% of CFD volunteers have five years or less of experience. As part of a sustainable service delivery plan, more firefighters need to be trained in a relatively short time so the trained personnel lost can be effectively replaced with newly trained personnel. CFD has planned to take on 8 more fire fighters to bolster its roster during 2014. Training these new recruits in addition to the previous group of firefighters who started their training in 2013, will require considerable time, organization and expense for the required training which cannot be delivered entirely in-house at CFD.

There are several reasons why people volunteer as firefighters. Upon joining the department new members have high expectations. They are looking for training so they can learn the skills required in the provision of fire rescue services. Their families also have great expectations that the leadership of the department will keep their loved ones safe and not put them in harm's way unnecessarily. Therefore training is very important in the retention of members as is strong leadership and good mentoring. The fire department officers must be seen as leaders and mentors by the members which includes leading by example.

Some proven retention strategies that are working in other departments are simple things such as a swearing in ceremony after a probationary firefighter has been accepted as a regular member. Awards and recognition after defined periods of service are also important. Post-secondary education scholarships for dependent children of firefighters, medical and dental benefits, and annual RRSP contribution to firefighters that increase after specified years of service are other things that departments use as volunteer retention strategies. CFD has a very unique municipal pension plan which is an excellent retention strategy.

Employer recognition by CFD of employers who allow their employees to respond to emergency calls during working hours have proven to be effective and a positive method of building good relations in the community.

The City of Courtenay and CFD are making a significant investment in equipping and training volunteer firefighters and a CFD Fire Training Ground will make the department more efficient and effective at training its staff and volunteers.

Why do people volunteer as firefighters? A study performed in 2007 by Caitlin Myers, Jeffery Carpenter of Middlebury College, Vermont and the Institute for the Study of Labor, IZA of Bonn, Germany determined that people will volunteer as firefighters for three main reasons. They are, Altruism, Reputation and Incentives, in that order². Our experience would bear this out as well.

In the application of Psychometrics³ we have found that the main reason people want to be involved in any emergency service discipline is to simply help people. The Myers, Carpenter, IZA study concluded that *“volunteer labor supply is determined more by tastes for prosocial activities than by income and costs. In addition, government spending appears to at least partially crowd out volunteering, suggesting that volunteers care both about the level of provision of their product as well as about the act of giving itself”*. In other words firefighters put a significant amount of importance on the quality of service they provide. The quality of service they provide and take so much pride in is started through a quality training program.

The reputation firefighters enjoy in society is another reason that a person would want to be a firefighter. Firefighting will provide opportunities for a person to realize the “idealized persona bias”; i.e., through the training and operational responses they will start to become the person they would like to be. A robust and challenging training program is a tool in volunteer retention. Too much time taken in travelling to training venues can work against the overall training objective. Volunteers have busy lives and are

² Why Volunteer? Evidence on the Role of Altruism, Reputation and Incentives, IZA DP No. 3021 Jeffery Carpenter, Caitlin Knowles Myers, September 2007, Middlebury College, VT and IZA, Bonn, Germany

³ **Psychometrics** is the field of study concerned with the theory and technique of psychological measurement, which includes the measurement of knowledge, abilities, attitudes, personality traits, and educational measurement, Psychometric Society, University of North Carolina-Greensboro, Greensboro, NC 27402-6170, USA

only willing to give up their time if the return is worth the time investment. Incentives are not always monetary and are not usually a reason that a person will volunteer. Incentives in a volunteer fire department can be training opportunities where personal growth and job satisfaction are sought. Recognition is also a strong incentive where years of service, special awards and other personal goals are attained with respect to their individual effort.

12.0 EAST COURTENAY FIRE STATION

The five most compelling reasons to build a second fire station in east Courtenay are

1. Improving response times to East Courtenay and the contracted area north of the City.
2. Equity of Fire/Rescue Services on the east and west side of the river.
3. Increased level of fire protection economic drivers and better response times for first arriving apparatus.
4. Mitigating the risk posed by the river system separating East and West Courtenay.
5. As part of the city's emergency preparedness planning this will provide an additional City facility on the east side of the river, on high ground, in which governance or operational duties can be carried out during a significant event such as an earthquake or catastrophic flooding.

With regard to the scope of this report, the FUS report created by FMC –Opta provides a credible prospective when it comes to gathering information to help make a decision in regards to fire station placement, additional volunteer manpower and improved response capabilities.

1. The site located at Waters Place scored better than the site located on Ryan Road.

2. Within the City of Courtenay the Required Fire Flow Points increased dramatically for the first due engine with a second fire station at Waters Place. (from 48.43% to 90.15% of available points)
3. The City received credit for 2.83 Engines out of a maximum available credit of 4. An additional Engine at the 2nd hall would bring the city much closer to achieving the maximum credit available.
4. Credit for total fire force available would improve with the addition of firefighters at Number 2 Fire Station.

Although the 4 points above illustrate how insurance grading points might be achieved and that may lead to more attractive insurance rates to some businesses or residents, it is also an indicator of the immediate need for improved service level delivery.

A fire station in East Courtenay will have a positive effect for future development in the area. More than half of the structures built in the City and more than 50% of the population of Courtenay are located east of the Courtenay and Puntledge Rivers. Improved response times and equity of service provide more standardized coverage to the areas both west and east of the rivers. It is feasible that a significant seismic event could compromise both bridge crossings leaving citizens on the east side of the city without fire services. In this type of event it is also likely that mutual aid partners would also be busy dealing with issues in their own jurisdictions. A second fire station will



provide the assurance that there will be a response should the access from west Courtenay be compromised.

Over the past 15 to 20 years there has been significant growth east of the Puntledge/Courtenay- River system. A considerable number of large commercial buildings have been built, North Island College and additionally

a new hospital has been approved. These operations employ a significant number of people and are an important economic driver for the city. Improved fire service delivery through a second fire station will provide increased assurance that these jobs are less likely to be interrupted through a fire event over the long term. Fire Departments are a key element of protecting the economic drivers in a community. The timing of construction for a satellite fire hall in East Courtenay should place it in service before the completion of the new hospital which is scheduled to open in late 2017. Having a satellite fire hall in service during the hospital construction phase would be advantageous providing there are trained volunteers assigned to that fire hall. Recommendation 7.1.1 recommends that the fire training ground be constructed without delay. If the training ground were to be started this year, it should allow enough time to have new recruits trained to a reasonable level before a satellite fire hall is ready in 2017. The lead time for the satellite fire hall should be factored in to the decision, however one year should be more than ample time, suggesting that a new fire hall could be started in the first half of 2016 making it ready for occupation in 2017.

12.1 Travel Distances and Response Times

The BC Building Code⁴ uses various criteria to establish spatial separation requirements for unsprinklered buildings, which depend on the response time of a fire department. Where the response time, measured according to the parameters in BC Building Code exceeds 10 minutes in 10% or more of the calls to the building location, requirements related to separation between structures and permitted window openings may be affected along with other design restrictions.

If the fire department is unable to meet suggested response time targets then changes to the local building code must be put in place. These changes would include increased spatial separation, no windows on the common sides, fire resistant building materials, building design restrictions etc. These requirements may not align with the Official Community Plan in certain new residential developments.

⁴ NOTE: The BC Building Code does not differentiate between career, composite or volunteer fire departments.

Courtenay Fire Department keeps detailed statistics on its reaction time to emergency incidents. From the current fire hall at 650 Cumberland Road, CFD can respond up to Crown Isle Golf Resort within 10 minutes. That is acceptable for residential risks but recommended travel distance to a commercial building or institution should not exceed 5 kilometres with 2.5 kilometers being optimum.

When travel distances are being discussed, actual travel distance must be used. As previously mentioned, having all the fire protection assets located in West Courtenay and with only two river crossings, travel times from the current fire hall will not always be consistent. The probability of both bridges being blocked is an identified concern and can result in delay of critical emergency resources to east Courtenay.

With the addition of an East Courtenay fire hall, CFD would be able to meet the Building Code response target as well as be within the recommended response travel distance for PFPC insured risks.

Response times are measured starting with when the call for service is first answered by 9-1-1 and ending with the fire department arrival at the incident, setup, and ready to operate. It is assumed that the North Island 9-1-1 Fire Dispatch meets industry Standards such as NFPA 1221⁵ or the National Academies of Emergency Dispatch. NFPA Standard 1710⁶ is not specifically referenced in the Building Code but it is identified in the Building Code's Appendix to provide context for the 90% "reliability" factor. There is no expectation in the building code that any of the fire department performance objectives referenced in the NFPA 1710 standard be met.

Considerable research has examined fire department response times. Alberta has been a leader in this research and a task force was created to offer qualitative input for changes to the buildings codes. The BC Building Code and Alberta Building Code are very similar and much of text is the same, therefore common interpretations on response time issues apply to each provincial code. Through its research, Edmonton Fire Rescue Service has developed a reasonable ten minute response time which is broken down into 5 segments with target times for each segment as follows:

⁵ NFPA 1221: Standard of the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2013 Edition

⁶ NFPA 1720: Standard for the organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

1. 9-1-1 Agent answers the call within 30 seconds.
2. Incident created in Computer Aided Dispatch (CAD) system and down streamed to the appropriate fire department – 75 seconds.
3. Chute or turnout time – 80 - 120 seconds for fires (other incident types vary)
4. Travel time – anywhere within City limits 260 seconds.
5. Set up to operate curbside – 120 seconds.

The City of Courtenay is committed to the volunteer staffing model therefore their options for improving overall response times are limited. Chute time is the time firefighters take to put on their personal protective gear and board the apparatus ready to respond. Fire departments with career staff have an advantage in attaining Chute time targets because they are with the apparatus and usually at the fire hall. Chute time is a large variable when using volunteer staff and will depend on where the firefighters will be coming from when an emergency call is received. Presently, volunteer



firefighters living in East Courtenay have to travel to the fire hall to respond anywhere in the service area. Those firefighters would be much more efficient and their Chute times would improve if they were responding to a fire hall on the east side of Courtenay close to where they reside.

Having fire apparatus responding from an East Courtenay fire hall would also reduce travel time and may achieve the 260 second travel time target.

Target times for set up once fire crews have arrived at an incident, can be achieved through training and apparatus equipped and laid out to maximize efficiency. Section 13 of this report talks about performance measuring.

12.2 Improved Values – West vs East Courtenay

Assessed values of improvements within the City of Courtenay are higher in East Courtenay than West by \$287,216,534. Residential improved values in East Courtenay make up the largest difference between East and West but the population in East Courtenay is slightly higher and will continue to grow as forecasted in the OCP.

12.3 Call Stats West vs East Courtenay

Year	Total Calls	West Courtenay	East Courtenay
2013	691	353	338
2012	688	345	343

Table 3

Calls for service from CFD are almost equal West and East but as East Courtenay develops, and with the addition of the new hospital and related support facilities, plus increased density and subdivision of large property parcels, calls for fire/rescue service in East Courtenay will also increase.

When comparing calls for service from CFD with other jurisdictions it is important to note as well that CFD does not routinely provide medical aid or “first responder” calls. In 2013, CFD responded to 31 medical aid calls due to the local ambulance service being delayed or because they required assistance with a lift or some other reason. Medical aid calls in many fire departments can be more than 50% of their total calls.

12.0.1 Recommendation

That the City of Courtenay construct a satellite fire hall on the Waters Place property as per Council Resolution of June 11, 2012 with a target in service date of 2017.

12.4 Satellite Fire Hall

Recent examples of new fire halls on Vancouver Island are, Central Saanich, North



Saanich, View Royal (under construction) and the recently opened Mill Bay Fire Department satellite fire hall.

The Mill Bay satellite fire hall has 4 bays and the necessary features required to make it an efficient facility for their community.

13.0 PERFORMANCE MEASURING

Performance measuring of a fire department in every aspect of its operation and arriving at a fair conclusion is difficult. There are too many variables and even the judicial system has had difficulty assessing how well a fire department may have performed at an incident. The court uses a system to compare one fire department to another that is similar in many aspects. Councils have been elected by the tax-payers to manage their tax dollars in the most cost-effective manner. Councillors and the District administration have the responsibility to compare the actual performance of the services they provide with the potential performance of their service providers. Fire departments are expensive to establish and expensive to maintain so occasionally a review needs to be performed to ensure the service offered is performing at a reasonable level for the money spent.

A report by NFPA and Urban Institute, *Measuring Fire Protection Productivity in Local Government*⁷ contains useful performance measuring criteria. This report discusses measurements for fire protection productivity analysis and comparison. Productivity is defined as the output delivered relative to the amount of resources available. Output includes consideration of the quality and effectiveness of the service as well as the workload.

But why measure the performance of the fire department? Author Robert Behn⁸ points out that *“neither the act of measuring performance nor the resulting data accomplishes anything itself; only when someone uses these measures in some way do they accomplish something”*.

The ultimate purpose of performance measuring is to use the data to improve performance. If performance improvement is a goal of the Authority Having Jurisdiction (AHJ) then they can use the data to (1) evaluate, (2) control, (3) budget, (4) motivate, (5) implement and promote, (6) evaluate, (7) learn, and (8) celebrate.

⁷ NFPA Fire Analysis and Research Division, *Fire Service Performance Measures*, Jennifer D. Flynn November, 2009

⁸ Robert Behn is the Faculty Chair of Harvard University John F. Kennedy School of Government Performance and a leading researcher on Performance Measuring

Ultimately the Performance measure of a fire department will be judged by the citizens they serve and on rare occasions by the courts. Having a corporate policy that establishes what is acceptable to the AHJ based on industry standards and best practices will establish a benchmark that future performance measuring can be used as a guide to see if CFD is meeting that goal.

Other performance measuring criterion are **effectiveness, efficiency and equity**.

Measuring response times alone do not indicate the effectiveness of the department. A response to a small fire that is not controlled quickly can grow exponentially. Perhaps a better performance measuring tool would be to analyze how effective the fire department is. For example, CFD could say that one of its performance goals is to confine the fire upon arrival to prevent extension beyond the area of origin 85% of the time. The department could analyze data on the percentage of fires it confined to the area of origin and state that as a percentage, 88% of the time or what the actual number is over a period of time such as one year. If the goal is met then it could adjust its goal upward. If the goal is reasonable but not being met then it could use the data to improve the department effectiveness. Effective training is required to ensure firefighters learn the skills and tactics to be effective at a fire but also to maintain those skills through repetitive scenario based training.

Response times of a volunteer fire department are not a fair performance measuring tool. So many variables are present. Where volunteers live relative to the fire hall, traffic corridors, weather and road conditions, traffic volume and sometimes even the incident itself can delay volunteers responding to the fire halls.

Poor maps and ambiguous dispatch information are also factors.

Effectiveness: The effectiveness of CFD cannot be determined without collecting and analyzing data. Many fire departments try to meet a 10 minute response time 90% of the time anywhere in their response area, but that response time target should not apply to CFD with only one fire hall. The 10 minute time is from the time the call is received in the alarm centre until the fire department is curbside and setup ready to attack a fire. From that point on is where the effectiveness can truly be measured. Analyzing the actions taken by the first arriving engine will determine how effective a fire department is. Were the actions taken appropriate for the size and location of the fire? That is where the right training factors in to the equation.

Having standard Operating Guidelines with standardized training ensures standard actions will be employed. The incident commanders must also be trained and tested for their individual performance. Poor incident command decisions at the start can result in

catastrophic property loss or injury and even death. An incident commander who cannot maintain situational awareness should be identified before lives are put at risk at an incident and should be re-assigned to other functions.

One available statistic that is valuable in measuring the performance of CFD is the number and types of injuries. CFD has a good record of keeping its members physically injury free. In a high risk, low frequency job such as firefighting that is a good record to have.

Efficiency: Efficiency is another performance measuring tool. Efficiency is concerned with how well the resources are used in providing the service. Efficiency measures are often simply economic. CFD has good equipment which is well maintained. It is necessary to have some built in redundancy and Engine 13 is a low cost reserve engine that has been used at certain incidents to keep other apparatus intact and ready to respond if a higher risk incident were to occur. The two frontline engines, Engines 11 and 15 plus Ladder 12 ensure CFD has the pumping capacity for some of the larger risks in the community.

It is therefore safe to say that the current investment in facilities and equipment mean CFD is set up to be efficient providing they have the trained and experienced people on hand to use the equipment.

Equity: Equity is concerned with relationship between those who pay and those who benefit. Equity measures look at the fairness in service levels provided and citizen expectation. By using the volunteer staffing model, those who pay for fire protection in Courtenay do receive a good return on their investment (equity). In terms of performance measuring, CFD is offering excellent value. Labour costs to provide this high level of service in Courtenay are low in comparison to other similar communities.

Performance measuring is often used to compare one fire department to a similar one in another community. The courts have used this method to determine what is reasonable by comparing similar communities and consider many factors to arrive at a fair comparison. Comparing a fire department in one community to a fire department in a neighboring community is difficult. There are many factors to consider since there is no one single identifier such as population or call volume. Other factors must be considered. They are:

- Socioeconomic factors such as population,
- Demographics,
- Climatic conditions,
- Community layout and traffic patterns,

- Construction type and age of buildings; and
- Community makeup – residential, commercial, industrial or semi-rural.

Communities change and evolve. A benchmarking partner should be regularly reevaluated to see if they are truly similar. A change in community policy can affect performance. For example changes in staffing levels, new services being provided by the fire department, frequency of inspections, sprinkler bylaws, fire prevention programs will be factors in their performance. The fire department should seek similar communities who have the same benchmarks for comparison.

An Alberta Supreme court⁹ case involving the Stony Plain Volunteer Fire Department set a precedent that considered the standard of care for volunteer fire departments. The court articulated *“The volunteer Fire Department must perform in a manner which is reasonable for a volunteer Fire Department in like circumstances and with like resources”*.

14.0 AUTOMATIC AID/MUTUAL AID

The topic of automatic aid was discussed in the Fire Underwriters report and has also been brought to our attention by several interested parties during our research for this report. It is important to understand the distinct difference between Automatic Aid and Mutual Aid as it pertains to the fire service.

By definition Mutual Aid is a term in organization theory used to signify a voluntary reciprocal exchange of resources and services for mutual benefit. Mutual Aid should be defined in a contractual agreement between two communities and fire departments. The first step in this process is to have authority in Bylaw and Policy for a fire department to enter into a Mutual Aid Agreement.

These agreements should specify what type of aid is required such as equipment, manpower, water supply etc. There should be operating guidelines in place that all mutual aid departments know, understand and use to define expectations, who is in charge, how crews are assigned, personnel accountability, use of common terminology, use of radio channels, when equipment will be released, etc.

Mutual Aid is initiated only at the request of the Incident Commander (IC). This usually occurs after the IC arrives on scene and does the incident initial size up. If the IC determines the resources available to the local department are not sufficient to deal with

⁹ Killips’s Television Service Ltd. v. Stony Plain (Town) [2000] A.J. No. 145 2000 ABQB 79

the incident, the IC will in most cases request an available mutual aid partner to assist. Courtenay Fire Department currently has ten mutual aid partners.

In contrast, Automatic Aid from neighboring fire department is dispatched automatically by a predetermined set of criteria set by the host fire department. This criteria could be a specific geographic area, large structures (hospital, schools, and large public venues) or events where the planned response exceeds the host fire departments staffing or equipment availability. Automatic aid can be set up so that specific equipment such as water tenders or aerial apparatus can be automatically dispatched as part a pre-fire plan for specific risks.

This criteria is loaded into the Fire Dispatch Computer Aid Dispatch Program (CAD) and when the predetermined conditions are met, the additional resources are automatically dispatched.

Before an automatic aid system is set up, careful consideration must be made when determining the risk versus benefit of the program.

Questions that should be considered are:

- Is the agreement reciprocal between parties?
- Has it been authorized through a bylaw and by policy?
- Do you and/or your partner have the resources to participate and still maintain adequate service in your respective jurisdiction?
- Is there a cost to both parties? What is the cost of response and what is the projected financial impact?
- One of the main goals of automatic aid is to put an engine company on scene in the quickest time. So is the response cost restricted to one engine for one hour?
- Is there a mechanism to convert the response from automatic aid to mutual aid?
- Does your partner have any limitations on response? (availability, distance of response, numbers of staff or apparatus)
- Which party is responsible for costs such as WorkSafeBC or equipment repair/replacement?
- Liability risk for failure to respond?
- Have Joint and Several liability risks been considered?

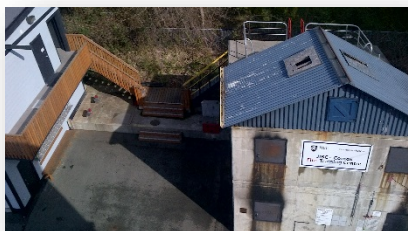
One of the potential partners for Courtenay to initiate an Automatic Aid Agreement with is the Town of Comox. The half-way point between Comox Fire Hall and Courtenay Number 1 Fire Hall along the Lerwick Rd. corridor is just north of Malahat Drive. This point is approximately 4.3 km from each fire hall. If a second fire hall is constructed at

Waters Place, this halfway point would move to approximately Blue Jay Pl. The distance between these two points is approximately 1.4 km which is connected directly by Lerwick Rd. This area is primarily residential and although some might propose there might a benefit from an automatic aid response, it would be debatable, given initial volunteer firefighter response time to either fire hall or the traffic conditions experienced en-route which engine would arrive first on scene.

It may be that the biggest opportunity to consider for automatic aid might be to respond to certain large buildings such as the new hospital, the college or some of the bigger commercial building structures in both communities when there is a **confirmed** fire event. This in no way would compromise the Mutual aid agreements already in place and would assist both communities to deal with incidents requiring a large number of responders.

15.0 COMOX FIRE TRAINING CENTRE

The Comox Fire Training Centre was visited on March 31, 2014 by the consultants to see and hear firsthand about the features and programs of this facility and the training being offered. Fire Chief Gord Schreiner and the team at Comox Fire Department have done an excellent job in building this training centre and delivering training to over four thousand firefighters. The Comox Fire Hall and Training Centre is on a .96 acre site (.388 hectare). It is very compact but has many props and features for technical firefighting training. The centre provides accredited training for most of the courses offered through the Justice Institute of BC, Fire and Safety Division that allow firefighters to attain the NFPA 1001 Standard. The program delivered by the Comox Fire Training Centre has earned a good reputation throughout Canada.



Due to the compactness of the facility however, there is limited opportunity to have multiple engine companies operating at a simulated structure fire at the same time.

The proposed Courtenay Fire Training Ground would complement the Comox Fire Training

Centre by offering other types of training such as driver training, scenarios using multiple engine or ladder companies and a focus on officer training not offered at Comox. The proposed Courtenay Fire Training Ground would also be able to offer variable confined space rescue scenarios which are an important component of the NFPA Standard. Another advantage is with more space is some driver training at the Courtenay training ground could be offered. Slow speed maneuvering, backing or air brake courses would be possible.



With respect to training of its firefighters, Comox Fire Department has a distinct advantage over most fire departments due to the fact it has developed such a good training facility. It is easy to understand how it has evolved from training the Comox firefighters to being a well-respected training resource for the fire service in general.

Comox firefighters are well known for their high level of training and they have been very generous at sharing their training experience with other departments. Having this training centre at their fire hall has enabled them to utilize it for their weekly training and ongoing skills maintenance.



A Courtenay Fire Training Ground would be a complementary regional asset in providing advanced scenario based training plus other specialized training in conjunction with the firefighter training programs provided by Comox.

You can never know enough about a job that can kill you!

Nick Brunacini, Battalion Chief, Phoenix Fire Department

16.0 PHASING OPTIONS

One of the deliverables of this report was to specifically suggest phasing options as to when the training ground and satellite fire hall should be constructed. In June of 2012 City of Courtenay Council passed a resolution to *“proceed with the design and construction of the East Courtenay Fire Hall/Training Centre”*. In November of that year a resolution to create a Select Committee of Council was passed to review the project and to provide input to Council on the overall project. It is hoped this report will be the vehicle that will enable the Select Committee and Council to move the project forward and enhance public safety in Courtenay.

Upon review of the project we have made 4 recommendations two of which are specific to the construction of the Courtenay Fire Training Ground and East Courtenay Fire Hall. The remaining two recommendations are administrative in nature.

Recommendation 7.1.1 recommends that the Courtenay Fire Training Ground be designed and built without further delay. CFD has set an aggressive training schedule for new recruits and has skills maintenance requirements for trained firefighters. As noted in Table 2, 61% of the available volunteer firefighter force has less than five years or less of experience. Turnover of volunteer firefighters in CFD is not exceptionally high or unique to Courtenay, but it is a reality. As part of the department succession plan a training ground is highly recommended to make CFD sustainable. Training of new firefighters must occur before a new fire hall comes on stream in East Courtenay.

As discussed in Section 12 of this report there four compelling reasons plus many other practical reasons why a satellite fire hall in East Courtenay is required.

With the new development that has already occurred or is scheduled for East Courtenay more trained volunteer firefighters are required. CFD has a two year training lead time for new recruits. We have suggested that an East Courtenay Fire Hall should be open for service in early 2017. The lead time for training new recruits is 18 – 24 months. Lead time for planning and construction of the training ground must be taken into consideration so should construction start in the fall of 2014 and it may take 8-9 months to build, the target occupancy date is late spring 2015. The fire hall project could follow in 2016, with a target occupancy and in-service date with trained volunteer staff of 2017.

The logical phasing therefore for the project should be, start the training ground without delay and plan to have the new fire hall and equipment in service in early 2017.

Phasing Option 1 – CFD Fire Training Ground

Proceed with the design and construction of the Courtenay Fire Training Ground without delay in 2014 to be ready for service in early 2015.

Phasing Option 2 – East Courtenay Fire Hall

The East Courtenay Fire Hall planning to start in 2015 and built in 2016 ready for service for early 2017.

17.0 TAX IMPLICATIONS

How will the proposed fire training ground and new fire hall impact the taxpayer is a question on the minds of everyone.

In British Columbia there are nine property classifications used in calculating municipal taxes. For this project, the estimated rates per \$1,000 of assessed value for each are as follows:

01 Residential -	0.0832
02 Utilities -	0.5837
03 Supportive Housing -	0.0832
04 Major Industry -	0.3247
05 Light Industry -	0.3247
06 Business/Other -	0.2331
07 Managed Forest Land -	N/A
08 Rec/Non-Profit -	0.0832
09 Farm -	0.0832

Based on BCAA assessed values, the average residential property has a value of \$275,625 in 2014. Using the rate of \$.0832 per thousand dollars of assessed value, the impact of constructing a \$5.7 million training grounds/satellite fire hall for the average residential property is estimated to be \$22.93 per year, or \$1.91 per month. Property Class 06 Business /Other would pay \$0.2331/M of assessed value.

These property owners especially in East Courtenay may realize an insurance premium reduction that could partially offset the slight increase in property tax. When analyzing

the taxation rates, it is clear that the impact on the taxpayer is small but the investment in public safety is significant.

18.0 CONCLUSIONS

Courtenay Volunteer Fire Department is well-managed and provides excellent service and value to the citizens it serves.

Number 1 Fire Station is well equipped and it is apparent that the care, and maintenance of the facility and apparatus, is a high priority within the department. The training standard for firefighters has been set at the NFPA Standard 1001, Firefighter Level II and it is expected by the department this level will be achieved within 24 months of a recruit becoming a member. This standard is the appropriate minimum for Courtenay Firefighters when considering the risk factors that exist in the city.

The training facilities at number one fire station are not complete enough to provide the infrastructure required to train firefighters to the standard set by the department. Although the hose tower is used for ladder and high angle rescue training, the total fire hall site is not large enough to accommodate props and multi-engine scenarios. Additionally, a training ground is more suited to be placed in area zoned for industrial use than the current commercial/downtown setting directly adjacent to number one fire station.

The ability to provide scenario based training in a safe and controlled environment is key to developing the skills and confidence required for firefighters to operate effectively in a real emergency situation. A good example in the Comox Valley of scenario based training can be found at the Canadian Forces Base Comox which is the home of 442 Transport and Rescue Squadron. Search and Rescue Technicians are trained to meet many of the challenges they will be faced with during real rescue operations using scenario based training. The first time a SAR recruit parachuted from a fixed wing aircraft or rappelled from a helicopter was accomplished during a scenario based training event where at least some of the safety factors can be controlled. Both the SAR Technicians and firefighters work in environments that at times can be very unforgiving. The best way to mitigate the risk factors encountered regularly in these occupations is through training. Scenario based training is the only place where the student can put together classroom and physical skills learning in a controlled environment where the firefighter can be coached,

directed and evaluated before he or she is expected to perform duties at a real emergency event.

As stated earlier, training is one of the key factors in the retention of volunteer firefighters. A robust training system keeps interest up and ensures they have the skills necessary to provide service to the public. Good training builds pride within the Fire

Department and confidence with the citizens they serve.

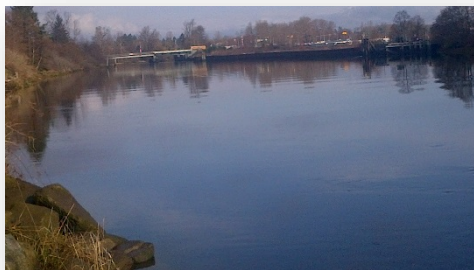


We believe that by building your own training ground, you will have the ability to control your own destiny in matters pertaining to firefighter training for the City of Courtenay.

Variables going forward such as costs, scheduling, acceptable risk management policy and unique training opportunities will be managed in-house rather than prescribed by an outside agency. Additionally when using an outside agency there is no guarantee that those facilities will be available over the long term and that could translate into building your own facility at a later date and experiencing significantly increased costs. Training and skills maintenance are key to firefighter safety and collectively they mitigate the negative effects of fire in your community.

We believe the City of Courtenay will be well served by constructing a new training ground facility and that the Waters Place site would be an excellent choice for this type of facility.

There is strong evidence to support that a second fire station east of the Puntledge/Courtenay River System is an appropriate investment for the City of



Courtenay. The recent growth in this area has changed the demographic of the city. More than 50% of the population and much more of the assessed value of properties is currently situated in the east Courtenay area. Increased residential and commercial development is indicated for this area in the immediate future and the new hospital will be constructed in East Courtenay adjacent to North Island College. The commercial

properties located in East Courtenay not only exhibit a considerable financial investment, they are also a significant economic driver for the area.

Courtenay is geographically divided East and West by the Puntledge Courtenay River System. Access within the city limits is provided by the 5th and 17th street bridges. If for any reason both these access points were closed off at the same time, a significant delay for fire services east of the river system is likely to occur. This could be the case should a significant seismic event occur or it could be as simple as maintenance being carried out at one crossing and a motor vehicle accident takes place at the other.

We believe these risks can be managed better by building a second fire station which would provide an equitable level of response to the citizens living east of the Courtenay/Puntledge Rivers.

The investment in additional public safety capacity more than justifies the low increase in property tax.

It was our privilege to review the reports and other information we gathered pertaining to a second fire station and a training ground facility for the City of Courtenay. It was a pleasure to work with Chief Bardonnex, Deputy Chief MacDonald, Deputy CAO Tillie Manthey and other senior staff and to report our findings to the East Courtenay Fire Hall/Training Ground Project Review Committee.

Respectfully submitted,

Rob Owens, CFO

Glen Sanders

Glossary

AHJ -	Authority Having Jurisdiction
CAD -	Computer Aided Dispatch
CFD -	Courtenay Fire Department
CoC -	City of Courtenay
EVT -	Emergency Vehicle Technician
Fire Pro -	Fire Pro; Computerized Fire Department Record Management System
FSA -	Fire Services Act
FUS -	Fire Underwriters Survey
FWC -	FireWise Consulting Ltd.
GPM -	Gallons per minute
I/C -	Incident Commander
IFSTA -	International Fire Service Training Association
LAFC –	Local Assistant to the Fire Commissioner
MinFor -	Ministry of Forests, Lands and Natural Resource Operations
MVI -	Motor Vehicle Incident
NPFA -	National Fire Protection Association
OCP -	Official Community Plan
OFC -	Office of the Fire Commissioner
OG –	Operational Guideline
OH&S -	Occupational Health and Safety
PEP –	Emergency Management BC (formerly Provincial Emergency Program)
PSI -	Pounds per square inch
SAR -	Search and Rescue
SCBA -	Self-Contained Breathing Apparatus
TCP -	Traffic Control Person
TO -	Training Officer
ULC -	Underwriters Laboratory Canada
WCB -	WorkSafeBC



THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council
From: Chief Administrative Officer
Subject: Cycling Task Force 2013/2014 Update

File No.: 6940-01
Date: May 20, 2014

PURPOSE:

The purpose of this report is to inform Council on the activities of the Cycling Task Force over the past year, the plans for the current year and the planned dissolution of the Task Force to occur this year.

CAO RECOMMENDATIONS:

That based on the May 20th 2014 staff report "Cycling Task Force 2013/2014 Update", Council approve Option 1 and receive this report for information.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

The Cycling Task Force (CTF) is an advisory body that has been in existence since 2006. Its purpose is to "develop and support the implementation of a comprehensive strategy to improve cycle access within the Comox Valley, allowing all members of the community (from children to seniors) to travel safely by bicycle within each jurisdiction and to have safe access to regional cycling networks." To complete this work the CTF has been successful in securing annual recreation grants from the CVRD valued at \$10,000. The full Terms of Reference of the CTF are included in Attachment No.1. Councillor Leonard is the elected official representing the City of Courtenay on the CTF.

Over the life of the Task Force, the following activities have been explored and accomplished:

- Rail-Trail Feasibility Study;
- 2007 Comox Valley Network Plan including consultation activities;
- Support for printing of the community-initiated public-oriented Comox Valley Cycling Map produced by Project Watershed and Broken Spoke;
- 2011 - Hosting livability consultant Gil Peñalosa including a public presentation and staff/politician workshops in partnership with the Comox Valley Cycling Coalition;
- Sponsorship of 2011 and 2012 Car Free Sunday;
- Annual participation in Bike to Work Week;
- 2012 - Funds for Mr. Drdul, cycling consultant, to visit the Comox Valley;
- 2013 - Hosting Hub for Active School Travel Planning (HASTe) presenter (Kerry Hamilton) for

Stakeholder Committee development which includes a range of partners: local government staff, administrators of SD71, Island Health, RCMP, Active Comox Valley, Heart and Stroke Foundation;

- 2013 - Co-funding the first year HASTe program development.
- 2013 - Funding of youth sized bikes for use in Cycling Coalition school Bike Rodeos;
- 2013 - Co-funding of bike lights and reflectors with the Cycling Coalition to be distributed for free to low-income residents as part of the "Glow as you Go" program;
- Quarterly Cycling Public Advisory (CPAC) Committee meetings open to the public at a public venue (Florence Filberg Centre).

DISCUSSION:

Current projects

The CTF has identified a number of projects for 2014 that support a range of objectives: promoting partnerships; raising awareness through positively-framed celebration events; technical assistance to staff; and tangible planning tools. The recommended projects and how they relate to the actions in the CTF 2012-2014 TOR are stated below. \$10,000 has been granted from the CVRD Recreation Grant for this work:

Related to Regional Cycling Network implementation and promotion:

1. Cycling Mapping update - \$3000
The 2007 Plan contains a regional map of proposed cycling networks. As the network becomes developed, this plan needs updating. In addition, the original map did not contain detailed neighbourhood scale linkages, which can greatly affect the usability of those networks. The CTF will work with other stakeholders including SD71, Rotary, the Broken Spoke, Project Watershed and Cycling Public Advisory Committee (CPAC) to update the regional cycling map, and make it publically available.
2. Cycling data collection - \$2000
All technical experts consulted (Peñalosa, Drdul, Hamilton) emphasized the importance of collecting reliable data in order to measure and report out on the success of cycling initiatives. These funds would be used to provide honorariums to incentivize more volunteers to capture more streets and trails, and at more times of the year, to gain a more complete understanding of local cycling trends.
3. Guest speaker/technical consultation - \$1200
The involvement of guest public speakers and technical consultants has been strategically valuable to the Cycling Task Force and has furthered safe and accessible cycling infrastructure for residents. Guest public speakers such as Gil Penalosa (2011), Richard Drdul (2012) and the HASTe representatives (2012 and 2013) have provided visionary examples of good cycling practices that have enlivened the local public and staff discourse.

Related to public engagement, cycling advocacy and awareness:

4. Bike to Work Week celebration station - \$300
5. Marketing and Communications Strategy – \$3000
We know that perceptual barriers to cycling can be as strong as infrastructure barriers, and that cycling can be viewed as a polarizing topic. Funds will be allocated to determining some publically engaging local materials that educate and inspire to take up cycling.

6. Cycling Public Advisory quarterly meetings + movie nights - \$500

CPAC holds public meetings open to all at the same frequency as the CTF meetings. These meetings are held in order that CPAC can continue to remain current of the concerns and needs of cyclists, as well as address the general community's inquiries and clarifications into cycling. In addition, this year the Cycling Coalition held a movie night in which a number of short films were shown, followed by table and large group discussion. The format was entertaining, informative and energizing, with many good suggestions being offered. This format will be offered at future meetings, in addition to the regular more information focused CPAC quarterly meetings.

Cycling Task Force future activities

October of this year signals the dissolution of the Cycling Task Force. In the past the CTF extended its term a number of times, recognizing that work continued to be needed to fulfill the ambitious goals of the CTF. Over the past years the CTF has worked diligently with partner groups to raise the profile and legitimacy of cycling as a viable mode of transportation for residents. The CTF feels that it has achieved a degree of success in raising public, political and staff awareness of the benefits of cycling, to the point where the awareness and appreciation of the concept of 'complete streets' is becoming commonplace.

The CTF feels that there is still much work to do to ensure that the cycling modal share continues to grow, is safe, and that there is still a need for an advisory body to research and collaborate on implementing cycling related goals. However, that work can and must occur as part of an integrated transportation system of which cycling is one part. Therefore the CTF is exploring options for transitioning the Terms of Reference to include all road users. The collaborative model, and relationships, that have been forged through the Cycling Task Force are considered valuable to providing a framework from which to form a new advisory committee. The specifics of the Terms of Reference are currently being explored and will be discussed with all participating Local Governments and other stakeholders prior to the sunset of the CTF.

FINANCIAL IMPLICATIONS:

\$10,000 has been granted to the Cycling Task Force from the CVRD Recreation Grant program. No new funds are being requested.

ADMINISTRATIVE IMPLICATIONS:

A staff member attends the quarterly meetings. The Cycling Public Advisory Committee meets with staff on Courtenay-specific and more detailed projects as needed, generally monthly.

STRATEGIC PLAN REFERENCE:

This committee has been in existence since before the latest round of Council strategic planning. A number of Strategic Goals do however apply:

- 'Complete Street': pilot project
- Transportation study

OFFICIAL COMMUNITY PLAN REFERENCE:

The OCP contains targets on increasing transportation modal split for alternative modes to the automobile. The completion of a connected cycling network within Courtenay (and the Comox Valley) is a foundational transportation and environmental goal.

REGIONAL GROWTH STRATEGY REFERENCE:

The RGS contains numerous policies targeted at increasing cycling infrastructure and modal split including collaborative approaches between multiple jurisdictions.

CITIZEN/PUBLIC ENGAGEMENT:

The Cycling Public Advisory Committee (an advisory body to the Cycling Task Force) holds public meetings quarterly and provides this feedback to the CTF.

OPTIONS:


OPTION 1: Council receive this report for information.

OPTION 2: Council does not receive this report for information.

OPTION 3: Council direct staff to provide further information.

Prepared by:

Nancy Hofer,
Environmental Planner



Peter Crawford,
Director of Development Services

Comox Valley Cycling Task Force Terms of Reference 2012-2014

Type: The Comox Valley Cycling Task Force (CVCTF) will be an advisory body to the local government jurisdictions represented.

Chairperson: The Chairperson of the CVCTF is to be elected by the CVCTF.

Responsible to: The CVCTF is responsible to the local government jurisdictions that appointed representatives (Town of Comox, City of Courtenay, Village of Cumberland, Comox Valley Regional District).

Purpose: To develop and support the implementation of a comprehensive strategy to improve cycle access within the Comox Valley, allowing all members of the community (from children to seniors) to travel safely by bicycle within each jurisdiction and to have safe access to regional cycling networks.

Authority: The CVCTF makes recommendations to the various local government jurisdictions in the Comox Valley.

1. Timeframes, Reporting and Deadlines:

- The CVCTF will conclude its work by October 1, 2014.
- The CVCTF will meet on a quarterly basis and as needed.
- The CVCTF will provide quarterly and an annual report to each of the local government jurisdictions represented.
- A final report of the CVCTF's term and recommendations will be submitted to each of the local government jurisdictions on or before October 1, 2014.

2. Composition:

- Membership to the CVCTF shall be limited to one (1) elected official from each of the following: Town of Comox, City of Courtenay, Village of Cumberland, Comox Valley Regional District.
- Communication with the Task Force will usually occur through the Chair or a designate appointed by the Chair.

3. Resources:

- Annual \$10,000 stipend through the Comox Valley Recreation Grant program upon approval.
- Staff support to the CVCTF will be provided on an as required basis, depending on the nature of the expertise required, resources permitting. Staff from each of the represented jurisdictions will form a Technical Advisory Committee (TAC) to work towards execution of the 2007 Comox Valley Cycling Plan and relevant updates (including the 2010 updated Comox Valley Cycling Plan map). The TAC shall meet on a more frequent basis than the CTF in order to work through specific items.
- Cycling Public Advisory Committee, which will serve as an advisory body to the CVCTF regarding cycling initiatives, concerns and priorities.
- Other resources from various agencies and areas of expertise will be encouraged to serve on the TAC.

GOALS:

1. To develop safe, connected and functionally consistent bikeways for both recreation and commuting routes to major destination points within the region. Bikeways include on-street cycling lanes, cycle tracks, and multi-use recreational trails. Major destination points would include schools, retail centres, parks, and major business centers in each of the municipalities and electoral areas.

2. To involve, inform and seek feedback from the community on cycling issues, including actual and perceived safety.

ACTIONS:

1. Cooperatively implement the 2007 Comox Valley Cycling Plan and relevant updates (including the 2010 updated Comox Valley Cycling Plan map) in each of the local jurisdictions.
2. Continue to support and work towards the full implementation of Rail with Trail within the Comox Valley.
3. Prioritize cycling projects for the region and those that are more specific to individual jurisdictions, and bring recommendations forward to all local governments represented.
4. Provide research and advocacy for cycling as a mode of transportation in general, and specific projects where applicable, to the public and local government elected officials.
5. Seek and acquire funding for cycling projects.



for
info.

May 8, 2014

His Worship
Mayor Larry Jangula
The Corporation of the City of Courtenay
830 Cliffe Avenue
Courtenay BC V9N 2J7

Reference: 226001
Your File: 8550-02

Dear Mayor Jangula:

Re: Reinstatement of Passenger Rail Services

Premier Christy Clark has asked me to respond on her behalf to your letter regarding the Island Corridor Foundation's (ICF) negotiations with VIA Rail towards the reinstatement of passenger rail services on Vancouver Island.

I was pleased to hear that the ICF has reached a tentative agreement with VIA Rail that may enable passenger rail services to resume on the E&N corridor. I understand that the parties are taking additional actions now to conclude the agreement.

The Province remains committed to its original agreement to provide \$7.5 million to support the ICF in its efforts. As you know, the release of the provincial funds is contingent upon the ministry receiving from the ICF a detailed business plan that demonstrates how the railway will be viable and self-supporting in the long-term. We look forward to seeing this plan.

Thank you for taking the time to write.

Sincerely,

Todd G. Stone
Minister

Copy to: Premier Christy Clark



THE CORPORATION OF THE CITY OF COURTENAY

MEMORANDUM

FOR
INFO

To: Council

From: Chief Administrative Officer 

File No.: 5280-12

Date: May 15, 2014

Subject: 2014 City of Courtenay State of the Environment Report

ISSUE:

This memo is to advise Council that the second annual State of the Environment (Attachment No.1) has been released to the public. The report was made available in time for the Comox Valley Earth Day Festival, which took place Saturday, April 26. This report was made available at the City's booth with copies available for residents.

BACKGROUND:

The City of Courtenay produces an annual State of Environment report for public audience. The release of this report is consistent with OCP policy on public reporting of sustainability initiatives and recognizes explicitly that the success of achieving sustainability-related goals necessarily depends on the active participation of residents. The goal of these reports is to inform residents of environmental initiatives undertaken by the City, and how they can get involved.

Last year's report included information on six areas of environmental focus for which staff were able to easily collect data: Air quality, Water use, Transportation, Land Use, Waste generation and Energy consumption (linked to Greenhouse Gas emissions). The Ministry of Environment is currently showcasing the City's 2013 State of the Environment report as an example of Municipal environmental reporting on their Environmental Reporting BC website: <http://www.env.gov.bc.ca/soe/about/>

KEY CONSIDERATIONS:

This year staff have focused the message of the report on stream ecology, land cover changes to riparian areas and what residents can do to support the existing environmental stewardship sector. Specifically profiles of two urbanizing streams are contained within the report: Morrison Creek and Glen Urquhart Creek. After the success of last year's report, staff were approached by a number of stewardship groups to collaborate on this year's report, which has resulted in the focus of this particular message.

The report also complements the work of the Comox Valley- CAVI (Convening for Action on Vancouver Island), watershed planning team, of which the City is a part. The Riparian Forest Integrity analysis methodology was shared through the CAVI network to help understand, and manage, watersheds that extend across boundaries (Nature without Borders).

Staff intends to target distribution to residents and businesses that have property along the two creeks to help raise awareness of their role in stewarding these unique ecological assets. A Glen Urquhart Streamkeepers group is starting this year and could use the additional awareness-raising of this report in their efforts. Morrison Creek Streamkeepers have also indicated that their work could benefit from higher public awareness and continued volunteer support.

N. Hofer, Environmental Planner



P. Crawford, Director of Development Services

State ^{OF THE} Environment 2014

Healthy natural heritage systems are the foundation for a sustainable community. This year we take a look at the ecological systems that connect our neighbourhoods and communities – our backyard streams.

The City of Courtenay State of the Environment annual report series is our way of sharing information on the ways that the City works with the environment on a daily basis, progresses and challenges in environmental protection and the role of citizens in contributing to the health and quality of life of our community.

To learn more on the City's Environmental Protection policies and achievements visit:

www.courtenay.ca/climateaction.aspx

City of Courtenay

BRITISH COLUMBIA, CANADA



How are we doing in some of the areas we measured last year?

This section updates categories from the 2013 report for which we have new data

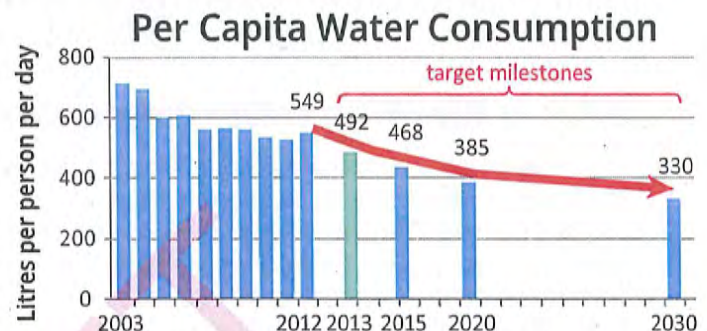


Water

Water use is on the decrease!

Despite growth and an extremely dry year in 2013, the City of Courtenay as a whole, ended the year with water consumption which was 6.3% less than the bulk consumption recorded in 2012! It is believed that the following programs contributed to the reduced use of water:

- ✓ Summer season Water Enforcement. A temporary bylaw enforcer is retained to educate the public on water restrictions that may be in effect, and enforce the restrictions where required.
- ✓ The Commercial Toilet Rebate program, which offers a \$100 grant per fixture for commercial businesses within the City to replace old high volume toilets with low flow efficient models.
- ✓ The Water Meter Repair and Replacement Reserve, a meter replacement program which has been actively carried out for the past two years. It is believed that the replacement of many of the older meters has been instrumental in identifying internal premise leaks as more accurate meter readings have led to higher billings and as a consequence, investigation by property owners.



Source: C.V.R.D. water services data. Numbers refer to total per capita consumption — the total volume of water delivered to Courtenay, including 'indirect' commercial, agricultural or public uses, and any system leaks, divided by the residential population. Direct household use will be much lower.



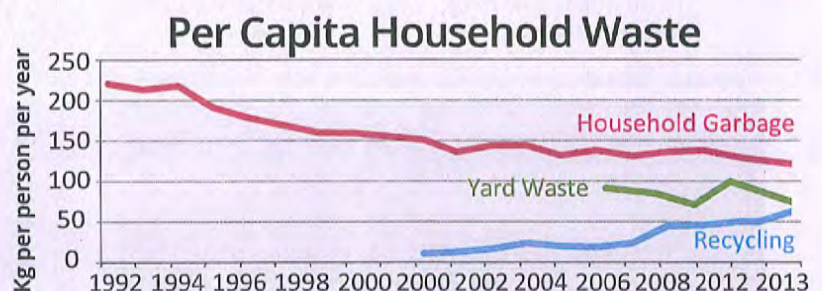
Waste

Recycling experienced a small increase in 2013. Yard waste is variable over the years. Garbage generation is relatively stable over the past few years.



Residential curbside recycling in the City of Courtenay is expanding on May 19, 2014 and that may mean we see more recycling! As of that date, residents can put new items in their Blue Box for collection. Aerosol cans, spiral-wound containers for frozen juice, cookie dough and other products, plus hot and cold drink cups and plastic plant pots are among the new items that will be collected with curbside recycling. This expansion is part of the

City's transition to Multi-Material BC (MMBC) for recycling collection. For a full list of items that can go in Blue Boxes starting May 19, 2014 go to www.courtenay.ca and click on Recycling Changes in Courtenay



To see the 2013 State of the Environment Report with all categories go to www.courtenay.ca/climateaction.aspx
Water and waste are included on this year's report because we have new data for them.

A tale of two urbanizing watersheds

A closer look at the Glen Urquhart and Morrison Creek streams

Our watershed ecosystems benefit us all. Often the services they provide are overlooked and undervalued. Through innovative planning and wise stewardship, we can sustainably manage our local streams for the benefit of present and future generations. In this section we look at how the land cover is changing in the riparian areas adjacent to Morrison Creek and Glen Urquhart Creek as a measure of stream health, and learn what this means.

Why is Riparian cover important?

Ecological studies indicate that a stream should have around 30 metres of native riparian cover on each side to help ensure the stream stays healthy for all those who use it. Riparian buffers provide food and shade for fish and other species. Over time mature trees fall into the stream creating more specialized habitats such as deep pools where fish can rest and gravel areas where they can feed and lay their eggs.

Cover is another feature that is important to both adult and young fish. The cooling effects of the riparian area benefit us humans as well as wildlife! Roots in riparian areas also help protect adjacent properties from erosion and possible flooding. Beyond the riparian areas, preserving adequate water flow and areas for rainwater seepage into soil are also essential to long-term stream health.

The following pages show how much riparian cover has been modified in these two creeks within 30m of each side of the stream. This is called a "Riparian Forest Integrity Analysis". Read the watershed profiles to see how you can get involved to protect our special ecological assets!

Riparian = Of, relating to or situated adjacent to a water body

Ecosystem Services = Community Benefits!

- ✓ streams and wetlands provide flood control
- ✓ wetlands filter water going to wells and aquifers
- ✓ wetlands store water and release it slowly over the dry months
- ✓ wetlands are some of the most productive/biodiverse habitats around!

Four categories of land cover are used:

Impervious surface

roof tops, parking lots, roads, etc.

Open channel

where the creek is visible

Cleared

field or lawn and possibly invasive species

Canopy Cover

trees and shrubs

A closeup of land cover analysis measured 30m on each side.



Why are impervious surfaces a problem?

When rainwater is unable to infiltrate into the ground naturally, it runs off the ground's surface and pools where it cannot drain. This can cause flooding and moisture problems. In the dryer months impervious surfaces result in a different problem - less moisture stored in the soil and less water available to streams. This can result in some streams or portions of streams drying out during the summer.

Morrison Creek Profile

Map shows the portion of Morrison Creek that flows through the City of Courtenay





Details of note:

Morrison Creek is in west Courtenay and drains into the Puntledge River.

Approximate stream length: **19 kilometres**

Approximate watershed size: **890 hectares**

Major tributary: **Arden Creek**

A number of land uses take place along its length including forest management, agriculture and urban development.

This creek is home to the rare Morrison Creek Lamprey, found nowhere else in the world! For more information on the status of this rare and endangered species search for it on the National Species at Risk Registry:

www.sararegistry.gc.ca

Opportunities include:

Invasive species plant removal and replanting with native species as well as being mindful of storm drain runoff, which flow into the creek - **No soaps, oils, paints, fertilizers or pesticides**. Morrison Creek is considered to be a very productive salmonid stream for its size and is home to 6 of the 7 species of salmonids found on the coast.

To learn more

about Morrison Creek and how you can get involved visit The Morrison Creek Streamkeepers website at:

www.morrisoncreek.org or email: morrisoncreek@yahoo.ca



Major challenges include:

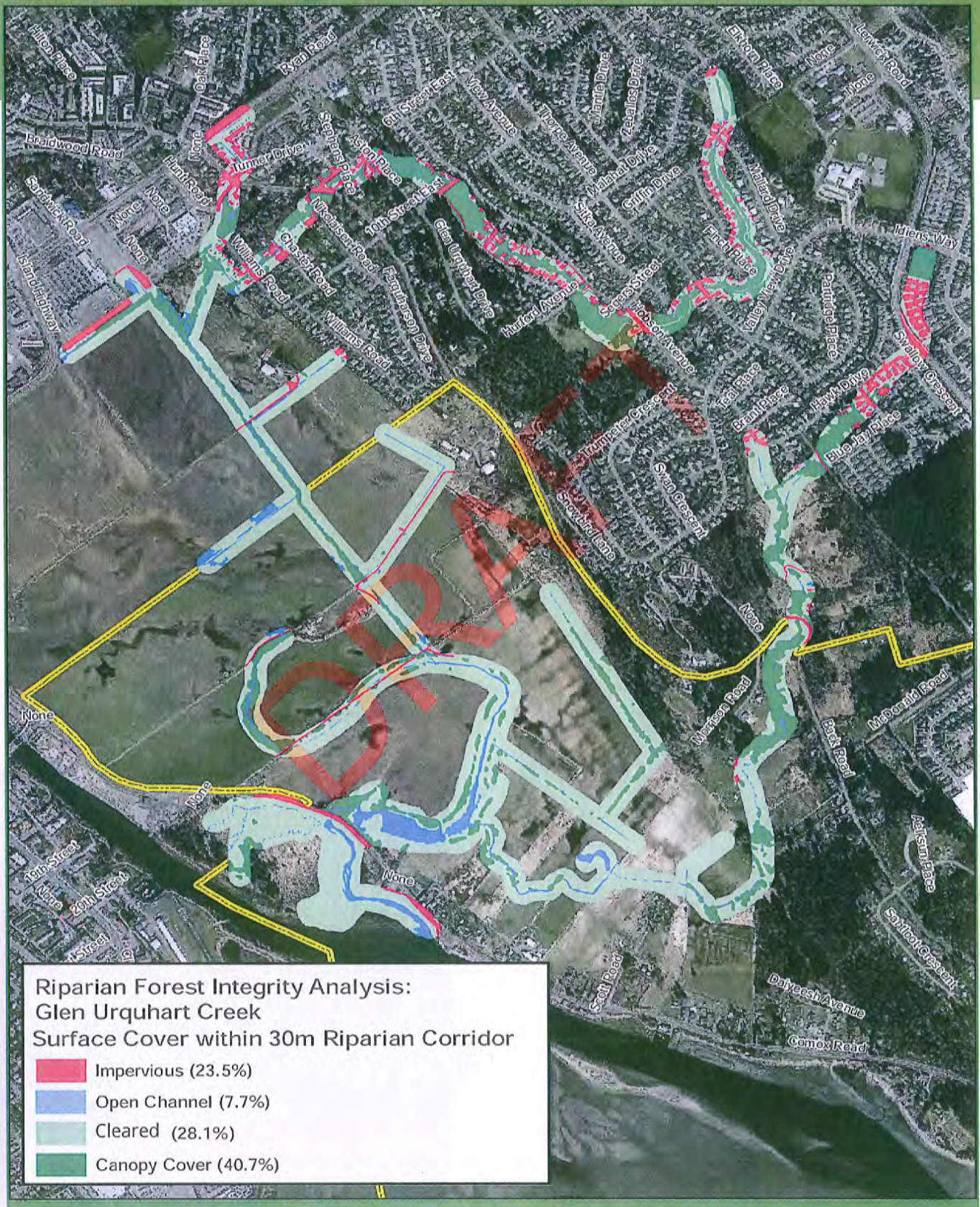
This stream crosses Cumberland, the Comox Valley Regional District and Courtenay, and involves many private land owners. Effective management requires coordination across boundaries.

The recovery plan for the endangered Morrison Creek Lamprey lists urban development and land use changes in the watershed as the major threat to this unique species.

The key to watershed health lies in the area known as the Morrison Creek Headwaters, west of the Inland Island Highway and immediately south of Lake Trail Road. Groundwater traveling underground towards Courtenay from Comox Lake "springs" up to the surface and supplies the clean, cool, streamflows that run year-round in Morrison Creek.



Glen Urquhart Creek Profile





Opportunities Include:

With so many homes backing onto the creek, each resident can play a role in restoring their piece of the riparian area! Take out invasive plants, replant with native plants, remove any stored materials from the riparian area, and be mindful of storm drain runoff, which flows into the Creek - *No soaps, oils, paints, fertilizers or pesticides*. The City is also exploring stream restoration opportunities on the many park lands that this stream flows through.

Join the newly founded Glen Urquhart Streamkeepers!

This year is the first for the group. Now's a great chance to get involved in an important project that will have long term impacts for the stream! To get involved contact **Bill** at T.W.H@shaw.ca



Details of note:

Glen Urquhart Creek, on Courtenay's east side, drains into the K'omoks Estuary.

Approximate stream length: **6 kilometres**

Approximate watershed size: **465 hectares**

Major tributaries include Mallard Creek and Bonner Creek.

The headwaters of this stream originate in a public park (Malahat Storm Park) and are fed by underground storm water connections from the developments in the Crown Isle area. This short stream is highly urbanized (residential) in its upper reaches and drains through agricultural lands before reaching the estuary.



Major challenges include:

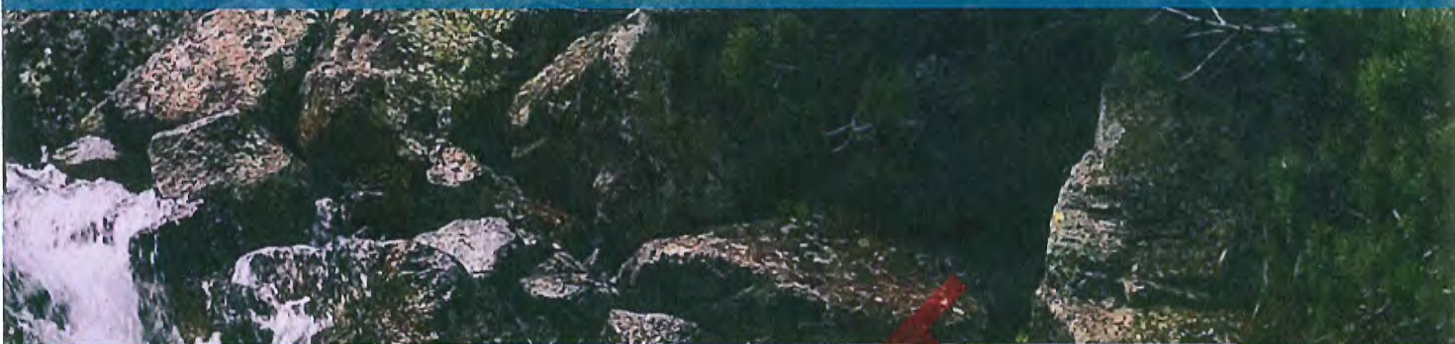
Eroding stream channel, degraded riparian area and exposed stream banks.

The many homes close to the stream reflect the more relaxed riparian regulations that existed before the turn of this century.

Chum and Pink Salmon use the lower reaches of the stream until the Back Road culvert which represents a significant barrier to fish passage. Fish habitat does exist upstream of this and other fish barriers along the stream, representing opportunities for restoration.

Working together, we can make a difference.

Imagine what we could accomplish if each one of us helped to restore the watershed!



Here are some things you can do to contribute to making watershed protection a habit:

- ✓ Don't pour anything down storm drains – these drains often flow untreated into local water bodies even if they don't have the yellow fish painted on them.
- ✓ Minimize your use of fertilizers and pesticides and keep your septic system in good working order to avoid ground water and surface water contamination.
- ✓ Restore local riparian areas. If it's on your property you hold the key to restoration! Get in touch with the local nature stewardship groups to learn more about what you can do.
- ✓ Prevent the spread of invasive species by gardening with non-invasive plants. Plant local as much as you can.
- ✓ Conserve water by using a rain barrel, reducing lawn and garden watering, planting drought-resistant native plants and installing low-flow household fixtures.
- ✓ Plant native trees, shrubs and wildflowers as part of local habitat. Bird, bee and bat boxes make nice additions too!

Groups that work in Courtenay:

Morrison Creek Streamkeepers

www.morrisoncreek.org
morrisoncreek@yahoo.ca

Glen Urquhart Streamkeepers

T.W.H@shaw.ca

Millard Piercy Watershed Stewards

www.millardpiercy.org
mpws@shaw.ca

Brooklyn Creek Watershed Society

www.brooklyn creek.ca
lwjefferson@shaw.ca

Tsolum River Restoration Society

www.tsolumriver.org
tsolumriver@shaw.ca
250 897 4670

Comox Valley Land Trust

www.cvlandtrust.ca
info@cvlandtrust.ca
250 331 0670

Comox Valley Naturalists Society

www.comoxvalleynaturalist.bc.ca
coordinator@comoxvalleynaturalist.bc.ca
250 331 0143

Project-Watershed

www.projectwatershed.ca
estuary.projectwatershed@gmail.com
250-703-2871

Mountainaire Avian Rescue Society (MARS)

www.wingtips.org
info@wingtips.org
250 337 2021

Comox Valley Conservation Strategy Partnership

www.cvconservationstrategy.org
info@cvconservationstrategy.org
250 897 1271

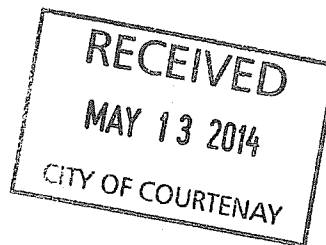
Other resources

Visit www.courtenay.ca/climateaction.aspx for links to carbon footprint calculators, incentive programs, and much more

City of Courtenay
Tel: 250-334-4441
www.courtenay.ca

830 Cliffe Avenue
Courtenay, BC
V9N 2J7





New Bus.

May 2, 2014

His Worship Larry Jangula
Mayor of the City of Courtenay
830 Cliffe Avenue
Courtenay BC V9N 2J7

Dear Mayor Jangula and Councillors:

On March 11, 2014, I announced a province-wide earthquake preparedness consultation, to be chaired by Mr. Henry Renteria (the Chair), former director of California's Office of Emergency Services.

The goal of this consultation is to improve British Columbians' preparedness for a disastrous seismic event. At the end of the year, the Chair will provide my Ministry with a report that will include priority recommendations for improving earthquake preparedness.

In British Columbia, emergency management is a responsibility that is shared among all levels of government, community organizations, First Nations, not-for-profit agencies, academic institutions, families and individuals. Over the next few months, the Chair will consult with a wide range of stakeholders and agencies, through a variety of methods. As part of this exercise, consultation meetings will be held in selected communities, focused primarily on local authorities and First Nations representatives.

This month, Emergency Management British Columbia (EMBC) officials will be sending an invitation to you, and your staff, to participate in these meetings. EMBC will provide specific details about the sessions and will work with your staff to identify appropriate participants from your community.

Enhancing earthquake preparedness is a priority activity for my Ministry, and for EMBC. A long-term plan for enhancing our province's preparedness is currently under development, and input from stakeholders through this consultation, will be key to refining this plan and informing

.../2

Ministry of
Justice

Office of the
Minister of Justice
and Attorney General

Mailing Address:
PO Box 9044 Stn Prov Govt
Victoria BC V8W 9L2

Telephone: 250-387-1866
Facsimile: 250-387-6411

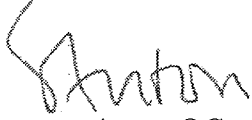
email: JAG.Minister@gov.bc.ca
website: www.gov.bc.ca/justice

His Worship Larry Jangula
May 2, 2014
Page 2

long-term preparedness priorities. Thus, I encourage you to participate in this initiative and to provide feedback as the process unfolds.

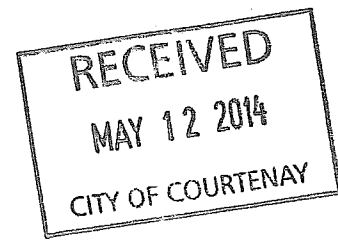
We are grateful for this opportunity to work with you to ensure that British Columbians are as prepared as possible for disasters such as a catastrophic earthquake. Thank you for your support.

Yours very truly,

A handwritten signature in dark ink, appearing to read 'S. Anton', is written over the closing 'Yours very truly,'.

Suzanne Anton QC
Attorney General
Minister of Justice

pc: Mr. David Allen, Chief Administrative Officer



May 7, 2014

His Worship Larry Jangula
Mayor of the City of Courtenay
830 Cliffe Avenue
Courtenay BC V9N 2J7

Dear Mayor Jangula and Councillors:

I am writing to follow-up on the Honourable Suzanne Anton's letter of May 2, 2014, regarding the province-wide Earthquake Preparedness Consultation, chaired by Mr. Henry Renteria (the Chair), former director of California's Office of Emergency Services. The goal of this initiative is to develop recommendations for government on improving British Columbians' preparedness for a disastrous seismic event (See attached Backgrounder document).

A cornerstone of this process will be engagement of local authorities and First Nations through meetings in selected communities between May and July 2014. The goal of these meetings will be to provide the Chair with an opportunity to cooperatively identify top priority issues and recommendations with respect to catastrophic earthquake preparedness. A list of questions which will be used to stimulate discussions during these meetings is attached.

It is worth noting that many coastal communities have already provided extensive valuable feedback to Emergency Management British Columbia (EMBC) regarding earthquake and tsunami preparedness issues and priorities. Most recently, the 2014 Community Earthquake and Tsunami Fora served to highlight the continued need for individual awareness and ongoing preparedness efforts. Specific feedback from these fora, and from previous engagement on this issue, has already been provided by EMBC to the Chair, to help inform further discussion.

Attached is a schedule of upcoming Earthquake Preparedness Consultation meetings in communities. I encourage you to arrange for representation at the meeting closest to your community, and to provide feedback as the consultation process unfolds.

Each meeting will include:

1. An introductory briefing on the Earthquake Preparedness Consultation.
2. Group (and/or small group) discussion beginning with the questions attached.
3. A summary of top issues/recommendations.

.../2

His Worship Larry Jangula
May 7, 2014
Page 2

Please note that in the Capital Regional District, Metro Vancouver, and in the Fraser Valley Regional District, separate meetings have been provided for senior officials/senior representatives due to the large number of expected participants.

RSVPs including name, title, and the specific meeting to be attended, can be sent to the following e-mail: (earthquake.consultation@gov.bc.ca). Please refer to the attached schedule for the maximum number of representatives per organization, and the RSVP deadline for each meeting. If space permits, EMBC staff will contact you to identify additional representatives you may wish to include.

Local authority and First Nations representatives unable to attend at a scheduled community session are encouraged to:

- a) Provide written responses to the attached guiding questions, or submit any other applicable input through earthquake.consultation@gov.bc.ca or,
- b) Contact the EMBC project lead, Mr. Cameron Lewis (250-952-5040 or cameron.lewis@gov.bc.ca) to discuss alternative means of providing feedback.

Any questions regarding this initiative can also be directed to Mr. Lewis.

Preparing British Columbia for a catastrophic earthquake and/or tsunami is a priority activity for EMBC. I look forward to your input as we collectively and jointly work to enhance our preparedness.

Thank you for your support.

Sincerely,



Patrick B. Quealey
Assistant Deputy Minister

pc: Mr. David Allen, Chief Administrative Officer

Attachments:

- Earthquake Preparedness Consultation Backgrounder
- Community Meeting Schedule
- Earthquake Preparedness Consultation: Discussion Questions

Earthquake Preparedness Consultation: COMMUNITY SESSIONS – Locations and Venues Cont.

May – July 2014

Date	Time	Location	Venue	Group	Size	RSVP by
8 Tues	10:00am - 11:30am	Nanaimo	Nanaimo Conference Centre 101 Gordon Street, Nanaimo	Local Govt & First Nations staff reps.	Four (4) representative maximum per local authority or First Nation	June 17, 2014
	3:00pm - 4:30pm	Port Alberni	Best Western Barclay Hotel 4277 Stamp Ave. Port Alberni			June 17, 2014
9 Wed	8:30am - 10:00am	Courtenay	Comox Valley Regional District 600 Comox Road, Courtenay			June 17, 2014
	3:00pm - 4:30pm	Port McNeill	Port McNeill Regional Arena 2205 Campbell Way, Port McNeill			June 17, 2014
11 Fri	8:30am - 10:30am	CRD (Morning Session)	Grand Pacific 463 Belleville Street, Victoria	<ul style="list-style-type: none"> Mayors/ Councillor/ CAO/ Chief/ Councillor/ Other 	Three (3) representative maximum per local authority or First Nation	June 17, 2014 Please Note: AM Session
	1:00pm - 4:00pm	CRD (Afternoon Session)	Grand Pacific 463 Belleville Street, Victoria			June 17, 2014 Please Note: PM Session
15 Tues	9:00am - noon	New Westminster	Justice Institute of BC 715 McBride Blvd, New Westminster	Local Govt & First Nations staff reps.	Four (4) representative maximum per local authority or First Nation	June 24, 2014
16 Wed	9:00am - noon	Abbotsford	Ramada Plaza Abbotsford Hotel & Conference Centre	<ul style="list-style-type: none"> Mayors/ Councillor/ CAO/ Chief/ Councillor/ Other 	Three (3) representative maximum per local authority or First Nation	June 24, 2014
21 Mon	10:00am - noon	Chilliwack	Fraser Valley Regional District 45950 Cheam Avenue, Chilliwack			June 30, 2014
22 Tues	10:00am - noon	Burnaby	Metro Vancouver 4330 Kingsway, Burnaby			June 30, 2014

- **RSVP to Earthquake.Consultation@gov.bc.ca by session RSVP date listed in table above.**

May 5, 2014

EMBC- Earthquake Preparedness Consultation 2014

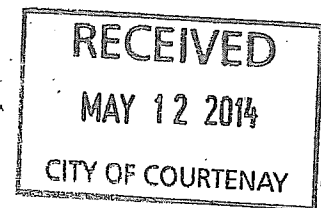
Earthquake Preparedness Consultation: COMMUNITY SESSIONS – Locations and Venues

May – July 2014

	Date	Time	Location	Venue	Groups	Size	RSVP by						
May	27	Tues	1:00pm - 3:00pm	Nelson/ Revelstoke/ etc.	Conference Call	Local Govt & First Nations staff reps.	Four (4) representative maximum per local authority or First Nation	May 20, 2014					
	28	Wed	10:00am - noon	Prince George/ Ft St. John/ Fraser Ft. George/etc.	Conference Call			May 20, 2014					
			1:00pm - 3:00pm	Cariboo/Bella Coola/ etc.	Conference Call			May 20, 2014					
			29	Thurs	10:00am - noon			Kelowna	Coast Capri Hotel 1171 Harvey Avenue, Kelowna	May 20, 2014			
June													
								17	Tues	2:00pm - 4:00pm	Terrace	Best Western 4553 Greig Avenue, Terrace,	May 27, 2014
								18	Wed	10:00am - noon	Prince Rupert	Prince Rupert Hotel 118 - 6th St. Prince Rupert	May 27, 2014
								19	Thurs	10:00am - noon	Queen Charlotte	Eric Ross Room Charlotte Community Centre 134 Bay Street	May 27, 2014

- **RSVP to Earthquake.Consultation@gov.bc.ca by session RSVP date listed in table above.**

To His Worship, Mayor Larry Jangula,
City of Courtenay Councillors.



It is my belief that there has been a huge misunderstanding and miscommunication with regard to the issues at Maple Pool Campsite.

On the one hand I comprehend the concerns of the City with regard to safety of the residents and being held liable in the event of any damage due to flooding.

The opposing view is that eviction of these residents would render most of them homeless and add to an already alarming problem in the area.

You have stated that you very willing to help find a solution to resolve the issues at hand and you have also expressed disappointment that no solutions have been proposed.

Two years ago, I, together with Mike Hamilton, met with a group of business people (various areas of expertise) with the express intention of doing just that- finding a solution that would satisfy the concerns of the city and allow the 57 residents to stay in Maple Pool.

Let me be clear that our position in this matter was completely neutral. Over the past two years, we have sought advice and consulted with Mike Fournier of Search and Rescue, Ministry of Environment, Ministry of Fisheries, the adjacent native band, engineers, machine operators, as well as keeping abreast of pertinent legal proceedings.

We have presently, and have had for some time, suggestions which we would dearly like to present before council; They include:

1. Engineered drawings that would illustrate how material could be dug out of lower areas and used to raise existing sites to a height that would be satisfactory to both parties. There would be no more displacement of water in so doing
2. Signing of a waiver by all residents and the owners of Maple Pool thereby releasing the City of Courtenay from any and all liability in the event of a flood.
3. Consultation with BC Hydro to ensure further releases of dammed water do not coincide with flooding high tides (the major cause of the 2010/2011 flood).
4. Signing of a caveat by the owners that they will not change usage of the land.

Our group is willing to carry out all correspondence and satisfy the requirements of MOF, MOE, and all other pertinent authorities. We ask the City on their part to grant concessions and allow continued use of the property as non-conforming and to drop the existing law suit that has cost city taxpayers to date over \$120,000.

We feel pursuit of this law suit could end up costing hundreds of thousands more should it become a constitutional issue. I am sure you would agree that this is a no win situation and would no doubt infuriate the electorate.

I implore you to please at least grant us an audience to hear our proposals and brainstorm together to find a satisfactory solution. By doing so "without prejudice", you would not be required to decide or vote just hear what we have to say.

We are not out to win any battles we just want to help.

Volunteers, expansive machinery manpower and wherewithall stand ready to help.

Yours sincerely,

Brent Cunliffe brentanddonna@shaw.ca 250-334-4972