# Municipality of North Cowichan Regular Council AGENDA

#### Wednesday, September 1, 2021, 1:30 p.m. Electronically

1. CALL TO ORDER

This meeting, though electronic, is open to the public. All representations to Council will form part of the public record. Proceedings will be streamed live and archived at <u>www.northcowichan.ca</u>. Members of the public may join this online meeting and participate virtually during the Public Input and Question Period portions of the agenda.

- To join by computer, smartphone, or tablet, visit <u>northcowichan.ca/virtualmeeting</u> for instructions.
- To join by telephone, dial 1.844.426.4405, enter the meeting ID 2450 743 1462, and then press # to join the meeting.

#### 2. APPROVAL OF CONSENT AGENDA

<u>Purpose</u>: To adopt all recommendations appearing on the Consent Agenda in one motion. Any item may be moved out at the request of any Council member for discussion or debate, before the agenda is approved. Items removed from the Consent Agenda will be placed under New Business.

Recommendation: THAT the Consent Agenda be approved.

#### 2.1. Draft Committee Minutes

Recommendation:

THAT the draft minutes from the following meeting(s) be received for information purposes only:

#### 2.1.1. August 17, 2021 Environmental Advisory Committee

#### 2.2. Correspondence

Recommendation:

THAT the following correspondence is received for information purposes only:

#### 2.2.1. Emails in relation to Vancouver Island Motorsport Circuit (VIMC)

3 emails were received by residents who have concerns with noise levels from VIMC.

Pages

7 - 8

9 - 11

2.2.2.	Emails in relation to the Municipal Forest Review	12 - 15
	2 emails were received requesting Council allow the UBC Forestry review to be completed.	
2.2.3.	Email regarding New Crofton Ferry Terminal Upgrade	16 - 17
	Request that Council consider upgrading the ferry terminal and increase service.	
2.2.4.	Neighbourhood Zero Emission Vehicle Bylaw	18 - 21
	Request Council consider adopting the City of Richmond's Traffic Bylaw.	
2.2.5.	Email regarding Roundup Herbicide weed spray	22 - 22
	Request Council ban Roundup Herbicide weed spray for use on public and private property.	
2.2.6.	Email regarding water usage	23 - 23
	Request Council consider installing water consumption meters.	
2.2.7.	Email regarding proposed development on 9090 Trans-Canada Highway	24 - 24
	Request Council downzone the proposed development on 9090 Trans-Canada Highway from 108 homes to 12 x 2 acre lots or 24 x 1 acre lots.	
2.2.8.	Email regarding pounding noise from Properties development	25 - 26
	Concerned with the pounding noise from the development in the Properties.	
2.2.9.	Letter regarding the Canada Community Building Fund-Gas Tax fund: Community Works Fund Top-Up Payment and Updated Eligibility Guidelines	27 - 27
	Letter from UBCM advising that UBCM is in the process of distributing a top-up to the Community Works Fund payment for fiscal 2021/2022.	
2.2.10.	Email regarding Genoa Bay Waterworks and Business Licenses	28 - 30
	Background information about the Genoa Bay Waterworks Society and request that applications for commercial business licenses within the Genoa Bay Waterworks service area be withheld.	
APPROVAL OF REGULAR AGENDA		
Purpose <sup>.</sup> To cons	ider any items of business not included in the Agenda that are of an	

<u>Purpose</u>: To consider any items of business not included in the Agenda that are of an urgent nature, must be introduced and approved at the time the agenda is adopted. Matters must be taken up in the order that they are listed unless changed at this time.

3.

Recommendation: That the agenda be adopted as circulated [or as amended].

#### 4. ADOPTION OF MINUTES

<u>Purpose</u>: To consider if there were any errors or omissions prior to adopting the minutes.

#### 4.1. Minutes from the August 18, 2021 regular meeting for adoption 31 - 36

Recommendation: THAT Council adopt the minutes of their regular meeting held August 18, 2021.

#### 5. MAYOR'S REPORT

#### 6. DELEGATIONS AND PRESENTATIONS

6.1. North Cowichan/Duncan RCMP Detachment's 2nd Quarter Report for RCMP 37 - 60 Activities

<u>Purpose</u>: Inspector Chris Bear to present the North Cowichan/Duncan RCMP Detachment's quarterly report for April - June 2021.

#### 6.2. North Cowichan/Duncan RCMP Detachment's 2021-2022 Annual Performance 61 - 64 Plan

<u>Purpose</u>: To consider endorsement of the North Cowichan/Duncan RCMP Annual Performance Plan (APP) that was presented to Council by Inspector Chris Bear on May 19, 2021. Council postponed consideration of the APP until after the completion of the GAP analysis.

Recommendation:

THAT Council endorse the North Cowichan/Duncan RCMP Detachment 2021-2022 Annual Performance Plan as presented.

#### 6.3. Regional Emergency Program with Cowichan Valley Regional District

<u>Purpose</u>: April Diver, Emergency Program Coordinator, from the Cowichan Valley Regional District to provide a presentation on the Regional Emergency Response Program. Brian Carruthers, Chief Administrative Officer, and John Elzinga, GM Community Services, from the Cowichan Valley Regional District will be present to answer questions.

#### 7. PUBLIC INPUT

Public Input is an opportunity for the public to provide their feedback on matters included on the agenda. The maximum number of speakers to be heard during the public input period is limited to five, with a maximum of three minutes allotted to each speaker. To be added to the speakers list, please:

- click on the 'raise your hand' button, if participating by computer, smartphone, or tablet, or
- dial \*3 on your phone

#### 8. BYLAWS

# 8.1. Zoning Amendment Bylaw (6353 Genoa Bay Road) No. 3847, 2021 for first and second readings

<u>Purpose</u>: Mayor Siebring provided notice on August 27, 2021, that under the authority of <u>Section 131</u> of the *Community Charter*, that Council reconsider and vote again on first and second reading of Zoning Amendment Bylaw No. 3847, 2021 to permit a second detached residential dwelling at 6353 Genoa Bay Road and a public hearing be scheduled for Bylaw No. 3847 in accordance with the *Local Government Act*.

(Note: The August 18, 2021 staff report and attachments are included for reconsideration)

**Recommendation:** 

THAT Council give first and second reading to Zoning Amendment Bylaw No. 3847, 2021 to permit a second detached residential dwelling at 6353 Genoa Bay Road and a public hearing be scheduled for Bylaw No. 3847 in accordance with the *Local Government Act*.

#### 8.2. Fire Protection Bylaw No. 3841, 2021 for first three readings

<u>Purpose</u>: To introduce Fire Protection Bylaw No. 3841, 2021 for first three readings. This bylaw, if adopted will incorporate recommendations from the 2018 Fire Services Review and replace the current bylaw (Fire Protection Bylaw, 2008, No. 3340) and all amendments thereto.

#### Recommendation:

THAT Council give first, second and third readings to Fire Protection Bylaw No. 3841, 2021.

#### 8.3. Consequential Amendment Bylaws for first three readings

<u>Purpose</u>: To introduce bylaw amendments to the Delegation of Authority, Fees and Charges, Bylaw Offence Notice Enforcement (BON), and Municipal Ticket Information System (MTI) Bylaws that are consequential to Fireworks Regulation Bylaw No. 3810 and Fire Protection Bylaw No. 3841 for first three readings.

#### Recommendation:

THAT Council gives first, second and third readings to:

- 1. Delegation of Authority Amendment Bylaw No. 3842, 2021;
- 2. Fees and Charges Amendment Bylaw No. 3843, 2021;
- 3. Bylaw Offence Notice Enforcement Amendment Bylaw No. 3844, 2021; and
- 4. Municipal Ticket Information System Amendment Bylaw No. 3845, 2021.

#### 9. REPORTS

9.1. REPORTS FOR DECISION

87 - 118

119 - 136

65 - 86

#### 9.1.1. 2020 Community Wildfire Protection Plan for adoption

<u>Purpose</u>: To present the 2020 Community Wildfire Protection Plan for Council's consideration.

Recommendation:

THAT Council adopt the 2020 Community Wildfire Protection Plan attached to the September 1, 2021 report from the Municipal Forester.

#### 9.1.2. Regional Emergency Program

260 - 303

<u>Purpose</u>: To advise Council on the gaps and recommendations for emergency management in the Cowichan Valley.

#### Recommendation:

THAT Council approve

- 1. North Cowichan's participation in a single regional Emergency Management Organization established by the Cowichan Valley Regional District Board.
- 2. That through the newly established Cowichan Emergency Management Organization, implementation of the report's recommendations be carried out in a phased approach.

#### 9.2. REPORTS FOR INFORMATION

10. NOTICES OF MOTIONS

#### 11. UNFINISHED AND POSTPONED BUSINESS

#### 12. NEW BUSINESS

#### 12.1. M'akola Housing Society request for Financial Assistance

304 - 305

<u>Purpose:</u> To consider M'akola Housing Societies request for \$900 to contribute to the flaggers for the Every Child Matters March taking place on September 30, 2021

#### 13. QUESTION PERIOD

Question Period is an opportunity for the public to ask brief questions regarding the business discussed during the meeting. To be added to the speakers list, please:

- click on the 'raise your hand' button, if participating by computer, smartphone, or tablet, or
- dial \*3 on your phone

#### 14. CLOSED SESSION

#### Recommendation:

THAT Council close the meeting at \_\_\_ p.m. to the public on the basis of the following sections of the *Community Charter:* 

- 90(1)(c) labour relations or other employee relations;
- 90(1)(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality;
- *90(1)(i)* the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose;
- 90(1)(m) a matter that, under another enactment, that being section 16(1)(a)(iii) of the Freedom of Information and Protection of Privacy Act related to intergovernmental relations or negotiations with an aboriginal government, is such that the public may be excluded from the meeting;
- 90(2)(b) the consideration of information received and held in confidence relating to negotiations between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.
- 14.1. Closed minutes from the July 21, 2021 meeting for adoption
- 14.2. Closed under section 90(1)(e) land matter, 90(1)(i) legal advice, 90(1)(m) FOIPPA s. 16 relations with aboriginal government Land
- 14.3. Closed under section 90(1)(e) land matter, 90(1)(i) legal advice, 90(1)(m)
   FOIPPA s. 16 relations with aboriginal government and 90(2)(b) negotiations
   Proposed Memorandum of Understanding
- 14.4. Closed under section section 90(1)(e) land matter, 90(1)(m) FOIPPA s. 16 relations with aboriginal government and 90(2)(b) negotiations Land
- 14.5. Closed under section 90(1)(e) land matter Land Acquisition
- 14.6. Closed under section 90(1)(c) labour relations
- 15. RISE AND REPORT
- 16. ADJOURNMENT

## Municipality of North Cowichan Environmental Advisory Committee MINUTES

#### August 17, 2021, 1:30 p.m. Electronically

Members Present	Councillor Kate Marsh, Chair Neil Anderson Cam Campbell Bruce Coates (arrived at 1:42 p.m.) Per Dahlstrom Sandra McPherson Dr. Jesse Patterson (arrived at 1:41 p.m.) Dr. Geoffrey Strong
Members Absent	Dr. Jana Kotaska David Coulson Ashley Muckle Dr. Shannon Waters
Staff Present	David Conway, Director, Engineering Projects Dave Preikshot, Senior Environmental Specialist Shaun Chadburn, Environmental Programs Coordinator Tricia Mayea, Deputy Corporate Officer Theresa Dennison, Administrative Assistant to the Deputy CAO

#### 1. CALL TO ORDER

There being a quorum present, the Chair called the meeting to order at 1:40 p.m.

IT WAS MOVED AND SECONDED: That Sandy McPherson be appointed Vice Chair for this meeting in the event that the Chair has to leave the meeting.

#### 2. APPROVAL OF AGENDA

IT WAS MOVED AND SECONDED: That the agenda be adopted as circulated.

#### 3. ADOPTION OF MINUTES

IT WAS MOVED AND SECONDED: That the Committee adopt the minutes of the meeting held July 20, 2021. CARRIED

#### 4. **BUSINESS**

CARRIED

#### 4.1 Cowichan Watershed Board - OCP Feedback Letter for Information

#### IT WAS MOVED AND SECONDED:

That the Committee receive the OCP feedback letter from the Cowichan Watershed Board for information;

And That the Chair of the Environmental Advisory Committee be authorized to send a letter to the Cowichan Watershed Board thanking them for their valuable contribution;

And That the Environmental Advisory Committee endorses the OCP policy direction.

CARRIED

#### 4.2 Somenos Marsh Wildlife Society - OCP Feedback Letter for Information

#### IT WAS MOVED AND SECONDED:

That the Committee receive the OCP feedback letter from the Somenos Marsh Wildlife Society for information;

And That the Chair of the Environmental Advisory Committee be authorized to send a letter to the Somenos Marsh Wildlife Society thanking them for their valuable contribution;

And That the Environmental Advisory Committee endorses the OCP policy direction.

CARRIED

## 4.3 Biodiversity Protection Policy

Staff collected input from the Committee on the consolidation of information and direction collected from the EAC members at the July 21, 2021 meeting regarding the Biodiversity Protection Policy.

Dr. Jesse Patterson left the meeting at 3:00 p.m. and returned at 4:15 p.m.

By unanimous consent the meeting recessed at 3:14 p.m. and reconvened at 3:22 p.m.

## IT WAS MOVED AND SECONDED:

That the Environmental Advisory Committee recommends that Council accepts the scope of work for preparing a biodiversity protection policy as amended at the August 17, 2021 Environmental Advisory Committee meeting.

## 5. NEW BUSINESS

It was noted that the Lower Cowichan River Cleanup 2021 is on Sunday August 22, 2021 at 9:30 a.m., located at the Mini Big House, 5536 River Road, Duncan. It starts off with a Continental Breakfast and will wrap-up with a Barbecue lunch.

## 6. ADJOURNMENT

IT WAS MOVED AND SECONDED: That the meeting be adjourned at 4:28 p.m.

From:
Sent:
To:
Subject:

FIPPA s. 22(1)

Monday, August 16, 2021 11:30 AM Al Siebring; info@northcowican.ca Horrific noise Monday August 16, 2021 VIMC

Good Morning(?!),

FYI. The VIMC Race Track is horrific today thanks to Ignition Motorsport. If you want to know how a local business is treating their fellow-citizens, check out the Sahtlam neighbourhood today. <u>Truly awful</u>.

FIPPA s. 22(1)

From:	Manday August 16, 2021 2:04 DM	FIPPA s. 22(1)
Sent:	Monday, August 16, 2021 2:04 PM	
10:	al.seibring@northcowichan.ca	
Cc:	Info	
Subject:	worst racket in 20 years	
Follow Up Flag:	Follow up	
Flag Status:	Completed	

August 16, 2021

Dear Mayor and Council,

I want to let you know that today I heard the worst racket in my 20 years on this property. The noise is coming from the VIMC track. I understand they are racing motorcycles.

If this is a test facility, the only thing they are testing is the patience and nerves of the residents in this area. It's not fair to residents of this area and should not be allowed to continue.

FIPPA s. 22(1)

Cleve Rd, North Cowichan

August 16, 2021

I would like to bring the attention of council how grateful I am that you turned down VIMC rezoning request for their Phase 2. I live at Alexander Street FIPPAs. 22(1) and was sitting in my backyard Sunday at 3:10 and I could hear the Racetrack clearly. (You know that car test track that motorcycles are now racing on) I am not saying it was loud, but I live a long way away and I could hear it. I feel sorry for the residence of Sahtlam. I ride my horse and walk on the trails only on days there is no track racing.

I am very grateful that Phase 2 rezone will not take place. Higher elevation will creating louder track sound, more damage to the environment just a few of the reasons. Let's not forget your own noise study, drag it out just to remind you how bad it could be.

Thank you for your time and service.

FIPPA s. 22(1)

From:	FIPPA s. 22(1)	
Sent:	Monday, August 16, 2021 10:06 AM	
То:	Al Siebring; Christopher Justice; Rosalie Sawrie; Rob Douglas; Kate Marsh; Debra	
	Toporowski; Tek Manhas; Ted Swabey	
Subject:	Keep the pause and let UBC finish the Forestry Review under a shortened timeline	
Attachments:	prevost-peak1.jpg	
Categories:	To be processed	

Mayor and Council,

I see the Forest Review is back on the table this week.

I hope you will honor your commitment for a balanced review of the forestry operations and let UBC Forestry finish the project as planned.

As a member of the Forestry Public Engagement Working Group - I would like to see our work finished.

Shorten the project timeline and keep the forestry operation paused until the review is completed.

That will put pressure on everyone to get the work done in a timely manner.

Starting up logging again before the review is finished would make the process look biased and not genuine.

If you are serious about reconciliation you should not be logging Swuq'us (Mt. Prevost), Shkewetsen (Mt. Tzouhalem), Maple Mountain, Stoney Hill, Mt. Richards or Mt. Sicker during First Nations negotiations.

If you are serious about public engagement - you should not be logging while "listening" to the community.

If you are serious about climate change mitigation - you need to fully investigate the benefits of carbon offsets.

If you are serious about biodiversity - you need to take a closer look at the broom filled clearcuts on the mixed use mountains (Maple Mtn, Tzouhalem and Stoney Hill).

And we need to remember that there are two ways to generate revenue from the forest - logging and carbon offsets. This is not a question of logging vs. no logging.

This is this Council's legacy project, lets pull together and make it a success.

FIPPA s. 22(1)

notes:

see attached picture of the 2018/19 Municipal clearcutting on Swuq'us (Mt. Prevost).
link to the history of Swuq'us (Mt. Prevost)
https://thediscourse.ca/cowichan-valley/story-of-swuqus

2



From: Sent: Wednesday, August 18, 2021 12:23 PM To: Info <<u>Info@northcowichan.ca</u>> Subject: Today's meeting.

LETTER TO MAYOR & COUNCIL

Mayor and Council,

We see the Forest Review is back on the table this week.

We hope you will honor your commitment for a balanced review of the forestry operations and let UBC Forestry finish the project as planned.

As a member of the Forestry Public Engagement Working Group - we would like to see our work finished.

Shorten the project timeline and keep the forestry operation paused until the review is completed.

That will put pressure on everyone to get the work done in a timely manner.

Starting up logging again before the review is finished would make the process look biased and not genuine.

**If you are serious about reconciliation** you should not be logging Swuq'us (Mt. Prevost), Shkewetsen (Mt. Tzouhalem), Maple Mountain, Stoney Hill, Mt. Richards or Mt. Sicker during First Nations negotiations.

**If you are serious about public engagement** - you should not be logging while "listening" to the community.

**If you are serious about climate change mitigation** - you need to fully investigate the benefits of carbon offsets.

**If you are serious about biodiversity** - you need to take a closer look at the broom filled clearcuts on the mixed use mountains (Maple Mtn, Tzouhalem and Stoney Hill).

And we need to remember that there are two ways to generate revenue from the forest - logging and carbon offsets.

This is this Council's legacy project, lets pull together and make it a success.

Thank you for your consideration and prompt attention to these matters.

Sincerely,

FIPPA s. 22(1)

16 year resident of the Cowichan Valley Sent from my iPad FIPPA s. 22(1)

From:		FIPPA s. 22(1)
Sent:	Thursday, August 12, 2021 10:59 AM	
То:	Council	
Cc:	ssidirector@crd.bc.ca;	FIPPA s. 22(1)
Subject:	Fwd: New Crofton Ferry Teminal Upgrad	e

FYI

Dear Mayor Siebring and Council,

Please Free the Crofton Residents from ferry traffic chaos, they deserve better. When talking to the Toll Booth operator the other day with one of our classic traffic nightmares, conveyed they've been talking about an upgrade for 10 years. FIPPA s. 22(1)

Upgrading the Ferry to the "Quinsam" and increasing service would provide instant relief. The situation has been allowed to deteriorate to this pathetic state for years on behalf of the Residents of Crofton and Salt Spring Island.

The chosen recipients in this traffic debacle, the nice but very vocal 4200 Residents of Gabriola Island. How else can you explain it? For the Spring of 2022 the undisputed Best Island Service, with not one but two New State of the Art Island Class Ferries.

We are waiting for Our Island Elected Officials to get involved and speak up for their Constituents on Salt Spring Island and work in tandem with you Mayor and your Council to get the job done!



PS: No reply from Mitchell Jacobsen or his Office at BC Ferries with regards to my letter dated 1 August, 2021.

GULF ISLANDS DRIFTWOOD www.gulfislandsdriftwood.com

OPINION

WEDNESDAY, AUGUST 11, 2021 | 7

# Crofton ferry terminal upgrade long overdue

The following was sent to Mitchell Jacobson, assistant manager of terminal development for BC Ferries, and filed with the Driftwood for publication.

#### BY DAVID COURTNEY

I believe from the BC Ferries website that the concept plan for a Crofton ferry terminal makeover should have been decided upon last summer.

Can you give us an idea which concept was chosen and when construction will begin? The website hasn't been updated since October 2019.

I travel this route a lot and have

sympathy for the long-suffering residents of Crofton, and especially those who live on Chaplin Street, the entrance to the Crofton ferry terminal, who deal with a parking lot in their front yards each and every day of the week.

For those on Salt Spring Island who are commercial business operators using the current Bowen Queen (circa 1965) vessel, respectfully this is nothing short of disappointing. The long-awaited Quinsam due to arrive next summer (pulled off the Nanaimo-Gabriola route) carries two more vehicles then the Bowen Queen. It shows in your concept details that the Quinsam is scheduled to be on route until 2030. Salt Spring Island with a population of 10,500 to 12,000 residents seems to be the final resting place for the oldest vessels in the BC Ferries fleet. (The Queen of Nanaimo, Howe Sound Queen, Quinitsa, Bowen Queen and now the pending Quinsam.) From our island these vessels leave for either the scrap yard or the Fiji Islands.

On the other hand I wish we had the same support of our elected officials as the island of Gabriola and the City of Nanaimo seem to have. Not one but two new Island Class ferries (47-car capacity) will be servicing a community of 4,200 residents next spring. With only one dock at either end, that means enhanced frequency. This is the kind of service that the residents of Salt Spring who depend on their connection to Vancouver Island for their livelihoods are extremely envious of.

I would like to politely request that the mayor and councillors of the Municipality of North Cowichan continue their campaign of BC Ferries on behalf of the residents of Crofton to make this terminal redevelopment concept a reality, with the express appreciation of Salt Spring residents who are the recipients in a major way as well.

would also like to thank the North Cowichan municipality for the newly paved Crofton Road. Most people appreciate the cost was significant but the safety and comfort the road now provides is truly appreciated by all.

With the current governance model on Salt Spring Island, these are the kind of road infrastructure improvements we can only dream about.

Hats off to the Municipality of North Cowichan, their elected officials and residents.

The writer is a Salt Spring Island resident.

## MORE LETTERS

# Wildfire assessment an unreasonable request

I'm sure that the author of last week's "Galiano is playing with fire" Viewpoint and "those living close to the Community Forest" would be very pleased with the Galiano Island Local Trust Committee if they requested the non-profit affordable housing society (composed entirely of volunteers) to undertake a wildfire hazard assessment, just like they wanted the LTC to get the Gulf Islands Galisle Affordable Rental Housing Society to do a wildlife assessment to study the sooty grouse, and were very pleased with the greywater cycling assessment request (which was Further human incursion into such an already uniquely dangerous landscape with the brutal evidence of climate change as we are experiencing this summer represents an unacceptable level of risk to a publicly funded project, its future residents, to the adjacent neighbourhood and possibly to the entire island.

This location, at this point with one completely undeveloped road in and out of the Community Forest and half a kilometre to the proposed housing site, which is four to seven kilometres from any services, is completely unsuitable. The off-site infrastructure costs alone will be extraordinarily high and it is unclear who will pay for the road. We would all pay for a wildfire, however.

JENNIFER MARGISON, GALIANO

# Lake level numbers matter

I am writing in regards to your front-page "Water restrictions hit extreme" story in last week's paper.

It states, "Data on the districts two water sources shared during



Campaign Team. Throughout my career at Lady Minto

RECEIVED AUG 1 2 2021 DISTRICT OF NORTH COWICHAN



**VOR 1K4** 

We specialize in consulting, marketing and developing Neighbourhood Zero Emission Vehicle projects. Our mandate is to collaborate with government, non-profits, private enterprise and individuals in promoting the adoption of clean energy for everyday living.

Municipality of North Cowichan 7030 Trans-Canada Hwy Duncan, BC V9L 6A1

Attention Mayor & Council,

#### RE: Neighbourhood Zero Emission Vehicle Bylaw

**My Story ...** In 2006 my company, Haberman Development Corp, was building Stone Gate Estates and I spotted a few of our residents driving golf carts between our Chemainus development and the Mount Brenton Golf Course. I proposed, using this route to establish an "electric vehicle corridor", but acquiring street legal vehicles, insurance & government approval was insurmountable, so the idea was shelved.

In the fall of 2017, I purchased a 2001 BC built Dynasty NZEV. With the help of Underground Electric we made the car roadworthy, plated & insured it. Car #110 was grandfathered in, as street legal, when Transport Canada pulled manufacturer approval.

FIPPA s. 22(1)

FIPPA s 22(1) September 24, 2017, FIPPA s 2017

Wow, what a difference from my Tesla Model S!

#### 2001 Dynasty #110

The **Dynasty IT** was a short-lived BC manufactured Neighbourhood Electric Vehicle. In 2008, Transport Canada pulled it from the Low Speed Vehicle approval list. This is one of the few remaining street legal cars left.







August 11, 2021



Today, the Vancouver Island communities of Oak Bay, Qualicum Beach, Esquimalt, Colwood, Ucluelet, Tofino and Campbell River have adopted NZEV bylaws.

The City of Richmond has a well written bylaw, that complies with Canadian Motor Vehicle laws. I recommend North Cowichan consider adopting this bylaw ...

#### **CITY OF RICHMOND**

#### TRAFFIC BYLAW

#### **BYLAW NO. 5870**

#### NEIGHBOURHOOD ZERO EMISSION VEHICLE

means a vehicle that travels on four wheels and is powered by an electric motor that is designed to allow the vehicle to attain a speed of 32 kilometers per hour but not more than 40 kilometers per hour in a distance of 1.6 km on a paved level surface, and

(a) meets or exceeds standards of the Motor Vehicle Safety Act (Canada) for a low-speed vehicle and bears a compliance label for a low speed vehicle in accordance with that Act, or

(b) if imported to Canada, has been imported as an admissible low-speed vehicle in accordance with the Motor Vehicle Safety Act (Canada) requirements, and (i) bears a compliance label for a low-speed vehicle in accordance with that Act, or (ii) meets applicable federal United States laws in accordance with the Motor Vehicle Safety Act (Canada).

**10.7** No person shall drive or operate a neighborhood zero emission vehicle on a street unless: (a) the street has a speed limit of 50 kilometers per hour or less; and (b) the person drives or operates the neighbourhood zero emission vehicle in the lane on the street closest to the right hand curb or shoulder, except to make a left hand turn or to pass another vehicle.

In Canada, NZEV legislation has been a non-starter with the exception of BC and Quebec. Most lawmakers still view these EVs as modified golf carts, like my other 2 cars ...

#### 2018 ACG

These US built vehicles come standard with a powerful AC drive system, computerized speed controller, on-board charging, independent front suspension with disc brakes plus a host of other standard and safety features.

This low mileage car meets BC NEV rules.



2015 Cadillac Escalade (NZEV) This rare California Compliance Car was offered by GM only through California dealerships. It was built to avoid substantial fines levied by the State of California for not offering a regular size EV. When GM presented the car, the State quickly disqualified NZEVs but gave American manufacturers a reprieve. Consequently, these cars were only built for 2 years. Their other option was to purchase Zero Emission Credits from Testa.



All but 3 US States have NZEV legislation. **Peachtree City, Georgia** has been a particularly successful in bringing these cars to their streets.

In 1974, Georgia passed legislation permitting golf carts to be operated on city streets and the economic impact has been overwhelming. Panasonic Automotive Systems is the cities' largest employer.

## Chemainus is particularly suited for NZEVs ...



**Peachtree City** is located in South Metro Atlanta. **Peachtree City** is noted for its extensive use of **golf carts**. Over 10,000 households in the **city** own **golf carts**, and most areas of the **city** can be reached via more than 90 miles (140 km) of **golf cart** paths.

Next Generation NZEVs are best described as "mini" sub-compact cars, complete with AC,

d hairde

Hang on tight no seat belts

heaters and all the convienieces of larger models BUT with a top speed of 40km/hr and a distance capability of around 50 km. Consequently, these cars have very attractive pricing.

**Neighbourhood Electric Vehicles** 





Arguably, my Dynasty was 20 years ahead of its time.

For more information visit my website.

## ev-island.ca



FOUR DOOR NEV \$13,950 MSRP









I've applied to North Cowichan for a **Home-based Business Licence** located at 8662 Trans-Canada Highway, Chemainus with the following signage for our fence.





I do hope North Cowichan will support my new business venture.

FIPPA s. 22(1)



Sincerely, Dave Haberman

FIPPA s. 22(1)

From:
Sent:
To:
Subject:

FIPPA s. 22(1) Saturday, August 14, 2021 2:25 PM Duncan Roundup-herbicide weed spraying

Dear Mayors and Councillors:

To my horror on Saturday Aug. 14 at 1:45 p.m I witnessed a haz-mask clad worker — who claimed to work for the city — spraying the controversially toxic herbicide Roundup (glyphosate) on sidewalk weeds near Duncan's Boundary and Ingram Road intersection.

If this poisonous chemical has already been banned for use inside Duncan and North Cowichan limits, why is it still being applied?

If Roundup has not been banned by our councils — for use on public and private property — please do that now before more of this hideously unnecessary chemical enters our bodies, soil, food, forests, plus ground- and surface water. Glyphosate, Roundup's active chemical, is sadly still made by Monsanto-Bayer.

In 2020, those multi-national chemical companies were paying more than \$10 billion to resolve global cancer lawsuits concerning their weedkiller Roundup, NPR reported.

Roundup is still unfortunately sold in our valley, including in the Home Depot store at Cowichan Commons.

Please act now to educate citizens about Roundup's eco-hazards, and ban this insidious chemical from use anywhere our community.

Yours in health and safety,



North Cowichan

From: Sent: To: Subject:

Saturday, August 14, 2021 12:56 PM Council Water usage FIPPA s. 22(1)

Dear North Cowichan Council,

With water at a premium (worldwide) is it possible for North Cowichan to do something to make residents think about water usage? For example, charge individual homeowners for all water used? At present there is a (large) allotment included with taxes. The up charge after the allotted use is not enough to make people think about usage (in my opinion).

I started on this "mission" because I live in a newer strata. I am not sure why water consumption is not metered per household but "we" (strata owners) were told the individual meters installed a few years ago were "stolen". I believe every strata (bare land particularly) should be individually metered. People think about water (and electrical) usage when they have to pay for it directly. Since this strata does not have individual meters and we are seeing properties being developed with GREEN GRASS LAWNS and SPRINKLER SYSTEMS. Ludicrous in this day and age! With so much property being developed around Kingsview and the Bell McKinnon corridor it would seem the perfect opportunity to institute a "pay for water usage" system. Perhaps even make lawns and sprinkler systems "illegal". Who knows it could put North Cowichan on the map for being "progressive". I called to enquire about consumption included in taxes and cost after allotment is consumed. I apologize in advance if you know these figures. Consumption included per household is 28,000 gallons every 4 months. Cost after that is \$2.25 per 1000 gallons up to 100,000 gallons. Since water shortage is a valid concern world wide I am hoping North Cowichan will try to make consumers think about usage. I am also hoping to have each homeowner in this strata install a meter so we are individually monitored. I don't want to pay my neighbors water costs...not for the lawn, sprinkler system, BnB next door or the pool down the street. With your help I may actually be able to accomplish this.

Kind regards,



FIPPA s	22(1)
Monday, August 16, 2021 2:05 PM	(')
Council; Rob Conway	
Sent with Thanks and Respect for your Public Service	Re9090TCH Proposal
	FIPPA s. Monday, August 16, 2021 2:05 PM Council; Rob Conway Sent with Thanks and Respect for your Public Service

Dear Mayor, Councillors and Planners, I trust you are all well, enjoying the cooler day. I thank you for your patience in reading my emails.

Please consider downzoning of this development from 108 homes to 12 x 2 acre lots or 24 x 1 acre lots. This would be

more in keeping with the OFFICIAL COMMUNITY PLAN. This would also satisfy most of the concerns of the 37 homeowners

along West Henry Rd., who are mostly in the ALR. This would not put such a burden on the water demands, already paramount with the Halalt nation. This would preserve much of the land needed for our birds and mammals in the area.

This would also nourish the Chemainus River with natural groundwater flows, rather than the blacktopping of 24 acres, destroying

wetlands and causing flood versus natural water entry into the Chemainus River. The tributaries are fish bearing. We have

personal experience with flooding and know it takes a long time to recover, personally and environmentally.

Please consider what you can all do to preserve our environment for today and tomorrow.

FIPPA s. 22(1) With many thanks for your consideration,

Henry Rd., Chemainus

FIPPA s. 22(1)

Please know the invitation to visit the site is still open.

From: Sent: To: Cc: Subject:

Tuesday, August 17, 2021 8:52 PM Terri Brennan Council Re: Incessant Pounding Noise from Properties

Terri, thanks for your reply.

I wish to expand further;

Based on how I feel about the developer's inappropriate activity in pounding rocks to create an engineered fill, what is next, can the developer pound excess rocks found in this development for creating engineered fill outside of the development; will the developer be within his rights to set up a portable sawmill and bring in logs to manufacture lumber for the construction of structures?

Is it appropriate that time of day and/or day of the week are the only limitations for noise for the duration of the development of a property. This allows the developer to choose any activity (and resulting noise) appropriate or not as long as it has some relation to the construction activity.

In this case, the incessant pounding (very similar to pile driving) is not typical of construction activity in this area and I believe never considered in the formulation of the noise bylaw.

There needs to be limitations.

On Aug 17, 2021, at 5:20 PM, Terri Brennan <terri.brennan@northcowichan.ca> wrote:

, I wish to confirm the receipt of your email, thank you for taking the time to write to us. Your email, along with this reply, will be shared with Council and senior staff members for their information.

Kind regards, Terri Brennan **Executive Assistant and Council Support** Office of the Mayor & CAO Municipality of North Cowichan terri.brennan@northcowichan.ca

T 250.746.3117 7030 Trans-Canada Highway Duncan, BC V9L 6A1 | Canada

www.northcowichan.ca

This email and any attachments are only for the use of the intended recipient and must not be distributed, disclosed, used or copied by or to anyone else. If you receive this in error please contact the sender by return email and delete all copies of this email and any attachments.

#### From:

#### Sent: August 17, 2021 4:15 PM

To: Terri Brennan <terri.brennan@northcowichan.ca> Subject: Fwd: Incessant Pounding Noise from Properties In Al's absence.

Begin forwarded message:

From:

FIPPA s. 22(1)

Date: August 17, 2021 at 4:13:02 PM PDT To: <u>al.siebring@northcowichan.ca</u> Subject: Incessant Pounding Noise from Properties

Al,

I have read the noise bylaw and I have patiently listened to the annoying repetition of pounding of rocks every day for over a month, waiting for it to end, but it does not.

This is ridiculous and borders on torture.

I feel this noise is an abuse of the bylaw as my observation is that they are breaking rock on site so it can be used for construction material. I am sure the spirit of the bylaw was to allow short term construction noise that is directly related to the building of roads and structures and NOT the preparation of material for the same use.

It is unacceptable to simply say this noise is permitted because it conforms to the noise bylaw. Council controls what the bylaw states.

When will it STOP??

FIPPA s. 22(1) Donnay Drive

2

August 11, 2021

Canada Community-Building Fund BC

Mayor Al Siebring District of North Cowichan 7030 Trans-Canada Highway Duncan, BC V9L 6A1 RECEIVED AUG 2 5 2021 DISTRICT OF NORTH COWICHAN

Dear AI Siebring:

#### RE: CANADA COMMUNITY-BUILDING FUND/GAS TAX FUND: COMMUNITY WORKS FUND TOP-UP PAYMENT AND UPDATED ELIGIBILITY GUIDELINES

I am pleased to advise that UBCM is in the process of distributing a top-up to your Community Works Fund (CWF) payment for fiscal 2021/2022. An electronic transfer of \$1,304,840.44 is expected to occur the week of August 16, 2021.

This additional one-time payment from UBCM for the CWF was approved for disbursement by the Government of Canada to supplement the fiscal 2021/2022 allocation which was delivered in July.

Also announced by the Government of Canada is the expansion of CWF investment categories to now include fire halls and fire station infrastructure.

CWF is made available to eligible local governments by the Government of Canada pursuant to the Administrative Agreement on the Federal Gas Tax Fund in British Columbia. Funding under the program may be directed to local priorities that fall within one of the eligible project categories.

Further details regarding use of CWF and project eligibility are outlined in your CWF Agreement and details on the Canada Community-Building Fund (Gas Tax Fund) can be found on our website at www.ubcm.ca.

For further information, please contact Canada Community-Building Fund Program Services by e-mail at ccbf@ubcm.ca or by phone at 250-356-5134.

Yours truly,

Brian Frenkel UBCM President

PC: Talitha Soldera, Chief Financial Officer

60-10551 Shellbridge Way, Richmond, BC V6X 2W9 t. 604.270.8226 I f. 604.270.9116 I ubcm.ca

525 Government Street, Victoria, BC V8V 0A8 t. 250.356.5133 I f. 250.356.5119 I ubcm.ca

From: Mark Moore	FIPPA s. 22(1)
Date: August 21, 2021 at 5:43:10 PM EDT	
To: Al Siebring < <u>mayor@northcowichan.ca</u> >	
Cc: Kim Ferris <kim.ferris@northcowichan.ca>,</kim.ferris@northcowichan.ca>	
	FIPPA s. 22(1)
Subject: Genoa Bay Waterworks and Business Licens	ses

Dear Mayor and Council,

We request that the Business License office of the Municipality consider the following, should they be approached by applicants for commercial licenses in the hamlet of Genoa Bay, if such business operation is dependent on the community water supply to operate.

Background information about the Genoa Bay Water Utility

The community water system is run by the Society, the Genoa Bay Waterworks, composed of 21 members and a volunteer board. The society was quickly formed when the former private sector operator abandoned the utility late in 2019. The infrastructure is <u>fragile</u>, being composed of a 20,000 gallon reservoir on land owned by Cowichan Tribes. The reservoir is fed by a wishbone system of perforated pipes which catch run-off water from Mount Tzouhalem. From there, the water flows to a pump house where it is further distributed to the residents through a series of underground asbestos cement and PVC piping installed beginning in the 1960's. Disinfection of the water consists of chlorination; but, we are obligated by VIHA to install UV treatment as soon as funds allow. We work closely with VIHA who understand that our only source of funds is from the water fees billed to the 21 residents. VIHA has an extensive list of requirements for system upgrades; but, is prepared to defer their demands until we have funds on hand to do the upgrades.

We also work closely with the Water Utilities Regulation Section, BC Ministry of Forests, Lands and Natural Resource Operations and Rural Development. This is the governing body who approves our Water Tariff document. Understanding our immediate need for system upgrades, they have waived their requirement for funding of the Replacement Reserve Trust Fund, normally required of water utilities. Under our Water Tariff, we are approved for 21 service connections for single family dwellings. There is no provision in the Tariff for commercial operations, and none for commercial rates. Each service connection is allowed 12,000 Imperial gallons per quarter, or 4,000 gallons per month. This is a maximum allowance and is of course dependent on adequacy of supply, an issue during dry periods which can start in May and end in October.

The last private operators of the system, did not maintain their lease payments to Cowichan Tribes. When the residents formed the Society the Tribes were not prepared to deal with private individuals and they were considering stopping the community's access to the water supply. With the assistance of the Municipality, the Tribes were prepared to deal 'government to government' and there is now a draft agreement being worked on between the Municipality and Cowichan Tribes whereby the Cowichan Tribe will supply water to the Municipality of North Cowichan for 22 homes. It does not include commercial ventures. Back lease payments are anticipated to be paid to the Tribes by the Municipality and the Municipality will recover the amounts from the residents. That is the architecture of the draft agreement in our opinion. Arrears of payments could be in the order of \$11,000.

#### **Current Circumstances/Operations**

Now in our second year of operations, the utility has run less than optimally; but water has been supplied to the 21 residents. We continue to be mindful of the fact that there is much infrastructure to be replaced over time.

One of the service connections opted not to join the society and not to use the community water service. Instead, they rely on their own well. This decision may have been driven by the fact that they operate a guest house.

Another of the service connections remain on the community water service; but, have also started to operate a guest house. And they have a large swimming pool left over from the days of the old Genoa Bay Lodge. It is between 70,000 and 80,000 gallons and they are no longer permitted to fill it from the community water system. This is per the new Water Tariff. In late May of this year, they drilled their own well. They continue to use the community system for their guests.

During the rain months, supply is never an issue. Drought conditions require special actions, however. From May to October we monitor the flow into the reservoir and compare this to the metered flow to the residents. The frequency of this monitoring is dependent on the severity of the drought. Presently we are metering the inflow weekly.

When the inflow reaches a predetermined low point, we post a water conservation sign and send notifications to each of our residents that we are on water restrictions, similar to other jurisdictions. Residents are generally very compliant in their reductions of water use. There are a couple of exceptions, who are less compliant, and we monitor them carefully.

The concern remains that this is an exceptionally dry year with the infamous 'heat dome' and an extended period without summer rain. We have statistics from last year; but, there is no guarantee that we will make it through this year before the fall rains. We are prepared to truck in water to replenish the reservoir. This will be a significant cost to the utility.

So, as you can see, the utility is at constant high risk of not being able to provide water to the core users during May to October. Commercial operations which are dependent on the community water supply to operate, exacerbate threats to the supply to the 21 residents.

The old Genoa Bay Lodge property is being offered for sale and a prospective purchaser inquired about the operation of the water utility as their plan is to operate yet another guest house if they complete the purchase. There is the possibility that another large home, suitable for a guest house operation, could soon go on the market. The Board of the Society is alarmed at these developments and have a request for the Business Licensing function of the municipality.

Should the Business Licensing office receive any applications for commercial operations that require access to the community water system in support of their business, we strongly recommend that licenses be withheld. We are available to answer any further questions and have detailed statistics as to the amount of our water supply and use to demonstrate our case.

Our community water system was never designed for and cannot support commercial operations dependent on the community water system for their function. Issuing business licenses to such

applicants will undeniably result in no water during drought conditions to those who make their homes in Genoa Bay.

Thank you for your consideration.

Mark Moore, Board Secretary Genoa Bay Waterworks Society



## Municipality of North Cowichan Regular Council MINUTES

#### August 18, 2021, 1:30 p.m. Electronically

Members Present	Councillor Rosalie Sawrie, Deputy Mayor Councillor Rob Douglas Councillor Christopher Justice Councillor Tek Manhas Councillor Kate Marsh
Members Absent	Mayor Al Siebring Councillor Debra Toporowski
Staff Present	Ted Swabey, Chief Administrative Officer (CAO) George Farkas, General Manager Talitha Soldera, Director, Financial Services Michelle Martineau, Corporate Officer Jason Birch, Chief Information Officer Shawn Cator, Director, Operations David Conway, Director, Engineering Projects Rob Conway, Director, Planning and Building Martin Drakeley, Manager, Fire and Bylaw Services Barb Floden, Manager, Communications and Public Engagement Marla Laycock, Acting Director, Human Resources and Corporate Planning Don Stewart, Director, Parks and Recreation Shaun Chadburn, Environmental Programs Coordinator Kim Ferris, Manager, Bylaw and Business Licensing Services Michele Gill, Manager, Development Chris Hutton, Community Planning Coordinator Tricia Mayea, Deputy Corporate Officer Shaun Mason, Municipal Forester Chris Osborne, Manager, Planning Dave Preikshot, Senior Environmental Specialist Anthony Price, Planning Technician

#### 1. CALL TO ORDER

There being a quorum present, Deputy Mayor Sawrie called the meeting to order at 1:31 p.m.

#### 2. APPROVAL OF CONSENT AGENDA

The following items were pulled from the Consent Agenda and added to New Business:

- 2.2.1 Emails in relation to the proposed development of 9090 Trans-Canada Highway
- 2.2.2 Emails in relation to the Bell McKinnon LAP and OCP growth scenario
- 2.2.3 Emails in relation to the removal of the cross on Mt. Tzouhalem
- 2.2.7 Email regarding speed tables approved for Indian Road

#### August 18, 2021 - Regular Council Minutes

- 2.2.11 Letter from City of Langley regarding resolution
- 2.2.13 Email regarding housing supply and affordability
- 2.2.16 Email regarding Wildfires
- 2.2.17 Email regarding flavoured vaping products

#### IT WAS MOVED AND SECONDED:

THAT the remaining items in the Consent Agenda be approved.

CARRIED

#### 2.1 Minutes

THAT the following minutes be received for information purposes only:

- 2.1.1 June 22, 2021 Environmental Advisory Committee
- 2.1.2 July 20, 2021 Environmental Advisory Committee
- 2.1.3 August 11, 2021 OCP Advisory Group meeting

ADOPTED ON CONSENT

#### 2.2 Correspondence

THAT the following correspondence is received for information purposes only:

- 2.2.4 Email regarding the benefits from forest carbon credits
- 2.2.5 Email regarding the Platinum Cannabis Store's application
- 2.2.6 Email regarding noise from the Vancouver Island Motorsport Circuit
- 2.2.8 Letter regarding the forestry sector
- 2.2.9 Email regarding Parrot's Feather invasion of Somenos Creek
- 2.2.10 Email regarding Rowing Canada's use of Quamichan Lake
- 2.2.12 Email regarding banning single-use plastics
- 2.2.14 Letter from Help Cities Lead Steering Committee
- 2.2.15 Email regarding speeding on Cairnsmore Street ADOPTED ON CONSENT

#### 3. APPROVAL OF REGULAR AGENDA

The items under the Closed Session were removed from the agenda.

IT WAS MOVED AND SECONDED: THAT the agenda be adopted as amended.

CARRIED

#### 4. ADOPTION OF MINUTES

#### 4.1 Minutes from the July 21, 2021 regular meeting for adoption

IT WAS MOVED AND SECONDED: THAT Council adopt the minutes of their regular meeting held July 21, 2021. CARRIED

#### 5. MAYOR'S REPORT

Acting Mayor Sawrie provided a verbal update on meetings and activities she recently attended.

#### 6. DELEGATIONS AND PRESENTATIONS

#### 6.1 Forestry Awareness

Stewart Muir, Executive Director, Resource Works provided a presentation to Council on "Forestry in BC: Setting the record straight" - an overview of the status of forest practices

and forest management in British Columbia.

#### 7. PUBLIC INPUT

Council received public input from one member of the public regarding consent agenda item 2.2.13.

#### 8. BYLAWS

# 8.1 South End Water Local Area Service Enlargement (7900 Mays Road) Bylaw No. 3840, 2021 for adoption

IT WAS MOVED AND SECONDED:

THAT Council adopt South End Water Local Area Service Enlargement (7900 Mays Road) Bylaw No. 3840, 2021. CARRIED

#### 8.2 Forest Use, Bylaw Offence Notice Enforcement, and Municipal Ticket Information Systems Bylaw Amendments for adoption

IT WAS MOVED AND SECONDED:

THAT Council adopt:

- (1) Forest Use Amendment Bylaw No. 3833, 2021;
- (2) Municipal Ticket Information System Amendment Bylaw No. 3834, 2021; and,
- (3) Bylaw Offence Notice Enforcement Amendment Bylaw No. 3835, 2021. CARRIED

#### 8.3 Fireworks Regulation Bylaw No. 3810, 2021 for adoption

IT WAS MOVED AND SECONDED:

THAT Council adopt Fireworks Regulation Bylaw No. 3810, 2021. CARRIED

# 8.4 Fees and Charges Amendment Bylaw (Telecommunications Statement of Concurrence Applications) No. 3839, 2021 for adoption

IT WAS MOVED AND SECONDED:

THAT Council adopt Fees and Charges Amendment Bylaw (Telecommunications Statement of Concurrence Applications) No. 3839, 2021. CARRIED

# 8.5 Zoning Amendment Bylaw (6353 Genoa Bay Road) No. 3847, 2021 for first and second readings

#### IT WAS MOVED AND SECONDED:

THAT Council give first and second reading to Zoning Amendment Bylaw No. 3847, 2021 to permit a second detached residential dwelling at 6353 Genoa Bay Road and a public hearing be scheduled for Bylaw No. 3847 in accordance with the *Local Government Act*. (OPPOSED: Douglas, Justice, Marsh) DEFEATED

#### 9. **REPORTS**

#### 9.1 REPORTS FOR DECISION

#### 9.1.1 Temporary Mobile Home Permit Application for 5840 Menzies Road

#### IT WAS MOVED AND SECONDED:

THAT Council authorize Temporary Mobile Home Permit No. TTP00081/3070-20 20.03 to be issued to Marianne Kinzel for the placement of a temporary mobile home at 5840 Menzies Road, as shown on the Site Plan attached as Schedule 1 to the Permit, for a term of one year, expiring on August 18, 2022. CARRIED

#### 9.1.2 Illegal Suites Enforcement

#### IT WAS MOVED AND SECONDED:

THAT Council direct staff to draft a policy regarding the enforcement of illegal suites and formalizing the approach thereof, substantially as set out in the Planning Manager's report dated August 18, 2021. CARRIED

#### 9.1.3 Resuming Public Engagement on the Future of the Municipal Forest Reserve

#### IT WAS MOVED AND SECONDED:

THAT Council direct staff to invite Lees & Associates to present an updated engagement plan and options for the future of the management Municipal Forest Reserve (MFR), which include amended timelines and associated costs for each option, prior to Council resuming the public engagement on the MFR.

CARRIED

#### 9.1.4 Forestry Review - Educational Resources

IT WAS MOVED AND SECONDED:

THAT Council direct Staff to:

- Create a section on the Municipality's Forestry Review and Engagement webpage that includes links to the recommended educational opportunities/resources for the public to access; and,
- (2) Organize a tour led by the Municipal Forester and promote it to members of the public utilizing all appropriate methods. CARRIED

Council, by unanimous consent, recessed at 3:12 p.m. and reconvened at 3:22 p.m.

#### 9.1.5 2021 Environmental Advisory Committee Workplan

IT WAS MOVED AND SECONDED: THAT Council:

- (1) Approve the Environmental Advisory Committee (EAC) 2021 Workplan, subject to the following items being removed from the Workplan and referred to the Cowichan Valley Regional District Airshed Roundtable:
  - a. C3.1 Woodstoves
  - b. C3.2 Backyard Burning
- (2) Direct staff to work with the EAC Chair to prioritize the items listed in Section A of the EAC Workplan for implementation in 2021. CARRIED

#### 9.1.6 Clean BC Better Homes – 2021 Program Update

IT WAS MOVED AND SECONDED:

THAT Council allocate an additional \$25,600 from the Climate Action and Energy Plan Reserve Fund towards the Clean BC Better Homes Renovation Program in 2021 and establish an annual allocation of up to \$40,000 for 2022 and 2023.

CARRIED

## 9.1.7 Use of Municipal Coat of Arms

IT WAS MOVED AND SECONDED:

THAT Council direct staff to retire the use of the Municipality of North Cowichan coat of arms and remove, when timely and where feasible, all instances where the coat of arms is currently in use. (Opposed: Manhas) CARRIED

9.2 **REPORTS FOR INFORMATION** 

## 9.2.1 Quarterly Community Safety Plan Update

Council reviewed the quarterly community safety plan updated.

## 9.2.2 Official Community Plan Project Update

Council had no questions regarding this report.

#### 10. NOTICES OF MOTIONS

None.

## 11. UNFINISHED AND POSTPONED BUSINESS

None.

#### 12. NEW BUSINESS

## 12.1 Regular Pumping Out of Septic Tanks to Support the Health of Water Bodies

IT WAS MOVED AND SECONDED: That the meeting be extended to 5:30 p.m.

CARRIED

IT WAS MOVED AND SECONDED:

That Council postpone consideration of Councillor Justice's notice of motion [Regular Pumping Out of Septic Tanks to Support the Health of Water Bodies] until staff prepare a letter to Island Health for the Mayors signature, outlining the concerns as identified in Councillor Justice's report and motion and report back to Council with their response once it's received.

# 12.2 Consent Agenda Item 2.2.1 [Emails in relation to the proposed development of 9090 Trans-Canada Highway]

IT WAS MOVED AND SECONDED:

THAT the motion "That the Municipality contact the Halalt Nation for their feedback regarding expanding the Chemainus water system for the proposed development at 9090 Trans-Canada Highway." be deferred to the next in-camera meeting.

12.3 Consent Agenda Item 2.2.2 [Emails received in relation to the Bell McKinnon Local Area Plan and OCP growth scenario]

This item was discussed.

12.4 Consent Agenda Item 2.2.3 [Emails received in relation to the removal of the cross on Mt. Tzouhalem]

This item was discussed.

12.5 Consent Agenda Item 2.2.7 [Email regarding speed tables approved for Indian Road]

This item was discussed.

- **12.6 Consent Agenda Item 2.2.11 [Letter from City of Langley regarding resolution]** This item was discussed.
- **12.7 Consent Agenda Item 2.2.13 [Email regarding housing supply and affordability]** This item was discussed.
- **12.8 Consent Agenda Item 2.2.16 [Email regarding Wildfires]** This item was not discussed
- **12.9 Consent Agenda Item 2.2.17 [Email regarding flavoured vaping]** This item was discussed.

#### 13. QUESTION PERIOD

Council received no questions from the public regarding agenda items.

#### 14. CLOSED SESSION

None.

#### 15. RISE AND REPORT

None.

#### 16. ADJOURNMENT

Council adjourned the meeting at 5:15 p.m.

Certified by Corporate Officer

Signed by Acting Mayor




## NORTH COWICHAN/DUNCAN DETACHMENT

# **QUARTERLY REPORT**

April through June 2021 Open Report

## NCD QUARTERLY REPORT

## April through June 2021 Open Report

This reporting period encompasses the second 3 month period of the calendar year 2021: April, May and June. The intent of this report is to provide a brief overview of policing to the Leadership of the Cowichan Valley to which the North Cowichan/Duncan RCMP Detachment serves.

Covid pandemic continued through the Quarter with easing of restrictions and opening of RCMP training. Depot Division re-opened with training of new Cadets, however on a much smaller scale. The Detachment Annual Performance Plan was put into effect and will be reported on further in the report. It is in line with National and Provincial RCMP strategies.

During this quarter, Covid restrictions have been easing which may have attributed to increases in some Police reporting areas. Covid related occurrences dropped significantly at the end of the quarter.

National Police Week took place May 9 - 15 and was themed "Working together to keep our communities safe". This year North Cowichan/Duncan officers volunteered to recognize the event by conducting patrols in Red Serge and Stetsons.





## **Calls For Service:**

During the 2nd Quarter of 2021, **5,353** calls for service were received. **4,486** calls for service in the same Quarter 2020.

This equates to a total file count increase of 19.3%

 Year to Date Comparison
 2021 - 10,111
 2020 - 10,021
 0.9% Increase

For the Quarter, we have again seen some decreases to several areas of Criminal Code Offences. Crimes Against Property down 5%; Crimes Against Property down 16%; Other Criminal Code down 24% and Controlled Drug and Substances Act files are down.

Some specific areas that we are seeing increases are:

- Sex Offences up 60%
- Shoplifting up 43%
- Motor Vehicle Collisions with injuries up 38%
- Mental Health related Files up 34% and Section 28 Mental Health Act Apprehensions up 48%

Please see the next page for breakdown of Offences and Occurrence Types for each jurisdiction.

							(									
	NCD	Jurisdiction 1	<b>Fotals</b>	Municipality of North Cowichan			City of Duncan			Cowichan Tribes			Cowichan	Valley Regio	nal District	I
Type of Offence & Occurrence	Apr to Jun, 2021	Apr to Jun, 2020	% Change over prev	Apr to Jun, 2021	Apr to Jun, 2020	% Change over prev	Apr to Jun, 2021	Apr to Jun, 2020	% Change over prev	Apr to Jun, 2021	Apr to Jun, 2020	% Change over prev	Apr to Jun, 2021	Apr to Jun, 2020	% Change over prev	
Crimes Against the Person	373	340	-5%	157	196	-20%	63	51	24%	59	/18	23%	35	37	-5%	
	187	175	7%	84	87	-3%	44	30	47%	38	33	15%	16	23	-30%	
Extortion	2	1	NC	1	1	0%	1	0	NC	0	0	NC	0	0	NC	
Harassment	30	49	-39%	20	40	-50%	1	4	-75%	2	0	N C	6	4	50%	
Homicide	0	1	N C	0	0	N C	0	0	NC	0	1	N C	0	0	NC	
Human Trafficking	1	0	N C	0	0	N C	0	0	NC	0	0	N C	0	0	N C	
Kidnapping	1	2	N.C.	1	0	N.C.	0	0	N.C.	0	1	N.C.	0	1	N.C.	
Robbery	4	4	0%	2	2	0%	0	2	-100%	2	0	N C	0	0	N C	
Sex Offences	32	20	60%	18	10	80%	3	2	50%	3	5	-40%	6	0	N.C.	
Utter Threats	65	87	-25%	30	56	-46%	14	13	8%	14	8	75%	7	8	-13%	
Weapons Offences	1	1	0%	1	0	N.C.	0	0	N.C.	0	1	-100%	0	0	N.C.	
	-	-	0,0	-							_	100/0				
Crimes Against Property	656	778	-16%	318	425	-25%	138	158	-13%	115	102	13%	80	89	-10%	
Arson	9	6	50%	4	3	33%	4	2	100%	1	0	N.C.	0	1	N.C.	
Auto theft	19	29	-34%	8	13	-38%	1	6	-83%	2	2	0%	8	8	0%	
B&E - Business	22	40	-45%	7	14	-50%	4	7	-43%	2	5	-60%	9	14	-36%	
B&E - Residential	23	19	21%	15	8	88%	7	4	75%	1	3	N.C.	0	4	-100%	
B&E - Other	13	19	-32%	4	13	-69%	5	2	150%	2	1	100%	2	3	-33%	
Frauds	61	52	17%	37	32	16%	10	12	-17%	6	5	20%	8	3	167%	
Mischief to Property	266	330	-19%	139	172	-19%	65	77	-16%	34	55	-38%	27	26	4%	
Possession of Stolen Property	9	35	-74%	3	27	-89%	4	5	-20%	0	1	N.C.	1	2	N.C.	
Shoplifting	57	40	43%	10	16	-38%	3	5	-40%	44	18	144%	0	1	-100%	
Theft from Vehicle	77	97	-21%	50	57	-12%	11	19	-42%	4	5	-20%	10	13	-23%	
All other thefts (combined)*	99	110	-10%	41	70	-41%	24	96	-75%	18	7	157%	15	14	7%	
*(Bike, Mail, Utilities, Other)																
Traffic Offences																
Non fatal crashed Resulting in injury	47	34	38%	22	17	29%	5	3	67%	7	7	0%	11	6	83%	
Fatal crashes	1	1	0%	1	0	N.C.	0	0	N.C.	0	1	N.C.	0	0	N.C.	
24 hr susp. *also present on impaired Op MV	40	26	54%	26	13	100%	6	5	20%	4	5	-20%	4	2	100%	
Impaired Op MV/IRP	85	119	-29%	48	59	-19%	8	17	-53%	16	21	-24%	13	21	-38%	
Other Criminal Code Offences &	276	361	-24%	99	177	-44%	100	93	8%	62	64	-3%	9	19	-53%	1
(*Cause a Disturbance, Bearch of Conditions, Co	unterfeit Curre	ency. Possess b	reak in Instrur	nents. Public N	lischief. Posse	ss Child Porn. I	ndecent Act. T	resspass, et al.	)							
CDSA Offences																
Drug Posession	122	181	-33%	45	101	-55%	50	61	-18%	18	10	80%	5	9	-44%	
Drug Trafficking	12	40	-70%	5	24	-79%	2	8	-75%	4	4	0%	0	4	-100%	
Drug Production	0	1	N.C.	0	1	N.C.	0	0	N.C.	0	0	N.C.	0	0	N.C.	
Mental Health																
Mental Health Related	464	346	34%	264	208	27%	95	56	70%	46	35	31%	41	38	8%	
Sec 28 Apprehensions	127	86	48%	59	50	18%	45	14	221%	20	11	82%	12	10	20%	
Sudden Deaths	34	30	13%	21	14	50%	4	3	33%	2	5	-60%	7	8	-13%	

### April to June 2021 – 3 Month Comparison (compared to same period in 2020)

			Jun	uui j to ou			mpuicu	to build p	ci iou in 2	020)						
	NCD	Jurisdiction	Totals	Municipality of North Cowichan			City of Duncan			Cowichan Tribes			Cowichan Valley Regional District			
Type of Offence & Occurrence	Jan to Jun, 2021	Jan to Jun, 2020	% Change over prev year	Jan to Jun, 2021	Jan to Jun, 2020	% Change over prev year	Jan to Jun, 2021	Jan to Jun, 2020	% Change over prev year	Jan to Jun, 2021	Jan to Jun, 2020	% Change over prev year	Jan to Jun, 2021	Jan to Jun, 2020	% Change over prev year	
Crimes Against the Person	602	674	-11%	279	369	-24%	120	115	4%	120	100	20%	67	179	-63%	
Assaults	346	357	-3%	156	179	-13%	76	69	10%	78	68	15%	30	37	-19%	
Extortion	4	2	N.C.	2	2	0%	1	0	N.C.	0	0	N.C.	1	0	N.C.	
Harassment	58	90	-36%	39	62	-37%	2	9	-78%	6	4	50%	10	11	-9%	
Homicide	1	0	N.C.	1	0	N.C.	0	0	N.C.	0	0	N.C.	0	0	N.C.	
Human Trafficking	1	2	-50%	0	2	N.C.	0	0	N.C.	0	0	N.C.	0	0	N.C.	
Kidnapping	3	4	-25%	3	1	200%	0	0	N.C.	0	1	N.C.	0	1	N.C.	
Robbery	7	10	-30%	3	3	0%	1	5	-80%	3	1	200%	0	1	N.C.	
Sex Offences	63	46	37%	29	23	26%	8	7	14%	6	7	-14%	12	3	300%	
Utter Threats	118	159	-26%	46	96	-52%	32	25	28%	26	17	53%	14	17	-18%	
Weapons Offences	2	3	-33%	1	1	0%	4	0	N.C.	1	2	-50%	0	0	N.C.	
Crimes Against Property	1284	1814	-29%	605	959	-37%	289	411	-30%	228	248	-8%	148	179	-17%	
Arson	19	34	-44%	7	17	-59%	7	11	-36%	3	2	50%	2	4	-50%	
Auto theft	36	56	-36%	17	32	-47%	5	7	-29%	3	4	-25%	11	12	-8%	
B&E - Business	53	107	-50%	27	42	-36%	10	30	-67%	3	8	-63%	13	27	-52%	
B&E - Residential	36	59	-39%	25	29	-14%	9	12	-25%	1	7	-86%	1	11	-91%	
B&E - Other	34	58	-41%	15	37	-59%	9	11	-18%	5	2	150%	5	8	-38%	
Frauds	123	133	-8%	73	73	0%	23	28	-18%	10	17	-41%	17	10	70%	
Mischief to Property	508	657	-23%	253	352	-28%	135	170	-21%	73	93	-22%	46	40	15%	
Possession of Stolen Property	34	74	-54%	12	52	-77%	11	14	-21%	2	1	100%	6	5	20%	
Shoplifting	115	148	-22%	17	52	-67%	10	11	-9%	88	82	7%	0	3	-100%	
Theft from Vehicle	134	238	-44%	73	124	-41%	26	63	-59%	9	16	-44%	19	31	-39%	
All other thefts (combined)*	190	249	-24%	86	194	-56%	44	54	-19%	30	16	88%	28	27	4%	
*(Bike, Mail, Utilities, Other)																
Traffic Offences																
Non fatal crashes Resulting in injury	83	79	5%	46	40	15%	13	12	8%	10	11	-9%	14	15	-7%	
Fatal crashes	3	1	NC	3	0	NC	0	0	NC	0	1	NC	0	0	NC	
24 hr susp_*also present on impaired On MV	63	52	21%	38	31	23%	10	9	11%	9	7	29%	6	4	50%	
Impaired Op MV/IRP	163	218	-25%	92	109	-16%	19	35	-46%	29	30	-3%	22	42	-48%	
Other Criminal Code Offences & Occurences*	470	678	-31%	182	331	-45%	160	176	-9%	103	118	-13%	15	34	-56%	
(*Cause a Disturbance, Bearch of Conditions, Co	unterfeit Curr	ency, Possess b	oreak in Instrur	nents, Public N	lischief, Posse	ss Child Porn, I	ndecent Act, T	resspass, et al.	)							
CDSA Offences		1														
Drug Posession	251	343	-27%	89	180	-51%	113	129	-12%	30	18	67%	9	13	-31%	
Drug Trafficking	23	72	-68%	9	43	-79%	6	17	-65%	5	5	0%	2	7	-71%	
Drug Production	0	1	N.C.	0	1	N.C.	0	0	N.C.	0	0	N.C.	0	0	N.C.	
Mental Health																
Mental Health Related	866	736	18%	483	422	14%	188	164	15%	82	64	28%	74	65	14%	
Sec 28 Apprehensions	274	171	60%	133	87	53%	80	44	82%	33	17	94%	21	20	5%	
Sudden Deaths	52	57	-9%	33	27	22%	6	9	-33%	4	7	-43%	9	14	-36%	

### January to June 2021 – YTD (compared to same period in 2020)

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From the below chart, we see some of the more commonly reported occurrences being up. Many of these occurrences can be attributed to the pandemic and personal well-being. These files are noted to have potential to draw significant Police resources.

OTHER OCCURRENCES (Jurisdiction totals)	Apr to Jun 2021 (count)	Apr to Jun 2020 (count)	% change				
911-FALSE/ABAND	73	70	4%				
BREACH OF PEACE	23	13	77%				
DANGEROUS OP MOTOR VEHICLE	3	12	-75%				
DRIVING COMPLAINTS	0	1	N.C.				
FALSE ALARMS	127	121	5%				
FIREARMS ACT	0	1	-100%				
IMPAIRED OP MOTOR VEHICLE	18	21	-14%				
INTELLIGENCE	1	0	N.C.				
MISSING PERSONS	81	69	17%				
MOTOR VEHICLE INCIDENTS	128	97	32%				
MUNICIPAL BYLAW	171	155	10%				
OTHER GO	694	632	10%		Apr to Jun	Apr to Jun	% change
OTHER TRAFFIC OFFENCES	457	395	16%	OTHER GO	2021 (count)	2020 (count)	∕₀ change
PROHIBITED DRIVING	6	22	-73%	ABANDONED VEHICLES	25	25	0%
SUSPICIOUS OCCURRENCES	402	207	94%	ANIMAL CALLS	44	29	52%
UNSPECIFIED ASSISTANCE	516	193	167%	CANCELLED FILES	168	148	14%
WEAPONS OFFENCES	20	16	25%	CHECK WELL-BEING	245	214	14%
Total	2720	2025	34%	CHECKSTOP PROGRAM/ROAD BLOCK	7	2	250%
				DEMONSTRATION/PROTESTS	4	1	300%
				HUMAN SOURCES	0	1	N.C.
				INSECURE PREMISES	1	3	-67%
				PEACE BONDS	1	0	N.C.
				PRISONERS HELD	3	3	0%
				PROPERTY FOUND-WEAPON	1	0	N.C
				PROPERTY-FOUND	83	81	2%
				PROPERTY-LOST	112	123	-9%

Note Weapons Offences differ from that of the Page 4/5 chart as above the weapons are not found to be used as a "Crime Against Person" offence.

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## **Covid 19 Related Occurrences:**

Of the Covid related occurrences, there were Six (6) charges with Fifteen (15) warnings issued. Fifteen (15) occurrences there was insufficient evidence to proceed with charges.

## Mental Health:

Mental Health files are defined as files with a UCR code under the Mental Health Act <u>OR</u> files that contained the study flag "Mental Health Related". Unfounded and unsubstantiated events were not included in these numbers. Sec 28 Apprehensions were up 48% for the quarter, 127 from 86.

For the Quarter, the average hospital wait time for Section 28 Mental Health Apprehensions from "Time of Arrival at Hospital" to "Time of Transfer from Police Custody to Hospital" was sixty-eight (68) minutes.



## **Distribution of Calls For Service:**

The chart below illustrates where our calls for service have come from within our Detachment area. We have a total of 62 RCMP Officers providing 24/7 Policing coverage. You can see below that from January 1<sup>st</sup> to June 30<sup>th</sup>, 2021, approximately **46%** of the calls we responded to were from within the Municipality of North Cowichan Policing jurisdiction. That **23%** came from the City of Duncan, **14%** came from the Cowichan Tribes/Indigenous Lands, **11%** came from the Provincial (CVRD) area and **6%** were reported directly to the Detachment (North Cowichan).



## **Quarters Top File's For Each Jurisdiction**

Entire NC/D Detachment Total							
Call Type	Count						
CHECK WELLBEING	456						
UNWANTED PERSON	397						
TRAFFIC INCIDENT	348						
ASSIST POLICE / FIRE / AMBULANCE	238						
PROPERTY	221						
ASSIST GENERAL PUBLIC	207						
DISTURBANCE	202						
IMPAIRED	194						
SUSPICIOUS PERSON	189						
SUSPICIOUS CIRCUMSTANCES	180						

Chemainus Top 10 CFS							
Call Type	Count						
TRAFFIC INCIDENT	39						
IMPAIRED	24						
CHECK WELLBEING	21						
ASSIST POLICE / FIRE / AMBULANCE	16						
ANIMAL	14						
DISTURBANCE	13						
THEFT	12						
PROPERTY	12						
FRAUD	11						
DOMESTIC IN PROGRESS	11						

City of Duncan Top 10 CFS							
Call Type	Count						
UNWANTED PERSON	174						
CHECK WELLBEING	109						
SUSPICIOUS PERSON	57						
TRAFFIC INCIDENT	48						
ASSIST POLICE / FIRE / AMBULANCE	45						
DISTURBANCE	45						
SUICIDAL PERSON	41						
SUSPICIOUS CIRCUMSTANCES	41						
ASSIST GENERAL PUBLIC	35						
DRUGS	33						

Muni North Cowichan Top 10 CFS									
Call Type	Count								
CHECK WELLBEING	214								
TRAFFIC INCIDENT	182								
UNWANTED PERSON	126								
ASSIST POLICE / FIRE / AMBULANCE	122								
DISTURBANCE	114								
IMPAIRED	99								
PROPERTY	98								
SUSPICIOUS CIRCUMSTANCES	93								
SUSPICIOUS PERSON	87								
DOMESTIC IN PROGRESS	86								

Crofton Top 10 CFS								
Call Type	Count							
TRAFFIC INCIDENT	20							
CHECK WELLBEING	15							
IMPAIRED	14							
ASSIST POLICE / FIRE / AMBULANCE	13							
THREATS	12							
PROPERTY	11							
DOMESTIC IN PROGRESS	10							
ASSIST GENERAL PUBLIC	9							
MISCHIEF	9							
SUSPICIOUS CIRCUMSTANCES	8							

Cowichan Tribes Top 10 CFS								
Call Type	Count							
CHECK WELLBEING	84							
UNWANTED PERSON	74							
THEFT IN PROGRESS	33							
DISTURBANCE	33							
DOMESTIC IN PROGRESS	31							
ASSIST POLICE / FIRE / AMBULANCE	29							
SUSPICIOUS PERSON	27							
THEFT	26							
TRAFFIC INCIDENT	25							
IMPAIRED	25							

CVRD Top 10 CFS							
Call Type	Count						
TRAFFIC INCIDENT	67						
IMPAIRED	47						
CHECK WELLBEING	39						
PROPERTY	30						
ASSIST POLICE / FIRE / AMBULANCE	25						
ASSIST GENERAL PUBLIC	23						
UNWANTED PERSON	22						
THEFT	21						
MISCHIEF	16						
SUSPICIOUS PERSON	16						
SUICIDAL PERSON	16						
THREATS	16						
ABANDONED 911	16						

## **Detachment Performance Plan Initiatives**

The North Cowichan/Duncan R.C.M.P. Detachment is guided by an Annual Performance Plan (APP) that addresses identified local policing priorities. These priorities are identified through consultation with elected officials, senior staff officers, the Cowichan Community Policing and Advisory Society, Town Hall meetings and other groups. It is in line with the RCMP's National and Provincial Policing Plan. As such, our 2021/22 plan is focused on the following local issues that were consistently identified as priorities throughout the valley:

- 1) Enhanced Public Safety
- 2) Accountability and Governance
- 3) Employee Excellent and Workplace Culture

## **Enhanced Public Safety**

There are a number of initiatives that the North Cowichan/Duncan Detachment will be completing in order to; Advance the safety and security of British Columbians; Increase trust with vulnerable populations; Employ a multi-faceted approach to public safety through collaboration with other community service agencies; Expand the use of technology to support operational policing

### The initiatives are:

- a. Restorative Justice Referrals
- b. Service Delivery to Vulnerable Groups
  - i. Chemainus/Crofton Patrols
  - ii. Open Community Policing Office in Chemainus
  - iii. Foot Patrols
  - iv. Face to Face Contacts with Youth
  - v. Bike Patrols

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vi. Liquor Control & Licencing Act Compliance

### c. Initiatives with Local Partners

- i. Situation Tables
- ii. Intercultural Society

### d. Public Health and Harm Reduction

- i. ICAT Files
- ii. Mental Health Initiatives
- iii. Crimes Against Persons Unit to Review 100% of Sexual Related Occurrences

### e. Prolific, Priority and Chronic Social Offender Management

- i. Property Crime Intell Bulletins from Criminal Analyst
- ii. Curfew Checks
- iii. Priority Offender Designations

### f. Downward Trend in Violence, Organized Crime and Gang Related Activities

- i. Substance Abuse Projects/Initiatives
- ii. Drug Posession/CDSA Compliance, Enforcement and Education Campaigns

### g. Road Safety

- i. Speeding, Distracted Driving and Impaired Driving Campaigns
- ii. Impaired Driving Enforcement
- iii. School Zone Patrols

### h. Reconciliation

- i. First Nations Policing Unit to Participate in Community/Youth Events
- ii. First Nations Policing Unit to Conduct Foot Patrols on Cowichan Tribes Land

## Accountability and Governance

The North Cowichan/Duncan Detachment will be set up the following initiatives in order to; Be accountable for our decisions and our actions to increase public trust; Balance the priorities of government, communities, and the BC RCMP; Consult with and implement processes and services that meet the needs of municipal, provincial, and Indigenous partners; Use data and business intelligence to manage our resources effectively, transparently, and accountably; Employ our human and financial resources in a transparent and accountable manner

The initiatives are:

- a. Consultations with local municipal/regional government
- b. Consultations with indigenous leaderships/communities

## **Employee Excellence and Workplace Culture**

The North Cowichan/Duncan Detachment will champion the following: Advance efforts to improve the inclusiveness of our organization through enhanced awareness and action on issues such as systemic racism, cultural competency and humility, discrimination, and harassment; Prioritize the health, wellness, and resiliency of our employees; Provide training and professional development to support our employees; Evolving our workforce strategies to be responsive to emerging challenges and needs. The Detachment will focus on the following:

- a. *Equity, Diversity and Inclusion* 
  - i. Attend training events in anti-racism, cultural competency/humility, leadership
- b. *Employee Wellness and Engagement* 
  - i. Establish a member continuous improvement committee
- c. Employee Training and Equipment
  - i. Ensure all members are current in mandatory training

## **April through June 2021 Quarter Results**

Increase use of restorative justice

	Measure	From	То	Date	Target StatusQuarter	Target Status Cumulative
1) #	Complete Restorative Justice Referrals	0	12	2021-04-08	9.00	9.00

### Service Delievery to Vulnerable Groups

		Measure	From	То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Chemainus/Crofton Patrols (hours spent proactively)	0	700	2022-03-31	468.25	468.25
2)	#	Open Community Policing Office in Chemainus	0	1	2022-03-31	1.00	1.00
3)	#	Foot Patrols	8000	9000	2022-03-31	2241.00	2241.00
4)	#	Face to Face contacts with youth	288	500	2022-03-31	1079.00	1079.00
5)	#	Bike Patrols	5	10	2022-03-31	1.00	1.00
6)	#	LCLA enforcement on Cowichan Tribes	48	50	2022-03-31	49.00	49.00

Bike patrols are not on target, due to collapsing the unit and no trained officers at this time.

### **Initiatives with Local Partners**

Measure			From	То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Situation Tables	0	12	2022-03-31	0.00	0.00
2)	#	Intercultural Society Meetings	0	4	2022-03-31	1.00	1.00

Situation Tables recently completed training and going live in July.

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### **Public Health and Harm Reduction**

Measure				То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	ICAT files	18	18	2022-03-31	5.00	5.00
2)	#	Mental Health Initiatives	120	120	2022-03-31	64.00	64.00
3)	%	CAP unit will review all sex assault investigations	100	100	2022-03-31	100.00	100.00

### Prolific, Priority and Chronic Social Offender Management

		Measure	From	То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Property Crime Intell Bulletins	60	60	2022-03-31	18.00	18.00
2)	#	Curfew Checks	365	450	2022-03-31	58.00	58.00
3)	#	Priority Offender Projects	10	12	2022-03-31	2.00	2.00

### Downward Trend in Violence, Organized Crime and Gang-related Activities

		Measure	From	То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Substance Abuse Projects/Initiatives	8	10	2022-03-31	3.00	3.00
2)	#	Drug possession/CDSA compliance and enforcement actions	104	150	2022-03-31	92.00	92.00

### Road Safety

Measure				То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Motor Vehicle Act Enforcement Action	960	960	2022-03-31	100.00	100.00
2)	#	Distracted Driving and Impaired Driving Campaigns	48	65	2022-03-31	9.00	9.00
3)	#	Impaired Driving Enforcement Action (IRP, 215, CC)	192	200	2022-03-31	67.00	67.00
4)	#	School Zone Safety Patrols	0	1000	2022-03-31	896.00	896.00

#### Reconcilliation

Measure				То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	FNCP Participation at Youth/Community Events	20	12	2022-03-31	5.00	5.00
2)	#	FNCP Foot Patrols on Cowichan Tribes Lands	800	600	2022-03-31	184.00	184.00

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### Accountability and Governance

		Measure	From	То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Consult With Local, Municipal, Regional Government	0	4	2022-03-31	9.00	9.00
2)	#	Consultations with Indigenous Leadership/Council	12	12	2022-03-31	6.00	6.00
	Exc	cellence and Workplace Culture					
		Measure	From	То	Date	Target StatusQuarter	Target Status Cumulative
1)	#	Equity, Diversity and Inclusion training/events	0	3	2022-03-31	2.00	2.00
2)	%	Employee Wellness and Engagement - CIC	0	1	2022-03-30	1.00	1.00
3)	%	Ensure members are current in mandatory training	0	100	2022-03-31	0.00	0.00

Despite having additional duties including deployment of resources to Fairy Creek for the injunction, the detachment did quite well in support of the Detachment APP. With Covid restrictions easing, we are seeing a rise in occurrences with additional travel and frequenting of the area.

In keeping with the Prime Minister's commitment from June 2020 and as part of a broader strategy to enhance transparency, trust and confidence, the RCMP will be rolling out body worn cameras (BWC) in 2021/22. To meet this requirement, the RCMP is equipping all RCMP officers who have operational interactions with the public with a body worn camera while on duty. This will include RCMP officers in both Contract and Federal Policing postions. BWC are intended to capture an accurate unbiased and reliable audio/video account of incidents involving uniformed police. The aim of the BWC is to increase transparency and accountability for both police and public and to strengthen trust.

## Traffic External Support:

We enjoy the support of two Provincial Traffic units who work across the southern part of Vancouver Island; B.C. Highway Patrol - Chemainus, as well as, the Nanaimo Integrated Road Safety Unit (IRSU). Their enforcement and assistance is something we receive at no additional policing cost.

North Cowichan/Duncan Detachment Quarterly Traffic Statistics 2nd Quarter 2021											
	Municipality of North Cowichan	City of Duncan	Other Areas	Total Detachment Area	Year to Date Detachment						
24 hour Suspension by Alcohol	4	0	1	5	10						
24 hour Suspension by Drug	21	6	8	35	53						
Immediate Roadside Prohibition	14	0	12	26	40						
Criminal Code Impaired by Drug	1	0	0	1	5						
Criminal Code Impaired by Alcohol/ Refusal	0	0	1	1	4						
Prohibited Drivers (Prov & CC)	7	0	3	10	30						
Vehicle Impounds	32	4	20	56	103						
Violation Tickets	29	5	20	54	146						
Written Warnings	17	9	20	46	118						

## Human Resources Status Report:

Established regular R.C.M.P. Officer Total: **62** 

- 32 Municipality of North Cowichan- 26 Provincial- 4 First Nation's Community Policing

### **Incoming Members:**

Constable Jeffrey Pratt from Depot

## **Departing Members:**

Corporal Jean Gelderblom to Nanaimo Detachment Constable Genifer Thiessen to Sidney/North Saanich Detachment Constable Caitlyn Specht to New Hazleton Detachment

## **Prisoner Statistics:**

Reflected in the chart below is the breakdown of prisoners incarcerated from the various Detachment areas for the quarter:

	North Cowichan/Duncan Detachment Prisoner Statistics 2nd Quarter												
	2021 2020												
	Municipal	Provincial	Duncan	Qrter Total		Municipal	Provincial	Duncan	Total				
April	42	29	32	103	April	37	37	29	103				
May	37	50	26	113	May	41	35	16	92				
June	28	45	29	102	June	39	50	19	108				
Quarter Total	107	124	87	318	Quarter Total	117	122	64	303				
Year to Date Total	197	211	152	560	Year to Date Total	267	213	164	644				

Prisoner counts are down again from 2020.

## **Cowichan Valley Regional Victim Services:**

Victim Services in the North Cowichan/Duncan Detachment responds to critical incidents/crisis intervention call outs from police on a 24 hour, 7 day a week basis. Victim Services provide initial defusing, stabilization and act as a liaison between victims and emergency personnel, providing an invaluable service to the public and police alike.

Cowichan Valley Regional Victim Services 2nd Quarter 2021										
	April	Мау	June	Quarter Total	Year to Date Total					
New Clients	81	87	85	253	466					
Females	65	68	73	206	373					
Males	16	19	12	47	93					
Calls For Service at scene	6	17	8	31	52					
Referrals By Area										
North Cowichan	55	56	61	172	275					
Duncan	10	8	12	30	80					
Cowichan Tribes/FNP	10	7	4	21	54					
Provincial Areas	6	16	8	30	57					
Total	81	87	85	253	466					
Brief Service Files	3	3	4	10	13					

## **Cowichan Community Policing & Engagement Society**

### Social Media:

- Block Watch information
- I.C.B.C. Program Launch
- Fire Safety and Awareness
- Senior Safety
- Frauds/Scams
- Crime Prevention

## Cowichan Bay CPO:

- Working with previous society on Building Transfer to be completed by end of July 2021
- Office in Cowichan Open part time right now. Lots of activity and drop-ins
- Actively recruiting more volunteers staffed by Office Coordinator
- New Block Watch starting in Cowichan Bay awaiting Clearance
- Updating all brochures for the office

## Duncan CPO Update:

- Society Officially registered Cowichan Community Policing & Engagement Society
- Directors Appointed:
  - Vice-President, Laurie Bruce

Brenda-Lee Stevenson, Secretary

- Denise McCarthy, Block Watch
- Karen Davis-Leigh, Youth
- Patricia Ballantyne Director/Treasurer

Things are definitely moving ahead in establishing a Board of Directors for NC/Duncan CPO, with our Directors still supporting a one year transition.

- Black CAT Speed Monitoring Device Training to be completed with Speed Watch Volunteers
- 2628 Beverly St Unit #5 Office Lease finalization being completed
- Annual Block Watch Captain/Co-Captain Meeting this Fall (Aug/Sept)
- Awaiting finalization on mappings on Block Talk application
- Numerous Visible House # Signs ordered for NC/Duncan
- New Friendly Phones Client for Maple Bay
- Meeting on Situation Tables with Cpl Kim Granneman and completing training
- Attending Zoom Meeting for Cowichan Community Action Team
- Actively recruiting Speed Watch Director & Speed Watch Volunteers
- NC/Duncan Website is currently being updated
- NC/Duncan Speed Watch calendar is complete for NC/Duncan booking of deployments Training to be completed next week.
- Volunteer Appreciation gathering plan for September for NC/Duncan

## Media Summaries & Files of Interest

### File 2021-10096

### Street Drugs Valued at \$13,980 Seized Along With \$1600 Cash

A Campbell River woman was caught with nearly \$14,000 worth of drugs as well as cash and stolen items after police responded to a shoplifting complaint at the Duncan Mall in June.

North Cowichan/Duncan RCMP officers were called to a business at the mall on June 1, after staff suspected a woman of shoplifting. As the officers escorted her out of the business, alarms at the door sounded, and the woman was arrested and searched. She was found to be in possession of several stolen items, illicit street drugs with a combined value of \$13,980 and \$1,600 cash. She also had four outstanding warrants for her arrest.

The investigation is ongoing, but the 32-year-old Campbell River woman could be facing charges of drug trafficking and possession of stolen property.

"This is an example of the drug trade and its link to stolen property in our community," Staff Sgt. Chris Swain said. "We really must commend the investigators for their excellent work regarding this file. It shows how something as small as a shoplifting file can lead to something much more severe in every day police work. It also shows that when the community takes part and reports suspicious or odd activities, it enables police to be active in dealing with problem locales. So really the staff at this business deserves credit for this success as well."

## Emergency Response Team and negotiators used at residence on Cowichan Lake Road North Cowichan\Duncan

2021-04-15 13:39 PDT

File # 2021-4135

On April 14th the North Cowichan / Duncan RCMP were contacted by a Duncan resident who had concerns for the safety of a friend, after going there to deliver some food. While there the friend noticed some unnerving behaviour from the friend who said they were not OK when asked, and their adult son began yelling for them to leave.

North Cowichan / Duncan front line members went to the residence on Cowichan Lake Road shortly after 4p.m. and attempted to make contact with the residents inside it. Through their interaction they confirmed there were two people in the house, however they were not able to enter the residence to check on the occupants.

The members made a decision to back away from the house to not rile the agitated man any more said North Cowichan RCMP Detachment commander Inspector Chris Bear. For the safety of all of those in the nearby area Cowichan Lake Road was blocked, and some nearby residents in an apartment were evacuated. The negotiators worked for almost three and a half hour to have the man exit the house on his own without success

Just before 8p.m. entry was made into the residence in order to ensure the safety of all of the residents. After a brief struggle with police, the man was apprehended. The man was later taken to a nearby hospital for treatment and a full medical evaluation. The homeowner was also in need of medical assistance, but suffered no injuries from this incident.

The complainant did the absolute proper thing in calling the RCMP in this situation said Vancouver Island RCMP spokesperson Corporal Chris Manseau Their decision to immediately call police allowed two people in need of immediate medical attention to get necessary treatment

Investigators continued to remain at the scene for some time after the incident. During their search an unloaded firearm and several knives were located and seized.

The North Cowichan / Duncan RCMP want to thank the community for their patience whilst being displaced temporarily, and those travellers who were diverted from their usual routes.

### Duncan school, neighbourhood evacuated after resident finds explosives: RCMP

A Duncan middle school and nearby homes were evacuated Friday afternoon (May 14<sup>th</sup>) after a resident discovered explosives while they were out gardening.

RCMP said that an explosive disposal unit was on its way to the 3000-block of Auchinachie Road where the explosives were found around 12:40 p.m.

As a precaution, police have evacuated Mt. Prevost Middle School and nearby homes as the investigation is underway.

Students and staff at Mt. Prevost Middle School gathered at the Somenos soccer fields at Evans Park while the school cancelled the remainder of the day's classes. By 2 p.m., all students had been picked up by parents, according to the Cowichan Valley School District.

"Specialized members of the Explosive Disposal Unit are en route to examine, and make a determination on how to proceed as safely as possible," said BC RCMP spokesperson Cpl. Chris Manseau in a release Friday.

"We're currently in the preliminary stages of the investigation, but these explosives appear to have been historically stored where they were found, but that is still to be determined," he said.

RCMP say that when the resident found the explosives, they called 911 immediately. Mounties add that the item discovered had the word "explosives" labelled on the outside.

Police ask that commuters avoid driving near the intersection of Sherman Road and Auchinachie Road. Mounties estimate that the investigation will take several hours to complete, and are thanking displaced residents for their patience.

### **Community Policing is returning to the Cowichan Valley!**

## **North Cowichan\Duncan, Community Policing Services, Volunteer Program** 2021-06-11 13:18 PDT

This spring North Cowichan/Duncan Community Policing has undergone some exciting changes! The programs and volunteers are now managed by Sarah Davidge with **Cowichan Community Policing & Engagement Society** and she has been working hard, hiring new coordinators (we will introduce them to you soon!) for North Cowichan (Chemainus, Crofton and Maple Bay), Duncan and Cowichan Bay. Sarah is also getting valuable and impactful programs up and running again, such as: Speed Watch , Crime Watch and Block Watch, just to list a few. They have amazing opportunities for you to volunteer for these programs and many more. If you are community minded, wish to contribute to positive meaningful community changes and experience the comradery experienced by being part of this volunteer team, perhaps they are the right place for you.

Sarah said, I love this community, because people step up and volunteer to make a difference.

All training related to the Speed Watch, Crime Watch and Block Watch programs is provided. To volunteer you will need a criminal record check, a clean driving abstract and be a minimum of 19 years old. The Society requests a commitment of a minimum of 2 hours, twice a month (you pick the hours

you volunteer!), plus 1 hour for the monthly meetings. We are looking for people from all walks of life; professionals in the community(s), business people, university students, retired community members and yes...retired police officers.

Please check out the South Cowichan Community Policing website for more information <u>southcowichancommunitypolicing.ca</u>/and reach out to Sarah if you feel this might be a good fit for you.

The North Cowichan Community Policing website is coming soon!

## Frontline officers respond to a weapon complaint in Crofton bc.rcmp.ca/newsroom

2021-07-12 08:37 PDT

File # 2021-10720 Handgun turns out to be a BB Gun

On July 9th, 2021 at 7:43 pm the North Cowichan/Duncan frontline officers responded to a report of a male with a handgun in the 1000 block of Joan Avenue, Crofton. Upon locating the male, the officers safely took him into custody and located the handgun, which turned out to be a Glock replica BB Gun. Charges are not being pursued at this time.

When dealing with weapons calls our officers are trained to approach these situations ensuring their safety as well as the safety of the public. Handling replica weapons in public places is not recommended as the public and police may mistake the replica for a real gun.

### The launch of the Cowichan Valley Integrated Response Team (CVIRT) North Cowichan\Duncan

### 2021-07-16 09:13 PDT

On July 14th, 2021 The North Cowichan/Duncan Situation Table launched its first live meeting with front-line service providers to enhance their ability to collaboratively respond to community safety challenges, clients and families that are at risk of harm or victimization. There are over 10 Situation Tables in BC, with work underway to develop more tables in the province. North Cowichan/Duncan was the first table to complete the online self paced training and successfully launch in BC.

The Situation Table has been re-named Cowichan Valley Integrated Response Team (CVIRT) and will meet weekly with representatives from health, public safety and social service agencies. They proactively accept referrals and identify vulnerable individuals or families who have significant probability of criminal offending, experiencing harm or victimization or living at an acutely elevated risk. An individual or family living at an acutely elevated risk will often struggle with addictions, basic needs, crime victimization, criminal involvement, drugs, emotional violence, housing issues, missing, school truancy, anti-social behaviour, public safety risk, suicide, poverty, unemployment etc. The goal of the team is to review referrals and if accepted, an intervention team is formed to provide better, faster access to services in the community.

The City of Duncan and Municipality of North Cowichan have been strong supporters in this initiative along with the North Cowichan/Duncan RCMP detachment leading the way. Cpl. Kim Granneman, Unit Commander in charge of the Crimes Against Persons Unit has completed most of the leg work and will continue to support the Table on a weekly basis. Cpl. Granneman adds that, Without local government support, the funding would not have been granted to our community, we want to

intervene quickly and assist those who are wanting and willing to accept help. Without the strong collaborative approach of the team and partnerships formed with Cowichan Tribes and local community agencies, this table would not have been created. I sincerely hope the community takes advantage of this initiative and accepts the assistance of those who can provide it."

Funding was provided by the Ministry of Public Safety and Solicitor General's Office of Crime Reduction and Gang Outreach.

## SITUATION TABLES

A MODEL FOR COMMUNITY SAFETY AND WELL-BEING (CSWB) IN BRITISH COLUMBIA

#### What is a Situation Table?

- · The Situation Table is a risk-based, collaborative, rapid triage model
- · It focuses upstream to connect individuals/families facing situations of acutely elevated levels of risk (AER) - as seen across multiple agency lenses - to the services they need, immediately
- It is neither a new entity nor a formally structured organization. Rather, it is a carefully disciplined conversation, and a new tool for human service professionals as they perform their existing roles
- The Table is guided by the Four Filter Approach, which is a structured process designed in consultation with privacy officials in multiple jurisdictions
- The only data it records is risk-based data to track risk factors in the community, and the agencies involved

### How Does it Work?

- Front-Line Human Service and Justice professionals come together once a week for 90 minutes to address situations of AER in a collaborative setting - while using the Four Filter Approach to properly and safely navigate privacy implications - in order to identify which agencies need to be involved in a supportive intervention
- · The group of agencies determined to have a role will ultimately mobilize immediate (ideally within 24-48 hrs) and multi-agency supports, leading to a connection to all essential services required to mitigate the evident AER factors and ensure improved pathways to care and support
- Following the intervention, the ongoing work is carried on by the agencies involved, in a typical collaborative care manner, but away from the Table



Ministry of Public Safety and Solicitor General

#### What are the Benefits?

- · Offers a new way for Human Service and Justice professionals to improve service delivery, reduce barriers, and connect individuals to the services they need
- Uses a multi-lens cross-sector approach to viewing risk factors and their cumulative impacts
- Risk-driven as opposed to incident-driven, allowing the Table to focus upstream and provide an opportunity to address situations of AER before incidents occur
- Takes collaboration to a new level, building increased trust and strengthening inter-agency relationships
- Risk-based data can help inform local decision making and policy development related to community safety and well-being
- · Mobilizes the system in a new way



### Understanding AER

Acutely Elevated Risk (AER) refers to situations where Individuals and/or families are facing a composite level of risks factors, spanning across multiple human service and justice disciplines, and where there is a high probability of harm occurring soon.

The Four Filter Approach is essentially the triage process that the Table participants follow in order to determine if AER is present, and if so, move to the Intervention.

For more information please contact the Office of Crime Reduction and Gang Outreach at ocrgo@gov.bc.ca

into the Filter Four intervention (away from the Table) by the designated agencies.

In May, North Cowichan/Duncan RCMP teamed up with ICBC, North Cowichan Fire and Bylaw and Cowichan Secondary School in impressing upon students the importance of making positive choices with motor vehicles. A mock crash was set up and included a virtual presentation by Kevin Brooks. Brooks presented to students about his message of safety, sober driving and choices which lead to a horrible crash leaving him paralyzed and the passing of his friend. There was a display of mock crash scene and demonstration by the Fire Dept.





Detachment personnel took part in recognizing National Indigenous Peoples Day on June 21<sup>st</sup> by wearing orange shirts. We are proud to recognize the unceded traditional territory of the Coast Salish people.



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**Respectfully submitted**,

**Inspector Chris Bear** 

**OIC North Cowichan/Duncan Detachment** 

## North Cowichan/Duncan RCMP 2021/2022 Detachment Annual Performance Plan

### 1. Enhanced Public Safety (EPS)

- a. Restorative Justice (Ops Sup NCO)
  - i. 12 RJ referrals per year
- b. Service Delivery to Vulnerable Groups (Ops Sup NCO)
  - i. Chemainus/Crofton patrol time 700 hours/yr
  - ii. Open community policing officer in Chemainus
  - iii. Foot patrols 9000/yr
  - iv. Face to Face contacts with Youth 500/yr
  - v. Bike Patrols 10/yr and obtain training for 2 mbrs
  - vi. LCLA enforcement at Cowichan Tribes 50 Compliance/Enforcement/Education Actions/yr (FNCP NCO)
- c. Initiatives with Local Partners (CAPU NCO)
  - i. Situation Tables 12 meetings/yr
  - ii. Intercultural Society 4 designated liaison members from GD. Total of 6 meetings/yr
- d. Public Health and Harm Reduction (CAPU NCO)
  - i. ICAT Files 18 cases/yr
  - ii. Mental Health Initiatives (CAR60/Island Health Consultations) 120/yr
  - iii. CAPU to review all sex assault files for compliance 100% of files
- e. Prolific, Priority and Chronic Social Offender Management (SCU NCO)
  - i. Property Crime Intel Bulletins from Criminal Analyst 60/yr
    - ii. Curfew Checks 450/yr
    - iii. Priority Offenders 12/yr
- f. Downward trend in violence organized crime and gang-related activities (SCU NCO)
  - i. Substance abuse projects/initiatives 10 projects
  - ii. Drug possession/CDSA Compliance/Enforcement/Education Actions 150 files/yr
- g. Road Safety (Ops NCO)
  - i. Speeding, Distracted driving or Impaired driving campaigns 65 proactive files/yr
  - ii. Impaired driving enforcement (215, IRP) 200 files/yr
  - iii. School Zone patrols 1000/yr
- h. Reconciliation (FNCP NCO)
  - i. FNCP unit to participate in community/youth events attend 12 events/yr
  - ii. FNCP to conduct foot patrols on Cowichan Land 600 foot patrols/yr

### 2. Accountability and Governance (AG) – (FNCP NCO)

- a. Consultations with local municipal/regional government
  - i. OIC and SMT to meet regularly with groups updates in quarterly reports
- b. Consultations with indigenous leaderships/communities
  - i. ED78 to be completed monthly by FNCP NCO
  - ii. FNCP NCO will attend 12 meetings/yr with Cowichan Tribes

### 3. Employee Excellence and Workplace Culture (EEWC) – (initiative owner TBD)

- a. Equity, Diversity and Inclusion
  - i. Attend 3 training events in anti-racism, cultural competency/humility, leadership
- b. Employee Wellness and Engagement
  - i. Establish a member continuous improvement committee meet quarterly
- c. Employee Training and Equipment
  - i. Ensure all members are current in mandatory training

### North Cowichan/Duncan RCMP 2020-2021 Annual Performance Plan Summary April 1<sup>st</sup>, 2020 through March 31<sup>st</sup>, 2021

### Summary And Progress

Objectives

#### 1) Ensuring the Community Trusts Police and Understand the Work They Complete

Owner:

(Issue: Police / Community Relations/Visibility of police)

		Measure	From	То	Date	Target Status- Quarter	Target Status Cumulative
1)	#	Foot Patrols per Year	0	8000	2021-03-31	2089.00	12578.00
2)	#	Face to Face Youth Contact	0	288	2021-03-31	743.00	2492.00
3)	#	Media & Social Releases	0	104	2021-03-31	36.00	166.00
4)	#	Bike Patrols	0	360	2021-03-31	0.00	5.00

### 2) Crime Reduction - Prevent and Reduce crimes against persons

(Issue: Violence/Domestic violence)

Measure				То	Date	Target Status- Quarter	Target Status Cumulative
1)	#	Integrated Case Assessment Team Files (ICAT)	0	18	2021-03-31	9.00	20.00
2)	#	Operational Mental Health Initiatives	0	120	2021-03-31	65.00	183.00
3)	%	Crimes Against Persons Unit Review of Sex Assault Invest	0	100	2021-03-31	0.00	100.00
4)	#	Priority Mental Health Clients	0	12	2021-03-31	6.00	17.00

#### 3) Crime Reduction - Reduce substances abuse

(Issue: Substance AbuseDrug)

Measure			From	То	Date	Target Status- Quarter	Target Status Cumulative
1)	#	Substance Abuse Projects/Initiatives	0	18	2021-03-31	4.00	9.00
2)	#	Drug Possession/CDSA RTCC Submissions	0	104	2021-03-31	75.00	220.00
3)	#	Search and Seizure Training Presentations	0	4	2021-03-31	2.00	4.00

#### 4) Crime Reduction - Prevent and Reduce property crimes

(Issue: PropertyTheft)

Measure			From	То	Date	Target Status- Quarter	Target Status Cumulative
1)	#	Property Crime Intell Bulletins	0	60	2021-03-31	16.00	67.00
2)	#	Curfew Checks	0	365	2021-03-31	119.00	780.00
3)	#	Priority Offenders	0	10	2021-03-31	2.00	14.00 1 <b>63</b>

Owner:

Owner:

Owner:

### 5) Enhance Road Safety - Impaired Operations (Drugs and Alcohol)

### Owner:

(Issue: TrafficSpeeding)

Measure		From	То	Date	Target Status- Quarter	Target Status Cumulative	
1)	#	Motor Vehicle Violation Tickets	0	960	2021-03-31	142.00	1008.00
2)	#	Distracted and Impaired Driving Projects	0	48	2021-03-31	11.00	85.00
3)	#	Impaired Driving/215's/IRP's	0	192	2021-03-31	46.00	269.00
4)	#	Black Cat Device Deployments	0	6	2021-03-31	9.00	11.00

#### 6) Enhancing Indigenous Relations, Cultural Awareness and Crime Reduction

Owner:

Measure			From	То	Date	Target Status- Quarter	Target Status Cumulative
1)	#	Attendance at Cowichan Tribes Events	0	20	2021-03-31	6.00	22.00
2)	#	Cultural Awareness Events	0	10	2021-03-31	5.00	13.00
3)	#	LCLA Enforcement/Proactive Files	0	48	2021-03-31	5.00	31.00
4)	#	Indigenous Lands Foot Patrols	0	800	2021-03-31	271.00	1318.00

### 7) Contribute to employee wellness & respectful workplace

Owner:

(Issue: Employee Mental Wellness)

		Measure	From	То	Date	Target Status- Quarter	Target Status Cumulative
1)	#	Fitness Challenges for Employees	0	2	2021-03-31	0.00	1.00
2)	#	Psychologist Presentations to Employees	0	5	2021-03-31	0.00	8.00
3)	%	Members Provided with One Hour Exercise Per Week	0	1	2021-03-31	0.00	100.00

## Report



Date	August 18, 2021	File: 3360-20 20.24
То	Council	
From	Anthony Price, Development Planner	Endorsed:
Subject	Zoning Amendment Bylaw No. 3847 (6353 Genoa Bay Road) for readings	first and second

### Purpose

To introduce Bylaw No. 3847, which proposes a site-specific zoning amendment for 6353 Genoa Bay Road, to permit a second detached dwelling unit in addition to a principal single family dwelling in the Rural Residential (R1) Zone.

### Background

On December 18, 2019, Council adopted the Second Dwelling Rural Lands Policy, which established the following criteria for site-specific zoning amendment applications for second dwellings outside the Urban Containment Boundary (UCB):

- a. That size of the proposed second dwelling be restricted by covenant to 92 m2 (990.28 ft2) or less;
- b. That subdivision be restricted by covenant to prevent subdivision including strata subdivision;
- c. That the size of the parcel be a minimum of; and
  - *i.* 1 ha (2.5 acres) where no Municipal sewer or water exists;
  - ii. 0.4 ha (1 acre) where no Municipal sewer exists;
  - iii. 0.2 ha (0.5 acres) where Municipal water and sewer exist; and
- *d.* That siting of second dwellings on agricultural lands be established and restricted by covenant to preserve agricultural land

### Discussion

### Site Context

The subject property (PID: 001-165-283) is a 0.405 Ha (1 acre) oceanfront lot, outside of the UCB (Attachments 1 & 2). The R1 parcel currently contains a single-family dwelling and an unfinished accessory building with a gross floor area of 94.76m<sup>2</sup> (1020ft<sup>2</sup>) (Attachment 4). The lot contains steep slopes down towards the ocean and was issued a development permit (DP00085) in 2016 to construct stormwater infrastructure for the Genoa Reach subdivision. As a condition of the development permit, a Statutory Right Way in favour of the Municipality was registered on the subject property title to ensure ongoing maintenance of the stormwater infrastructure. The stormwater infrastructure bisects the parcel and is located in between the single-family dwelling and the accessory building.

## Land Use Context

The Maple Bay Yacht Club is directly South of the subject property and is zoned MA1 (Upland Tourist Commercial Marine Zone). The rest of the neighbouring properties are zoned R1 (Rural Residential). Except for the Yacht Club, the adjacent and surrounding land use generally consists of one and two-storey rural homes on properties of 0.2 ha (0.49 acres) and larger in size.

## Proposal

The applicant is requesting a text amendment to the R1 Zone (Attachment 5), which would permit a detached second dwelling limited to a maximum habitable gross floor area of 94.76m<sup>2</sup>. A Letter of Rationale in support of the application is provided in Attachment 6. In accordance with the Second Dwelling Rural Lands Policy, registration on the title of a Section 219 covenant securing the policy requirements will be necessary before adopting the zoning bylaw amendment (Attachment 7). The applicant is aware of the policy and is agreeable to registering a covenant over the property as a rezoning condition.

### Official Community Plan (OCP) Designation

The Subject Property is designated as "Rural" within the OCP.

## HOUSING & SERVICES in RURAL AREAS:

## OCP Policy:

Policy 2.1.5.5 ... All rezoning applications in rural areas are required to consider policy 2.1.5.6.

- Policy 2.1.5.6 The Municipality may consider rezoning applications in rural areas to allow additional residential units if all the following provisions are met:
  - *i)* The proposal demonstrates how the applicant will produce, complement or expand rural economic development activity ... and incorporate provision for the long-term security of the land (e.g., through an Agriculture Land Reserve (ALR) designation or a covenant on use); and
  - *ii)* Rural viewscapes from public areas will be maintained
  - *iii)* Any adjacent agricultural or other resource use (e.g., forestry, gravel removal) will be appropriately buffered from the residential units; and
  - *iv)* The extension of municipal services is not anticipated or, should service extension be required, the proposed development will cover the full cost of installing, maintaining and operating the additional services; and ...
- Policy 2.1.5.9 The Municipality generally discourages the development of accessory (second) residences on rural lands, except to address farm labour housing needs.

OCP policies 2.1.5.6 and 2.1.5.9 speak to discouraging additional density. Staff note that the R1 zoning that applies to the subject property allows up to two dwelling units in the form of a two-family dwelling (duplex) or a single family dwelling with a secondary suite. The requested zoning amendment would allow a second dwelling to be detached from the principal dwelling without increasing the maximum number of dwellings permitted under the zoning (i.e. two). The request as presented complies with OCP Policy, as no increase in net density (i.e. the number of dwellings per parcel) will result should Council approve this application.

## HOUSING:

Policy 2.5.2.3 The Municipality supports development of new market forms of affordable housing both for rent and purchase.

## Servicing and Infrastructure:

The subject property already contains a septic system designed by a Registered Onsite Wastewater Practitioner to service the existing single-family dwelling and the proposed second dwelling. Island Heath accepted the filing on November 12, 2020.

The subject property is serviced by municipal water.

This zoning amendment application, if approved: will require an update to the previously issued building permit for the accessory building. The updated building permit will require payment of development cost charges and confirmation of bylaw and building code compliance for the proposed second dwelling.

## Analysis & Conclusion

This application is generally compliant with the OCP and fulfills the intentions of the Second Dwelling Rural Lands Policy, even though it exceeds the maximum permitted gross floor area by 2.76m<sup>2</sup> (29.71 sq. f.). Although the size of the subject structure is slightly over what is supported by the Second Dwelling Rural Lands Policy the size of the structure is consistent with the intent of the policy. Modifications to the structure to reduce it to 92 square metres are not recommended due to the effort and expense involved. Detached second dwellings can provide housing for young adults, single and two-person households, individuals with special needs, and the elderly. It is generally more affordable than conventional single-family housing and can contribute positively to the stock of available rental housing.

The Housing Needs Assessment Report (January 2021) provides current information on North Cowichan residents' housing needs. The report identified that the average household size has decreased, and there is an increased need for more one-bedroom dwelling units. There is also a significant demand for affordable rental housing, with 41% of North Cowichan's renter households in core housing need, with 13% in extreme core housing need.

Applications for second dwellings in rural areas are presently being considered on a case-by-case basis through the rezoning application process. Council consented to this approach when it established the Second Dwelling Rural Lands policy in December of 2019. This was an interim measure until the OCP update, and Zoning Bylaw review projects are completed. These larger bylaw review processes should identify community housing needs and preferences and provide direction on various housing issues, including detached second dwellings. As the public has not had an opportunity to provide input on a comprehensive approach to second dwellings, the public hearing will provide an important opportunity for the public to give feedback on this site-specific application. Although Council has the authority to waive the public hearing before considering adopting the proposed zoning amendment, it is not recommended for this application.

As the application is generally compliant with OCP policy and the Second Dwelling Rural Land Policy, with the exception of the subject structure being slightly over the maximum recommended size of 92 square metres, approval of the application is recommended.

## Options

## Option 1 (Recommended):

That Council give first and second reading to Zoning Amendment Bylaw No. 3847, 2021 to permit a second detached residential dwelling at 6353 Genoa Bay Road and a public hearing be scheduled for Bylaw No. 3847 in accordance with the *Local Government Act*.

## Option 2:

That Council deny Zoning Amendment Application ZB000151 to permit a second detached residential dwelling at 6353 Genoa Bay Road.

## Implications

If Council gives first and second reading to Zoning Amendment Bylaw No. 3847 and forwards the application to a public hearing, owners and occupants of the properties within a 60-metre radius of the subject property will be notified, and advertisements will be placed in the local newspaper in accordance with the requirements of the *Local Government Act*. If the application is denied, use of the subject structure will be limited to an accessory residential building.

The social implication with this application is the potential for the provision of additional affordable rental housing and its consistency with Council's goal for '*providing housing choices for all*' as identified in the 2019-2022 Council Strategic Plan.

## Recommendation

THAT Council give first and second reading to Zoning Amendment Bylaw No. 3847, 2021 to permit a second detached residential dwelling at 6353 Genoa Bay Road and a public hearing be scheduled for Bylaw No. 3847 in accordance with the *Local Government Act.* 

### Attachments:

- 1. Location Map
- 2. Orthophoto
- 3. Zoning
- 4. Survey 2021-01-28
- 5. Residential Rural Zone (R1)
- 6. Letter of Rationale
- 7. Draft Second Dwelling Covenant
- 8. Draft Zoning Amendment Bylaw No. 3847

## **ATTACHMENT 1**



## **ATTACHMENT 2**



## **ATTACHMENT 3**




#### **Permitted Uses**

 56 (1) The permitted uses for the R1 zone are as follows: Agriculture Assisted Living Bed and Breakfast Community Care Facility Home-based Business Modular Home Single-Family Dwelling Supportive Housing Temporary Mobile Home (subject to the Temporary Mobile Home Permit Bylaw) Two-Family Dwelling [BL3302, BL3367, BL3754]

#### **Minimum Lot Size**

(2) The minimum permitted lot size for the R1 zone is 1,675 m<sup>2</sup> (18,029 sq. ft.).

# (3) The

(4)

The minimum permitted frontage for the R1 zone is 30.0 m (98.43').

#### Density

The maximum permitted density for the R1 zone is as follows:

- (a) The number of residential buildings shall not exceed one.
- (b) Despite the foregoing, the placement of a Temporary Mobile Home may also be permitted on lots 0.81 ha (two acres), or larger, subject to the Temporary Mobile Home Permit Bylaw. [BL3754]
- (c) The maximum permitted floor space ratio for the R1 zone is 0.5:1. [BL3383]
- (d) Despite section 56 (4) (a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 9272 Cottonwood Road (PID: 006-038-000). [BL3642]
- (e) Despite section 56 (4) (a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 1217 Barnes Road (PID: 003-134-814). [BL3666]
- (f) Despite section 56 (4) (a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 6343 Wicks Road (PID: 003-145-603). [BL3731]
- (g) Despite section 56 (4) (a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 10097 Chemainus Road (PID: 018-858-651). [BL3732]
- (h) Despite section 56 (4) (a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 2372 Regina Drive (PID 000-368-393). [BL3760]
- (i) Despite section 56 (4) (a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 1038 Herd Road (PID: 023-168-501). [BL3766]

#### Maximum Lot Coverage

(5) The maximum permitted lot coverage of the R1 zone is 30% of the lot area.

#### **Minimum Setbacks**

- (6) The minimum permitted setbacks for the R1 zone are as follows:
  - (a) Principal Buildings

# **ATTACHMENT 5**

Yard, Front, 6.0 m (19.68') Yard, Side, 3.0 m (9.84') Yard, Rear, 8.0 m (26.25')

- (b) Accessory Buildings and Structures (Excluding Fences) Yard, Front, 6.0 m (19.68') Yard, Side, 3.0 m (9.84') Yard, Rear, 3.0 m (9.84')
- (6.1) The minimum permitted setback from the vehicle entrance of a principal or accessory building to a public road other than a lane is 5.8 m (19.03'). [BL3150]

#### **Maximum Building Height**

- (7) The maximum permitted building heights for the R1 zone are as follows:
  - (a) Principal Buildings, 9.0 m (29.53')
  - (b) Accessory Buildings, 5.0 m (16.40')

#### **Conditions of Use**

- (8) The conditions of use for the R1 zone are as follows:
  - (a) No fences over 1.2 m (4.00') in height are permitted in the required yards, front.
  - (b) No fences over 2.0 m (6.56') in height are permitted in the required yards, side or rear.
  - (c) In no situation shall a fence be greater than 2.0 m (6.56') in height.
  - (d) Bed and breakfast uses may have no more than six sleeping units.
  - (e) Repealed [3758]
  - (f) Assisted Living, Supportive Housing, and Community Care Facilities may be permitted provided that the number of residents does not exceed ten, including resident staff,
    - (ii) the use is within a single-family dwelling unit only,
    - (iii) valid health permits for septic systems or on-site wastewater treatment systems are obtained, where no municipal sewer is available. [BL3302]
  - (g) Limited farm sale of agricultural products may be sold directly to the public provided that:
    - (i) a minimum of 50% of the agricultural products offered for sale are produced on the land;
    - (ii) the covered retail sales area does not exceed 100 m<sup>2</sup> (1076.4 sq. ft.); and
    - (iii) the retail sales are clearly ancillary to the farm use. [BL3083]
  - (h) [Repealed. BL3367]

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- To: Municipality of North Cowichan 7030 Trans-Canada Highway Duncan, BC V9L 6A1
  - Attention: Anthony Price, BURPI Planning Technician, Development Services

# Re: Application to Convert a Utility Building to a Dwelling 6353 Genoa Bay Rd- Adam Kelln

# RATIONALE

We wish to make application to covert an existing building on 6353 Genoa Bay Rd, owner by Adam Kelln from a shop to a dwelling. The Building permit for the shop was taken out February 22<sup>nd</sup>, 2018 BP007961

The property is Zoned R1 which does permit a duplex building, 2 attached dwellings.

The configuration of the property was significantly dissected when we offered the District an SRW to facilitate the storm water from the above properties, including properties as far up to Pacific Drive. You can see by the survey map from Turner Land Survey that the SRW runs directly next to the main dwelling making it impossible to add on the main dwelling for a duplex. Please see all attachment and enclosed.

When referring to the Official Community Plan

# Page 53 (Maple Bay Village):

The bay is the most convenient water access point for many area residents and the area is expected to grow in popularity. A future challenge will be maintaining a balance between the village atmosphere that residents have come to enjoy and the growing demands for water-related activities including pleasure boating, scuba diving, sport fishing, kayaking and floatplane use.

# Page 70 Section c) and d):

c)The Municipality will consider the introduction of new zones and zoning standards to address specific interests or goals that will allow development of a greater variety of residential and commercial services.

d) The Municipality requires all new development to contribute to improved quality of life in North Cowichan. As part of development approval for commercial and higher density residential use, the Municipality will require community amenity contributions, in accordance with the legislation.

# Page 71 2.5.2 Housing:

Residents appreciate that North Cowichan contains reasonable housing choices at reasonable costs, although there is a growing need for more affordable housing in our community.

Although the detached single-family house will remain the predominant housing form in North Cowichan, demand is increasing for smaller homes on smaller lots, for ground-oriented multiple dwelling units, and for apartments.

A mix of housing types is better able to accommodate the diverse needs of the population in terms of size, effort to maintain, and affordability. A variety of housing types makes it easier for residents to stay in their neighbourhood as their housing needs and preferences change.

Affordable housing is a major concern in North Cowichan, particularly for low- and moderate-income households. It can take a number of forms, from affordable home ownership to formal and informal rental, and from transitional housing and non-market rental (also known as social or subsidized housing) to emergency shelters.

The Local Government Act requires that all Official Community Plans have policies addressing affordable, rental, and special needs housing.

The community strongly identified the need to address affordable housing issues. Affordable housing is defined by the Cowichan Regional Affordable Housing Directorate as "a safe, secure, stable, accessible living environment that allows a person to live within his or her income level and maintain a healthy quality of life. For housing to be affordable a household should not spend more than 30 percent of gross income on shelter costs."

# Page 72 Continuation of 2.5.2 Housing:

Rental housing generally meets the needs of people with lower incomes, but it can also be a lifestyle choice by people regardless of income level. Many tenants, such as young working people and seniors, require housing to be located close to shopping, services, public transit and other amenities.

## Objective

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Meet the varied housing needs of North Cowichan residents in terms of type, size, cost, and location Progress will be measured by:

- Number of affordable housing units created, as a percentage of total units,
- Share of alternative housing types29 (e.g., apartment, townhouse, semi-detached, coach house) as a percentage of total housing units created,
- Average cost of housing in North Cowichan

# **Policy Direction/Commitment**

The Municipality will:

- Recognize the importance of housing as a fundamental part of community health and live ability,
- Ensure that housing remains affordable for all residents,
- Respect the character of residential neighbourhood and the surrounding environment,
- Encourage development of a variety of housing types.

# Page 75 Encourage development of a variety of housing types:

# **2.5.2.6** The Municipality will encourage development of secondary suites and infill housing.

- a) To encourage owners of previously unapproved secondary suites to legalize the suites, the Municipality will:
- i) establish an amnesty period to legalize secondary suites; and
- ii) reduce associated fees.
- b) The Municipality will not support building schemes that prohibit secondary suites where lot sizes meet municipal requirements.
- c) The Municipality will broaden the number of zones that permit secondary suites while ensuring adequate provision can be made for on-site parking.

# **ATTACHMENT 6**

d) As part of any new development on lots that permit secondary suites, the secondary suite area of a single-family residence must be roughed in at the time of construction.

# 2.5.2.8 The Municipality encourages sensitive integration of increased density in growth centres through the use of multi-unit housing.

All multi-unit housing sites are designated Development Permit Areas under Section 919.1 of the Local Government Act to encourage sensitive design, with appropriate landscaping that fits into the existing residential or commercial environment while maintaining a safe, live-able home environment for new residents. This designation is for the purposes of establishing objectives for form and character of commercial, industrial, or multi-family residential, and promoting energy and water conservation and the reduction of greenhouse gas emissions. All proposed activities on these lands will be evaluated on the basis of the Development Permit Guidelines for Development Permit Area (DPA- 1).

The size of the shop for conversion is less than 1000 sq ft making the building an ideal smaller home. Please see attachment (3)

Structural Engineering. Please see attachment (4)

The SEPTIC filing has been completed and filed with Island Health for the additional dwelling. Please see attachment (5)

Water is provided by the District.

All height and setbacks and lot coverage are well within the District guidelines. Please see attachment (6)

The SRW in favour of District are attached. Please see attachment (7)

Should the District and staff require anything further for this application, please do not hesitate to contact us.

Sincerely,

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Adam Kelln

#### **TERMS OF INSTRUMENT – PART 2**

#### SECTION 219 COVENANT – SECOND DWELLING UNIT RURAL LANDS

THIS AGREEMENT dated for reference \_\_\_\_\_\_, is

**BETWEEN**:

# **THE CORPORATION OF THE DISTRICT OF NORTH COWICHAN** 7030 Trans Canada Highway

(the "**District**")

Duncan, B.C. V9L 6A1

AND: ADAM KELLN 6752 Courbold Road, DELTA, BC V4L 2G2

(the "Owner")

GIVEN THAT:

- A. The Owner is the registered owner of the parcels of land legally described in the General Instrument Part 1 (*Land Title Act* Form C) attached to and forming part of this Agreement (the "Lands"); and
- B. In connection with the issuance of a building permit to construct single-family residential dwelling on the Lands (the "**Second Dwelling**"), the District requires, and the Owner has agreed to grant to the District, a covenant under section 219 of the *Land Title Act* British Columbia restricting the use of the Lands;

THIS AGREEMENT is evidence that in consideration of the payment of \$10.00 from the District to the Owner and other good and valuable consideration (the receipt and sufficiency of which the Owner acknowledges), the Owner covenants and agrees with the District under section 219 of the *Land Title Act* as follows:

- 1. **General Restrictions** The Lands shall not be used, nor any building or structure constructed, placed on the Lands, except in accordance with this Agreement.
- 2. **Development of Second Dwelling** The Owner covenants and agrees with the District that the size of the Second Dwelling shall not exceed 94.76m<sup>2</sup>. For clarity, the size of the proposed Second Dwelling shall be considered the habitable floor area which excludes uninhabitable areas such as garages or covered parking areas, unenclosed and roofless decks, patios, balconies and porches, areas below grade with a maximum ceiling height less than 1.8 m (5.91'), elevator shafts and mechanical rooms, and covered entrances,

and includes habitable rooms such as those used or intended for cooking, eating, sleeping or human occupancy.

- 3. **Restrictions on Subdivisions** The Lands shall not be subdivided by any means, including by deposit of a bare land strata plan, phased strata plan or leasehold plan under the *Strata Property Act* (British Columbia), except as permitted by the District.
- 4. **Municipal Permits** The Owner agrees that the District may withhold building permits and occupancy permits with respect to any building or other structure from time to time constructed or proposed to be constructed on the Lands, as the District may, in its sole discretion, consider necessary to ensure compliance with this Agreement.
- 5. **Inspection** The District, its officers, employees, contractors and agents, shall have reasonable access to the Lands and any buildings at all reasonable times in order to ascertain compliance with Agreement.
- 6. **Indemnity** As an integral part of this Agreement, pursuant to section 219(6)(a) of the *Land Title Act*, the Owner hereby indemnifies the District:
  - (a) from and against any and all liability, actions, causes of action, claims, suits, proceedings, judgements, damages, expenses, legal fees, demands and losses at any time suffered or incurred by, or brought against, the District, or any of its elected or appointed officials, officers, employees or agents, arising from or in connection with the granting or existence of this Agreement, the performance of any of the Owner's obligations under this Agreement and any breach of any provision under this Agreement; and
  - (b) for all costs, fees and expenses, including legal fees, incurred by the District in the enforcement of this Agreement as a result of any breach of any provision of this Agreement by the covenantor.
- 7. **Specific Relief** The Owner agrees that the public interest in ensuring that all of the provisions of this Agreement are complied with strongly favours the award of a prohibitory or mandatory injunction, or an order for specific performance or other specific relief, by the Supreme Court of British Columbia at the instance of the District, in the event of an actual or threatened breach of this Agreement.
- 8. **No Effect on Powers** Nothing in this Agreement shall:
  - (a) affect or limit the discretion, rights or powers of the District or the District's Approving Officer under any enactment or at common law, including in relation to the use, development or subdivision of the Lands;
  - (b) affect or limit any enactment relating to the use, development or subdivision of the Lands; or

(c) relieve the Owner from complying with any enactment, including in relation to the use, development or subdivision of the Lands.

And the Owner covenants and agrees to comply with all such enactments with respect to the Lands.

- 9. **District Discretion** Where the District or a representative of the District is required or permitted under this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent:
  - (a) the relevant provision shall not be considered fulfilled unless the approval, opinion, determination, consent or expression of satisfaction is in writing signed by the District or the representative, as the case may be;
  - (b) the approval, opinion, determination, consent or satisfaction is in the sole discretion of the District or the representative, as the case may be; and
  - (c) the District or the representative, as the case may be, is under no public law duty of fairness or natural justice in that regard and the District or the representative may do any of those things in the same manner as if it were a private person and not a public body or employee or officer thereof.

#### 10. Release of Covenant –

- (a) This Agreement shall be of no force and effect if the District declares in writing that this Agreement is to be released.
- (b) In the event that the zoning amendment bylaw to rezone the Lands is not adopted within 180 days from the date this Agreement is registered against title to the Lands, this Agreement must be released from title. The Owner must deliver the release form to the District for signature and is responsible for registering the release.
- 11. **No Obligation to Enforce** The rights given to the District under this Agreement are permissive only and nothing in this Agreement shall give rise to any legal duty of any kind on the District to anyone or obligate the District to enforce this Agreement or to perform any act or incur any expense.
- 12. Agreement Runs with Land This Agreement shall burden and run with, and bind the successors in title to, the Lands and each and every part into which the Lands may be subdivided by any means (including by deposit of a strata plan of any kind under the *Strata Property Act* (British Columbia)).
- 13. **Waiver** No waiver by the District of any requirement or breach of this Agreement shall be effective unless it is an express waiver in writing that specifically references the

requirement or breach and no such waiver shall operate as a waiver of any other requirement or breach or any continuing breach of this Agreement.

- 14. **Remedies** No reference to or exercise of any specific right or remedy by the District shall prejudice or preclude the District from exercising any other right or remedy, whether allowed at law or in equity or expressly provided for in this Agreement, and no such right or remedy is exclusive or dependent upon any other such remedy and the District may from time to time exercise any one or more of such remedies independently or in combination.
- 15. **Priority** The Owner shall cause this Agreement to be registered in the applicable land title office against title to the Lands with priority over all financial liens, charges and encumbrances, and any leases and options to purchase, registered or pending registration at the time of application for registration of this Agreement, including by causing the holder of each such lien, charge, encumbrance, lease or option to purchase to execute an instrument in a form required by the District under which such holder postpones all of the holder's rights to those of the District under this Agreement in the same manner and to the same extent as if such lien, charge, encumbrance, lease or option to purchase had been registered immediately after the registration of this Agreement.
- 16. **Modification** This Agreement may not be modified except by an agreement or instrument in writing signed by the Owner or its successor in title and the District or a successor or assignee.
- 17. **Further Assurances** The Owner shall do and cause to be done all things, including by executing further documents, as may be necessary to give effect to the intent of this Agreement.
- 18. **Owner's Expense** The Owner shall perform its obligations under this Agreement at its own expense and without compensation from the District.
- 19. **Severance** If any part of this Agreement is for any reason held to be invalid by a decision of a court with the jurisdiction to do so, the invalid portion is to be considered severed from the rest of this Agreement and the decision that it is invalid shall not affect the validity or enforceability of the remainder of this Agreement.
- 20. Interpretation In this Agreement:
  - (a) reference to the singular includes a reference to the plural, and vice versa, unless the context requires otherwise;
  - (b) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this agreement;
  - (c) the term "enactment" has the meaning given to it under the *Interpretation Act* (British Columbia) on the reference date of this Agreement;

- (d) reference to any enactment includes any regulations, orders or directives made under the authority of that enactment;
- (e) reference to any enactment is a reference to that enactment as consolidated, revised, amended, re-enacted or replaced from time to time, unless otherwise expressly provided;
- (f) reference to a particular numbered section, or to a particular lettered schedule, is, unless otherwise expressly provided, a reference to the correspondingly numbered section or lettered schedule of this Agreement;
- (g) time is of the essence; and
- (h) where the word "including" is followed by a list, the contents of the list are not intended to limit or otherwise affect the generality of the expression preceding the word "including".
- 21. **Governing Law** This Agreement shall be governed by and construed in accordance with the laws of the Province of British Columbia, which shall be deemed to be the proper law hereof.
- 22. **Enurement** This Agreement hereof shall enure to the benefit of the parties and their respective successors and assigns, as the case may be.
- 23. **Entire Agreement** This Agreement is the entire agreement between the parties regarding its subject.
- 24. **Execution in Counterparts & Electronic Delivery** This Agreement may be executed in any number of counterparts and delivered by e-mail, each of which shall be deemed to be an original and all of which taken together shall be deemed to constitute one and the same instrument, provided that any party delivering this Agreement by e-mail shall also deliver to the other party an originally executed copy of this Agreement.

As evidence of their agreement to be bound by this Agreement, the parties have executed the General Instrument – Part 1 (*Land Title Act* Form C) attached to and forming part of this Agreement.

# **ATTACHMENT 7**

#### PRIORITY AGREEMENT

This Priority Agreement is between \_\_\_\_\_\_ (the "**Prior Chargeholder**"), being the registered owner and holder of Mortgage No. \_\_\_\_\_\_ and Assignment of Rents No. \_\_\_\_\_\_ (the "**Prior Charges**"), and the Corporation of the District of North Cowichan (the "**District**"), being the registered owner and holder of the covenant under section 219 of the *Land Title Act* (British Columbia) to which this Priority Agreement is attached (the "**Subsequent Charge**").

In consideration of the sum of ten dollars (\$10.00) now paid to the Prior Chargeholder and other good and valuable consideration, the receipt and sufficiency of which the Prior Chargeholder acknowledges, the Prior Chargeholder hereby approves of, joins in and consents to the granting of the Subsequent Charge and hereby postpones all of the Prior Chargeholder's rights under the Prior Charges to the rights of the District under the Subsequent Charge in the same manner and to the same extent as if the Prior Charges had been registered immediately after the Subsequent Charge.

As evidence of its agreement to be bound by this Priority Agreement, the Prior Chargeholder has executed the General Instrument – Part 1 (*Land Title Act* - Form C) attached to and forming part of this Priority Agreement.

Director of Planning and Building for The Corporation of the District of North Cowichan

# **ATTACHMENT 8**



The Corporation of the District of North Cowichan

# Zoning Amendment Bylaw (6353 Genoa Bay Road), 2021

Bylaw No. 3847

The Council of The Corporation of The District of North Cowichan in open meeting enacts as follows:

- 1 This Bylaw may be cited as "Zoning Amendment Bylaw No. 3847, 2021".
- 2 That Zoning Bylaw 1997, No. 2950, section 56 (4) [density in the Residential Rural Zone (R1)] is amended by adding the following subsection (I):
  - "(I) Despite section 56 (4)(a), a maximum of 2 residential buildings, with a total combined maximum of 2 dwelling units, is permitted on 6353 Genoa Bay Road (PID:001-165-283)"

READ a first time on \_\_\_\_\_\_, 20211 READ a second time on \_\_\_\_\_\_, 2021 This bylaw as advertised in the Cowichan Valley Citizen on \_\_\_\_\_, 2021 and the \_\_\_\_\_, 2021 and the municipality's website and notice board on \_\_\_\_\_\_, 2021 CONSIDERED at a Public Hearing on READ a third time on APPROVED by Ministry of Transportation and Infrastructure on COVENANT registered on ADOPTED on

CORPORATE OFFICER

PRESIDING MEMBER

# Report



Date	September 1, 2021	File:	
То	Council		
From	Martin Drakeley, Manager, Fire and Bylaw Services	Endorsed:	Jedfewaler.
Subject	Fire Protection Bylaw No. 3841, 2021 for first three readings		

#### Purpose

To introduce Fire Protection Bylaw No. 3841, 2021 for first three readings. This bylaw, if adopted will incorporate recommendations from the 2018 Fire Services Review and replace the current bylaw (Fire Protection Bylaw, 2008, No. 3340) and all amendments thereto.

## Background

Following the Fire Services review, completed by Aegis Risk Management Ltd. in July 2018 a number of recommendations were made to address issues related to service delivery, operations, facilities, equipment, training, staffing, governance and compensation of North Cowichan's Fire Departments. One of the fundamental changes necessary to modernize the Fire Department are amendments to the Fire Protection Bylaw No. 3340 (Attachment 2) that was adopted on June 4, 2008. These changes seek to align the Fire Bylaw with:

- (1) The modernization and vision for a singular North Cowichan Fire Department
- (2) Recommendations from the Aegis report which includes changes to the Fire Department organizational structure;
- (3) Updating to reflect the Office of the Fire Commissioner's (the "OFC") Structure Firefighters Competency and Training Playbook (the "<u>Playbook</u>"); and
- (4) To reflect the new Fire Code came into effect for British Columbia on October 16, 2018.

#### Discussion

The following are some of the important issues that form part of the proposed Fire Protection Bylaw No. 3841, 2021 (Attachment 1):

- Establishes Interior Operations Level as the provincially declared level of service for the Fire
  Department, authorized responses to certain incident types, and delegated authority to restrict
  or terminate response if activities exceed the training or capabilities of responding Firefighters.
  The existing Bylaw simply stated that the Fire Department was responsible for fire suppression
  and prevention, but does not identify the Service Level to be provided (see section 23).
- Require owners or occupiers of buildings to provide a fire safety plan and update on a regular basis during the inspection process so that the fire department can review and verify the plans and incorporate them in their pre-planning process. Fire Drills and Fire Safety Plans are new regulations that have been added under Part 8 – Life Safety Equipment and Standards where the existing bylaw is silent (see sections 47 to 51).

- Hired Fire Chief to centralize leadership, administration and budget; administer the Fire Services Act and other legislation; build focus for "North Cowichan Fire Department"; and provide Monday to Friday daytime command response coverage. Under the existing bylaw, Council appointed a separate Fire Chief for each Fire Hall who reported to the CAO. The new bylaw establishes a single Fire Chief (see sections 8 to 10), to centralize the leadership of all four Fire Halls (Chemainus, Crofton, Maple Bay and South End) and creates Station Chiefs and Station Deputies for each Fire Hall, who report to the Fire Chief.
- Hired Assistant Chief (management) with responsibilities to include fire prevention, public education, pre-incident planning, fire investigations, administrative duties supporting the fire chief, and daytime command response coverage. The new bylaw establishes the Assistant Fire Chief as the Fire Inspection Officer, section 42, and will be responsible for acting as the Fire Chief when the Fire Chief is unable to perform his duties under the bylaw, (see section 11). Section 8(b) authorizes the Fire Chief to appoint Fire Officers, which includes the Assistant Fire Chief, and delegate any one or more powers of the Local Assistant.
- Hire one additional full-time Assistant Chief (future budget discussion) with responsibilities to include a primary focus on managing a departmental training program, with supporting functions of the Fire Chief and Assistant Chief, and daytime command response coverage. The new bylaw establishes the Assistant Fire Chief as a Fire Officer (see definitions).
- Shift away from electing volunteer station "Officer" positions and implement a formal selection hiring led by the Municipality. Although the existing bylaw was silent on appointing officer positions, the practice was that members would elect those positions. The proposed bylaw formalizes the process and makes the process more defendable based on technical and experience for these important positions. Under the new bylaw, the successful candidate, (i.e. Station Fire Officers) are appointed by the Fire Chief, section 8(b)

# Service Level under the Playbook

The <u>Playbook</u> is applicable to all fire services personnel in British Columbia, as defined by the Office of the Fire Commissioner. It covers all fire departments and fire services, including municipal and regional district fire departments, fire brigades, volunteer fire departments, and fire departments established as a society under the <u>Society Act (B.C.)</u>. The <u>Playbook</u> is intended to provide an industry recognized minimum standard of training that utilizes, and bridges to, the current National Fire Protection Association (NFPA) Firefighter qualifications. The training requirements are expressly tied to the Service Level provided by a fire department.

The <u>Playbook</u> addresses the principal, functional, or operational roles for each Service Level but does not encompass all roles or functions of the fire service. The <u>Playbook</u> is not intended to change or nullify any requirements or training related to other roles or functions in the fire service.

## Other Changes Included in the New Bylaw

In addition to the changes noted above, Fire Protection Bylaw No. 3841 proposes to:

- Expand the Definitions section for greater clarity
- Establish a rank and reporting structure
- Include regulations regarding fire inspections
- Provides for the maintenance of private fire hydrants
- Require the provision of fire safety plans during the inspection process

- Require certain institutions (e.g., hospital or child care facility) to maintain fire drill records for review during the Fire Inspection process.
- Operational guidelines and departmental policy shifted from Council to the Fire Chief

#### Option

#### (Recommended) Give three readings to the bylaw as presented.

THAT Council give first, second and third readings to Fire Protection Bylaw No. 3841, 2021.

#### Implications

Bylaw No. 3841 provides role clarity, alignment with the recommendations from the Aegis report and is consistent with objective #28 under the Operational Strategic Plan.

#### 28. Enhance the long-term sustainability of the Fire Services model

KEY ACTIONS		
Limit District fire support services to the "interior" level		
Implement Fire Services Review		
Develop a Paid On Call Firefighter Recruitment and Retention Strategy		
Establish a Fire Inspection Policy		

#### Recommendation

THAT Council give first, second and third readings to Fire Protection Bylaw No. 3841, 2021.

Attachment(s):

- (1) Fire Protection Bylaw No. 3841, 2021
- (2) Fire Protection Bylaw No. 3340, 2008

# **ATTACHMENT** 1



#### The Corporation of the District of North Cowichan

#### **Fire Protection Bylaw**

Bylaw 3841

Contents

- 1 Citation
- 2 Definitions and Interpretation
- 4 Administration
- 16 General Rules and Prohibitions
- 22 Fire Incident Response and Operations
- 35 Prevention of Hazards
- 41 Fire Inspections
- 47 Life Safety and Equipment Standards
- 61 Open Burning
- 67 Private Fire Hydrants
- 74 Inspection and Permit Fees
- 76 Failure to Comply
- 78 Offence and Penalty
- 80 Repeal
- 81 Forms and Schedules

The Council of The Corporation of the District of North Cowichan, in open meeting assembled, enacts as follows:

#### PART 1 – CITATION

1. This Bylaw may be cited as "Fire Protection Bylaw No. 3841, 2021".

#### PART 2 – DEFINITIONS

- 2. The terms that have been defined under Section 3 have been capitalized and italicized when used throughout this Bylaw.
- 3. In this Bylaw, the following words and terms have the following meanings:

AIR CURTAIN INCINERATOR means a portable or stationary combustion device that directs a plane of high velocity forced draft air through a manifold head into a burn chamber, but does not include a trench burner;

APPARATUS means any vehicle provided with machinery, devices, *Equipment* or materials for firefighting as well as vehicles used to transport *Firefighters* or supplies;

ASSISTANT FIRE CHIEF means the rank immediately below the Fire Chief as identified under

section 12;

BUILDING shall have the same meaning as defined in the Zoning Bylaw;

BUILDING CODE means the British Columbia Building Code adopted under the *Building Act, S.B.C.* 2015, c.2;

BYLAW COMPLIANCE OFFICER means a person appointed by the Chief Administrative Officer under the *Delegation of Authority Bylaw*;

CAPTAIN means a member of the *Fire Department* who supervises the activities of *Firefighters* and other duties as assigned by the *Fire Chief*;

CATEGORY 3 OPEN FIRE shall have the same meaning as defined in the *Wildfire Regulation B.C. Reg. 38/2005* under *Wildfire Act S.B.C. 2004, c.31*;

CEREMONIAL FIRES means a fire for First Nations' ceremonial or special purposes;

CONTACT PERSON means a person designated by the occupier or owner of a *Building* or *Structure* at which a *Fire Alarm System* is installed who is able to attend at the *Building* or *Structure* when the *Fire Alarm System* has been activated;

COUNCIL means the municipal council of The Corporation of the District of North Cowichan;

DEBRIS means solid waste resulting from land clearing operations, and includes, but is not limited to, stumps, wood, brush, leaves, soil, and road spoils;

DELEGATION OF AUTHORITY BYLAW means Delegation of Authority Bylaw No. 3814, 2021;

EQUIPMENT means any tools, devices or materials used by the *Fire Department* at any *Incident* or other emergency;

EVACUATION ORDER means the Order issued by the *Fire Chief* or a *Fire Inspection Officer* under Section 57 in the form attached as Schedule D;

FEES AND CHARGES BYLAW means Fees and Charges Bylaw No. 3784, 2020;

FIRE ALARM SYSTEM means all equipment, including without limitation, batteries, alarm gongs, horns, buzzers, switches, wiring, relay equipment, sensors, and other accessories designed to issue a warning of a fire by activating an audible alarm signal or alerting a monitoring service but does not include a fire alarm or smoke detector that is intended to alert only the occupants of a single dwelling unit;

FIRE AND LIFE SAFETY EQUIPMENT includes, but is not limited to, *Fire Alarm Systems*, automatic *Sprinkler Systems*, special extinguishing systems, portable extinguishers, emergency lighting, water supply systems for fire protection, standpipe and hose systems, smoke control measures, emergency power installations, voice communication systems and fire fighter elevators;

FIRE AND LIFE SAFETY EQUIPMENT ORDER means the Order issued by a *Fire Officer* under Section 54 in the form attached as Schedule C;

FIRE CHIEF means a person appointed by the Chief Administrative Officer under the Delegation of

*Authority Bylaw* to be in charge of the *Fire Department* and includes any other person authorized by the *Fire Chief* to exercise the powers of a *Local Assistant*;

FIRE CODE means the British Columbia Fire Code Regulation 263/2012 under Fire Services Act, R.S.B.C. 1996, c.144;

FIRE COMMISSIONER means the person appointed by the Lieutenant Governor in Council to the Office of the Fire Commissioner of British Columbia pursuant to the *Fire Services Act;* 

FIRE DEPARTMENT means the District of North Cowichan Fire Department;

FIRE HYDRANT SERVICE REPORT means a report in the form attached as Schedule F that is required to be submitted to the *Fire Department* under Section 70;

FIRE INSPECTION OFFICER means the *Fire Department* member appointed by the *Fire Chief* to perform inspections under Section 42;

FIRE OFFICER means any member of the *Fire Department* holding the rank of:

- (a) Fire Chief;
- (b) Assistant Fire Chief;
- (c) Station Chief;
- (d) Station Deputy Chief; or
- (e) Captain;

FIRE PROTECTION TECHNICIAN means a person who has provided the *Fire Department* with acceptable documentation from a manufacturer of *Fire and Life Safety Equipment* certifying that he or she has been trained to install and service their equipment or from the agency known as the Applied Science Technologist and Technicians of British Columbia certifying that he or she is able to perform inspections and testing on *Fire and Life Safety Equipment* or a person approved by the *Fire Chief*;

FIRE SAFETY PLAN is a set of emergency procedures and guidelines to be followed by the occupants of a *Building* in the event of a fire or an emergency in a *Building* or *Structure*; and may include the locations of utilities and emergency shutoffs for gas and water, and operational information of *Fire and Life Safety Equipment*;

FIRE SERVICES ACT means the Fire Services Act, R.S.B.C. 1996, c.144;

FIREFIGHTER means every active member of the *Fire Department* other than a *Fire Officer*, whose duties include fire prevention, fire suppression, or rescue and emergency response, as authorized under this Bylaw;

FOREST AND RANGE PRACTICES ACT means the Forest and Range Practices Act S.B.C. 2002, c.69;

INCIDENT means any situation, wherein the attendance of the *Fire Department* is requested, required, dispatched, or warranted to prevent injury, loss of life, damage or loss to property, or damage to the natural environment;

INTERIOR OPERATIONS LEVEL shall have the same meaning as defined under the *Playbook*;

LOCAL ASSISTANT shall have the same meaning as defined in the Fire Services Act;

VENTILATION INDEX means the Ventilation Index released by Meteorological Service of Environment Canada which contains daily smoke control forecast predictions;

MOTOR VEHICLE ACT means the Motor Vehicle Act, R.S.B.C. 1996, c.318;

MUNICIPALITY means the Corporation of the District of North Cowichan;

OCCUPANCY shall have the same meaning as defined in the Zoning Bylaw;

OFFICER IN COMMAND means the highest-ranking *Fire Officer* in attendance at an *Incident*;

OFFICIAL COMMUNITY PLAN means Official Community Plan Bylaw, 2011, No. 3450;

OPEN BURNING means a fire in the open air but does not include a recreational fire or a fire where the products of combustion from the fire are conveyed to and disposed of by means of a chimney in a *Building* or *Structure* constructed and maintained in accordance with the *Building Code*;

OPEN BURNING PERMIT means the Permit issued under Section 62 in the form attached as Schedule E;

OTHER EMERGENCY SERVICE PROVIDERS includes the Royal Canadian Mounted Police, the BC Ambulance Service, Search and Rescue and the Canadian Coast Guard;

PLAYBOOK means the Structure Firefighters Competency and Training Playbook which identifies the minimum training competencies required of all firefighters at each service level, as established by the Office of the *Fire Commissioner* pursuant to the *Fire Services Act*;

PREMISES means a Building or Structure together with its grounds and appurtenances;

PRE-INCIDENT PLAN means a series of documents containing plans, drawings and written descriptions identifying the type and location of *Buildings*, firefighting hazards, *Fire and Life Safety Equipment* and utilities;

PRIVATE HYDRANT means a fire hydrant on private property or common property within a strata property;

PRIVATE MANAGED FOREST LAND ACT means the *Private Managed Forest Land Act, S.B.C. 2003, c.80;* 

REMEDIATION ORDER means the Order issued under Section 36 in the form attached as Schedule B;

SINGLE FAMILY DWELLING shall have the same meaning as defined in the Zoning Bylaw;

SPRINKLER SYSTEM includes all equipment forming part of or used in connection with a fire sprinkler system, including without limitation, all heads, valves, piping, switches, sensors, relay equipment, and other accessories;

STATION CHIEF means the member of the *Fire Department* appointed by the *Fire Chief* to manage and control the activities of *Firefighters* assigned to each individual fire station located within North Cowichan;

STRUCTURE shall have the same meaning as defined in the Zoning Bylaw;

URBAN CONTAINMENT BOUNDARY means the urban containment boundary established in the *Official Community Plan*;

VEHICLE shall have the same meaning as defined in the Motor Vehicle Act;

WORKERS COMPENSATION ACT means the Workers Compensation Act, R.S.B.C. 2019, c.1; and

ZONING BYLAW means Zoning Bylaw, 1997, No. 2950.

#### PART 3 – ADMINISTRATION

#### **Continuation of Fire Department**

4. The *Fire Department* is hereby continued for the purposes of providing fire suppression, fire inspections, fire investigations, public education, fire training, emergency management, rescue and public services under this Bylaw.

#### **Authorization to Enter Property**

- 5. The *Fire Chief* and his designates are authorized to enter onto property and inspect *Premises*, with or without *Apparatus* and *Equipment*, for conditions that may cause a fire, increase the danger of a fire or increase the danger to persons or property from a fire.
- 6. The *Fire Chief* and his designates are authorized to enter onto property and into *Buildings* or *Structures* to inspect and determine whether all regulations, prohibitions and requirements are being met in relation to any matter contained in this Bylaw, the *Fire Services Act* and its regulations and the *Fire Code*.
- 7. The *Fire Chief* and his designates are authorized to enter onto property and into *Buildings* or *Structures*, including those adjacent to an *Incident*, with or without *Apparatus* and *Equipment*, to take measures to prevent and suppress fires or deal with another form of *Incident*.

#### **Responsibilities and Duties of Fire Chief**

- 8. The Fire Chief is responsible for:
  - (a) the overall management, control and supervision of the *Fire Department* and personnel assigned to each fire station, and the discipline thereof;
  - (b) the appointment of a *Fire Officer* or *Firefighter* to exercise one or more of the powers of a *Local Assistant* within the *Municipality*;
  - (c) developing all necessary training programs, establishing any necessary proficiency requirements for the *Fire Department* which meets all statutory and regulatory requirements, including those required by the *Playbook* and the *Workers Compensation Act* and regulations made thereunder;
  - (d) developing fire safety education programs and campaigns to help citizens learn how to prevent fires, what to do if a fire starts, how to avoid injuries and how to stay safe;
  - (e) the efficient management of all members, *Apparatus*, equipment, responses to incidents and the provision of fire prevention and protection services to the *Municipality*.
- 9. The Fire Chief shall establish rules, regulations, operational guidelines and policies necessary for

the proper organization, administration and operation of the *Fire Department* including but not limited to:

- (a) the use, care and protection of *Fire Department* property;
- (b) the conduct and discipline of members of the Fire Department;
- (c) the safe and efficient operation of the Fire Department; and
- (d) the duties and responsibilities of members of the *Fire Department*.
- 10. The *Fire Chief* shall take responsibility for all fire protection matters and other *Incidents* including the enforcement of applicable sections of the *Fire Services Act* and its regulations, and the *Fire Code* and shall assume the responsibilities of a *Local Assistant* to the *Fire Commissioner*.
- 11. The *Assistant Fire Chief* shall be responsible for performing the duties of the *Fire Chief* listed under Section 8 when the *Fire Chief* is unable to perform those duties.

#### **Rank Structure**

- 12. The rank structure of the *Fire Department*, in descending order of authority shall be as follows:
  - (a) Fire Chief
  - (b) Assistant Fire Chief
  - (c) Station Chief
  - (d) Station Deputy Chief
  - (e) Captain
  - (f) Firefighter

#### **Fire Department Jurisdiction**

- 13. The jurisdiction of *Fire Officers* and *Firefighters* will extend to the area and boundaries of the *Municipality*.
- 14. The *Fire Department* may respond to an *Incident* and provide firefighting services outside of the *Municipality's* boundaries in the following circumstances:
  - (a) in accordance with the terms of a signed mutual aid agreement(s) between the *Council* and the other surrounding local governments or First Nations;
  - (b) if authorized to respond by Emergency Management BC or in accordance with an agreement with or standard operating procedures established by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development or the BC Wildfire Service; or
- 15. The *Fire Department* may assist another fire department at an *Incident* response outside the *Municipality's* boundaries, if authorized by the Mayor or Acting Mayor, of if the Mayor or Acting Mayor is absent or unavailable, by the Chief Administrative Officer.

#### PART 4 – GENERAL RULES AND PROHIBITIONS

#### **False Representation**

16. No person shall make false representation as to being a member of the *Fire Department*, or wear or display any *Fire Department* badge, cap, button, insignia or other paraphernalia for the purpose of such false representation.

#### **No Interference**

- 17. No person shall drive, push or pull a vehicle of any kind over a fire hose or other equipment of the *Fire Department* unless directed by a *Fire Officer*.
- 18. No person shall obstruct, impede or hinder a *Fire Officer* or a *Firefighter* in the execution of their duties under this Bylaw.
- 19. No person shall remove, alter, or deface any order posted pursuant to this Bylaw.

#### **Prohibition against Entry**

- 20. No person shall enter within any area designated by ropes, guards or tapes, which are erected by or under the direction of the *Fire Department*, without the permission of the *Fire Chief*.
- 21. No person shall refuse to move from an area designated by ropes, guards or tapes, which are erected by or under the direction of a *Fire Officer*, without the permission of the *Fire Chief*.

#### PART 5 – FIRE INCIDENT RESPONSE AND OPERATIONS

#### **Authorized Services**

- 22. The *Fire Department* is authorized to provide the following services:
  - (a) firefighting and fire suppression;
  - (b) fire prevention and inspection;
  - (c) assistance to *Other Emergency Service Providers*, such as the British Columbia Ambulance Service;
  - (d) rope rescues;
  - (e) evacuation from areas within the *Municipality*;
  - (f) vehicle extrications and road rescue services;
  - (g) lake and river water rescue services; and
  - (h) responding to incidents involving dangerous goods as defined under the *Transport of Dangerous Goods Act*, R.S.B.C. 1996, c. 458.

#### Service Level

- 23. The *Fire Department* shall operate as an *Interior Operations Level* as defined in the *Playbook* both within the Fire Department Jurisdiction defined under Section 13. The Department shall operate in accordance with the requirements of the *Playbook*, including with respect to the training of the *Fire Department* and keeping of records related to such training.
- 24. Notwithstanding the list of authorized services described under Section 22 or any service level authorized in accordance with the *Playbook*, in relation to any particular *Incident* response, the *Fire Department* shall undertake only those emergency response activities for which it is properly trained and equipped. The *Fire Chief* and/or the *Officer in Command* may, in their sole discretion, restrict or terminate emergency response activities in any circumstance where the *Incident* is considered to exceed the training or capabilities of the responding *Firefighters* or *Apparatus*

available to them or because of competing demand for authorized services at other locations.

#### **Control Direction and Management**

- 25. The *Fire Chief* or *Officer in Command* at an *Incident*, shall have control, direction and management of all *Fire Department Apparatus*, *Equipment*, and *Firefighters* assigned to an *Incident* and, where an *Officer in Command* is in charge, he shall continue to act in that capacity until relieved by a more senior qualified *Fire Officer*.
- 26. In the event that the *Fire Chief* is not in attendance at an *Incident*, the most senior qualified *Fire Officer* or *Firefighter* in attendance at that *Incident*, as per Section 13, will assume command.

#### **Regulations and Prohibitions at an Incident**

- 27. The *Fire Chief* or *Officer in Command* at any *Incident* is hereby empowered to commandeer privately owned equipment, which he considers necessary to deal with such *Incident*.
- 28. The *Officer in Command* is authorized to require a person to assist in the fighting of any fire or in the preserving of any property threatened by fire, or to assist in the salvaging and safeguarding of property threatened by fire.
- 29. The *Fire Chief* or *Officer In Command* is authorized to order the tactical evacuation of any *Building* or area where there is an emergency arising from a fire hazard, risk of explosion or a panic. In such a case no person, other than the *Fire Chief*, the *Officer in Command*, a *Firefighter*, or other person authorized by the *Fire Chief* or *Officer in Command* shall remain in or shall enter those *Buildings* or areas.
- 30. The *Fire Chief* or *Officer in Command* at any *Incident* is authorized to prevent and suppress a fire by causing to be pulled down or demolished a *Building* or *Structure* when he considers it necessary to prevent or suppress any fire.
- 31. No person shall drive over, or be within nine (9) metres of a *Fire Department* hose that is in use or filled with water, without the permission of the *Officer in Command* at an *Incident*.
- 32. No person shall fail to comply with a direction of the *Officer in Command*, or any *Firefighter* made in accordance with this Bylaw at an *Incident*.
- 33. No person shall interfere with or impede the use of *Equipment* by the *Fire Chief* or a *Firefighter* at an *Incident*.
- 34. A person at or near an *Incident* shall obey all traffic control directions given by a *Fire Officer*.

#### PART 6 – PREVENTION OF HAZARDS

#### **Prevention of Fire Hazards**

35. No person, being an owner or occupier of any Premises shall:

- (a) maintain the *Premises* in such a state of disrepair that a fire starting in them might spread rapidly to endanger life or other property;
- (b) use or occupy the *Premises* in such a manner that fire would endanger life or property or increase the danger of fire;

- (c) keep combustible or explosive material on the *Premises*, except as permitted by this Bylaw or other enactment, or allow other flammable conditions to exist in the *Premises* so as to endanger life or property; or
- (d) Allow a fire hazard to exist on the Premises.

#### **Remediation Order**

- 36. Where a *Fire Inspection Officer* determines that one or more conditions described in Section 35(a), (b), (c), or (d) exists or as otherwise authorized by this Bylaw, the *Fire Inspection Officer* may issue to an owner or occupier of a *Premises* a *Remediation Order* requiring the owner or occupier of the *Premises* to do one or more of the following:
  - (a) repair the Building or Structure on the Premises;
  - (b) remove or destroy the Building or Structure on the Premises;
  - (c) alter the use or occupancy of the Premises;
  - (d) remove combustible or explosive material from the *Premises* or remedy a flammable condition at the *Premises*; or
  - (e) take any other actions or precautions that the *Fire Inspection Officer* considers appropriate to mitigate the fire hazard present at the *Premises*.
- 37. A *Remediation Order* may be in the form attached as Schedule B and must:
  - (a) be in writing;
  - (b) identify the person who must fulfill the requirement;
  - (c) be posted in a conspicuous location on the Premises;
  - (d) be sent by regular mail to the owner's address;
  - (e) provide the owner or occupier of the *Premises* with no less than seven days to fulfill the requirement after the *Remediation Order* was posted on the *Premises* and sent by mail;
  - (f) advise that a person may request the *Fire Chief* reconsider the *Remediation Order* in accordance with this Bylaw; and
  - (g) advise that upon default, the *Municipality* may fulfill the requirement set out in the *Remediation Order* and seek recovery of the cost under Section 17 of the *Community Charter*.
- 38. If a *Remediation Order* is issued under Section 36, the owner or occupier of a *Premises* may appeal to the *Fire Chief* in writing, within seven (7) days after receipt of the *Remediation Order*, and the *Fire Chief* will promptly investigate the appeal and, in writing, either affirm, modify or revoke the *Remediation Order* issued under Section 36.

#### Vacant and Fire Damaged Buildings, Structures and Premises

- 39. If the *Fire Chief* or a *Fire Officer* determines that a vacant *Building, Structure* or *Premises* is unsecure and consequently a fire hazard or that a *Building, Structure* or *Premises* damaged by fire is unsafe, the *Fire Chief* or *Fire Officer* may issue a *Remediation Order* under Section 36 that includes, but is not limited to, one or more of the following:
  - (a) boarding up the Building or Structure;

- (b) fencing; or
- (c) supplying twenty-four (24) hour security services by a licensed security company.

#### **Forest Remediation**

- 40. If the safety of forest, woodland, timber, or other *Premises* is endangered by *Debris* caused by logging, land clearing, or industrial activity, the *Local Assistant* may require a *Remediation Order* to be issued to a person carrying on or who has carried on the activity, or the owner or occupier of the land on which the *Debris* exists, to:
  - (a) dispose of the *Debris* by burning or in another way, cut down all dead standing trees and stubs in the endangered area; or
  - (b) provide the labour and take the precautions, to prevent fire from escaping or damage to *Premises* from occurring.

#### **PART 7 – FIRE INSPECTIONS**

#### **Frequency of Inspections**

- 41. The *Fire Chief* shall establish a system of regular inspections of buildings, as defined under Section 36 (1) of the *Fire Services Act*, which system will provide different frequencies of inspection depending on a *Building's Building Code* building classification, its use, age and fire risk assessment.
- 42. The *Fire Inspection Officer*, or their designate, shall carry out the inspections established under Section 41.
- 43. The *Fire Chief* or *Fire Inspection Officer* must report to *Council* as and when requested by *Council* on the inspection system created and implemented under Section 41 of this Bylaw.

#### **Provision of Information to Fire Inspection Officer**

- 44. No person shall fail to provide information or render assistance required by a *Fire Inspection Officer* in connection with an inspection.
- 45. No person shall willfully withhold or falsify any information required by a *Fire Inspection Officer*, nor refuse to assist in the carrying out of an inspection.

#### No Interference during Inspection

46. No person shall obstruct or interfere with a *Fire Inspection Officer* while any inspection is being carried out.

#### PART 8 - LIFE SAFETY EQUIPMENT AND STANDARDS

#### **Fire Drills**

- 47. The owner or operator of a hotel, hospital, community care facility or other *Building* with sleeping accommodation and used for the care of persons, shall provide the *Fire Inspection Officer* a record of fire drills when requested.
- 48. The owner or operator of a school, child care facility, children's home or other institution for

children's education or care, shall provide the *Fire Inspection Officer* a record of fire drills when requested.

#### **Fire Safety Plans**

- 49. The owner or occupier of a *Building* or *Structure* that has a *Fire Alarm System* shall submit and initial the *Fire Safety Plan* in a form acceptable to the *Fire Chief*.
- 50. The owner or occupier of a *Building* or *Structure* who has submitted a *Fire Safety Plan* to the *Fire Chief* shall, when changes occur to the *Fire Safety Plan*, without delay revise it and resubmit it to the *Fire Chief* if any changes are necessary as a consequence of changes to the *Building*, utilities or *Fire and Life Safety Equipment*.
- 51. The owner or operator of a *Building* or *Structure* who has submitted a *Fire Safety Plan* to the *Fire Chief* must post a notice visible to all occupants of the *Building* or *Structure* of the location where a copy of the current *Fire Safety Plan* may be reviewed by the occupants.

#### Pre Incident Plan

- 52. An owner or operator of a *Building* without a *Fire Alarm System*, other than a *Single Family Dwelling*, duplex or triplex, shall submit an initial *Pre-Incident Plan* in a form acceptable to the *Fire Chief* a current *Pre-Incident Plan*.
- 53. The owner or operator of a *Building* or *Structure* who has submitted a *Pre-Incident Plan* to the *Fire Chief* shall, when changes occur, without delay revise it and resubmit it to the *Fire Chief* if any changes are necessary as a consequence of changes to the *Building*, utilities or *Fire And Life Safety Equipment*.

#### Fire and Life Safety Equipment Order

- 54. If the owner or operator of a hotel or public *Building* fails to provide, keep in good repair, alter or improve a means of exit, or fire and life safety equipment required by this Bylaw, a *Fire Inspection Officer* may issue to the owner or operator of the hotel or public *Building* a written *Fire and Life Safety Equipment Order* requiring that the owner or occupier of the hotel or public *Building* take action to meet the requirements of this Bylaw within a specified period of time.
- 55. A Fire and Life Safety Equipment Order must:
  - (a) be in writing;
  - (b) identify the person who must fulfill the requirement;
  - (c) be posted in a conspicuous location on the Building;
  - (d) be sent by regular mail to the owner's address;
  - (e) provide the owner or operator of the *Building* with no less than seven days to fulfill the requirement after the *Fire and Life Safety Equipment Order* was posted on the *Building* and sent by mail;
  - (f) advise that a person may request the *Fire Chief* reconsider the *Fire and Life Safety Equipment Order* in accordance with this Bylaw; and
  - (g) advise that upon default, the *Municipality* may fulfill the requirement set out in the *Fire and Life Safety Equipment Order* and seek recovery of the cost under Section 17 of the *Community*

Charter.

56. If a *Fire and Life Safety Equipment Order* is issued under Section 54, the owner or operator of a *Building* may appeal to the *Fire Chief* in writing, within seven (7) days after receipt of the *Fire and Life Safety Equipment Order*, and the *Fire Chief* will promptly investigate the appeal and, in writing, either affirm, modify or revoke the *Fire and Life Safety Equipment Order* issued under Section 54.

#### **Evacuation or No Occupancy Order**

- 57. The *Fire Chief* or *Fire Officer* may issue an *Evacuation Order* to an owner or occupier of a *Building*, *Structure* or area to evacuate the *Building*, *Structure* or area immediately, if the *Fire Chief* or *Fire Officer* believes there is an imminent and serious danger to life or property of the occupants or of a panic arising from a fire hazard or risk of explosion.
- 58. The *Fire Chief* or *Fire Inspection Officer* may post an *Evacuation Order* on any *Building* or *Structure* or area warning that *Occupancy* of the *Building*, *Structure* or area may be hazardous or that there is "**No Occupancy**" of the *Building*, *Structure* or area due to a fire hazard.
- 59. An Evacuation Order issued under Section 57 must:
  - (a) be in writing;
  - (b) identify the civic address and legal description of the Building;
  - (c) be posted in a conspicuous location on the *Building*;
  - (d) be sent by regular mail to the owner's address;
  - (e) provide the owner or operator of the *Building* with no less than 24 hours to fulfill the requirement after the *Evacuation Order* was posted on the *Building* and sent by mail.
- 60. No person shall remain in a *Building* or *Structure* that has been ordered evacuated or not to be occupied in accordance with the *Evacuation Order* without prior approval and permission by the *Fire Chief* or *Fire Inspection Officer*.

#### PART 9 - OPEN BURNING

#### **Open Burning**

- 61. No Person shall cause or allowing Open Burning except as permitted under this Bylaw.
- 62. The *Fire Chief*, or their delegate, may issue an *Open Burning Permit* subject to the conditions of this Bylaw.
- 63. Open Burning is permitted only when the Ventilation Index is rated as 'good':
  - (a) on property located
    - (i) outside of the Urban Containment Boundary, as defined in the Official Community Plan, or
    - (ii) inside the *Urban Containment Boundary*, where the property is larger than 2 acres in size, and an *Open Burning Permit* has been obtained under Section 62.
  - (b) between March 15 through April 15, and September 15 through November 30.
- 64. A person is permitted to ignite an *Open Burning* fire, if they have first obtained an *Open Burning Permit* issued in accordance with Section 62 and subject to the following conditions:

- (a) the person must agree to pay the Municipality's costs of extinguishing a fire that arises from the *Open Burning*, but is in contravention of the conditions of the permit or this Bylaw, or is otherwise uncontrolled, with the costs being calculated using the rates and amounts set out in the Fees and Charges Bylaw, Schedule H [Nuisance Abatement Fees];
- (b) fires must be located at least
  - (i) 4 metres from all Buildings, Structures, and combustible and flammable materials, and
  - (ii) 10 metres from all property lines;
- (c) fires must be during daylight hours only;
- (d) fires are restricted to only one hand-piled fire per property at a time;
- (e) fires must be smaller than 2 metres high by 2 metres wide;
- (f) proper fire-fighting equipment, including at least a shovel, rake and garden hose connected to a water source must be on hand and readily available in case of fire escape;
- (g) all material burned must
  - (i) originate from the property where it is being burned, and
  - (ii) consist only of untreated natural wood and brush.
- 65. Despite Sections 63 and 64, a *Category 3 Open Fire* is permitted on a property outside of the Urban Containment Boundary provided:
  - (a) an Air Curtain Incinerator is used,
  - (b) the operator of the *Air Curtain Incinerator* is trained in the safe and efficient maintenance and operation of *Air Curtain Incinerators*, and
  - (c) all applicable provincial and federal regulations are followed.
- 66. This Bylaw does not apply to persons carrying out
  - (a) Ceremonial Fires;
  - (b) "normal farm practices" as defined in the Farm Practices Protection Act;
  - (c) "forest practices" as defined in the Forest and Range Practices Act; or
  - (d) forest practices on land managed under the *Private Managed Forest Land Act*, Crown Forest Lands, Municipal Forest Reserve, and other public land used for forestry purposes.

#### PART 10 - PRIVATE FIRE HYDRANTS

#### **Private Hydrants**

- 67. All *Private Hydrants* in the *Municipality* must be painted yellow with red top and caps.
- 68. The owner or occupier of a property on which a *Private Hydrant* is located must:
  - (a) maintain, clear and keep unobstructed an area having a radius of one (1) metre around every hydrant;
  - (b) keep hydrants clear of ice, snow, shrubs, trees, Structures and other obstructions; and,
  - (c) clearly identify their locations.
- 69. No person shall obstruct or otherwise interfere with a fire hydrant or Private Hydrant.

#### **Private Hydrant Maintenance and Inspections**

70. The owner of every *Private Hydrant* shall have all components of the hydrant inspected, serviced and tested by a qualified *Fire Protection Technician* not less than once a year and the *Fire Hydrant Service Report* must be submitted to the *Fire Department* upon request.

#### Private Hydrant Service after Use

- 71. The owner of a *Private Hydrant* must conduct or have conducted an inspection after each use of the *Private Hydrant*, which inspections shall include the following minimum requirements:
  - (a) an examination of the exterior for broken, cracked or missing parts;
  - (b) a check to ensure that the hydrant hose ports are at the proper elevation and facing a direction for the most efficient use;
  - (c) a check to ensure that the hydrant is not obstructed by tall grass, shrubbery or other obstacles;
  - (d) a check for worn, rusted or obstructed threads, which may hamper efficient use of the hydrant; and,
  - (e) an examination of hydrant barrels to determine if water has accumulated as a result of a leaking main valve, or plugged or damaged drain valve.

#### **Annual Servicing of Private Hydrants**

- 72. The owner of a *Private Hydrant* is responsible for conducting or having conducted annual inspections, which includes the following minimum requirements:
  - (a) hydrants shall be flushed with main valve and outlet valves fully open until the water runs clear of any visible *Debris;* and,
  - (b) prevent the discharged water from carrying sediment in to the storm system or eroding a natural drainage course; and,
  - (c) check the operation of the main line valve by closing the isolating valve.

#### **Three Year Servicing of Private Hydrants**

- 73. The owner of a *Private Hydrant* must ensure the following servicing of the *Private Hydrant* is conducted every three (3) years:
  - (a) disassemble the hydrant and check for worn or broken parts and leaks;
  - (b) lubricate all external and internal working parts during reassembly;
  - (c) check water pressure; and,
  - (d) re-open main line valve and check to see if hydrant operates and close hydrant valve.

#### PART 11 – INSPECTION AND PERMIT FEES

- 74. A person must pay the fees prescribed under the *Fees and Charges Bylaw*, Schedule A, Section 1 [General Administration Fees] and Schedule G, Section 1 [Fire Equipment Fees] for each of the following:
  - (a) an Open Burning Permit;
  - (b) review of a new, existing or amended Fire Safety Plan;

- (c) a review of a Fire Hydrant Service Report;
- (d) special request services approved in writing by the Fire Chief;
- (e) an inspection of a Building, Structure or site conducted at the request of the owner, owner's representative or occupier (and where not otherwise provided for under this Bylaw) to determine compliance with this Bylaw or the Fire Code; and
- (f) re-inspection of *Premises* after a fire inspection report has been issued under this Bylaw where deficiencies remain.
- 75. The costs that may be imposed under Section 76 are to be calculated in accordance with the rates and amounts set out in the *Fees and Charges Bylaw*, Schedule H [Nuisance Abatement Fees].

#### PART 12 – FAILURE TO COMPLY

76. If an owner, occupier or operator of a *Premises* fails to comply with a *Remediation Order* or a *Fire and Life Safety Equipment Order* the *Municipality* may enter on the *Premises* and take such action as may be required to correct the default, including to remediate the *Premises* or to have the *Premises* attain a standard specified in the order or any safety enactment, at the expense of the owner, occupier or operator who has failed to comply, and may recover the costs incurred as a debt.

77. If the owner has failed to pay the cost to the *Municipality* incurred under Section 76 before the 31<sup>st</sup> day in December in the year that the corrective action was invoiced, the service costs must be added to and form part of the property taxes payable on the property as taxes in arrears.

#### PART 13 - OFFENCE AND PENALTY

78. Any person who:

- (a) contravenes or violates any provision of this Bylaw;
- (b) allows any act or thing to be done in contravention or violation of this Bylaw; or
- (c) fails or neglects to do anything required to be done by this Bylaw;
- (d) commits an offence, and where the offence is a continuing one, each day the offence is continued constitutes a separate offence.
- 79. Upon being convicted of an offence under this Bylaw, a person shall be liable to pay a fine not exceeding \$50,000.00.

#### PART 14 - REPEAL

80. Fire Protection Bylaw, 2008, No. 3340 and all amendments thereto are hereby repealed.

#### PART 15 – FORMS AND SCHEDULES

- 81. The *Fire Chief* may prescribe the form of permits, orders and reports issued or required under this bylaw and may use the forms attached as Schedules to this Bylaw.
- 82. The following Schedules are attached to and form part of this Bylaw:
  - (a) Schedule "A" Emergency Contact Person Form
  - (b) Schedule "B" Remediation Order
  - (c) Schedule "C" Fire and Life Safety Equipment Order
  - (d) Schedule "D" Evacuation Order
  - (e) Schedule "E" Open Burning Permit
  - (f) Schedule "F" Private Fire Hydrant Service Report

READ a first time on READ a second time on READ a third time on ADOPTED on

CORPORATE OFFICER

PRESIDING MEMBER

#### **SCHEDULE A**

	EMERGENCY	CONTACT	PERSON	FORM
--	-----------	---------	--------	------



#### Fire Protection Bylaw No. 3841, 2021

District of North Cowichan, Fire and Bylaw Services 7030 Trans-Canada Highway, Duncan, BC V9L 6A1 Canada 250.746.3108 | fire@northcowichan.ca | www.northcowichan.ca

Owner / Occupier Information					
Owner Name:					
Occupier Name (if any):					
Address of Premises with Fire Alarm System:					
Owner Telephone Number:					
Occupier Telephone Number (if any):					
Emergency Contact Information					
First Emergency Contact Person Name:					
Relation to Owner or Occupier:					
Emergency Telephone Number:					
Second Emergency Contact Person Name:					
Relation to Owner or Occupier:					
Emergency Telephone Number:					
Third Emergency Contact Person Name:					
Relation to Owner or Occupier:					
Emergency Telephone Number:					
Please print clearly the above information.					
Signature	Date				

#### Schedule B

MUNICIPALITY OF	Fire Protection Bylaw No. 3841, 2021		
Cowichan	District of North Cowichan, Fire and Bylaw Services 7030 Trans-Canada Highway, Duncan, BC V9L 6A1 Canada 250.746.3108   fire@northcowichan.ca   www.northcowichan.ca		
REMEDIAT	ION ORDER		
This Order is issued pursuant to Fire Protection Bylaw No. 38 Remediation Order as the Fire Officer has determined that c	841, 2021, Section 39, which authorizes the Fire Officer to issue a one or more of the following conditions:		
The <i>Premises</i> in such a state of disrepair that a fire starting in them might spread rapidly to endanger life or other property;			
□ The use or occupy the <i>Premises</i> in such a manner that f	The use or occupy the <i>Premises</i> in such a manner that fire would endanger life or property or increase the danger of fire;		
□ Keep combustible or explosive material on the <i>Premises</i> , except as permitted by this Bylaw or other enactment, or allow other flammable conditions to exist in the <i>Premises</i> so as to endanger life or property; or			
□ Allow a fire hazard to exist on the <i>Premises</i> .			
The deadline for compliance with this Order It is an offence to ren This Order must be posted	r is [date] nove or deface this Order. in a conspicuous on the property.		
Failure to comply with this Order may result in a fine or the District day that this offence continues to exist past the deadline for compl	taking the necessary steps to bring your property into compliance. Each iance constitutes a separate and distinct offence.		
The costs for any works completed by the Municipality, can be reco 258(2), as authorized by Section 17(2) and 258(1)(c) of the <i>Commun</i> "Nuisance Abatement Fees" of Fees and Charges Bylaw No. 3784.	overed, if unpaid, with the same remedies as property taxes under Section nity Charter. The fees to determine this cost are set out in Schedule H		
<ul> <li>You may request that Fire Chief reconsider this Order by delivering expiration of the time for compliance set out in this Order:</li> <li>In-person: Municipal Office located at 7030 Trans-Canada Hig</li> <li>By email to: <u>fire@northcowichan.ca</u></li> </ul>	your request in writing to the Fire Chief, at least seven days prior to the hway between regular business hours		
Inquiries should be directed to the Assistant Fire Chief (Fire	Inspection Officer), at 250.746.3108 or fire@northcowichan.ca.		
Date Fire Inspection C	Officer		

#### SCHEDULE C



#### Fire Protection Bylaw No. 3841, 2021

[civic address]

District of North Cowichan, Fire and Bylaw Services 7030 Trans-Canada Highway, Duncan, BC V9L 6A1 Canada 250.746.3108 | fire@northcowichan.ca | www.northcowichan.ca

# FIRE AND LIFE SAFETY EQUIPMENT ORDER

This Order is issued pursuant to Fire Protection Bylaw No. 3841, 2021, Section 54, which authorizes the Fire Officer to issue a Fire and Life Safety Equipment Order as the Fire Officer has determined that the property owner has failed to keep in good repair a means of exit or fire and life safety equipment at

and require the property owner to take immediate action.

The deadline for compliance with this Order is \_\_\_\_\_\_ [date]

The property owner is ordered to complete the following works on or before the expiration of the above date:

# It is an offence to remove or deface this Order.

This Order must be posted in a conspicuous on the property.

Failure to comply with this Order may result in a fine or the District taking the necessary steps to bring your property into compliance. Each day that this offence continues to exist past the deadline for compliance constitutes a separate and distinct offence.

The costs for any works completed by the Municipality, can be recovered, if unpaid, with the same remedies as property taxes under Section 258(2), as authorized by Section 17(2) and 258(1)(c) of the *Community Charter*. The fees to determine this cost are set out in Schedule H "Nuisance Abatement Fees" of Fees and Charges Bylaw No. 3784.

You may request that Fire Chief reconsider this Order by delivering your request in writing to the Fire Chief, at least seven days prior to the expiration of the time for compliance set out in this Order:

- In-person: Municipal Office located at 7030 Trans-Canada Highway between regular business hours
- By email to: <u>fire@northcowichan.ca</u>

Inquiries should be directed to the Assistant Fire Chief (Fire Inspection Officer), at 250.746.3108 or fire@northcowichan.ca.

Date

Fire Inspection Officer or Fire Chief
#### SCHEDULE D



## Fire Protection Bylaw No. 3841, 2021

District of North Cowichan, Fire and Bylaw Services 7030 Trans-Canada Highway, Duncan, BC V9L 6A1 Canada 250.746.3108 | fire@northcowichan.ca | www.northcowichan.ca

# **EVACUATION ORDER**

This Order is issued pursuant to Fire Protection Bylaw No. 3841, 2021, Section 57, which authorizes the Fire Chief or Fire Inspection Officer to issue and Evacuation Order if the Fire Chief or Fire Inspection Officer believes there is an imminent and serious danger to life or property of the occupants or of a panic arising from a fire hazard or risk of explosion.

By Order of the District of North Cowichan Fire Department, the building located at \_\_\_\_\_

[civic address]

and legally described as \_\_\_\_\_\_, (the "*Premises*") is order to be evacuated in accordance with Section 57 of Fire Protection Bylaw No. 3841, 2021 for the following reasons:

# NO PERSON shall enter this building without the authorization of the Fire Chief.

Date Order was posted on the Premises:

# It is an offence to remove or deface this Order.

This Order must be posted in a conspicuous on the property.

Inquiries should be directed to the Assistant Fire Chief (Fire Inspection Officer), at 250.746.3108 or fire@northcowichan.ca.

Date

Fire Inspection Officer or Fire Chief

#### SCHEDULE E

# NORTH Cowichan

# **OPEN BURNING PERMIT**

#### Fire Protection Bylaw No. 3841, 2021

District of North Cowichan, Fire and Bylaw Services 7030 Trans-Canada Highway, Duncan, BC V9L 6A1 Canada 250.746.3108 | fire@northcowichan.ca | www.northcowichan.ca

Applicant	
Name:	
Civic Address:	
Home:	Cell:
Email:	
□ I am the property owner	

□ I am not the property owner (written permission of owner required)

Personal information you provide on this form is collected pursuant to Section 26 of the *Freedom of Information and Protection of Privacy Act* and will only be used for the purpose of processing this Open Burning Permit application. Your personal information will not be released except in accordance with the *Freedom of Information and Protection of Privacy Act*. Questions about the collection of your personal information may be referred to the Information Management Officer (foi@northcowichan.ca or 250.746.3116).

#### **General Terms and Conditions**

This Open Air Burning Permits are valid for the following dates:

- March 15 through April 15, 20\_\_\_\_
- □ September 15 through November 30, 20\_\_\_

and is subject to the following requirements:

- (1) fires must be located at least
  - (i) 4 metres from all Buildings, Structures, and combustible and flammable materials, and
  - (ii) 10 metres from all property lines;
- (2) fires must be during daylight hours only;
- (3) fires are restricted to only one hand-piled fire per property at a time;
- (4) fires must be smaller than 2 metres high by 2 metres wide;
- (5) proper fire-fighting equipment, including at least a shovel, rake and garden hose connected to a water source must be on hand and readily available in case of fire escape;
- (6) all material burned must
  - (i) originate from the property where it is being burned, and
    - (ii) consist only of untreated natural wood and brush.

#### Permit Holder Acknowledgement

I CERTIFY that I understand and will be guided by the provisions under Part 9 of the Fire Protection Bylaw No. 3841, 2021 and all applicable Provincial regulations and any conditions or restrictions imposed in the permit by the Fire Chief.

I AGREE that I am responsible for the fires authorized by this permit and any damage or damages to a person or property caused by an uncontrolled fire and I AGREE to pay all costs of the North Cowichan Fire Department to extinguish a fire if the permit conditions or the Fire Protection Bylaw No. 3841, 2021 are violated or the fire is uncontrolled.

Signature

Date

**Permit Authorization** 

Signature

Date

#### SCHEDULE F

MUNICIPALITY O	F		Fire	Protection Bylaw No. 3841, 20	
NORTH Cowichan			District of North Cowichan, Fire and Bylaw Services 7030 Trans-Canada Highway, Duncan, BC V9L 6A1 Canada 250.746.3108   fire@northcowichan.ca   www.northcowichan.ca		
Fire Protection Technicia	n's Name:				
Owner's Name:					
Hydrant No.:			Test Date:		
Location:				Douter	
		FIOW Rate:		Ports:	
Out of Service:		🗆 No			
Comments:					
Pressure:		Make:	Distance	to isolation valve:	
Branch value operated:	🗆 Yes	🗆 No	Service top end:	🗆 Yes 🛛 No	
Service bottom end:	$\Box$ Yes	🗆 No	Service threads:	🗆 Yes 🛛 No	
Flushed out:	$\Box$ Yes	🗆 No	Pressure tested:	🗆 Yes 🛛 No	
Greased:	$\Box$ Yes	🗆 No	Drains properly:	🗆 Yes 🛛 No	
Painted:	$\Box$ Yes	🗆 No	Weed eaten:	🗆 Yes 🛛 No	
Comments:					
Further work recommend	dation:				

# **ATTACHMENT 2**



# The Corporation of the District of North Cowichan

# **Fire Protection Bylaw**

Bylaw 3340

[Consolidated and printed by authority of the Corporate Officer under Section 139 of the Community Charter. Current to February 28, 2018. Last amended February 21, 2018. Amendments: 3416, 3438, 3470, 3548, 3624, 3654, 3676.]

Contents

- 1 Definitions
- 2 Fire Prevention
- 3 Firefighting
- 4 Fire Department
- 5 Fire Chief
- 6 Local Assistant to the Fire Commissioner
- 7 Incineration of Structures on Private Property
- 8 Equipment Charges
- 9 Fire Supervision
- 10 Exceptions
- 11 Restrictions on Open Burning
- 12 Recreational Fire Pits
- 13 Repeal

The Council of The Corporation of The District of North Cowichan enacts as follows:

# Definitions

**1** In this Bylaw:

"air curtain burner" means a portable or stationary combustion device that directs a plane of high velocity forced draft air through a manifold head into a burn chamber, but does not include a trench burner;

"bylaw compliance officer" means a person appointed by the Chief Administrative Officer;

# "category 3 fire" means

- (a) a fire larger than 2 m high by 3 m wide,
- (b) 3 or more concurrently burning piles no larger than 2 m high by 3 m wide, or
- (c) 1 or more burning windrows;

# "Fire Chief" means

- (a) the person appointed by Council as the Fire Chief for each fire protection area (*i.e.* area of North Cowichan served by a hall of the Fire Department), or
- (b) a person authorized in writing by the Fire Chief to carry out a function under this Bylaw;

"fire services personnel" means full-time, part-time, or paid on-call firefighters employed by North Cowichan, and includes a local assistant;

"incident" means a fire, building collapse, or situation where a fire or explosion is imminent or hazard to persons or property exists, and includes a rescue, threat to life, and call for assistance;

"local assistant" has the same meaning as in the Fire Services Act;

"officer in command" means the senior Fire Department member present;

**"open burning"** means the combustion of materials with or without control of the combustion air and without a stack or chimney to vent the emitted products of combustion to the atmosphere. [BL3654]

# **Fire prevention**

- (1) No owner or occupier of real property in North Cowichan may keep, store, or allow to remain, on the real property, any matter or thing that in the opinion of the local assistant is a fire hazard or increases the danger of fire.
  - (2) The local assistant may require an owner or occupier of real property to clean chimneys, flues, or other apparatuses or things, that unless cleaned might, in the local assistant's opinion, cause a fire or increase the danger of fire.
  - (3) No person may allow combustible waste of any kind to accumulate.
  - (4) No person may stand, loiter, or sit, in an aisle, passage, or stairway, of a church, theatre, hall, skating rink, or other place of amusement or public resort.
  - (5) The owner of a vacant building must
    - (a) at all times ensure that the premises are free from debris and flammable substances, and
    - (b) keep all openings to the building securely closed and fastened to prevent unauthorized persons from entering.
  - (6) The owner of a building that has been damaged by fire must prevent unauthorized persons from entering the building by ensuring that
    - (a) the premises are guarded, or
    - (b) all openings to the building are kept securely closed and fastened.
  - (7) If the safety of forest, woodland, timber, or other property is endangered by debris caused by logging, land clearing, or industrial activity, the local assistant may require the person carrying on or who has carried on the activity, or the owner or occupier of the land on which the debris exists, to
    - (a) dispose of the debris by burning or in another way,

- (b) cut down all dead standing trees and stubs in the endangered area, or
- (c) provide the labour and take the precautions, to prevent fire from escaping or damage to property from occurring, as North Cowichan directs.
- (8) The Fire Chief or local assistant may, at any reasonable time, inspect premises for a condition that might cause a fire, increase the danger of fire, or increase the danger to persons.
- (9) If this Bylaw is violated or a condition exists in or on a building or real property that in the opinion of the Fire Chief or local assistant constitutes a fire hazard or increases the danger of fire, the Fire Chief or local assistant may make an order that a person comply with this Bylaw and eliminate the fire hazard or increased danger of fire.
- (10) If an owner or occupier of real property fails to comply with an order under subsection (9), North Cowichan may, following notice in writing, enter the real property and take whatever action as required to remedy the situation and may recover the costs incurred as debt against the owner or occupier.
- (11) If the owner of property fails to pay the costs referred to in subsection (10) before the 31<sup>st</sup> day of December in the year the costs were incurred, the costs may be added to and form part of the taxes on the property as taxes in arrears.

# Firefighting

- **3** (1) The Fire Chief or officer in command at an incident must control, direct, and manage all Fire Department apparatus, equipment, and personnel present at the incident.
  - (2) The Fire Chief or officer in command may require any person present at the scene of an incident to help fight a fire or preserve property threatened by the incident.
  - (3) Fire services personnel may, with or without a property owner or occupier's permission,
    - (a) enter land or premises
      - (i) from which an alarm of an incident is received, or
      - (ii) in or on which they have reasonable grounds to believe an incident exists, and
    - (b) take whatever actions or measures they consider necessary to combat, control, or suppress the incident. [BL3624]
  - (4) If they consider it necessary to access an incident or protect persons or property, fire services personnel may enter or pass through or over lands or premises next to the incident, with or without Fire Department apparatus and equipment.
  - (5) Fire services personnel may commandeer any privately-owned equipment that they consider necessary to deal with an incident.
  - (6) If there is, in the opinion of the Fire Chief or officer in command, an imminent and serious danger to life or property, the Fire Chief or officer in command may order the evacuation of any building, structure, or area.

- (7) After the Fire Chief or officer in command orders an evacuation under the previous subsection, no person other than the Fire Chief, officer in command, or other person authorized by the Fire Chief or officer in command, may stay in or enter any building, structure, or area ordered evacuated.
- (8) No person may enter a burning building, fire scene, or other restricted area, without the permission of the Fire Chief or officer in command.
- (9) If the Fire Chief or officer in command considers it necessary to
  - (a) prevent an incident from spreading, or
  - (b) protect a person,

the Fire Chief or officer in command may cause a building, structure, or thing to be demolished, pulled down, or otherwise removed.

- (10) No person may obstruct, impede, or otherwise interfere with fire services personnel or other persons under the direction of the Fire Chief or officer in command.
- (11) Other than the following, no person may open or use any fire hydrant for any purpose:
  - (a) fire services personnel in the course of their duties;
  - (b) North Cowichan employees in the course of their duties;
  - (c) other persons authorized by the
    - (i) Fire Chief or officer in command, or
    - (ii) Director of Engineering and Operations. [BL3548]
- (12) No person may obstruct or otherwise impede access to a fire hydrant.
- (13) If a person obstructs access to a fire hydrant, the obstruction may be removed at the person's expense.
- (14) The Fire Chief or officer in command may exercise some or all the powers of the fire commissioner under section 25 *[Emergencies]* of the *Fire Services Act.*

# Fire Department

- 4 (1) The Fire Department is responsible for fire suppression and prevention.
  - (2) The Fire Department may also provide assistance in response to the following circumstances:
    - (a) first response medical emergencies;
    - (b) emergency medical service;
    - (c) high angle rescue;
    - (d) water rescue;
    - (e) vehicle extrication;
    - (f) confined space rescue;
    - (g) hazardous material incidents;
    - (h) heavy rescue;
    - (i) property inspection;
    - (j) emergency planning;
    - (k) public education;

(I) mutual aid to other agencies.

# Fire Chief

- **5** Each Fire Chief is responsible to the Chief Administrative Officer for the following:
  - (a) providing fire protection and control services to the fire protection area served by the fire hall;
  - (b) managing and operating the fire hall in a safe and efficient manner;
  - (c) the care and custody of all buildings, apparatus, and equipment under the control of the Fire Chief.

## Local Assistant to the Fire Commissioner

**6** A local assistant is responsible for exercising the powers and duties imposed by the *Fire Services Act*, including investigating fires and enforcing all North Cowichan bylaws respecting fire prevention.

## Incineration of structures on private property

- **7** (1) A person must apply to North Cowichan to have the Fire Department incinerate a structure on the person's property.
  - (2) A fee as prescribed in the Fees Bylaw is payable if the person's application is approved before the Fire Department incinerates the structure. [BL3470]
  - (3) If a person applying to have the Fire Department incinerate a structure on the person's property provides North Cowichan with enough notice to enable the Fire Department to use the structure for firefighting practice, no fee is required. [BL3416]

# **Equipment Charges**

8 Fees to use Fire Department equipment and manpower for fire fighting and rescue are as prescribed in the Fees Bylaw. [BL3470]

#### Fire Supervision

- **9** Every person who starts or maintains a fire must ensure that
  - (a) the fire is constantly supervised by a competent person until it is completely extinguished, and
  - (b) enough equipment and labour are available where the fire is located to effectively control it from spreading, causing damage, or becoming dangerous to life or real property.

#### Exceptions

- **10** (1) Nothing in this Bylaw restricts or prohibits;
  - (a) a fire contained in a barbecue or hibachi to cook food;
  - (b) burning done or fires set by North Cowichan employees or fire services personnel in the course of their duties. [BL3438, BL3676]
  - (2) If, in the opinion of the local assistant, a fire hazard endangers the safety of life or property within the Municipality, the local assistant may, by an order in writing, declare an open burning ban in part or all of North Cowichan.

#### **Restrictions on open burning**

- **11** (1) Open burning is permitted only
  - (a) when the ventilation index is rated as 'good', as reported by the Meteorological Service of Environment Canada's Ventilation Index,
  - (b) on property located
    - (i) outside of the Urban Containment Boundary, as defined in the Municipality's Official Community Plan, or
    - (ii) inside the Urban Containment Boundary, where the property is larger than 2 ac in size, and a permit has been obtained from the bylaw compliance officer,
  - (c) between March 15 through April 15, and September 15 through November 30.
  - (2) Open burning permitted under subsection (1) is subject to the following requirements:
    - (a) fires must be located at least
      - (i) 4 m from all buildings, structures, and combustible and flammable materials, and
      - (ii) 10 m from all property lines;
    - (b) fires must be during daylight hours only;
    - (c) only one hand-piled fire per property at a time is permitted;
    - (d) fires must be smaller than 2 m high by 2 m wide;
    - (e) proper fire-fighting equipment, including at least a shovel, rake and garden hose connected to a water source must be on hand and readily available in case of fire escape;
    - (f) all material burned must
      - (i) originate from the property where it is being burned, and
      - (ii) consist only of untreated natural wood and brush.
  - (3) Despite subsections (1) and (2), a category 3 fire is permitted on property outside of the Urban Containment Boundary provided
    - (a) an air curtain burner is used,
    - (b) the operator of the air curtain burner is trained in the safe and efficient maintenance and operation of air curtain burners, and
    - (c) all applicable provincial and federal regulations are followed.
  - (4) This bylaw does not apply to persons carrying out
    - (a) "normal farm practices" as defined in the British Columbia *Farm Practices Protection Act*,
    - (b) "forest practices" as defined in the British Columbia *Forest and Range Practices Act*, or

(c) forest practices on land managed under the *Private Managed Forest Land Act*, Crown Forest Lands, Municipal Forest Reserve, and other Municipal land used for forestry purposes. [BL3654]

#### **Restrictions on wood burning appliances**

**11.1** During an air quality advisory issued by Vancouver Island Health Authority, no wood burning appliances may be used unless the wood burning appliance is the primary source of heat for the dwelling. [BL3654]

#### **Recreational fire pits**

- **12** A recreational fire pit must
  - (a) be made of a noncombustible material,
  - (b) be equipped with a tight-fitting lid of perforated metal or wire screen having openings not more than 1 cm<sup>2</sup> in area,
  - (c) not exceed  $0.5 \text{ m}^3$  in volume,
  - (d) be located not less than 2 m from a property line and not less than 5 m from a building or flammable or combustible material, and
  - (e) rest on a noncombustible foundation.

## Liability

**13** Both the owner and occupier of a property may be liable and required to pay a fine for a fire set in contravention of this Bylaw. [BL3654]

Read a first, second and third time on May 21, 2008 Adopted on June 4, 2008

# Report



Date	September 1, 2021	File:	
То	Council		
From	Tricia Mayea, Deputy Corporate Officer	Endorsed:	Jedfewaler.
Subject	Consequential Amendment Bylaws for first three readings		

# Purpose

To introduce bylaw amendments to the Delegation of Authority, Fees and Charges, Bylaw Offence Notice Enforcement (BON), and Municipal Ticket Information System (MTI) Bylaws that are consequential to Fireworks Regulation Bylaw No. 3810 and Fire Protection Bylaw No. 3841 for first three readings.

# Background

On August 18, 2021, Council adopted Fireworks Regulation Bylaw No. 3810, 2021 to establish new regulations in relation to the sale, possession and discharge of fireworks within North Cowichan. Bylaw Compliance Officers are not able to enforce any violations under the new bylaw through issuance of a municipal ticket or bylaw notice until amendments to the Bylaw Offence Notice Enforcement, and Municipal Ticket Information System Bylaws are adopted.

In 2014, the Office of the Fire Commissioner (the "OFC") began working on the Structure Firefighters Competency and Training Playbook (the "<u>Playbook</u>") and subsequently implemented the minimum training standards for each level of service in 2016. The implementation of that Playbook triggered a review and update to Fire Protection Bylaw No. 3340, 2008. That new bylaw, Fire Protection Services Bylaw No. 3841, 2021, is being presented to Council on September 1, 2021 for first three readings. To avoid any delays in enforcing violations under the new Bylaw, staff is presenting amendments to the Delegation of Authority, Fees and Charges, Bylaw Offence Notice Enforcement, and Municipal Ticket Information System Bylaws to address building inspections, inspection and permit fees, and fines for violations.

# Discussion

# Amendments to the Delegation of Authority Bylaw

<u>Section 36(3)</u> [inspection of buildings] of the *Fire Services Act* requires that Council provide for a regular system of inspection by an officer of buildings in the municipality. Delegation of Authority Amendment Bylaw No. 3842, 2021 (Attachment 1) proposes to delegate that authority to the Fire Chief. Fire Protection Services Bylaw No. 3841, 2021 provides some direction on the frequency on inspections, however, the establishment and administration of that system would fall to the Fire Chief, providing the Chief with some flexibility when needed.

# Amendments to the Fees and Charges Bylaw

<u>Section 194</u> of the *Community Charter* authorizes Council to impose fees, by bylaw, when exercising its authority to regulate, prohibit or impose requirements and <u>section 258</u> enables Council to collect those fees, if unpaid after December 31, as taxes in arrears.

Fees and Charges Amendment Bylaw No. 3843, 2021 (Attachment 2) proposes to:

- Make minor text amendments to schedules names
- Add a new clause that would enable fees to still be valid when a regulatory bylaw is replaced without having to amend the Fees and Charges Bylaw immediately
- Include Fireworks Regulation Bylaw No. 3810, 2021 and Fire Protection Services Bylaw No. 3841, 2021 under Schedule A Administration Fees for any costs incurred by North Cowichan
- establish fees in relations to Fire Protection Services Bylaw No. 3841, 2021 for:
  - o open burning permit at no charge
  - o fire safety plan review at \$200
  - o fire services special request at actual costs
  - o special fire inspection at \$50
  - o fire inspection report inspection (initial) at \$200
  - o fire inspection report re-inspection at \$400
- establish fees in relations to Fireworks Regulation Bylaw No. 3810, 2021 for:
  - o family fireworks permit application at \$10
  - o display fireworks permit application at \$100
  - pyrotechnics permits application at \$200
  - o fire safety plan review for fireworks at \$200
  - o fire protection cost recovery fee for fireworks at \$550 per hour
  - o clean up litter and debris left on municipal property at actual costs

# Amendments to the Bylaw Offence Notice Enforcement Bylaw

<u>Section 4</u> of the *Local Government Bylaw Enforcement Notice Act* authorizes Council to impose penalties for contravention of municipal bylaws by a bylaw notice. <u>Section 6</u> limits the maximum penalty for a bylaw notice at \$500.

Bylaw Offence Notice Enforcement Amendment Bylaw No. 3844, 2021 (Attachment 3) proposes to:

Delete the descriptions and penalties for Fire Protection Bylaw No. 3340, 2008 from Schedule "A" and insert new descriptions and penalties in its place. The offences and penalties were reviewed by the Manager, Fire and Bylaw Services and the Manager, Bylaw and Business Licensing, and penalties are based on the severity of the offence - \$500 for more severe offences, where public safety and the safety of fire fighters is paramount - \$250 for less severe offences, where public safety and the safety of fire fighters is minimal.

Delete the descriptions and penalties for Fireworks Bylaw No. 1579, 1974 from Schedule "A" and
insert new descriptions and penalties in its place. The offences and penalties were reviewed by the
Manager, Bylaw and Business Licensing Services, and penalties are based on the severity of the
offence (keeping public safety in mind) – ranging from \$100 for the use of fireworks without a
permit to \$500 for discharge of pyrotechnics contrary to a fire safety plan.

# Amendments to the Municipal Ticket Information System Bylaw

<u>Section 265</u> of the *Community Charter* authorizes Council to impose penalties for contravention of municipal bylaws by laying an information by means of a ticket. <u>Section 2</u> of the *Bylaw Enforcement Ticket Regulation* limits the maximum penalty for a bylaw notice at \$1,000.

Municipal Ticket Information System Amendment Bylaw No. 3845, 2021 (Attachment 4) proposes to:

- Delete the offences and fines for Section 5 Fire Protection Bylaw 2008 from Schedule 2, and insert new offences and fines in its place. The offences and fine amounts were reviewed by the Manager, Fire and Bylaw Services and the Manager, Bylaw and Business Licensing, and fines are based on the severity of the offence \$1,000 for more severe offences, where public safety and the safety of fire fighters is paramount \$500 for less severe offences, where public safety and the safety of fire fighters is minimal.
- Delete the offences and fines for Section 6 Fireworks Bylaw 1974 from Schedule 2, and insert new offences and fines in its place. The offences and fine amounts were reviewed by the Manager, Fire and Bylaw Services, and penalties are based on the severity of the offence (keeping public safety in mind) ranging from \$100 for the use of fireworks without a permit to \$500 for discharge of pyrotechnics contrary to a fire safety plan.

# Options

(1) (Recommended) Give three readings to all bylaw amendments as presented.

THAT Council gives first, second and third readings to:

- (1) Delegation of Authority Amendment Bylaw No. 3842, 2021;
- (2) Fees and Charges Amendment Bylaw No. 3843, 2021;
- (3) Bylaw Offence Notice Enforcement Amendment Bylaw No. 3844, 2021; and
- (4) Municipal Ticket Information System Amendment Bylaw No. 3845, 2021.
- (2) Refer the bylaw amendments to Committee of the Whole for further direction.

THAT Council refer the amendments to the Delegation of Authority, Fees and Charges, Bylaw Offence Notice Enforcement, and the Municipal Ticket Information System Bylaws to the next Committee of the Whole meeting to provide direction to staff prior to Council's consideration of first reading.

# Implications

Amending the Delegation of Authority, Fees and Charges, BON and the MTI Bylaws in conjunction with the Fire Protection Bylaw will avoid delays in the ability to enforce violations under the new Bylaw.

Amending the Fees and Charges, BON and the MTI Bylaws to include the new Fireworks Regulation Bylaw at this time coincides with the fall season when the amount of fireworks displays are the highest in the District of North Cowichan, and provides Bylaw Compliance Officers with the tools to educate the community on the new regulations and fines for non-compliance.

# Recommendation

THAT Council gives first, second and third readings to:

- (1) Delegation of Authority Amendment Bylaw No. 3842, 2021;
- (2) Fees and Charges Amendment Bylaw No. 3843, 2021;
- (3) Bylaw Offence Notice Enforcement Amendment Bylaw No. 3844, 2021; and
- (4) Municipal Ticket Information System Amendment Bylaw No. 3845, 2021.

Attachment(s):

- (1) Delegation of Authority Amendment Bylaw No. 3842, 2021
- (2) Fees and Charges Amendment Bylaw No. 3843, 2021
- (3) Bylaw Offence Notice Enforcement Amendment Bylaw No. 3844, 2021
- (4) Municipal Ticket Information System Amendment Bylaw No. 3845, 2021

# ATTACHMENT 1



The Corporation of the District of North Cowichan

# **Delegation of Authority Amendment Bylaw**

# Bylaw 3842

The Council of The Corporation of The District of North Cowichan enacts in open meeting assembled as follows:

# Title

1. This bylaw may be cited as "Delegation of Authority Amendment Bylaw No. 3842, 2021".

## Amendment

- 2. That Delegation of Authority Bylaw No. 3814, 2020 is hereby amended by adding the following new subsection (9) under Section 9 [Personnel administration and appointments]:
  - "(9) Council authorizes the Fire Chief to exercise all the powers of the Fire Commissioner under Section 25 of the *Fire Services Act* for the purpose of responding to an emergency or disaster."
- 3. That Delegation of Authority Bylaw No. 3814, 2020 is hereby amended by adding the following as section 29 and renumbering sections 29 to 31 accordingly:

# "Inspection of Buildings

29. Council delegates its powers, duties and functions under section 36(3) [*inspection of buildings*] of the *Fire Services Act* to establish, revise and implement a regular system of inspections of hotels, public buildings, churches theatres, halls, or other buildings used as a place of public resort to the Fire Chief."

READ a first time on READ a second time on READ a third time on ADOPTED on

CORPORATE OFFICER

PRESIDING MEMBER

# **ATTACHMENT 2**



The Corporation of the District of North Cowichan

# Fees and Charges Amendment Bylaw

Bylaw No. 3843

The Council of The Corporation of The District of North Cowichan enacts in open meeting assembled as follows:

# Title

1. This bylaw may be cited as "Fees and Charges Amendment Bylaw No. 3843, 2021".

# Amendment

- 2. That Section 3 of Fees and Charges Bylaw No. 3784, 2020 is amended by striking out "Schedules A to G" and inserting in its place "Schedules A to H".
- 3. That Section 11 of Fees and Charges Bylaw No. 3784, 2020 is amended by adding

"(h) Schedule H - Nuisance Abatement Fees".

- 4. That Section 4.1 be added to Fees and Charges Bylaw No. 3784, 2020 as follows:
  - "4.1 Any bylaw referred to herein is a reference to a bylaw of the District of North Cowichan, as amended, revised, consolidated, or replaced from time to time."
- 5. That Schedule A Administration Fees, Section 1, (General Administration Fees) of Fees and Charges Bylaw No. 3784, 2020 is amended by inserting the following review, inspection and permit fees required under Fire Protection Bylaw No. 3841, 2021:

ltem	Column 1 Description	Column 2 <b>Hourly Rate</b>
31	Open Burning Permit	No charge
32	Fire Safety Plan Review	\$200
33	Fire Services Special Request	Actual costs
34	Special Fire Inspection	\$50
35	Fire Inspection Report (initial)	\$200
36	Fire Inspection Report (re-inspection)	\$400

(Section	1 –	General	Admir	nistration	Fees)
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6. That Schedule A – Administration Fees (Section 1, General Administration Fees) of Fees and Charges

Bylaw No. 3784, 2020 is hereby amended by inserting the following fees for Fireworks required under the Fireworks Regulation Bylaw No. 3810, 2021:

ltem	Column 1 <b>Description</b>	Column 2 <b>Hourly Rate</b>
37	Family Fireworks Permit Application	\$10
38	Display Fireworks Permit Application	\$100
39	Pyrotechnics Permits Application	\$200
40	Fire Safety Plan Review for Fireworks	\$200
41	Fire Protection Cost Recovery Fee for Fireworks	\$550/hr
42	Clean up litter and debris left on municipal property	Actual costs

(Section 1 – General Administration Fees)

7. That Fees and Charges Bylaw No. 3784, 2020 is hereby amended as follows:

a. by removing Schedule H – Nuisance Abatement Fees and inserting in its place Schedule H – Nuisance Abatement Fees as attached to this bylaw.

READ a first time on READ a second time on READ a third time on ADOPTED on

CORPORATE OFFICER

PRESIDING MEMBER

#### SCHEDULE H – NUISANCE ABATEMENT FEES

- 1. The costs referred to in:
  - (a) Section 5.11 of Nuisance Abatement and Cost Recovery Bylaw No. 3804, 2020; or
  - (b) Section 12.1 of Controlled Substances Bylaw No. 3803, 2020; or
  - (c) Sections 64 or 75 of Fire Protection Bylaw No. 3841, 2021; or
  - (d) Sections 23 or 24 of Fireworks Regulation Bylaw No. 3810, 2021

are to be determined in part by multiplying hourly rates for the following individuals, vehicles or equipment involved in the abatement of a nuisance by the time spent by those individuals, and the time those vehicles and equipment are used in the abatement of the nuisance. These costs apply when the District, by its employees, contractors and agents, enters onto the property to complete the work to abate the nuisance.

- 2. Costs do not apply when entering the property in accordance with:
  - (a) Section 5.14 of Nuisance Abatement and Cost Recovery Bylaw No. 3804, 2020 or when determining to issue a Clean Up Order; or
  - (b) Sections 5.1(a) or (c) of Controlled Substances Bylaw No. 3803, 2020 when conducting inspections related to compliance with bylaw or water service inspection or discontinuance; or
  - (c) Section 22 of Fire Protection Bylaw No. 3841, 2021 when providing fire suppression, prevention, inspection services, evacuations, or when assisting other emergency response providers; or
  - (d) Section 15 of Fireworks Regulation Bylaw No. 3810, 2021 when inspecting the site as part of the permit approval process.

#### Staff and Personnel Cost Recovery

3. The following hourly rates, which include the cost of overhead and benefits, apply for every hour or part thereof which any of the following District employees use to carry out the abatement of a nuisance where authorized under Section 1 of this Schedule. Depending upon the day of the week, the time of day, or the holiday status of when such services are required, the hourly rate may be increased by one and a half or two times.

ltem	Column 1 Description	Column 2 <b>Hourly Rate</b>
1	Manager of Fire and Bylaw Services	\$ 90.00
2	Senior Bylaw Compliance Officer	\$ 65.00
3	Bylaw Compliance Officer	\$ 55.00
4	Animal Control Officer	\$ 55.00
5	Chief Building Inspector	\$ 75.00
6	Building Inspector	\$ 60.00
7	Operations or Parks and Recreation Manager	\$ 70.00
8	Operations or Parks and Recreation Foreman	\$ 60.00

Section I – District Employees	Section	1 –	District	Empl	loyees
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ltem	Column 1 Description	Column 2 <b>Hourly Rate</b>
9	Operations or Parks and Recreation Employee	\$ 45.00
10	Student	\$ 30.00
	Section 2 – Fire Department Employees	
ltem	Column 1	Column 2
	Description	Hourly Rate
1	Description Station Chief, or their delegate	Hourly Rate \$ 35.00
1	Description         Station Chief, or their delegate         Captain	Hourly Rate \$ 35.00 \$ 35.00

## **RCMP Personnel and Equipment Cost Recovery**

4. The costs referred to in Section 1 of this Schedule for RCMP members are determined in part by a flat fee for each separate attendance and time spent by RCMP members involved in the abatement of a nuisance and the amounts per attendance shall be as follows:

ltem	Column 1 Description	Column 2 <b>Flat Rate</b>
1	RCMP Member	\$250.00

#### Vehicle and Equipment Cost Recovery

5. The following hourly rates apply for every hour or portion thereof where any of the following equipment and vehicles are used by District employees or Fire Department personnel to carry out the abatement of a nuisance where authorized under Section 1 of this Schedule. Depending upon the day of the week, the time of day or the holiday status of when such services are required, the hourly rate may be increased by one and a half or two times. Costs imposed to carry out the required work will be subject to a 15% administrative cost recovery fee.

ltem	Column 1 Description	Column 2 <b>Hourly Rate</b>
1	District Truck	\$ 60.65
2	Fire Support Vehicles	\$ 99.25
3	Single Axle Dump Truck	\$ 91.25
4	Backhoe	\$ 69.85
5	Loader	\$ 86.15
6	Sweeper	\$142.60

# **Contractor Cost Recovery**

6. For any work carried out by a contractor of the District to carry out the work authorized under Section 1 of this Schedule, on behalf of the District, the costs imposed will be the actual cost of the work plus 15% of the contract value.

# **ATTACHMENT 3**



The Corporation of the District of North Cowichan

# Bylaw Offence Notice Enforcement Amendment Bylaw

Bylaw No. 3844

The Council of The Corporation of The District of North Cowichan enacts in open meeting assembled as follows:

# Title

1. This bylaw may be cited as "Bylaw Offence Notice Enforcement Amendment Bylaw No. 3844, 2021".

# Amendment

- 2. That Bylaw Offence Notice Enforcement Bylaw No. 3677 is hereby amended as follows:
  - a. By deleting the penalties for Fire Protection Bylaw No. 3340, 2008 from Schedule "A" and inserting the following in its place:

	Fire Protection Bylaw No. 3841, 2021						
Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available		
16	False representation	\$500	\$250	\$500	No		
17	Interfere with fire hose	\$500	\$250	\$500	No		
18	Obstruct firefighter	\$500	\$250	\$500	No		
19	Remove or alter a notice or order	\$500	\$250	\$500	No		
20	Illegally enter designated area	\$500	\$250	\$500	No		
21	Fail to leave designated area	\$500	\$250	\$500	No		
29	Unlawful entry	\$500	\$250	\$500	No		
30	Fail to secure building or structure	\$500	\$250	\$500	No		
32	Fail to comply with direction at incident	\$500	\$250	\$500	No		
33	Impede or interfere with fire equipment	\$500	\$250	\$500	No		
34	Fail to obey traffic control	\$250	\$125	\$270	No		

Fire Protection Bylaw No. 3841, 2021					
Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
35 (a)	Property disrepair causing risk of fire hazard	\$500	\$250	\$500	Yes
35 (b)	Allow dangerous conditions on property	\$500	\$250	\$500	Yes
35 (c)	Cause flammable conditions to exist	\$500	\$250	\$500	Yes
35 (d)	Allow fire hazard to exist	\$500	\$250	\$500	Yes
39 (a)	Fail to secure vacant building or structure	\$250	\$125	\$270	Yes
39 (b)	Fail to secure fence on vacant property	\$250	\$125	\$270	Yes
39 (c)	Fail to provide security on vacant property	\$250	\$125	\$270	Yes
40 (a)	Fail to dispose of debris	\$250	\$125	\$270	Yes
40 (b)	Fail to provide labour to prevent fire damage	\$250	\$125	\$270	Yes
44	Withhold information	\$250	\$125	\$270	No
45	Falsify information	\$250	\$125	\$270	No
46	Obstruct Fire Inspection Officer	\$500	\$250	\$500	No
47	Fail to produce fire drill records	\$250	\$125	\$270	Yes
48	Fail to produce fire drill records	\$250	\$125	\$270	Yes
49	Fail to submit Fire Safety Plan	\$250	\$125	\$270	Yes
50	Fail to submit changes to Fire Safety Plan	\$250	\$125	\$270	Yes
51	Fail to post location of Fire Safety Plan	\$250	\$125	\$270	Yes
52	Fail to submit Pre-Incident Plan	\$250	\$125	\$270	Yes
53	Fail to submit changes to Pre-Incident Plan	\$250	\$125	\$270	Yes
60	Fail to obtain permission to enter evacuation building	\$500	\$250	\$500	No
61	Unpermitted open burning on property	\$250	\$125	\$270	No
62	Open burning without a permit	\$250	\$125	\$270	No
63 (a)	Unpermitted open burning on property	\$250	\$125	\$270	No
63 (b)	Open burning outside of permitted days	\$250	\$125	\$270	No
64 (b) (i)	Fire within 4 metres of building	\$250	\$125	\$270	No
64 (b) (ii)	Fire within 10 metres of property line	\$250	\$125	\$270	No
64 (c)	Fire outside of permitted daylight hours	\$250	\$125	\$270	No
64 (d)	More than one (1) fire	\$250	\$125	\$270	No

	Fire Protection Bylaw No. 3841, 2021				
Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
64 (e)	Fire exceed size limitations	\$250	\$125	\$270	No
64 (f)	No fire-fighting equipment	\$250	\$125	\$270	No
64 (g) (i)	Burning materials not originating from property	\$250	\$125	\$270	No
64 (g) (ii)	Unlawful burning materials	\$250	\$125	\$270	No
68 (a)	Fail to maintain 1 metre around private hydrant	\$250	\$125	\$270	Yes
68 (b)	Fail to keep private hydrant free of obstructions	\$250	\$125	\$270	Yes
68 (c)	Fail to identify location of private hydrant	\$250	\$125	\$270	Yes
69	Obstruct private hydrant	\$250	\$125	\$270	No
70	Fail to submit Fire Hydrant Service Report	\$250	\$125	\$270	Yes
71	Fail to produce private hydrant records	\$250	\$125	\$270	Yes
71	Fail to inspect private hydrant after use	\$250	\$125	\$270	Yes
72	Fail to conduct annual inspection of private hydrant	\$250	\$125	\$270	Yes
73	Fail to conduct 3-year servicing of private hydrant	\$250	\$125	\$270	Yes

b. By deleting the penalties for Fireworks Bylaw No. 1579, 1974 from Schedule "A" and inserting the following in its place:

Fireworks Regulation Bylaw No. 3810, 2021					
Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
4	Sale of fireworks, pyrotechnics or firecrackers	\$100	\$50	\$120	YES
5	Use of fireworks without a permit	\$100	\$50	\$120	YES
6	Use of fireworks contrary to permit	\$100	\$50	\$120	YES
7	Use of pyrotechnics without a permit	\$250	\$125	\$270	YES
8	Use of pyrotechnics contrary to permit	\$250	\$125	\$270	YES
9	Unsafe use of fireworks or pyrotechnics	\$100	\$50	\$120	YES
10	Use of firecrackers	\$100	\$50	\$120	YES
11	Use of fireworks within 500 m of livestock property	\$250	\$125	\$270	YES
13	Fail to apply for fireworks permit	\$100	\$50	\$120	YES

Fireworks Regulation Bylaw No. 3810, 2021					
Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
15	Fail to apply for Pyrotechnics Permit	\$250	\$125	\$270	YES
19 (a)	Discharge unpermitted pyrotechnics	\$250	\$125	\$270	YES
19 (b)	Discharge pyrotechnics contrary to permit conditions	\$250	\$125	\$270	YES
19 (c)	Discharge of pyrotechnics contrary to fire safety plan	\$500	\$250	\$500	NO
19 (d)	Discharge of fireworks or pyrotechnics without supervision	\$250	\$125	\$270	YES
19 (e)	Fail to comply with Explosives Act	\$250	\$125	\$270	YES
24	Fail to remove fireworks and/or pyrotechnics debris	\$250	\$125	\$270	YES
25	Obstruction of Enforcement Officer	\$250	\$125	\$270	YES

READ a first time on

READ a second time on

READ a third time on

ADOPTED on

CORPORATE OFFICER

PRESIDING MEMBER

# **ATTACHMENT 4**



# The Corporation of the District of North Cowichan

# Municipal Ticket Information System Amendment Bylaw

Bylaw No. 3845

The Council of The Corporation of The District of North Cowichan enacts in open meeting assembled as follows:

# Title

1. This bylaw may be cited as "Municipal Ticket Information System Amendment Bylaw No. 3845, 2021".

## Amendment

- 2. That Municipal Ticket Information System Bylaw No. 3464 is hereby amended by:
  - a. Updating the designated bylaw under Schedule 1, Items 6 and 7 as follows:

ltem	Column 1	Column 2
	Designated Bylaw	Designated Bylaw Enforcement Officers
6	Fire Protection Bylaw No. 3841, 2021	Bylaw Compliance Officer Fire Chief Local Assistant to the Fire Commissioner Manager of Fire and Bylaw Services Municipal Forester RCMP Officer
7	Fireworks Regulations Bylaw No. 3810, 2021	Assistant Fire Chief Bylaw Compliance Officer Fire Chief Local Assistant to the Fire Commissioner Manager, Bylaw and Business Licensing Services Manager, Fire and Bylaw Services Municipal Forester RCMP Officer

#### SCHEDULE 1

b. By deleting Section 5 – Fire Protection Bylaw 2008 from Schedule 2 and inserting the following in its place:

ltem	Column 1	Column 2	Column 3
	Offence	Section	Fine
1	False representation	16	\$1,000
2	Interfere with fire hose	17	\$1,000
3	Obstruct firefighter	18	\$1,000
4	Remove or alter a notice or order	19	\$1,000
5	Illegally enter designated area	20	\$1,000
6	Fail to leave designated area	21	\$1,000
7	Unlawful entry	29	\$1,000
8	Fail to secure building or structure	30	\$1,000
9	Fail to comply with direction at incident	32	\$1,000
10	Impede or interfere with fire equipment	33	\$1,000
11	Fail to obey traffic control	34	\$500
12	Property disrepair causing risk of fire hazard	35 (a)	\$1,000
13	Allow dangerous conditions on property	35 (b)	\$1,000
14	Cause flammable conditions to exist	35 (c)	\$1,000
15	Allow fire hazard to remain	35 (d)	\$1,000
16	Fail to secure vacant building or structure	39 (a)	\$500
17	Fail to secure fence on vacant property	39 (b)	\$500
18	Fail to provide security on vacant property	39 (c)	\$500
19	Fail to dispose of debris	40 (a)	\$500
20	Fail to provide labour to prevent fire damage	40 (b)	\$500
21	Withhold information	44	\$500
22	Falsify information	45	\$500
23	Obstruct Fire Inspection Officer	46	\$1,000
24	Fail to produce fire drill records	47	\$500
25	Fail to produce fire drill records	48	\$500
26	Fail to submit Fire Safety Plan	49	\$500

Section 5 – Fire Protection Bylaw No. 3841, 2021

ltem	Column 1	Column 2	Column 3
	Offence	Section	Fine
27	Fail to submit changes to Fire Safety Plan	50	\$500
28	Fail to post location of Fire Safety Plan	51	\$500
29	Fail to submit Pre-Incident Plan	52	\$500
30	Fail to submit changes to Pre-Incident Plan	53	\$500
31	Fail to obtain permission to enter evacuation building	60	\$1,000
32	Unpermitted open burning on property	61	\$500
33	Open burning without a permit	62	\$500
34	Unpermitted open burning on property	63 (a)	\$500
35	Open burning outside of permitted days	63 (b)	\$500
36	Fire within 4 metres of building	64 (b) (i)	\$500
37	Fire within 10 metres of property line	64 (b) (ii)	\$500
38	Fire outside of permitted daylight hours	64 (c)	\$500
39	More than one (1) fire	64 (d)	\$500
40	Fire exceed size limitations	64 (e)	\$500
41	No fire-fighting equipment	64 (f)	\$500
42	Burning materials not originating from property	64 (g) (i)	\$500
43	Unlawful burning materials	64 (g) (ii)	\$500
44	Fail to maintain 1 metre around private hydrant	68 (a)	\$500
45	Fail to keep private hydrant free of obstructions	68 (b)	\$500
46	Fail to identify location of private hydrant	68 (c)	\$500
47	Obstruct private hydrant	69	\$500
48	Fail to submit Fire Hydrant Service Report	70	\$500
49	Fail to produce private hydrant records	71	\$500
50	Fail to inspect private hydrant after use	71	\$500
51	Fail to conduct annual inspection of private hydrant	72	\$500
52	Fail to conduct 3-year servicing of private hydrant	73	\$500

c. By deleting Section 6 – Fireworks Bylaw 1974 from Schedule 2 and inserting the following in its place:

ltem	Column 1 Offence	Column 2 Section	Column 3 <b>Fine</b>
1	Sale of fireworks, pyrotechnics or firecrackers	4	\$200
2	Use of fireworks without a permit	5	\$100
3	Use of fireworks contrary to permit	6	\$100
4	Use of pyrotechnics without a permit	7	\$300
5	Use of pyrotechnics contrary to permit	8	\$300
6	Unsafe use of fireworks or pyrotechnics	9	\$300
7	Use of firecrackers	10	\$100
8	Use of fireworks within 500 m of livestock property	11	\$300
9	Fail to apply for fireworks permit	13	\$100
10	Fail to apply for pyrotechnics permit	15	\$300
11	Discharge unpermitted pyrotechnics	19 (a)	\$300
12	Discharge pyrotechnics contrary to permit conditions	19 (b)	\$300
13	Discharge of pyrotechnics contrary to fire safety plan	19 (c)	\$500
14	Discharge of fireworks or pyrotechnics without supervision	19 (d)	\$300
15	Fail to comply with Explosives Act	19 (e)	\$300
16	Fail to remove fireworks and/or pyrotechnics debris	24	\$300
17	Obstruction of Enforcement Officer	25	\$300

Section 6 – Fireworks Regulation Bylaw No. 3810, 2021

READ a first time on

READ a second time on

READ a third time on

ADOPTED on

CORPORATE OFFICER

PRESIDING MEMBER

# Report

NORTH Cowichan

Date	September 1, 2021	File:	
То	Council		
From	Shaun Mason, Municipal Forester	Endorsed:	Jafewaler.
Subject	2020 Community Wildfire Protection Plan Adoption		0

# Purpose

To present the 2020 Community Wildfire Protection Plan for Council's consideration.

# Background

The Community Resiliency Investment (CRI) program is a provincial program managed by The Union of BC Municipalities (UBCM) with the goal of reducing the risk and impact of wildfire to communities in BC through community funding, supports and priority fuel management activities. Over the last few years, North Cowichan has been successful in receiving grant funding through the CRI program to conduct activities to continually work towards increasing wildfire resiliency within the community.

In 2019, funding was received through the CRI program to update the Community Wildfire Protection Plan (CWPP), in 2020 to provide an opportunity for the residents of North Cowichan to dispose of their yard waste/woody debris and in 2021, to conduct detailed treatment prescriptions in high risk areas including critical infrastructure as identified in CWPP along with the development of a Wildfire Development Permit Area with updated guidelines.

The Community Wildfire Protection Plan was completed spring 2020 and submitted to UBCM for review to ensure all funding requirements had been met. Due to required minor revisions along with delays due to the pandemic, the CWPP was not approved by UBCM until early spring 2021. As staff had already applied for and received funding to take action on some of the CWPP recommendations in 2021, there was no immediate need for Council to adopt the CWPP after it had been approved through UBCM.

A presentation about the CWPP process and summary of recommendations was provided to Council on March 4, 2020 and is include as part of this report.

# Discussion

The CWPP is meant to provide a framework to help the community prepare and reduce the impacts of a potential wildfire. The CWPP is also meant to be a living document as both the forests and the community will change over time. Given the anticipated changes and impacts to forests that will result from climate change and the continued growth of community development over time, it will be important to review the CWPP regularly and update when required.

While UBCM was reviewing the 2020 CWPP submission to ensure it met all of the funding requirements, Council supported staff applying for funding to begin to action some of the identified high priority recommendations in the CWPP that were eligible for funding.

There are several recommendations contained within the CWPP to reduce and manage wildfire risk through fuel management, FireSmart planning, community education and wildfire response. These recommendations are priority ranked and are meant to be implemented over time with a focus on reducing vulnerability and increasing the community's resilience to wildfire. Once the CWPP is adopted, staff will continue to implement the recommendations and seek funding where possible to continue following and implementing the short term and longer term recommendations contained within the CWPP.

Staff will request Council's review and endorsement before submitting applications for future projects, including FireSmart related activities based on recommendations from the CWPP to be funded through available grants. Any other FireSmart related activities that will not be funded through grants but have financial implications and/or significant impacts on staff time will be brought to Council's attention for review and endorsement either at a Council meeting or as part of the annual business planning and/or budgeting process.

Once FireSmart related projects are approved, Council will be kept informed through regular project updates at key project milestones by staff. For our residents, staff will provide regular public updates at key project milestones via press releases, social media posts and through a web page on the Municipal website. The dedicated website page will provide residents with both FireSmart educational materials and information related to any FireSmart projects that the Municipality has undertaken or is undertaking.

# Options

# Option 1 (Recommended)

THAT Council adopt the 2020 Community Wildfire Protection Plan attached to the September 1, 2021 report from the Municipal Forester.

# Option 2

THAT Council not adopt the 2020 Community Wildfire Protection Plan at this time.

# Implications

Option 1 <u>Personnel:</u> Staff time will be required to coordinate, implement, promote, administer, supervisor and monitor projects over time. Staff time will also be required to monitor funding opportunities and to write and submit grant applications to complete or continue work as outlined within the CWPP.

<u>Financial:</u> There are minimal direct financial impacts to North Cowichan. Staff will seek grant funding to implement and/or action the recommendations contained within the CWPP. Contractors may need to be hired from time to time to assist with writing grant applications to ensure application deadlines are met, which will be incorporated in the

annual budgeting process should the CWPP be adopted.

<u>Environmental</u>: Continuing to implement the recommendations within the CWPP will help reduce the impacts that wildfires can have on both the community and the surrounding environment. The environmental impacts of any potential activity will be taken into account/considered before any activity takes place to ensure environmentally sensitive features/areas are protected appropriately.

<u>Social</u>: The devastating impacts that a wildfire can have on communities is very much on the minds of most people in British Columbia this summer. As the CWPP is updated and the recommendations are implemented over time, it will be important that staff continually provide periodic updates and information to the public to ensure it is known what, where, and why activities are taking place, and what activities are planned in the future. It will also be important to provide FireSmart educational information materials to further promote the work that is being done, and allow members of the public to learn more about FireSmart principles. Staff expect a positive social impact should the CWPP be adopted and recommendations implemented over time.

<u>Communications</u>: Staff will work with the Communications Team to provide any related project or educational material to the public through the MNC website and through the MNC social media platforms.

Option 2: <u>Personnel:</u> Not adopting the 2020 CWPP will result in staff having to seek Council direction annually on which, if any, recommendations from the CWPP are to be acted on. This increases staff time to both plan and prepare reports and could cause potential delays in the grant funding application processes resulting in missing grant deadlines. It also delays the pace at which recommendations from the CWPP can be acted on in a given year.

<u>Financial</u>: There would be no financial impact to North Cowichan. Under the current CRI grant application guide, a Council resolution is required to apply for funding to action the CWPP recommendations but it does not require Council to adopt the CWPP. There is the potential that these requirements can change over time and staff would need to keep in contact with CRI on a regular basis.

<u>Social:</u> Not adopting the 2020 CWPP could be negatively received by the public, as it could be perceived that community wildfire prevention is not a priority of Council.

# Recommendation

THAT Council adopt the 2020 Community Wildfire Protection Plan attached to the September 1, 2021 report from the Municipal Forester.

Attachment(s):

- (1) 2020 Community Wildfire Protection Plan
- (2) Community Wildfire Protection Plan Update Report and Presentation: Community of the Whole, March 4 2020

# The Corporation of the District of North Cowichan Community Wildfire Protection Plan

Report by Diamond Head Consulting January 2020



# **Community Wildfire Protection Plan for District of North Cowichan**

Final Report Submitted on: April 7, 2020

Submitted to:		Submitted by:		
Shaun Mason, RPF		Diamond Head Consulting Ltd.		
Municipal Forester		3559 Commercial Street		
Corporation of the District of North		Vancouver BC		
Cowichan		V5N-4E8		
		Phone:	604-733-4886	
Phone:	250-746-3124	Website:	$\underline{www.diamondheadconsulting.com}$	

#### **Professional Seals:**







# **Professional Acknowledgement**

The Corporation of the District of North Cowichan would like to thank all those who have contributed to this Community Wildfire Protection Plan by providing guidance, direction and feedback. Shaun Mason served as the District's project manager and worked closely with the project consulting team of:

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- Tony Botica Wildfire Prevention Officer, Coastal Fire Centre
- Dana Hicks Wildfire Prevention Specialist

Finally, we would like to thank the Community Resiliency Investment Program (CRI) and Union of British Columbia Municipalities, whose support was critical to the funding and completion of this project.



# **Executive Summary**

The Corporation of the District of North Cowichan has a history of proactively managing wildfire risk through both policy and operations. In 2007, the District developed a Community Wildfire Protection Plan (CWPP). Since the original CWPP was developed, there has been substantial development growth in the urban wildland interface and changes in forest composition have increased wildfire fuel hazards in the surrounding forest. There is now also a better understanding of the expected impacts of climate change on wildfire including longer fire seasons and larger fires. This CWPP update includes the land within the jurisdictional boundaries of the District of North Cowichan, a majority of which is inside the District owned Municipal Forest Reserve (MFR). It responds to the current and anticipated changes to the study area's wildfire risk profile and makes recommendations to reduce vulnerability and increase the community's resilience to wildfire.

The District of North Cowichan is located within the traditional territory of several First Nations groups in southern Vancouver Island, including the Cowichan Tribes, the Halalt First Nation, the Lyackson First Nation, the Stz'uminus First Nation, and the Penelakut Tribe. It is home to 30,000 people and plays an important role in supporting economic activity in the southeastern portion of Vancouver Island. Key economic sectors include construction, forestry, professional services, healthcare, education and tourism.

The recognized values at risk identified in this plan include human safety and communities, critical infrastructure, cultural values, species at risk, recreation and timber resources. Critical infrastructure identified in and around the District plays an important role to move goods, power and fuel through Vancouver Island. Protecting the District from wildfire is important not only for the District itself but for the economy of the Island.





Wildfire threat and risk to these recognized values has been assessed within the District. The threat from wildfire was assessed using the Provincial Wildfire Threat Analysis, ground truthing of fuel conditions as well as a fire behavior modeling exercise. Wildfire threat reflects the potential fire behaviour considering fuel loading, slope, aspect and worst-case weather conditions. The highest wildfire threat in the District is posed by steep, coniferous forested slopes of the mountains inside the District boundaries, a majority of which are located inside the MFR.

Wildfire risk was calculated using the local threat score in addition to the proximity of fuel to the community, fire spread pattern and slope. Most of the public lands within the District boundary are rated as posing a moderate wildfire risk. The areas of high and extreme risk inside the District are dispersed throughout the area. There are no large continuous or concentrated areas of high risk.

This CWPP update makes recommendations to manage wildfire risk through fuel management, FireSmart planning, community education and wildfire response. Opportunities to treat interface fuels and create larger landscape level fuel breaks have been identified in locations with elevated wildfire risk. Most hazardous fuel areas within the urban interface are located on privately owned lands that are not eligible for treatment as part of the CWPP; therefore, building public awareness of wildfire risk and providing education to encourage homeowners to become FireSmart will be an important component of increasing the community's wildfire resilience. Policy opportunities are identified to improve the FireSmart performance of new developments. Best practices for the prevention of ignitions, early detection and improvements to suppression resources, training and interagency communication and cooperation are also discussed.

Many of the recommendations made within this CWPP update are meant to be implemented over time as funding and opportunities arise. Implementation of the recommendations requires a long planning horizon in order to accommodate both the rate at which forests grow and change, and the pace of community planning and development. For example, planning is needed to anticipate the altered ecological conditions that will result from climate change as well as forest stand dynamics to make interface forests more resilient and naturally resistant to wildfire. While complete implementation of the CWPP is a long-term prospect, it provides the framework to create communities that are designed for and prepared to defend against a wildfire event. This plan is also meant to be a living document that should be updated regularly.


## **Summary of CWPP Recommendations**

This report includes information about the current wildfire threat and risk within the study area and provides many recommendations on what can be done by both local government and private individuals. Some of these recommendations are easily implemented with relatively low cost. Others, such as fuel treatments, require resources and support from the Provincial government and inter-agency cooperation. Recommendations have been prioritized based on how quickly they can be implemented and their relative impact on reducing wildfire risk.

There are funding sources available to help implement many of these recommendations. UBCM manages the Community Resilience Investment (CRI) Program which offers up to 100% funding for a range of wildfire mitigation initiatives. Many of the recommendations made in this report are eligible for CRI funding. Estimated costs for implementing these recommendations are in addition to the District's existing operating budgets.

Number	Action Item	Priority	Timeline years	Estimated Cost
Rec 1	Continuously review the CWPP as a living document and complete an update every 5 years.	Low	5+	\$5,000 per update
Rec 2	Develop fuel treatment prescriptions for interface fuel treatment areas. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #9 Fuel and Vegetation Management).	High	3-5	\$50,000
Rec 3	Integrate wildfire management considerations into the development of the Forest Management Plan for the Municipal Forest Reserve.	High	3	\$10,000
Rec 4	Advocate to the Province for making threat and risk mapping publicly available for lands that are owned by public entities (i.e. BC Hydro).	Moderate	3-5	N/A
Rec 5	Consult and coordinate with BC Hydro to create defensible spaces and reduce risk around all substations.	Moderate	3-5	N/A
Rec 6	The District should assess the condition of fuels and wildfire risk around their facilities and develop fuel treatment prescriptions with the target of establishing a 30m defensible space around them.	Moderate	3-5	\$50,000- \$100,00
Rec 7	Develop neighbourhood level FireSmart plans for the priority neighbourhoods. This should include neighbourhood level FireSmart committees with the District, Fire Department, BCWS, and First Nations representative. This should also include a variety of strategies with the objective of increasing private land resilience to wildfire. Participating communities should	High	3-5	\$50,000

#### **Table 1 Summary of CWPP recommendations**



Number	Action Item	Priority	Timeline years	Estimated Cost
	apply for FireSmart Community Recognition status and funding for mitigation projects through FireSmart Canada. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).			
Rec 8	Use recommended interface fuel treatment areas to promote similar projects on private lands. Showcase these treatments though a "FireSmart Day" with neighbourhood FireSmart committees. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).	Moderate	3-5	\$15,000- \$30,000
Rec 9	Develop and distribute FireSmart brochures to all houses within higher risk interface areas. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).	Moderate	3-5	\$10,000- \$20,000
Rec 10	Develop and distribute a list of ecologically suitable fire-resistant landscape plants (Appendix 4) to residents by mail and through local nurseries. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).	Low	5+	\$5,000- \$10,000
Rec 11	Establish community chipping days in the spring to encourage residents to reduce vegetation fuel loads on private land. Provide a location where woody debris can be dropped off for chipping and request tree companies volunteer as a promotional event, similar to Christmas tree chipping events. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #8 FireSmart Activities for Private Land).	Low	5+	\$10,000- \$20,000
Rec 12	Include Wildfire as a Development Permit Area. The specific requirements and GIS area for this DPA should be developed with a Wildfire specialist. This should aim to include areas that are within 100m of moderate, high, or extreme Wildfire Threat/Risk as a starting point. The specific language should include FireSmart construction materials and landscaping, and the removal of hazardous fuels. Specific objectives should be established, as well as recommended strategies to meet those objectives. This DPA should also include professional review and sign off. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI #3 Development Considerations).	High	1-2	\$20,000- \$40,000
Rec 13	Ensure that Wildfire DPA applications are reviewed by District or Fire Department staff to ensure the objectives of the DPA are achieved. This will require coordination between District staff and Fire Department staff.	High	1-2	N/A
Rec 14	When public events are planned to occur in, through, or near natural areas, a wildfire risk management checklist is created for vetting applications against. Vetting should include review and comments by the parks and fire departments prior to event approval. Have the	Moderate	3-5	N/A



Number	Action Item	Priority	Timeline years	Estimated Cost
	public information brochure prepared in conjunction with this CWPP update available for distribution at these events.			
Rec 15	Establish a school education program to engage youth in wildfire prevention and preparedness. Collaborate with the Recycling and Environmental Action Planning Society (REAPS) to support delivering wildfire education in their school programs.	Low	5+	\$10,000- \$20,000
Rec 16	Update the Districts digital media, including video and web content, to reflect this CWPP update. A separate webpage for wildfire awareness should be created with reference material for FireSmart Canada, BC Wildfire Service, and any other suitable wildfire resources.	Moderate	3-5	\$20,000- \$40,000
Rec 17	Ensure all road edges are mowed frequently during the summer months when the fire hazard rating permits.	Moderate	3-5	N/A
Rec 18	Post wildfire danger signage along major transportation corridors, at campsites, parks and recreation, and at high use trail heads areas. Signages should address current fire danger, how to report a wildfire and, when relevant, emphasize the need to fully extinguish campfires and properly dispose of cigarettes.	Moderate	3-5	\$10,000- \$20,000
Rec 19	Develop an annual fire season social media campaign to raise awareness of individual responsibility to prevent ignitions and of the enforcement of fire bans.	High	1-2	\$10,000- \$20,000
Rec 20	Work with BC Hydro to ensure that distribution lines, transmission corridors and substations are assessed regularly for tree risk and that the associated fuel hazards are abated.	Moderate	3-5	N/A
Rec 21	Conduct interagency wildfire suppression training and annual mock wildfire response exercises in cooperation with the BC Wildfire Service. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #4 Interagency Co-operation).	Moderate	3-5	\$20,000- \$40,000
Rec 22	Establish a mutual aid agreement between the District and the Regional District Fire Protection Areas to enable sharing of suppression resources when responding to a wildfire. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #4 Interagency Co-operation).	Moderate	3-5	\$10,000- \$20,000
Rec 23	Purchase and maintain two Structural Protection Units (SPU) with capacity to protect approximately 35 structures and train staff on their proper deployment.	Moderate	3-5	\$100,000- \$200,000
Rec 24	Complete an analysis of water availability in the AOI to identify strategic locations for water tanks and dry stand pipes in high risk neighbourhoods with poor water availability. Identify and map alternative water sources including reservoirs, lakes and perennial rivers.	Low	5+	\$10,000- \$20,000



Number	Action Item	Priority	Timeline years	Estimated Cost
Rec 25	Require that all new fire hydrants systems for new development areas are able to serve adjacent high risk interface areas.	Moderate	3-5	N/A
Rec 26	Continue to encourage residents to sign up for eALERT system.	High	1-2	N/A
Rec 27	Compile a spatial inventory of backroad, trails and gates for suppression access. Work with recreation groups and industrial operators to maintain roads through natural areas for wildfire suppression access and ensure local fire departments and BCWS have copies of gate keys and maps of gate locations.	High	3-5	N/A
Rec 28	Obtain keys, gate locations, and maps for private forest roads inside the AOI that may be required for evacuation and access. Develop a safety plan with industrial operator for use of these roads.	High	3-5	N/A
Rec 29	Develop on-line/social media that is coordinated with FLNRORD for distributing up to date info on wildfire threat and potential evacuation alerts.	Low	3-5	\$10,000- \$20,000
Rec 30	Identify neighbourhoods that have only one main road in and out for evacuation. Consider developing alternative access for these areas through future land use planning.	Low	5+	N/A
Rec 31	Cross-train structural fire fighters, as well as District staff that are frequently working in the interface areas, in S-100 Basic Fire Suppression and Safety and S-215 Fire Operation in the Wildland/Urban Interface. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #6 Cross training).	Moderate	3-5	\$20,000- \$40,000
Rec 32	Train District staff who would potentially work in a liaison role with fire suppression agencies in Incident Command Training to streamline integration with the Incident Command System as it is established. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #6 Cross training).	Moderate	3-5	\$20,000- \$40,000



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## Section 1 Introduction

## 1.1 Purpose

The Corporation of the District Municipality of North Cowichan (the District) has recognized wildfire mitigation as a critical component of emergency preparedness and community planning. As the owner and operator of a large Municipal Forest Reserve (MFR), there are unique challenges as well as opportunities for managing wildfire risk in this municipality. In recognition of changes to the urban landscape in the District, the changing climate regime, and the progression of municipal policy and best practices, the District has commissioned this update to the 2007 District of North Cowichan Community Wildfire Protection Plan (CWPP).

The purpose of this CWPP is to define the threat from wildfire to human life, property and critical infrastructure, and to provide a framework to proactively reduce this threat. This document identifies necessary measures and actions that will result in:

- 1. Reduced likelihood of a wildfire entering the community.
- 2. Reduced impacts and losses to property and critical infrastructure.
- 3. Reduced negative economic and social impacts to the community.
- 4. Future development that is resilient to wildfires.



Photo 1. Quamichan Lake.



#### Wildfire Trends

Wildfires are impacting our communities more than ever before. Over the past decade there has been an average of 1,692 fires per year in British Columbia, burning an average of 151,000 ha (BC Wildlife Service, 2019). Approximately half of these fires were a result of human caused ignitions. The total cost to the province over this decade has been almost 2.4 billion dollars (BC Wildfire Service , 2017). The 2018 fire season surpassed 2017 as the worst on record with more than 1.25 million hectares burned. The costs for 2018 are currently estimated at \$615 million dollars. In addition, the 2017 fire suppression costs came to \$568 million with 65,000 people displaced due to evacuation orders (BC Wildlife Service, 2019). Both 2017 and 2018 fire seasons led to a Provincial State of Emergency being declared. In 2016, the most expensive natural disaster in Canadian History occurred in Fort McMurray, Alberta (Statistics Canada, 2017); this wildfire burned 590,000 ha of forest at a fire suppression cost of over 100 million and destroyed 2400 buildings resulting in 3.77 billion dollars in insurance claims (Natural Resources Canada, 2017).

The trend towards an increasing area burned and fire suppression costs has been recorded not only in BC but across North America (Marlon, et al., 2012). The trend is in large part attributed to climate change driving hot, dry summers and earlier springs that cause vegetation to start growing earlier, dry out earlier and for a longer period of time (Hope, McKenney, Pedlar, Stocks, & Gauthier, 2016). Since 1985, it is estimated that 50% of the increase in the area burned by wildfire in the western United States is due to human caused climate change (Abatzoglou JT, 2016). Research in British Columbia has estimated that the record-setting 2017 fire season was made 2-4 times more likely by climate change (Kirchmeier-Young, Gillett, Zwiers, Cannon, & Anslow, 2019). Worldwide, the length of the fire season increased by 19% from 1979 to 2013, with significantly longer seasons in the western United States (Jolly, et al., 2015).





Figure 1 – Total area (ha) burned by wildfires in BC by year since 2007 (BC Wildlife Service, 2018).

In addition to the changing climate, forest fuels in BC have built up over time due to a history of supressing wildfires and tree mortality from forest health factors such as the mountain pine beetle in the interior. Development and land use activities have increased the area of wildland urban interface and both the potential for human caused ignitions, and the values to protect. Climate change, fuel build up in our forests, and expanding wildland urban interface have created conditions that make fire suppression both challenging and expensive in BC.

On the coast of BC the climate is not as extreme and wildfires have typically been characterised by smaller wildfire events. However, the risk of largescale wildfires to coastal communities is predicated to increase with longer and more extreme wildfire seasons. Given the optimal growing conditions in the coastal ecosystems, fuel loading is much higher than in other ecosystems of BC. This means that when wildfire threat does become elevated, there is potential for extreme fire behavior based on the heavy fuel loading. Climate change models are predicting that the mean annual temperature will increase by 2.0°C in the 2050s with more very hot days (>30°C) and lower precipitation in the summer months (Pacific Climate Impacts Consortium, 2013). The warmer temperatures, earlier spring thaw, and possibly reduced summer rainfall may increase wildfire risk. While we cannot immediately influence climate, feasible strategies to protect our communities from wildfire need to focus on the factors that we can change now. This includes managing vegetation fuels in the wildland urban interface, building more resilient communities, improving suppression response and capability, reducing human-caused ignitions and increasing public awareness of wildfire risk through education.



## **1.2 CWPP Planning Process**

## **CWPP Guiding Principles**

The following guiding principles have been developed to help guide and support decision making and prioritize actions to manage wildfire risk in the District.

Guiding Principles			
Public Health and Safety	Public safety is the foremost priority for all wildfire management activities.		
Protection of infrastructure	Community infrastructure, including private property, public structures and facilities, is protected from wildfire.		
Sustainable Planning	Growth and development improve quality of life, maintain a healthy environment, and ensure a prosperous future.		
Environmental Protection and Enhancement	Ecosystems that support biodiversity and environmentally sensitive features are protected and enhanced.		
Interagency Co- operation and Policy	Wildfire management planning, preparedness, prevention, suppression, ecosystem rehabilitation, and education occurs in co-operation with all relevant agencies and neighbouring local governments.		
Public Awareness, Education and Advocacy	Public understanding, support and awareness of wildfire risk management is increased through effective education, advocacy and communication.		
Adaptive Management	The effectiveness of wildfire management initiatives is monitored and continuously improved by reviewing actions and decision-making processes.		
Financial Responsibility	Wildfire management initiatives are prioritized and implemented adequately within reasonable, sustainable budgets and through innovative partnerships.		

## **CWPP Implementation History and Planning Process**

The District completed a Community Wildfire Protection Plan in 2007. This report identified large portions of the District's land base as "high" or "extreme" risk of wildfire. This report also made 18 recommendations that proposed strategies for reducing wildfire risk, from community involvement to firefighting equipment.

To reflect recent changes in fuel conditions, development and wildfire risk best practices, District staff applied for and received funding from the Community Resiliency Investment (CRI) Program to update the existing CWPP. Upon receipt of this grant, District staff retained an external consultant to update the CWPP to 2019 CRI standards.



The Province of BC provided spatial data from the Provincial Strategic Threat Analysis (PSTA) which includes fuel typing, risk analysis and values at risk. This analysis predicts the fire behaviour potential of the natural areas within the Area of Interest (AOI) and maps the potential wildfire threats to values across the landscape. The input sources for this provincial data were too coarse in the AOI to provide a suitable level of confidence in fire behavior potential. Recently complete vegetation resources inventory data (VRI) was analysed to determine accurate fuel typing. Fire behavior modeling was then completed using fire weather data from local weather stations.

The fire behavior modeling was used as the base from which to prioritize interface areas for further assessment. Critical values were refined through consultation with stakeholders. Ground truthing of fuel types and wildfire threat assessments was completed to update fuel typing, risk analysis, and values at risk. The result was a refined spatial product defining values at risk, wildfire behaviour potential, and overall wildfire risk to the community. This analysis was used to develop and prioritize the wildfire mitigation actions recommended in this CWPP. Recommendations are embedded throughout the following sections. These have been prioritised to help management focus on actions that will have the greatest benefit and reduce liability in the most efficient way.

## A Living Document

Recommendations in this CWPP are designed to be implemented over both short and long timeframes while also acknowledging that wildfire risk will continue to change due to development, climate change and ecosystem processes. This plan is intended to be a living document that will be updated every five years.

Number	Action Item
Rec 1	Continuously review the CWPP as a living document and complete an update every 5 years.

## **CWPP Consultation Process**

This CWPP update was developed in consultation with First Nations and local stakeholders, both public and private. These stakeholders include the District of North Cowichan, the Regional District of Cowichan, representatives from key industry groups, forest tenure holders. Stakeholders were engaged at the start of this project with referral letters and were asked to provide feedback. The level of involvement varied depending on the level of interest and availability to provide resources and input.

Information sharing occurred with local First Nations and was guided by the Consultative Areas Database and the District. Information sharing involved a letter describing proposed activities with enclosed maps.

The CWPP will be presented at a public council meeting and includes recommendations for ongoing engagement at community events. Public engagement recommendations have been made in this report with a focus on promoting risk mitigation on private land. Given that the District is limited in what it can do to treat fuels on private lands, community engagement is a priority for implementation of the CWPP.



## Section 2 Local Area Description

## 2.1 CWPP Area of Interest

The AOI for this CWPP is the jurisdictional boundaries of the District of North Cowichan. The District is located in the southeast of Vancouver Island, between the cities of Nanaimo and Victoria. The District is part of the Cowichan Valley Regional District (CVRD), and encompasses the communities of Crofton, Chemainus, and Maple Bay, as well as suburban development adjacent to the City of Duncan. The District has an area of approximately 200 square kilometres, and a population of approximately 30 000 (as of 2016 census).

The District of North Cowichan is located within the traditional territory of Cowichan Tribes, Halalt First Nation, Stz'uminus and other nations of the Hul'qumi'num Treaty Group (HTG). This territory encompasses approximately 500,000 hectares of land and sea in the vicinity of the Cowichan and Chemainus Rivers, Strait of Georgia, and Fraser River delta. There are four Indian Reserves (IR) within the District of North Cowichan. These total approximately 176 hectares and are located near the mouth of the Chemainus River and Bonsall Creek. Most of the District's southern border is shared with the Cowichan Indian Reserve IR #1. It also shares a small sea border with Halalt Island Indian Reserve IR #1.



Photo 2. Looking towards Mount Tzouhalem and Saltspring Island from Maple Mountain.



Within the AOI there is a mix of land ownership. A total of 53% of the AOI is privately owned and 38% is Crown Land (Table 2, Figures 2 and 3). The Municipal Forest Reserve is classified as Crown Land in the provincial ownership database, and constitutes a majority of the Crown Land inside the AOI.

Table 2 Broad land ownership within the AOI

Jurisdiction	Area within the AOI (ha)	% of area within the AOI
Private land	11,963	60%
Provincial Crown Land	7,933	40%

\*Note: All tables included in the report and accompanying maps have used UTM area calculations for the highest degree of accuracy. The geospatial data supplementing this report also include area calculations, however these are based on BC Albers. The minor differences between data contained in the tables in this report and the geospatial data is due to these different map projections.

Table 3 Land ownership with Crown land breakdowns within the AOI. Note that the provincial forest ownership layer classified the MFR as Crown – Local/Regional Park.

Jurisdiction	Area within the AOI (ha)	% of area within the AOI
Crown - Community Watershed	112.3	0.6%
Crown - Conservancy Area, Ecological Reserve, Protected Area, Provincial Park	33.0	0.2%
Crown - Forest Management Unit	1296.8	6.5%
Crown - Local/Regional Park	5573.8	27.7%
Crown - Misc. Reserves	0.6	0.0%
Crown - Municipal Parcels	491.0	2.4%
Crown - UREP (Use, Recreation and Enjoyment of the Public Reserve)	0.2	0.0%
Crown - Watershed Reserve	45.5	0.2%
Crown - Wildlife Management Area	11.0	0.1%
Crown Lease - Misc. lease	4.7	0.0%
Crown Tenure - Woodlot Licence, Schedule B	364.3	1.8%
Federal - Dominion government Block/Federal Parcels	0.3	0.0%
Federal - Indian Reserve	1.4	0.0%
Private	11963.6	59.5%
Unknown Ownership/Exceptions	201.9	1.0%





Figure 2 – Land Ownership with the AOI





Figure 3 – Land tenures in the AOI



## 2.2 Community Description

While the forest industry has historically been central to the economy of the District and remains an economic driver, the community has diversified into tourism, food products, and technology. There are two large mills located in Crofton and Chemainus, and the District-owned MFR totals 5,000 hectares, or 25% of the District's total land area. Government services are also major part of the local economy, with the two largest employers being the Island Health Authority and provincial School District #79 (District of North Cowichan, 2018).

Sector	Employees
Agriculture, forestry, fishing, and hunting	670
Construction	1,205
Education	895
Healthcare and Social Assistance	1,970
Manufacturing (including milling)	1,240
Mining	135
Professional, Scientific and Technical Services	685
Public Administration	690
Retail, Tourism and Hospitality	3,070
Transportation and Warehousing	485

Table 4 Employees by key sectors in North Cowichan (Statistics Canada, 2017)

## 2.3 Past Wildfires, Evacuations, and Impacts

There have been 241 wildfires in the AOI since 1950, burning a total area of approximately 580 ha. (Figure 4 and Table 5). Note that one large fire (518 ha) in 1952 disproportionately increases the yearly average area burned. To better represent the typical size of wildfires, we have provided a modified average that is calculated by omitting this large fire. In the past 10 years there have been 64 fires that have burned approximately 10 hectares.

Table 5 Summary of wildfires in the AOI since 1950.

AOI Fires Summary	# of Fires	Area Burned (ha)
Total 1950 – 2018	241	580
Average #/year (including the 1952 fire)	3.5	8.5
Modified Average #/year (not including the 1952 fire)	3.5	0.9
Total 2009 – 2018	46	10
2009-2018 Average #/year	4.6	1.0



Over the past 10 years, the average # of fires in the AOI (4.6 per year) is 30% above the 68 year (1950-2018) average (3.5 per year). The 10-year average area burned (1 ha per year) is 11% above the 68 year (1950-2018) modified average, which omits the large 1952 fire. These statistics indicate that wildfire activity is increasing in the past decade.

The extremely dry and warm summer of 2018 saw one notable wildfire in the District, occurring on Maple Mountain. This fire displayed rapid rates of spread after ignition and burned within 500m of private residences, which were temporarily evacuated as a precaution. The BC Wildfire Service had all resources committed to active fires, and the local fire departments quickly actioned to limit and control spreads until Wildfire staff were made available. This wildfire demonstrates the potentially high fire behavior potential during summer drought periods, and the logistical and resource challenges that can be expected. These challenges are discussed further in Section 4.1



Photo 3. The 2018 Maple Mountain wildfire, post wildfire.





Figure 4 – Location of previous wildfire events in the AOI. Polygons represent larger wildfires and points represent smaller fires. Color codes represent fires within different decades.





Figure 5 – Location of previous wildfire events in the AOI in relation to the Municipal Forest Reserve.



## 2.4 Current Community Engagement

The District engaged with residents of North Cowichan during the creation of its original Community Wildfire Protection Plan in 2007. Several recommendations in the 2007 CWPP were directed at affecting wildfire risk in the District through education and outreach, including creating a public education program, conducting neighbourhood information sessions in areas of the interface with relatively high fire risk, and sharing information with First Nations.

As a result of the original CWPP, three areas inside the District were treated for wildfire fuel mitigation work, with a total area treated of approximately 4 hectares. These areas were in a linear strip on Mount Tzouhalem, and formed a small fuel break between an adjacent communities and the larger forest. These treatments occurred in 2007. One other treatment has also occurred in the District land, a 2011 trailside treatment along the Cowichan Valley Trail in the community of Duncan. This was administered by the Cowichan Valley Regional District, as it occurred on property under their jurisdiction.

Recently, the District extended public engagement regarding operations in the Municipal Forest Reserve, which resulted in a temporary restriction on harvesting for 2019. At the same time, the municipality has decided to create additional positions on the Forest Advisory Committee, which review and provides recommendations on Municipal Forest Reserve operations. This ensures that community perspectives on forest management are considered.

The Cowichan Valley Regional District promotes and hosts FireSmart information on its website and offers FireSmart workshops for individuals and groups. As a result, the general public is aware and supportive of wildfire risk mitigation. The CVRD work provides a good model for the District to use in continuing its own educational and outreach programs for the general public. Recontextualizing the CVRD programs for the District presents an opportunity to use broader regional approaches in a more local setting.

## 2.5 Linkages to Other Plans and Polices

There are a number of plans and policies that relate in one way or another to wildfire planning. The most relevant are summarized below.

## 2.5.1 Local Authority Emergency Plan

The District of North Cowichan does not currently have its own emergency plan, however it is included in the CVRD Local Authority Emergency Plan. This outlines contingency plans for large incidents which may include evacuation and the activation of an Emergency Operations Centre (EOC). This can be used to coordinate emergency response at a regional scale, with provisions for smaller scale incidents and management. The District has internal emergency planning procedures which have been developed to tie in with the CVRD Local Emergency Plan. Wildland fire scenarios specific to the District of North Cowichan are not described, however broad wildland fire scenarios, effects, and equipment and personnel deployment are discussed. The District operates an eAlert system to alert residents and



businesses of critical incidents. This automatic alert service is voluntary, and sends alerts via text, phone, or email.

## 2.5.2 Affiliated CWPPs

This report is an update to a pre-existing CWPP from 2007 for North Cowichan. A parallel community wildfire protection planning process is currently ongoing for other communities in the Cowichan Valley Regional District, led by the Regional District. Drafts have been provided for review and to aid in the development of this CWPP Update. These included recommendations for treatment areas which are in the jurisdictional boundaries of the District of North Cowichan. These treatment areas were visited in the field for a follow up assessment, and have been included in this report.

## 2.5.3 Local Government and First Nation Plans and Policies

None of the four Indian Reserves within the boundaries of the District, or the adjacent Cowichan IR # 1 and Halalt Island IR # 1, have developed wildfire protection plans. No emergency response plans have been developed for the Indian Reserves contained within the District. In April 2018, Cowichan Tribes staged an emergency response drill for a fictional interface wildfire.

## **Official Community Plan**

The Official Community Plan for North Cowichan was adopted in 2011 and provides a framework for land use in the City. Council initiated an updating process for the plan in 2019 and anticipates rewriting the plan to form the basis for local area plans throughout the community. The OCP provides direction on development in the wildland-urban interface as well as municipal forest management. It adopts areas of high and extreme wildfire-risk (identified in the 2007 CWPP) as areas of natural hazard subject to additional development approval requirements under Development Permit Area 4. These requirements include provisions for egress, installation of fuel-free landscaping and the use of fire-retardant exterior building materials. Key language from the relevant sections follows:

## Section 2.1.2 "Forestry"

"Maintaining thriving, healthy forests – whether used for timber or non-timber harvesting, recreation or wildlife habitat – is essential if the Municipality is to achieve its goals of preserving the rural setting while providing for economic activity. [...] Policies for forest management must account for these values and also deal with practical issues such as fire prevention."

Policy 2.1.2.7(b) "The Municipality will encourage responsible recreational uses of municipal forest lands"

"The Municipality will control recreational and other access in the Municipal Forests [...] during high fire risk periods".

Policy 2.2.3.1 "The Municipality will discourage development in areas with natural hazards."



*"Floodplains, interface fire areas, coastlines and steep slopes over 20% are deemed to be hazardous for development, and are designated as Development Permit Areas under the Local Government Act (Section 919.1(1)). All hazard lands are subject to the Development Permit Area Guidelines (DPA-4).* 

Policy 2.2.3.4 "The Municipality will reduce risks to life and property in fire-prone areas."

"Subdivision development proposals will be reviewed in accordance with the Fire Protection Guidelines for Subdivision Development in the Wildland Urban Interface at the Municipality of North Cowichan. For new subdivisions, it will be important that road grades meet DNC standards for public roads, even when the proposed road will be private. Single access development will be discouraged. For new lots, buffers that create fuel-free zones around structures for fire protection are required. Fire resistant building construction (e.g., use of fire retardant materials and sprinkling systems) is also required."

Development Permit Area 4 – Hazard Lands (DPA-4)

"To protect development on area with natural hazards, a development permit is required before land or vegetation in the designated areas is altered. [...] Based on criteria adopted from the provincial risk assessment methodology, the properties shown on Map 8 have been identified as being at high or extreme risk for interface wildfires."

Additionally, the OCP commits the municipality to conduct municipal operations, including from forestry, in such a way as to reduce or eliminate discharges to the atmosphere. Forest management, including wildfire fuel management, is therefore subject to the requirements and directions included within the OCP.

#### Sensitive Ecosystems

The OCP adapted sensitive ecosystem inventory mapping maintained by the Province within its Development Permit Areas. Many sensitive ecosystems are found within the District, including some of the most significant remaining Garry oak woodlands (considered plant communities at risk) in Canada. The current municipal forestry operations are careful to consider these mapped unique ecosystems, including those that are rare or endangered. This may be subject to change in the updated MFR Forest Management Plan to allow for forest operations in unique ecosystems for the purpose of enhancement. Additionally, the District commits in its OCP to preserve sensitive ecosystems in a natural condition, keeping them free of development and human activity to the maximum extent possible.





Photo 4. Garry Oaks in the Garry Oak Preserve.

#### Fire Protection Bylaw No. 3340

The District of North Cowichan Fire Protection Bylaw No. 3340 regulates the use of open burning, recreational fires, and wood burning appliances. Open burning is permitted between March 15 through April 15 and September 15 through November 30, only when the ventilation index is rated as 'good' by Environment Canada and only outside the Urban Containment Boundary. Open burning may take place inside the Urban Containment Boundary only on properties of at least two acres in size or if a permit has been obtained from a bylaw officer. The Open Burning Bylaw does not generally apply to burning associated with forestry activities under the *Forest and Range Practices Act* or *Private Managed Forest Land Act*, and does not apply to forest practices carried out in the Municipal Forest Reserve or on other Municipal land used for forestry purposes.

#### **Climate Action & Energy Plan**

Climate change policy is embedded in the OCP and outlined in a number of City reports and plans. The Municipality produced the Climate Action & Energy Plan in 2013, following direction set in the OCP to meet obligations under the 2007 *BC Climate Action Charter*, monitor and report on community greenhouse gas emissions, and promote sustainable development. Land use planning supporting



community densification and expanding the area of North Cowichan under tree cover are major recommendations of the Climate Action & Energy Plan. The plan incorporated future climate projections produced by the Pacific Climate Impacts Consortium at the University of Victoria (PCIC), anticipating the following changes from the 1961-1990 baseline by 2050:

- an increase in average annual temperature of 1.6 °C;
- a decrease in summer precipitation of 19%;
- an increase in winter precipitation of 5%;
- an additional 15 frost-free days per year.

The plan anticipates that periods of extremely dry conditions will become more common, resulting in more frequent and severe forest fires.

## 2.5.4 Higher Level Plans and Relevant Legislation

#### Vancouver Island Summary Land Use Plan (2000)

The plan provides high-level direction to crown land management on Vancouver Island. None of the special management zones or orders continued under the plan's legal authority apply to areas within the limits of the District of North Cowichan.

2.5.5 Ministry or Industry Plans

There are no additional relevant ministry or industry plans for the AOI.



## Section 3 Values at Risk

Wildfires can cause impacts to a community in a number of ways. They can cause direct impacts to structures, facilities and infrastructure. They can disrupt economic activity through evacuations of residents, who must often take leave from their employment. The movement of goods and services, and transmission lines, are critical to the economies of the surrounding communities. Less direct impacts can include smoke from nearby wildfires, which can reduce tourism activity and impact agriculture production. These many direct and indirect impacts are difficult to quantify but have the potential to cause significant cumulate impacts on the local economy. This section of the report provides an overview of the types of values that are at risk from wildfire within this AOI.

#### 3.1 Human Life and Safety

Protection of human life is the top priority in the event of wildfire in the urban interface. Structure locations have been used to provide a measure of the density of population. All areas with an average density of more than 6 structures per kilometre was defined as the Wildland Urban Interface (WUI) in this report (Figure 6).

Table 6 provides a summary of the total area within the AOI by structure density class. The District has a very evenly dispersed population with concentrations of higher density in the communities of Chemainus, Crofton, and Duncan. There are widely dispersed areas of moderate density throughout the District. These types of developments present the most difficulty for suppression response and evacuation access as they tend to be spread out with trees embedded closely in and around the structures. The only areas without development are the Municipal Forest Reserve throughout the District, and small portions of forested land in the northwest of the District

Density Structures/ km <sup>2</sup>	Area (ha)	% of total area
1-6	3473.6	16.3%
6-24	4285.9	20.2%
25-100	6080.8	28.6%
100-250	1989.1	9.4%
250+	1595.9	7.5%
No buildings	3845.1	18.1%

#### **Table 6 Summary of density**





Figure 6 – Density of structures



## 3.2 Critical Infrastructure

The features and utilities that are considered critical infrastructure were identified through consultation with stakeholders. These are features that, if disrupted or destroyed, would cause serious impacts on the functioning of the government and important facilities that the public relies on. These include BC Hydro transmission lines and substations, railways, municipal water supply, waste treatment, hospitals, schools, airports, municipal buildings, police and fire stations (Figure 7).

## 3.2.1 Electrical Power

BC Hydro services North Cowichan through an electrical grid of above ground transmission lines, with 600 kms of transmission and distribution lines in the AOI. Many transmission lines that service adjacent communities run through the AOI. One of the main transmission lines that connects Vancouver Island to the mainland runs through the centre of the District. As such, the District forms a critical hub for the power supply on Vancouver Island. BC Hydro has policies and mitigation activities in place for vegetation management and wildfire preparedness and mitigation. These include fuel management in the interface area surrounding their infrastructure, requirements for wildfire assessments prior to work in the interface, and risk evaluations during periods of high or elevated wildfire danger. These lines and their substations are also a source of ignition, particularly if trees fall on the lines. BC Hydro is responsible for managing the risk from trees falling onto their power lines.

## 3.2.2 Communications, Pipelines, and Publicly Owned Buildings

There are many community facilities that could be identified for protection in the case of a wildfire. The definition of what is considered critical infrastructure are those facilities that are important to protect to ensure the City can continue functioning in the case of a catastrophic wildfire event. For the purposes of this CWPP the following municipal and public buildings were identified by District staff as critical infrastructure:

- North Cowichan Municipal Hall
- The Cowichan District Hospital
- Elementary Schools: Chemainus, Crofton, Maple Bay, Alexander, and Drinkwater
- Secondary Schools: Chemainus, Queen of Angel's, Duncan Christian, Quamichan, Queen Margaret's, and Ecole Mount Prevost
- Post Secondary: Vancouver Island University, Cowichan Campus
- North Cowichan Fire Department: 4 Halls
- RCMP: Duncan and Chemainus detachments
- South Island Highway Patrol
- Water infrastructure
- Key communications infrastructure





Photo 5. District of North Cowichan Fire Department Station in Maple Bay

#### 3.2.3 Transportation

The District is well served by multiple highways. Highway 1 runs north to south, with good capacity to support evacuation. Highway 18 runs west of the District towards Lake Cowichan. There is a network of privately owned forest roads that are reserved for use by private forest operators in the area. These roads are regulated with locked gates restricting access. These roads can be used for wildfire suppression access, however this requires coordination to ensure roads are accessible. Rail lines run north to south through the District connecting Courtney to Victoria.

#### 3.2.4 Water and Sewage

The District of North Cowichan water system is serviced by a network of watermains, wells, reservoirs, and pump stations. There are 20 pump stations and 16 reservoirs, many of which are located in interface areas between communities and natural forest areas. The Cowichan Valley area typically experiences summer droughts and is subject to water restrictions to conserve water.



## 3.2.5 Industry

The major industrial facilities inside the District boundaries include two mills, located in Chemainus and Crofton. These mills are located on the waterfront, without significant interface with adjacent forest areas. In the event of a wildfire and required evacuation, shutting down these mills would be a laborand time-intensive process.





Figure 7 – Critical infrastructure Map



## 3.3 High Environmental and Cultural Values

## 3.3.1 Drinking Water Supply Area and Community Watersheds

Portions of the Banon Community Watershed overlap with areas in the northwest corner of the District of North Cowichan. Approximately 200 hectares of the watershed is inside the District municipal boundary, with a majority of the area outside the District in the CVRD boundaries. This watershed supplies drinking water for the towns of Chemainus and Ladysmith (British Columbia Ministry of Environment, 2014). Wildfires can cause shifts in landscape processes that can decrease water quality by increasing sedimentation and nutrients downstream, and increasing erosion adjacent to watersheds (Emelko & Sham, 2018). This can be particularly damaging in periods of summer drought when water supply is the lowest. These periods of summer drought are experienced when large, intense wildfires are most likely to occur.

## 3.3.2 Cultural Values

The Archaeology Branch of the Ministry of Forests, Lands, Natural Resource Operations and Rural Development maintains a spatial database of archeological and historical sites. These include locations where there is evidence of past human activity. Within the AOI there are 137 recorded sites and 12 of these are archeological sites related to aboriginal life during the 14,000 years prior to European contact. These sites are concentrated mainly to the waterfront. They include cache pits, house pits, trails, fishing sites, cooking features, lithics, grave sites and human remains. Due to the sensitive nature of these sites their exact locations cannot be published.

There are eight locations which include sites of historic importance from the past 200 years. Four of these are non-protected heritage sites and include log cabins, trails, and historic buildings. Four historic sites are protected under some federal, provincial or local act including recognized heritage buildings as well as some heritage trees.

## 3.3.3 High Environmental Values

The BC Conservation Data Centre (CDC) records BC's most vulnerable vertebrate animals and vascular plants, each of which is assigned to a provincial Red or Blue list according to their provincial conservation status rank. Species or populations at high risk of extinction are placed on the Red list and are candidates for formal endangered species status. Blue-listed species are considered vulnerable to human activity and natural events.

There are 27 occurrences of Red-listed species, 18 Blue-listed species, 24 Red-listed ecological communities, and 5 Blue-listed ecological communities. There is also one overlap with a masked sensitive occurrence. The impacts of fuel treatments to these plants, animals and ecosystems should be taken into consideration when prescribing fuel treatments across the AOI. Details regarding the management requirements of these entities can be found on the Conservation Data Center Website (https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre). Maps



of known occurrences of these species are also available at the CDC website. Red and blue listed wildlife species at risk that are known to inhabit the AOI or the adjacent natural areas are listed in Table 7. Red and Blue listed ecological communities are listed in Table 8.

Table 7 Recorded known occurrences of Red and Blue listed species that inhabit the AOI (Conservation Data Centre).

Scientific Name	Common Name	Category	B.C. Status
Sericocarpus rigidus	White-top Aster	Vascular Plant	Blue
Lomatium dissectum	Fern-leaved Desert-parsley	Vascular Plant	Red
Meconella oregana	White Meconella	Vascular Plant	Red
Sidalcea hendersonii	Henderson's Checker-mallow	Vascular Plant	Blue
Psilocarphus elatior	Tall Woolly-heads	Vascular Plant	Red
Fraxinus latifolia	Oregon Ash	Vascular Plant	Red
Balsamorhiza deltoidea	Deltoid Balsamroot	Vascular Plant	Red
Viola praemorsa var. praemorsa	Yellow Montane Violet	Vascular Plant	Red
Sericocarpus rigidus	White-top Aster	Vascular Plant	Blue
Phalacrocorax auritus	Double-crested Cormorant	Vertebrate Animal	Blue
Bidens amplissima	Vancouver Island Beggarticks	Vascular Plant	Blue
Sericocarpus rigidus	White-top Aster	Vascular Plant	Blue
Fraxinus latifolia	Oregon Ash	Vascular Plant	Red
Megascops kennicottii kennicottii	Western Screech-owl, Kennicottii Subspecies	Vertebrate Animal	Blue
Coenonympha tullia insulana	Common Ringlet, Insulana Subspecies	Invertebrate Animal	Red
Allogona townsendiana	Oregon Forestsnail	Invertebrate Animal	Red
Balsamorhiza deltoidea	Deltoid Balsamroot	Vascular Plant	Red
Erynnis propertius	Propertius Duskywing	Invertebrate Animal	Red
Ardea herodias fannini	Great Blue Heron, Fannini Subspecies	Vertebrate Animal	Blue
Coenonympha tullia insulana	Common Ringlet, Insulana Subspecies	Invertebrate Animal	Red
Viola praemorsa var. praemorsa	Yellow Montane Violet	Vascular Plant	Red
Lomatium dissectum	Fern-leaved Desert-parsley	Vascular Plant	Red
Callophrys mossii mossii	Moss' Elfin, Mossii Subspecies	Invertebrate Animal	Blue
Butorides virescens	Green Heron	Vertebrate Animal	Blue
Triteleia howellii	Howell's Triteleia	Vascular Plant	Red
Ardea herodias fannini	Great Blue Heron, Fannini Subspecies	Vertebrate Animal	Blue
Viola praemorsa var. praemorsa	Yellow Montane Violet	Vascular Plant	Red
Triteleia howellii	Howell's Triteleia	Vascular Plant	Red



Scientific Name	Common Name	Category	B.C. Status
Euphyes vestris	Dun Skipper	Invertebrate Animal	Red
Prophysaon coeruleum	Blue-grey Taildropper	Invertebrate Animal	Blue
Clarkia purpurea ssp. quadrivulnera	Wine-cup Clarkia	Vascular Plant	Red
Tonella tenella	Small-flowered Tonella	Vascular Plant	Blue
Balsamorhiza deltoidea	Deltoid Balsamroot	Vascular Plant	Red
Butorides virescens	Green Heron	Vertebrate Animal	Blue
Viola praemorsa var. praemorsa	Yellow Montane Violet	Vascular Plant	Red
Rana aurora	Northern Red-legged Frog	Vertebrate Animal	Blue
Syntrichia laevipila	Twisted Oak Moss	Nonvascular Plant	Blue
Nearctula sp. 1	Threaded Vertigo	Invertebrate Animal	Blue
Euphyes vestris	Dun Skipper	Invertebrate Animal	Red
Sanicula bipinnatifida	Purple Sanicle	Vascular Plant	Red
Ardea herodias fannini	Great Blue Heron, Fannini Subspecies	Vertebrate Animal	Blue
Triteleia howellii	Howell's Triteleia	Vascular Plant	Red
Erynnis propertius	Propertius Duskywing	Invertebrate Animal	Red
Lomatium dissectum	Fern-leaved Desert-parsley	Vascular Plant	Red
Silene scouleri ssp. scouleri	Coastal Scouler's Catchfly	Vascular Plant	Red

Table 8 Recorded known occurrences of Red and Blue listed ecological communities found in the AOI(Conservation Data Centre).

Scientific Name	Common Name	B.C. Status
Alnus rubra / Rubus spectabilis / Equisetum arvense	Red Alder / Salmonberry / Common Horsetail	Blue
Pseudotsuga menziesii / Berberis nervosa	Douglas-fir / Dull Oregon-grape	Red
Thuja plicata / Rubus spectabilis	Western Redcedar / Salmonberry	Red
Thuja plicata / Rubus spectabilis	Western Redcedar / Salmonberry	Red
Pseudotsuga menziesii / Berberis nervosa	Douglas-fir / Dull Oregon-grape	Red
Pseudotsuga menziesii / Berberis nervosa	Douglas-fir / Dull Oregon-grape	Red
Quercus garryana / Bromus carinatus	Garry oak / California brome	Red
Thuja plicata / Rubus spectabilis	Western Redcedar / Salmonberry	Red
Alnus rubra / Carex obnupta [ Populus trichocarpa ]	Red Alder / Slough Sedge [ Black Cottonwood ]	Red
Pseudotsuga menziesii - Arbutus menziesii	Douglas-fir - Arbutus	Red
Alnus rubra / Rubus spectabilis / Equisetum arvense	Red Alder / Salmonberry / Common Horsetail	Blue
Alnus rubra / Carex obnupta [ Populus trichocarpa ]	Red Alder / Slough Sedge [ Black Cottonwood ]	Red
Abies grandis / Berberis nervosa	Grand Fir / Dull Oregon-grape	Red
Pseudotsuga menziesii / Melica subulata	Douglas-fir / Alaska Oniongrass	Red
Thuja plicata / Symphoricarpos albus	Western Redcedar / Common Snowberry	Red
Thuja plicata / Symphoricarpos albus	Western Redcedar / Common Snowberry	Red



Scientific Name	Common Name	B.C. Status
Thuja plicata / Symphoricarpos albus	Western Redcedar / Common Snowberry	Red
Alnus rubra / Rubus spectabilis / Equisetum arvense	Red Alder / Salmonberry / Common Horsetail	Blue
Pseudotsuga menziesii / Berberis nervosa	Douglas-fir / Dull Oregon-grape	Red
Abies grandis / Berberis nervosa	Grand Fir / Dull Oregon-grape	Red
Thuja plicata / Rubus spectabilis	Western Redcedar / Salmonberry	Red
Populus trichocarpa - Alnus rubra / Rubus spectabilis	Black Cottonwood - Red Alder / Salmonberry	Blue
Quercus garryana / Bromus carinatus	Garry oak / California brome	Red
Alnus rubra / Carex obnupta [ Populus trichocarpa ]	Red Alder / Slough Sedge [ Black Cottonwood ]	Red
Abies grandis / Berberis nervosa	Grand Fir / Dull Oregon-grape	Red
Abies grandis / Berberis nervosa	Grand Fir / Dull Oregon-grape	Red
Alnus rubra / Carex obnupta [ Populus trichocarpa ]	Red Alder / Slough Sedge [ Black Cottonwood ]	Red
Populus trichocarpa - Alnus rubra / Rubus spectabilis	Black Cottonwood - Red Alder / Salmonberry	Blue
Quercus garryana / Holodiscus discolor	Garry Oak / Oceanspray	Red

#### 3.4 Other Resource Values

The primary landscape level natural resource in the North Cowichan area is timber, both in the 5,000 hectare MFR and the small portions of forested land. There is also a long coastline within the District providing access for industrial and recreational boats. Two Port Terminals associated with Catalyst paper and at Chemainus Bay provide access for larger commercial vessels.

#### **Recreation Features**

North Cowichan is well known for its highly developed trail network. The District of North Cowichan and the Cowichan Trail Stewardship Society maintains a large network of hiking and mountain bike trails, many of which overlap or are contained within the MFR. The BC Bike Race frequently hosts a day of bike racing in the District, attracting thousands of visitors from all over the world. The District is also a destination for camping, hiking, kayaking. Most recreation is concentrated in the late spring to fall insofar as the MFR is considered, with a substantial amount during the wildfire season, resulting in an elevated risk in forested areas. No camping is permitted inside the MFR.

#### 3.5 Hazardous Values

The intent of this sub-section is to identify hazardous values that pose a safety hazard to emergency responders. The major industrial operators in the AOI are mills located in Crofton and Chemainus. These mills are located on the waterfront, and have limited interface with the broader landscape forest. These mills have heavy concentrations of fuels in the form of log decks, chips, and sawdust, as well as storage tanks with hazardous materials.

A waste management facility is located in the western portion of the AOI, at 3900 Drinkwater Road. This facility has small concentrations of hazardous materials, typically household chemical waste and


materials. This facility is lightly vegetated, however it does partially interface the landscape forest to the west.



# Section 4 Wildfire Threat and Risk

The following sections provide a summary of the factors that contribute to wildfire threat and risk. Wildfire threat is a term that reflects the potential fire behaviour that a natural area could support. This considers fuel loading, slope, aspect, weather conditions, fire regime and the impacts from pests and diseases. The term wildfire risk accounts for the likelihood of a wildfire occurring, its potential behavior and the consequences of it impacting human lives, structures, and infrastructure.

### 4.1 Fire Regime, Fire Danger Days and Climate Change

### 4.1.1 Fire Regime and Fire Weather

All ecosystems are influenced by periodic disturbances that vary in size, severity, and occurrence. Examples of common disturbances include: wildfire, windthrow, ice and freeze damage, water, landslides, insect and disease outbreaks as well as human caused events such as logging. Historically, agents of disturbance were viewed as unhealthy and a threat to the integrity of the forest as a timber resource. Hence, it was standard policy to suppress all wildfires. The resultant effect is that fire dependant ecosystems are expressing biological and physical instabilities such as hazardous fuel accumulations and pest outbreaks. Only recently have we gained an understanding of the integral role that disturbance agents play in maintaining spatial and temporal diversity in our ecosystems.

Wildfire is often the most severe disturbance type and can significantly alter the physical and biological characteristics of an ecosystem. It can change the structure and species composition of a forest, remove some or the entire forest floor organic layer, and alter the chemical properties of the soil. In ecosystems where natural wildfires are frequent, wildfires help to prepare seed beds, recycle nutrients, alter plant succession, maintain a diversity of age classes (seral stages) across the landscape, control insect and disease outbreaks as well as reduce fuel accumulations. Many of the native plant species in fire dominated ecosystems depend on it for their existence.

All biogeoclimatic subzones have been separated into natural disturbance types (NDT) according to the Forest Practices Code Biodiversity Guidebook. These NDTs are classified based on the size and frequency of natural disturbances that occur in those ecosystems as per the following:

- NDT 1 Ecosystems with rare stand-initiating events
- NDT 2 Ecosystems with infrequent stand-initiating events
- NDT 3 Ecosystems with frequent stand-initiating events
- NDT 4 Ecosystems with frequent stand-maintaining fires
- NDT 5 Alpine Tundra and Sub-alpine Parkland ecosystems

The subzones on the east coast of Vancouver Island are classified as NDT 2 - Ecosystems with infrequent stand-initiating events. These forests generally experienced infrequent wildfires (the mean fire return interval is 200 years) of moderate size (20 to 1000 hectares). Occasional large fires would occur during periods of extreme drought, however fires in general were patchy with unburnt islands throughout. This



would result in forests of even age and size trees, with patches of mature trees that had survived previous fires. Veteran survivors of large fires are typically found scattered throughout the forest.

Human intervention through forest management has altered the fire regime in this area. Forest harvesting is the dominant factor determining forest composition on the south coast of BC. This area has historically been a centre for logging and forestry since colonization by European settlers. Previous historic logging removed most of the trees that were accessible to fallers and equipment, and most of the remaining forest near communities is second-growth. This has shifted the natural fuel characteristics: forests near communities are much more homogenous in composition. The patches of veterans and unburnt mature trees are no longer present, having been removed through forest harvesting. Wildfire suppression has also influenced forest composition and is discussed in the Fire Density section below.



Photo 6. Typical mature second growth conditions found in the local area.



### Fire Weather Rating

The District is in the Coastal Douglas-Fir (CDF) zone that covers the southeast coast of Vancouver Island. There are some small patches of CWH (Coastal Western Hemlock) zones in higher elevations, but overall a majority of the District is in the CDF zone. The CDF zone has one subzone, the CDFmm (moist maritime subzone), which covers a majority of the District of North Cowichan. The CDFmm represents the mildest climate in Canada, and is characterized by mild, wet winters, and dry, warm summers. The growing season is very long, which creates good climatic conditions for forest growth.

Table 9 Climatic characteristics of the biogeoclimatic zone within the District of North Cowichan (Green & Klinka,1994)

Biogeoclimatic Zone	Range	Annual Precipitation (mm)	Summer Precipitation (mm)	Annual Snowfall (cm)	Annual Temperature (C)
Constal Davida fin	Max	1263	272	92	10.5
Coastal Douglas-fir	Min	636	105	17	8.8

Table 10 summarizes temperature and rainfall statistics from the nearest Ministry of Environment weather station. The daily high temperatures were higher in 2018 compared with the 30 year average. Rainfall was also lower in 2018 with very little rainfall in July and August.

Table 10 Weather statistics for the months of May to Sept

Weather Attribute	May	Jun	Jul	Aug	Sep
30 year Daily Average High (°C)	17	19.5	22.1	22.2	18.8
2018 Max Daily High (°C)	28	30.5	31	30.5	28
30 year Average Rainfall (mm)	50.5	39.1	24.2	26.2	31.4
Rainfall in 2018 (mm)	4.2	33.7	1.8	3.2	76.1

Table 11 provides a summary of the average number of moderate, high and extreme rated fire danger days in the fire season (May to Sept). This has been calculated from data over the past ten years. The closest station "Saltspring 2" was used, as this had the most complete data for the past several decades and was used for the wildfire behavior modelling in 4.3. The average number of high and extreme rated days from this station is about 73.8, about 48% of fire season. (May to September).



Table 11 Fire Danger Average - Average number of moderate, high, and extreme rated fire danger days over the past ten years (May to Sept)

Weather Station	Average # of Days as Moderate	Average # of Days as High	Average # of days as Extreme
Cedar – 13km NW	39.3	35.9	39.1
Mesachie 2 – 25km W	36.2	34.5	29.8
Saltspring 2 – 5km E	38.2	44.6	29.2
Victoria Airport– 15km SE	37.3	47.0	29.6



Figure 8 - Average number of danger days in each fire danger class over the past ten years (May to Sept from Saltspring 2 weather station)

It is important to note that while there is relatively good coverage from weather stations for the AOI, there is significant variability within the District. This is due to the varying topography throughout the area, as well as the influence of the coast and islands to the east. The actual fire weather can vary widely in the District, and projected wildfire weather from weather stations may not be representative of the actual fire hazard in the District.



### 4.1.2 Climate Change

The Cowichan Valley Regional District, adjacent to the District of North Cowichan, produced a Climate Projection Report for the area in 2017 (Cowichan Valley Regional District, 2017). This report provides detailed projections of how climate change will affect the Cowichan Valley by the 2050s. These models predict an annual average temperature increase of 3°C by the 2050s. Precipitation is expected to increase by 5%, however this will come mostly in the form heavier rainstorms. Summers are expected to be hotter, with longer dry spells.

Changes to climate are affecting the risk from wildfires. In North Cowichan, average annual temperatures will be warmer, with longer summer dry spells. A majority of historical wildfire in the region is associated with summer droughts, and as such longer summer droughts can be expected to increase the amount of high and extreme wildfire danger days in the summer. While precipitation may increase with climate change, this is expected to be in the form of heavier winter rainstorms which will not decrease summer wildfire risk.

## 4.2 Provincial Strategic Threat Analysis (PSTA)

The PSTA is a high-level analysis conducted at the Provincial level and is intended to be used as a starting point for an assessment of local wildfire threat. The recommended method for updating the Provincial Wildfire Threat Analysis as part of a CWPP involves air photo interpretation and ground truthing to update fuel typing. For any changes to fuel types the fire intensity is manually updated to reflect the closest polygon with the same fuel characteristics. In the AOI the provincial outputs of fuel types and fire intensity were poor due to coarse and inaccurate inventory mapping. For this reason its was not possible to update the PSTA following the recommended methodology. Instead new fuel typing was completed using recently completed Vegetation Resources Inventories (VRI) mapping. This fuel type layer was verified through ground truthing and used to recalculate fire behavior for the AOI. The findings from this analysis are provided in section 4.2.

The original PSTA spatial data is provided below. This is an interpretation of fuel type mapping, historical fire data and weather, and topography. The PSTA includes information and maps that describe fuel types, historical fire density, and the potential for embers to land in an area (spotting impact), head fire intensity, and a final calculated wildfire threat score (Figure 9).





#### WILDFIRE THREAT SCORE

Figure 9 – Input factors and contributing weights to the final PSTA score.

The 10 Fire Threat Classes represent increasing levels of overall fire threat (i.e. the higher the number, the higher the threat). PSTA Threat Class 7 is considered to be a threshold and the most severe overall threat classes are Class 7 and higher. Areas of the province that fall into these higher classes are most in need of mitigation. Areas rated as Class 7 or higher are locations where the fire intensity, frequency and spotting can be severe enough to potentially cause catastrophic losses in any given wildfire season, where those ratings overlap with significant values at risk. Areas rated as Class 6 are also considered to be particularly prone to wildfires ,are susceptible to crown fires (head fire intensity greater than 10,000 kW/m), and are most likely to be affected by spotting impacts.

The PSTA mapping for the AOI (Figure 10) appears fragmented because the analysis cannot be published for private land. This analysis was completed at a coarse scale with poor input data. The PSTA identified the majority of the public land area assessed as a Moderate threat (Table 12).

PSTA Threat Rating (class)	Area (ha)	% of area
Extreme (9-10)	104.0	0%
High (7-8)	490.4	2%
Moderate (4-6)	6391.6	30%
Low (1-3)	811.3	4%
No Data (Private Land)	11724.0	55%
Water	1749.0	8%

Table 12 Summary of wildfire threat on public owned lands





Figure 10 – Provincial Strategic Threat Analysis threat rating for public owned lands



### Provincial Wildfire Threat Analysis - Limitations

The PSTA is a generalized and coarse analysis completed at a province wide layer with a 50m pixel size. This tool is useful for higher level wildfire analysis, however lacks detail that is required for a localized analysis of wildfire risk. In the case of District of North Cowichan, recently completed VRI data was used to create a more detailed fuel typing layer and to recalculate the fire behavior modeling. This process and methodology is detailed in section 4.3.

### 4.2.1 Fire History

The AOI has a fire regime that is characterized by mostly moderate-sized fires that are between 10 and 2000 hectares, which is typical of the disturbance regime in this ecosystem. These moderate-sized fires were significantly more frequent and larger prior to 1950. This is likely due to a combination of factors. After 1950, the wildfire service effectively suppressed a majority of wildfires due to technological advances in the wildland firefighting techniques. Furthermore, broadcast burning was a frequent technique in the forest harvesting industry to dispose of post harvest debris, which led to more frequent human caused large fires. Section 2.3 above includes some additional discussion of wildfire history.

One of the implications of reduced wildfire activity in the AOI is an increase in fuel loading. The most common predicted type of wildfire in the AOI is lower intensity surface fires. These wildfires tend to consume ground and surface fuels, while sparing the trees. This reduces fuel loads in the forest without causing major mortality in the overstory trees, as would be expected during a higher intensity crown fire. Modern fire suppression quickly suppresses these surface fires, minimizing their influence on the ecosystem, leading to heavier fuel loading in these forests than would be typically expected in a natural disturbance regime. This process, known as "fire exclusion," increases the likelihood of very large wildfires that strain and sometimes exceed wildfire suppression capabilities.

AOI Fires Summary	# of Fires	Area Burned (ha)
Total: 1920-1950	N/A*	6806.5
Average/year	N/A*	227
Total 1950 – 2018	241	580
Average #/year	3.5	8.5
Total 2009 – 2018	46	10
10 Year Average	4.6	1

Table 13 Summary of wildfires in the AOI

\*Fire number data prior to 1950 is generally unreliable, as only large fires are included in dataset.





Figure 11 – Provincial Strategic Threat Analysis historical wildfire density



### 4.3 Local Wildfire Threat Assessment

The PSTA is a generalized and coarse analysis completed at a province wide layer with a 50m pixel size. This tool is useful for higher level wildfire analysis, however lacks detail that is required for a localized analysis of wildfire risk. In the case of District of North Cowichan, a more detailed fuel typing layer was developed and used to recalculate the fire behavior modeling using local weather data. The following is a summary of this analysis.

### Fuel Typing

A recent vegetation resource inventory (VRI) was completed for the District. To produce the most accurate assessment of fire behavior potential for this area, new fuel typing was developed from this VRI inventory. This was done using a series of queries of forest attributes to best match the coastal forest conditions associated with each Fuel type. This updated typing was confirmed through air photo interpretation and ground truthing, and is further discussed in Appendix 1.

Fuel typing falls into sixteen national benchmark fuel types that are used by the Canadian Fire Behaviour Prediction System (Canada, Canadian Wildland Fire Information System, 2018). This system divides fuels into 5 major groups and 16 more specific fuel types. These groups are used to describe fuels according to stand structure, species composition, surface and ladder fuels and the organic (duff) layer. The current Canadian Forest Fire Behavior Prediction (FBP) System does not include coastal forests in their fuel type descriptions (Perrakis & Eade, 2015), therefore the fuel type that most closely represents forest stand structure was identified. Fuel types by area in the AOI are summarised in Table 14.

Fuel Type Classification	Total Area (ha)	% of area
C2	5.9	0.03
С3	2010.6	9.5
C4	772.5	3.6
C5	4659.4	21.9
С7	547.9	2.6
D1	1091.5	5.1
M2	2761.4	13.0
01b	76.1	0.4
\$3	1020	4.8
Non-Fuel Areas	8309.5	39.1

Table 14 The fuel types and representative areas found within the North Cowichan AOI.



#### Fuel type C-5 –Mature Conifer

The most common fuel type in the AOI is C-5 (~22%), which is characterized by mature second-growth stands dominated by Douglas-fir (*Pseudotsuga menziesii*). This fuel type is moderately dense (500-1000 stems per ha) and has a high crown base height of 10 to 15m. Most of these stands in the AOI have very low understory density. The ground fuel component consists of moderately dense fine fuel layer (>7cm) and a low percent cover of large woody debris (>7cm). It takes a large amount of energy to create a crown fire in stands of this type in comparison with the denser conifer fuel types (C-2, C-3, and C-4).



Photo 7: Example of a stand classified as C5 fuel type



### Fuel type C-3 – Semi Mature Conifer

This fuel type is characterized by pure, fully stocked conifer dominated stands that have achieved complete crown closure. These stands tend to be dominated by Douglas-fir. The stands tend to be between 20-60 years old and over 90% coniferous, with a density of 1000-2000 stems per hectare in the overstory. Dead surface fuels are generally light and scattered, and crown base heights are between 4-8m.



Photo 8: Example of a stand classified as C3 fuel type



#### Fuel type M-2 – Mixed stands

This fuel type is found scattered throughout the study area. These fuel types are characterized by stands comprised of a mix of coniferous and deciduous species. The conifer component is mostly Douglas-fir, with a component of Alder (*Alnus rubra*), Bigleaf Maple (*Acer macrophyllum*), Black Cottonwood (*Populus balsamifera ssp. Trichocarpa*), and Arbutus (*Arbutus menziesii*). In addition to the diverse species composition, stand mixtures exhibit wide variability in stand structure and development. Fire behaviour potential in these stands is highly dependant on the coniferous component, with higher coniferous component having a higher wildfire behaviour potential.



Photo 9: Example of a stand classified as M2 fuel type



### Fuel type D-1/2 - Deciduous

This fuel type consists of stands that are generally moderately stocked and dominated by deciduous trees. These are comprised of a mixture of Cottonwood, Alder, Bigleaf Maple, and Arbutus. These stands may include a small to very small component of conifers, usually in patches or as single trees. Dead and down round wood fuels are a minor component of this fuel complex. During the summer months, the principal fire-carrying surface fuel consists chiefly of deciduous leaf litter and cured herbaceous material that are directly exposed to wind and solar radiation. Areas dominated by shrubs are also included in this type. These are dense plant communities with few trees and a variety of shrub species. In terms of fire behaviour potential these stands will all have a relatively low spread rate potential.



Photo 10: Example of a stand classified as D1/2 fuel type





Figure 12 – Updated Local Fuel Type Map and Field Verification Plots



### Fire Weather Inputs

Weather conditions used to calculate fire behaviour were derived from two weather stations maintained by the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO), North Cowichan Station and Saltspring 2 station. Although North Cowichan is inside the study area, it has a smaller sample size that may not accurately capture fire weather indices. Saltspring 2 is 5km E of the study are and has a much more complete dataset, with fire weather indices for the last 30 fire seasons.

Table 15 MFLNRO weather stations

Station #	Station Name	LATITUDE	LONGITUDE	ELEV_M_	Years
1013	North Cowichan	48.82	-123.72	60	1983 – 1986, 2015
8	Saltspring 2	48.77	-123.47	18	1989-2018

Historical weather data was statistically analyzed for the months of May to September. The 90th percentile indices were used to represent the worst-case scenario for fire weather conditions. This information, in addition to ground fuel plot data, was used to model fire behaviour characteristics.

	Fine Fuel Moisture Code	Duff Moisture Code	Drought Code	Initial Spread Index	Build Up Index	Fire Weather Index	Relative Humidity	Precip. (mm)	Temp.
#1013 – North Cowicha	an								
90 <sup>th</sup> Percentile	90.7	110.9	640.6	6.9	145.9	26.0	80	3.8	25.5
Average	77.1	48.8	336.2	3.5	66.5	11.0	57.9	1.2	19.4
Maximum	97.6	195.8	829.9	45.2	209.9	49.0	99	43.9	33.6
#8 – Saltspring 2									
90 <sup>th</sup> Percentile	88.89	86.3	653.1	6.5	124.6	22.9	86	3.0	24.8
Average	76.2	43.0	378.4	3.2	63.5	10.2	64.6	1.1	19.2
Maximum	96.9	171.1	849.6	16.2	222.4	43.4	100	57.2	35

Table 16 Fire weather indices between the months of May to September

### Fire Behavior Modeling

The updated fuel typing and weather data from the Saltspring weather station were used to model fire behavior potential. The objective of this modeling exercise is to predict how wildfire will behave under extreme weather conditions. It is based on the Canadian Fire Behaviour Prediction System (FPB) which provides quantitative outputs of selected fire behaviour characteristics for the major Canadian fuel types (Hirsch 1996).

Topographical attributes required to predict fire behaviour include slope and aspect. The study area was delineated into polygons based on slope breaks of 10% intervals and aspects of 45 degrees. Cardinal wind direction was calculated from the aspect so that it was blowing upslope and the elapsed time was set at 24 hours. Wind speed was set at 20 knots.



All of the data pertaining to fuel types, topographical attributes, and fire weather was compiled for the entire study area. This information was then run through the modelling software (Remsoft FPB97) to create output fire behaviour layers.

The output that provides a simple measure of fire behavior potential and is comparable between areas is fire intensity. This is a measure of the rate of heat energy released per unit time per unit length of fire front and is based on the rate of spread and the predicted fuel consumption. Units for this layer are kilowatts per meter. The categories used for fire intensity class are summarised in table 17.

Table 17	Fire	intensity	units	and	weighting
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Layer	Units	Unit Value	Wildfire Behavior Threat
		>0-500	Very Low
		501-1000	Low
	Kilowatts per meter (kW/m)	1001-2000	Low
Fire Intensity		2001-4000	Medium
		4001-10000	Medium
		10001-30000	High
		>30000	Extreme

Generally the areas that have a high risk fire behaviour potential include fuel types that are dominated by conifer tree species and on steep slopes. These areas have high fuel loading that with both winds and the effects of slope will burn at a high intensity. Conifer dominated fuel types constitute almost 40% of the study area. These are found primarily within three municipal owned areas including the forest reserve along the west edge of the District boundaries, and at higher elevations in the mountainous areas inside the AOI. The risk generally increases with elevation in these mountains, as higher elevation conifer stands inside the AOI will have higher density. Specific areas of note with higher risk polygons are Mt Tzouhalem, Maple Mountain, and Mount Prevost. The areas within the AOI by fire intensity class is summarized in Table 17.

Wildfire Behavior Threat	Total Area (ha)	% of area
Very Low	1,691	8%
Low	1,183	5%
Moderate	3,590	16%
High	1,669	12%
Extreme	1,300	6%
Private	11,821	53%

Table 18 Wildfire behavior category based on fire intensity

Wildfire behaviour on public lands is illustrated in Figure 13.





Figure 13 – Wildfire behavior threat highlighting interface areas with high to extreme rankings



# Section 5 Risk Management and Mitigation Factors

This section identifies strategies that can be implemented to reduce the risk of wildfire to the communities and values within the AOI. These strategies have been identified through the analysis of wildfire threat and risk, stakeholder consultation and review of best management practices. The recommendations vary in scope, implementation cost, timeline and the party(s) responsible.

- 1. Fuel Management
- 2. Planning and Preparedness
- 3. Communication and Education
- 5.1 Fuel Management

Fire requires three factors: a fuel source, oxygen and heat. The only factor that can be modified in the context of wildfire is fuel. The determination of wildfire threat and risk in this CWPP has identified areas that have high fire behaviour potential and threaten human lives and values at risk. The highest risk areas were visited in the field. The areas that were confirmed to pose a high risk have been identified as priority areas where future prescriptions should be developed for operational fuel treatments. In addition to treating fuels within high risk interface areas, larger scale fuel breaks have been recommended. For all prioritized treatment areas, options have been explored to partner and cooperate with other interest groups for initial treatment, maintenance and improving access.



### Interface Fuel Treatments

Areas on public lands that were identified as high risk and are located within 100m of moderately dense interface communities were visited in the field. Fuel plots were established in representative areas. Assessments of the fuel condition were completed following the provincial assessment system, 2019 Wildfire Threat Assessment Guide and Worksheets (MFLNRO, 2019). This is the provincial standard for field assessments of fuel hazard in the WUI and is used to plan fuel hazard mitigation works. Fuel types are scored under this system which is used to help prioritise the areas for fuel hazard mitigation funding under the Community Resilience Investment Program (CRI). In total 18 worksheets were completed inside the AOI. (Figure 14).



The variability of the wildfire threat assessment inside the AOI was dependent on the deciduous component of the stand, as well as the density of conifer component. The highest threat stands observed in the field were young, dense conifer stands with high horizontal and vertical fuel continuity.



Photo 11: Example of a stand posing a high wildfire hazard.

Table 19 provides a summary of interface treatment areas that should be considered for subsequent detailed prescriptions and operational treatment. These are areas with fuel conditions that could support a high risk wildfire and are adjacent to critical values and/or dense communities. The threat and priority scores are from the findings of the ground assessment plots. Additional considerations included the size of the area, adjacent previous treatments that can be enhanced, and existing fuel breaks that can be expanded upon.

The overall objective of all the fuel treatment prescriptions is to change the fire behavior potential of these stands from a crown fire to a surface fire under 90<sup>th</sup> percentile weather conditions. This allows suppression resources to be able to act on the wildfire and defend the adjacent values. The detailed strategies for reducing fire behavior potential are detailed in a fuel management prescription, which is developed by a Registered Professional Forester with wildfire management experience. Potential strategies include tree thinning, spacing, pruning, surface debris removal, or creating fuel gaps.



Treatment areas should be linear adjacent to the values at risk, a target of at least 100m wide and located up against man made and natural fuel breaks when possible.

In addition to these identified areas, it is recommended that the District assess the condition of fuels on and around their properties and facilities, and develop fuel treatment prescriptions in areas that pose a risk of moderate of higher.



Photo 12: Examples of a stand condition before (left) and after (right) fuel mitigation treatment



Photo 13: Example of a stand crown density before (left) and after (right) fuel mitigation treatment. The goal of crown density reduction is to make the main canopy of trees separated and discontinuous.



Treatment Polygon ID	Threat Score	Threat	Priority Score	Fuel Type	Area (ha)	Treatment Rationale
MTRCH	58	Moderate	49	C-3/ C-5	57.2	This treatment area will act as fuel break to protect the adjacent community of Crofton. This treatment area directly interfaces with private residential land, with structures within 10m of the forest edge. A water reservoir inside this treatment area has been identified as critical infrastructure. Stands in this area range from high density conifer leading stands (C-3 fuel type) to mature conifer stands with moderate density (C- 5 fuel type). The eastern portion of this stand has an area with severe blow down and high fuel loading, with severe mortality in the standing trees.
TZOU	44	Moderate	43	C-3	88.3	This treatment is located directly adjacent to private homes that border the Municipal Forest Reserve at Mount Tzouhalem. This area overlaps an approximately 3 hectares that was previously treated in 2007. There is a high density of trails inside this treatment unit, and is part of the heavily used Tzouhalem trail network. A water reservoir inside this treatment area has been identified as critical infrastructure. This area is dominated by moderate density conifer stands (C-5 fuel types), and treatment would likely include a commercial thin. This treatment area was previously recommended with slightly different boundaries in the 2017 Cowichan Valley Regional District CWPP.
MPLMT	N/A	Walkthrough Assessment	45	C-5	5.5	This treatment area surrounds a cell tower that has been identified as critical infrastructure at the top of Maple Mountain. Treatment would likely include light thinning and pruning to protect the structure and cell tower.

## Table 19 Fuel treatment summary table





Figure 14 – Priority interface fuel break locations with ground plots locations



#### Municipal Forest Management

The District has recently began reviewing their forest management policy to guide how the MFR will be managed for the next several years. This process will involve stakeholder consultation on multiple levels to create a new set of objectives for forest management in the District. There are a multitude of values provided by the forest of North Cowichan, and preserving and enhancing those values through forest management begins with the development of a new forest management plan.

A unique opportunity is present in the District in the context of forest management: as a private landowner of a working forest, there are fewer constraints than in a typical municipality. Furthermore, the growing conditions are optimal for a variety of species, including lower flammability species such as western larch that have commercial viability. It is critical that the development of the forest management plan incorporates recommendations and findings from the CWPP: a key objective of the forest management plan should include planning for a resilient forest in the face of increasing wildfire activity. Specific strategies to achieve this objective may include:

- Preferential harvesting of higher risk stands inside the Municipal Forest Reserve.
- Thinning of stands to create shaded fuel breaks.
- Innovative silviculture practices including the planting of lower flammability commercial species.
- Retention of deciduous trees during harvests.

Specific wildfire management recommendations for the MFR should be developed in coordination with the development of the forest management plan. This may require the inclusion of a forester with wildfire experience to provide professional advice on landscape level forest management in the context of the local wildfire risk.

### Other fuel treatment recommendations

A number of the identified Critical Values at risk do not have a suitable defensible space from the adjacent forest areas. There are several facilities that are critical for supplying clean water that are located within forested areas with reservoirs that are often at the tops of slopes. Many of these are within natural forested areas and do not have adequate fuel free zones around them. The District should assess the condition of fuels and wildfire risk around all of their facilities and develop fuel treatment prescriptions with the target of establish a 30m defensible spaces around them.





Photo 14: Dense conifers posing a wildfire risk within 10m of a water reservoir.

## Summary of fuel management recommendations

Number	Action Item
Rec 2	Develop fuel treatment prescriptions for interface fuel treatment areas. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #9 Fuel and Vegetation Management).
Rec 3	Integrate wildfire management considerations into the development of the Forest Management Plan for the Municipal Forest Reserve.
Rec 4	Advocate to the Province for making threat and risk mapping publicly available for lands that are owned by public entities (i.e. BC Hydro).
Rec 5	Consult and coordinate with BC Hydro to create defensible spaces and reduce risk around all substations.
Rec 6	The District should assess the condition of fuels and wildfire risk around their facilities and develop fuel treatment prescriptions with the target of establishing a 30m defensible space around them.



### Fuel treatment implementation and funding opportunities

Mitigation of fuels for the purpose of altering fire behaviour potential can be costly as merchantable timber is not necessarily targeted for removal. The following are options for funding to help implement the recommended treatment areas.

### Community Resilience Investment Program (CRI).

This CWPP update was funded through the UBCM Community Resiliency Investment program. CRI contains a variety of funding categories, including Education, Planning, Training, and Fuel Management activities. The available funding for communities ranges from \$25,000 annually for low risk communities, to \$150,000 annually for higher risk communities. The District of North Cowichan will be eligible as a high-risk community for up to \$150,000 annually for wildfire related projects. Applications for 2020 funding grants will be due in late 2020.

North Cowichan is eligible to apply for funding through this program for a number of the initiatives and recommendations within this CWPP. Some of the eligible activities include:

- Development of detailed fuel treatment prescriptions for priority interface fuel treatment areas by a qualified professional.
- Operational fuel management treatments in the priority interface fuel treatment areas
- Hosting of neighbourhood level FireSmart education initiatives and workshops
- Development of a new development permit area and supporting resources
- Interagency co-operation including meeting with the District, BCWS, and fire departments for training exercises
- S100 training for staff
- Establishing a rebate program to support treatment on private lands and fund off site debris disposal

## First Nations Emergency Services Society of BC

The First Nations Emergency Services Society of BC (FNESS) is a program that helps First Nations to develop and sustain safer communities. One of the programs is Forest Fuel Management which assists with wildfire prevention activities with a focus on Community Wildfire Protection Plans. The recommendations from this CWPP should be reviewed and applications made to this program to assist in their implementation.

### Wildfire Risk Reduction Program

The Provincial government is transitioning to a new program for wildfire mitigation on crown land, the Wildfire Risk Reduction (WRR) program. Previously, public owned lands that did not qualify for funding through CRI could apply through the Forest Enhancement Society of BC (FES). The WRR will replace this, however at the time of writing this program was still being developed.



### 5.2 FireSmart Planning & Activities

During a large scale wildfire event the weather and topography cannot be controlled. For a private land owner, the factors that can be managed include the fire resilience of the structures and fuel conditions within the interface. This section provides recommendations to mitigate the risk of wildfire to existing and planned developments within the prioritized zones defined in the FireSmart Homeowners Manual (Partners in Protection and Province of BC, 2016).

During a wildfire homes are ignited as a result of:

- Sparks or embers landing and accumulating on vulnerable surfaces such as roofs, verandas, eaves and openings. Embers can also land on or in nearby flammable materials such as bushes, trees or woodpiles causing a fire close to a structure.
- Extreme radiant heat from flames within 30 m of a structure that melts or ignites siding, or breaks windows.
- Direct flame from nearby flammable materials such as bushes, trees or woodpiles.



A summary of FireSmart practices and activities that are eligible for CRI funding are provided in Table 20.





Figure 15 – Radiant heat and ember ignition. During a wildfire, homes are ignited as a result of radiant heat as well as embers carried by wind or convection.

The fire resistance of homes in the interface can be improved by achieving FireSmart standards for building materials, ignition sources and combustible fuels within each of the three FireSmart Priority Zones. In the event that a wildfire does threaten the area, suppression capability is improved with good access to the interface area, a defensible space to defend from and a good water supply.

Zone 1 is the area directly surround a structure out to 10m. In this area people and structures are at risk from radiant heat associated with a wildfire. It has been shown through analysis of recent large scale wildfire events such as the 2017 Fort McMurray fire that the most important factors in protecting structures is the exterior construction materials and immediate landscaping next to homes. The structure itself is sometimes considered on its own as the Home Ignition Zone (1A).

Zone 2 includes the area from 10 m to 30 m from a structure. In this area there is still a risk from radiant heat but also even earlier on from ember transport associated with a wildfire. Fuels are generally treated aggressively in this area to prevent a crown fire from establishing. Treatments include removal of ground fuel, thinning of trees and lift pruning of those retained.

Zone 3 includes the area from 30m out to around 100m. People and structures are at risk from ember transport associated with a wildfire in this area. Treatment of fuels in this area generally includes stand thinning and aims to prevent a crown fire but is generally not as aggressive as treatments in zone 2.





Figure 16 – FireSmart Management Zones



Photo 15: Examples of interface zones between critical structures and the forest



### 5.2.1 FireSmart Goals & Objectives

The general goal of FireSmart is to encourage private land holders to adopt and conduct FireSmart practices to reduce the fuel hazard and implement other measures to minimize damages to assets on their property from wildfire. Objectives include:

- 1. Reduce the potential for an active crown fire to move through private land.
- 2. Reduce the potential for ember transport through private land and structures.
- 3. Create landscape conditions around properties where fire suppression efforts can be effective and safe for responders and resources.
- 4. Treat fuels adjacent and nearby to structures to reduce the probability of ignition from radiant heat, direct flame contact, and/or ember transport.
- 5. Implement measures to structures and assets that reduce the probability of ignition.

### 5.2.2 Key Aspects of FireSmart for Local Governments and First Nations

The District has the ability to manage risks on public lands. However, the majority of structures at risk as well as interface fuels are located on private lands under which the District has limited influence. Neighbourhood level community based engagement can be effective in promoting FireSmart initiatives. This encourages residents to cooperate with each other for the mutual benefit of reducing risk to the neighbourhood.

Communities can apply for FireSmart Community Recognition status through FireSmart Canada. The District should encourage high risk neighbourhoods to establish wildfire awareness committees and apply for this status. This program includes resources for communities to establish a FireSmart Board and to designate Community Champions. Funding is available through FireSmart Canada to support activities aimed to reduce wildfire risk within communities.

New construction and landscaping can be addressed through a wildfire hazard development permit area (discussed below). However voluntary changes to existing structures and landscapes are required by private land owners. Education and outreach can provide some success on private lands. The District should distribute information on where residents can access wildfire awareness resources. These should include:

- <u>http://www.bcwildfire.ca/Prevention/FireSmart.htm</u>
- <u>https://www.FireSmartcanada.ca/</u>
- <u>https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-</u> status/prevention/prevention-home-community/bcws homeowner FireSmart manual.pdf

Materials to distribute should include the FireSmart Homeowner's manual which includes a questionnaire to help understand wildfire risk around private residences.



#### Table 20 FireSmart practices and activities

Category	Activity
1. Education	<ul> <li>Develop and/or promote local FireSmart educational activities and tools. Refer to BC FireSmart Resources for FireSmart materials that are currently available.</li> <li>Develop and/or promote education for the reduction of human-caused fires</li> <li>Encourage active participation in Wildfire Community Preparedness Day</li> <li>Organize and host a community FireSmart day, FireSmart events and workshops, and wildfire season open houses</li> <li>Apply for FireSmart Canada Community Recognition</li> </ul>
2. Planning	<ul> <li>Develop or update a CWPP</li> <li>Develop policies and practices for design and maintenance of FireSmart publicly owned land and First Nations land, such as parks and open spaces</li> <li>Develop policies and practices for design and maintenance of FireSmart publicly owned buildings</li> <li>Conduct site visits and FireSmart and/or risk assessments for publicly owned lands, First Nation lands and publicly owned buildings</li> </ul>
3. Development considerations	<ul> <li>Amend Official Community Plans, Comprehensive Community Plans and/or land use, engineering and public works bylaws to incorporate FireSmart policies</li> <li>Revise landscaping requirements in zoning and development permit documents to require fire resistant landscaping</li> <li>Establish Development Permit Areas for Wildfire Hazard in order to establish requirements for the exterior design and finish of buildings1</li> <li>Include wildfire prevention and suppression considerations in the design of subdivisions (e.g. road widths, turning radius for emergency vehicles, and access and egress points)</li> <li>Amend referral processes for new developments to ensure multiple departments, including the fire department and/or emergency management staff, are included</li> </ul>
4. Interagency co-operation	<ul> <li>Develop and/or participate in regional or local FireSmart planning tables</li> <li>Participate in multi-agency fire and/or fuel management tables</li> </ul>
5. Emergency planning	<ul> <li>Develop and/or participate in cross-jurisdictional meetings and tabletop exercises, including seasonal readiness meetings</li> <li>Review structural protection capacity (i.e. Fire safety assessments)</li> </ul>
6. Cross training	<ul> <li>Cross-train fire departments to include structural fire and interface wildfire training (e.g. S-100)</li> <li>Provide or attend training for Local FireSmart Representatives and community champions</li> <li>Support professional development to increase capacity for FireSmart activities</li> </ul>
7. FireSmart Demonstration Projects	<ul> <li>Undertake FireSmart Demonstration Projects for publicly owned buildings or publicly and provincially owned critical infrastructure. This may include:         <ul> <li>Replacing building materials (i.e. siding or roofing) with fire-resistant materials</li> </ul> </li> </ul>

<sup>&</sup>lt;sup>1</sup> Local governments should refer to <u>Changes for Local Governments Under Section 5 of the Building Act: Appendix</u> to <u>Section B1 of the Building Act Guide (Revised February 2017)</u> for information on the use of development permits for wildfire hazard.



	<ul> <li>Replacing landscaping with fire-resistant plants as outlined in the FireSmart Guide to Landscaping</li> </ul>
8. FireSmart Activities for Private Land	<ul> <li>Planning for private land (only with private property owners' consent)         <ul> <li>Develop FireSmart Community Plans for specific areas</li> <li>Conduct FireSmart home and property assessments</li> </ul> </li> <li>Offer local rebate programs to home owners on private land and First Nations land that complete eligible FireSmart activities on their own properties</li> <li>Provide off-site debris disposal for private land owners who have undertaken their own vegetation management, including:         <ul> <li>Provide a dumpster, chipper or other collection method</li> <li>Waive tipping fees</li> <li>Provide curbside debris pick-up</li> </ul> </li> </ul>

### 5.2.3 Priority Areas of Interest for FireSmart

FireSmart planning and outreach to communities should focus in neighborhoods at greatest risk. A number of these neighborhoods are built adjacent to large tracts of forests that have moderate to high fire behavior potential. Some general neighborhoods to consider focusing on for FireSmart initiatives and educational outreach include:

- Chemainus;
- Crofton;
- Genoa Bay;
- Maple Bay;
- Arbutus Point; and
- Upper slope residences adjacent to Mt Tzouhalem.

Area ID	Wildfire Risk Rating (E/H/M/L)	FireSmart Y/N	FireSmart Canada Recognition Received Y/N	Recommended FireSmart Activities
Crofton	Н	N	N	
Maple Bay	н	N	N	recommended for all areas. This should
Arbutus Point	Н	N	N	goals, educational outreach, coordination with
Chemainus	М	N	N	the BCWS, and FireSmart assessments. A committee made up of representatives from
Genoa Bay	М	N	N	the District, Fire Department, BCWS, First

Table 21 Summary of FireSmart priority areas.



Tzouhalem	М	Ν	Ν	Nations, and homeowners should guide the
				development of this plan.

#### Summary of FireSmart recommendations

Number	Action Item
Rec 7	Develop neighbourhood level FireSmart plans for the above priority neighbourhoods. This should include neighbourhood level FireSmart committees with the District, Fire Department, BCWS, and First Nations representative. This should also include a variety of strategies with the objective of increasing private land resilience to wildfire. Participating communities should apply for FireSmart Community Recognition status and funding for mitigation projects through FireSmart Canada. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 8	Use recommended interface fuel treatment areas to promote similar projects on private lands. Showcase these treatments though a "FireSmart Day" with neighbourhood FireSmart committees. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 9	Develop and distribute FireSmart brochures to all houses within higher risk interface areas. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 10	Develop and distribute a list of ecologically suitable fire-resistant landscape plants (Appendix 4) to residents by mail and through local nurseries. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 11	Establish community chipping days in the spring to encourage residents to reduce vegetation fuel loads on private land. Provide a location where woody debris can be dropped off for chipping and request tree companies volunteer as a promotional event, similar to Christmas tree chipping events. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #8 FireSmart Activities for Private Land).

#### Wildfire Development Permit Area

A key challenge within the District is managing the wildfire hazard on private land. This is recognized in the Policy 2.2.3.4 of the Official Community Plan: "The Municipality will reduce risks to life and property in fire-prone areas." This can be achieved through the establishment of a Wildfire Development Permit Area. This enables the District to guide the development of neighbourhoods that can further the objective of increasing wildfire resiliency inside the community. Key strategies of the DPA for reducing wildfire risk to the overall community include:

- Increase the resiliency of development within the Wildland Urban Interface to wildfire by ensuring that all new homes are in compliance with FireSmart guidelines.
- Ensure that new buildings are constructed using FireSmart materials.



- Ensure that new buildings use FireSmart landscaping.
- Include requirements for overall neighbourhood safety in the event of a wildfire. This should include adequate access for fire suppression vehicles, adequate hydrant servicing, and water supply.
- Include requirements that ensure that land covenanted to the District as part of development are not High hazard.
- Require professional reporting and sign off as part of a development permit. This should require review of plans prior to application, as well as post-construction assessment to confirm construction complies with development permit requirements.

Not all areas should be included in the Wildfire DPA. Mapping analysis is required to determine the extents of the DPA, especially given the fragmentary nature of the WUI in the AOI. This can be determined by proximity to higher risk conifer fuels, density of development adjacent to fuels, or a combination of both. The development of the DPA should be done by a wildfire specialist in consultation with District staff to ensure that it is properly located for reducing the overall wildfire risk to the community, that the DPA contains sufficient requirements for reducing wildfire risk, and that the DPA can be easily implemented and enforced by District staff.

Number	Action Item
Rec 12	Include Wildfire as a Development Permit Area. The specific requirements and GIS area for this DPA should be developed with a Wildfire specialist. This should aim to include areas that are within 100m of moderate, high, or extreme Wildfire Threat/Risk as a starting point. The specific language should include FireSmart construction materials and landscaping, and the removal of hazardous fuels. Specific objectives should be established, as well as recommended strategies to meet those objectives. This DPA should also include professional review and sign off. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI #3 Development Considerations).
Rec 13	Ensure that Wildfire DPA applications are reviewed by District or Fire Department staff to ensure the objectives of the DPA are achieved. This will require coordination between District staff and Fire Department staff.

## 5.3 Community Communication and Education

Public engagement on community wildfire protection is an important action to support implementation of the plan and increase its effectiveness. Engagement can extent beyond explaining the purpose and function of the plan to address the contribution of forest cover and urban development on privately owned lands to fire hazard. As in many BC municipalities, a majority of the hazardous forest fuels in North Cowichan are located on privately owned lands. Building awareness of wildfire hazard and potential actions on public land can encourage property owners to consider and participate in community wildfire prevention through programs such as FireSmart. The following are general recommendations to be considered in preparing public communications or an education programme.



There are two main strategic goals of community communication and education:

- 1. Raising knowledge and awareness of wildfire risk and prevention; and
- 2. Encouraging informed individuals and community-based volunteer organizations to contribute to wildfire prevention through guided action on public and private land.

To support these goals, an effective community communication and education strategy will consider a) the appropriate audience or target for communications, b) appropriate desirable actions for the public in wildfire prevention, and c) the opportunities to create or adapt existing contacts between the municipality and the public for information sharing.

The Community Wildfire Protection Plan applies across the District of North Cowichan and is of interest to all residents, people doing regular business in the town, and neighbouring jurisdictions. Communication of the plan should be undertaken on a broad basis for the entire municipality and to neighbouring jurisdictions, including First Nations. However, a higher level of engagement is appropriate for specific groups that are the most likely to influence plan implementation. Homeowners near the interface zone, developers of subdivisions and new communities, and youth/schoolchildren are three audiences for communications and education who may have a higher level of influence on implementation success.

#### Homeowners and Developers

Homeowners and developers occupy a large percentage of the District's land base and can have direct impacts on the severity of forest fuel hazards on private land as well implement FireSmart construction. The appropriate desirable action for these groups is to work towards adopting FireSmart planning (Section 5.3) in the maintenance of their owned properties and in the planning of new buildings or landscape improvements. Because of the dominance of private land within the District, supporting homeowners and developers to implement FireSmart is an important objective to achieve strategic goals in wildfire prevention and reduce the risk of wildfire to values in the community overall. Additional desirable actions for homeowners may be to form neighbourhood associations to encourage maintaining fuel-free areas around homes, reduce ignition sources, and report fuel hazard issues on public lands. Additional desirable actions for developers may be to partner with the municipality in providing landscape maintenance, conservation easements, and sites for ecological restoration to help maintain forest health and hazard levels in interface areas. Some actions may be supported through regulatory requirements, as under the District's existing Hazard Lands Development Permit Area.

Important existing contacts between these groups and the municipality are administered through the building and development permit process. Front counter requests and applications open the communication channel between the municipality and private landowners. Early in the process, the District should provide information on wildfire prevention and FireSmart resources to applicants. Deeper engagement at this stage could include offers to arrange site visits of FireSmart District properties as a form of extension service. Plan checking activities associated with development


applications offer the municipality important insight into the uptake of design supportive to wildfire prevention and may demonstrate common deficiencies that can be addressed through pre-emptive information sharing.

The District should make efforts to reach homeowners in interface areas who have not applied for a development permit. A summary of this CWPP, the associated maps of wildfire risk, and the Homeowners FireSmart Manual should be distributed to residents within 100m of moderate to high risk natural areas. These materials should also be made available at public locations, including the Municipal Hall, community centres, and libraries. The District should prepare front counter staff at Municipal Hall to address inquiries about wildfire prevention and direct residents to additional information. When a fuel treatment program is planned, an open house should be organized and used as a forum to inform and educate residents, with direct notification of households in adjacent neighbourhoods. Communication around the treatment can include information on appropriate activities to remove fuels or otherwise mitigate residual risk on private property.

#### Youth

Although youth rarely have the ability to directly influence the design of buildings or communities, they volunteer on environmental issues at higher rates than the general population, most are already organized into school groups that can be efficiently targeted with wildfire prevention information, and can significantly and rapidly impact the awareness of the community at large through their social and family networks. By actively engaging youth, the District can encourage the next generation of citizens to be educated and active in wildfire planning and management.

Desirable actions for youth include participating in environmental protection activities as volunteers in District parks and public lands and advocating within their families and social networks for increased wildfire prevention awareness or actions to reduce wildfire risk. Youth should also be encouraged to participate in the public process around community planning and design.

The District should explore educational opportunities in the school system. Classroom visits to the Municipal Forest Reserve are already a common point of contact between the Parks, Forestry, and Recreation Department and North Cowichan's youth. The basics of forest fuels as they relate to wildfire risk and hazard should be introduced during these contacts, with the District providing supporting information where possible to teachers for incorporation into larger lesson plans. The site of the recent Maple Mountain fire can act as an important visual teaching aid during field trips for many years to come.

Other opportunities exist within the school system. The Fire Department makes visits to school buildings for educational, community outreach, and public safety purposes. One or more of these visits could be combined with classroom presentations on Fire Safety, particularly how FireSmart principles can be used to decrease the likelihood of a wildfire destroying homes and buildings. Wildfire behavior and prevention overlap with many of the program areas within BC's new curriculum and there is potential



for the municipality to encourage and support School District 79 in developing a forests and wildfire module for inclusion in one or more offered courses. A model or possible vehicle for this kind of initiative is the District's Environmental Education Program, which brings an employee of the District, typically a secondary student or recent graduate, to develop and implement an educational workshop for elementary school students.

Outside of the classroom, environmental stewardship initiatives can have positive impacts for wildfire prevention by controlling forest fuels or limiting sources of ignition in interface areas. Multiple environmental groups are active within the District and could be partnered to deliver wildfire prevention information to event participants. There may be potential for environmental stewardship groups to participate in fuel hazard maintenance through manual removal of leaf litter and debris on public land. The District can support such activities through in-kind or cash contributions.

#### General outreach strategies

Broad-based engagement can take place in-person at community events and online. When large planned public events take place in the District, a representative from the Parks, Forestry, and Recreation or Fire Departments should be present to hand out educational material and help raise wildfire awareness.

The District should create a unique page on its website to present wildfire prevention information with the CWPP and related resources. Such a webpage should include links to the Provincial and Federal websites on wildfire awareness and the FireSmart program. The concept for the webpage is a "virtual open house", providing residents useful information and the flexibility to participate in wildfire prevention at their discretion. Online materials are an effective means of communicating with individuals who do not have time or cannot physically participate in open house and local events.

Video can be a compelling way to craft a narrative around wildfire prevention and share engaging stories of implementation success. Videos could include demonstrations of FireSmart construction and landscaping on property, testimonials from residents, environmental volunteers, school groups, or others who have participated in wildfire prevention, and reference information for development applicants. YouTube is a free and effective means to distribute educational material, where the Municipality already maintains a "channel" or homepage. Video can also be a way to invite the community to upcoming public events where more detailed wildfire information will be available.

A common, easy to implement wildfire awareness strategy is to place signs around the District at the public entrance of important natural areas. These should indicate the current Fire Danger level, restrictions during the fire season and the emergency number to call when a fire is detected (911, or for provincial response 1-800-663-5555 or \*5555 from a cellular phone). Signs should be bold and placed in clear view, particularly at all major through routes into the District and all recreation sites in natural areas. The District should coordinate with the Ministry of Forests Lands, Natural Resource Operations



and Rural Development or owners of private property to place signs where required at desirable locations.

Summary of communication and	education recommendations
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Number	Action Item
Rec 14	When public events are planned to occur in, through, or near natural areas, a wildfire risk management checklist is created for vetting applications against. Vetting should include review and comments by the parks and fire departments prior to event approval. Have the public information brochure prepared in conjunction with this CWPP update available for distribution at these events.
Rec 15	Incorporate wildfire prevention and preparedness into presentations by the Parks, Forestry & Recreation department to schools, particularly when schools visit the Municipal Forest Reserve or District-owned lands. Consult with Cowichan Valley School District 79 on incorporating wildfire prevention and preparedness into the school curriculum.
Rec 16	Update the District's digital media, including multimedia and web content, to reflect this CWPP update. The District should create and host on its own website a webpage for wildfire awareness, to contain appropriate reference material for FireSmart Canada, BC Wildfire Service, and any other suitable resources as determined by representatives of the Parks, Forestry, and Recreation, Development Services, and Fire Departments.

#### 5.4 Other Prevention Measures

Sources of ignition can be human, or lightning caused. Lightning caused ignition is difficult to predict or manage. Human caused ignitions, however, can be prevented and are the source of about one half of all wildfires in BC. The most common sources of human caused fires include:

- Campfires
- Industrial activity
- Discarded cigarettes and matches
- Vehicles
- Railways
- House-related fires
- Power lines
- Vandalism.

Predicting and preventing human caused ignitions is a cost-effective component of a wildfire prevention program. This is best achieved through public education campaigns. Road-side ditches and medians that contain grasses should be mowed periodically throughout the fire season. This will reduce fuel loading (standing cured grass) and reduce the ignition potential associated with vehicles, heavy machinery, and cigarettes during the fire season. Signs should be posted at camp sites, recreation areas and high use trail heads during the summer showing the fire danger rating and emphasizing the need to fully extinguish campfires and not discard cigarettes.



There is also ignition potential from the numerous residences that back up against the interface. Private residents adjacent to wildland (grass or forested) should be reminded (e.g. through public bulletins or media notices) of common risks of ignition in these forested landscapes. A social media campaign in the late spring and early summer should be considered to enforce awareness of wildfire risk and the publics responsibility to prevent ignitions.

Trees can potentially fall on power lines, which can pose a fire risk. Risk is managed primarily by utility companies with regular assessments and tree hazard mitigation programs. The District should continue dialogue with BC Hydro to ensure they are removing hazardous trees from forested natural areas that could strike the power lines.



Photo 16: Power lines adjacent to forests are sources of ignition if trees or branches fail onto the lines.

#### Summary of prevention recommendations

Number	Action Item
Rec 17	Ensure all road edges are mowed frequently during the summer months when the fire hazard rating permits



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Rec 18	Post wildfire danger signage along major transportation corridors, at campsites, parks and recreation, and at high use trail heads areas. Signages should address current fire danger, how to report a wildfire and, when relevant, emphasize the need to fully extinguish campfires and properly dispose of cigarettes.
Rec 19	Develop an annual fire season social media campaign to raise awareness of individual responsibility to prevent ignitions and of the enforcement of fire bans.
Rec 20	Work with BC Hydro to ensure that distribution lines, transmission corridors and substations are assessed regularly for tree risk and that the associated fuel hazards are abated.

#### 5.5 Summary of Recommendations

Below is a summary of all recommendations in Section 5.

Number	Action Item
Rec 2	Develop fuel treatment prescriptions for interface fuel treatment areas. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #9 Fuel and Vegetation Management).
Rec 3	Integrate wildfire management considerations into the development of the Forest
Net 5	Management Plan for the Municipal Forest Reserve.
Rec 4	Advocate to the Province for making threat and risk mapping publicly available for lands that are owned by public entities (i.e. BC Hydro).
Rec 5	Consult and coordinate with BC Hydro to create defensible spaces and reduce risk around all substations.
Rec 6	The District should assess the condition of fuels and wildfire risk around their facilities and develop fuel treatment prescriptions with the target of establishing a 30m defensible space around them.
Rec 7	Develop neighbourhood level FireSmart plans for the above priority neighbourhoods. This should include neighbourhood level FireSmart committees with the District, Fire Department, BCWS, and First Nations representative. This should also include a variety of strategies with the objective of increasing private land resilience to wildfire. Participating communities should apply for FireSmart Community Recognition status and funding for mitigation projects through FireSmart Canada. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 8	Use recommended interface fuel treatment areas to promote similar projects on private lands. Showcase these treatments though a "FireSmart Day" with neighbourhood FireSmart committees. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 9	Develop and distribute FireSmart brochures to all houses within higher risk interface areas. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).



Rec 10	Develop and distribute a list of ecologically suitable fire-resistant landscape plants (Appendix 4) to residents by mail and through local nurseries. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #1 Education).
Rec 11	Establish community chipping days in the spring to encourage residents to reduce vegetation fuel loads on private land. Provide a location where woody debris can be dropped off for chipping and request tree companies volunteer as a promotional event, similar to Christmas tree chipping events. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #8 FireSmart Activities for Private Land).
Rec 12	Include Wildfire as a Development Permit Area. The specific requirements and GIS area for this DPA should be developed with a Wildfire specialist. This should aim to include areas that are within 100m of moderate, high, or extreme Wildfire Threat/Risk as a starting point. The specific language should include FireSmart construction materials and landscaping, and the removal of hazardous fuels. Specific objectives should be established, as well as recommended strategies to meet those objectives. This DPA should also include professional review and sign off. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI #3 Development Considerations).
Rec 13	Ensure that Wildfire DPA applications are reviewed by District or Fire Department staff to ensure the objectives of the DPA are achieved. This will require coordination between District staff and Fire Department staff.
Rec 14	When public events are planned to occur in, through, or near natural areas, a wildfire risk management checklist is created for vetting applications against. Vetting should include review and comments by the parks and fire departments prior to event approval. Have the public information brochure prepared in conjunction with this CWPP update available for distribution at these events.
Rec 15	Incorporate wildfire prevention and preparedness into presentations by the Parks, Forestry & Recreation department to schools, particularly when schools visit the Municipal Forest Reserve or District-owned lands. Consult with Cowichan Valley School District 79 on incorporating wildfire prevention and preparedness into the school curriculum.
Rec 16	Update the District's digital media, including multimedia and web content, to reflect this CWPP update. The District should create and host on its own website a webpage for wildfire awareness, to contain appropriate reference material for FireSmart Canada, BC Wildfire Service, and any other suitable resources as determined by representatives of the Parks, Forestry, and Recreation, Development Services, and Fire Departments.
Rec 17	Ensure all road edges are mowed frequently during the summer months when the fire hazard rating permits
Rec 18	Post wildfire danger signage along major transportation corridors, at campsites, parks and recreation, and at high use trail heads areas. Signages should address current fire danger, how to report a wildfire and, when relevant, emphasize the need to fully extinguish campfires and properly dispose of cigarettes.
Rec 19	Develop an annual fire season social media campaign to raise awareness of individual responsibility to prevent ignitions and of the enforcement of fire bans.
Rec 20	Work with BC Hydro to ensure that distribution lines, transmission corridors and substations are assessed regularly for tree risk and that the associated fuel hazards are abated.



### Section 6 Wildfire Response Resources

This section provides a summary of the suppression response protocol and resources available to the communities as well as recommendations for improvement.

#### Wildfire Detection and Reporting

The District has a complicated and unique situation with regards to wildfire reporting. A majority of the AOI is private forested land in the MFR. Wildfire detection and reporting for these areas are the responsibility of the District, and detection would occur through 911 public calls. Fire detection on public crown land is the responsibility of BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD). Fires are located using a lightning locator system, aerial patrols, and public observation. While FLNRORD is not responsible for detection on MFR lands, there systems do overlap the MFR and would likely detect any wildfires.

In urban centers a wildfire is most likely to be detected and reported quickly by the public. Wildfire awareness signs should be posted at strategic locations (major transportation corridors, recreation areas and high use trail heads) that specify how to report a wildfire in the District.

Wildfires on crown land should be reported to the Provincial Forest Fire Reporting Center in Victoria through their toll free number 1-800-663-5555 or \*5555 on a cellular phone. The agent will then collect as much information as possible regarding the fire and its characteristics including:

- The exact location of the fire
- Its estimated size
- The type of fuel burning
- How fast the fire is spreading and in what direction
- The colour of the smoke
- The location of any structures or lives at risk from the fire

While wildfires on MFR land should be reported using 911, the general public cannot be expected to be aware of the differences in reporting requirements inside the District. Signs should include both numbers to ensure wildfires are reported immediately. Contact details as well as the requirement for this information should be included in any public education campaigns.

#### 6.1 Local Government and First Nation Firefighting Resources

#### 6.1.1 Fire Departments and Equipment

The AOI is serviced by the North Cowichan Fire Department. This volunteer staffed fire department has four halls throughout the AOI, each of which is well equipped with engines and fire suppression equipment. Since the District owns a majority of the forested land in the AOI as part of the Municipal Forest Reserve, a majority of the initial wildfire response is the responsibility of the District Fire



Department. If a wildfire is beyond the capabilities of the fire department, assistance is provided by the BCWS. This has been the case in previous wildfire incidents, most notably in the 2018 Maple Mountain wildfire. During this incident, the BCWS was severely short-staffed, and thus the majority of the operation was handled by the North Cowichan Fire Department. It is critical that mutual aid fires that occur inside the AOI have a seamless and integrated response by BCWS and the local fire department; this can be achieved through training exercises that allow these agencies to work together and develop working relationships that can improve wildfire operations in the interface.



#### Table 22 Summary of Fire Suppression Resources

Fire Department	Volunteer staff, minimum certifications	Equipment
North Cowichan	<ul> <li>112 Volunteer staff – a mix of NFPA 1001 level 2 and OFC Playbook interior level operations</li> <li>Haz Mat operations trained but awareness response</li> <li>Wildland SPP-WFF1 trained and SPU trained</li> <li>Medical FR level 3 with spinal and AED trained</li> <li>Low slope rope rescue <ul> <li>1 Admin Chief NFPA 1021 level 3</li> </ul> </li> <li>Emergency incident management 3 ICS 300 SPP-WFF1 NFPA 1006 level 2 (rope, confined space, high angle, tower crane)</li> </ul>	<ul> <li>Chemainus Hall 3 engines, 1 rescue, 1 UTV, 1 pick up</li> <li>Crofton Hall 2 engines, 1 2500 gal tender, 1 pickup</li> <li>Maple Bay 2 engines, 1 mini pumper, 1 pickup</li> <li>South End 2 engines, 1 rescue, 1 Ladder truck, 1 UTV, 1 pickup truck</li> </ul>



It is recommended that the District purchase Structural Protection Units (SPU). These are designed to protect against wildfire in the urban interface. The District is currently completing the packaging of one SPU, which is located at the District office. SPUs' are deployed during an interface fire to dampen roofs and areas around structures, to help prevent sparks and embers from igniting structural fires. These SPUs typically consist of pumps, sprinkler kits, foam and supporting equipment such as ladders, lights and generators. Contact the UBCM for specific advice on purchasing and the contents of an SPU.

Summary	of fire	department	recommendations
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Number	Action Item
Rec 21	Conduct interagency wildfire suppression training and annual mock wildfire response exercises in cooperation with the BC Wildfire Service. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #4 Interagency Co-operation).
Rec 22	Establish a mutual aid agreement between the District and the Regional District Fire Protection Areas to enable sharing of suppression resources when responding to a wildfire. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #4 Interagency Co-operation).
Rec 23	Purchase and maintain two Structural Protection Units (SPU) with capacity to protect approximately 35 structures and train staff on their proper deployment.

#### 6.1.2 Water Availability for Wildfire Suppression

Water is the single most important resource for suppression activities. Where hydrant coverage is limited, particularly in rural settings, alternative water sources such as reservoirs, lakes, and rivers should be located, assessed, and mapped. These provide sites for helicopter bucketing and pump sites for suppression crews. When new areas are planned for development, an adequate number of fire hydrants should be established in strategic locations that can access not only structures but also the interface zones.

Fire Hydrants are the main source of water delivery for fire suppression inside the District of North Cowichan. This infrastructure is reliant on the power grid to operate wells. There is a wide distribution of above ground reservoirs throughout the AOI, which can provide a limited supply of water if the water network is compromised. The AOI is subject to frequent water restrictions during periods of summer drought, which can limit the availability of water for wildfire suppression during peak wildfire season.

#### Summary of water and suppression recommendations

Number	Action Item
Rec 24	Complete an analysis of water availability in the AOI to identify strategic locations for water tanks and dry standpipes in high risk neighbourhoods with poor water availability. Identify and map alternative water sources including reservoirs, lakes and perennial rivers.



## **Rec 25** Require that all new fire hydrants systems for new development areas are able to serve adjacent high-risk interface areas.

#### 6.1.3 Access and Evacuation

The primary concern when dealing with a wildfire is public safety and if necessary, their evacuation. The District should develop a comprehensive evacuation plan in case of wildfire or other large disaster. The objective of an evacuation plan is to ensure all people can be evacuated safely and to facilitate effective wildfire control measures. The District maintains a voluntarily eALERT service to inform residents of critical indicants in the municipality. This allows residents to sign up for digital notifications from the District during critical incidences.

After a wildfire is detected, the threat that it poses to the public should be quickly evaluated. The location, direction and rate of spread of the fire will indicate where the greatest risk is to public safety. The Wildfire Service and the Office of the Fire Commissioner, in communication with the District, will decide at what point during the wildfire event an evacuation is justified. Local police, RCMP and the local fire department are then responsible for implementing the evacuation.

The District should be aware of those populations that may require special assistance to evacuate. These include primary schools and day care, assisted living and care homes, and hospitals. All departments within the District should be aware of their responsibilities during an evacuation. This includes, but is not limited to: the police department, fire department, public works, utilities, and parks and recreation.

During a wildfire event, the movement of residents and suppression resources is critical. The AOI is generally well accessed, with egress routes in a variety of directions. Highway 1 is a major transportation route for the broader region and is capable of accommodating large volumes of traffic in an emergency. Highway 18 is another egress route which can be used to evacuate west. There are also secondary highways throughout the AOI that could be used to accommodate excess volumes. Road systems that have dead ends are a concern for evacuation. There are some less developed areas of the District that only have one access road. Alternative access routes to these areas should be considered during future land-use planning. Specific examples are Genoa Bay, Stoney Hills Road and Arbutus Ave.

A key concern inside the AOI is the large number of private roads that are gated. These include gates inside the MFR, but also private industrial roads to service private forested land in and adjacent to the AOI. These gates roads have been developed for industrial use in forest harvesting, and are not used as the normal access for residences. However, these could be used in the event of a wildfire for added evacuation capacity. This would require coordination with the forest operators that manage these roads, as well as the MFR. In the event of a wildfire that requires use of these roads, the District fire department has a set of keys and maps that are used to ensure adequate access for wildfire suppression. These maps and copies of these keys should be provided to the local ministry staff to ensure effective wildfire suppression.



There are a number of industrial sites, including saw mills, that require lengthy time to safely shut down their operations if they were to be evacuated. These facilities, contact information, and specific requirements should be maintained by the District to coordinate a safe evacuation.

Summary of access and evacuation recommendations

Number	Action Item
Rec 26	Continue to encourage residents to sign up for eALERT system.
Rec 27	Compile a spatial inventory of backroad, trails and gates for suppression access. Work with recreation groups and industrial operators to maintain roads through natural areas for wildfire suppression access and ensure local fire departments and BCWS have copies of gate keys and maps of gate locations.
Rec 28	Obtain keys, gate locations, and maps for private forest roads inside the AOI that may be required for evacuation and access. Develop a safety plan with industrial operator for use of these roads.
Rec 29	Develop on-line/social media that is coordinated with FLNRORD for distributing up to date info on wildfire threat and potential evacuation alerts.
Rec 30	Identify neighbourhoods that have only one main road in and out for evacuation. Consider developing alternative access for these areas through future land use planning.

#### 6.1.4 Training

Early response time to an ignition is critical to controlling its spread. District staff and volunteer firefighters are often the first on a scene of a wildfire. Basic wildfire training and ensuring personnel have suitable equipment during the summer months could ensure early suppression of new ignitions. All District field staff and volunteer firefighters should undertake S100 Introductory fire suppression training. Annual updates to this training called S-100A is required to keep this certification current. Select firefighters should also take S-185 Fire Entrapment Avoidance and Safety, as well as Incident Comman System (ICS) 100 training to ensure seamless integration with the BCWS in operation.

The 2018 Maple Mountain wildfire showed that the District may be expected to play a large role in wildfire suppression, especially during peak wildfire season (July and August). The BCWS often spread thin during these busy months, and response and suppression resources may be limited. The District should conduct and coordinate annual training exercises with the BCWS to streamline operations in the events of a wildfire.

#### Summary of training recommendations

Number	Action Item
Rec 31	Cross-train structural fire fighters, as well as District staff that are frequently working in the interface areas in S-100 Basic Fire Suppression and Safety. Select firefighters should receive SS-185 Fire Entrapment Avoidance and Safety training, as wellas ICS 100 trianing. Apply for



	funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #6 Cross training).
Rec 32	Train District staff who would potentially work in a liaison role with fire suppression agencies in Incident Command Training to streamline integration with the Incident Command System as it is established. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #6 Cross training).

#### 6.2 Structure Protection

Structure protection discussed above in section 6.1.1.

#### 6.3 Summary of Recommendations

Below is a summary of all recommendations in Section 6.

Number	Action Item
Rec 21	Conduct interagency wildfire suppression training and annual mock wildfire response exercises in cooperation with the BC Wildfire Service. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #4 Interagency Co-operation).
Rec 22	Establish a mutual aid agreement between the District and the Regional District Fire Protection Areas to enable sharing of suppression resources when responding to a wildfire. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #4 Interagency Co-operation).
Rec 23	Purchase and maintain two Structural Protection Units (SPU) with capacity to protect approximately 35 structures and train staff on their proper deployment.
Rec 24	Complete an analysis of water availability in the AOI to identify strategic locations for water tanks and dry standpipes in high risk neighbourhoods with poor water availability. Identify and map alternative water sources including reservoirs, lakes and perennial rivers.
Rec 25	Require that all new fire hydrants systems for new development areas are able to serve adjacent high-risk interface areas.
Rec 26	Continue to encourage residents to sign up for eALERT system.
Rec 27	Compile a spatial inventory of backroad, trails and gates for suppression access. Work with recreation groups and industrial operators to maintain roads through natural areas for wildfire suppression access and ensure local fire departments and BCWS have copies of gate keys and maps of gate locations.
Rec 28	Obtain keys, gate locations, and maps for private forest roads inside the AOI that may be required for evacuation and access. Develop a safety plan with industrial operator for use of these roads.
Rec 29	Develop on-line/social media that is coordinated with FLNRORD for distributing up to date info on wildfire threat and potential evacuation alerts.
Rec 30	Identify neighbourhoods that have only one main road in and out for evacuation. Consider developing alternative access for these areas through future land use planning.
Rec 31	Cross-train structural fire fighters, as well as District staff that are frequently working in the interface areas in S-100 Basic Fire Suppression and Safety. Select firefighters should receive SS-185 Fire Entrapment Avoidance and Safety training, as wellas ICS 100 trianing Apply for funding



	for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #6 Cross training).
Rec 32	Train District staff who would potentially work in a liaison role with fire suppression agencies in Incident Command Training to streamline integration with the Incident Command System as it is established. Apply for funding for this initiative through the UBCM Community Resiliency Investment Program (CRI Activity #6 Cross training).



### **Appendix 1 Local Wildfire Threat Process**

#### A1.1 Fuel Type Attribute Assessment

The fuel typing layer is the primary geospatial data input used to estimate Wildfire Risk in a community. The fuel type layer is provided by the province through the Provincial Strategic Threat Analysis (PSTA) to inform the development of CWPPs. This layer is created on a broad scale province-wide to classify fuels according to the Canadian Forest Service Fire Behavior Prediction System (FBP). This layer is generated from multiple data sources including forest inventory mapping and silvicultural submissions to RESULTS.

The PSTA fuel typing layer is not shown on private lands. It can also be inaccurate in areas that are not inventoried for forest activities. The District of North Cowichan is heavily fragmented by private land, and also contains the privately owned (by the municipality) Municipal Forest Reserve. The PSTA Fuel Type layer provided by the province was coarse and highly pixelated and did not accurately represent the forest conditions to a level that could be used in the CWPP. Figure 17 illustrates the level of detail within the PSTA fuel layer.



Figure 17 – Example of PSTA fuels layer illustrating the low level of accuracy



The fuel typing layers and subsequent fire behavior modeling provide critical analysis for assessing the risk from wildfire and to identify mitigation options within a CWPP. The District recently completed Vegetation Resource Inventory (VRI) mapping within the District that accurately represents the forest conditions. This spatial linework and data was analysed to classify fuel types within the AOI. The following is a summary of the process and rationale used for this analysis.

- Separate polygons into fuel type "groups". Leading species from the VRI attribute table was used to separate tree stand into conifer, mixed, and deciduous stands. Conifer stands were trees with over 75% conifer, mixed were stands with 25-75% conifer, and deciduous were any stands with less than 25% conifer component. Non-tree polygons (ie: recently harvested polygons) were aggregated into another group.
- Fuel types were stratified based on the provincial fuel type layer overview report (Perrakis & Eade, 2015), and the decisions made for the provincial layer were replicated where possible. These are summarized below:
  - a. C-2:Young immature conifer stands. Typically 10 year old plantation of 100% conifer less than 10 m in height. Rare in the assessment area.
  - b. C-3: Young stands of mostly Douglas-fir that is 40-80 years old. Heights in this fuel type varied between 18 and 30 m.
  - c. C-4: Pole sapling stand of mostly Douglas-fir that is 20-40 years old. Heights in this fuel type varied between 10 and 20 m. Higher density stands with high crown closure. Rare in assessment area.
  - d. C-5: Mature stands of mostly Douglas-fir that is older than ~80 years. Heights in this fuel type are generally greater than 30m. These stands have a lower density with large fuel strata gaps.
  - e. C-7: 100% conifer stands with a low crown closure. These stands have low densities with canopy gaps separating the crowns of trees.
  - f. M-2: These include stands of varying ages that have a mix of deciduous and conifer tree species.
  - g. D-1: These include stands of varying ages that are dominated by deciduous trees or shrub communities.
  - h. S03 Areas recently harvested were classified into slash fuel types.
- 3. The outputs from the initial fuel type classifications were quality controlled using recent aerial imagery. Obvious errors in fuel typing were identified. Examples included areas types as forest but which had been recently harvested. Recent harvesting not captured by VRI



were generally typed as S-3, given the likely levels of slash post-harvest in this region of the South Coast. In some areas the VRI-derived fuel type was classified as grass or slash, but the polygon in the aerial imagery is clearly treed. These were classified using air photo interpretation and referencing the nearest treed polygons.

- 4. Field work was conducted to ground truth the fuel layers. Polygons adjacent to values were visited by foresters and the accuracy of the fuels typing layer confirmed.
- 5. Following field assessments, the spatial fuels layer was finalized.

The algorithm used for fuel typing went through several iterations before it was considered complete and accurate. Ground truthing of the fuel typing confirmed that it was accurate. Below (Figure 18) is an example of the final fuels layer, which is the same location as Figure 17.



Figure 18 – Example of updated fuels layer.

The final findings from the fuel typing are summarized in the below table.



Fuel Type Classification	Total Area (ha)	% of area	Crown Fire Spot Potential
C2	5.9	0.03	High
С3	2010.6	9.5	Moderate
C4	772.5	3.6	High
C5	4659.4	21.9	Low
C7	547.9	2.6	Moderate
D1	1091.5	5.1	Very Low
M2	2761.4	13.0	Low
01b	76.1	0.4	Low
\$3	1020	4.8	Low
Non-Fuel Areas	8309.5	39.1	N/A

Table 23 Fuel Type Categories and Crown Fire Spot Potential.

#### A1.2 Proximity of Fuel to the Community

Fuel closest to the community usually represents the highest hazard. To capture the importance of fuel proximity in the local wildfire threat assessment, the WUI is weighted more heavily from the value or structure outwards. Fuels adjacent to the values and/or structures at risk receive the highest rating followed by progressively lower ratings moving out.

The local wildfire threat assessment process subdivides the Wildland Urban Interface (WUI) into 3 areas (Table 24):

- 1. Areas within 100 meters of the WUI (WUI 100);
- 2. Areas from 101 to 500 meters from the WUI (the WUI 500);
- 3. Areas 501 to 2000 meters from the WUI (the WUI 2000).

Table 24 Proximity to the Interface

Proximity to the Interface	Descriptor*	Explanation
WUI 100	(0-100 m)	This Zone is always located adjacent to the value at risk. Treatment would modify the wildfire behaviour near or adjacent to the value. Treatment effectiveness would be increased when the value is FireSmart.
WUI 500	(101-500m)	Treatment would affect wildfire behaviour approaching a value, as well as the wildfire's ability to impact the value with short- to medium- range spotting; should also provide suppression opportunities near a value.
WUI 2000	(501-2000 m)	Treatment would be effective in limiting long - range spotting but short- range spotting may fall short of the value and cause a new ignition that could affect a value.
	>2 000 m	This should form part of a landscape assessment and is generally not part of the zoning process. Treatment is relatively ineffective for threat mitigation to a value, unless used to form a part of a larger fuel break / treatment.



\* Distances are based on spotting distances of high and moderate fuel type spotting potential and threshold to break crown fire potential (100m). These distances can be varied with appropriate rationale, to address areas with low or extreme fuel hazards.

WUI threat classes of High or Extreme are depicted in Figure 13. These are identified through a combination of both wildfire behaviour and proximity to communities or values. High WUI Threat Class areas are those with High or Extreme wildfire behaviour and are within 500 m of a value or community. Extreme WUI Threat Class areas are those with High or Extreme wildfire behaviour and are directly adjacent a value or community.



#### A1.3 Fire Spread Patterns

Initial Spread Index (ISI) is a rating of the expected rate of spread of a fire. ISI and wind speed and direction data is recorded at local BCWS weather stations and are used to understand the predominant summer fire spread patterns. This data is illustrated as ISI Wind Roses (Figure 19 and Figure 20). Each rose shows the frequency of counts by wind direction with the frequency of the ISI values during that time period.

During fire season, the prevailing winds are easterlies, with strong northerlies and southeasterly winds common. The highly variable topography has significant influence on predicting winds, and therefore landscape winds should not be used to guide wildfire management without consideration of local topography. Historical fires mostly appear to have spread either east to west, or north to south: the most recent wildfire in the AOI, the Maple Mountain fire, spread from north to south. However, there are multiple exceptions to these overall trends, and wildfires in the AOI can have unpredictable spread patterns.



ISI Rose for SALTSPRING 2 (45) (2001-2015)

Frequency of counts by wind direction (%)

Figure 19 – Initial Spread Index (ISI) Rose from Saltspring2 Weather Station. (BC Wildfire Service, 2019)





Frequency of counts by wind direction (%)

Figure 20 – Initial Spread Index (ISI) Rose from Cedar Weather Station. (BC Wildfire Service, 2019)



#### A1.4 Topography

Steep slopes significantly increase wildfire spread through increasing radiant and convective heat. Aspect on steep slopes will also affect wildfire spread, as south facing slopes will be much warmer and drier than other aspects. Areas with steep, vegetated slopes below them are at higher risk than flat areas with similar fuel loading. The topography in the AOI is highly varied. The centre of the District is located in a broad valley bottom, with mostly flat terrain. However, there are several mountains inside the AOI on the periphery of this valley with steep slopes. This includes Mount Tzouhalem, Maple Mountain, and Mount Prevost. These mountains are mostly located inside the MFR, and are mostly forested with conifer leading stands. The influence of slope on fire behaviour is summarized below.

Table 25 Slope percentage and fire behaviour implications.

Slope Percent Class	Fire Behaviour Implications
<20%	Very little flame and fuel interaction caused by slope, normal rate of spread.
21-30%	Flame tilt begins to preheat fuel, increase rate of spread.
31-45%	Flame tilt preheats fuel and begins to bathe flames into fuel, high rate of spread.
46-60%	Flame tilt preheats fuel and bathes flames into fuel, very high rate of spread.
>60%	Flame tilt preheats fuel and bathes flames into fuel well upslope, extreme rate of spread.

Development is heavily concentrated in the valley bottom that dominates the AOI, and has made limited encroachment into the mountainous areas. Given that most of the mountains are located inside the MFR, there is very little development located above steep vegetated fuels. The exception to this is locations with critical infrastructure, such as the cell tower on top of Maple Mountain.

Table 26 Slope position of value and fire behaviour implications.

Slope Position of Value	Fire Behaviour Implications
Bottom of Slope/ Valley Bottom	Impacted by normal rates of spread.
Mid Slope - Bench	Impacted by increase rates of spread. Position on a bench may reduce the preheating near the value. (Value is offset from the slope).
Mid slope – continuous	Impacted by fast rates of spread. No break in terrain features affected by preheating and flames bathing into the fuel ahead of the fire.
Upper 1/3 of slope	Impacted by extreme rates of spread. At risk to large continuous fire run, preheating and flames bathing into the fuel.



#### A1.5 Local Wildfire Threat Classification

The areas that have a high wildfire threat include fuel types that are dominated by conifer tree species and on steep slopes. These areas have high fuel loading that with both winds and the effects of slope will burn at a high intensity. Conifer dominated fuel types constitute almost 40% of the study area. These are found primarily within three municipal owned areas including the forest reserve along the west edge of the District boundaries, and at higher elevations in the mountainous areas inside the AOI. The risk generally increases with elevation in these mountains, as higher elevation conifer stands inside the AOI will have higher density. Specific areas of note with higher risk polygons are Mt Tzouhalem, Maple Mountain, and Mount Prevost. The areas within the AOI by fire intensity class is summarized below.

Total Area (ha)	% of area
1,691	8%
1,183	5%
3,590	16%
1,669	12%
1,300	6%
11,821	53%
	Total Area (ha)           1,691           1,183           3,590           1,669           1,300           11,821

Table 27 Wildfire behavior category based on fire intensity

#### A1.6 Local Wildfire Risk Classification

The 2012 wildfire risk methodology was used to determine wildfire risk. This method intersects the updated wildfire threat with the proximity to values to determine wildland urban interface threat class, which represents wildfire risk. This highlights areas of High or Extreme wildfire threat, and classifies their risk based on stratified distances. Areas of very low, low, or moderate wildfire threat are dropped from this analysis. Area of High wildfire risk are within 500m of a value and pose a high or extreme wildfire threat. Areas of Extreme risk are directly adjacent a value and pose a high or extreme wildfire threat.



Proximity of High or Extreme			
Wildfire Behavior Threat	Threat to Value	Total Area (ha)	
Low	>2,000m	57	
Moderate	500 – 2,000m	2,176	
High	Within 500m	659	
Extreme	Directly adjacent	78	

#### Table 28. Wildland Urban Interface Threat Class

#### A1.7 Summary of Fire Risk Classes

The above table summarizes the total area by WUI threat class. This the total area of high wildfire threat that is adjacent values. This is summarized in Figure 13, which shows the spatial distribution of the areas of highest wildfire risk.



### Appendix 2 Wildfire Threat Assessment Worksheets and Photos

Worksheets and photos submitted separately.



### Appendix 3 Maps

Maps submitted separately.



### **Appendix 4 Description of Terminology**

Term	Definition	
Co-dominant Trees	Defines trees with crowns forming the general level of the main canopy in even-aged groups of trees, receiving full light from above and partial light from the sides.	
Coarse fuels (coarse woody debris)	/ Combustible material over 7cm in diameter	
Crown base height	The height, above ground, where the live crown of coniferous trees begins. Measured in meters (m).	
Crown Closure	An assessment of the degree to which the crowns of trees are nearing general contact with one another. The percentage of the ground surface that would be considered by a downward vertical projection of foliage in the crowns of trees.	
Diameter at Breast Height	The diameter of a tree measured at 1.3m above the point of germination.	
Dominant Trees	Defines trees with crowns extending above the general level of the main canopy of even-aged groups of trees, receiving full light from above and comparatively little from the sides.	
Fire-resistant materials	These meet the acceptance criteria of CAN/ULC-S101, (Fire Endurance Tests of Building Construction and Materials)	
Fuel Break	An area of non-combustible materials that inhibits the continuous burning of fuels.	
Fuel Load	The mass of combustible materials expressed as a weight of fuel per unit area.	
Fuel Moisture	Percent water content of vegetation. This is an important factor in rate of spread.	
Fuel Types	Classification of forested stands as described by Canadian Forest Fire Behavior Prediction (FBP) System. There are currently no fuel type classifications specific to coastal fuels.	
Fine fuels (fine woody debris)	Combustible woody debris under 7cm in diameter.	
Fire Behaviour	The manner in which a fire reacts to the influences of fuel, weather, and topography.	
Intermediate Trees	Defines trees with crowns extending into the lower portion of the main canopy of even-aged groups of trees, but shorter in height than the co-dominants. These receive little direct light from above and none from the sides, and usually have small crowns that are crowded on the sides.	



Term	Definition
Ladder Fuels	Live or dead vegetation that allows a fire to burn into the canopy (crown) of a forested stand.
Lift Pruned	The removal of ladder fuels to increase the crown base height.
Litter Layer	Surface buildup of leaves and woody material.
Live Crown Ratio	Is the percentage of the total stem length covered with living branches. It provides a rough but convenient index of the ability of a tree's crown to nourish the remaining part of the tree. Trees with less than 30 percent live crown ratio are typically weak, lack vigor, and have low diameter growth, although this depends very much on the tree's age and species.
Non-combustible materials	Means that a material meets the acceptance criteria of CAN/ULC S114, (Standard Method of test for determination of non-combustibility in Building Materials)
Open Grown	Defines trees with crowns receiving full light from all sides due to the openness of the canopy.
Rated roofing materials	Class A, B or C is a measure of the external spread of flame on a roof surface. Tests are conducted using CAN/ULC S107M methods of fire tests of roof coverings, or equivalent. The best rating achieved is Class A, which may be described as effective against severe fire exposure.
Spotting	Fire producing sparks or embers that are carried by the wind and start new fires.
Stems Per Hectare	The number or size of a population (trees) in relation to some unit of space (one hectare). It is measured as the amount of tree biomass per unit area of land.
Suppressed Trees	Defines trees with entirely below the general level of the canopy of even-aged groups of trees, receiving no direct light either from above or from the sides.
Wildfire	An unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, lightning strikes, downed power lines, and all other wildland fires where the objective is to put the fire out.



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#### Attachment 2

Repor	t	NORTH Cowichan
Date	March 4, 2020	File:
То	Committee of the Whole	
From	Shaun Mason, Municipal Forester	Endorsed:
Subject	Community Wildfire Protection Plan Update	

#### Purpose

To provide the Committee of the Whole with an overview presentation of the updated Community Wildfire Protection Plan.

#### Background

On September 20<sup>th</sup>, 2018, the Forestry Advisory Committee (FAC) recommended to Council that staff be directed to apply for grant funding through the Community Resiliency Investment (CRI) program through the Union of BC Municipalities (UBCM) to update the existing Community Wildfire Protection Plan (CWPP) from 2005/2006. At the November 21, 2018 regular Council meeting, Council endorsed the FAC's recommendation and the CRI grant application was submitted to UBCM. The application was successful with North Cowichan receiving the full grant request in the amount of \$34,500 early Spring 2019.

A Request for Proposals was advertised with Diamond Head Consulting being awarded the project in the summer of 2019. Diamond Head Consulting is a firm specializing in wildfire management, experienced in developing CWPP's and the specific requirements necessary through the CRI grant funding program.

Diamond Head Consulting has been working with North Cowichan staff and the BC Wildfire Service throughout the process of renewing the CWPP. Letters requesting input into the process were also sent to local stakeholders within North Cowichan, the CVRD and local First Nations.

#### Discussion

The presentation is to provide Council with an overview of the processes that were undertaken to develop the renewed CWPP, review the recommendations and provide general information around the next steps moving forward.

Diamond Head Consulting is in the final stages of completing the CWPP, preparing for the final submission to UBCM for their review by March 31, 2020. Once the CWPP is accepted by UBCM, staff will bring the CWPP back to Council for adoption and to discuss potential steps moving forward with the recommendations.

#### Recommendation

That Council receive the CWPP overview presentation from Diamond Head Consulting for information.

Attachment(s): Diamond Head CWPP Overview Presentation, FireSmart Community Funding Report, Forestry Advisory Committee Minutes, Council certified resolution



## Community Wildfire Protection Plan for The Corporation of the District of North Cowichan

Conor Corbett RPF, MSFM Diamond Head Consulting Ltd.

District of North Cowichan CWPP



- A Community Wildfire Protection Plan (CWPP) was developed for the City in 2007
- 18 recommendations, identified forested areas of the District as "high" or "extreme" risk
- Resulted in fuel treatments in 2007



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## Background

- Funded by a grant from the Community Resiliency Investment (CRI) program
- The CWPP provides the framework to create communities that are designed for and prepared to defend against a wildfire event
- District is unique as it manages the Municipal Forest Reserve and is responsible for wildfire suppression within this area



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District of North Cowichan CWPP

## Objectives



- Make recommendations to reduce vulnerability if a wildfire occurs
- To ensure that future development is designed to make the community more resilient to wildfire



## Wildfire Trends

- Wildfire impacts and suppression costs are increasing
- This is in large part due to climate change driving hot, dry summers and earlier springs
- Over the past decade there has been an average of 1,692 fires per year in British Columbia, burning an average of 151,000 ha
- The 2018 fire season surpassed 2017 as the worst on record with more than 1.25 million hectares burned



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District of North Cowichan CWPP

# Wildfire Trends

• From now to 2050 weather for the District is expected to:

- Increase in average annual temperature of 1.6 Celsius
- An increase in winter precipitation of 5%
- A decrease in summer precipitation of 19%
- Increase in drought and moisture deficits in fire season



Transient stressors include: seasonal moisture deficit, drought and heat; extreme wind and rainfall; urban activity and air pollution; pests and disease; and wildfire and flood events

## Wildfires in North Cowichan

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- In the past 10 years there have been 46 fires in the study area that have burned approximately 10 ha
- Wildfires are decreasing in the District since 1950, however this is largely attributed to the declining use of controlled burn in forest practices
- The Maple Mountain fire in 2018 was significant with high rates of spread and intensity and burned within 500m of homes



District of North Cowichan Community Wildfire Protection Plan dap 3B: Fire History in MFR 100,000 0 1 2 4 WEDIAMOND HEAD 
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District of North Cowichan CWPP



District of North Cowichan CWPP
# Values to be Protected

• Human life and safety

- Urban development
- Industry manufacturing plants and mills
- Cultural values and archeological sites
- Species at risk
- Recreation
- Timber values



# Values to be Protected

Critical infrastructure

- Hydro transmission lines and substations
- Municipal water supply
- Hospitals
- Schools
- Municipal buildings
- Police stations
- Fire stations
- Communications Tower





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# Wildfire threat

- Wildfire threat reflects the potential fire behavior
  - Fuel loading
  - Slope and aspect
  - Weather conditions
- Highest threat is posed by coniferous dominated forests on steep slopes
- Data is poor for areas that have been recently modified



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- Risk = Probability X Consequence (Fire Behavior) (Values at risk)
- Highly variable winds in the District, but generally historic fire spread has been east to west or north to south
- Most of the public lands adjacent communities pose a moderate wildfire risk
- A majority of the high and extreme risk areas are on steep slopes in the MFR



### **Fuel Management:**

- High risk interface fuels have been identified
- 3 high priority areas are recommended for treatment to reduce wildfire risk
- Treatment strategies are prescribed by a Forester with wildfire experience



District of North Cowichan Community Wildfire Protection Plan Map 8A: Fuel Treatment 1:100.000 DIAMOND HEAD Star Communic Link 7:20 Star Communication Planet

Proposed Treatment Areas
 Wildfire Plots
 Full Plot
 Visual Plot

DNC AOI

District of North Cowichan CWPP



### **Firesmart Planning:**

- Policy updates to improve the Firesmart performance of new developments
  - Treatment of adjacent interface fuels
  - Fire resistant construction
  - Fire resistant landscaping



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District of North Cowichan CWPP

# Recommendations

**Community Education:** 

- Many hazardous fuel areas are on private lands
- Public awareness and education is critical
- Develop stewardship opportunities for individuals and community-based volunteer organizations.
  - · Youth involvement through schools
  - Presence of wildfire awareness materials at public events
  - Showcasing of fuel treatments
  - Use of technology social media, website



### Wildfire Response:

- Prevent ignitions
- Early detection and reporting
- Suppression resources (vehicles, structural protection units, water sources)
- Access and evacuation
- Training and interagency communication and cooperation

WILDFIRE RISK RADIANT HEAT VS. EMBER IGNITION (Inces)

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- Anticipate urban growth further into forest interface areas
- Climate change will change forest conditions and weather patterns
- Strategically alter forest conditions in the interface so that they are more resistant to wildfire
- Plan all new development in the interface to be more resilient to wildfire



- Finalize report, submit to CRI for technical review and approval
- Review recommendations and pursue implementation





- 32 recommendations are prioritized
- Implemented over time, taking advantage of funding opportunities



# Thank you

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# Questions?



### Report



Date	September 1, 2021	File:	
То	Council		
From	Ted Swabey, Chief Administrative Officer	Endorsed:	Teefewly.
Subject	Regional Emergency Program		-

#### Purpose

To advise Council on the gaps and recommendations for emergency management in the Cowichan Valley.

#### Background

The CVRD Emergency Program Service is a regional service funded by requisition, grants and user fees to provide emergency management support, tools and resources to the nine electoral areas, four member-municipalities (Town of Lake Cowichan, Town of Ladysmith, Municipality of North Cowichan, and the City of Duncan) and four First Nations partners (Malahat, Cowichan Tribes, Halalt and Stz'uminus). This service is not currently intended to meet all local authority requirements under the *Emergency Program Act*, nor does it provide all essential elements for an effective emergency program.

An assessment report (gap analysis) completed in December 2020 by the CVRD indicates that local governments in the Cowichan area have not formalized their emergency program to the extent required to address the gaps between local authority responsibilities and the Emergency Program Service supplemental support.

This report proposes 21 recommendations for municipalities and 10 for the CVRD emergency program service. At the foundation of these recommendations, local authorities in the Cowichan region will need to determine the best implementation and governance model for the future of the emergency program.

The Cowichan area is at risk from a range of natural and human hazards. Incidents have become increasingly prevalent due to climate change, increased urbanization, and increasing vulnerable populations.

The *Emergency Program Act* (EPA) establishes the local authority as responsible for emergency preparedness, response and recovery. A new EPA will be coming into force, establishing more stringent requirements and increased local authority responsibilities in the near future. New response and recovery financial guidelines (redefining provincial support provided to local authorities) are also anticipated to include more restrictions and limitations on what can be reimbursed.

The CVRD Emergency Program Service was established to provide support for training, a regional plan, an emergency notification system, and to supplement some emergency preparedness/response functions for local authority and First Nation partners. However, it does not address all local authority and First Nation partners.

An assessment report was completed by emergency management staff at the CVRD on the state of emergency management in the region. This report provides critical recommendations to local authorities in the Cowichan area and presents three main governance models moving forward. Proposed viable options are 1. to continue under the existing blended model (where some elements continue to be provided under a regional service while other elements must be provided by each local authority independently) or 2. move to a fully regionalized model (where all emergency program elements are provided through one established emergency management organization for all partners).

#### Discussion

Currently, Cowichan local authorities are operating under a blended model where some elements continue to be provided under the CVRD's regional service, but other elements must be provided by each local authority independently. Local authorities are still responsible for the following:

- Establishing an emergency management organization and strategic plan for the organization
- Establishing a committee (if not covered by policy group) to provide advice and decisions on program
- Establishing policy group (authority to declare a State of Local Emergency)
- Maintaining a Local Emergency Operations Centre (EOC) (stocked, supplied, maintained) and team
- Completing community-specific hazard assessments and plans to ensure an effective response
- Conducting community-specific mitigation
- Providing additional training beyond that offered by CVRD Emergency Program Service

With changes to the EPA and the financial guidelines for response and recovery, it is critical for local authorities to have an adaptable and resilient emergency management organization. The current blended model has been operating for several decades, but there has been confusion about the roles and responsibilities. Meanwhile, the expectations of emergency management have increased without an increase in resources at the local level, leading to degradation of emergency management in Cowichan. A number of critical recommendations for local authorities and the CVRD emergency program service are included in the final report.

Local authority staff have discussed the implementation of a fully regionalized model. This model would enable all emergency program elements to be managed and coordinated for all local authorities through one established emergency management organization (EMO). A single governance structure could be established representative of all partners to set a single strategic plan for the EMO. The EMO would operate under this strategic plan to achieve mitigation, preparedness, response and recovery objectives for all partners. A centralized budget and consolidated resources would help ensure a consistent and cost-effective program, establishing greater depth of positions (multiple EOC Directors across the region can step into the role for any partner) and improved agility to coordinate new legislative requirements.

#### Options

Option 1: Status Quo, no change to governance and no implementation of recommendations

• Local authorities may choose to maintain status quo.

Option 2: Implement recommendations, no change in the governance model

THAT Council direct staff to:

- (1) implement the recommendations targeted at municipalities and local authorities under the Emergency Management in Cowichan Report on the CVRD Emergency Program Services;
- (2) add a full-time emergency management position to the budget for 2022;
- (3) increase the 2022 budget for the 205 requisition for CVRD Emergency Program Service by \$80,936;
- (4) add \$\_\_\_\_\_ to 2022 budget to engage consultants to assist with plan development and community engagement; and
- (5) increase the budget for emergency management training by \$\_\_\_\_\_ annually.
- Under the current blended model, North Cowichan will be required to invest in resources (employees, funding for supplies and to hire consultants to assist with plan development and community engagement) to address critical gaps. The CVRD Emergency Program Service would also require additional resources (increasing the requisition for this service for all municipal partners).

Option 3 (Recommended): All local authorities agree to move to a regional model to implement recommendations

THAT Council approve

- (1) North Cowichan's participation in a single regional Emergency Management Organization established by the Cowichan Valley Regional District Board.
- (2) That through the newly established Cowichan Emergency Management Organization, implementation of the report's recommendations be carried out in a phased approach.
- The establishment and operation of a regionalized EMO would require the addition of resources but would be more cost-effective (pooled resource benefit). North Cowichan would still be required to provide some staff time towards a review of key emergency plans and training, and may play a support role to the Regional Emergency Operations Centre during a widespread emergency event, but would not be required to invest in additional part or full-time employees.
- Future options/changes for the First Nation partnerships have not been explored at length at this time. The services offered to First Nations will remain in place, and any changes to service levels will only occur as part of a collaborative planning effort with these partners.

• Before this option could be implemented, the CVRD would need to amend their Emergency Programs (Emergency Program Act) Extended Service Bylaw (CVRD Bylaw No. 1909) and their Emergency Program Management Bylaw (CVRD Bylaw No. 1831) and Council would have to consent to the provisions in the bylaws before the CVRD could adopt the amendments.

#### Implications

The risks with not proceeding with any particular recommendation are highlighted in Appendix A of the assessment report. Notably, incomplete emergency management programs at the local level pose a risk to life and safety and may be non-compliant with provincial regulations.

Model	Financial Impact	2021 Example		
Option 2 Current Blended Model + Recommendations	<ol> <li>Add 0.75 – 1.0 FTE to implement the 21 recommended actions (will vary depending on existing capacity and desired classification/responsibilities).</li> <li>\$80,936 increase to 205 requisition for CVRD Emergency Program Service.</li> <li>\$50,000-100,000 to engage consultants to assist with plan development and community engagement.</li> <li>\$10,000-15,000 annually to provide additional training and exercises so that staff are prepared to respond to local</li> </ol>	<ol> <li>Varies depending on local authority</li> <li>Cost per \$100,000 household is \$3.74 (up from \$3.41). This does <b>not</b> include the increase in municipal costs.</li> <li>Varies depending on scope of work or community engagement.</li> <li>Varies depending on facilitator costs materials</li> </ol>		
	emergencies and disasters.	staff time, etc.		
Option 3 Regionalized Model *	<ol> <li>No local authority requirement to add positions – plan for 86 hours per year to support consultation, review and approval of program pieces.</li> </ol>	1. n/a		
	<ol> <li>To support an increase of 2 FTEs for the region - \$323,743 increase to 205 requisition for CVRD Emergency Program Service.</li> </ol>	2. Cost per \$100,000 household is \$4.70 (up from \$3.41)		

The financial implications of Option 2 and Option 3 are:

\* Assumes all local authorities have selected this model

		Estimate only (uses 2021 assessment numbers)					
Requisition (CVRD Function 205)	Cost per \$100,000 Household	City of Duncan	District of North Cowichan	Town of Ladysmith	Town of Lake Cowichan	Nine CVRD Electoral Areas	

Current 2021 Budget	\$867,890	\$3.41	\$43,271	\$289,638 = \$17.38 per house	\$73,915	\$24,008	\$437,058
Option 2 - 2022 Blended Model Est.*	\$948,826	\$3.74	\$47,306	\$316,649 =\$1.57 increase per house to \$18.95	\$80,808	\$26,247	\$477,816
Option 3 - 2022 Regional Model Est.	\$1,191,633	\$4.70	\$59,412	\$397,680 =\$6.44 increase per house to \$23.82	\$101,487	\$32,963	\$600,090

THAT Council approve

- (1) North Cowichan's participation in a single regional Emergency Management Organization established by the Cowichan Valley Regional District Board.
- (2) That through the newly established Cowichan Emergency Management Organization, implementation of the report's recommendations be carried out in a phased approach.

Attachment: Emergency Management in Cowichan – Assessment Report 2021

Attachment 1



### **Emergency Management in Cowichan**

A Report on the CVRD Emergency Program Service: Gaps and Recommendations

#### **Executive Summary**

The Cowichan area is at risk from a range of natural and human hazards including structural fires, wildfires, floods, hazardous material releases, windstorms, landslides, earthquakes and pandemics. Over the past few decades, incidents have become increasingly prevalent. There have been multiple Regional Emergency Operations Centre (REOC) activations (e.g. floods 2009, 2020, 2021; windstorms 2018; pandemic 2020). The Emergency Support Services (ESS) program, a component within the regional Emergency Program Service, responds to approximately six small responses per year, and at least one large response every two years (e.g. large apartment fires, flood evacuations). Incidents in the Cowichan area are likely to increase due to climate change, increased urbanization, and increasing vulnerable populations.

The *Emergency Program Act* (EPA) establishes the local authority as responsible for emergency preparedness, response and recovery. The current requirements of the EPA are used as a baseline for requirements in this document, however a new act will be coming into force establishing more stringent requirements and increased local authority responsibilities in the near future.

The CVRD Emergency Program Service, a regional service funded by requisition and user fees, provides emergency management support, tools and resources to nine electoral areas, four member-municipalities (Town of Lake Cowichan, Town of Ladysmith, Municipality of North Cowichan, and City of Duncan) and four First Nations (Malahat, Cowichan Tribes, Halalt and Stz'uminus). Over time the functions of the CVRD Emergency Program Service have become unclear, and the distinction between the emergency program established for the Electoral Areas versus the supplemental regional emergency program Service includes support for training, a regional plan, an emergency notification system and some other support for emergency preparedness and response. However, it does not address the need for each local authority and First Nation to establish or identify/delegate an emergency management organization, an Emergency Operations Centre (EOC) and team. It is also exclusive of communities in the Cowichan area have not formalized their emergency program to the extent required to address the gaps between local authority responsibilities and the Emergency Program Service supplemental support.

Several emergency program models are discussed herein to provide insight on next steps and possible impacts. A regionalized model (where all Emergency Program elements are provided through one established emergency management organization for all partners) is compared to a blended model (where some elements continue to be provided under a regional service for partners, but other elements must be provided by each local authority independently). A single entity model where all program elements are established and maintained by each local authority is also briefly discussed, though it is likely untenable for most partners given the intensive resource requirements.

Moving forward, all parties would benefit from additional clarity, to which this report intends to provide. Gaps in local authority programs are highlighted as well as potential options and resource requirements to address those gaps. For the purpose of this report, the First Nation partnerships have not been discussed at length as they range in service delivery and funding models, however it will be essential to re-engage these groups going forward.

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#### PART 1: DISCUSSION & ANALYSIS

In January 2021, the Emergency Program Service and related emergency management activities within the partner municipalities were assessed using the Emergency Management BC Community Emergency Program Self Assessment Tool. This is currently the only tool provided by the provincial government to evaluate local authority and First Nation emergency programs. Although the tool has some limitations (not all requirements within categories are evenly weighted), the tool provides a defensible benchmark for program development and improvement.

The tool examines seven (7) program elements:

- Governance & Administration (Section 1)
- Hazard, Risk and Vulnerability Assessments (Section 2)
- Risk Mitigation (Section 3)
- Preparedness (Section 4)
- Response Planning (Section 5)
- Recovery (Section 6)
- Program Evaluation (Section 7)

Each element is ranked out of 800 points. Eight hundred points across all elements indicates a fully comprehensive and mature program according to the provincial government (EMBC).

For the Cowichan area, the Self Assessment Tool provided a high level and quick assessment of current state to establish critical gaps and generate options to advance the program(s). Recommendations, provided throughout the following section, identify program improvements to reduce risk in **key** areas and are not representative of the full effort required to achieve top scores. This initial analysis also did not include the First Nation partners and it should be noted that these partners may wish to self-assess or collaborate on future assessments moving forward.

Below is a summary of the findings as assessed in January 2021 for the electoral areas of the CVRD (indicated in blue and labelled CVRD) and for the municipalities (indicated in orange). Results include the Emergency Program Service components. Progress for the municipalities has been generalized (some communities may be more advanced or less advanced than others in some areas). Each element is described in more detail to provide the requirements (legislative and standard-based using CSA Z1600), current state, gaps and recommendations. A summary of the recommendations can also be found in <u>Appendix A</u>.



Chart 1: Assessment Results for Local Authority Emergency Programs

#### 1. Governance & Administration

Includes committees, Emergency Program Coordinator (EPC), legislative compliance, bylaws, policies, and program strategic plans (to define and implement emergency management organization objectives and mission).

#### Requirements:

Under the Emergency Program Act, a local authority that is a municipal council or the board of a regional district **must** establish and maintain an Emergency Management Organization. It must further reflect its commitment (either in the plan or another document) to provide policy guidance and direction to the emergency management organization it has established, and the procedures by which that guidance and direction is to be provided. Each local authority and regional district **may** appoint committees to advise and assist, and a coordinator.

Though not a mandatory requirement, an emergency program coordinator is recommended by both legislation and Canadian emergency management standards (CSA Z-1600) to coordinate and/or lead the development, implementation, evaluation, maintenance, and continual improvement of the program. CSA Z1600 and EMBC both recommend the development of a strategic plan for the emergency program to include mission, goals, policies/procedures, and implementation activities/schedule against a defined budget.



#### Current State

The CVRD has established a bylaw (1831) for the emergency management of its electoral areas. This includes the administration of the program, the implementation of the plan and declarations of local states of emergency. The CVRD has also established a bylaw (1909) to identify the cost recovery for a regional Emergency Program Service provided to the four municipalities within the Cowichan area – Municipality of North Cowichan, City of Duncan, Town of Lake Cowichan and Town of Ladysmith. The CVRD has also established several agreements with First Nations to share similar services to the Emergency Program Service.

Table 1	CVRD	Electoral	Area I	Emergency	Management	<b>Delegated Authorities</b>	
---------	------	-----------	--------	-----------	------------	------------------------------	--

	Designated Emergency Management Organization ( <i>EPA</i> , s.3)	Committees Appointed ( <i>Bylaw</i> 1831)	Coordinator Appointed ( <i>Bylaw 1831</i> )
CVRD Electoral Areas	CVRD Protective Services (now CVRD Emergency Management Division)	<ul> <li>Protective Services Committee (no longer exists) – ongoing operation of the program</li> <li>Emergency Planning Committee – development and maintenance of the plan and program</li> </ul>	Emergency Program Coordinator – reports to Board through the PS Committee, facilitates preparedness, response and recovery measures, and activates the plan.

#### <u>Gaps</u>

Generally municipalities, though recipients of the regional Emergency Program Service, do not appear to have established bylaws to designate an emergency management organization. Legislative gaps are summarized below. Furthermore, few local authorities, if any, have formally developed and implemented an emergency program strategic plan.

	Designated Emergency Management Organization ( <i>EPA</i> , s.3)	Committees Appointed	Coordinator Appointed
CVRD Electoral Areas	-	<ul> <li>Protective Services         <ul> <li>Committee no longer exists –             using Community Service             Committee</li> </ul> </li> <li>Emergency Planning         <ul> <li>Committee – unclear purpose,             included members of             municipalities and FNs</li> </ul> </li> </ul>	-
Town of Lake Cowichan	None identified	<ul> <li>Emergency Program Management Committee (Town of Lake Cowichan Bylaw No. 1039-2020)</li> </ul>	Not formally
City of Duncan	None identified	None identified	None identified
Municipality of North Cowichan	None identified	None identified	Acting role identified
Town of Ladysmith	None identified	None identified	None identified

Table 2 Legislative Gaps Amongst Local Authorities

#### **Recommendations**

- 1.1 CVRD should update bylaws to reflect desired committee governance.
- 1.2 Municipalities must establish and/or identify the "Emergency Management Organization(s)" designated to develop and implement plans and other preparedness, response and recovery measures for the whole of the municipality, and establish bylaws and policies indicating same.
- 1.3 Each local authority or, in the event a single Emergency Management Organization is established, the EMO should develop and implement a clear written Emergency Program Overview to include scope, guiding principles, mission, goals, policies/procedures, and a strategic plan with actions and implementation schedule against a defined budget.
- 1.4 All municipalities should identify an Emergency Program Coordinator to act as central liaison and point of program coordination.

#### 2. Hazard, Risk and Vulnerability Analysis (HRVA)

Includes risk assessments (Hazard Risk Vulnerability Assessments) and the analysis which will be used to define and implement emergency management organization objectives.

#### **Requirements**

The *Local Authority Emergency Management Regulation* requires that "a local authority must reflect in the local emergency plan prepared by it under section 6(2) of the Act:

- a) The potential emergencies and disasters that could affect all or any part of the jurisdictional area for which the local authority has responsibility, and
- b) The local authority's assessment of the relative risk of occurrence and the potential impact on people and property of the emergencies or disasters referred to in paragraph (a)."

Both the provincial government and the CSA Z1600 emphasize the importance of risk assessment and impact analysis to inform emergency planning and the emergency program. An up-to-date Hazard Risk and Vulnerability Assessment prepares organizations for the most likely/high risk hazards, and enables them to set priorities for action, resourcing, and targeted training.



#### Current State

Participating jurisdictions are included in the Local Authority CVRD Emergency Plan (Regional Emergency Plan), which was based on a high-level Hazard, Risk and Vulnerability Analysis.

#### <u>Gaps</u>

Most local authorities do not have a community-specific all-Hazard, Risk and Vulnerability Assessment. The HRVA used in the development of the Regional Plan was a preliminary assessment only and has not been updated in several years. When the HRVA was initially developed, it did not follow the recommended fulsome process which involves a large working group including community members, vulnerable group representatives, engineers, environmentalists, hazard subject matter experts, and requires collaboration, community engagement and traditional knowledge.

#### **Recommendations**

2.1 Each local authority, or the EMO if a single emergency management organization is established, should complete a fulsome HRVA (inclusive of all community nuances, vulnerabilities and resiliencies). This HRVA should be used to develop plans, procedures and focus the emergency program to address the greatest risks.

#### 3. Risk Mitigation

Mitigation is action taken proactively to prevent or minimize a hazardous event from occurring by eliminating the hazard, or reducing the potential impact.

#### **Requirements**

The current EPA does not include any specific requirements related to mitigation or prevention. Under CSA Z1600, the organization shall develop strategies to mitigate, limit or control the consequences, extent or severity of an incident. Furthermore, the organization shall develop strategies which focus on incident prevention.

#### Current State

The Corporate Strategic Plan includes a strategic objective for the Board to "identify and prioritize natural hazard assessments for wildfire, flooding, sea level rise, and landscapes, to inform local and subregional land use planning decisions". The CVRD has recently implemented a Natural Hazard Risk Tolerance Policy to guide land planning/use decisions and engineering pre-requisites. Under the Environment Division of the CVRD and outside of the Emergency Program Service, a CVRD Natural Hazards Disaster Risk Reduction



Strategy was developed and some natural disaster mitigation activities have been and are carried out including flood mitigation planning, dike management, and National Disaster Mitigation Program grant opportunities and projects (primarily flood focused). These programs include one or two municipal and/or First Nation members depending on the territory under examination and the opportunities available through grant programs.

The Cowichan area has a current Community Wildfire Protection Plan (CWPP) which was substantially updated in 2017. Some communities are in the process of developing their own CWPP. Some FireSmart program elements have been applied as one-off measures in select areas by local authorities (e.g. some fire prescriptions/treatments applied). Various small activities have been carried out when grant funding for one-off projects has become available.

#### <u>Gaps</u>

There is currently no fulsome resiliency assessment and mitigation strategy to include all hazards, all vulnerabilities, all partners and a range of risk controls has not been developed. Some high-risk hazards have only been included at a very preliminary level.

Wildfire threats, a high and likely risk in the Cowichan area, would be more thoroughly mitigated under a comprehensive FireSmart strategy and program to include awareness, preparedness, fuel management, other mitigation measures, and training. Currently small portions of the FireSmart program have only been implemented temporarily in the Cowichan area. The program has not been universally or consistently adopted by all electoral areas, local authorities or First Nations.

#### **Recommendations**

3.1 Each local authority or, in the event a single Emergency Management Organization is established, the EMO should draft an overall resiliency assessment and mitigation plan based on the HRVA (see recommendation 2.1).

3.2 Each local authority or, in the event a single Emergency Management Organization is established, the EMO should develop and implement a comprehensive FireSmart strategy and program.

#### 4. Preparedness

Includes training, exercises, public awareness and After-Action Reviews (post event/exercise debriefs and related corrective actions).

#### A. Public Awareness/Education

#### **Requirements**

There are no legislated requirements in BC to provide awareness and education to the public about emergencies.

CSA Z1600 recommends that the organization develop and implement public awareness and education programs where the public is potentially impacted by an incident.

Though not legislatively required, preparedness of communities, neighborhoods, families, businesses, and visitors is essential to reducing the burden on emergency responders and local governments during a significant incident. Preparedness reduces the impact of an incident and plays a direct role in reducing harm.

Most communities in BC provide some awareness/education to the public either passively (through websites, printed information in municipal offices) or more actively (though community presentations, preparedness events).



#### Current State

The CVRD currently delivers approximately 40-60 presentations per year to various groups in the Cowichan area as requested. The CVRD maintains and stores a large collection of education materials to support residents, business and visitors. All local authority websites provide some general information about preparedness. The CVRD, as part of the Emergency Program Service has also developed a neighborhood emergency program which provides tools and training to empower community groups to be prepared and to participate in the response/recovery. This program has been deployed to some Cowichan areas.

#### <u>Gaps</u>

Preparedness presentations are provided as requested, but there is no strategic plan to ensure consistent coverage and reach across all areas of the Cowichan and into all groups. There is currently no target measures or methodology to measure success of this program element.

The CVRD neighborhood emergency program was initially developed and implemented with a few groups, but due to limited capacity implementation has been sporadic. Training and tools are in many cases out of date and need to be refreshed. These groups require re-engagement and annual support to ensure they can be sustained and operational in a wide spread emergency.

- 4.1 The Emergency Program Service should continue to provide preparedness education and awareness to community groups, neighbourhood response teams, non-government organizations and other interested parties. An awareness plan should be developed to ensure a strategic, equitable, encompassing and measurable approach to awareness and education across the Cowichan area with a focus on vulnerable groups and neighborhood emergency teams.
- 4.2 All partners should collaborate on an annual event to generate awareness and educate residents, visitors and businesses in the Cowichan area.

#### B. Training & Exercises

#### **Requirements**

The EPA requires that each local authority must "establish and maintain for all emergency response staff to whom responsibilities are assigned in the [emergency] plan (i) a program of emergency response exercises and (ii) a training program".

CSA Z1600 states that an organization should implement a training and educational strategy. It should have a plan for training that includes competencies, the scope, frequency, and records. It goes on to add that exercises should validate individual essential elements, interrelated elements, or the entire plan(s) and the results should be documented.

#### Current State

The CVRD Emergency Program Service currently provides training to local authority EOC teams and ESS teams. EOC training is coordinated as needed in consultation with the local authority. REOC training has been provided annually. ESS training is delivered with more frequency (as new volunteers join the ESS Level 1 team), but is primarily online through the Justice Institute of BC (JIBC). Reception centre training is delivered approximately every two years. Exercises are held several times a year, community participation varies.

#### <u>Gaps</u>

There is currently no established training and exercise strategy for all local authorities. Exercises for example should be delivered with increasing complexity as teams gain competence and confidence. Though training is occurring, an established frequency and schedule which ensures coverage across all areas/teams has not been implemented.

4.3 The Emergency Program Service should continue to provide training to EOC and ESS teams under a shared Training and Exercise Plan. This five-year plan should include the training requirements and recommendations for designated roles in a response, and provide a schedule of exercises for each community that increase in complexity over time, culminating in a full scale multi-jurisdictional exercise every three to five years.

#### C. After Action Reviews

Includes post event and post exercise debriefs and actions of lessons learned.

#### **Requirements**

Under CSA Z1600, organizations should conduct exercises to validate individual essential elements, interrelated elements, or the entire emergency plan(s) and have the results documented. Organizations should use the exercise results to identify plan gaps and limitations, and improve and revise the plans. The organization shall take corrective actions on deficiencies, gaps, and limitations identified and documented during the [...] exercises, and tests. The organization must also establish change management, and continual improvement processes.

#### Current State

Post event reviews are regularly held by CVRD for significant REOC and ESS events. A debriefing is held to identify corrective actions, and these actions are assigned for completion. It is encouraged but unknown whether some municipalities may be reviewing events independently. Exercises generally incorporate some form of after-action review/debrief.

#### <u>Gaps</u>

Corrective actions are not currently being shared across all local authorities. There is currently no formalized reporting to the CVRD Board or Committees on corrective actions. There is also currently very limited capacity to track the completion of action items. Some corrective actions remain outstanding and are raised again in subsequent events.

- 4.4 Each local authority or, in the event a single Emergency Management Organization is established, the EMO should establish a formal After-Action Review process and procedures to clarify when debriefs will be held and how actions will be tracked to completion.
- 4.5 Each local authority or, in the event a single Emergency Management Organization is established, the EMO should report annually on continuous improvement measures (and completion of corrective actions) to its council/board and to the public.

#### 5. Response Planning

Includes emergency plans, communications and warning, response operations, emergency support services, and operational readiness.

#### A. Emergency Plans

Includes regional response plans and community-specific response plans including evacuation route planning.

#### **Requirements**

The EPA requires that "a local authority must prepare or cause to be prepared local emergency plans respecting preparation for, response to, and recovery from emergencies and disasters" (S.6[2]). This also includes a "periodic review and updating of the plan(s)" and "procedures for updating the plan(s)".

The Local Authority Emergency Management Regulation requires that "a local authority must reflect in the local emergency plan prepared by it under section 6(2) of the Act:

c) The potential emergencies and disasters that could affect all or any part of the jurisdictional area for which the local authority has responsibility.

### Response Planning



#### Current State

Participating jurisdictions are included in the Local Authority CVRD Emergency Plan (Regional Emergency Plan), which meets current legislative planning requirements. It includes general EOC Operational Guidelines for communities and the REOC to implement. Additionally, some communities have begun to develop Evacuation Route Plans (e.g. some electoral areas) through grant funding.

#### <u>Gaps</u>

Most local authorities do not have community-specific plans that are maintained, distributed and exercised. Existing Plans are not regularly exercised. With the exception of the regional emergency plan, there is currently no standardization or consistency between operational plans (so that neighbouring teams can easily support operations during an expanding incident). EOC guidelines are available to all communities however the tools, systems, people, and set-ups may not be established in each area to implement the plan.

#### **Recommendations**

- 5.1 Each local authority should develop, implement and maintain a community-specific emergency plan. This plan should be based on the hazards, risks and vulnerabilities identified in the HRVA. It should consider and include specific procedures/people, evacuation routes, muster locations, critical services, and vulnerable groups for that community.
- 5.2 The CVRD or, if a single emergency management organization is established, the designated EMO should implement a community plan template so that plans in the

Cowichan area follow a similar format and structure. This will enable interoperability, and reduce training and knowledge barriers when local authorities and First Nations support each other in response to an incident.

#### B. Communications & Warning

Includes internal and external communication to directly support response to an incident, e.g. radio systems, responder communication tools, EOC communication tools, public warning systems.

#### **Requirements**

Under the EPA, a Local Authority is required to "establish procedures by which those persons who may be harmed or who may suffer loss are notified of an emergency or impending disaster" (s.2e).

Under CSA Z1600, the organization shall implement its communication and warning strategy to address the needs for communication before, during, and after incidents. This should include a communications assessment, establishment of communication systems including the need for redundancy, interoperability, and security of those systems, procedures for the effective flow of information through the selected communication systems, emergency communication and warning capability to advise the affected populations of hazards and threats to people, property, the environment, and/or the continuity of services, a central point of contact for the social and designated media resources, and procedures to gather, monitor, and disseminate emergency information.

#### Current State

A central emergency notification system is provided by the CVRD for use by all partners. The system is primarily designed to be a public warning system where people who have registered receive emergency notifications from participating Local Authorities and First Nations via text, voice call and email, and mobile application. It can be used to notify and activate internal teams to respond to an emerging issue.

The region maintains an emergency communications network to support EOC and first responders in large scale events including:

- 30-person volunteer communications team
- Portable radio gateway (joins disparate radio networks for inter-operability)
- Deployable two-way radios (mobile, portable)
- Pre-positioned disaster radios in critical facilities throughout the region
- Portable VHF radio repeater
- Regional VHF radio network
- Portable MSAT satellite telephone
- Radio communications facility (dispatch capability)
- Access to communications trailer with multiple technologies available
- Radio technician and support vehicle w/ test equipment

#### <u>Gaps</u>

The emergency notification system relies largely on individuals to sign up before they will receive notifications. Promotion of the tool among residents and visitors is therefore critical to ensure adequate coverage can be achieved (25-30% target). Current coverage is estimated at 2%. Efforts are needed by partners to ensure a successful public warning platform. All local authority EOC teams should also be loaded into a notification tool to ensure they can be quickly activated. These lists

require some maintenance to ensure they are accurate. Knowledge of the Cowichan disaster radios is low, and some users may struggle with its use in a widespread emergency.

#### **Recommendations**

- 5.3 All local authorities should identify the same notification system as the emergency alert system to ensure maximum participation and increased saturation.
- 5.4 All local authorities should actively advertise and promote the emergency alert system for the Cowichan area.
- 5.5 Each local authority or, if a single emergency management organization is established, the designated EMO should establish trained authorized users for the Emergency Notification System to ensure rapid deployment of public warnings and/or EOC team activations during an incident.
- 5.6 All EOC teams and alternates should be uploaded and maintained in the Emergency Notification System to enable rapid deployment.
- 5.7 The Disaster Radio program should be refreshed to include training for all partners and sites.
- 5.8 Emergency Communications exercises should be integrated into the Cowichan Exercise and Training Program.

#### C. <u>Response Operations</u>

Includes teams (EOC and ESS), incident management systems and tools, and standard operating procedures.

#### **Requirements**

The EPA requires that "a local authority is at all times responsible for the direction and control of the local authority's emergency response" (S.6[1]). Furthermore "a local authority may, in writing, delegate any of its powers and duties under this Act to the committee, emergency management organization or coordinator, except the power to make a declaration of a state of local emergency" (S.6[4]). The *Local Authority Emergency Management Regulation* requires that a local authority must "coordinate the provision of food, clothing, shelter, transportation and medical services to victims of emergencies and disasters" (S.2.3f).

CSA Z1600 emphasizes the importance of establishing an incident management system to control, direct and coordinate response, continuity and recovery activities. This should include organizational hierarchy, roles, and responsibilities for each incident management function. Under the BC Emergency Management System, communities should use a comprehensive response management system based on Incident Command System to ensure a coordinated and organized response to emergencies and disasters. Furthermore, under CSA Z1600, the organization must further have operational procedures for response, procedures to conduct damage and impact assessments (situational analysis), and procedures to allow for a transfer of leadership during response.

#### Current State

The *Emergency Management Agreement* (signed November 2017) between all local authorities in the Cowichan area states that local authority Emergency Operations Centres are established for emergency events affecting only a single jurisdiction, whereas the Regional Emergency Operations Centre may be established for electoral area incidents or larger, multi-jurisdictional events.

Several municipalities have identified Emergency Operations Centre (EOC) teams. The CVRD has established a Regional Emergency Operations Centre (REOC) team. All teams use the Incident Command System (or some variation) to identify roles and responsibilities. With increasing remote requirements due to COVID-19, the CVRD uses a trial version of D4H to support a virtual REOC.

The Emergency Program Service currently provides Emergency Support Services (ESS) for all communities in the Cowichan area. This short-term temporary support to victims of emergencies and disasters is provided in both level 1 events (e.g. house fire where only one or two families impacted) and in large events (with multiple households impacted such as floods, wildfire evacuations). ESS is currently provided by both CVRD and Ladysmith staff, and a recently developed team of volunteers.

#### <u>Gaps</u>

Not all groups have maintained a current EOC team. Some roles are missing from these teams which may create a gap in a response. Situational analysis and damage assessment processes have not been formalized, nor roles identified to complete these functions.

The ability to operate EOCs and the REOC remotely, continue as the threat of COVID-19 remains. Virtual tools, such as D4H were only purchased temporary but have now become increasingly embedded in processes and procedures.

Changes are forthcoming to the provincial government's financial disaster assistance guide which will reduce cost reimbursement eligibility during response. Local authorities will likely have to cover any human resource costs to run EOCs and ESS. To help manage these costs, the region must continue to support staff response capacity and build additional volunteer capacity (in particular to support the ESS program).

#### **Recommendations**

- 5.9 Each local authority should maintain a current roster for their local EOC. This roster should be updated regularly and should identify at minimum section chiefs (planning, operations, logistics, finance) and management staff (director, liaison, information, risk management). If a regionalized EMO is established, each partner should provide an alternate available for each essential role.
- 5.10 The REOC should implement incident management tools and systems that support ongoing remote activities.
- 5.11 Situational awareness and analysis procedures and roles for a response should be formalized for all EOCs/REOC.
- 5.12 Damage assessment processes should be formalized and personnel in all jurisdictions trained to implement during an incident.

5.13 The Cowichan area should continue to build on response team capacity by increasing volunteer engagement. Volunteer teams can provide additional support to staff (which continue to provide a reliable backbone for response in the region).

#### D. Operational Readiness

Includes managing resources such as vehicles, trailers, facilities, equipment and supplies to ensure a state of readiness and ensuring the right procedures exist to request resources, procure support and manage extraordinary expenses.

#### **Requirements**

The EPA requires that a local authority "identify the procedures by which emergency resources, including, without limitation, personnel, equipment, facilities, and financial resources, may be obtained from sources within or outside of the jurisdictional area for which the local authority has responsibility".

According to CSA Z1600 organizations must establish primary and alternative EOCs (physical or virtual), capable of supporting the management of emergency and continuity response operations. Organizations must conduct tests to confirm the functionality and interoperability of critical systems, equipment, and technology.

#### Current State

The CVRD currently maintains number of caches and facilities aimed to provide response support during an incident. These resources are available to all local authorities under the Emergency Program Service.

Vehicles	<ul> <li>1 1/2 (1 Passenger/SUV &amp; 1/2 Truck)</li> </ul>
Trailers	<ul> <li>1 Emergency Support Services Trailer</li> </ul>
	(Mobile Reception and Pet Care Unit)
	<ul> <li>1 Sprinkler Protection Unit</li> </ul>
Storage Units & Supplies	<ul> <li>5 Storage Containers (Bing's Creek) with</li> </ul>
	significant quantities of various disaster
	supplies and equipment
Facilities	1 Primary REOC
	<ul> <li>4 Primary Reception Centres (one</li> </ul>
	maintained by Ladysmith)
Other Equipment/Supplies	<ul> <li>Evacuation Kits (distributed to RCMP</li> </ul>
	detachments)
	<ul> <li>Disaster Radios at key</li> </ul>
	infrastructure/services

Table 3 Emergency Management Resources (available under the Emergency Program Service)

All municipalities have identified a location for a primary local EOC.

#### <u>Gaps</u>

The CVRD has some mobile units, but a limited capacity to tow these units. Only one part-time towcapacity vehicle (split between two services) is available to the Emergency Program.

Most supplies are stored in fixed locations, centrally located and a significant event could prevent access.

In isolation, all local authorities have only a primary EOC. It is unknown if these EOCs are regularly maintained. Secondary EOCs within each jurisdiction have not been identified. Secondary reception

centres have also not been formally identified, though some informal secondary reception centres do exist.

Disaster supplies are in a centralized location which may be difficult to access in a widespread and devastating event.

There is no established testing or maintenance schedule for facilities or supporting equipment, for CVRD or for local authorities.

#### **Recommendations**

- 5.14 Each local authority should identify a secondary location for an EOC.
- 5.15 The CVRD (Emergency Program Service), or EMO if a single emergency management organization is established, should implement an operational readiness maintenance and testing plan to ensure regular and established testing and maintenance of equipment, tools and systems.
- 5.16 Each local authority should identify prepositioned (fixed) disaster supply locations based on community layout and vulnerabilities. These locations should be stocked, maintained, and part of a public awareness campaign.
- 5.17 Secondary reception centres should be identified/confirmed in each community. Baseline requirements for these secondary centres should be established and maintained.
- 5.18 The CVRD, or EMO if a single emergency management organization is established, should assess mobile assets and establish an appropriate fleet procurement and management plan. Vehicles should be appropriate for daily operations as well as response activities.

#### 6. Recovery Planning

Recovery involves the steps and processes taken/ implemented to repair communities affected by an emergency event, restore conditions to an acceptable level, or improve them where possible, and to restore selfsufficiency and increase resilience. In this context, it includes essential service recovery and community recovery.

#### **Requirements**

The Local Authority Emergency Management Regulation requires that each local authority must "establish the priorities for restoring essential services provided by the local authority that are interrupted during a disaster" S.2(3.g), and "recommend to service providers for restoring essential services not provided by the local authority that are interrupted during an emergency or disaster" S.2(3.h).

Under CSA Z1600, the organization shall execute procedures to restore and return operations from the temporary measures adopted during an incident to support normal business/operations requirements after an incident. The organization shall also provide recovery plans for shortterm and long-term priorities for restoration of functions, services, resources, facilities, programs, and infrastructure.



#### Current State

Several local authorities have taken some initial steps towards business continuity planning, especially given the impact of COVID-19, but most do not have any formal recovery plans (either for short term or long-term recovery). In a significant event, most local authorities in the Cowichan Area would rely on Disaster Financial Assistance funding (provided in some cases after a widespread event has occurred) to establish a recovery coordinator and develop a plan.

#### <u>Gaps</u>

Recovery planning "at the time of the event" can be ineffective. While recovery is being planned, valuable time passes during an incident and additional damages may be compounded (e.g. mold in a flood). The recovery role of the EOC team and other local authority staff may not be clear and may create additional delays.

#### **Recommendations**

6.1 Each local authority or, if a single emergency management organization is established, the EMO should develop templated recovery plans for top hazards as identified in the HRVA. Recovery plans should include the priorities to restore essential services, processes to re-establish community functions, and recovery roles. The plans must be relevant and achievable by local authorities with or without a Disaster Financial Assistance program.

#### 7. Program Evaluation

Includes self reviews, internal reviews, and audits. After Action Reviews (post event or post exercise) are not included in this section – see instead Section 4 Preparedness.

#### Requirements

CSA Z1600 requires that "the organization shall conduct scheduled evaluations to validate conformance to strategies, plans, and procedures, and have the results documented." This also includes taking corrective actions on "deficiencies, gaps, and limitations identified and documented during the program evaluation [...] and audit and review processes". The standard includes the provision that "senior management shall review the emergency and continuity management programs at planned intervals" to ensure accountability at all levels.

The organization shall ensure that the program review process incorporates ongoing analysis and evaluation, as well as corrective action planning and review.

#### Current State

There have been no formal emergency program evaluations in the past

ten years for any local authorities in the Cowichan area outside of this report. Due to limited resources and increasing incident, most local authorities in the Cowichan area have not engaged in program review activities outside of any After Action Reviews (which are captured and evaluated under in Section 4 – Preparedness).

#### Gaps

For all local authorities, there have been no formal program-wide evaluations or measures of success outside of post-event reviews (which focus solely on the improvements that can be made as discovered during an incident). There has been no formal annual report on progress shared with partners. Community engagement on program effectiveness has been informal to date.

#### Recommendations

7.1 Each local authority or, if a single emergency management organization is established, the EMO should develop and implement a program evaluation process and schedule. Progress should be reported to senior levels and summarized for the public.



Program

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#### PART 2: PROGRAM MODELS

Across BC, the approach and implementation of emergency response and management programs is varied. There are several emergency program governance models available to local authorities and First Nations. The models, described below, and variations of the same can be found across BC. A summary of program models can be found in <u>Appendix B</u>.

#### 1. Current State – Blended Model

Currently Cowichan local authorities are operating under a blended model where some elements continue to be provided under a regional service for partners, but other elements must be provided by each local authority independently.

The CVRD's Emergency Program Service provides the following:

- Support for training (delivery of training to established EOCs including tabletop and functional exercises, training for ESS teams, training for ECT);
- A regional emergency plan;
- An emergency notification system;
- A redundant emergency communications network and support;
- Emergency preparedness awareness for the public;
- A REOC and team; and
- An ESS program (for small and large incidents).

Local Authorities (including the CVRD for its Electoral Areas) are each responsible for the following:

- Establishing an emergency management organization and strategic plan for the organization
- Establishing a committee (if not covered by policy group) to provide advice and decisions on program
- Establishing policy group (authority to declare a State of Local Emergency)
- A Local EOC (stocked, supplied, maintained) and team
- Community specific hazard assessments and plans to ensure an effective response
- Community-specific mitigation
- Additional training beyond that offered by CVRD Emergency Program Service

As the cost and resource requirements to implement some program elements are shared, this model can be cost-effective where needed. Partners can maintain control and individual identity in other elements of the program. However, this model requires a more complex governance system to ensure both the autonomy of some program pieces and joint decisions for other program elements. Although this model has been in operation in the Cowichan area for several decades, there has been confusion about the roles and responsibilities of each partner which may have led to a degradation of the program as a whole.

#### 2. Single Entity Model

A single entity model requires each local authority to manage, operate and deliver all elements of its own emergency program. The local authority must establish its own emergency management organization and manage all program areas under a single strategic plan. Some portions may be contracted out to third parties/private entities (e.g. emergency alert system) but the local authority still administers and has primary responsibility for each element of the program.

The single entity model is primarily seen in large rural municipalities where the population base (and therefore funding mechanism) is substantial. This model allows the local authority to maintain control over all elements of its program, however it can be resource intensive. Single entity emergency management programs must take extra care to develop agreements, build partnerships, and train/exercise with other partners to ensure interoperability (as this is not already established as a natural part of their daily governance structure). Changes in guidelines and legislation (such as the proposed changes to the EPA and forthcoming changes to the Financial Assistance for Response and Recovery Guide) are more impactful to the single entity. It is likely that this model may not be achievable for most local authorities in the Cowichan area given the intensive resource requirements and effort required to establish, maintain and improve a program.

#### 3. Regionalized Model

A regionalized model is where all emergency program elements are managed and coordinated for multiple partners through one established emergency management organization (EMO). A single governance structure is established representative of all partners to set a single strategic plan for the EMO. The EMO operates under this strategic plan to achieve mitigation, preparedness, response and recovery objectives for all partners. A centralized budget and consolidated resources help ensure a consistent and cost-effective program. One EMO for all can leverage regional grant opportunities and establish greater depth of positions (multiple EOC Directors across the region can step into the role for any partner). Local authority interoperability is built naturally into daily operations, and becomes second nature during a response.

A notable recent example of this model is the Regional District Central Okanagan EMO. The RDCO EMO is a regional service working under a single bylaw and governance structure for all municipal, regional district CAOs and in partnership with Westbank First Nation. The EMO derives its authority from the Regional District Board of Directors which is made up of 13 elected and appointed representatives from the Electoral Areas and the member municipalities. In addition, a non-voting member is appointed to represent the Westbank First Nation. The Regional Board delegates its full authority to the Emergency Management Organization comprised of the Chief Administration Officers (CAOs) from each member municipality plus the Emergency Program Coordinator (EPC). It is also based on the continuation of a Service Agreement with the City of Kelowna for the provision of an EPC, support staff and the Emergency Operations Centre itself.
#### PART 3: NEXT STEPS

The options and resource impacts of proceeding are discussed below – working within the current model to address gaps, or moving towards a regionalized model to address the gaps as one organization. The human resource requirement for both models is summarized below as generalized estimates only.

A detailed analysis of the resource impact is also available in Appendix C.

#### Option 1 – Status quo

Municipalities and the CVRD may choose to maintain status quo. The risks with not proceeding with any particular recommendation are highlighted in <u>Appendix A</u> and do include regulatory non-compliance. Generally, the recommendations that are contained in this report were selected as they are either the most effective way or the only way to address a high-risk gap. The recommendations and this report are not focused on low risk items.

#### Option 2 - Addressing the gaps with improvements to the blended model

To implement the recommendations in this report, while still maintaining the current governance model, each municipality will require 0.75 – 1.0 fulltime position to implement and maintain their portion of the emergency program as described in this report. This position would act as municipal EPC/liaison and take on the development, implementation and maintenance of the required components of the emergency program while still being supported by the offerings of the Emergency Program Service. Municipalities would also need to invest in appropriate EOC and disaster supplies, personal protective equipment (PPE), and potentially a vehicle to support the recommendations. Grant funding may provide some relief to initial development efforts.

To support the ongoing emergency program requirements for its electoral areas, the regional district will need to add 0.75 of a fulltime employee. This additional resource is required to address the local authority gaps that exist in the electoral area program, not the regional Emergency Program Service.

The Emergency Program Service, delivered by the CVRD, will require an additional investment of one 0.75 fulltime employee to address any current service area gaps and support the recommendations described in Part 1 for all partners. This above the 0.75 fulltime employee described above to support the electoral areas.

#### **Option 3 - Moving to a regionalized model**

Given the escalation of incidents and pivotal changes in future legislation, as well as the benefit of pooled resources to adapt to change, a regionalized model is worth strong consideration.

If all local authorities agree to move to a fully regional model, the establishment and operation of a regionalized EMO would require the addition of two fulltime employees. This also aligns to other BC examples of staff compliment required to support multiple local authorities. The roles for a regionalized EMO could be established by discipline as seen in chart 2, or by jurisdiction as seen in chart 3. Initial efforts would be focused on establishing governance and planning including developing a strategic plan for a regionalized emergency management organization, completing HRVAs and developing/updating community emergency plans.

The governance of a regionalized model is also an essential consideration, as the organization itself may best report directly to all CAOs. Like the Emergency Program Service currently, it could continue to be accountable to the Board. Additional consideration should be given to our First Nation Partners

who may also wish to engage with a future EMO and derive benefits from a collaborative approach. This would be an important consideration when designing the governance structure for such an organization.



A summary and comparison of the above options - option 1, 2, and 3 - is included in Appendix D.

#### PART 4: CONCLUSION

An emergency management program is an essential and regulated service. Local Authorities will need to determine the best strategy to support a sustainable and adaptable emergency management program in the Cowichan area. Regardless of the selected model for Cowichan local authorities, an investment into resources and effort is required by all respective local authorities and the regional emergency program service to address critical gaps. This investment is essential to address the increasing frequency and severity of incidents and risk, as well as meet current regulatory requirements.

# APPENDIX A: SUMMARY OF RECOMMENDATIONS & RISKS

Below is a table summary of recommendations and risks for electoral areas (EAs), municipalities (generalized) and the Emergency Program Service (EPS) provided by the CVRD. It takes into consideration the current coverage of the CVRD Emergency Program Service and assumes that all local authorities will continue to operate under a blended approach to emergency management (local authority program + Emergency Program Service).

Table 4 Emergency Program Recommendations, Risks and Responsible Party

	DESCRIPTION										
Program Eleme	ent	Recommendation / Deliverable	Risks of not proceeding	EAs	Munis	EPS					
1. Governance & Administration	1.1.	CVRD to update bylaws for electoral areas to reflect desired committee governance.	Delegation of Authority / Roles not clearly defined, non-compliance with Act	$\checkmark$							
	1.2.	Municipalities must establish/identify the "Emergency Management Organization" designated to develop and implement plans and other preparedness, response and recovery measures for the whole of the municipality, and establish by-laws and policies indicating same.	Delegation of Authority / Roles not clearly defined, non-compliance with Act		~						
	1.3.       Each local authority or, in the event a single Emergency Management Organization is established, the EMO should develop and implement a clear written Emergency Program Overview to include scope, guiding principles, mission, goals, policies/procedures, and a strategic plan with actions and implementation schedule against a defined budget.       Delegation of Authority / Roles not clear in non-compliance with Act										
	1.4.	All municipalities should identify coordinator to act as central contact and point of program coordination.	No central point of coordination, responsibilities for maintenance of the program are divided up among multiple individuals/depts		$\checkmark$						
2. Hazard, Risk ar Vulnerability Analysis	nd 2.1.	Each local authority, or the EMO if a single emergency management organization is established, should complete a fulsome HRVA (inclusive of all community nuances, vulnerabilities and resiliencies). This HRVA should be used to develop plans, procedures and focus the emergency program to address the greatest risks.	Risk assessment informs planning, resources and decisions. Without a current risk assessment, planning/resources may be inappropriate.	~	$\checkmark$						
3. Risk Mitigation	3.1.	Each local authority or, in the event a single Emergency Management Organization is established, the EMO should draft an overall resiliency assessment and mitigation plan based on the HRVA (see recommendation 2.1).	Mitigation is applied as-needed and may not be appropriate or reduce largest risks. Mitigation may not be cost effective (doesn't consider existing resiliencies).	~	~						
	3.2. Each local authority or, in the event a single Emergency Management Organization is established, the EMO should develop and implement a comprehensive FireSmart strategy and program.		Increased vulnerability / lower resilience to wildfire. Current piecemeal approach will only address some risks temporarily.	~	~						
4. A) Preparednes Public Awarene	Preparedness – lic Awareness4.1.The Emergency Program Service should continue to provide preparedness education and awareness support to community groups, neighbourhood response teams, non-government organizations and other interested parties. An awareness plan should be developed to ensure a strategic, equitable, encompassing, and measurable approach to awareness and education across the Cowichan area with a focus on vulnerable groups and neighborhood emergency teams.		Varying degrees of preparedness throughout Cowichan, ineffective use of resources.			~					

DESCRIPTION										
	Program Element		Recommendation / Deliverable	Risks of not proceeding	EAs	Munis	EPS			
		4.2.	All partners should collaborate on an annual event to generate awareness and educate residents, visitors and businesses in the Cowichan area.	Other methods may not be as effective (higher cost/ lower benefit)	>	$\checkmark$				
4.	B) Preparedness – Training & Exercises	4.3.	The Emergency Program Service should continue to provide training to EOC and ESS teams under a shared Training and Exercise Plan. This five-year plan should include the training requirements and recommendations for designated roles in a response, and provide a schedule of exercises for each community that increase in complexity over time, culminating in a full scale multi-jurisdictional exercise every three to five years.	Training and exercises may not be appropriately planned (scheduled, benefiting multiple teams) and may have low attendance.			~			
4.	C) Preparedness – After Action Reviews	4.4.	Each local authority or, in the event a single Emergency Management Organization is established, the EMO should establish a formal After-Action Review process and procedures to clarify when debriefs will be held and how actions will be tracked to completion.	Improvements / change may not occur.	>	$\checkmark$				
		4.5.	Each local authority or, in the event a single Emergency Management Organization is established, the EMO should report annually on continuous improvement measures (and completion of corrective actions) to its council/board and to the public.	Improvements / change may not occur or may not be appropriate.	>	$\checkmark$				
5.	A) Response Planning – Emergency Plans	5.1.	Each community (local authority) should develop, implement and maintain a community- specific emergency plan. This plan should be based on the hazards, risks and vulnerabilities identified in the HRVA. It should include specific procedures/people, evacuation routes, muster locations, critical services, and vulnerable groups for that community.	Response/decisions based on generalized information only, less effective responses. Potential for increased threat to life safety.	>	~				
		5.2.	The CVRD or, if a single emergency management organization is established, the designated EMO should implement a community plan template so that plans in the Cowichan area follow a similar format and structure. This will enable interoperability, and reduce training and knowledge barriers when local authorities and First Nations support each other in response to an incident.	Less effective responses.			~			
5.	B) Response Planning –	5.3.	All local authorities should identify the same notification system as the emergency alert system to ensure maximum participation and increased saturation.	Public confusion, risk to life safety, poor coverage/saturation, increased costs.	>	$\checkmark$				
	Communications & Warning	5.4.	All local authorities should actively advertise and promote the emergency alert system for the Cowichan area.	Risk to life safety if there is poor coverage/saturation. Less effective preparedness/response. More burden on emergency responders during an incident.	>	$\checkmark$				
		5.5.	Each local authority or, if a single emergency management organization is established, the designated EMO should establish trained authorized users for the Emergency Notification System to ensure rapid deployment of public warnings and/or EOC team activations during an incident.	No warnings / delayed warnings, increased threat to life safety.		~				
		5.6.	All EOC teams and alternates should be uploaded and maintained in the Emergency Notification System to enable rapid deployment.	Time delay to establish EOC response (impacting support to emergency responders on site).	>	$\checkmark$				
		5.7.	The Disaster Radio program should be refreshed to include training.	Unable to use system in an emergency.						
		5.8.	Emergency Communications exercises should be integrated into the Cowichan Exercise and Training Program.	Less effective communications in an emergency.			$\checkmark$			

DESCRIPTION										
Program Element	Recommendation / Deliverable	Risks of not proceeding	EAs	Munis	EPS					
5. C) Response Planning – Response Operations	5.9. Each local authority should maintain a current roster for their local EOC. This roster should be updated regularly and should identify at minimum section chiefs (planning, operations, logistics, finance) and management staff (director, liaison, information, risk management). If a regionalized EMO is established, each partner should provide an alternate available for each essential role.	Time delay to establish EOC response (impacting support to emergency responders on site). Individuals may have to fill roles without adequate/knowledge/training.		~						
	5.10. The Regional Emergency Operations Centre should implement incident management tools and systems that support ongoing remote activities.	Remote REOC operations will be less effective, (decreased communications, common picture, less effective decisions, record management challenges).			$\checkmark$					
	5.11. Situational awareness and analysis procedures and roles for a response should be formalized for all EOCs/REOC.	Inability to gain adequate situational awareness. Poor decisions during a response, risk to life safety.	$\checkmark$	>						
	5.12. Damage assessment processes should be formalized and personnel in all jurisdictions trained to implement during an incident.	Inability to assess impact of incident. Poor decisions during a response, risk to life safety.	$\checkmark$	>						
	5.13. The Cowichan area should continue to build on response team capacity by increasing volunteer engagement. Volunteer teams can provide additional support to staff (which continue to provide a reliable backbone for response in the region).	Increased cost of response and emergency support services as financial reimbursement from province is reduced.			$\checkmark$					
5. D) Response Planning –	5.14. Each local authority should identify a secondary location for an EOC.	Time delay to establish EOC response (impacting support to emergency responders on site).		<b>&gt;</b>						
Operational Readiness	5.15. The CVRD (Emergency Program Service), or EMO if a single emergency management organization is established, should implement an operational readiness maintenance and testing plan to ensure regular and established testing and maintenance of equipment, tools and systems.	Equipment and systems may malfunction or be unavailable during a response.			~					
	5.16. Each local authority should identify prepositioned disaster supply locations based on community layout and vulnerabilities. These locations should be stocked, maintained, and part of a public awareness campaign.	Equipment and supplies may not be accessible in some areas, impact to life safety and increased reliance on emergency responders in those areas.	$\checkmark$	>						
	5.17. Secondary reception centres should be identified/confirmed in each community. Baseline requirements for these secondary centres should be established and maintained.	Primary Reception Centres may not be accessible in some areas, impact to life safety and increased reliance on emergency responders in those areas.			$\checkmark$					
	5.18. The CVRD, or EMO if a single emergency management organization is established, should assess mobile assets and establish an appropriate fleet procurement and management plan. Vehicles should be appropriate for daily operations as well as response activities.	Vehicles may malfunction or be unavailable during a response. Some assets may not be deployed.			~					
6. Recovery Planning	6.1. Each local authority or, if a single emergency management organization is established, the EMO should develop templated recovery plans for top hazards as identified in the HRVA. Recovery plans should include the priorities to restore essential services, processes to re- establish community functions, and recovery roles. The plans must be relevant and achievable by local authorities with or without a Disaster Financial Assistance program.	Delayed recovery (increased cost and impact to essential services, some infrastructure and vulnerable groups may not recover if they are not prioritized early).	~	~						
7. Program Evaluation	7.1. Each local authority or, if a single emergency management organization is established, the EMO should develop and implement a program evaluation process and schedule. Progress should be reported at senior levels and summarized for the public.	No continuous improvement, no commitment to the program, lack of public buy-in, reputational damage.	$\checkmark$	<b>&gt;</b>						

# APPENDIX B: SUMMARY OF PROGRAM MODELS

Table 5 Emergency Program Implementation Models

	Regionalized Model	Blended Model	Single Entity Model
Description	All EM services coordinated/administered by one entity for multiple entities	Some EM services coordinated/administered centrally by one entity for multiple entities, other services coordinated managed by each single entity	Full EM Program managed by single entity
Governance	One governing body / organization	Fee for Service (services governed by a Regional Board), and governance for the Emergency Program must be set up for each local authority to manage their independent program components	One governing organization for each entity
Program Areas	All centrally managed	Some program areas managed by each entity, some centrally managed	Each entity manages its own full emergency program
Examples	Regional District of Central Okanagan, Emergency Management Oceanside	CVRD	City of Vancouver, City of Nanaimo
Benefits	<ul> <li>Efficiency - pools resources (benefits small players), maximizes grant opportunities (benefits large players), increases response efficiency and depth</li> <li>Increases preparedness – one source of truth</li> <li>Less administration (one governing body / organization)</li> <li>Collaborative approach</li> </ul>	<ul><li>Some cost savings</li><li>Some collaboration</li></ul>	• Full autonomy

Challenges       • Newer model, may take some time to implement (stand up an organization to act as the organization) – PHASED       • C         APPROACH could be used       • R         c       • P	Disproportionate • benefits Complex governance Role/responsibility confusion • Public confusion •	Requires significant resources to implement all areas or some areas/functions are not addressed May not be feasible for all groups May create silos Increasing demands
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## APPENDIX C: SUMMARY OF NEW RESOURCES AND COSTS - High Level Estimate Only

DES						BLENDED MODE	L				NEW REGIONALIZED MODEL			
DEC		Estim	ate per Municipa	lity	Estimate for	<b>CVRD</b> (filling the	gap for EAs)	Estimate for g	ap in Emergency	Program Service	Estima	ate for Combined I	EMO	
Program Element	Deliverable	Development (per Municipality)	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	
Governance & Administration	1.1 CVRD to update bylaws, confirm/re- establish committee	-	-	-	20 hrs	40 hrs	-		-	-	-	-	-	
Governance & Administration	1.2 Establish/identify the municipal "Emergency Management Organization(s)", supporting By-laws and policies.	60 hrs	40 hrs (quarterly committee meetings and prep)	-	-	-	-	-	-	-	60 hrs	EMO - 40 hrs Partners-10 hrs (committee attendance)	-	
Governance & Administration	1.3 Emergency Program Overview (Strategic Plan) with actions and implementation schedule against a defined budget.	40 hrs	20 hrs	-	40 hrs	20 hrs	-	-	-	-	50 hrs (additional consultation effort)	EMO - 20 hrs (maintain strategic plan, budget)	-	
Governance & Administration	1.4 Establish Municipal EPCs (or additional staff as required to provide an EMO)	40 hrs (interviews/ onboarding)	150 hrs (Liaison and Incident Response/Rec overy activities only, other hours captured under each deliverable)	Vehicle/ mileage to support work activities and site response /support, PPE, Training, office	-	-	-	-	-	-	-	EMO - 105 hrs (to account for additional incident response/ recovery support, liaison)	-	
Hazard, Risk and Vulnerability Analysis	2.1 Updated HRVA	70 hrs	20 hrs	Subject matter experts, community feedback would be needed.	70 hrs	20 hrs	Subject matter experts, community feedback	-	-	-	EMO - 140 hrs (for all areas)	EMO - 40 hrs Partner (review) – 5 hrs	Subject matter experts, community feedback	
Risk Mitigation	3.1 Community Disaster Resilience Plan	120 hrs	20 hrs (bi-annual review/update)	Impacts other areas of local authority administration – community planning, bylaws, development, waste mgmt., utilities etc.	60 hrs (mitigation plans for some hazards already in progress)	10 hrs (bi- annual review/update)	Impacts other areas of local authority administration – community planning, bylaws, development, waste mgmt., utilities etc.	-	-	-	120 hrs	EMO - 40 hrs (bi-annual review/update) Partners – 10hrs	Impacts other areas of local authority administratio ns	

DES	SCRIPTION					BLENDED MODEI	L				NEW REGIONALIZED MODEL			
		Estim	ate per Municipa	lity	Estimate for	CVRD (filling the	gap for EAs)	Estimate for g	ap in Emergency	Program Service	Estima	te for Combined E	EMO	
Program Element	Deliverable	Development (per Municipality)	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	
Risk Mitigation	3.2 FireSmart Program	300 hrs	450 - 600 hours (depending on size of municipality)	Grant funding is sometimes available for this function	300 hrs	600 hours (full program requires a 0.5 FTE)	Grant funding is sometimes available for this function	-	-	-	450 hrs	EMO - 600 hrs (full program requires a 0.5 FTE)	Grant funding is sometimes available for this function	
Preparedness	4.1 Regional public awareness strategy	-	-	-	-	-	-	35 hrs	100 hours (likely to identify substantially more opportunities than are currently in the program)	-	35 hrs	EMO - 140 hrs (likely to identify substantially more opportunities than are currently in the program)	Updated materials	
Preparedness	4.2 Cowichan Emergency Preparedness Annual Event	-	70 hours 70 hours (set-up, promotion, attendance)	-	-	70 hours (set- up, promotion, attendance)	-	35 hrs (planning event)	-	-	-	EMO - 70 hrs	-	
Preparedness	4.3 Five-Year Cowichan Training & Exercise Plan to include 5.8 Communications Exercises)	-	105 hours (to attend additional training which is likely to be annual instead of roughly every 2 yrs under ad hoc system)	-	-	- (already attending annually)	-	35 hrs	70 hours (Trainer impact only, REOC staff already attend annual training) currently delivered)	-	70 hrs	EMO - 105 hrs (plan maintenance, development of exercises, and additional opportunities) Partners – 50 hrs (joint training opportunities may reduce training burden)	-	
Preparedness	4.4 After Action Review Process	35 hrs	-	Tracking tool	20 hrs (process mostly established)	-	Tracking tool	-	-	-	20 hrs	-	Tracking tool	
Preparedness	4.5 Annual report on continuous improvement post incident	-	10 hrs (assumes one significant event every 2 years)	-	-	5 hrs (AARs already completed regularly, only reporting is not currently provided)	-	-	-	-	-	EMO - 25 hrs (assumes one significant event per area every 2 years)	-	
Response Planning	5.1 Community- Specific Emergency Plan	140 hrs	20 hrs	Speciality, generally contracted or, at minimum, requires GIS support	120 hrs (Several electoral areas already completed)	60 hrs	GIS	-	-	-	240 hrs	EMO – 140 hrs Partners Review – 10 hrs	GIS, Partner feedback	

DE	SCRIPTION						L				NEW REGIONALIZED MODEL			
	SCRIPTION	Estim	ate per Municipa	ality	Estimate for	CVRD (filling the	gap for EAs)	Estimate for ga	ap in Emergency	Program Service	Estima	ate for Combined I	EMO	
Program Element	Deliverable	Development (per Municipality)	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	
Response Planning	5.2 Community Plan template	-	-	-	-	-	-	70 hrs	-	-	70 hrs	-	-	
Response Planning	5.3 Confirm single Emergency Notification System	10 hrs (to update messaging/ media)	-	-	-	-	-	-	-	-	-	-	-	
Response Planning	5.4 ENS Promotion	10 hrs	10 hrs	Advertising costs, materials	10 hrs	10 hrs	Advertising costs, materials	-	-	-	10 hrs	EMO - 10 hrs	Advertising costs, materials	
Response Planning	5.5 Trained users for ENS	-	6 hrs (annual training, each user, 3 users)	-	-	6 hrs (annual training, each user, 3 users)	-	10 hrs (agreements, user procedures/ policies)	2 hrs (deliver training online to all users)		-	EMO – 6 hrs (activates for any community when requested)	-	
Response Planning	5.6/5.9 EOC Roster Maintenance and inclusion in ENS	-	4 hrs (quarterly update)	-	-	4 hrs (quarterly update)	-	-	-	-	-	EMO - 10 hrs Partner - 1 hr (quarterly update for all partners)	-	
Response Planning	5.7 Update Disaster Radio Program	-	-	-		-	-	40 hrs	10 hrs	-	40 hrs	EMO - 10 hrs	-	
Response Planning	5.8 Comm Ex Plan (included under 4.3)	-	-	-	-	-	-	-	-	-	-	-	-	
Response Planning	5.9 Sufficient depth on key EOC Team roles	20 hrs (role specific training for additional recruits)	-	-	-	-	-	-	-	-	-	-	-	
Response Planning	5.10 Incident Management Tool/Application	-	-	-	-	-	-	70 hrs	35 hrs (training, record retention, post incident clean up)	Solution annual license cost	70 hrs	35 hrs (training, record retention, post incident clean up)	Solution annual license cost	
Response Planning	5.11 Situational Analysis Roles and Procedures	20 hrs	-	GIS mapping, displays, situation status boards	10 hrs	-	-	-	-	-	20 hrs (all primary and secondary EOCs)	-	-	
Response Planning	5.12 Damage Assessment Roles and Procedures	20 hrs	10 hrs (annual training)	-	20 hrs	10 hrs (annual training)	-	-	-	-	20 hrs	EMO - 10 hrs (annual training)	-	
Response Planning	5.13 Volunteer Team Mgmt	-	-	-	-	-	-	-	450 hrs	PPE for additional recruits, rewards	-	EMO - 450 hrs	PPE for additional recruits, rewards	

DES						BLENDED MODEL	_				NEW R	EGIONALIZED MO	DDEL
		Estim	ate per Municipa	lity	Estimate for	CVRD (filling the	gap for EAs)	Estimate for ga	ap in Emergency	Program Service	Estima	te for Combined	EMO
Program Element	Deliverable	Development (per Municipality)	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required
Response Planning	5.14 Secondary EOCs	70 hrs	4 hrs	Supplies / storage back- up power, grant applications and approval	-	-	-	-	-	-	140 hrs (bring all EOCs to same standard)	EMO - 20 hrs	Supplies (Regional grant)
Response Planning	5.15 Operational Readiness Cycle	2 hrs	14 hrs (checks on EOC, etc.)	-	-	-	-	14 hrs	20 hrs (quarterly checks on REOC, annual check on disaster supplies, ESS supplies, trailers)	-	14 hrs	EMO - 50 hrs (Rotation of checks and exercises, leverage volunteers)	-
Response Planning	5.16 Pre-stocked Disaster Supply Locations	70 hrs (plan, implement)	- (captured above)	Storage and supplies (\$25,000) – potentially grant funded	(Exists in reception centres)	-	-	-	-	-	70 hrs (plan, implement regional approach)	- (captured above)	Storage and supplies (100,000) – potentially grant funded
Response Planning	5.17 Secondary Reception Centres	-	-	-	-	-	-	70 hrs	30 hrs	Supplies (potentially grant funded)	70 hrs	EMO - 30 hrs	Supplies (potentially grant funded)
Response Planning	5.18 Fleet Management	-	-	-	-	-	-	14 hrs	35 hrs (for four vehicles)	Additional vehicle required for trailer and to replace old EPC vehicle	14 hrs	EMO - 35 hrs (for five vehicles)	Additional vehicles required - for trailer and to replace old EPC vehicle, for any new positions
Recovery	6.1 Recovery plans	140 hrs	14 hrs (Bi-annual review)	-	140 hrs	14 hrs (Bi-annual review)	-		-	-	200 hrs (develop one template for use by all)	EMO - 40 hrs (bi-annual review of plans)	-
Program Evaluation	7.1 Program Evaluations	35 hrs (determine process, schedule, standards, reporting)	35 hrs	-	35 hrs (determine process, schedule, standards, reporting)	35 hrs	-	-	-	-	35 hrs (determine process, schedule, standards, reporting)	EMO - 105 hrs (reviewing one encompassing program for all partners)	-

DES	SCRIPTION				I	BLENDED MODEL	-				NEW REGIONALIZED MODEL			
		Estimate per Municipality			Estimate for CVRD (filling the gap for EAs)			Estimate for gap in Emergency Program Service			Estimate for Combined EMO			
Program Element	Deliverable	Development (per Municipality)	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	Development	Annual Operations / Ongoing	Other resources required	
TOTAL HOURS		1202 hours	1037 hours	-	845 hours	904 hours	-	393 hours	752 hours	-	1948 hours	EMO 2136 Partners 86	-	
Hours Per Local Authority		1202 hours	1037 hours	-	845 hours	904 hours	-	393 hours	752 hours	-	390 hours	513 hours		
Summary Ongoing Impact*		(	0.75 – 1 FTE**		0.75 FTE			0.5 – 0.75 FTE			1.75 - 2 FTE for the EMO 86 hours per year for each partner (for review, consultation, etc.)			

\*A full-time emergency management position has approximately 1,200 working hours. Calculation based on 35 hours per week for 52 weeks (1820 hrs), minus 12 Stats and Xmas closure (112 hrs), 6 weeks vacation/illness/leave (210 hrs), 10% admin e.g. payroll, reviews, organizational admin (150 hrs), 10% response (150 hrs) = 1198 working hours per FTE.

\*\*Average requirement, may vary from municipality to municipality

#### APPENDIX D: SUMMARY OF OPTIONS



# Option 3 - Regionalized Model



+ efficiency of resources

+ collaborative

+ increase public confidence (recognizable brand, less confusing)

+ more sustainable / adaptable

+ could be phased (incremental approach to development to minimize project risks - time, quality, cost)

- governance may take time to establish

## **Option 2 & 3 Funding Examples**

Model	Financial Impact	2021 Example
<b>Option 2</b> Current Blended Model + Recommendations	<ol> <li>Add 0.75 – 1.0 FTE to each local authority (will vary depending on existing capacity and desired classification/responsibilities).</li> <li>\$80,936 increase to 205 requisition for CVRD Emergency Program Service.</li> </ol>	<ol> <li>Budget increase varies depending on local aut</li> <li>Cost per \$100,000 household is \$3.74 (up from the increase in municipal or electoral area costs.</li> </ol>
<b>Option 3</b> Regionalized Model *	<ol> <li>No local authority requirement to add positions – plan for 86 hours per year to support consultation, review and approval of program pieces.</li> <li>To support an increase of 2 FTEs for the region - \$323,743 increase to 205 requisition for CVRD Emergency Program Service.</li> </ol>	1. n/a 2. Cost per \$100,000 household is \$4.70 (up fron

\* Assumes all local authorities have selected this model

# **Requisition Examples**

			Estimate only (uses 2021 assessment numbers*)								
	Requisition (CVRD Function 205)	Cost per \$100,000 Household	City of Duncan	District of North Cowichan	Town of Ladysmith	Town of Lake Cowichan	Nine CVRD Electoral Areas				
Current 2021 Budget	\$867,890	\$3.41	\$43,271	\$289,638	\$73,915	\$24,008	\$437,058				
Option 2 - 2022 Blended Model Est.**	\$948,826	\$3.74	\$47,306	\$316,649.00	\$80,808	\$26,247	\$477,816				
Option 3 - 2022 Regional Model Est.	\$1,191,633	\$4.70	\$59,412	\$397,680	\$101,487	\$32,963	\$600,090				

\* For comparison purposes only. Actual requisition would depend on 2022 assessment numbers.

\*\* Does NOT include financial impact to local authority's budget to implement their portion of the program in a blended model.

## thority.

m \$3.41). This does **not** include

m \$3.41)



Ts'i'ts'uwatul' Lelum 5755 Allenby Road Duncan, BC V9L 0E6

Phone: (250) 597-2252 Fax: (250) 250-597-2251

August 24, 2021

Municipality of North Cowichan "Via Email"

To Whom It May Concern,

Please accept this letter of request for financial assistance to hire 6 certified Aboriginal traffic control flaggers for September 30, 2021.

Each traffic control flagger would receive \$150 each x 6 flaggers = \$900.00

The traffic controllers would assist in directing the community during the walk on the National Day of Truth and Reconciliation on September 30, 2021.

Should you have any questions I can be reached at 250-597-2252 or via email ageorge@makola.bc.ca

Sincerely,



Ts'i'ts'uwatul' Lelum 5755 Allenby Road Duncan, BC V9L 0E6

Phone: (250) 597-2252 Fax: (250) 250-597-2251

*Budrey George* Assisted Living Manager Ts'i'ts'uwatul' Lelum

