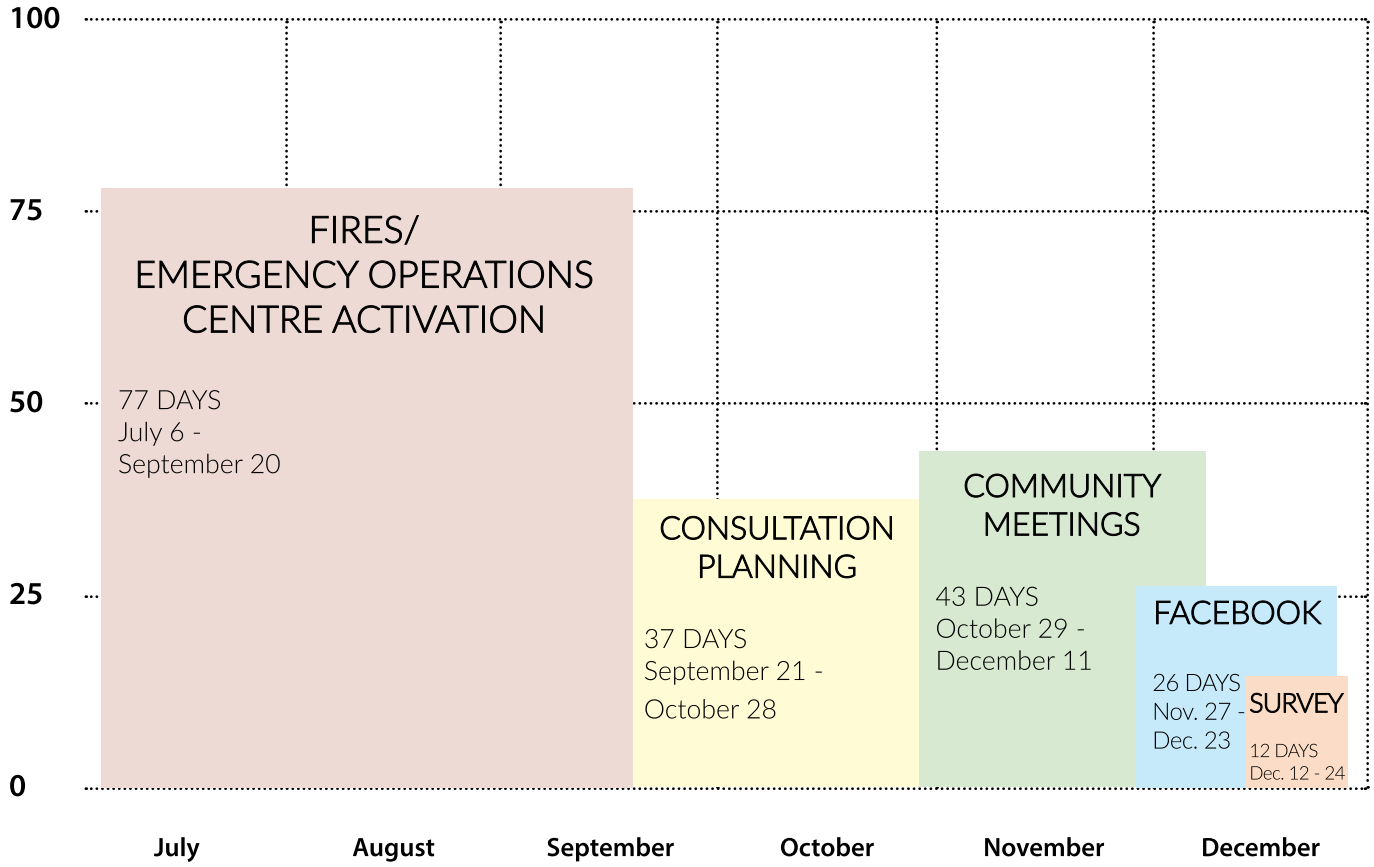




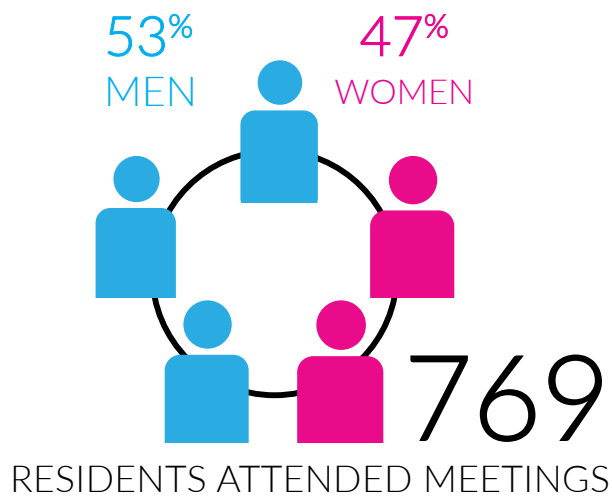
CARIBOO-CHILCOTIN WILD FIRES 2017



WILDFIRE to CONSULTATION



CONSULTATION Demographics



1209
SURVEY RESPONSES

AVERAGE AGE SURVEYED

54

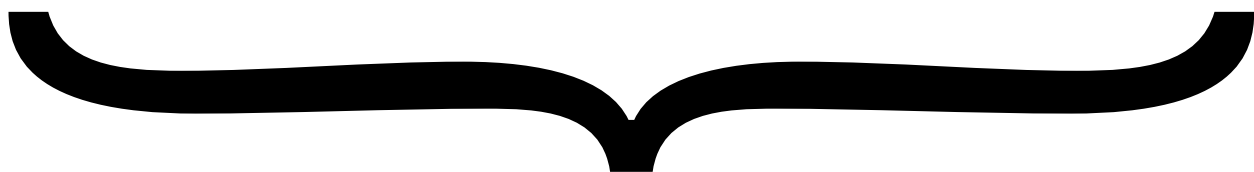
FACEBOOK LIVE VIEWS

1984



684

ENGAGED ON FACEBOOK



12 WEEKS

Consultation meetings, surveys and Facebook feedback



Foreword

Our deepest thanks to the people of the Cariboo and Chilcotin. We quickly moved from emergency operations, to planning and completing an extensive consultation process. With all of your challenges you came forward, despite weather not always cooperating, sometimes traveling hours to participate. You shared your thoughts honestly and with respect, even when it wasn't easy. We always felt well taken care of, with smiling faces at every host venue. Often you went above and beyond by supplying everything from baked goods to full meals. You understood when we were challenged by long travel days, and made us feel at home at various accommodations. Our deepest thanks for your help in sharing your stories and experiences, and how future emergencies can be improved.

Thanks to Our Team

We planned quickly, and got on the road to listen. Two of our team members had just begun their jobs days earlier. Roads were not friendly at times, from black ice to snow, fog to pitch black rain. We came across a serious collision near Tatla Lake early on our longest day of meetings and travel. We helped as best we could and continued on. The next day on the road, one of our team survived a deer collision.

I cannot thank you enough. You stepped outside your job and did whatever we asked of you. To our every representative from every organization, thank you! You were incredible. - Tim

Butterfly Effect Communications

Tim Conrad, APR, Consultant - Project Lead, Facilitator and Video Script

Lloyd Piehl, Communications Associate - A/V and Setup

Kendra Stoner, Communications Associate - Scheduler and Video Script

Ellen MacCormac - Graphic Design

Matt Haughn - Video Editing and Voiceover

RCMP

- Constable Zack Plensky, Anahim Lake
- Staff Sgt. Svend Nielsen, 100 Mile House

Province of British Columbia

Wildfire Service

- Krista Dunleavey, Manager, Cariboo Fire Centre

Rural Development, Lands and Innovation Division,

Ministry of Forestry, Lands, Natural Resource

Operations and Rural Development - Community

Wildfire Recovery Branch

- Emily Colombo, Acting Manager
- Cordelia Tyron, Community Wildfire Recovery Officer

Ministry of Agriculture - Business Risk Management

- Nicole Pressey, Regional Agrologist
- Doug Pepper, Program Representative
- Chad Fofonoff, Program Representative

Canadian Red Cross

- Jon Jackson, Operations Manager
- Sarina MacDonell, Indigenous Community Relations Officer
- Tammy Germain, Case Worker Supervisors
- Lisa Hanssen
- Derek Harvey
- Sheena Wory

Community Futures

- Karen Eden

Cariboo Regional District

- John MacLean, CAO
- Janis Bell, CAO (retired)
- Alice Johnston, Corporate Officer
- Lore Schick, Deputy Corporate Officer
- Darron Campbell, Manager of Community Services
- Larry Loveng, Manager of Procurement
- Emily Epp, Communications Manager
- Stephanie Masun, Recovery Manager
- Todd Conway, Deputy Manager of Development Services and Chief Building Official
- Cathy Norman, Communications

District of 100 Mile House

- Roy Scott, CAO
- M.J. Cousins, Recovery Coordinator
- Joanne Doddridge, Economic and Community Development Officer

City of Williams Lake

- Leah Hartley, Director of Development Services

City of Quesnel

- Garry Horley, Rural Economic Recovery Coordinator
- Shannon Bell, Community Liaison
- Tracy Bond, Urban Recovery Coordinator
- Erin Robinson, Wildfire Recovery Coordinator
- Charlene Lawrence, Wildfire Recovery Administrator



Started in 2015, Butterfly Effect has worked in four provinces and territories, providing public relations, public consultations, crisis communications, social media, and marketing services with a focus on reputation management. Our goal is to develop strong communities through strategies to engage, educate and expand.

Consultant

Author, Analysis, and Graphic Layout: Tim Conrad, APR

“‘Impossible’ is not a word in Tim’s dictionary”.



If you’re looking for lollipops and rainbows, you won’t find them with Tim. With a nearly unreal background including disaster communications, public consultations, and marketing small businesses, Tim knows his way through hard work and ugly situations.

When discovering and exploring where your organization has issues, you will get honesty from Tim, or what he calls “hard truths”. His strategic advice and solutions will improve your reputation.

His experience has developed him into a reputable “fixer” who can enter an organization in crisis and leave it in a strong position for continued growth.

With experience working across Canada’s provinces and territories, he’s developed into one of Canada’s leading rural communicators and marketers, having worked in multiple markets with populations under 500,000. His work has gained national attention throughout his career, including appearances on national broadcasts on all three major television networks multiple times.

He’s known for engaging stage presentations about everything from recycling to media relations, social media to mass communications and entrepreneurship. You’ll get more than pretty imagery, learning useful skills from a peer-accredited national public relations professional.

Tim is a caring futurist, who believes strongly in high ethics when practicing communications and marketing. An entrepreneur since he was 12 years old, he is an innovator and leader within the national public relations community, where he serves as Presiding Chair of Professional Development.

Contributors:

Kendra Stoner - Research and Writing
Ellen MacCormac - Graphic Design, Editing
Traci Langille - Transcription



APR DESIGNATION: Accreditation is a voluntary certification program for public relations professionals that is administered by the Canadian Public Relations Society (CPRS) and currently, it is Canada’s only public relations and communications accreditation program. It identifies practitioners who have depth of experience, competence, and ethics in the professional practice of

public relations. The program involves a rigorous evaluation of the skills and competencies needed to practice public relations at a senior executive level and establishes standards for professional practice. It measures experience and strategic thinking. An APR has also demonstrated an understanding of the ethical practice of public relations and comprehension of the standards enshrined in the CPRS Code of Professional Standards.





Top: Aerial photo of the Plateau Fire showing Rank 6 fire across large area. (CRD Communications)
Bottom left: Before, Soda Creek Road looking west as White Lake fire approached. (Shawn Dennis) Right: After, Rank 5 fire (Butterfly Effect)



Setting the Stage

Global Wildfires - Hotter, Faster, More Often

While wildfires are a natural event, they have become more intense, and particularly more invasive on urban interfaces - where people live - over the last 20 years. The result is impacting urban areas with greater strength.

The Siberian Taiga fires of 2003 (nearly equal latitude to the CRD) are thought to be a trend-setter. With 55 million acres burnt across the Russian Federation that year¹, the Taiga fires released massive amounts of carbon, and environmental studies continue to show damage to the ozone layer as a result. In addition, their coniferous forests - which have experienced years of large and intense wildfires - are not regenerating as they have in the past, allowing deciduous forests to dominate. This has resulted in the conifers not holding high levels of moisture at ground level, therefore increasing the chances and intensity of wildfires when combined with higher temperatures and continued drought.

Seven years later, wildfires in Russia caused an estimated \$15 billion in damages, destroying over 3,000 structures and killing 54 people as they burned from July to September. It was the result of the hottest summer ever recorded, and was quickly eclipsed by wildfires in 2012, despite an estimated 56,000 deaths due to heat and smog in 2010.²

In between, the Black Christmas bush fires in New South Wales, Australia, were the longest continuous bush fires in the region's history when they occurred in 2001-02, destroying 753,000 hectares and over 540 structures. The year began the worst drought in 100 years, and was classified as a one in 1,000 year event, finally breaking eight years later due to La Nina which led to the second-wettest year ever recorded.³

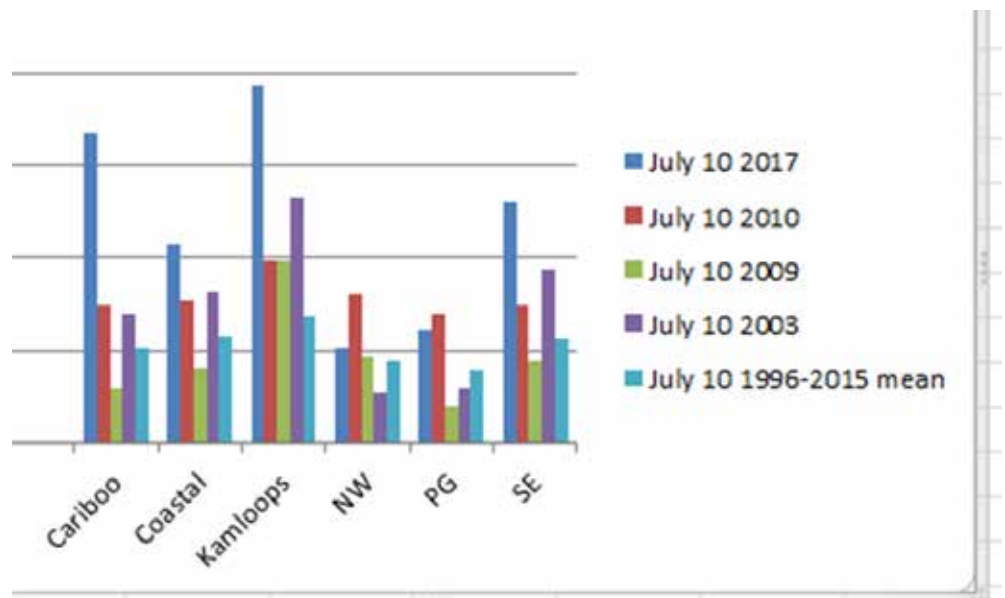
Wildfires in the West

While many think first of the 2015 Slave Lake and 2017 Fort McMurray wildfires, they have been preceded by many others. Most notable was the Richardson Backcountry fire in 2011, north of Fort McMurray. At 700,000 hectares, it was the largest fire in Alberta in 60 years.⁴

Slave Lake Fire - 4,700 hectares, 1 life lost, 433 structures destroyed, \$750 million cost⁵

Fort McMurray Fire - 589,000 hectares, 2 lives lost, 2,400 structures lost, \$9.9 billion cost⁶

Climate change, lack of precipitation, stronger winds and a build-up of fuels set the stage for the 2017 wildfires, and future and past fires in western provinces. Fuels are a significant hazard, with a mix of drought stress, harvest slash, pine beetle kill (standing and dead-fall), multi-canopied stands, all complicated by a wildland-urban interface, where structures are built within hazard zones.



Average BUI at British Columbia fire centres (Source: Cariboo Fire Centre, Dunleavy, 28 December 2017)



Simply, when wildfire enters an urban interface, it is met with even larger fuel loads than those provided by forests. This includes fences, landscaping materials, vegetation, and structures, items stored on properties, vehicles, and business and residential structures. This provides a greater challenge, which is quickly taken advantage of by wildfire. Demonstrated in [this video](https://www.youtube.com/watch?v=PCc1FvZ3g0Q), (https://www.youtube.com/watch?v=PCc1FvZ3g0Q), you can see a how an ember begins a small fire on the ground in front of a home and within one minute, the home is engulfed with fire.



Source: YouTube

In both the Cariboo and

Kamloops Fire Centres this summer, the average Buildup Index (BUI), the total amount of fuel available for combustion, was over three times the mean from 1996 to 2005, and well above 2003 and 2010 indices, which were notable fire seasons for the fire centres.

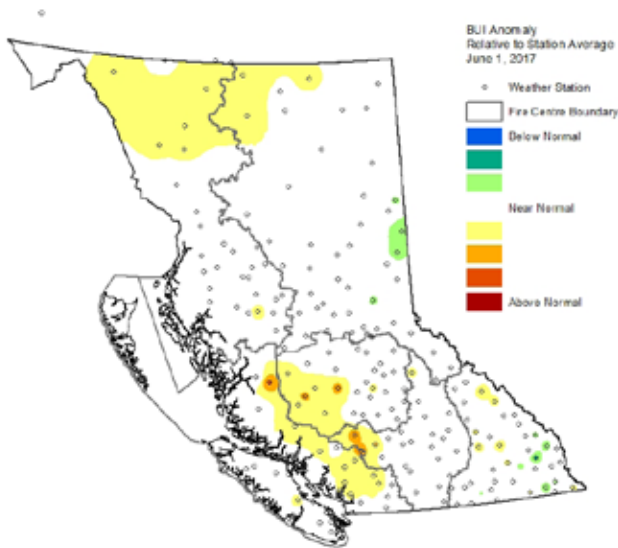
The fuel hazard, when combined with weather, can rapidly change the BUI. For the Cariboo, on June 1, 2017, BUI anomaly showed only slightly above normal. By July 6, it was at the highest levels through some of the Cariboo Regional District, and by August 3, nearly the entire bottom third of the province was at the highest level, “above normal.”

The stage was set rapidly from June to July 6, the day a series of dry lightning storms (storm cells with lightning but no substantial moisture) rolled across the region striking the land, and igniting hundreds of wildfires. With gusting winds during and after the storms, some reaching 74 kph in Williams Lake, the fires quickly engulfed large swaths of forest across nearly every area within the Cariboo Fire Centre.

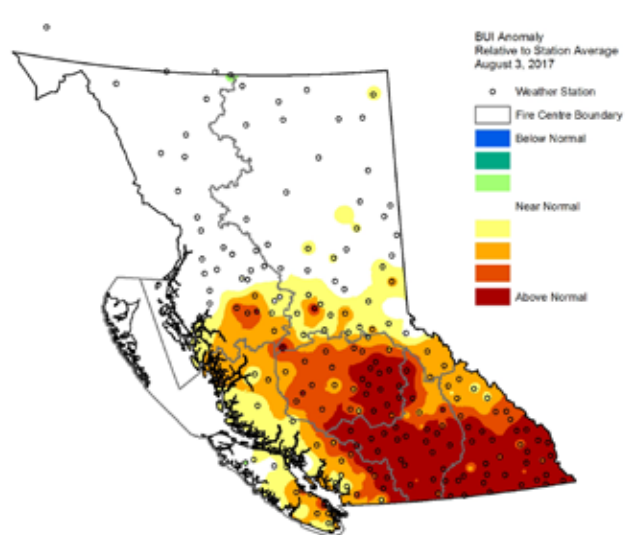
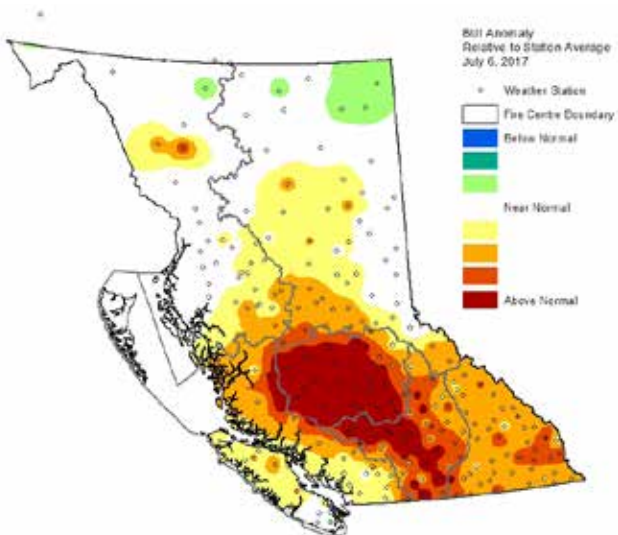
The intensity of the situation left behind areas of land scorched with the highest ranks of fires - Rank 6 across massive areas around Nazko, and Rank 5 and 6 from Hanceville to Interlakes. Extreme fire behaviour continued for months, with fire traveling across many kilometres in an afternoon or even at night.

All bets are off for the future. This is a new and unknown reality.

Sources: BCWS, Environment Canada, Robert W. Gray



Graphical Maps: BUI Anomaly
Top: June 1, 2017. Bottom left: July 6, 2017 Bottom right: August 3, 2017. Source: BCWS



Context: Wildfire Reports & Other Reports

Firestorm 2003 Provincial Review

(Filmon Report)

[Link to full report](#)

Recommendations

Forest Management

Province to Lead Strategic Plan Development
Undertake Fuel Treatment Pilot Projects
Adopt FireSmart
Look at Insurance Rates
Assess Land Use Plans
Reduce Fuel Buildup in Parks
Ministry of Forests Responsible for Fire Suppression in Parks
Use Prescribed Burning
Deal With Slash
Consider Amending the Annual Allowable Cut
Look at Alternatives to Stumpage
More Research and Development
Retain The Knowledge Base
Share Information

Emergency Management

Require Wildfire-Proofing Across the Province
Make Local Emergency Plans Mandatory
Maximize British Columbia's Firefighting Expertise
Adopt Automatic Aid

Command and Control

Standardize BCERMS and ICS Use and Training
Continuing Education

Communications

Develop a Crisis Communications Strategy
Establish Emergency Communications SWAT Team
Achieve Emergency Radio Inter-Operability
Include Amateur Radio Operators in
Emergency Response
Educate the Public about Interface Wildfires

Evacuation

Allow More Local Decision Making on Evacuations
Increase Understanding of the Evacuation Process
Simplify Access to Post-Evacuation Assistance

Resources

Implement Firefighting Equipment Database
Access Local Firefighting Expertise
Establish Consistent Pay Rates Province Wide
Restore Crews
Eliminate Delays
Pay for Volunteer Firefighter Training
Treat Volunteers as Equals
Involve First Nations
Provide Better Maps
Utilize Sprinklers

Financial Accountability

Maintain Financial Accountability of
Wildfire Response System

Post-Emergency Recovery

Prepare the Recovery Plan Before the Emergency
Deal With Watershed Restoration
Engage Federal Government in Funding Fire Prevention

A Review of the 2016 Horse River Wildfire

Alberta Agriculture and Forestry - Preparedness and Response

Note: This report had a primary focus on wildfire response from a provincial perspective.

[Link to full report](#)

Recommendations

1. Continue Agriculture and Forestry's strategic direction to be fully prepared and ready to respond to wildfires the week after snow disappears or May 1 annually, whichever date is expected sooner. This may mean changes to the activation dates for aircraft and firefighting crews.
2. Improve fire weather forecast materials by extending the length of the forecast outlook period and working closely with the Alberta Wildfire Coordination Centre, Planning Section to design products that directly link weather forecasts with predicted fire behaviour.
3. Enhance and expand the Planning Section in
4. the Alberta Wildfire Coordination Centre to be operational March 1 annually, commencing in 2017, to provide daily fire behaviour and wildfire occurrence predictions to decision makers and to coordinate situation updates.
5. Establish a standard operating procedure across Agriculture and Forestry which requires, when a wildfire escapes from initial attack and interface risks are present, the immediate assignment of a senior Incident Commander to undertake tactical planning for wildfire containment and risk mitigation.
5. Develop an improved procedural model for airspace



management where confined airspace over a community or airport is involved.

6. Continue to develop risk management frameworks as the foundation for wildfire management policy. This would include reviewing the list of five provincial priorities as the central policy and emphasizing a risk and consequence approach.
7. Direct agencies and services involved in wildfire suppression in relation to the wildland-urban interface (WUI) to establish standard operating procedures for the implementation of an Incident Command System (ICS) and processes following the model provided by ICS Canada for future incidents like the Horse River wildfire.
8. Emphasize a long-term vision for FireSmart within the province that includes community responsibility, multi-agency collaboration and an outcome-based approach to implementing FireSmart projects. Ensure all seven disciplines of FireSmart are addressed.
9. Establish a joint Wildfire Planning Task Team comprised of senior Agriculture and Forestry staff and major industrial stakeholders (such as oil sands, energy, forestry, and utility companies) from across Alberta.
10. Complete and implement a unique and tailored Landscape Wildfire Management Planning process for the northeast region of Alberta.

Province of British Columbia - Independent Review of 2017 Floods and Fires

[Link](#) - media release

Actuaries Climate Index™

[Link](#)

The Actuaries Climate Index (ACI) is an objective measure of changes in extreme weather and changes in sea level relative to the base period of 1961 through 1990. The Index is an educational tool designed to help inform actuaries, public policymakers, and the general public on changes in these measures over recent decades.

35,616 PEOPLE ON ALERT OR ORDER

60% POPULATION ON ALERT OR ORDER

48% POPULATION EVACUATED

**WITHIN THE CARIBOO
REGIONAL DISTRICT**

48,099 KM² ON ALERT OR ORDER

58% LAND ON ALERT OR ORDER

47% LAND EVACUATED



Executive Summary

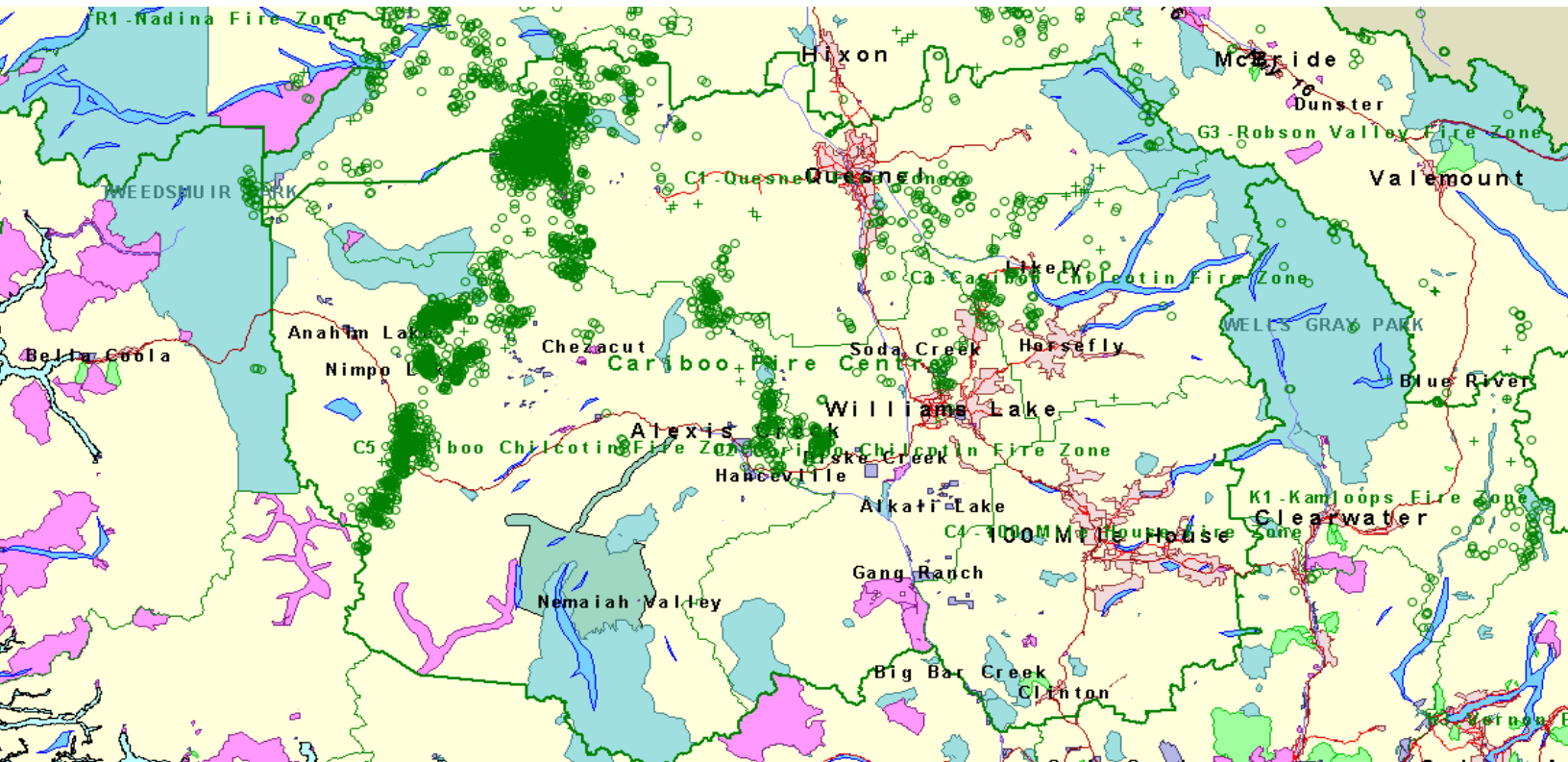
Hot and dry. Record-breaking. Unprecedented. Extreme wind event. Extreme fire behaviour. Evacuation order issued. Evacuation alert issued. Evacuation route is...

They were the words ingrained in the 2017 Cariboo-Chilcotin Wildfires and those that experienced them. From those that evacuated safely, to those who lost property or a living, to those that came from around the globe to help, the wildfires were unlike any ever seen in British Columbia or Canadian history.

It was the largest land evacuation in Canada since the 1950 Red River floods in Manitoba, with 35,616 people evacuated from over 48,099 km².

Columbia history, were all within regional boundaries. The Plateau Fire, which was 19 fires combined, was the largest in the province's history, and was only slightly smaller than the devastating Fort McMurray fire in 2016. The Hanceville-Riske Creek fire was the third largest in provincial history, and the structure-destroying Elephant Hill fire, which only slightly entered the region, was also among the largest at over 192,000 hectares.

Dwellings in urban, rural, and remote locations were impacted simultaneously. The impact on residents, businesses, non-profits, governments, and tourists matched the extreme nature of the fires. As we embarked on a 24-stop consultation tour, we were



Lightning activity on July 7. (Source: BCWS, Cariboo Fire Centre Prep July 6-7, Dunleavy, December 28, 2017)

With emergency operations running for 77 days, it was the longest active disaster in Canadian history. It wasn't easy. Resources were stretched so thin that the Canadian Armed Forces, and firefighting teams from across Canada and Australia, Mexico, New Zealand and United States were called to help.

Fires engulfed the entire region all at once. 900,000 hectares were ravaged by 272 fires across nearly every area of the Cariboo-Chilcotin.

Three extremely large, extremely aggressive, and unpredictable fires, all among the largest in British

partially aware of how those we would meet were impacted. We also knew the organizations we contacted in preparation were also completely overwhelmed and exhausted.

From July 6 to September 20, the 2017 wildfire season was both a sprint and marathon. It showed in eyes at each meeting. Loss, heartache, stress, exhaustion. We saw tears at every single meeting we held during the 18-community tour to begin consultations. In some cases, people could not coordinate their thoughts to speak, and tears or silence spoke for them.



100 MILE FREE PRESS



Heading into the night, the fire visible from 100 Mile House is estimated to be around 500 hectares. Max Winkelman photo.

Tactical evacuation expands for Gustafsen fire near 100 Mile House.

Properties on Abel Lake Rd, Helena Lake Rd, Lilypad Lake Rd and Exeter McKinley Rd being evacuated

TARA SPRICKERHOFF / MAX WINKELMAN / Jul. 5, 2017 12:00 p.m. / LOCAL NEWS / NEWS

One of the first news stories (100 Mile Free Press, July 6, 12:00 p.m.) Media were an important source of information during the fires.

Through our consultation and analysis, these are the IMMEDIATE NEEDS we have identified:

- Mental health supports for residents, business owners, and emergency responders
- Financial assistance focused on survival needs for those directly and indirectly impacted by the fires
- Preparedness for the next disaster, with acknowledgment that local resources may be exhausted
- Building of a network of community liaisons to aid in communications to-and-from communities
- Immediate improvement of communication mediums in rural areas without radio, Internet, and mobile access
- Wildfire prevention planning and action to be underway immediately due to likelihood of a similar season in the near future
- Increased resources for wildfire firefighting, especially in isolated communities
- Structural improvements to crisis communications
- A culture of preparedness in all

organizations, communities and with residents

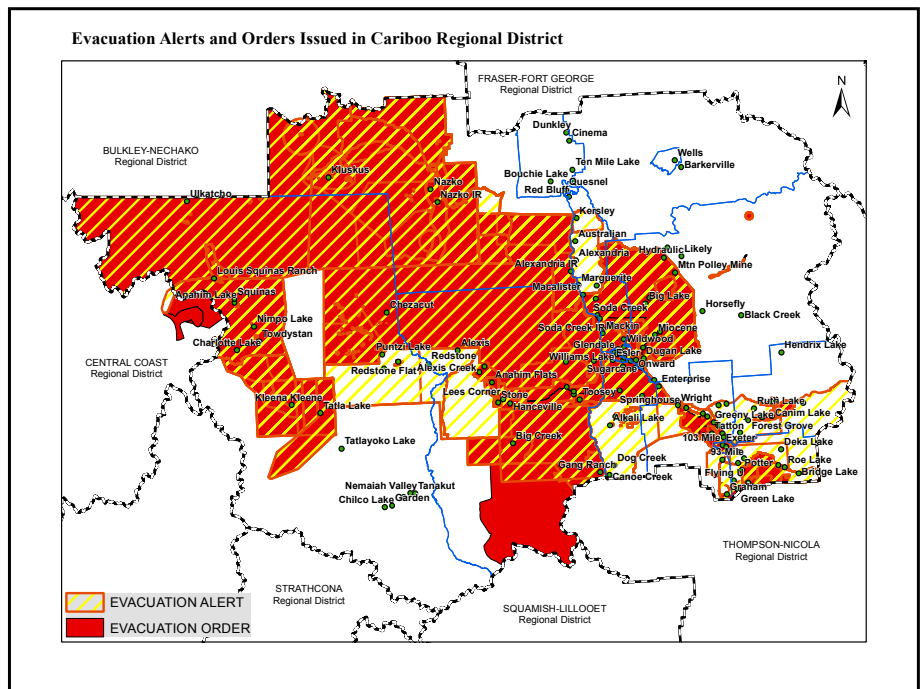
While we acknowledge none of these are easy or without cost, the cost of not strategically and tactfully adjusting to these needs is greater than ignoring or delaying. Action must be taken immediately to prepare for future disasters.

Of importance is the statement we heard multiple times in conversation, "I can't survive another summer like that".

Decision-makers must make bold choices and leave no regret behind them. They must move as fast as raging fire, leaving nothing behind. They must watch, listen and react to their surroundings, the people and land of the Cariboo-Chilcotin, a sacred land which provides life, and has the power to take it away.

Decision-makers in other regions must join them, for their region is likely to experience similar threat of disaster in the near future, as evidenced by significant disasters - predictive events - in north, central and south regions of both British Columbia and Alberta, and stretching all the way to California.

It is an extreme reality needing an equally extreme preparation and response.



A map showing the areas which were under evacuation order (red) or alert (yellow) during the 2017 season. Source: CRD

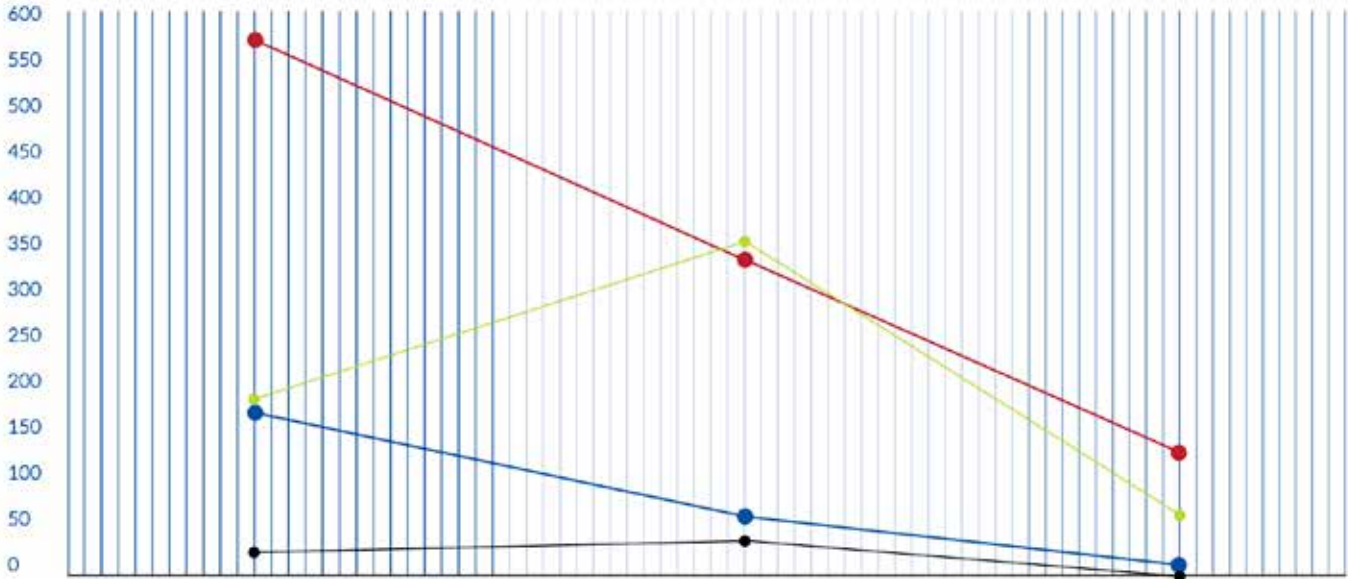
Lightning strikes Cariboo Chilcotin region, numerous properties evacuated

By Vanessa Ybarra

August 13, 2017 - 9:12am
 Updated: August 13, 2017 - 11:53am



Below: Number of wildfires in 2016 (lower than average) versus 2017 in July through September, in both the CRD and province. Source: BCWS



July 6, 2017
6:05 PM

August

September 20, 2017
2:00 PM

- CARIBOO 2017 - 157 / 51 / 3
- CARIBOO 2016 - 13 / 28 / 0
- PROVINCIAL 2017 - 574 / 333 / 121
- PROVINCIAL 2016 - 177 / 350 / 52



THE WILLIAMS LAKE TRIBUNE



Ernie Colaribo, the acting manager of the community wildfire recovery branch of the Ministry of Forests, takes down suggestions from Hal Gies, Hal Montgomery and Lindsay Hilton at the Cariboo Regional District's wildfire consultation in Williams Lake on Nov. 1. (Tara Sprickert/Hill photo)

CRD consultations hear diverse views on wildfire response in Williams Lake

People encouraged to come to further sessions to be held around Cariboo Chilcotin

CBCnews | British Columbia

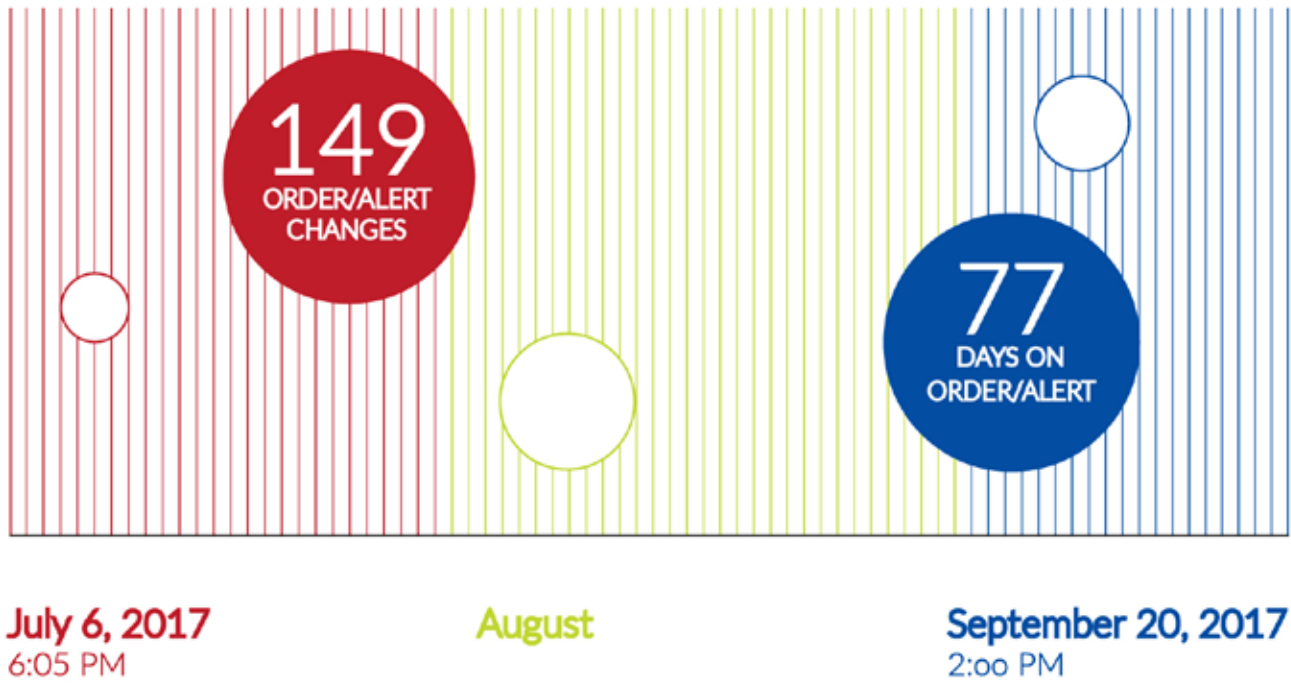
Wildfire feedback meetings to begin Sunday in Cariboo
 Officials will also discuss how people can rebuild after a wildfire

30 shares Beginning this Sunday, the Cariboo Regional District will be meeting with

Weather: Vancouver 4°C, Kelowna -1°C, Abbotsford 2°C, Prince George 4°C, Victoria 8°C

Latest British Columbia News: Michelle Obama brings a dose of inspiration to

Below: Number of orders and alert changes by month. Source: CRD



Goals and Objectives

Goals

- Ensure CRD communities feel heard as part of the recovery process
- Improve CRD emergency communications

Objectives

- Develop and implement an engagement strategy and framework for community debriefs
- Execute debrief sessions in CRD communities
- Complete a statistically valid survey of the CRD region to evaluate the CRD's communications and emergency response during this summer's emergency situation
- Produce a report summarizing the feedback received from debrief sessions
- Use community feedback and lessons learned to improve CRD response plans

Methodology

Using IAP2 (International Association for Public Participation) foundations and techniques for public participation, we developed a series of effective methods to gain feedback from the public within the budget available. More information on IAP2 at www.iap2.org

The following opportunities were developed and implemented to allow people to present their views in-person or for people to participate from remote locations:

- COMMUNITY CONSULTATION MEETINGS: 24 meetings throughout the region's communities
- FACEBOOK LIVE: Video event which allowed questions to be asked, feedback to be shared, in both a live and recorded version.
- SURVEY: Online survey to collect responses to specific questions, providing quantitative data.
- WRITTEN SUBMISSIONS: Accepted online and in person.

Mixed Method Research

Mixed method research seeks to bring qualitative and quantitative approaches together. Most people are familiar with quantitative tests and surveys. These approaches are great for answering the 'what kinds' and 'how many' questions. When this type of information is integrated with the rich and complex data collected via qualitative methods - the 'how' and 'why' information - an entirely new set of questions can be addressed.

Qualitative

Qualitative data are the words, pictures, audio, and/or video generated by researchers and research participants.

Quantitative

Quantitative data is any data that is in numerical form such as statistics, percentages, etc. The researcher analyzes the data with the help of statistics and hopes the numbers will yield an unbiased result that can be generalized to some larger population.

"You can have optimism and hope. It will burn out your entire community."
- Fire Chasers (2017), S1, E1

How We Engaged

Meetings

We wanted to know what you wanted to talk about, and you were aware we were there to learn from you. We asked that you do it in an open and honest way, while being respectful. You did, and we thank you sincerely. A total of 247 conversations happened over 29 topics resulting in 3,296 post-it notes full of comments from 769 residents.



Survey

Open to any resident of the Cariboo, it asked 41 questions about emergency response, communications, recovery, and community consultations. A total of 1,209 people completed the survey, resulting in 49,569 answers.

Facebook

Began with a live and interactive video presentation, which was converted into a post, both of which sought answers to similar questions we asked in meetings. 1,984 people participated in the Facebook feedback and 684 engaged in the conversation.



AGENDA

30 minutes - TRADE SHOW

30 minutes - OVERVIEW PRESENTATION

60 minutes - SMALL GROUP DISCUSSIONS

WHAT TO EXPECT

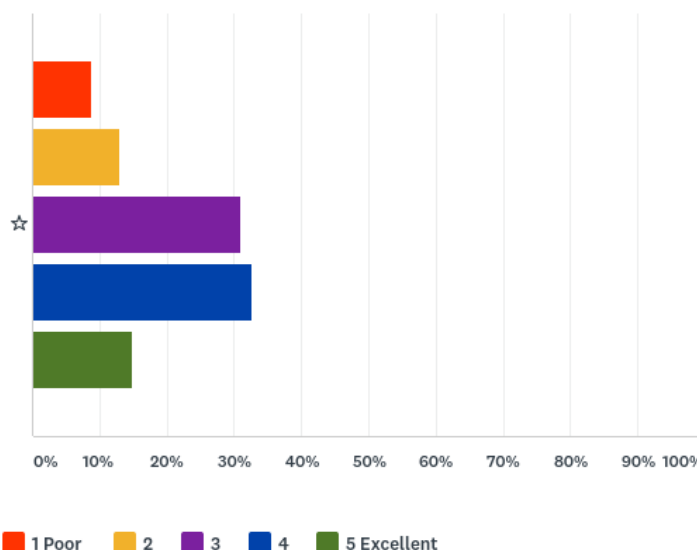
- All are welcome to this family-friendly opportunity to learn about this summer's emergency response
- Respectfully share your thoughts on the wildfire emergency response and challenges in recovery and be part of solutions
- Multiple agencies who participated in the emergency will be attending
- A step in moving toward recovery

IT IS NOT

- An open microphone. All people will have equal opportunity to speak during small group discussions.
- We are focusing on the local government level and our response. It is not an inquiry.

building communities together

Q1 How would you rate the overall response by all agencies to this summer's wildfires?



Survey responses from 1,209 residents indicated a weighted average of 3.32

Questions We Asked

Community Consultation Meetings / Facebook Live

What would you like to talk about? - Small group discussions took place on top topics chosen by each community

What went perfect, okay and awful?

Did you know the difference between an order and alert prior to this summer?

How did you receive information (during the wildfires)?

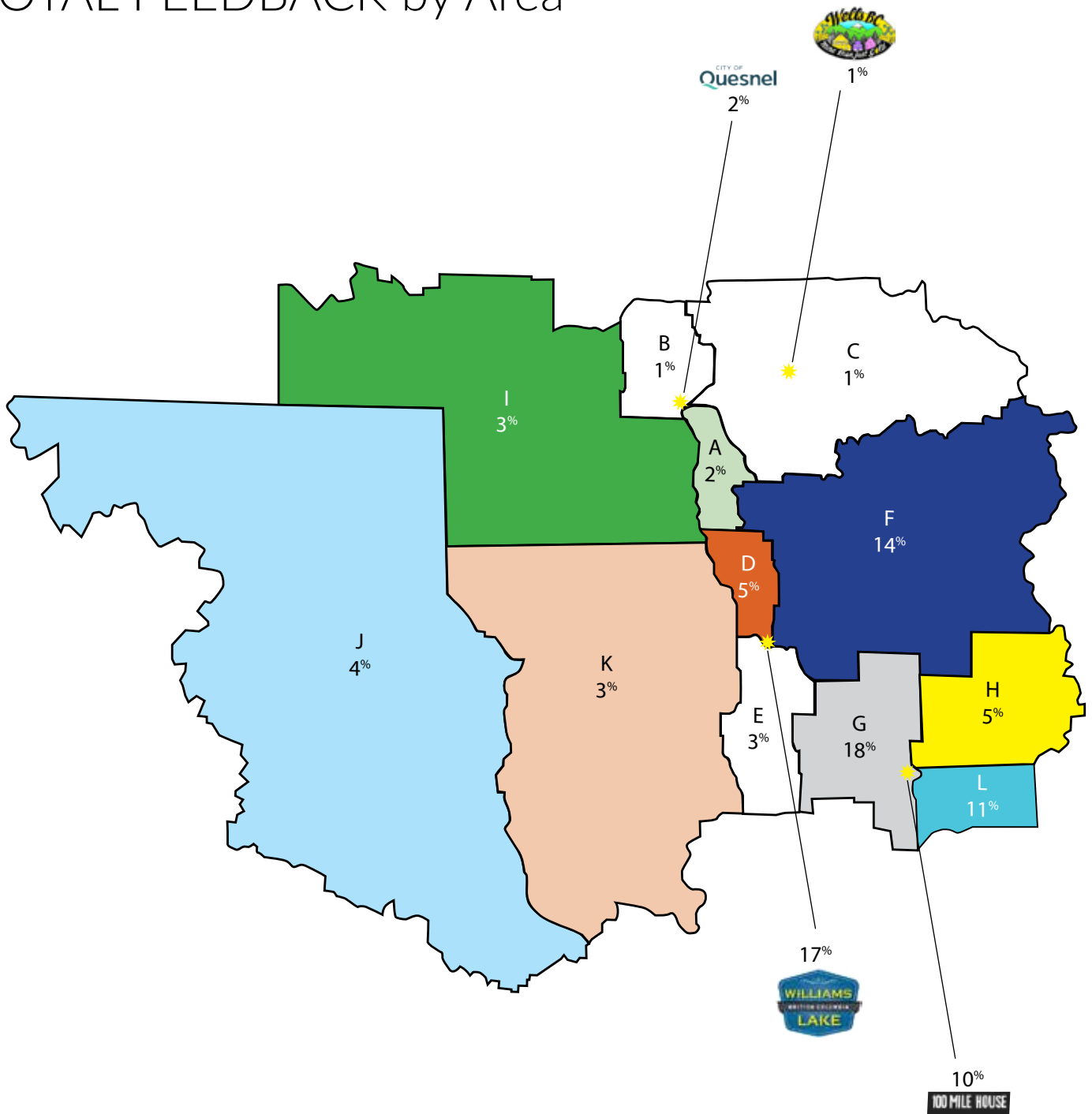
What needs do you have in recovery?

Survey

1. How would you rate the overall response by all agencies to this summer's wildfires?
2. How would you rate the overall response by the BC Wildfire Service to this summer's wildfires?
3. How would you rate the Province of British Columbia's response during the summer wildfires?
4. How would you rate the overall response by the Canadian Red Cross to the wildfires?
5. How would you rate the overall response of ESS (Emergency Social Services) during the wildfires?
6. How would you rate the overall response by the RCMP and Armed Forces to this summer's wildfires?
7. How would you rate the overall response by your local fire department to this summer's wildfires?
8. How would you rate the overall response by Search and Rescue to this summer's wildfires?
9. Where do you live?
10. How would you rate the overall response by the: City of Williams Lake, District of 100 Mile House, City of Quesnel, or District of Wells, during the summer wildfires?
11. How would you rate the overall emergency response by the Cariboo Regional District to this summer's wildfires?
12. How many times were you evacuated?
13. What level of impact did you experience from this summer's wildfires?
14. How would you rate your mental health prior to the wildfires?
15. What impact did the wildfires (during and after) have on your overall mental health?
16. How would you rate your mental health today?
17. What impact did the wildfires have on you financially?
18. Prior to the wildfires, were you worried about your ability to financially survive the next six months?
19. Today, are you worried about your ability to financially survive the next six months?
20. How do you feel about your future?
21. What impact (negative or positive) did the wildfires have on you socially?
22. Do you avoid public settings (community events, meetings and physical and social activities) more now as compared to one year ago?
23. Looking to the future, do you have unmet needs (financial, social, mental) as a result of the wildfires?
24. Were you aware the CRD has a Recovery Manager to help with those who have unmet needs?
25. Did you hear about the community consultation meetings?
26. How did you hear about community consultation meetings?
27. Did you attend a community consultation meeting?
28. Did you find the community consultation meetings...
29. How would you rate the structure/schedule of the consultation meetings?
30. How would you rate the facilitator of the consultation meetings?
31. How would you rate the format of the community consultation meetings in providing an opportunity for you to be heard?
32. How would you rate the Cariboo Regional District's communications during the summer wildfires?
33. What ways did you receive information about the wildfires and related emergency response?
34. Did you find information on wildfires from all government sources...
35. What do you have for communication at home?
36. What is your age?
37. What is the highest level of school you have completed or the highest degree you have received?
38. Which of the following best describes your current occupation?



TOTAL FEEDBACK by Area



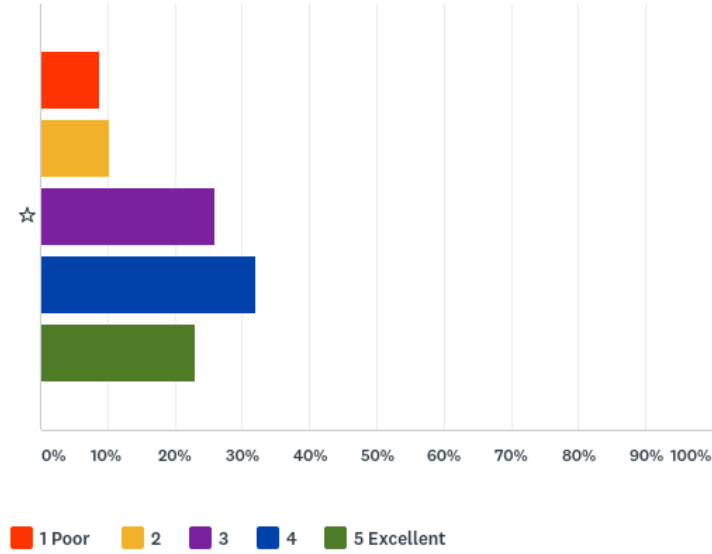
53,292
TOTAL DATA POINTS



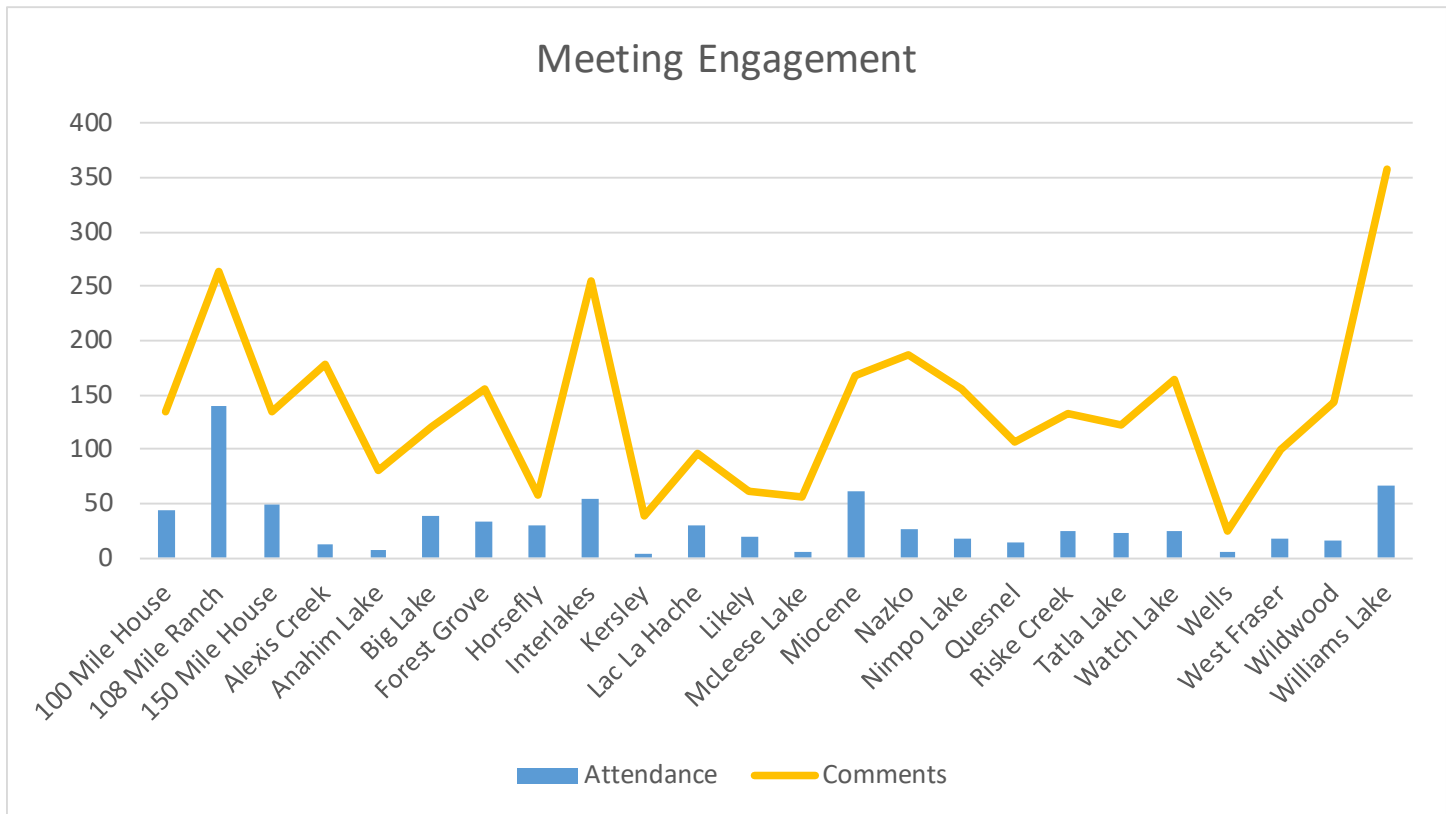
*A data point includes each comment, question, response to a survey question, and Facebook comment.



Q14 How would you rate the overall emergency response by the Cariboo Regional District to this summer's wildfires?

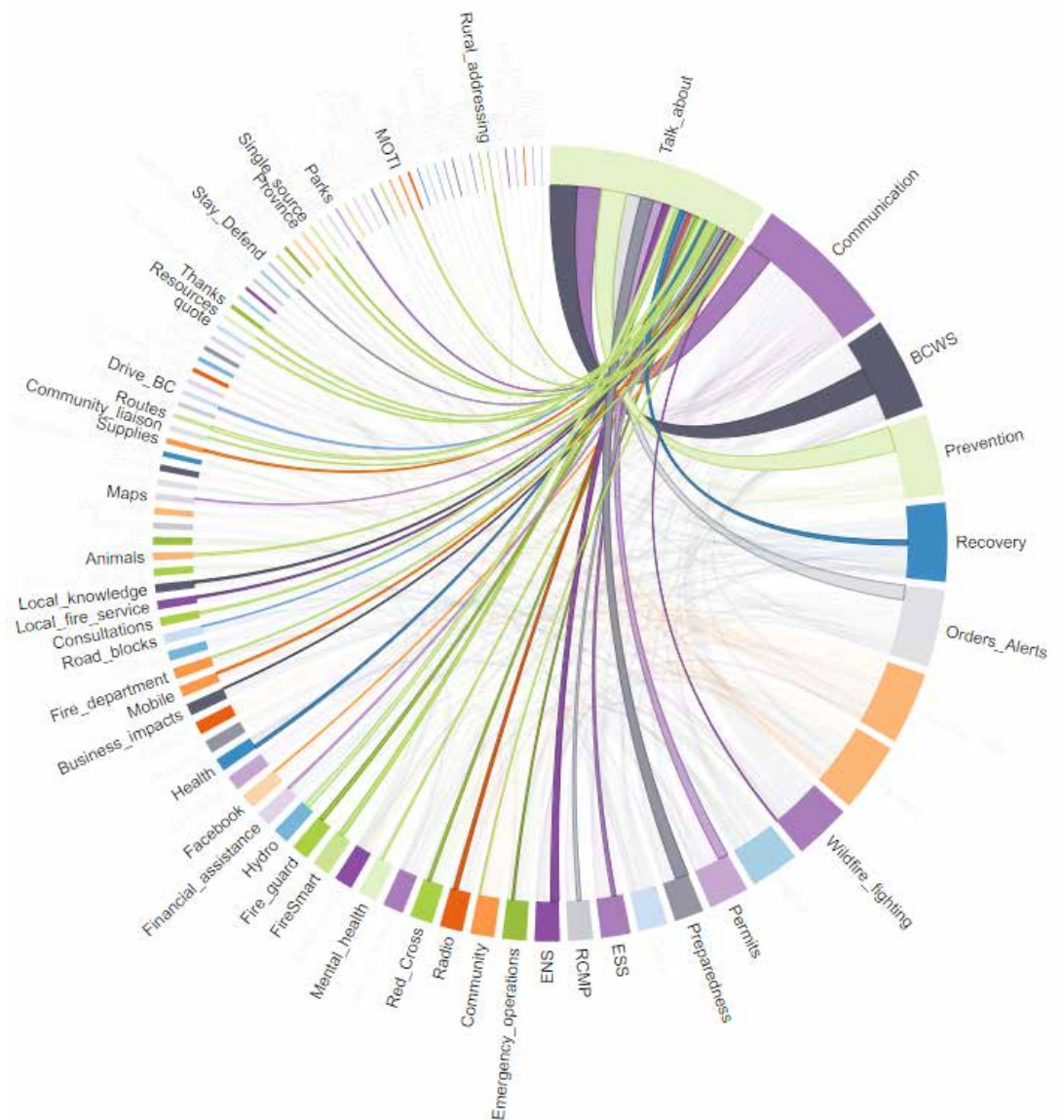


Above: 1,196 responses gave a weighted average of 3.51, above what survey respondents rated all agencies (3.32).
 Below: Number of comments (blue) and attendance (yellow) at 24 community meetings.



What We Heard

- We want our comments to result in change
 - We want local knowledge to be used
 - Communications improved during the fires, and still needs work
 - We want Community Liaisons to improve communications between communities and emergency operations
 - Facebook was the most used communications tool
 - We loved the video updates
 - There was a major gap in communications for those outside mobile, radio, or Internet service areas -
- which is a significant area of the region
 - Wildfire firefighting did not meet our standards
 - Look at residents as assets, not liabilities
 - Orders and alerts stayed in place too long, and may have been premature
 - RCMP brought in to help need to respect local knowledge and rural residents
 - We will stay and defend as we can't move our animals, support us
 - Community support!
 - We appreciate you coming to listen
 - Thank you!



Nearly 4,000 comments discussed hundreds of topics throughout 24 consultation meetings. Every conversation began with the question “What would you like to talk about?” This is a visual representation of the topics residents chose.

What We Heard - Your Comments

A random selection of comments from the consultations. Comments focused on areas under regional jurisdiction.

What would be perfect is for this info to be listened to and actioned on, not just put into a report and shelved (as in the past) / Committees formed to action recommendations - use local ideas and expertise - especially in Chilcotin. (Alexis Creek)

More in-depth info needed on fires and locations from BCWS. (Interlakes)

Tourism operators don't have the same sized lobby as the ranchers and the loggers. Tourism is a sector that needs both recognition and support. (Nimpo Lake)

Mental health/anxiety support at least one year into the future. (150 Mile House)

Depression and anxiety - have not felt that way before - may get worse. (108 Mile Ranch)

Concerned about order - have livestock etc. and there has to be a better way when have animals and property to protect. (West Fraser)

Streamline access/permit system (100 Mile House)

Do not feel that this will get our concerns addressed. (Wildwood)

We have begun the process to FireSmart our property, but three lots adjacent to our property have been cleared and have large piles of wood debris remaining. These are definite fire hazards and there is no one on the lots to clean up the debris. Can anything be done to deal with this issue? (Facebook)

Many hoops to jump through for permits. CRD, cattlemen, etc. (Anahim Lake)

Why was there not a 24 hour radio service providing current info and useful updates? (Williams Lake)

Identifying and communicating with miners. (Wells)

Develop a local plan for mitigation, interface, preparedness, equipment, local knowledge. (Riske Creek)

Cell towers burnt - added to those without cell already (normally) (Watch Lake)

Abundance of talented resources within our community that were willing and capable. (Big Lake)

Ongoing impacts from the 'trauma' (feeling vulnerable). (Forest Grove)

Firefighters signing up from all over Canada and the world, to help us. (Interlakes)

Why did it take so long to evacuate Williams Lake? (McLeese Lake)

Help for the small guys...not farm status or small businesses (as main income) but loss of income just the same. (Nazko)

Communications where there is no communications - more cell towers Likely and Wells (Quesnel)

Lack of communication shared between agencies

(RCMP, Military, BCWS, CRD etc.) (Nimpo Lake)

Used to have 12-60 fire wardens available then funding was reduced and cut unit, no funds left and local knowledge gone. (Nazko)

Radio station specifically for emergency info only. (Horsefly)

Volunteer fire departments need credit for door-to-door visits. (Forest Grove)

In Fort McMurray, the emergency notification system was used to provide daily updates to evacuees and community members. (Big Lake)

Can the CRD give people a couple hours notice on order being made to give them time to connect with their families, pets, emergency supplies, eg. A 'grace period' (Anahim Lake)

Why was sprinkler protection not available at the start of the fires. (Miocene)

Community was brought closer together. Lots of offers to help. (Likely)

Firefighters did not know about pass system and almost arrested when had to go get fuel. (Wildwood)

Air quality was worse when we were called back compared to when we evacuated - Why we could not wait until air quality better to call back? (Williams Lake)

Equipment caches and training needed. (Tatla Lake)

Financial support for people, area isn't going to recover in our lifetime. (Nazko)

Very happy with CRD communications. (Interlakes)

What about people who didn't have Facebook: No phone calls, had to seek info (Wildwood)

Best ways to reduce fire risk on our property? (108 Mile Ranch)

It was great to be able to share accurate videos on Facebook community groups. (West Fraser)

Use a central person in the community to be a conduit / key person to check info with and dispel rumours. (Tatla Lake)

August 12 house burned due to back fire. Helicopter in the air at Bald Mountain but no warning before fire hit homestead. (Riske Creek)

Taking permitting staff off their jobs. No permits went through all summer. (Quesnel)

Lack of co-ordination between different districts (CRD/ TNRD; Kamloops/Cariboo Fire Centres) (Watch Lake)

ESS volunteers needed a guide book. We got wrong info and didn't register in Kamloops. (Williams Lake)

Radio - 100 Mile House - no service in Interlake area. (Interlakes)

Informing people who lost homes and structures. (Nazko)



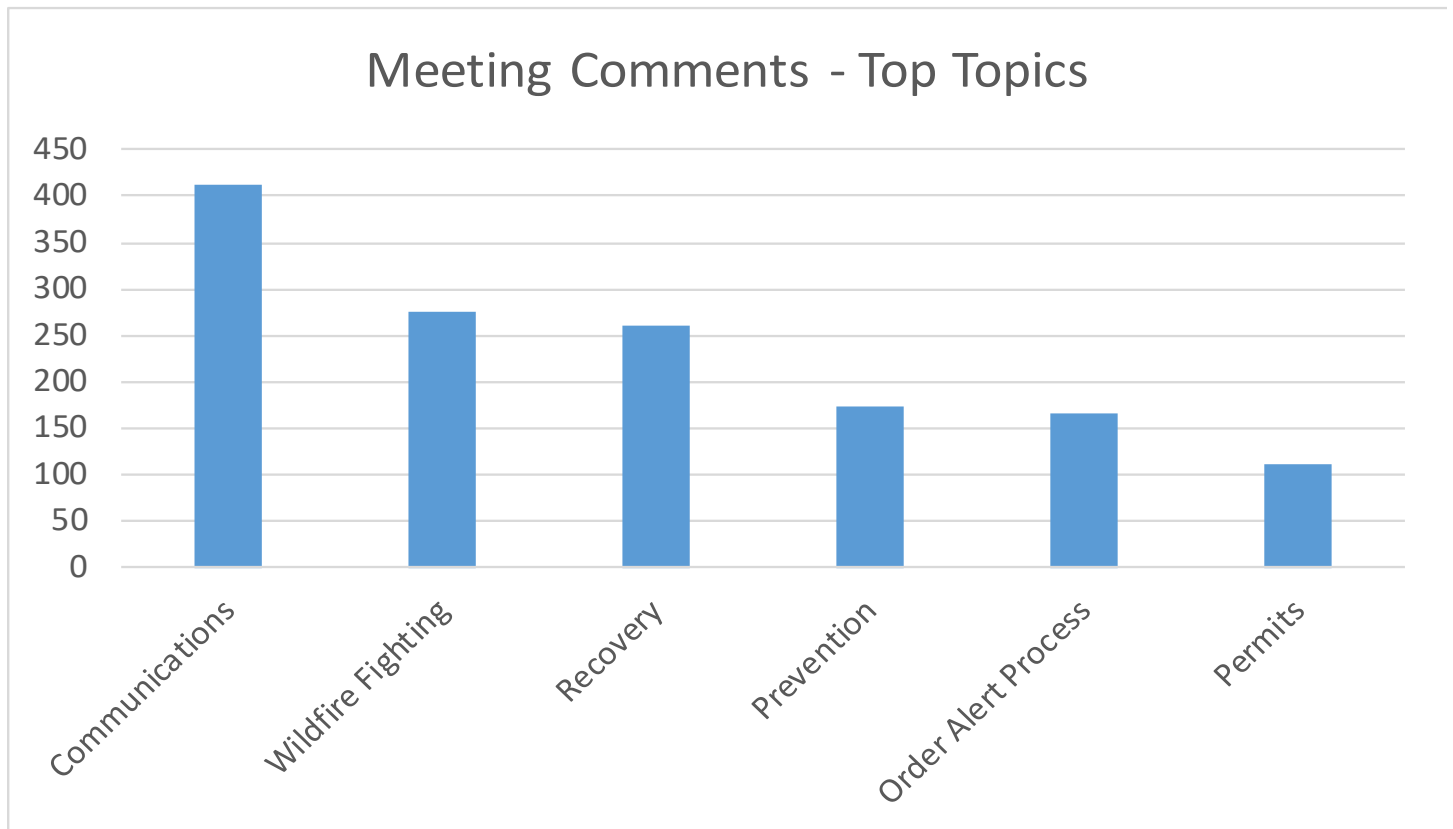
first place. (Nazko)
 How are governments going to work together to mitigate wildfires so close to communities i.e.. Fuel suppression - deciduous trees as fire breaks etc. (Interlakes)
 All things considered, I have admiration and respect - all heroes. (Miocene)
 Does Williams Lake or CRD have an active ESS team who meet and train regularly? (Williams Lake)
 Road maintenance and trees down. Survey areas for danger trees. (West Fraser)
 More detailed information about local fire status, attack strategies and available resources. (Facebook)
 Temporary cell tower would have helped with communications. Cell coverage an issue. (Nazko)
 Lots of animal loss. (Riske Creek)
 Need to have permanent emergency evacuation route other than Highway 97 north and south. Routes should be maintained and signed. (People got lost trying to use alternate routes) - need better signage. (Lac la Hache)

No need to be heavy handed. Able-bodied can get themselves. (Anahim Lake)
 Closed roads need to be better marked with detour signs etc. (Miocene)
 Homeowners have a role to play in protecting their own homes. (Kersley)
 Log strategically to protect communities, and tie into natural breaks to prevent large fires. (Nimpo Lake)
 Moving (evacuating) seniors out can have a big impact;

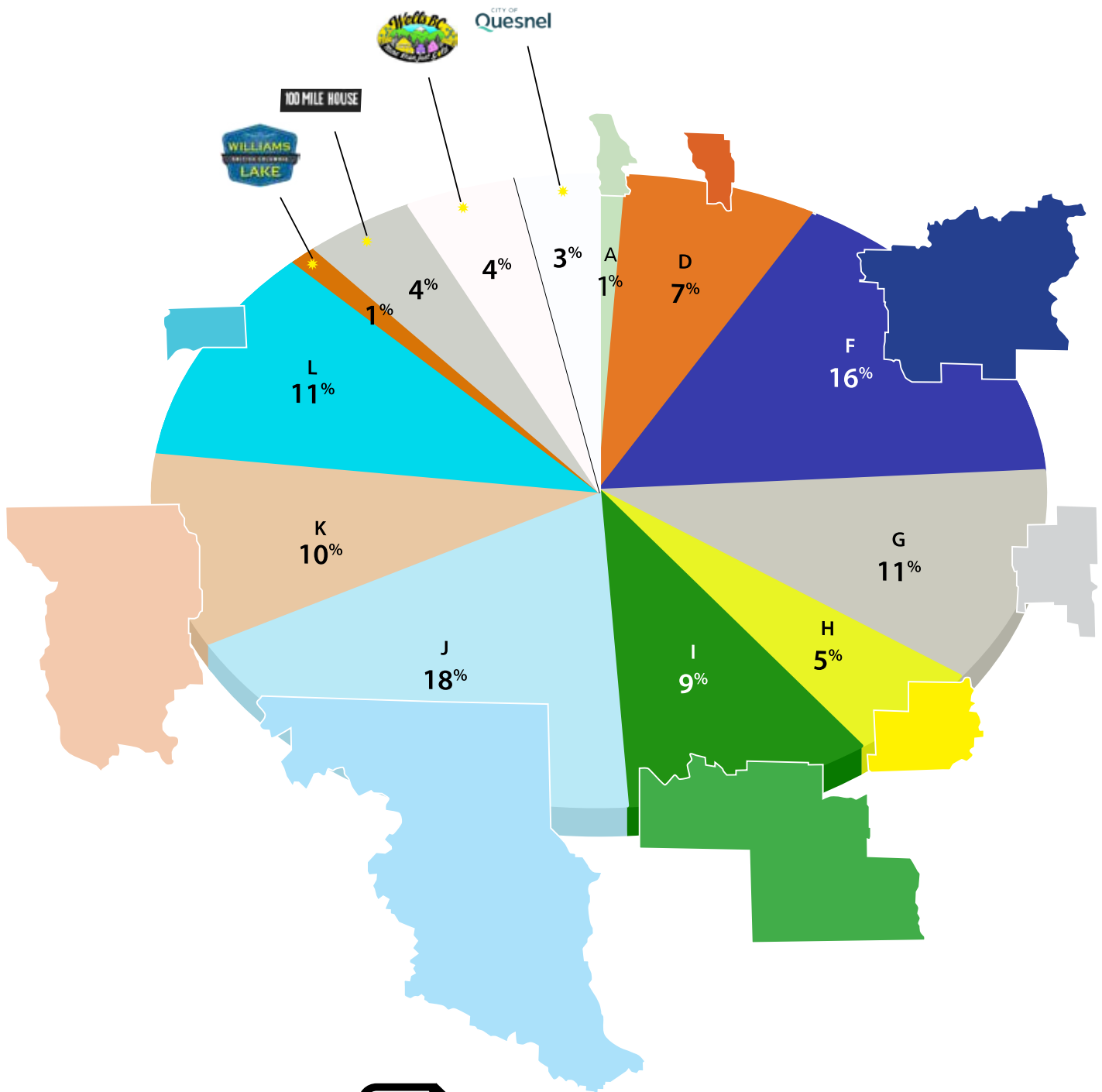
they may never recover. Some even passed away. (Quesnel)
 Having one official source for communication would be helpful. (100 Mile House)
 So many levels protecting themselves - not telling us the truth about what happened, is happening. (West Fraser)
 Very difficult to get information during the early days of the fires. (Facebook)
 Social and mental support for all. Have stress debriefs set up/ recurring basis and in small rural communities, not just Williams Lake, etc. (150 Mile House)
 People speeding; cows killed on road. (Likely)
 Ranching industry cannot evacuate quickly - too complex. Cattle, equipment, crops, dogs, horses etc. Where to go? (Alexis Creek)
 Stress supports, prolonged stress situation. (Interlakes)

Maps RCMP were provided were hand drawn and wrong. (Watch Lake)
 CRD communications - when house lost, why hear from Facebook? (Wildwood)
 Well informed exit strategies. (Wells)
 Emergency Alert, no power, no cell, no phone, no Internet. (Miocene)
 Elder safety net. People without vehicles. Community communications. (Quesnel)
 How can people call in to retrieve the order / alert information. Use of provincial communication services i.e. BC One (commercial services). (McLeese Lake)

Meeting Comments - Top Topics



INDIVIDUAL COMMENTS by Area



3578
TOTAL COMMENTS



Too late for prevention. (Watch Lake)
Materials for people not on order but isolated (medications). (Tatla Lake)
Hard to find info about agriculture support during emergency (Nazko)
More cell towers and connectivity infrastructure needed, particular out west and east but really everywhere. (Williams Lake)
Valued community members one day, to enemy next. (Nimpo Lake)
People taking back roads to get by road blocks - dangerous, could get stuck and no one knows where they are. (Likely)
Emergency preparedness starts with individual. (Lac la Hache)
Single route out of Ulkatcho. This continues to be an issue during disasters. (Anahim Lake)
Under a state of emergency, could local firefighters be able to go ahead without waiting? (Horsefly)
Support for people who lost house with no insurance. Seniors 90+yrs. (Interlakes)
Appoint 1 or 2 people in rural communities who can be designated to go into evacuation order areas, turn on sprinklers, water plants, feed animals. (Forest Grove)
Not knowing which road to take while evacuating. (Big Lake)
When power goes down - no computer can be used. More information by radio would be of help. (Lac la Hache)
Need an EOC contact person direct to communities. (Likely)
Not too many sites! Single site or email contact and get up-to-date info. (Interlakes)
People had to get permits to get home to Kersley (on alert) - inconsistent passes - added to stress of alert. (Kersley)
Timing for permits made it really hard to get permits when you're evacuated - get permit at 4pm have till noon. (Miocene)
No cell service, no pay phones (not working). (Likely)
Appears that logging companies were assessing for their own gain / mitigate losses - impacted decisions / influenced BC Wildfire. (Nimpo Lake)

Excellent decision to keep on community liaison throughout. Should be more in all departments. (Nazko)
Would like to see the regional districts work together to share info and intelligence. (Interlakes)
Not everyone has a phone, email, cell phone coverage non existent. Scatter gun approach to communications! (Forest Grove)
Need to co-ordinate the issuing of permits between all agencies. (Tatla Lake)
Heavy fines on stronger laws on discarding cigarette butts (150 Mile House)
Exit routes for residents / tourists. (Wells)
Felt no help from CRD or TNRD - did evacuation order on their own with no help. (Watch Lake)
Evacuation alert lifted notice didn't mention Kersley by name. (Kersley)
Permit done when alert put on - or prior to. (Nimpo Lake)
Was evacuated from the 108. News of evacuation from neighbors, no sirens from fire hall, was surprised not to hear them. (Facebook)
Local fire department. Fire hall was used to contribute to firefighting efforts - need more compensation. Draw on the resources but only compensated \$ 200 for use of hall. Local volunteer fire department not paid and lost income for two months. (Big Lake)
Yearly passes for ranchers etc. (to qualify to access through road blocks) (Anahim Lake)
Media ignoring BC wildfires yet reporting US hurricane for one hour. (Watch Lake)
No ambulance service - in an evacuated area (not good for volunteer fire department). (Miocene)
Where is the incentive for private landowners (neighbours) to clear/FireSmart their properties? (Idea=break on property tax). People are relying on insurance but there may come a time when insurance companies may not insure property if it is not FireSmart. (100 Mile House)
Where can counseling services be accessed? A list could be published (over and over again) (Williams Lake)
Want a meeting after the report is on to talk about the report findings. (Interlakes)
Community support tremendous. (Forest Grove)



Historical Impacts on Communications

Historical ties between communities can impact communications for decades and even centuries.

As a positive example, there is a strong connection between Boston and Halifax which remains 100 years after the Halifax explosion, a disaster that decimated the city and killed or injured 11,000 people. Boston immediately sent a train with supplies, nurses and doctors. When Boston needed help years later, Nova Scotia answered, sending nurses. The connection remains strong today, with Nova Scotia gifting a Christmas tree to Boston every year, and the people of Massachusetts continue to have Nova Scotia as a top tourist destination, and have named many communities after those in Nova Scotia.

A smaller example exists in every community, when two families have a dispute and don't communicate for years or even generations. This is displayed in the Netflix program "The Ranch" when two neighbouring ranchers had not spoken in decades over a small dispute, which bridged to the next generation. We heard similar cases while completing consultation meetings, where one rancher was there and another would send their thoughts with someone else because they wouldn't attend if "they" were there.

This intentional separation breaks down communication within communities, and must be considered as a potential issue if there are larger pockets of disconnection between communities. This was also present with those that are permanent residents and others that are summer residents only.

A serious disconnection exists in the Chilcotin region which dates back to 1858, and still has impact on today's communication between communities.

In summary, "it began with the gold rush of 1858, the smallpox epidemic of 1862, and the Chilcotin War of 1864." As noted in Sage Birchwater's Chilcotin Chronicles, "These three events, which occurred in a span of just six years, worked in tandem to transform the heart and soul and nature of British Columbia."

Events such as this impact connections within and between communities of people, geographic, cultural, and business, which are present today. This reduces the effectiveness of mass communications, which generally uses the same message for all communities when in crisis, often due to urgency. While urgency and crisis often bring communities together, as this disaster did, it will never bring together communities fully or quickly.

First Nations

Racial Divide

The Chilcotin War, and years before and after left a divide between white and First Nations communities which has not only created communications challenges, it has resulted in land title changes. These changes have impacted the relationship between the communities, and left non-Aboriginal tenure holders in a difficult financial position in the years prior to the wildfires, and made the wildfires hurt their finances much deeper. The frustration was heard during a five-hour long information meeting held in Nimpo Lake on August 23, 2017, the longest meeting in the disaster.

First Canadian Land Title Decision

On June 26, 2015, the Supreme Court of Canada rendered a historic judgment and declared Aboriginal title to approximately 1,900 SQ KM of the original Williams Title Case Claim area in the Chilcotin. Aboriginal title is a legal term that recognizes interest in the land. It is a collective interest in the land, the right to use and occupy title lands that flow from being the original residents before European settlers arrived. This landmark decision includes a portion of Ts'il'os Provincial Park, which take in the two Provincial Campgrounds – Nu Chugh Beniz in Nemiah Valley on Chilko Lake and Gwadats'ih at the headwaters of Chilko Lake and is the traditional territory of the Xeni Gwet'in people.

The Xeni Gwet'in continue to invite visitors to join them and enjoy this pristine area, rich with wildlife and breathtaking views, while respecting the Xeni Gwet'in and Tsilhqot'in rights of the traditional users, local businesses and visitors.

Ranching, Fur Trade and Gold Rush

In the 1950's ranchers employed First Nations, although they did not live or eat with white people. In the Museum of the Cariboo Chilcotin, photos with First Nations and white people name only "Indian" as the description for First Nations individuals, while white people in the photo are named.

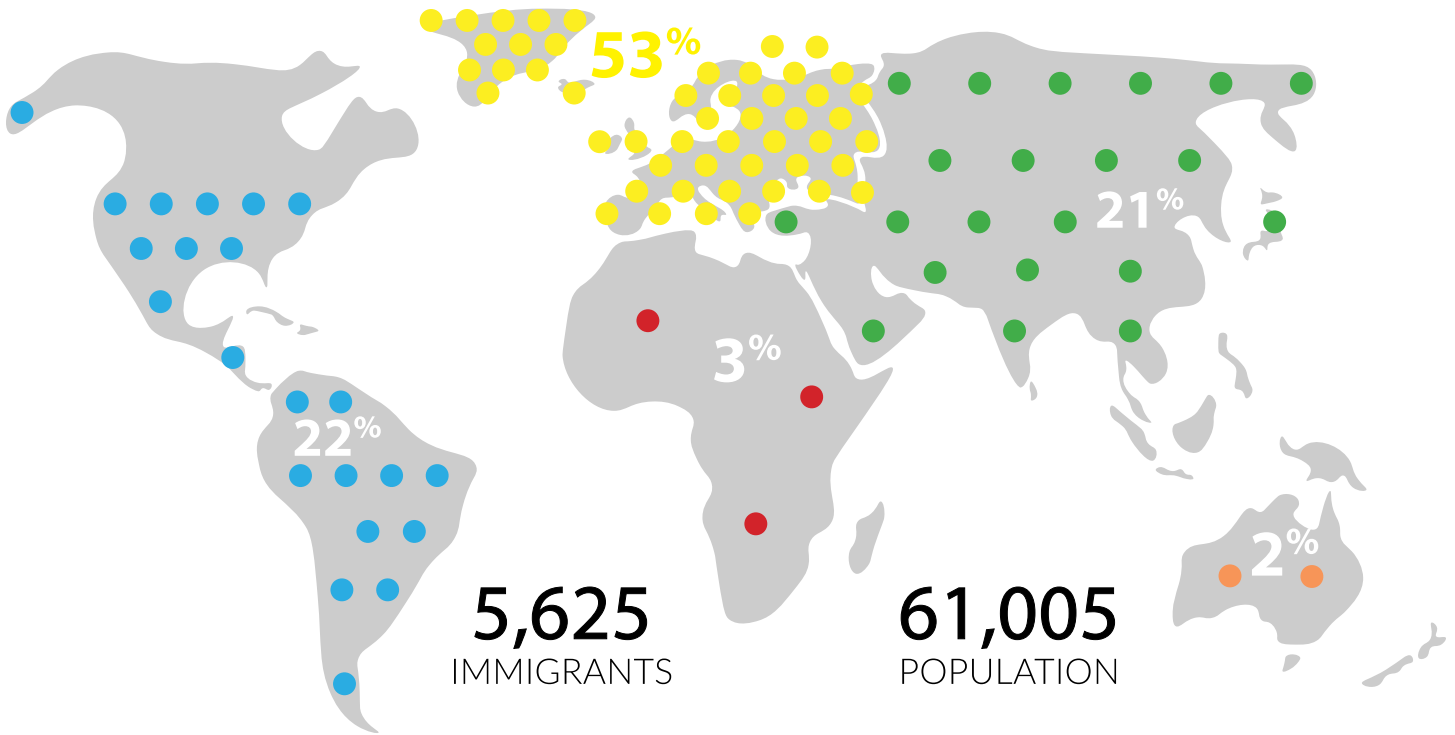
The fur traders had no issue getting along with First Nations. They seemed to have a respect for each other and worked together through that period, with only a few issues.

After the gold rush, there were no wars, but there were disagreements between tribes which were no more than



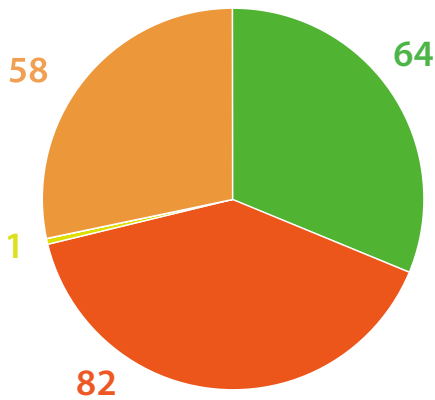
CITIZEN DEMOGRAPHICS in Cariboo Regional District

WHERE ARE IMMIGRANTS FROM?



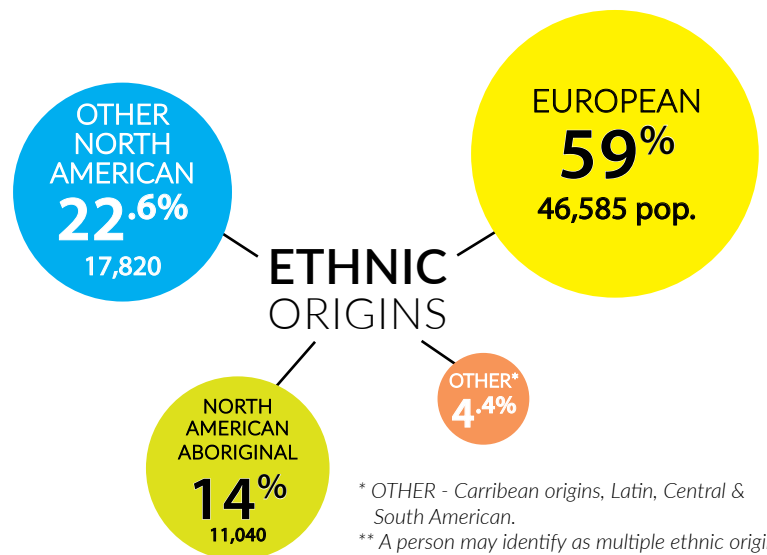
NUMBER OF LANGUAGES

(Excluding English)



INDO-EUROPEAN	3,270
ABORIGINAL	1,005
FRENCH	590
MULTIPLE RESPONSE	585
OTHER	1,320
ENGLISH	60,555

IMMIGRANT GENERATIONS WITHIN CANADA



* OTHER - Carribean origins, Latin, Central & South American.

** A person may identify as multiple ethnic origins and multiple languages.



neighbours not getting along. When it comes to disaster, neighbours help. However, there are culturally different practices. For example, in 2017 two reserves stayed behind against government wishes and saved areas with their historical way of fighting fires.

Residential Schools

We acknowledge the legacy of residential schools is one Canadians should learn about and be understanding of the deep negative impact on First Nations and challenges this legacy presents in our relationship with them going forward. Within the Cariboo-Chilcotin, there were multiple residential schools.

It was a part of a “colonization of the land once exclusively the domain of Indigenous societies,” says Birchwater, “The premise of the residential schools across Canada was to teach Indigenous children how to fit into the now-mainstream Euro-Canadian society. More to the point, they were institutions set up to deprogram children from their Indigenous heritage. A popular slogan in residential schools was to ‘kill the Indian in the child.’”

We do not know the full impact of residential schools, however, with many only closing in recent decades, there are many alive who survived. Survival may not be the best term to describe, as they were often tortured into submission to a Euro-Canadian standard, which ultimately left the person in an empty shell with no knowledge of who they are or where they belong, with a low level of trust of authority. It also left only 1,005 people who speak an Aboriginal language as their mother tongue of the 8,550 living in the CRD.

Today

Today, bands are perceived to have terrible communication both between bands, internally within their band and between bands and local governments. This is not unique to this region, and is similar across Canada. A knowledge challenge may make this worse, as education levels among First Nations are lower than the overall Canadian population. Two examples: 1) There is little opportunity for white people to mingle and get to know First Nations people. 2) A Chief criticizing another Chief is huge deal. Mayor criticizing another Mayor is normal.

During consultations, there was little attendance by members of First Nations communities, with under 20 attending sessions. While this is unfortunate, First Nations are governed by their own governments, and make their own decisions on emergency response, including orders and alerts.

Racism still exists in both white and First Nations communities, however, it is much better than it was. Racism today is often related to rights, and what one group of people are perceived to have for rights compared to another. Race is used as the identifier to distinguish the two groups.

Immigrant Impact

Immigration and Language

While the majority of the CRD is made up of third generation immigrants, 26% are first or second generation immigrants. It may explain why there are a 206 non-English mother tongue languages in the CRD, spoken by 6,185 people.

We heard many European accents while completing consultations, with most coming from Germany, which matches ethnic origins of 12,140 residents compared to 17,820 with Canadian origins (non-Aboriginal). In fact, 46,585 residents are from European origins.

53% of new immigrants are from Europe, with the Americas and Asia making up 22% and 21% respectively. Indo-European languages are the mother tongue of 3,270 residents, with Aboriginal, French and Multiple languages being the next three largest categories.

While language is often not thought of as a barrier to communication in disaster, it should be. Considering some people who speak only English were confused and overwhelmed by information, imagine someone who uses English as a second language. Then mix in ethnic differences, and you have a challenging mix of understanding an emergency message. Simply put, with 206 languages, there are at least 206 interpretations of what the message is.

Conclusion

Communications today is tied to many moments in the region’s history. When building communications strategies, understanding historical context is important as barriers may impede important information reaching all communities. Historical impacts may hinder an important message from spreading as it will follow only natural lines of communication. Even in disaster, people will do only what is natural in early stages.

Sources: Diana French, Historian; Chilcotin Chronicles, Birchwater, Sage, 2017; Cariboo Chilcotin Coast Travel Guide, 2017.



Recommendations

COMMUNICATIONS

Primary Source for Communications

When in crisis, and even more so in disaster, the amount of information is overwhelming to both those in information roles and residents and stakeholders receiving the information. While operations must happen independently, a single source of communications should be established once a crisis reaches beyond a smaller crisis.

Agencies providing information this time included, but were not limited to: regional districts, BC Wildfire Service (provincial base, dozens of Information Officers, and three fire centres), Interior Health, Cariboo Chilcotin Coast Tourism Association, provincial emergency operations, provincial government and various departments, City of Williams Lake, City of Quesnel, District of 100 Mile House, District of Wells, community associations, local fire departments. This was disseminated by media, on Facebook groups, by appointed and self-appointed community liaisons and others using information provided on multiple media including email, web site, social media, telephone and much more.

Most residents used multiple sources for information, and as you could understand, they were forced to.

It gives some perspective of how difficult it was to not only understand what was the most updated information, but what source was accurate. This was complicated by the sharing of incorrect and old information, which sometimes traveled much faster than factual information.

Various operations can assist by combining efforts into one communications source, which is made simple with the Incident Command System which promotes this through the structure, and adding liaisons as needed.

Recommendations:

1. Communications for each liaison agency must come under the EOC structure of the regional district. This includes all provincial, regional and local agencies. This includes providing a trained Information Officer who is assigned and located at the EOC for the regional district, and will be a key member of their agency information team, thus receiving full access to information for both their agency and the regional district. Of importance, those agencies with multiple operations, must provide a representative

EVACUATION ORDERS & ALERTS

DECISION-MAKING

- Local governments issue Orders & Alerts after:
 - Working with BC Wildfire Service to assess fire behavior and weather
 - Coordinating evacuation routes and road access with Ministry of Transportation
 - Consulting with RCMP to maintain security of order areas with checkpoints and patrols

**** Public safety and wildfire activity are biggest consideration for decision**

IF TIME, RCMP or other groups like Search & Rescue, go door-to-door to advise of Evacuation Orders

RESCIND & RE-ENTRY

- CHECKLIST to make sure area is safe for return
 - Reduced wildfire danger
 - Damage assessments
 - Roads safe
 - Emergency services available
 - Utilities established
 - Resiliency Centre set up
 - Re-evacuation plan considered

STRUCTURE LOSS PROCESS

- Work with BC Wildfire Service to determine when areas are safe to complete damage assessments
- Once damage assessment complete, contact property owners before releasing general information to public
- Connect residents with losses to support agencies

Cariboo Regional District logo: building communities together

cariboord.ca

from each operation, in order to greatly increase communications across internal operations. This was shown to impact residents negatively, consistently, over the entire length of this disaster. This model is recommended for all regional districts in British Columbia.

2. Regional districts must also contribute to seamless coordination of communication activities during disasters across district boundaries, and may consider combining operations under one centre to combine resources, improve organization and information dissemination. We heard many times through the consultations that fires don't have boundaries, and boundaries mean nothing to residents during disasters. Therefore, this is supported by both nature and residents.

Information Officer Group

Many Information Officers met for the first time during this disaster, which is normal. However, many who were key partners had not worked closely together prior to this. That must change.

Recommendation:

Information Officers must coordinate a group which develops a communication plan and structure to be used in emergencies.

This group should meet once quarterly to discuss challenges and gaps, and continually develop the structure to support their coordination as a group during and after emergencies.

Consistent Spokesperson and Host

The CRD consistently used one of two primary hosts of video/audio throughout the majority of the disaster and one of three primary media contacts. For operations it was Communications Manager, Emily Epp, who was replaced by Consultant, Tim Conrad, when Epp was on time off. For media, the primary spokesperson was CRD Chair, Al Richmond, and backed up by Epp/Conrad.

This approach was planned, both who would serve as primary and secondary spokespersons, and scheduling their time to ensure one was always available. In addition, it was planned who would back up Epp and Richmond, particularly when videos were added as a tactic. When out of range of mobile communications for a period of time, they were replaced with Epp or Conrad filling the role(s).

It was also decided by operations that Epp/Conrad would be the primary hosts of the videos, with Mike McCulley serving as the primary BCWS host. This was to ensure each daily video update had a consistent host, to reassure residents who were sometimes struggling to track and judge authenticity of various information sources. These three served as trusted sources for information, which residents were quick to point out throughout consultations, along with Richmond in media.

Dr. Terry Flynn, Associate Professor of Communications Management from McMaster University, is conducting research on how professional societies, such as the Canadian Public Relations Society, play a role in developing communities of practice around emergency communications, in cases such as the wildfires, to support local communities and their public relations/community relations outreach efforts. This research included a trip to Williams Lake to interview Epp and McCulley, and will be released later in 2018. A review of the research is recommended upon release.

Recommendation:

Reduce the spokesperson roles to one primary and one secondary for each level of media. For local media and videos, there should be one spokesperson with one secondary. For non-local media and videos, there should also be one spokesperson and primary. This will reduce confusion, and increase response time. Generally, the local role should be filled by the Information Officer within the EOC - which is generally not accessible by those in political roles. Political leader(s) are saved for key moments, which are selected by the Information Officer, to highlight the importance of the information they will share. They should not be serving as regular contacts for media beyond those key moments, as they add an extra step of external communication for the information team, which was abnormal in this disaster and does not follow the EOC structure or best practices.

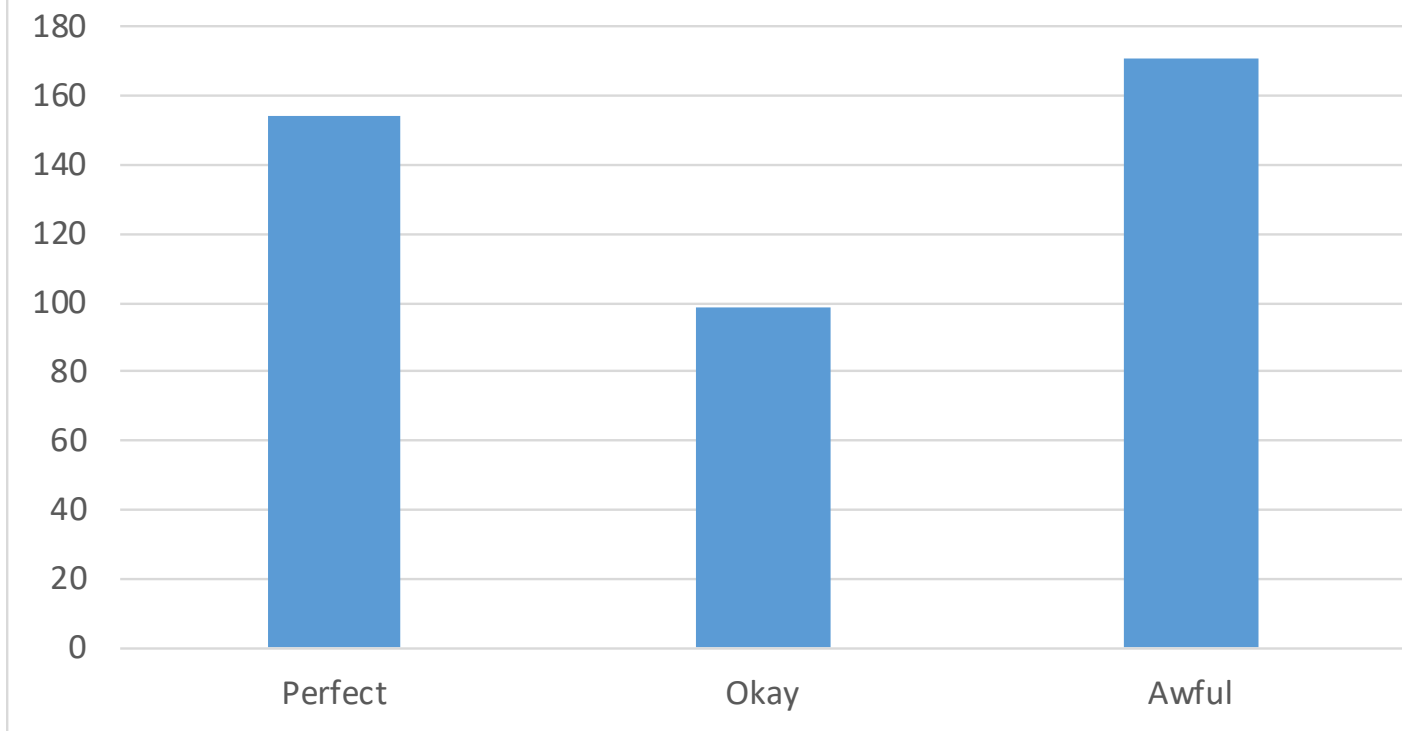
Increased Use of Social Media

Facebook was the top medium used by residents, despite significant areas not having access to the internet. 55% of those surveyed indicated Facebook was how they received information. Average daily reach on the CRD Facebook page was 76,977 over the 77 days compared to an average of 204 prior to the disaster. Due to volume and a lack of consistent information team members, most Facebook messages and comments did not receive a response throughout the disaster.

While Twitter was used by only 3% of those surveyed, it was a significant tool in reaching over 2.5 million people,



Comments - What went Perfect, Okay, or Awful?



showing it has a wider value, which falls into a trend shown with other disasters.

YouTube was used as a secondary video host to Facebook, and produced 27,896 views. Within the first few days of the information team using video to deliver messages, two videos were picked up by all three national news networks and used in their broadcast.

Recommendations:

Appropriate resources - one person on the information team tasked solely to social media when EOC is activated at Level 3 or higher. This will allow an opportunity to monitor activities and upgrade responses to individuals, which may answer other resident's questions as well, and will reduce calls to the information line.

Video

Over one million video views were tracked on Facebook and YouTube, with video was only used consistently beginning on July 31. With 103 videos produced in that time, it was an effective tool to relay important messages. In the later weeks of the emergency, Information was also able to extract the audio from the updates and put the audio on the information phone line for those without internet access.

CRD Communications is now prepared with the proper equipment to complete videos in interior settings and select exterior settings in the future.

Recommendations:

Increased use of video is essential in future emergencies. Using a laptop, camera, tripod, and microphone, recorded videos can be completed. The laptop must have Windows 10 (64 bit OS), Intel i3 or better multi-core processor, 2GHz or above, at least 3GB physical RAM (8GB required for HD and 4K videos), and at least 2GB free hard-disk space for installation (SSD-Solid State Disk recommended for editing HD and 4K videos).

For live video, a mobile cell phone booster, battery backup, mobile tripod and mobile phone are required.

To support video production, one information team member should be dedicated to producing videos at all times during Level 3 and higher EOC activations. This team member must have previous video production experience, and be able to also conduct research, coordination and interviews as required, or be supported by another team member who can conduct interviews.

Tasks include coming up with ideas for videos, arranging people to be in interviews, conduct interviews, work with

video equipment and editing software, and uploading to online services.

Audio

When the CRD was able to add audio during the fires, it opened the possibility of adding it to an online source such as SoundCloud, Mixlr, or iTunes. This opens up the use of the audio in a simple form for radio stations to pull sound bites. It also provides a low-bandwidth option for residents who cannot watch videos online.

Again, this requires appropriate resources to complete the task. In most emergencies, the same Information Officer can complete video and audio updates.

Recommendation:

Using audio from videos as a source, uploading audio to SoundCloud or similar, which at least matches videos and telephone audio updates. This would be included in the duties of the Information Officer tasked with video production. This will include creating short, seconds-long quotes to be used for radio sound bites, which can be linked in media-specific Twitter updates and media releases.

Email

Email is one of the oldest electronic communication tools, invented in the 1969 and made commercially available in 1995. Despite a lengthy lifespan, the tools to manage it have never developed to be ideal in a disaster. Emails simply overwhelm those trying to read and respond to them. As an example, important emails needed a follow-up to ensure the receiver did not miss it among the hundreds they were receiving every day.

Software used to send and receive emails was Outlook, while MailChimp was used by the information team to send emails to large groups. Residents were able to sign up for the list through the CRD web site.

Recommendation:

1. An alternate system to gather messages and align them to responses would increase satisfaction for residents, reduce response times, reduce staff hours, and reduce mixed messages to residents from multiple sources. This could be done with a frequently-asked-question database accessible online, and possibly by phone. This is a system which could be used in normal business operations, and populated and updated during an emergency.
2. For communication between agencies, there are multiple alternates to email including Slack and

Facebook, which would improve organization and ability to manage incoming and outgoing information into categories immediately. One should be selected and adopted by all agencies, and used during regular operations as well as during emergencies.

Public Education

There are a number of areas where public education can fill gaps between emergencies. While most residents knew the difference between an order and alert prior to this disaster, there were many areas where residents lacked knowledge in basic areas such as what an order meant, what a road closure means, and responsibility of agencies.

Included in this education should be kits created with basic information which can be distributed at road blocks, and contains education on terms and processes.

Recommendation:

Education campaigns in spring, fall and winter to prepare residents for emergency. Education on terms, preparedness and prevention should be a focus of the first year of education.

Significant Public Education to Reduce Human-Caused Fires

British Columbia: 53.7% of fires during the 2016 season were human caused, a total of 564 fires, which is well above the 10 year average of 38%.⁷

Alberta: 64% of fires over the last 12 years were human-caused. The number of fires has declined over the last five years, compared to a similar period a decade ago, however, the average hectares burnt in a season has increased from 78,018 to 234,601 hectares.⁸

With a cost of \$568 million to British Columbia in 2017⁹, wildfire suppression is not only costly, but the result of wildfires evacuated 65,000 residents across the province. Most of those evacuated were from the CRD.

Recommendation:

Significant public education planning and program to reduce the number of human-caused fires within the CRD. The education will focus on cleaning equipment, staying out of the forest when under high hazard, reduction of careless activities, and the impact of wildfires on residents.



Crisis Communications Plan

The region did not have a crisis communications plan, which includes the guides on what to do during emergencies and access to secured communications tools, as well as trigger points when resources are required and what those resources are.

Recommendation:

Develop a comprehensive crisis communications plan.

STATUS: Butterfly Effect Communications was contracted to create a crisis communications plan upon completion of the consultation process.

Business Communications

Specific communication for business, to provide guidance on what to expect, and timing, was not available during this disaster.

Recommendation:

Develop a communication toolkit for use in emergencies. This will include specific documents for businesses, which will help them prepare for evacuation, the impacts of evacuation on businesses, and tips upon re-entry.

Dark Web Site

The CRD web site, while an improvement over a previous version, was cumbersome to update and required significant instructions to complete the updating, addition or deletion of orders and alerts or other information. Residents also brought up that information was sometimes dated or difficult to find, enough-so they stopped using and went to other sources and the CRD Facebook page.

The web site is also hosted on a platform hosted by the CRD, which creates a significant risk if IT systems fail. Keeping in mind that when news breaks at a large



scale, millions of people can visit web sites out of curiosity. Of note, besides email and the web site, every communication medium used to deliver information was hosted on an external server.

Recommendation:

Creation of a dark site, which is turned on for medium and larger emergencies, and uses an external server. It is recommended this also integrate with social media pages used by the CRD. The dark site should be able to provide an archive of past emergency events for public record, and will still direct users to the CRD web site where applicable.

Elected Official Expectations and Ethics

Communication, response and ethics were inconsistent from elected officials during the response. This resulted in false information spreading, a lack of, or reduced level of communications and/or a substantial difference in the tasks an elected official was completing compared to a colleague.

Recommendation:

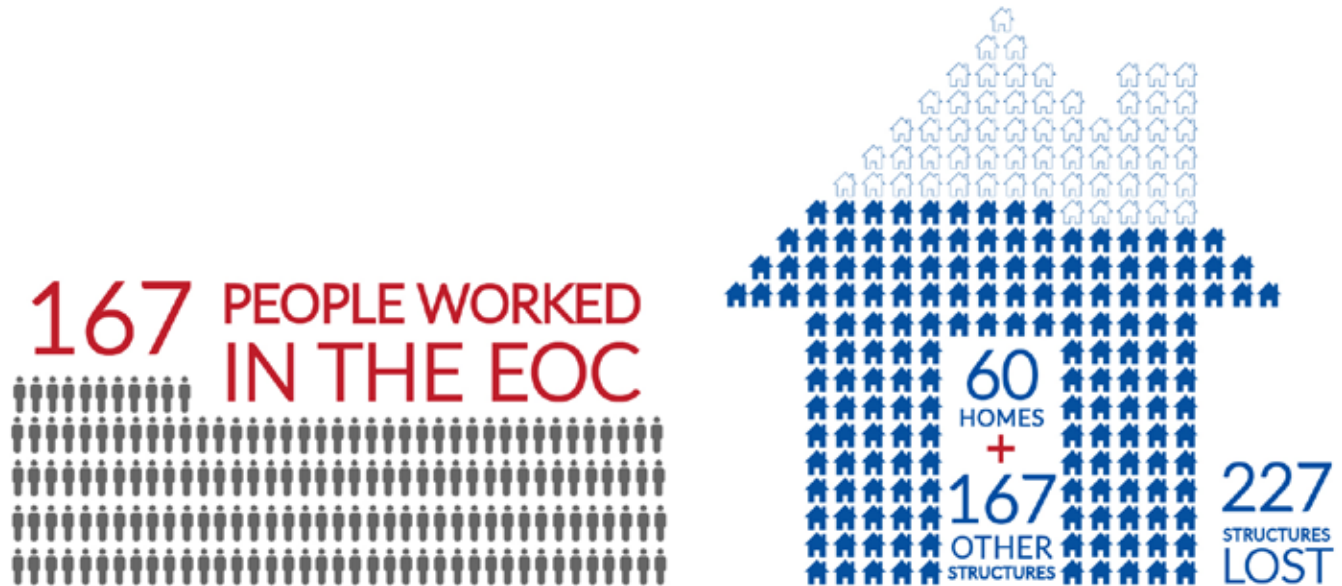
A policy and procedure on the expectations and role of an elected official during an emergency, including what are acceptable and unacceptable actions and behaviours.

Telephone

Telephone is one of the few ways for people to gain information during emergencies, no matter where they are located.

The CRD had an information line available when the EOC activated, which allowed people to gain information through a toll-free line. However, at times throughout the 77 days, over a third of the calls were unanswered due to a high volume of calls.

In August, emergency operations was added menus to the phone line which directed callers to an audio version of the regular video updates. This was helpful for those residents in areas with limited access to other



77 DAYS
JULY 6 - SEPTEMBER 20

communication tools, and provided them with regular accurate and timely information.

Permits and access were the top topics of calls analyzed. With improvements to the permitting process, the volume of calls can be greatly reduced, which is noted later under Permits.

Recommendations:

1. Providing regular recorded updates on a phone line should be used whenever the EOC is activated. These can be provided live with various partners, with recording placed on phone line as an option.
2. The information line must be opened within the first few hours of the EOC activation, and be open hours to match the emergency (even if overnight). Residents require the information line especially when an evacuation order or alert is put in place, to answer specific questions about their safety and property. Use of a menu and recorded messages can reduce the number of calls which need to be directed to an operator.

Radio

FM radio is the only current option available to residents living in or near urban centres in the CRD. Unfortunately, FM radio does not travel through or over mountains, and does not reach most rural populations.

The CRD has a portable FM radio transmitter, which is good for distances up to 30 kilometres dependent on geography, however, an AM transmitter can travel hundreds of kilometres.

The CBC decommissioned AM transmitters in the region over the last decade. Residents felt the decommissioned CBC transmitters were a responsibility of the national broadcaster that failed them during this disaster - not realizing their importance until gone.

Recommendation:

CBC consider either activating those transmitters across the country (this is not an issue just in the CRD) or handing over ownership of those transmitters to local agencies responsible for emergency operations. Preferable would be for the expert body, CBC, to engage these devices and ensure they are ready for use for emergencies.

Dependent on results with the CBC, the CRD should set up a network of AM transmitters which would be used for emergency information updates to all residents, especially those in remote areas who lack access to telephone, mobile, radio, and television networks.

Television

Television is still a widely-used communication medium, and the Weather Network (also used by CBC News) is a go-to source for weather information for residents.

Recommendation:

Request Weather Network to provide specific local updates regularly for areas with evacuations.

Internet and Mobile Networks

There is no internet or mobile access in most of the CRD. This is a major issue when emergency operations mainly use these mediums to quickly spread information such as evacuation orders and alerts. Internet access is absolutely necessary, and existing infrastructure will be overwhelmed the moment an emergency strikes. Residents will seek locations with internet, and those are extremely limited in rural areas of the CRD. Community halls we visited that had internet access were unable to handle small amounts of traffic from our consultation team, and would not be suitable in emergencies.

Recommendations:

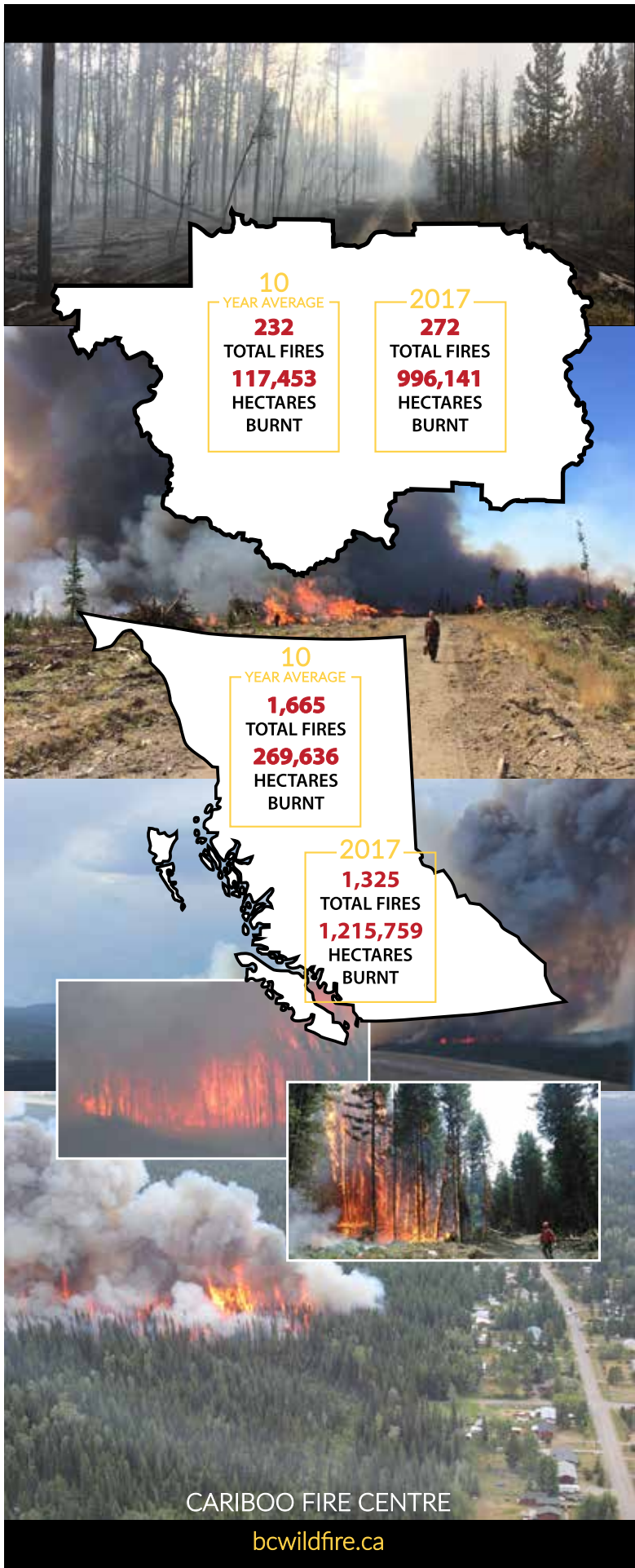
1. Upgrading internet access points at community halls which will be used as information or evacuation centres, to be ready for emergencies when residents will gather to those points to gain information.
2. Immediately request mobile internet and cellular boosting units to be set up in areas impacted by an emergency which have no, limited, or overwhelmed internet/cellular service in their area.
3. Advocacy for cellular network expansion. Strong advocacy to federal and provincial governments to ensure service is greatly improved in rural areas within two years. Significant penalties should be considered if requirements are not met.

Ham/Amateur Radio Network

Amateur radio (also called ham radio) describes the use of radio frequency spectrum for purposes of non-commercial exchange of messages, wireless experimentation, self-training, private recreation, radiosport, and emergency communication.

It is an essential network to tap into for emergencies, as radio operators are generally able to operate when all





CARIBOO FIRE CENTRE
bcwildfire.ca

utilities are inoperable, and are accompanied by a vast network who can pass messages across large distances. They may be used to relay information from local sources to operations centres.

Recommendation:

Support development of this network by providing grants for amateur networks for equipment, and integrate operators into the EOC information team. This will improve communications in all locations, and increase local knowledge to decisions made in the EOC.

Flyer Drops

For some areas, the only way to reach people was with in-person contact at road blocks. Preparation to deliver flyers to people at these locations required printing and packaging of information packages, which were then driven or flown by helicopter to road blocks. This was difficult during the emergency, however, it was an effective way of reaching remote residents.

Recommendation:

Developing templates, tools and a structure to complete this task in the future, with the goal of completing the task within six hours.

Video/Photo pool

In the mid-2000's an online media website in Halifax, haligoniac.ca, began a photo pool and video pool to gather photos and videos from the public in a single location. This has served to be useful for assessing changes in conditions and community needs.

Recommendation:

Using existing social media, allow videos and photos to be added to a central pool. This will include images from the public and other agencies.

Signage

We heard many times, particularly from those who were new or visiting the area that they became easily lost during evacuations. In some cases, they were sent down a road by RCMP or others, only to come to an intersection and have no idea which direction to go.

Recommendations:

1. Static Roadside Signs - Purchase an inventory of directional signage that are reflective and can

be used in evacuations to direct residents in a safe direction. These signs should have GPS-enabled devices to aid in tracking placements. These can also serve as directional signage when residents are able to stay, but roads are closed.

2. Highway Roadside Signs - Purchase or rent signs to be placed on roads to relay important information throughout the emergencies. These would be similar to signs used by MOTI during the wildfires, but be specifically for relaying important information about the emergency.
3. Digital Signs at Centres - Purchase digital screens which can relay important information to Resiliency and Evacuation centres. A television with ability to display a web site, and access to the internet would work for this purpose. This includes Smart or Roku televisions. This would be accompanied by a web site which will be created to display EOC information updates, weather, news and order/alerts.

UPDATE: Two digital screens were purchased for this task within CRD boundaries.

Community Liaisons for Communications and Local Information

A community liaison system used to be in place in the CRD and was not maintained. This system relayed information from local sources back to the EOC and helped spread information from the EOC and other sources. Residents found this to be a vital connector, especially in communities which lacked any of the communication tools in urban areas.

Recommendation:

Establish a community liaison system focused on information gathering and sharing. Community liaisons will be trusted members of the community who are engaging communicators and can also use a variety of communication tools including radio, internet, and cameras. They will also have ability to connect to the internet and be easily reachable by telephone and on-call or have an available back-up at all times in case an emergency occurs. They may also have the ability to complete other tasks such as issuing permits.

Information Meetings / Boards

Both meetings and posted updates were appreciated by residents, despite their irregularity. In disasters, daily updates are typically provided at local information centres.

Recommendation:

Using the Community Liaison network, provide at least daily posted updates at centres, and more regular meetings during emergencies.

It should be made clear to residents at each meeting they may not get answers to all questions at these meetings, as information is fluid and constantly developing.

Maps

Residents appreciated the maps provided by the district, but were looking for more detail to help them pinpoint locations on the maps. As an extra challenge, they also found them difficult to read on mobile devices, which is the way most residents were forced to view maps. GPS maps, even those on new and updated devices were also tested and were often not able to direct responders to addresses accurately.

Recommendations:

1. More local details including naming roads, waterways, and forestry roads.
2. Use online mapping, perhaps providing Google Earth version through the CRD web site.
3. Daily maps should be released which include fire perimeter and evacuation boundaries.
4. Maps must be provided in a format which can be viewed on a mobile device.
5. Working with GPS map services, ensure map data is updated to match current available data. These include Google, Bing, Apple, Gamin, Magellan, Rand McNally, Trackimo and TomTom.

Emergency Notification System

The Emergency Notification System saw a large spike in use during the disaster, and it became an extremely valuable tool for communicating evacuations. In the early days, the system was not used as intended, and residents were very unhappy about this.

Residents also saw increased use of the system, including notifications when new information was released about their area, and when orders/alerts are rescinded.

Recommendations:

1. Send notifications when order/alert taken off.
2. Send notifications when information changes are available, specific to areas impacted. In most cases,



updates should only be sent once per day, however, the situation may require more than one update daily.

3. Significant campaigns and promotion of the notification system, through email, media, and social media campaigns should happen in months coinciding with CRD open houses. As part of the campaign, callers to CRD offices should be asked to sign up, with staff directing residents to sign up online or immediately over the phone if they have no internet access. Residents will also have the ability to sign up through computers at the open houses and at front counters at CRD offices and regional municipalities. Training will be required for staff on the sign-up process prior to these campaigns.

Orders/Alerts Communication

Information provided at the time of evacuations must be expanded to include information residents need to evacuate. Much of this information can be prepared in advance of crisis, made available on the web site, and placed in media release and social media templates. As well, staff at road blocks should be provided this information whenever possible so they are aware of the information residents are receiving.

Recommendations:

1. List more details including where to get permits, help with animals, road block locations, evacuation routes, and the impact on essential services and businesses.
2. Road blocks should be provided with basic information to aid in proper evacuation when possible - maps, information packages, and where to get help. A road block guide can be developed in advance and be printed and ready for emergencies, with an electronic version also available for circulation. If necessary in emergencies, information may need to be relayed by helicopter.
3. Extra time for businesses to evacuate - especially those accommodating guests.

EMERGENCY OPERATIONS

Field Operations - Planning and Information

There was a lack of local knowledge at some points during the emergency. This resulted in gaps in information and planning, and confusion among residents and visitors to the area. In one case, a new resident to the area was completely lost on an

2863
WORKERS AT THE HEIGHT OF CFC OPERATIONS

NO FATALITIES OF PUBLIC OR PERSONNEL

363
PIECES OF HEAVY EQUIPMENT

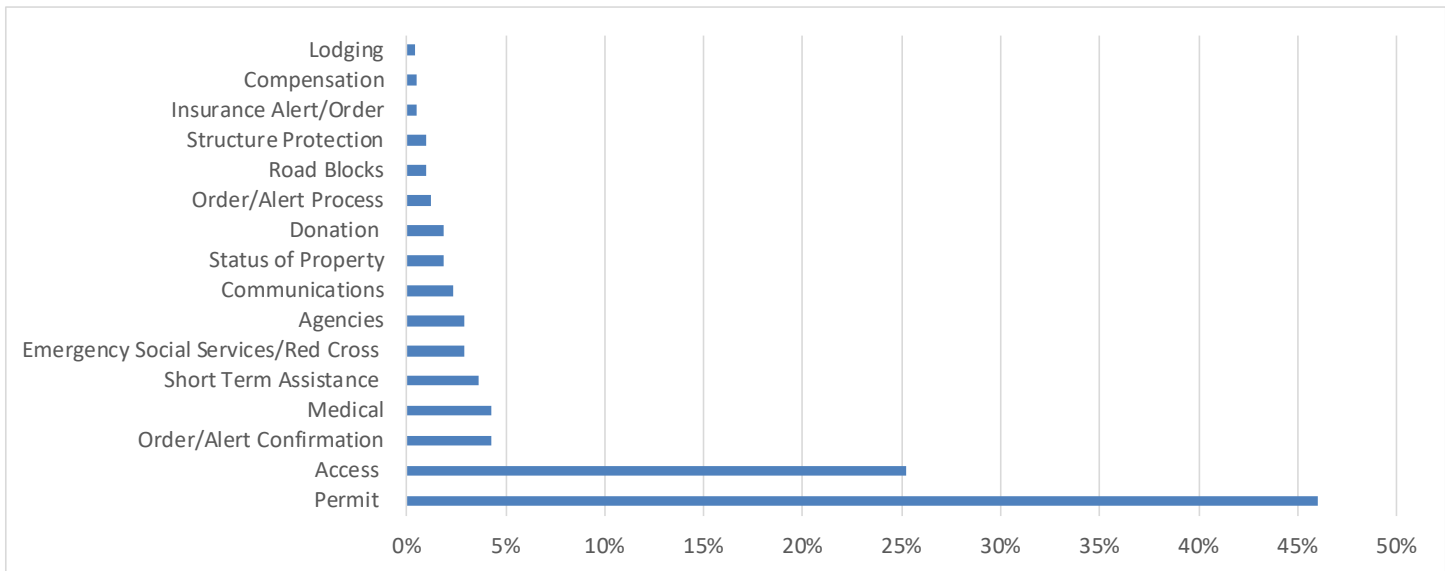
78
HELICOPTERS

PERSONNEL FROM NUMEROUS PROVINCES & TERRITORIES OF CANADA, US, MEXICO, AUSTRALIA & NEW ZEALAND

HIGHLY SUCCESSFUL INITIAL ATTACK on fires that started later in the summer

CARIBOO FIRE CENTRE
bcwildfire.ca





Analysis of 1,584 call centre issues showed most were related to permits and access.

evacuation route and drove toward the fire they were escaping. This was due to a lack of field operations in the area, and operations giving poor descriptions of road networks.

Recommendation:

Planning and Information teams must have Field Officers in place, roaming the areas impacted to gather intelligence and relaying information both to and from the EOC. In the case of the information role, it also gives media a local contact to arrange interviews, and a source to verify wording of orders, alerts and media releases.

There is a gap which can be filled by placing Information Officers in the field at various locations including: Evacuation Centres / Resiliency Centres / Incident Command Teams / Communities. This role would serve to fill the existing gap of gathering local knowledge and ensuring information is reaching communities/agencies which it is working. It is normal in disasters to have field officer(s) working as community and agency liaisons. This will improve the understanding of local issues as well as increase communications to the communities.

These team members do not need to be local, however their role must be local-focused. They must be equipped with communication tools which will generally work in remote locations over long periods of times, and be able to safely survive in remote locations with appropriate food and accommodations, and be monitored in case they are in danger.

Operations - Emergency Operations Centre (EOC)

The CRD operations centre is the main board room, and served well during the emergency. However, some structural improvements would improve the flow of information. Often, the information area was one of the loudest as it was between two doors where impromptu meetings would happen, and it made it difficult to hear communication from the Director area. As well, the location was limited to only Wi-Fi, which was shared with many other devices in the EOC, and significantly slowed important uploads and downloads. This was overcome by using a single high-speed connection or waiting until times when there were less people in the EOC, often meaning longer hours for information team members.

Recommendation:

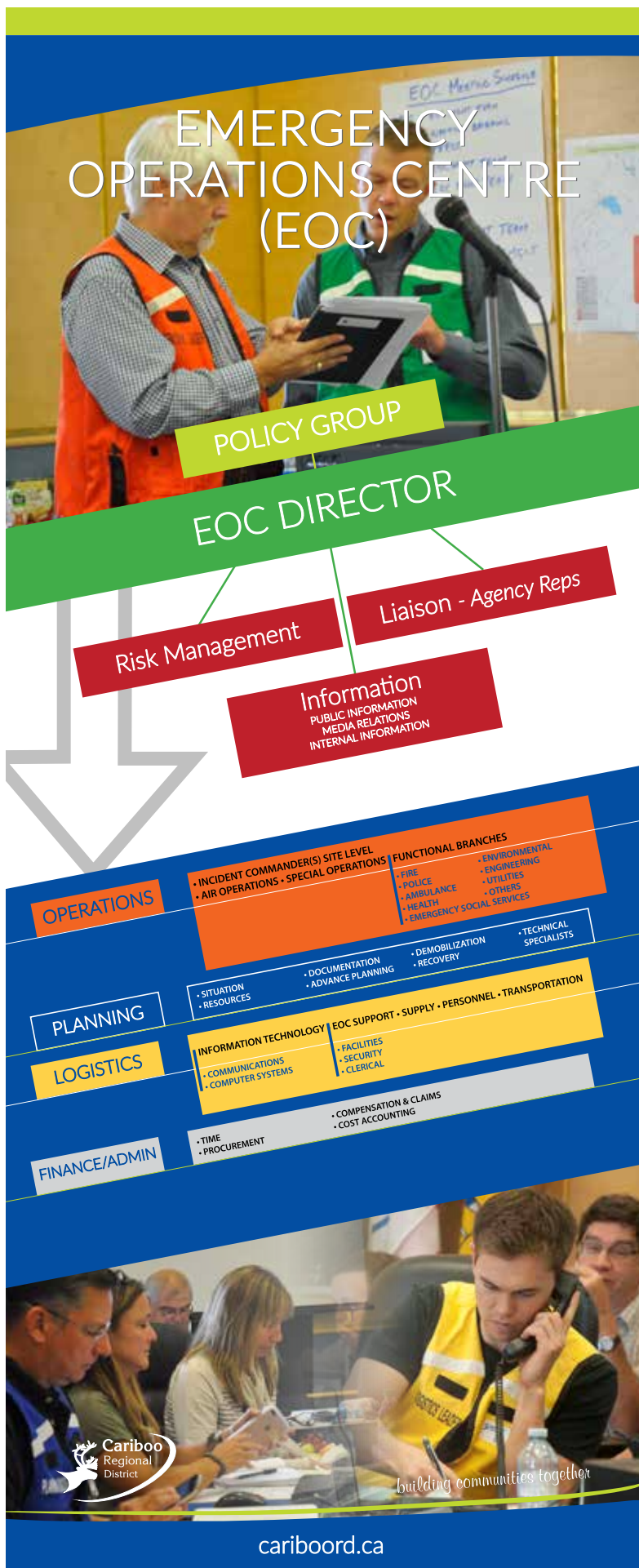
The CRD operations centre setup should be adjusted to have information placed in the room on the outer edge of the Director. As part of this, the highest-speed internet connection available should be wired to this corner of the room with a connection for each information team member, to decrease the time necessary to upload photo, audio and video files to the internet.

Permits

The CRD set up an effective permit system during the wildfires to give certain residents and businesses access to evacuation order areas, to operate businesses who were aiding responders and ranchers to move or feed animals. This was not in place for much of the first month, and residents let us know that was an issue.



EMERGENCY OPERATIONS CENTRE (EOC)



The system required residents to regularly get new permits through a fairly lengthy process of calling the information line or visiting the CRD office in Williams Lake to obtain a permit. Agriculture permits were included within this permitting system.

Recommendation:

1. Create an access permit system which allows residents to pre-qualify and obtain permits for travel based upon the emergency and a strict set of conditions. Residents would be required to renew the permits annually prior to wildfire season. This would reduce resources staff issuing permits, and calls overwhelming the call centre.
2. Ensure agriculture permits are included within the permitting process, and include representatives from the agriculture industry and other important agencies as part of the process.
3. Pre-qualify stores, accommodations, food, and suppliers annually to ensure they are able to stay open when supplying emergency services.
4. During emergencies, permits should be accessible at various locations, potentially including all CRD offices and community liaisons.
5. Single provincial registration system for province and all regional districts, Red Cross, and ESS. Based on answers, the form will be customized to collect all information for each agency. Some permits would be issued instantly, while others would require approval.

Structure Loss Identification

Home and business owners from Nazko to 108 Mile Ranch were not contacted nearly two months after emergency operations had ended, to be informed their structure was lost. In part, this was due to having inaccurate, old or no contact information for homeowners.

Recommendation:

Examination and improvement of system to identify and connect with those who experience structure loss. The result must be a system which connects the property with contact info for the owner, which can be updated annually at the responsibility of the owner.



Building communities together

PREVENTION

Evacuation Plans for Communities

Williams Lake residents acknowledged the reality that their evacuation created chaos, which was known by the EOC at the time of the evacuation. While the EOC intended on an evacuation in stages, the conditions quickly deteriorated and the evacuation of the entire community took place at the same time. There was also concern from Wells and the Chilcotin residents, areas with limited egress routes, over how evacuations would happen and what would trigger the evacuations. This could be the case for many communities throughout the CRD, regardless of population.

Recommendation:

Evacuation plans with trigger events should be prepared and practiced in table top exercises for all communities within the CRD.

Culture of Preparedness

All municipalities must live in a culture of preparedness for emergencies of all types. Acknowledgment that natural disasters are not an if, but when. We heard at every meeting that residents are concerned with how prepared they, their community, and their region is for the next time. They want it, and they want to be part of being prepared. In addition, local resources are now exhausted and external resources may be required.

Recommendations:

1. Resident-based initiatives to prevent fires and floods in their communities should be undertaken annually, with definitive and realistic actions undertaken annually in every community. These will include cleaning up slash piles, reduction of fuels, and understanding the impacts of changing climate through education events.
2. Legally limiting development in high-risk areas. This will include areas which previously allowed development and may have been impacted by fire or flood or at risk of fire or flood, and aimed at not repeating expensive mistakes. It will also look to create fire breaks in newly developed areas.
3. Bylaws requiring clean-up of high-hazard properties. This will limit properties within the wildland-urban interface, which is the majority of properties in the CRD, from leaving waste to burn at a greater intensity if a wildfire were to come through the area.
4. Creating and maintaining fire breaks around communities. These will decrease the probability of fires

jumping into communities and destroying properties.

5. FireSmart to be a requirement around every structure within wildland-urban interface. With a focus on those communities most at risk, education programs and a requirement within five years to FireSmart all properties within the interface.
6. Advocacy for the Province of British Columbia to immediately begin an extensive prescribed burn program to reduce risk to communities and wildland.
7. Monthly training for staff and associates who would be required during an emergency. This will include tabletop exercises to improve responses, and identification of and elimination of gaps in emergency response.
8. Identification of trained and experienced people to fill roles in emergency operations if an emergency was to run for 77 days.
9. Individuals and communities must lead preparedness efforts, and approach municipality for guidance, training and assistance.
10. Examine the process related to burn permits. Improvements must be made, as the window for residents to burn brush is extremely limited under current rules.
11. Full preparedness exercises must be undertaken annually, and include removing people from typical roles and placing them in other positions, which is likely in early hours of emergencies. These preparedness exercises should closely align with reality, they are not simple tabletop exercises, and test all aspects of response to ensure they uncover any weak areas.
12.
 - a. Defining difference between remote, rural, and urban dwellings.
 - b. Standards for communication with each dwelling type included in crisis communication plan.
 - c. Mapping, evacuation plan with routes and trigger points.
 - d. Guidelines to support “stay and prepare” operations by residents in remote areas.
 - e. Supporting resources and supplies to maintain a standard of survival for residents and animals in their care.
 - f. A recovery plan with specific dwelling, transportation and other support standards for live-off-the-land/off-the-grid, remote and some connection, rural and some connection, rural connected, and urban.



Identification for First Responders

First responders were often unable to respond properly as they were caught in areas when evacuations took place, and were not given appropriate identification to get through road blocks.

Recommendation:

Providing a universal identification to First Responders, prior to emergencies when possible. The identification should be provided to all firefighters, search and rescue, ESS, and emergency operations staff, and be hung from mirrors of vehicles, and be accompanied with a bracelet.

Emergency Social Services (ESS)

Residents received many different messages from ESS, and it resulted in confusion, especially in early stages of the disaster. They were not provided with adequate information, and some missed out on necessary support.

ESS was also not adequately prepared to receive the volume of residents, or had prepared volunteer or resident information kits for various reception centres.

Recommendations:

1. Two ESS guides - One for ESS staff/volunteers which will provide information on their role and simple flow charts to help them assist residents. The second guide will be for residents and provide them general information which can be updated with specific information related to the emergency.
2. ESS kits to provide basic supplies to set up an initial reception centre, with guides on what they may need to add to their kit for their emergency, and where to obtain those items. Kits will also include signage and copies of documents to support the first 24 hours of an emergency.

Evacuation Guide for Responders

Responders were clearly unsure what to say in various roles throughout the disaster, and this resulted in interpretations of information which were inaccurate and caused confusion throughout the region. This is not unusual, as many people were brought from outside the region to assist as local resources were exhausted.

Recommendation:

A short and simple set of guides for responders in various roles including road blocks, door-to-door evacuation notifications, firefighting, emergency operations centre, and other roles.

The guides will include region overview, basic maps,

emergency operations structure, terminology, FAQ, key contacts, distances between communities, and where they can connect to updated information.

WILDFIRE FIGHTING

Increased Resources for Wildfire Firefighting in Isolated Communities

Firefighting resources in remote communities do not exist. Some of these communities are a four hour drive away from the nearest resources. Often the only firefighting equipment is on ranches within the community. Communities want some resources, and requested help in training and obtaining equipment.

Recommendation:

Work with communities to identify needs and create a plan to fill needs. The plan should be in place within one year.

Turning a Liability into an Asset

Residents in remote areas felt they were treated as a liability by emergency responders, when they were an asset. They were told to get out of the way when they may have been useful for their local knowledge or resources.

Ex. Comments from Tatla Lake: 1. Provide means for communicating needs for passes to the CRD i.e. to pick up helicopter parts. 2. Radios seized by RCMP at road blocks (in area with no cell service).

Comments from Riske Creek: 1. A skidder and water tank on (our) property were left unused while (our) home and outbuildings burned. 2. Community actioned the fires in initial days before BCWS came in. Over one week they actioned the fire alone.

Recommendation:

Understand that residents in rural areas served an important role in past years to assist in emergency response, and can in the future. While their roles may be limited to reduce liability, they should not be completely eliminated from being a resource. They can be used to transport messages, parts, and supply resources. This is not an endorsement to stay and defend, as that has resulted in many deaths in Australia where the program was implemented. Residents should only be used where it is safe to do so, and improves upon resources available.





January 18, 2018 story noting how quickly a controlled burn caused panic on social media, going viral within hours

Rural Addressing

We noted there were virtually no addresses posted in nearly every corner of the region. In fact, not one community hall we held a meeting in had an address visible from the road at night. In addition, GPS maps are often not updated or accurate, and not one hall was found using a new Garmin GPS with updated maps.

With thousands of responders arriving to help in this disaster, that resulted in many being unable to quickly find the location they were seeking. There were noted cases of emergency responders driving hours to find a location, which likely hampered response by hundreds of hours overall.

Recommendation:

A standardized rural addressing signage program must be launched by the municipalities, with a focus on those in rural areas. The program will be backed by a bylaw requiring property owners to participate in the program by a certain date. [Rural addressing program sample.](#)

RECOVERY

Mental Health

There were many signs that mental health will be a major issue in the recovery phase, and this will be evident over a period of years. Unfortunately, current support services were completely overwhelmed immediately.

Residents noted in the survey their mental health was strongly impacted during the wildfires, dropping 31% during the wildfires, and maintaining a 7% drop from their normal pre-wildfires. 24% indicated they are avoiding public settings now as compared a year earlier.

Recommendation:

1. No person let down. Strong advocacy for increased resources to match demand are immediately required from the Province of British Columbia.
2. Tracking of mental health metrics in the community, which will target areas needing attention.
3. Mental health community outreach for at least 12 months after the emergency ended, including in schools and with elderly. Community support groups which meet regularly should be established as part of this outreach.



Above: Rank 6 fire north of Nazko, showing bark completely burnt from trees and large trees bent from heat of fire. (Tim Conrad)



Left: The remains of Lee's Corner Gas in Hanceville. Right: New growth in a burned area in the Chilcotin. (Tim Conrad)

4. Targeted outreach and programs for first responders including volunteers from fire departments, ESS, and other organizations, as well as emergency operations team members.

Financial Assistance Focused on Survival Needs

There are pockets of residents, businesses and non-profits who have had a drastic change in their revenue or expenses, and are in dire need of assistance from an outside source. Particularly, those without insurance or under-insured are struggling, and those who have been directly and indirectly impacted, such as tourism-based businesses who had no summer season and ranchers who have lost rangeland.

Recommendation:

Advocacy to the Province of British Columbia to ensure aid is immediately in place for individuals and organizations. This is not a political need and should not be treated as one. It should only be measured on the substantial needs of the region, which have been heavily impacted by the wildfires, in regards to employment, operational ability, length of the emergency and damage to property.

Thank You Event

We heard plenty of people wanting to thank those that helped, and not having the opportunity. This is an important part of closure for people and serves to pull communities back together.

Recommendation:

Thank you events should be held in at least Nimpo Lake, Riske Creek, Williams Lake, Quesnel, Nazko, Interlakes, 100 Mile House, and 108 Mile Ranch with a focus on thanking all who responded. For those unable to attend, communities should ensure they receive their thanks through a creation such as video, art, or a gift. These events should be held in early spring, and be organized by the CRD, and may be able to access funds through the Canadian Red Cross.

Tourism

Tourism took a direct hit as a result of the wildfires, both immediate in a loss of a full season, and long-term in the loss of wildland which provided the source of their income. Tourism businesses impacted range from stores, restaurants and accommodations for guides, trapping and hunting.

Recommendations:

1. Additional resources and funding to promote the entire region, with specific promotion focused on those sectors hit the hardest.
2. Resources to transition sustainable businesses to another area or into a new area of business.
3. Preparing to use tourism operators for resource in future emergencies, including accommodations, food and supplies. This preparation will include planning to ensure they can remain supplied when road closures are hampering deliveries.





Dedicated to the people of the Cariboo-Chilcotin and British Columbia who faced the wildfires of 2017, and those who responded to help them. It was an honour to work with all of you. - Tim

The complete Cariboo-Chilcotin Wildfires 2017 report includes an Appendix available from the Cariboo Regional District.

Citations: Please refer to full Report and Appendix for citations.

Top: Coastal mountains in Anahim Lake
Left: Fraser River Valley
(Tim Conrad)



Copyright 2018 Butterfly Effect Communications /
Tim S. Conrad, APR



Grande Prairie, Alberta, Canada
www.butterflyeffectcommunications.ca
587.343.6996
tim@butterflyeffectcommunications.ca



Crisis Communications
Public Participation / Engagement
Analysis and Strategy



Social Media
Public Relations
Keynote Speaker
Workshops