

2017 Wildfire Reports – Recommendations Prioritization and Follow UP

Priority	Recommendations	Source Document			Resources Required	Estimated Start/Completion Date
	The electoral areas should be supported by a Regional Community Emergency Support program that facilitates the community preparation and response to emergencies. This outreach program would be supported and function under the direction of the Regional Emergency Program. This approach would significantly enhance the coordination of community responses in the electoral areas and increase the overall effectiveness of the CRD emergency program.	EOC After Action Report (Carby)				
	Fire services in electoral areas need better support and coordination with respect to information sharing and resources from the CRD EOC during emergency response events that overwhelm local services. This could be facilitated through the Regional Community Emergency Support program concept recommended above.	EOC After Action Report (Carby)				
	The emergency programs in the electoral areas should be exercised regularly in conjunction with the CRD EOC and Regional Emergency Program to practice information sharing and coordination processes.	EOC After Action Report (Carby)				
	Work closely with the agriculture community to identify the largest and most vulnerable livestock operations and farms. Plans should be developed collaboratively with that community that identify individual site needs and expected lead time necessary to support an effective evacuation of livestock.	EOC After Action Report (Carby)				
	A review and updating of CRD EOC policies and processes should be undertaken to incorporate lessons learned from the 2017 wildfire season activation. Once updated, these should be socialized with staff and practiced as part of an ongoing training and exercise regime.	EOC After Action Report (Carby)				
	Based on the experience gained at the EOC during this recent event, it would be important to identify the key liaisons that would be involved in a large-scale event and incorporate those agency representatives into ongoing CRD EOC exercises and training.	EOC After Action Report (Carby)				

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	Consider investigating the procurement of situational awareness and emergency management software that will enhance record keeping related to position logs and decisions made in the EOC using electronic forms and allow the establishment of a common operating platform for information sharing between the CRD and stakeholder representatives. This would allow a more effective approach to the collection and sharing of important information thereby enhancing collaborative decision-making efforts. Public facing communications could also be enhanced by this type of software.	EOC After Action Report (Carby)				
	Develop and retain in the EOC a series of maps that show the respective jurisdictions for those agencies that do not align with the regional area boundaries i.e., RCMP, Health Authority, BC Wildfire Agency.	EOC After Action Report (Carby)				
	Develop a plan in collaboration with key stakeholders for the identification and evacuation of livestock from alert and order areas. This plan should include pre-identifying non-commercial farm operators, potential partnerships and reciprocal agreements with other regions and agricultural operations to receive livestock, and resources for the transport of livestock. This plan should also predict amount of time and the resources necessary to evacuate the identified sites.	EOC After Action Report (Carby)				
	During future EOC activations, staff should be rotated out regularly for a break after 10-14 days on an EOC activation. This is especially the case if the EOC operating hours are extended as they were in the initial stages of this activation.	EOC After Action Report (Carby)				
Dealt with by Butterfly Effects Recommendation	Consider establishing or enhancing regional emergency communication centres using amateur radio operators in the CRD EOC and at key sites within the region as deemed appropriate. This will increase the resiliency and capacity for communication and coordination in the event that normal telecommunication infrastructure is interrupted during emergencies.	EOC After Action Report (Carby)				
	Ensure that a CRD EOC representative can be accessed 24/7 during EOC activations. A regional duty officer program during normal periods would enhance regional preparedness and responsiveness if not currently in place.	EOC After Action Report (Carby)				

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Dealt with by Butterfly Effects Recommendation	All CRD Board members should receive emergency management orientation training for elected officials which should include a guide on their roles during emergencies. This training should be reinforced with tabletop exercises. Where possible the board should be included in regional emergency exercises to gain practice within their scope of responsibility during emergencies.	EOC After Action Report (Carby)				
Dealt with by Butterfly Effects Recommendation	The CRD should enhance staff EOC training and consider partnerships with local authorities and agencies to ensure a three-deep contingency of trained personnel that can be called upon to staff a regional EOC when activated.	EOC After Action Report (Carby)				
Dealt with by Butterfly Effects Recommendation (Community Liaisons)	Train personnel in the electoral areas to support local communities during emergencies through the proposed Regional Community Emergency Support program. The CRD EOC would support these teams during activations and those personnel could be used to support the Regional EOC.	EOC After Action Report (Carby)				
	Debriefing and support counselling for all staff and volunteers involved in the event should be considered and accessed early during any EOC activation. This is especially important when personnel staffing the EOC are also potential victims of the emergency. All personnel involved in an emergency of this nature should be offered and encouraged to access post incident support services. This opportunity should be offered to support staff that came from external authorities and agencies to ensure that they are given opportunity for appropriate follow-up post event.	EOC After Action Report (Carby)				
	Increase the expansion and enhancement of the CRD's Emergency Notification system to the public. This will improve the ability for the region to get messaging out quickly. Understanding and ability to activate the system should be given to a number of key staff to ensure that it can be utilized in the event that there are staff absences.	EOC After Action Report (Carby)				
Dealt with by Butterfly Effects Recommendation (Community Liaisons)	The EOC should utilize the proposed Regional Community Emergency Support program to gain local knowledge on preplanning for evacuation orders and alerts. This will help ensure consistent messaging at all levels in the region and will decrease confusion and anxiety amongst the areas being impacted by evacuation alerts and orders.	EOC After Action Report (Carby)				

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Dealt with by Butterfly Effects Recommendation	The CRD should consider pre-identifying and designating evacuation zones for the region. This pre-planning should include access and egress routes, with consistent naming, within CRD electoral areas and communities to improve effectiveness of future evacuations. Once the regional evacuation zones are identified, the public should be educated as to which zone they reside to increase awareness and ease of evacuation alert notice.	EOC After Action Report (Carby)				
	Consideration should be given to establishing a protocol with key stakeholders on how the CRD EOC will communicate with evacuees to ensure that displaced persons have ready access to status of their situations. (# 19)	EOC After Action Report (Carby)				
	The CRD needs to develop and document clear processes to establish and rescind alerts and orders in conjunction with the electoral areas and key agency stakeholders (BCWFS, First Nations, EMBC, RCMP).	EOC After Action Report (Carby)				
	Work collaboratively with agencies such as the RCMP and regional SAR to develop clear and agreed upon roles, processes and approach to evacuations. This plan should be practiced at least annually prior to the fire season to familiarize evacuation teams with their expected responsibilities and actions.	EOC After Action Report (Carby)				
	Enhance public education with respect to necessary preparations and processes to improve response to evacuations alerts and orders and to enhance community preparedness and resiliency.	EOC After Action Report (Carby)				
	Pre-planning should be undertaken to address the support and re-supply needs of those residents that are in communities on alert or non-alert status that have been cut off from access to supplies by areas under evacuation order. This can be planned based on scenarios using the predesignated evacuation zones model recommended in #19. (this is number 24)	EOC After Action Report (Carby)				

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	Work closely with other adjacent regional districts to enhance collaboration during emergencies. This should include collaborative training and cross jurisdictional exercises. Consider establishing a process whereby staff resources can be shared during single region activations to allow cross pollination of information and processes which would improve coordination during larger events.	EOC After Action Report (Carby)				
	Relationships with First Nations should be developed and enhanced to incorporate First Nations in regional planning and preparedness efforts. This should include joint training and exercises and can be facilitated in conjunction with EMBC efforts to support First Nations preparedness and response under the new agreement with the federal government.	EOC After Action Report (Carby)				
	The Regional Community Emergency Support program should enhance ESS capability in rural areas to support their communities in the event of emergencies. This type of program is often developed through community volunteer initiatives and operates as extensions of the CRD Regional Emergency Program and would be supported by the CRD EOC. These local resources can provide excellent depth for the region as a whole as ESS team members in unaffected areas can be drawn on to provide support depth to any regional response to impacted areas.	EOC After Action Report (Carby)				
Dealt with by Butterfly Effects Recommendation (Community Liaisons)	Enhance and promote Fire Smart activities in areas that are at the greatest risk of interface fire. This activity should include encouraging the public to adhere to Fire Smart guidelines for personal property.	EOC After Action Report (Carby)				
4	PRIMARY SOURCE FOR COMMUNICATIONS: 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 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.	2017 Wildfire Consultation Report (Butterfly Effects)				

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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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	INFORMATION OFFICER GROUP: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	CONSISTENT SPOKESPERSON AND HOST: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	INCREASED USE OF SOCIAL MEDI: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	VIDEO: 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).	2017 Wildfire Consultation Report (Butterfly Effects)				

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	<p>For live video, a mobile cell phone booster, battery backup, mobile tripod and mobile phone are required.</p> <p>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.</p> <p>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.</p>					
2	<p>AUDIO: 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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				
1	<p>EMAIL: 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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				
0	<p>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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				
1	<p>PUBLIC EDUCATION: 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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				

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2/3	SIGNIFICANT PUBLIC EDUCATION TO REDUCE HUMAN-CAUSED FIRES: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	CRISIS COMMUNICATION PLAN: Develop a comprehensive crisis communications plan.	2017 Wildfire Consultation Report (Butterfly Effects)				
1 – Provide links to existing resources	BUSINESS COMMUNICATIONS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	DARK WEBSITE: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	ELECTED OFFICIAL EXPECTATIONS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	TELEPHONE: 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. 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 a evacuation order or alert is put in place, to answer specific questions about their safety and	2017 Wildfire Consultation Report (Butterfly Effects)				

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	property. Use of a menu and recorded messages can reduce the number of calls which need to be directed to an operator.					
2	<p>RADIO: 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.</p> <p>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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				
2 – and/or other widely available channels (on-screen information banner)	TELEVISION: Request Weather Network to provide specific local updates regularly for areas with evacuations.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	<p>INTERNET AND MOBILE NETWORKS: 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.</p> <p>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.</p> <p>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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				

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1	HAM/AMATEUR RADIO NETWORK: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
2	FLYER DROPS: Developing templates, tools and a structure to complete this task in the future, with the goal of completing the task within six hours.	2017 Wildfire Consultation Report (Butterfly Effects)				
N/A	VIDEO/PHOTO POOL: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
3	SIGNAGE: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
3 Send correspondence to MOTI and FLNRO, and private licenses of Crown Land to confirm who is responsible for signs / liable for traffic, and request that evacuation routes	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	2017 Wildfire Consultation Report (Butterfly Effects)				

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<p>be preplanned (through consultation with communities, CRD electeds and licensees)</p> <p>Make arrangements ahead of time to, if possible use existing LED signs on commercial properties</p>						
<p>2</p> <p>Work with ISPs to open up hotspots (for a fee if necessary)</p>	<p>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.</p> <p>UPDATE: Two digital screens were purchased for this task within CRD boundaries.</p>	<p>2017 Wildfire Consultation Report (Butterfly Effects)</p>				
<p>1</p>	<p>COMMUNITY LIAISONS FOR COMMUNICATIONS AND LOCAL INFORMATION: 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.</p>	<p>2017 Wildfire Consultation Report (Butterfly Effects)</p>				

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1 Hold meetings only as needed or requested, and not if there is no new information. Meetings to be attended by EOC personnel, FLNRO staff and/or Policy Group members Post information at public spots (eg. Post Offices and Community Centres)	INFORMATION MEETINGS/BOARDS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
2	MAPS: More local details including naming roads, waterways, and forestry roads.	2017 Wildfire Consultation Report (Butterfly Effects)				
3	Use online mapping, perhaps providing Google Earth version through the CRD web site.	2017 Wildfire Consultation Report (Butterfly Effects)				
3 Request FLNRO to keep fire map information up-to-date	Daily maps should be released which include fire perimeter and evacuation boundaries.	2017 Wildfire Consultation Report (Butterfly Effects)				

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3	Maps must be provided in a format which can be viewed on a mobile device.	2017 Wildfire Consultation Report (Butterfly Effects)				
2	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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	EMERGENCY NOTIFICATIONS SYSTEM: Send notifications when order/alert taken off.	2017 Wildfire Consultation Report (Butterfly Effects)				
1 Use ONLY for Order and Alert changes and other emergency notifications	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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	ORDERS/ALERTS COMMUNICATION: List more details including where to get permits, help with animals, road block locations, evacuation routes, and the impact on essential services and businesses.	2017 Wildfire Consultation Report (Butterfly Effects)				

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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.	2017 Wildfire Consultation Report (Butterfly Effects)				
4	Extra time for businesses to evacuate - especially those accommodating guests.	2017 Wildfire Consultation Report (Butterfly Effects)				
4 In Resiliency and Reception Centres, NOT with Incident Command teams	<p>FIELD OPERATIONS – PLANNING AND INFORMATION: 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.</p> <p>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.</p> <p>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.</p>	2017 Wildfire Consultation Report (Butterfly Effects)				
1	OPERATIONS – EMERGENCY OPERATIONS CENTRE (EOC): 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.	2017 Wildfire Consultation Report (Butterfly Effects)				

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1	PERMITS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	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.	2017 Wildfire Consultation Report (Butterfly Effects)				
1 - Not prequalify, but arrange for qualification ASAP at onset of Emergency, and make qualification good for a few days (not one-offs). Have permittees sign a document stating that they agree with the terms of the permit.	Pre-qualify stores, accommodations, food, and suppliers annually to ensure they are able to stay open when supplying emergency services.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	During emergencies, permits should be accessible at various locations, potentially including all CRD offices and community liaisons.	2017 Wildfire Consultation Report (Butterfly Effects)				

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4	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.	2017 Wildfire Consultation Report (Butterfly Effects)				
½ - No Media tours should be given before residents have viewed losses	STRUCTURE LOSS IDENTIFICATION: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
3 - :Look into breaking the RD into polygons and develop information about each	EVACUATION PLANS FOR COMMUNITIES: Evacuation plans with trigger events should be prepared and practiced in table top exercises for all communities within the CRD.	2017 Wildfire Consultation Report (Butterfly Effects)				
1	CULTURE OF PREPAREDNESS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
3 – Instead of this, include awareness statements in OCP’s, and look into firesmart covenants for new developments	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.					

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0	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.					
1 for Education Program 0 for remainder	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.					
2 – “forest health program” instead of prescribed burn program	Advocacy for the Province of British Columbia to immediately begin an extensive prescribed burn program to reduce risk to communities and wildland.					
1-Change monthly to “timely”	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.					
1	Identification of trained and experienced people to fill roles in emergency operations if an emergency was to run for 77 days.					

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1	Individuals and communities must lead preparedness efforts, and approach municipality for guidance, training and assistance.					
4	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					
1 – change annually to regularly (every 2 nd year in the absence of an event)	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.					
	<ul style="list-style-type: none"> 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. 					

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	IDENTIFICATION FOR FIRST RESPONDERS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	EMERGENCY SOCIAL SERVICES (ESS): 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	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: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	INCREASED RESOURCES FOR WILDFIRE FIREFIGHTING IN ISOLATED COMMUNICATIONS: Work with communities to identify needs and create a plan to fill needs. The plan should be in place within one year.	2017 Wildfire Consultation Report (Butterfly Effects)				
	TURNING A LIABILITY INTO AN ASSET: 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	2017 Wildfire Consultation Report (Butterfly Effects)				

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	where the program was implemented. Residents should only be used where it is safe to do so, and improves upon resources available.					
	RURAL ADDRESSING: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	MENTAL HEALTH: No person let down. Strong advocacy for increased resources to match demand are immediately required from the Province of British Columbia.	2017 Wildfire Consultation Report (Butterfly Effects)				
	Tracking of mental health metrics in the community, which will target areas needing attention.					
	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.					
	Targeted outreach and programs for first responders including volunteers from fire departments, ESS, and other organizations, as well as emergency operations team members.	2017 Wildfire Consultation Report (Butterfly Effects)				

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	FINANCIAL ASSISTANCE FOCUSED ON SURVIVAL NEEDS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	THANK YOU EVENTS: 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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	TOURISM: Additional resources and funding to promote the entire region, with specific promotion focused on those sectors hit the hardest.	2017 Wildfire Consultation Report (Butterfly Effects)				
	Resources to transition sustainable businesses to another area or into a new area of business.	2017 Wildfire Consultation Report (Butterfly Effects)				
	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.	2017 Wildfire Consultation Report (Butterfly Effects)				
	The facilitator, in his opening remarks, made it clear that he was unprepared and unfamiliar with the community. He referred concerns and comments to the Manager of Protective Services, and at least twice, she argued with residents as to the validity of their concerns or suggestions. We should ensure that procedures for	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				

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	community debriefs are included in the emergency plan update. If an outside facilitator is used, he/she must be prepared and objective, and our procedure should include a process to ensure he/she is briefed in advance of the meeting. If Cariboo Regional District staff conduct the community debrief, we should consider providing training for them to do so in an objective manner. I also think it is not fair to ask Emergency Operations Centre staff to fill this role as it would be extremely difficult for them to remain objective.					
	The emergency plan update should include a process for ensuring that first responders receive critical incident debriefing. Additionally, the plan should provide for requesting extra resources from outside agencies as appropriate, eg. RCMP, Victim Services, trauma counselling, etc., as well as for communicating with senior government ministries.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				
	We should consider holding community awareness sessions in our rural communities, and working with Emergency Management BC to develop materials for these sessions. These sessions could provide information about community preparedness, individual and community responsibilities for the immediate emergency, and the role of the community first responders as well as gather information about local expertise, resources, and volunteers to inform our files.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				
	When people are not evacuated, and the emergency continues to affect the community, we should implement an on-site command centre, with an on-site commander who is a Cariboo Regional District employee. The role of this centre is multipurpose: to co-ordinate the response on the ground, to co-ordinate with local experts, resources and volunteers, to liaise with our	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				

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	EOC, to provide verification of local reports, as well as to provide information and reassurance to impacted residents. Our emergency plan should provide procedures for activating, as well as de-activating this centre.					
	In addition to the emergency communication improvements currently being implemented, we should consider placing a communication bulletin board dedicated to the emergency in a central location in the community. We should also work with Emergency Management BC to provide a website and/or Facebook page dedicated to the emergency, and to update it at least daily. Our plan update should provide for various communication measures, including providing information door-to-door, holding community meetings, posting and removing signs, and mailing flyers.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				
	Our emergency plan should identify procedures for delivering potable water to residents when their water source is impacted. We should work with Emergency Management BC to clarify the authorization procedure for supplying water, as well as other resources and services. We should work with EMBC to provide a list of pre-authorized services in order to remove the uncertainty, and to improve our response time.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				
	We should work with Emergency Management BC to identify sources and pricing for showers and logistics requirements, as well as for other specialized equipment and supplies specific to emergencies (eg. Sandbags, sprinkler trailers). If we are not successful in that effort, we should ensure that they are identified in our emergency plan.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				

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	Our emergency plan should include a role for the Area Director as the public face of the Cariboo Regional District for the community, and provide for regular briefings. Additionally, we should consider re-instating the Emergency Planning Committee to assist the Board with setting policy and guiding the emergency plan updates.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				
	We should report back to Likely with decisions as to changes we are making to our plan as a result of this debrief, and of our experiences with this emergency. This could be part of an awareness/information-gathering session.	2014 Mount Polley - Likely Community Debrief Report (Director Joan Sorley)				