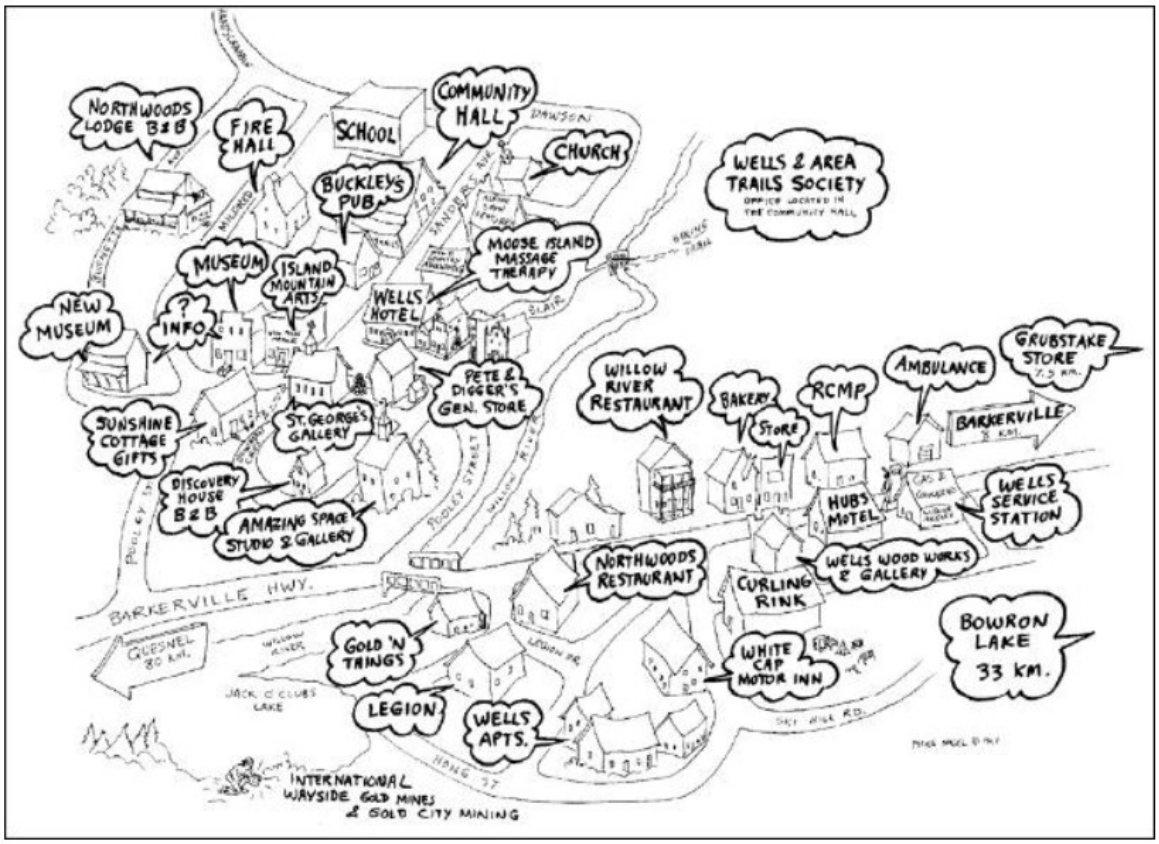
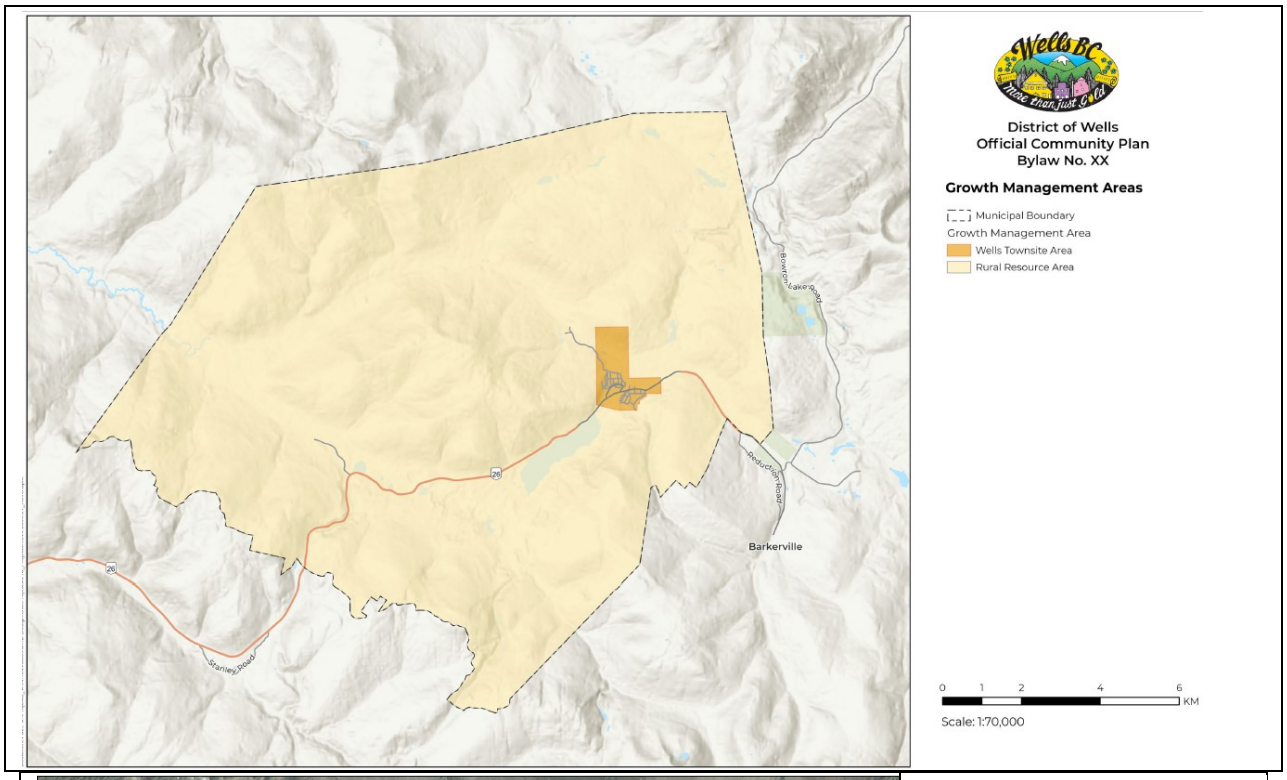
District of Wells
Electoral Area C
Cariboo
Regional District

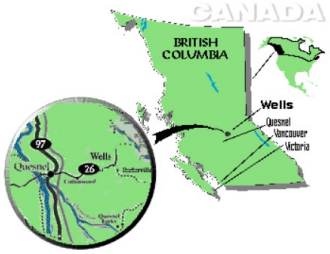
53°06’19”N - 121°34’24”W

Community Wildfire Structure Protection Plan



This map was drawn by Marie Nagel. Visit Marie's Art Gallery on Bowman Crescent in Wells or see samples of her beautiful artwork in the Marie Nagel Online Studio





WELLS VOLUNTEER FIRE BRIGADE 1934

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June 2022

Community Wildfire Structure Protection Plan

Building Fire Safe communities through education, planning and emergency response

District of Wells Fire Protection Area

COMMUNITY WILDFIRE STRUCTURE PROTECTION PLAN

PURPOSE

To create a Pre-plan management template for use by British Columbia Wildfire Service (BCWS) Structure Protection Specialist (SPS) that enhances response assessment to Wildland Urban Environment (WUE) events affecting communities by:

(1) Soliciting local information through a timely and simple process in a widely accessible medium.

(2) Explicitly including the priorities of local communities.

(3) Providing a means to Pre-plan and share situational awareness in response planning with convergent first responders who arrive at WUE events with limited understanding of local geographic, economic, environmental, and social/cultural issues.

(4) Leveraging available technologies to achieve objectives 1-3 above.

The intention of developing this plan is twofold. **Part I** is general information intended for review and implementation during non-emergency periods by local communities and partners. **Part II** is a more detailed section intended to provide an incoming Incident Management Team or Structure Protection Specialist with accurate predetermined structural and cultural priorities requiring protection as well as to identify tactical and operational information as necessary.

DISCLAIMER

The recommendations made in this plan are based on fire probabilities for the conditions observed at the time of the survey in 2022**. It must be understood that all fire scenarios cannot be addressed and that this plan is not an absolute.** This plan should be used as a guide and implemented in part or in whole as circumstances dictate. The key to continued credibility of this plan is the time and accuracy employed to maintain the information provided here. This document should be reviewed by community officials or their designate and updated on an annual basis prior to wildfire season.

INTRODUCTION

The goal of this plan is to provide response agencies with a strategic framework to use for the protection of improved properties or other values at risk in the event of a significant wildfire. This plan recognizes the capability of the local fire department and the contributions that can be made by local, regional and provincial fire service resources.

The information contained in this plan was developed for use with wildfire operations however, an incident management team may find this a valuable tool in any disaster situation. Experience has proven that many homeowners will be reluctant to leave their home and belongings when an evacuation is ordered. Fire officials do not have the authority to force anyone to leave nor do they have the time to educate evacuees after an order is issued. Preplanning and education of the community prior to an incident is imperative for a successful operation. Local authorities and community leaders are encouraged to inform their residents on evacuation processes and procedures.

RESPONSE PRIORITY

This Response Structure Protection Defense Pre-Plan is subject to ongoing review and may be improved based on feedback following exercising and/or use at actual Wildland Urban Environment events in the upcoming wildfire season. Input from community officials is imperative for local knowledge and to help prioritize integral infrastructure, properties and areas for protection. The loss of commercial and industrial properties is associated with unemployment and economic impacts that can seriously affect the viability of communities, particularly those with smaller populations. Community members are forced to relocate to urban areas for school and employment.
British Columbia Wildfire Service (BCWS) is committed to understanding the values and priorities of Communities.
Through a consultation process facilitated by BCWS staff, the authority having jurisdiction (Municipality, Regional District, or First Nations Bands), have identified community priorities in their developed and natural environments. These priorities are included in the Structure Protection Defense Plan.

BCWS will determine strategies and allocate resources based on availability and the identified community priorities whenever possible. There will be a consultation process between BCWS and the Provincial Regional Operations Center and/or the Provincial Emergency Coordination Center.

PART 1
COMMUNITY OVERVIEW

District of Wells is a small mining and tourist town in the Cariboo District of central British Columbia, located on BC Highway 26, 74 km (46 mi) from Quesnel and 8 km (5 mi) before the highway's terminus at Barkerville. Between May and September, Wells sees over 100,000 tourists passing through on their way to the Bowron Lake Provincial Park and to the Barkerville Historic Town and Park. Most visitors stay or camp overnight in Wells, which has an active arts and outdoor entertainment sector. During the winter months, visitors come for the cross-country ski trails, snowmobiling, and artistic and study retreats. During the summer visitors enjoy galleries and live performances.

The 2021 Census of Wells recorded a population of 218 living in 113 of its 156 total private dwellings, a change of 0.5% from its 2016 population of 217. With a land area of 158.09 km^2 (61.04 sq mi), it had a population density of 1.4/km^2 (3.6/sq mi) in 2021. Today it has a listed population of 250 which doubles during the summer months.

Originally a company town, it was managed by *Cariboo Gold Quartz Mine*. Fred M. Wells, for whom the town was named, prospected in the area for 10 years before finding the minerals that built the company. At its heyday of the 1930s, Wells population was 4500. The Wells Townsite Company was incorporated in 1933. Burnett, Solibakke and Wells were directors; the balance of shares was held by Cariboo Gold Quartz. The objectives were to provide the necessary services for the town by clearing, laying out, and selling lots, providing water and electrical services, erecting houses for sale or lease, erecting a hospital, school, and community hall, and encouraging construction of churches, recreational facilities, hotels, stores, and other commercial establishments. It was clear from the beginning that the Townsite Company would encourage private enterprise to develop the commercial district. *(Excerpts from Teachers' Resource Guide, Wells Historical Society.)*

In 1942 Wells population was greater than Quesnel or Prince George. By 1967 the mines closed and most of the population moved away.

Wells is a small community, with two RCMP Constables, three Ambulance attendants, three full-time paid employees and a limited number of 'emergency trained' volunteers.

Barkerville Gold Mine development proposal projects 460 direct jobs to the region by 2025 and as such this plan should be updated to reflect the the potential impact to the District's future growth.

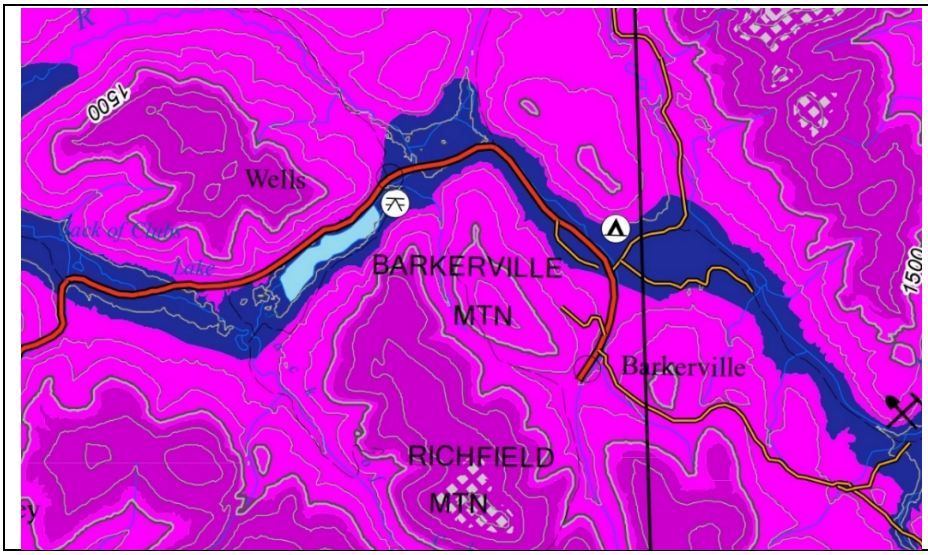
Weather by month averages Wells BC

Wells doesn't have a weather station, but Barkerville does (located 7km away). Wells has a subartic climatehttps://en.wikipedia.org/wiki/K%C3%B6ppen_climate_classification, resulting in long, cold and snowy winters, accompanied by short and cool summers due to its high altitude and latitude. Its growing season averages only 66 days.

Climate data for Barkerville												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Record high °C (°F)	10.0 (50.0)	15.0 (59.0)	17.2 (63.0)	27.8 (82.0)	31.5 (88.7)	33.0 (91.4)	35.6 (96.1)	33.9 (93.0)	32.5 (90.5)	26.7 (80.1)	18.9 (66.0)	14.4 (57.9)
Average high °C (°F)	−2.9 (26.8)	−0.5 (31.1)	3.0 (37.4)	7.2 (45.0)	12.5 (54.5)	16.2 (61.2)	18.8 (65.8)	19.0 (66.2)	14.0 (57.2)	7.2 (45.0)	−0.3 (31.5)	−3.5 (25.7)
Daily mean °C (°F)	−7.5 (18.5)	−5.9 (21.4)	−2.8 (27.0)	1.4 (34.5)	6.2 (43.2)	10.0 (50.0)	12.3 (54.1)	12.1 (53.8)	8.0 (46.4)	2.4 (36.3)	−4.3 (24.3)	−7.8 (18.0)
Average low °C (°F)	−12.1 (10.2)	−11.2 (11.8)	−8.5 (16.7)	−4.4 (24.1)	0.0 (32.0)	3.8 (38.8)	5.8 (42.4)	5.3 (41.5)	2.1 (35.8)	−2.3 (27.9)	−8.3 (17.1)	−12.0 (10.4)
Record low °C (°F)	−46.7 (−52.1)	−43.3 (−45.9)	−37.2 (−35.0)	−26.1 (−15.0)	−15.0 (5.0)	−6.7 (19.9)	−3.9 (25.0)	−7.8 (18.0)	−13.3 (8.1)	−30.5 (−22.9)	−42.0 (−43.6)	−41.7 (−43.1)
Average precipitation mm (inches)	96.0 (3.78)	60.7 (2.39)	66.4 (2.61)	58.2 (2.29)	77.7 (3.06)	101.9 (4.01)	100.0 (3.94)	80.6 (3.17)	81.7 (3.22)	92.3 (3.63)	111.2 (4.38)	95.0 (3.74)

May through September are the warmest months that coincides with the busy summer tourism and the Wildfire season.

Biogeoclimatic Zone is a geographical area with a relatively uniform macroclimate, characterized by a mosaic of vegetation, soils and, to a lesser extent, animal life reflecting that climate. Zones are usually named for the potential climatic climax or self-perpetuating vegetation. Wells fire response area is located within the biogeoclimatic zones classified as Sub-Boreal Spruce wet cool (SBSwk1) identified in blue, surrounded by Engelmann Spruce Subalpine Fir wet cool (ESSFwk1) identified in purple.



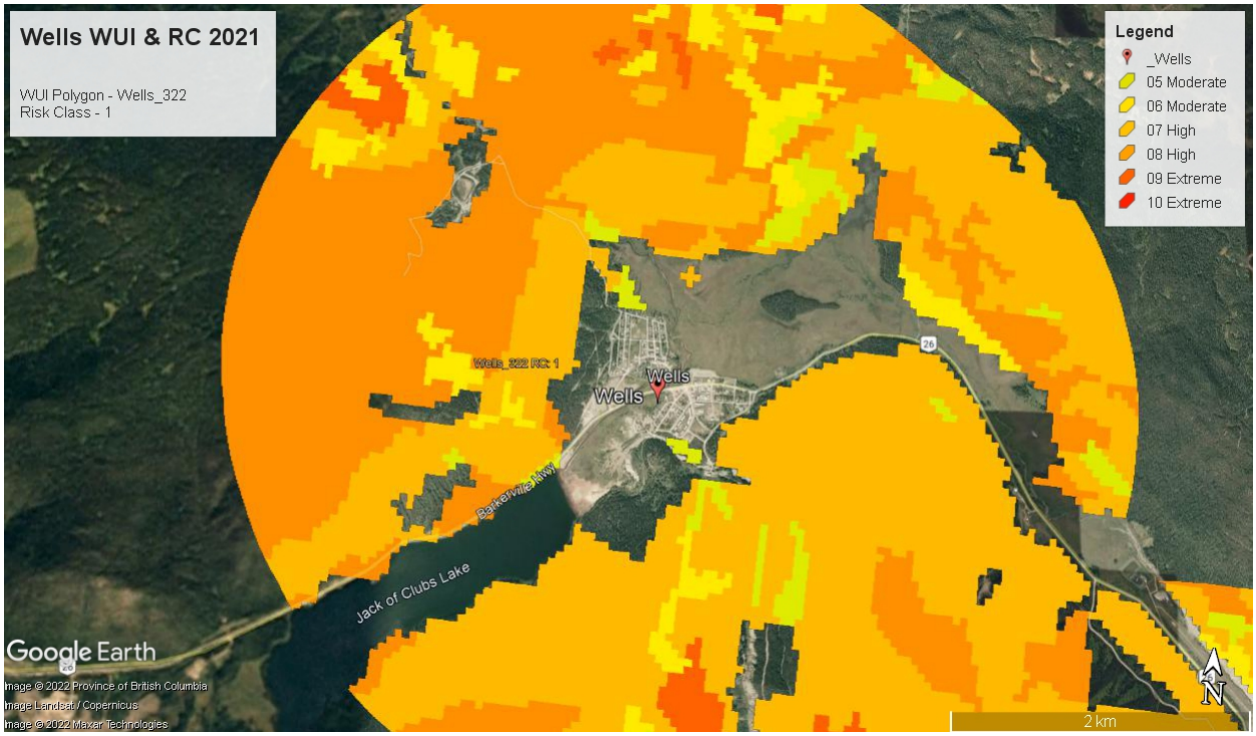
Vegetation Climax tree species on zonal sites in the SBS Zone are hybrid white spruce and subalpine fir. However, due to frequent wildfires in the past, climax stands are uncommon at low to moderate elevations. SBSwk1 Variant in the Cariboo Forest Region occurs along the moist eastern edge of the Fraser Plateau and on lower valley slopes in the dissected topography of the adjacent Quesnel Highland, north of the Cariboo River. It occurs between 900 and 1250 m and borders the ESSFwk1 at higher elevations and the SBSmw at lower elevations. SBSwk is distinguished by the presence of species characteristic of moist, relatively snowy climates, such as five-leaved bramble, rosy twistedstalk, and Indian hellebore. The SBSwk has the wettest, snowiest climate of the SBS Zone in the Cariboo Forest Region. Old forests of hybrid white spruce and subalpine fir are common on the SBSwk landscape. These forests have a moderate cover of shrubs and herbaceous species and a well-developed moss layer.

The ESSFwk1 is extensive at moderate to high elevations of the Quesnel Highland and Cariboo Mountains along the eastern edge of the Cariboo Forest Region. It also occurs in the Prince George Forest Region. Elevations are predominantly 1200 to 1500 m. Distinguishing Adjacent Units from the ESSFwk1 The SBSwk1 occurs below the ESSFwk1 north of the Cariboo River.

The Wells Barkerville Community Forest was approved and granted to the Wells Barkerville Community Forest Corporation in 2014 by the Province of BC. The forest covers approximately 4300 hectares to the north of the town of Wells. The Wells-Barkerville Community Forest Ltd (WBCF) is governed by a Board comprised of seven Directors. It is a Corporation that has a single shareholder, which is the District of Wells. The WBCF is committed to managing the forest in a sustainable way while also benefiting the local community. Being right on the edge of town, the WBCF contains some of the area's recreation trails, forms part of the town's viewscape, is a popular non-timber forest product harvesting area, and contains one local home.

BA Blackwell has been providing Forest Mgmt recommendations to District of Wells to mitigate wildfire risk. The town site of Wells is surrounded by forests, with a very high “urban interface” forest fire hazard. Immediate and effective fire control within and outside the town is essential. The entire district outside of the town is heavily forested, increasing the risk, involving evacuation of the town because of the threat of fire or an unacceptable level of smoke. Risk Assessment Likelihood is MODERATE, and Consequences is HIGH. (District of Wells Emergency Response Plan 2021)

Wildfire Risk Assessment Map



Wildfire trends in B.C. and Canada, show increased impacts to values from wildfires and associated suppression costs, increased threats to communities and infrastructure and increased losses of natural resources including mid-term timber supply. This is being driven by the effects of climate change, the mountain pine beetle fuel type and increasing community, critical infrastructure, and natural resource development on the forested land base.

Wells Fire Protection Area has a 2021 Wildland Urban Interface (WUI) Risk Classification of 1. The WUI Risk Class Assessment was revised to reflect updates to the 2021 Provincial Strategic Threat Analysis (PSTA) and the 2020 WUI structure density data and mapping. Several WUI risk class ratings were modified based on changes to underlying fuel types related to land-based activities (e.g., wildfires, harvesting, fuel treatments, development), updated vegetation resources inventory or changes to fire weather inputs (e.g., increases in threat levels due to shifts in the weather data). Risk Classification is determined utilizing the spatial WUI attributes combined with the PSTA wildfire threat layer (for Crown land) to identify at-risk areas at a strategic scale. The level of risk ("risk class") reflects the analysis of weighted PSTA threat components within the individual WUI Risk Class polygons. Five risk class ratings were applied to the WUI polygons, with "1" being a higher relative risk and "5" being the lower relative risk. The application of relative risk does not imply "no risk" since the goal is to identify areas where there is higher risk.

Fire Threat analysis is available in B.C. for provincial Crown land utilizing a two-kilometer-wide buffer zone to the edge of structures located in the WUI to indicate the distance that embers from a wildfire could reasonably expected to be carried by the wind and possibly ignite a structure. Fire Threat is ranked and colour coded from 1 (low) to 10 (extreme) within each Risk Classifications. The information should be used to promote FireSmart strategies on and around homes where they back onto both private and crown forests, and to prioritize the investment in forest fuel treatment plan.

COMMUNITY DESIGN	Rating	
ACCESS		
Two or more primary roads in and out. One primary and one secondary access. One road in and out (entrance and exit are the same).	0 3 5	3 **A**
BRIDGES *(Please note construction type and GVW)*		
No bridges or bridges with no weight and/or width restrictions. Low weight bridges restricting emergency vehicle access.	0 5	0
PRIMARY ROAD WIDTH *(main access/egress routes)*		
At least 7m wide. Less than 7m wide.	0 4	0
SECONDARY ROAD CHARACTERISTICS		
Majority of structures on primary access road. Majority of structures on secondary access roads with some primary road access. Majority of structures on secondary roads. Majority of structures located on secondary roads with some dead-end roads. Dead end road systems that limit emergency crews to remain in the area under certain fire conditions due to lack of egress.	0 1 2 4 5	4
EVACUATION PLAN		
Updated plan in place, community is aware. Plan in place not implemented community unaware. No plan.	0 3 5	3 **B**
FIRE DEPARTMENT		
Volunteer FD more then 25 members. Volunteer FD more then 20 less then 25. Volunteer FD less then 20.	1 3 5	5 **C**
FIRE SMART		
Community has FireSmart certified representative and strategies are in place. Community has started a FireSmart program, strategies not in place. Community presently has no FireSmart initiatives.	0 3 5	5 **D**
MUTUAL AID/AUTOMATIC AID		
Fire department has a mutual aid/auto aid agreement in place. Fire Department has no aid agreements.	0 5	5 **E**
TOTAL COMMUNITY DESIGN RATING		

The overall rating is based on the community's ability to withstand fire front contact to critical infrastructure		Rating 25
COMMUNITY CHALLENGES		**Rating**
UTILITIES		
All utilities are underground. Some utilities are underground. No utilities are underground.	0 3 5	5
ACCESS TO CRITICAL INFRASTRUCTURE *(example: Pump house and reservoir)*		
Access more than 4m wide with hammerhead turnaround and access for fire apparatus. Driveway less than 4m wide no turnaround has access for fire apparatus. No access for fire apparatus.	0 3 5	0
No obstructions or overhead branches below 5m. Obstructions or overhead branches below 5m.	0 5	0
No bridges or bridges with no weight and/or width restrictions. Low weight bridges restricting emergency vehicle access.	0 5	0 **F**
Driveway slope less than 10%. Driveway slope greater than 10% present.	0 5	0
No gate/non-locking gate. Locked gate/restricted access.	0 5	0
Most Addresses clearly visible from road. Most Addresses not visible from road.	0 5	0 **G**
DOMINANT TREES *(take an average of what's around the community)*		
Deciduous (Hardwoods). Mixed (Hardwoods and Conifers) 50/50. Conifers (Pine and/or Red cedar).	1 5 10	10
HOME IGNITION ZONES *(take an average of what's around the community)*		
10% of structures are in the **interface** with very light conifer fuel loads. 10% of structures are in the **interface** with moderate conifer fuel loads. ---------- ---- 70% of structures are in the **intermix** with moderate conifer fuel loads. 10% of structures are in the **intermix** with heavy conifer fuel loads and heavy brush.	0 3 3 5	3 5
LADDER FUELS *(take an average of what's around the community)*		
No conifers or conifer branches pruned up at least 2.5m. Conifer branches close to ground.	0 5	5
TYPE OF GROUND COVER *(Majority or Type surrounding the community)*		

Grass up to 15cm tall, pine needles, hardwood leaves. Tall grass, 15-30 cm. Grass more than 30cm tall. Shrubs with leaves. Shrubs with needles. Moderate to heavy slash.	3 5 8 8 10 15	15
SLOPE OF COMMUNITY		
Much of the community is flat (0-5%) Most of the community is on a moderate slope (6-20%). Community is located on a steep slope not accessible to fire apparatus. (more than 20%).	0 2 4	0 **H**
FUEL STORAGE (includes propane tanks, firewood, elevated tidy tanks)		
None. Located more than 10m from structure and has a proper fuel break established. Located 1.5-10m from structure and has a partial fuel break established. Located less than 1.5 m from structure no fuel break established.	0 1 3 5	5 **I**
CRITICAL INFRASTRUCTURE RESPONSE PLAN (wildfire mitigative tactics)		
Community has a critical infrastructure response plan in place. Community has no critical infrastructure response plan in place.	0 3	3 **J**
FIRE DEPARTMENT TRAINING		
FD members trained to Playbook Exterior + S-100-S185 or WSPP-115 & WFF 1. FD members trained to Playbook Exterior with some wildfire knowledge. FD members trained to Playbook Exterior. FD members not trained to Playbook no wildfire knowledge.	0 1 3 5	3
FIRE DEPARTMENT ENGINE/TENDER		
Fire Department has minimum 1 engine and 1 tender with wildland equipment. Fire Department has minimum 1 engine and 1 tender. Fire Department has no tender and no wildland equipment.	0 3 5	0
FIRE CONTROL WATER SUPPLY		
Pressurized hydrants with minimum 1800 lpm spaced less than 300m apart. Pressurized hydrants with less than 1800 lpm or more than 300m apart. Hydrants fed by a generating system (requires power). Dry hydrant/standpipe available. River/Creeks/Cisterns that are accessible for drafting. No water sources.	0 2 3 5 7 15	**Ask John Aiken**
HELICOPTER DIP SITES (*min 1.5 m water depth year-round 45' obstruction clear)*		
Under 2-minute turnaround (< 1 kilometer). Within 4-minute turnaround (1-3 Kilometers). Within 6-minute turnaround (3-6 Kilometers). Beyond 6-minute turnaround (greater then 6 k) or unavailable.	0 2 3 5	0

COMMUNITY MAPS		
There are updated maps available. There are no maps available.	0 5	0 **L**
TOTAL COMMUNITY CHALLENGES	**Rating 54**	

CALCULATING YOUR WILDFIRE HAZARD RATING

COMMUNITY DESIGN RATING	COMMUNITY CHALLENGES RATING	TOTAL
25	54	79

Low Fire Risk: **Overall Wildfire Hazard Rating = 0-25 points**
The chances of your community's critical infrastructure surviving a wildfire are GOOD. Little is needed to improve your situation. Keep up the good work!

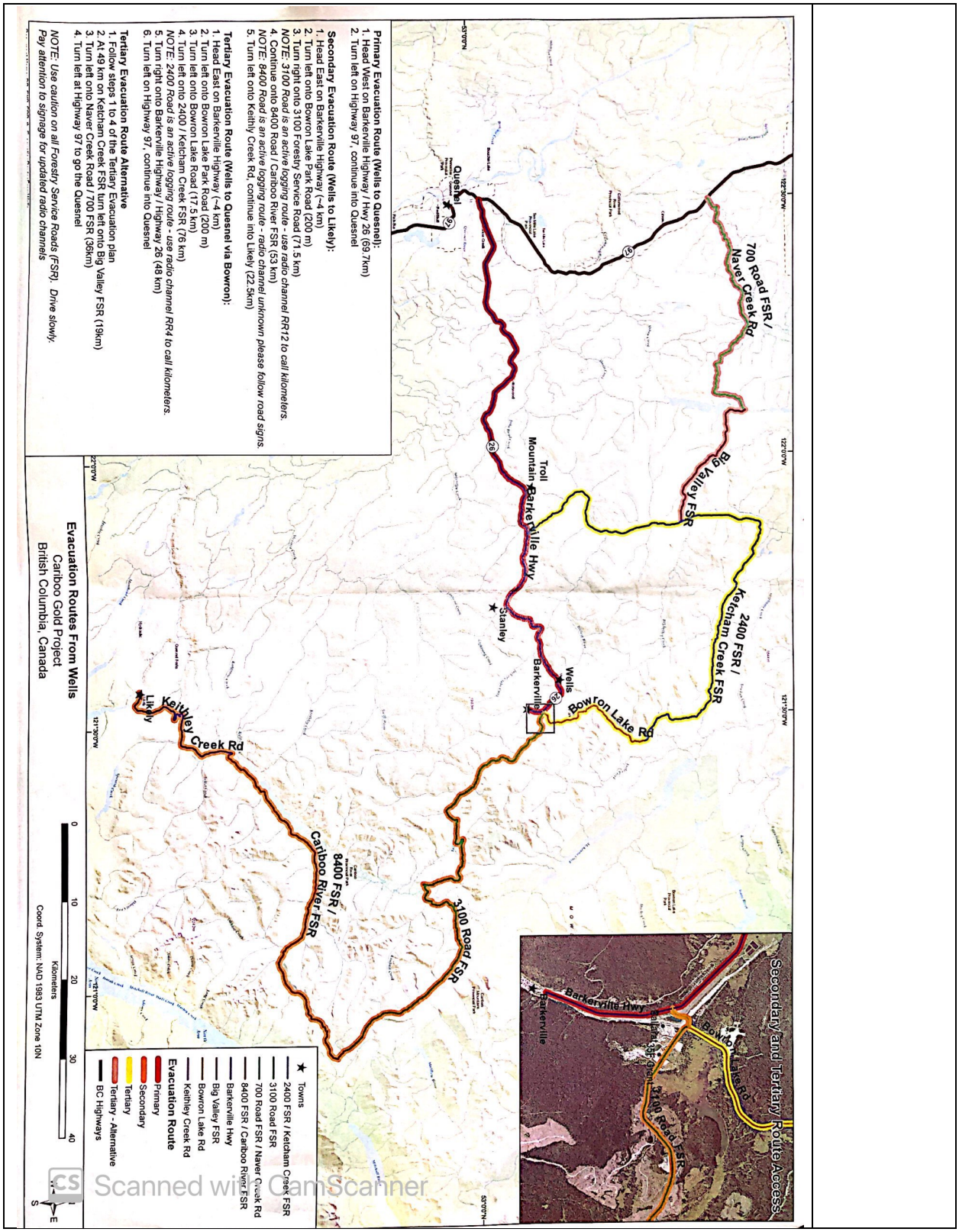
Moderate Fire Risk: **Overall Wildfire Hazard Rating = 26-59 points**
The chances of your community's critical infrastructure surviving wildfire are FAIR. Some minor improvements will make the identified structures more fire resistant. Check the categories on the form where you scored poorly.

High Fire Risk: **Overall Wildfire Hazard Rating = 60-119 points**
The chances of your community's critical infrastructure surviving a wildfire are NOT GOOD.
Improvements in structure and site hazards are necessary.

Extreme Fire Risk: **Overall Wildfire Hazard Rating = 120 or more points**
Your community's critical infrastructure MAY NOT SURVIVE if a wildfire passes through the area. Take a serious look at your community and make improvements. If you don't, you could be facing disaster. You'll find that even small changes could make the difference between losing or saving your home.

NOTES & RECOMMENDATIONS FROM ASSESSMENT SCORES:

A - Wells/Barkerville has only 1 primary access road to the west on Highway 26 to Quesnel. Secondary Evac route (Wells to Likely 3100/8400 FSR) and Tertiary Evac route (Wells to Quesnel 2400/700 FSR). See map on next page.


Primary Evacuation Route (Wells to Quesnel):
1. Head West on Barkerville Highway / Hwy 26 (69.7km)
2. Turn left on Highway 97, continue into Quesnel
Secondary Evacuation Route (Wells to Likely):
1. Head East on Barkerville Highway (~4 km)
2. Turn left onto Bowron Lake Park Road (200 m)
3. Turn right onto 3100 Forestry Service Road (71.5 km)
NOTE: 3100 Road is an active logging route - use radio channel RR12 to call kilometers.
4. Continue onto 8400 Road / Caribou River FSR (53 km)
NOTE: 8400 Road is an active logging route - radio channel unknown please follow road signs.
5. Turn left onto Keithley Creek Rd, continue into Likely (22.5km)
Tertiary Evacuation Route (Wells to Quesnel via Bowron):
1. Head East on Barkerville Highway (~4 km)
2. Turn left onto Bowron Lake Park Road (200 m)
3. Turn left onto Bowron Lake Road (17.5 km)
4. Turn left onto 2400 / Ketcham Creek FSR (76 km)
NOTE: 2400 Road is an active logging route - use radio channel RR4 to call kilometers.
5. Turn right onto Barkerville Highway / Highway 26 (48 km)
6. Turn left on Highway 97, continue into Quesnel
Tertiary Evacuation Route Alternative
1. Follow steps 1 to 4 of the Tertiary Evacuation plan
2. At 49 km on Ketcham Creek FSR turn left onto Big Valley FSR (19km)
3. Turn left onto Naver Creek Road / 700 FSR (36km)
4. Turn left at Highway 97 to go the Quesnel
NOTE: Use caution on all Forestry Service Roads (FSR). Drive slowly.
Pay attention to signage for updated radio channels
Evacuation Routes From Wells
Cariboo Gold Project
British Columbia, Canada
Towns
2400 FSR / Ketcham Creek FSR
3100 Road FSR
700 Road FSR / Naver Creek Rd
8400 FSR / Cariboo River FSR
Barkerville Hwy
Big Valley FSR
Bowron Lake Rd
Keithley Creek Rd
Evacuation Route
Primary
Secondary
Tertiary
Tertiary - Alternative
BC Highways
Kilometers
Coord System: NAD 1983 UTM Zone 10N
Secondary and Tertiary Route Access
Quesnel
Troll Mountain
Barkerville Hwy
Stanley
Wells
Barkerville
Bowron Lake Rd
Keithley Creek Rd
Likely
700 Road FSR / Naver Creek Rd
Big Valley FSR
2400 FSR / Ketcham Creek FSR
8400 FSR / Caribou River FSR
3100 Road FSR
Scanned with CamScanner

Recommendation - Verify secondary and tertiary access requirements for bridge load limits and hazard mitigation such as Danger Trees and road stability. Alternate route may be subject to an Incident Command decision as roads may not be suitable for some vehicles.

B – Evacuation Plan in place. With the number of tourists in the area the routes could be grid locked with emergency vehicles responding and tourists coming to look as well as tourists trying to leave.

Recommendation – assess ability to coordinate an evacuation with sufficient time factoring in the volume of tourists that could be in the area.

C – Volunteer Fire Dept. has 12 members.

Recommendation – FD Members should have wildland firefighting training to safely protect structures within the fire response area. Training should include Incident Command System (ICS) 100, either S100 or Fire Fighter 1, and WSPP-115. Fire Dept. Officers / Team Leads should also have (ICS 200) and a good understanding of Strategies and Tactics in regards to Wildfire Structure Protection and Supression.

D - FireSmart Initiatives – 2 x year BCWS and Don Mgr Fire Centre talk with community. 27 June 2022 site visit found significant number of the properties require considerable site prep to be considered FireSmart. Currently Wells is at risk of a wildfire with potential for multiple structure fires that will cascade to structure to structure ignition potentially impacting FireSmart structures from the embers and radiant heat.

Recommendation – If Wells is to survive a wildfire the community needs to come together and implement FireSmart strategies on each of their properties. The current situation is one with a high probability of significant structure losses due to wildfire embers blowing onto fine fuels near structures that ignites a ground fire that can ignite the structures.

Example photo's from Wells of types of structure protection challenges if wildfire embers were landing in the community.

Material set around the home similar to the way of starting a bond fire only in a much grander scale.

High percentage of structures have firewood stacked next to them. Blowing embers can land in the wood piles, ignite them and then the structure.

The community needs to become engaged in implementing FireSmart strategies prior to Wildfire season. Waiting until the wildfire smoke is in the air will be to late to protect the homes from igniting. Start with every building by removing all flammable material 1.5m from the edge of structures.

Recommendation – Critical Infrastructure should be FireSmarted by its owners to provide an example for community members to follow. Verify that building openings such as atic vents use fine steel mesh screen to stop fire brands from blowing in. For structures such as the Water Treatment facility and Pump houses – install clean crush rock 1.5m wide around the perimeter of the structure. Space out trees for an even mix of conifer and deciduous to have a minimum of 3m from the branches of one tree in proximity to the next tree. Remove all tree branches from the ground up to 4m to prevent a ground fire from igniting the lower tree limbs and then candling up the tree with the potential of igniting the structures. From the buildings out to the property line or 10m; mow ground material (grass and weeds) so they don't exceed a height of 5cm during fire season.

Recommendation – Evaluate the existing FireSmart neighbourhood private property initiatives for homes with the Community Wildfire Resiliency Plan or Crown Land Wildfire Risk Reduction Fuel Management Tactical Plan to assess local threat conditions and wildfire risk reduction priorities. In cases where local assessments provide evidence of higher wildfire risk than is indicated by the WUI Risk Class, that information should be used to guide risk reduction activities. BA Blackwell has been hired to assess the community forest and provide recommendations.

Recommendation – For those structures where FireSmart strategies have been implemented; consider pre-installation of roof top sprinklers that the Fire Dept. or its delegate can connect to fire department hoses and pumps when the structures are threatened from a wildfire. The pre-installation of sprinklers will aid the fire dept. in setting up the community structure protection plan more quickly when time is of the essence. Sprinklers can cause water damage when they directly hit structure and therefore the Fire Dept. should provide guidance to property owners and sign off on permission for agencies to use the sprinklers when a wildfire threatens the community. It must be noted that sprinklers are most effective when FireSmart initiatives have been completed to prevent radiant heat and direct flame contact on the

structure. In many cases FireSmart initiatives can make a structure "Stand Alone" resulting in sprinklers not being necessary to protect the structure from a wildfire.

Recommendation – a map that identifies FireSmart properties will help prioritize the installation and operation of sprinklers for Structure Protection.

Recommendation - a map that identifies properties with Fire Dept. approved pre-installed sprinklers for effective timely activation. Promotes water conservation by having the sprinklers operated by the fire department rather than a homeowner turning them on an evacuating leaving them unsupervised with the risk of causing water damage.

Recommendation – Building Bylaws that include establishing and maintaining a 1.5m defensible space around all new construction. (Non-flammable material such as clean gravel, or concrete sidewalks). District bylaws that support FireSmart will help reduce structure losses from Wildfires. Neighbours need to work together to implement the plan as the weakest link will be neighbour who's house catches on fire that results in the house next door catching on fire.

Communication to property owners - During fire season, when not at home, store flammable patio furniture indoors or 10m away from the house. The "Welcome" mat at the front door is usually flammable and therefore not welcome during fire season.

When a forest fire is near, close all windows and doors to prevent blowing fire brands from entering the building. Move all flammable material on decks and patios or next to the house, at least 10m away including BBQ propane cylinders and gas cans. For firewood sheds, seal off the opening with a tarp to minimize the risk of fire brands igniting the wood pile.

Sprinklers are effective when placed up high to wet the entire perimeter of the building from the top down for 30 min prior to fire arrival and running while the fire passes by. Running sprinklers days in advance of the fire is a waste of water which is a critical resource required for fighting fire. Sprinklers can cause water damage to a structure if not properly set up and monitored.

At the community level, start with critical infrastructure and follow the recommendations above. Work with Wells community representatives to facilitate meetings with private property owners to promote FireSmart. Property owners work from the homes outward. When the community is FireSmart than expand to work on forest fuel modifications such as harvesting around the perimeter of the community on the crown land to open up the tree canopy and remove the ladder fuels. If the fuels aren't managed next to the homes an ember

from the wildfire could blow in from more than 2km away and ignite a spot fire that could burn down the structure.

E - Mutual Aid – Barlow. Quesnel currently does not have a mutual aid agreement with Wells but may send crews and apparatus if it does not compromise fire protection at Quesnel. Considerations - Response time and potential of a wildfire blocking Hwy 26 between Barlow and Wells.

Recommendation - During Wildfire season, consider mutual aid request at earliest indication of a structure fire or forest fire in proximity to structures. Contact BCWS per Emergency Plan – WVFB.

See Part II of this report for Mutual Aid list of apparatus.

F – Secondary access via 3100/8400 FSR and Tertiary access via 2400/700 FSR may have bridges that have weight limitations preventing emergency vehicles from responding if Hwy 26 was blocked.

Recommendation - Confirm Bridge load limits on FSR 3100/8400 and FSR 2400/700 per Engine and Tender vehicle weight.

G – some properties need address signs.

H - Community in valley's and south wind pushes fire towards structures

I – Fuel Storage – much of the community burns wood to heat homes and it is stored in carports or against the exterior wall under the roof eve.

Recommendation – store wood in an inclosed wood shed to prevent fire barnds (embers) from landing in the wood pile and catching it on fire that subsequently catch the structure on fire. Tarp wood piles during wildfire season to prevent fire brands (embers) from blowing into the wood pile and place a sprinkler on top that can be turned on during a wildfire to prevent embers from catching the wood on fire.

Recommendation – Public FireSmart awareness via community meetings and fire dept assessments to create pre-plans.

J - Critical Response Plan – Create Pre plans for all Critical Infrastructure including proposed plan for sprinkler deployment and water source.
Recommendation - Confirm the ability to electronically air drop or Email the PDF Pre plan files to mutual aid response crews.

K –Much of the Wells Fire Protection Area has Hydrant protection. Fire Control Water Supply via hydrants is limited by the size of the community reservoir that supplies both the north and south neighbourhoods. Willow River and Jack of Clubs Lake provide an alternate water source.

Recommendation - Relay Tanks, initially filled from hydrants, should be used for the homes along the interface. Relay tank provide a water source for MK3 pumps to boost water pressure to operate sprinklers installed above the roof height.

Recommendation – Cariboo Regional District and District of Wells partner in an investment to purchase BB4 with B2X pump heads along with 20,000 ft of 2.5inch structure hose to be used in the Cariboo and District of Wells when communities are threatened by wildfire. For Wells the equipment could provide an effective portable hydrant line for Structure Protection from Willow River. Provincial Wildfire assets could be in short supply if the province experiences a "heat dome" fire season like 2021.

L – Maps – Wells composite maps (Utility Eng).

Recommendation – printed maps 60cm x 100cm for each Section showing Escape Routes, Safety Zone, Critical Infrastructure, Tender Filling sites, Hydrants, and property address. Include Overview to provide Structure Defense teams for operational planning.

The need for this plan was identified by the Fire Chiefs Association of BC and BC Wildfire Service because of the challenge of protecting urban and rural development that continues to expand into the wildland environment with minimal consideration for the potential of a wildfire event.

PART II

RESPONDER SAFETY CHECK LIST

All responders will receive a pre-deployment safety briefing that includes:

- Current wildfire location, rank, and direction of travel and any changes expected during the operational period;
- Current weather and any changes expected during the operational period;
- Current and planned air operations;
- Current and planned fuel mitigation activities (backburns, land clearing)
- Check-in procedures and intervals;
- Other hazards in operational areas;
- Safety zone locations;
- Medical unit location(s);
- Reporting structure, assignment, and radio call-sign;
- Assigned radio frequency(ies);
- Contingency communications (cell phone, satellite phone numbers); and
- Expectations for personal protective equipment.

"Drought conditions, the build-up of hazardous fuels, and more homes in fire-prone landscapes are changing how we experience Wildfires in British Columbia."

CONTACT LIST NAMES 24/7 PHONE NUMBERS

Name of Community: **District of Wells**

Fire Station Location: Wells Fire Brigade, 2314 Baker St. Wells

Emergency Operations Center: District of Wells Municipal Office, 4243 Sanders Ave,
Donna Forseille Chief Admin Officer ph 250-316-6526

- Alternate EOC – Curling Rink (South Wells), Visitor Reception Centre at Barkerville or Troll Mountain Lodge (30 km wet of Wells)

Mayor: Ed Coleman cell 250-991-9034

BC Wildfire Zone Office: Cariboo Fire Centre – Div. Mgr John Salwaski 250-925-1170

Fire Chief: Carrie Chard FD ph 250-994-3363 Emergency Contact 250-991-9332

Deputy Fire Chief: Emily Lindstrom Emergency Contact 250-_____

Emergency Coordinator: DOW Donna Forseille Emergency Contact 250-316-6526

Public Works Coordinator: Niel Doerksen Emergency Contact 250-551-8481

Roads/ Drains: EMCON Hwy 26 Emergency Contact 250-992-8809
non emerg Cole Southwick Ops Mgr 250-992-8809 ext 802

Waterworks: Niel Doerksen 250-994-3302

BC Ambulance Service: 12509 Barkerville Highway Wells, 250-994-3229 Emergency 911

Medical Center/Hospital: GR Baker Hospital (Quesnel) 543 Front St, Quesnel BC 250-985-5600

RCMP: next to 12509 Barkerville Highway Wells, 250-994-3314 Emergency 911

BC Hydro: Emergency Contact 1-877-311-8611

Telus: Emergency Contact 1-888-310-2267

Search Rescue Society – 14 Johnston Bridge Loop, Quesnel Emergency 911

North Cariboo Hwy Rescue – 298 Evans Dr., Quesnel 250-992-0925 Emergency 911

WELLS FIRE PROTECTION AREA

Latitude: 53°06'19"N **Longitude**: 121°34'24"W

Toporama Map: 93H SW

Fire Department Jurisdiction: District of Wells

Estimated Population: 500 summertime. 218 permanent residents

FD Apparatus: Wells Fire Dept. has 12+ Volunteer individuals Exterior qualified.
Fire Dept. operaters four apparatus.

- Ladder Truck (500 gal) 1990
- Engine Type 1 (1000 gal) 1979
- Engine Type 2 CAF (1000 gal) on a 2004 550
- Type 1 Tender (2000 gal) 1988

Mutual Aid: Mutual Aid – 1Ex2 = 2 Type 1 Engines, 2Tx1 = 1 Type 2 Tender

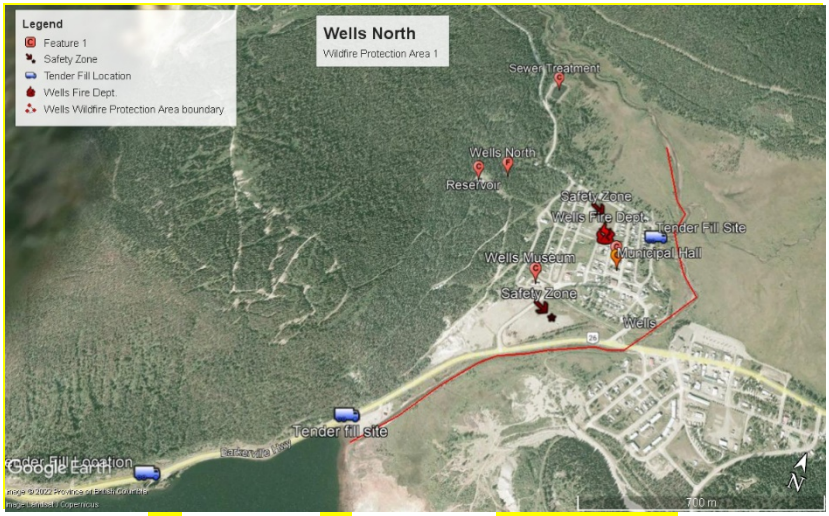
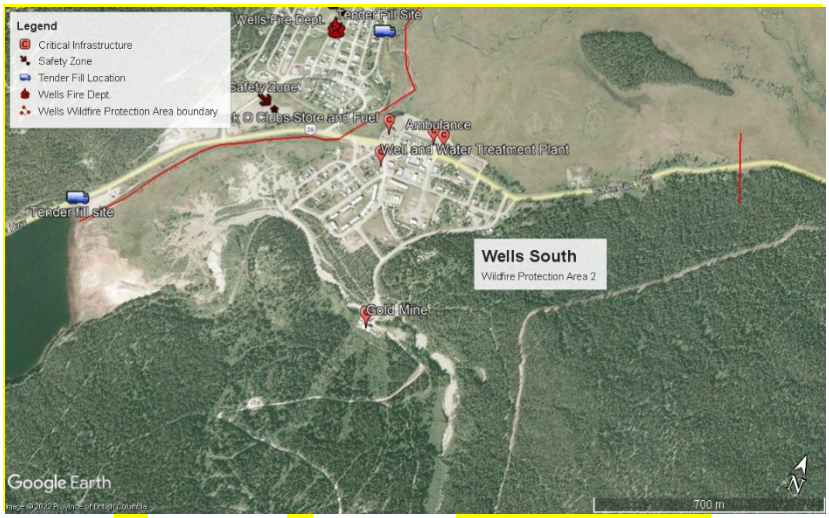
- Barlow Crk FD mutual aid apparatus. Response time greater than 50 min.
    - 2Ex1 or 2Tx1
- Quesnel FD no mutual aid but may send apparatus if they can spare it. Response time greater than 1 hr.

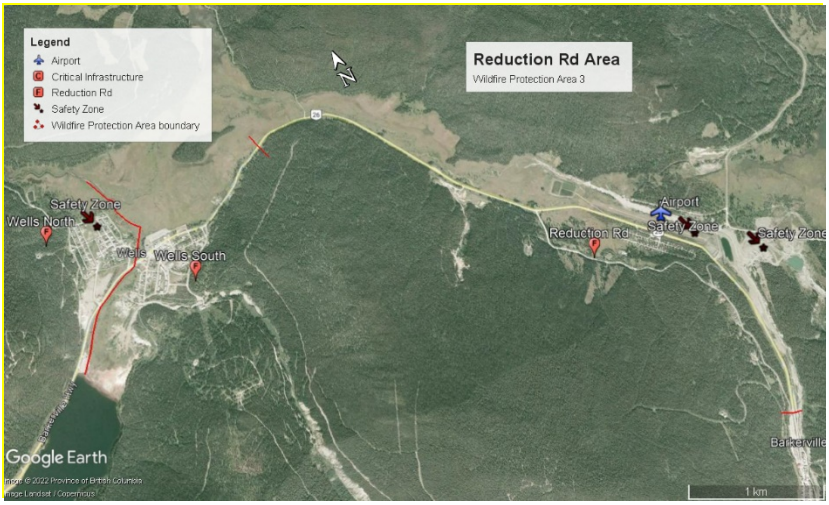
Number of Apartments: 10+ **Row House: _____**
Motel/Hotel: 3
Movable Dwelings: 2 RV's parks

Land area in square kilometers: 158.09 sq km

Estimated number of Private Dwellings: 156
For purposes of allocating resources to protect structures from a wildfire, community of Wells Fire Protection Area has been divided into 2 Wildfire Protection Areas.

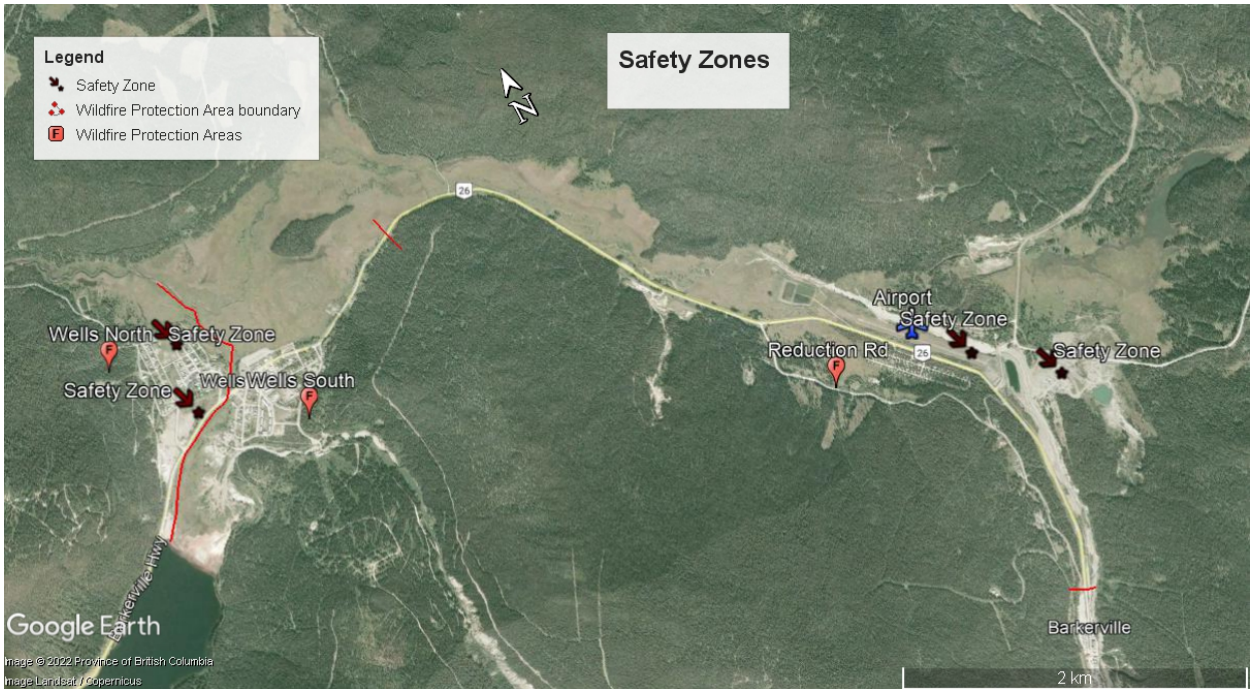
Wells has 23 fire Hydrants supplied by 1 well and 1 reservoir.

Area	Total # Properties 156 with potential infill of another 35+ building lots
Wells North Wildfire Protection Area 1 of 2 (north side of Willow River)	 80 – Residential, 8 - Commercial, 2-2 story hotels
Wells South Wildfire Protection Area 2 of 2 (south side of Willow River)	 50 – Residential, 7- Commercial, 8-2 story appartments

Reduction Rd Area Wildfire Protection Area that is not located within Wells or Barkerville FD response Area. BCWS Structure Protection Specialist may need to deploy Structure Protection Crews and equipment if the area is threatened by a Wildfire. No hydrants and Not in a Fire Protection Area. Barkerville Gold Mine Camp with approx. 50 residents	 Approx. 15 residential properties, 1 – 50 person mine camp, 2 camp grounds with 100 + sites each.
Historic Barkerville	See Barkerville CWPP 2017
TOTALS	Wells provides potable water to 15 commercial and 116 residential connections. Some of the connections are seasonal and only occupied during the summer. **156 properties with structures on them (primary = home/cabin) + (secondary structures = garages and wood sheds, and other out buildings)**

SAFETY ZONE

Consider ability for safety zone large enough to hold responders' equipment to shelter during fire passage for speedy return to mop up after fire front passes. Quick response to extinguish spot fires that could ignite structures after the fire front has passed.



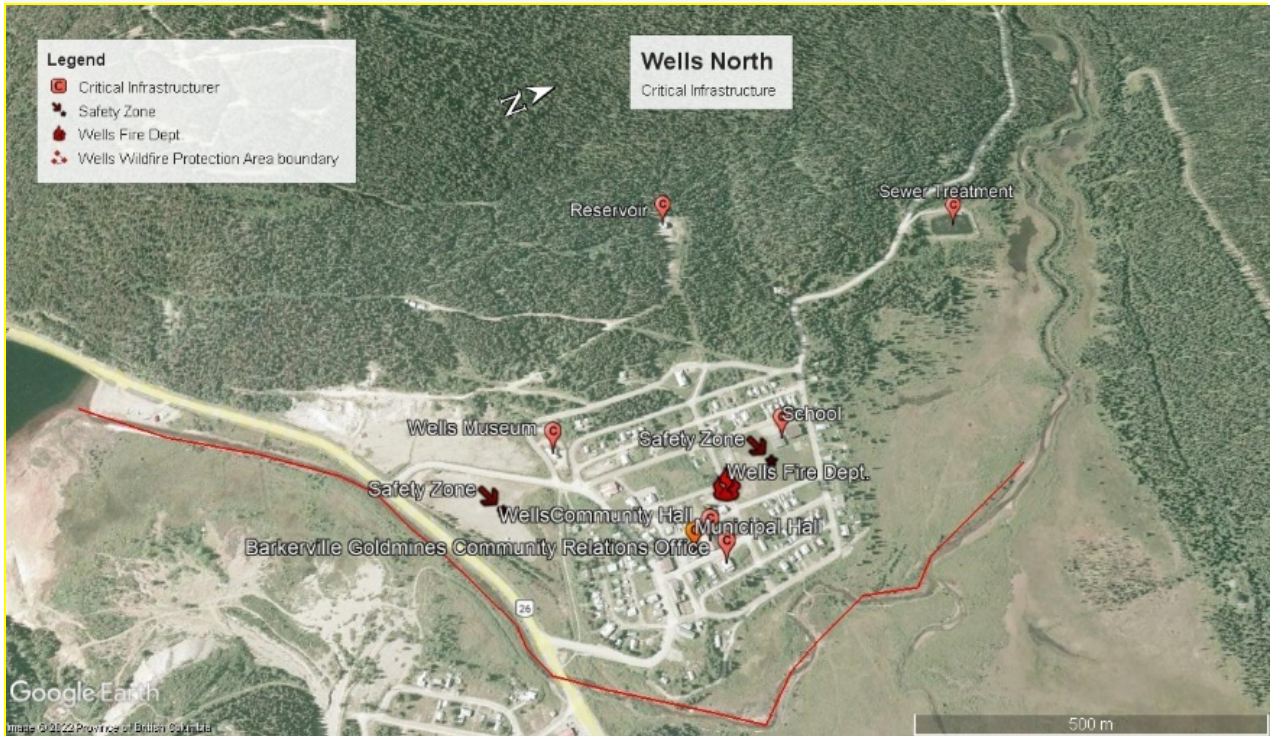
Safety Zone options depending on # of crews and vehicles.

Wells North Wildfire Protection Area 1 of 2	Ball diamond at entrance to town, and school playground per map above.
Reduction Rd Area	 East end of Airport 2,400ft paved runway, and Mine staff camp.

CRITICAL INFRASTRUCTURE

Critical infrastructure are structures that if damaged or destroyed would have a significant impact on the quick recovery of a community following a forest fire. For this reason, critical infrastructure is identified as the highest priority for structure protection. For purposes of allocating resources to protect structures from a wildfire, we divided the area into 2 Wildfire Protection Areas .
With input from the Mayor we identified the following critical Infrastructure:

Wells North – Wildfire Protection Area 1 of 2, north side of Willow River.



Wells North Wildfire Protection Area 1 of 2 District of Wells Municipal Office Sanders Ave	

Wells Fire Hall

Wells Community Hall
Sanders Ave

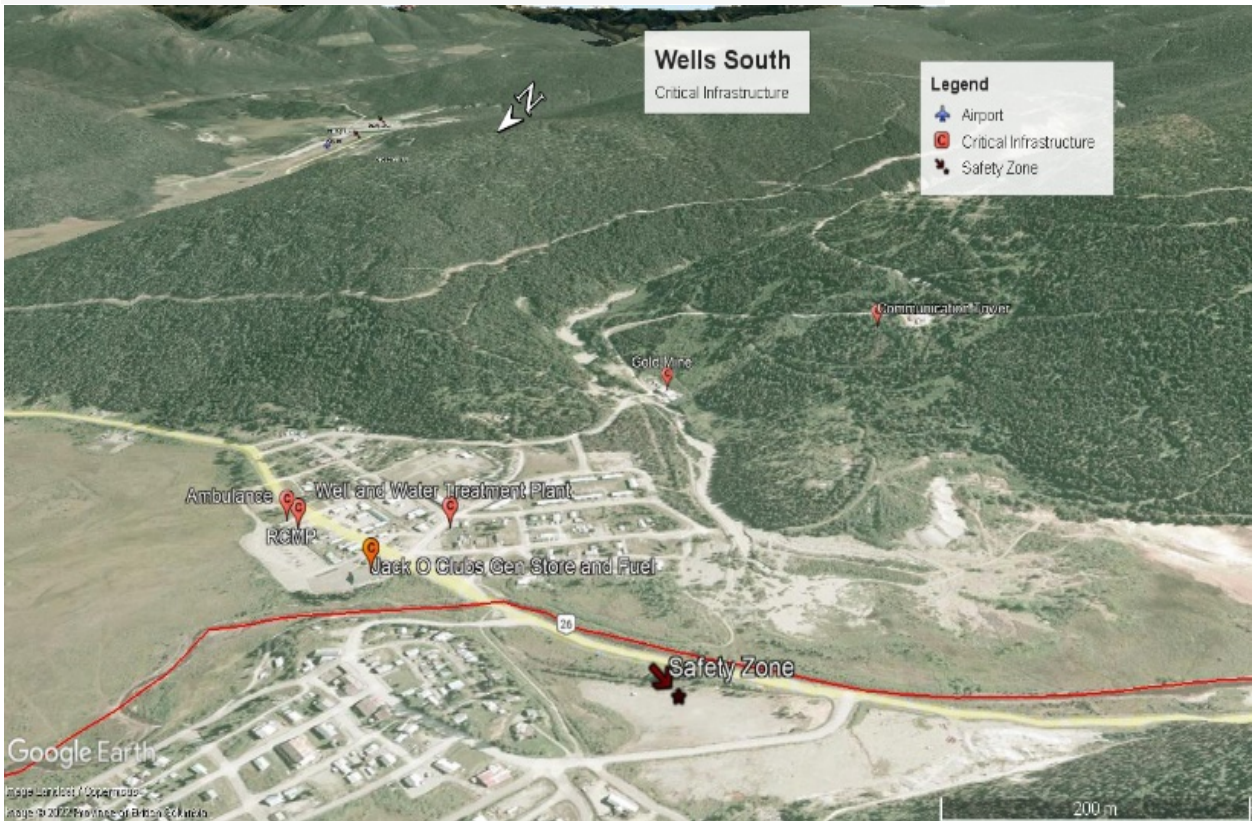
Barkerville Goldmines Community Relations
4270 Sanders Ave

Wells hotel

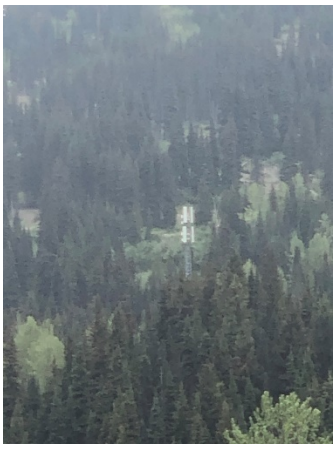
Wells Sewer Lift Station Blair Street.	
Wells Museum	
Wells Sewer Treatment Plant	
Wells Fibre Communication Located behind the Fire Dept.	

Wells Reservoir	
Wells School / Day care	

Wells South – Wildfire Protection Area 2 of 2, south side of Willow River.



Wells South Wildfire Protection Area 2 of 2 Jack O Clubs pub, Gen. Store, and Fuel	 

Barkerville Gold mine Primary employer in Wells.	
Communications Tower Up past Barkerville Gold Mine on Ski Hill Rd.	
Wells water well, water treatment, and backup power source.	
Ski Hill Road and Solibakke Drive	

Backup Gen for Well Water Treatment and pumps	
RCMP office	
BC Ambulance	

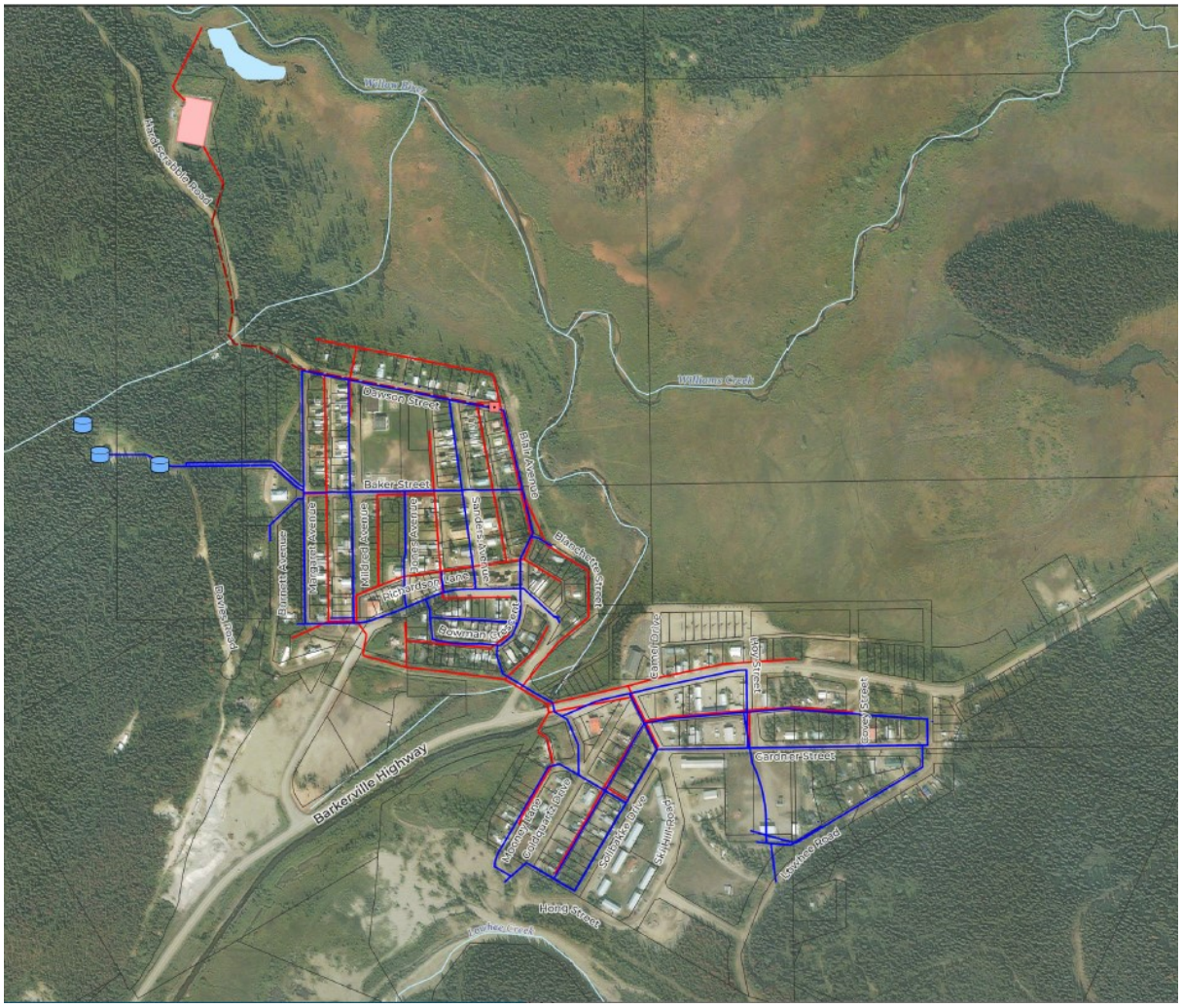
Reduction Rd Area Outside of Wells Fire Protection Area is Reduction Rd. Area that if threatened by wildfire a BC Wildfire Structure Protection Specialist will have them prioritized and triaged for structure protection. Critical Infrastructure includes a building for communication and a 50 person camp for the Gold mine.	

The identified critical infrastructure for the most part follows the recommended FireSmart guidelines and serves as an example for the public. **FireSmarting around the critical public infrastructure increase its resilience to wildfire and stand as an example to the public of proper FireSmarting methods.**

WATER FILL SITES

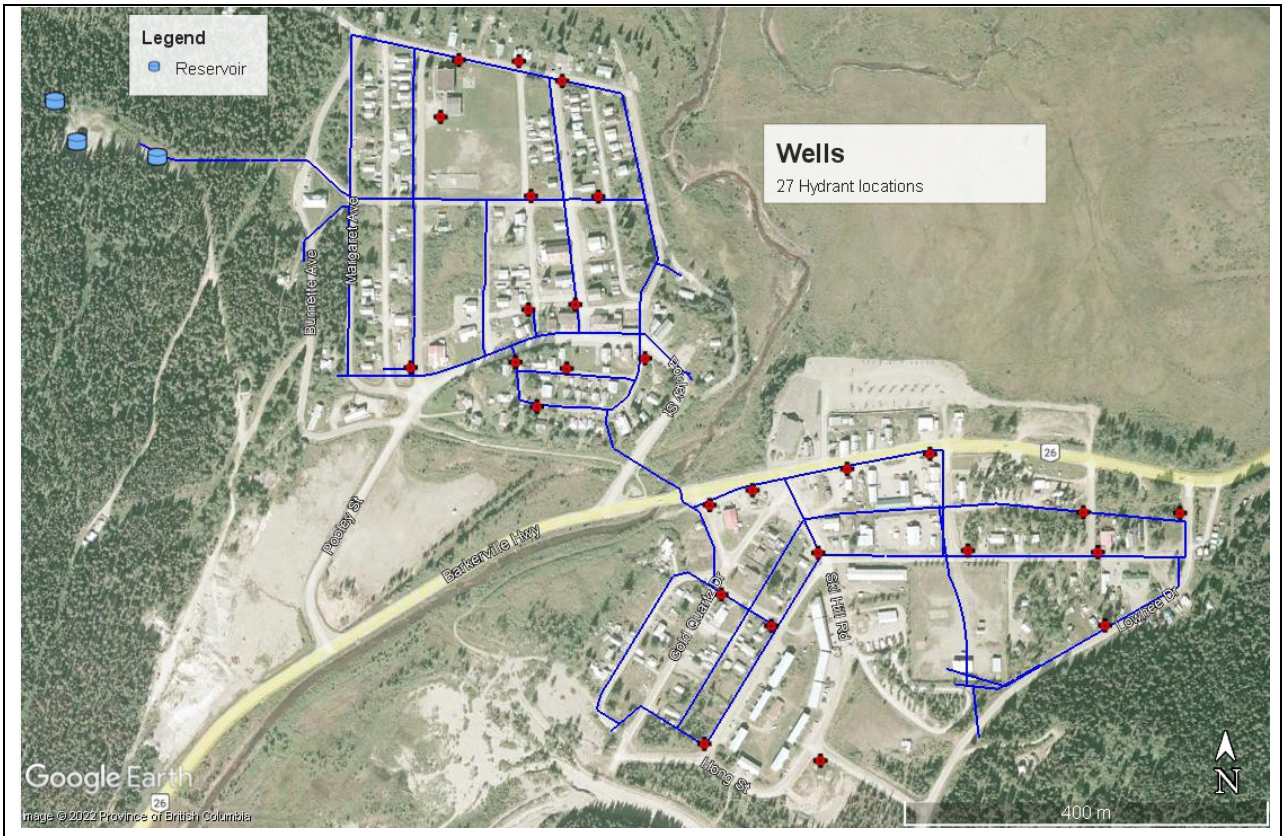
The water system services the community from Burnett Avenue and Dawson Street in the northwest to Lowhee Road in the southeast. A groundwell and water treatment plant are located at Ski Hill Road and Solibakke Drive. Treated water is distributed directly into the distribution system from the water treatment plant, where both community services and a storage reservoir are connected. The storage reservoir is located on the hill to the community's north west. The water system has only one pressure zone. 23 hydrants evenly divided between Wells North and Wells South.

Tender fill sites located at Jack of Club Lake Visitor Centre and Boat Launch, and from the Willow River that divides the community.



Water lines in Blue, Sewer lines in Red.

Hydrants are intended for Structure Supression (structures on fire). Hydrants may be able to support Structure Protection (sprinklers deployed to increase humidity around the perimeter of each structure) provided the water supply can meet the fire department needs to extinguish structure fires. 2,500 gal Relay Tanks with MK3 pumps used to operate Structure Protection sprinklers should be positioned near neighbourhood hydrants for refilling and when the hydrants water supply is needed for Structure Supression the Relay Tanks would be filled by Tenders and or have the sprinklers supplied with MK3 and BB4 pumps from the Willow River.

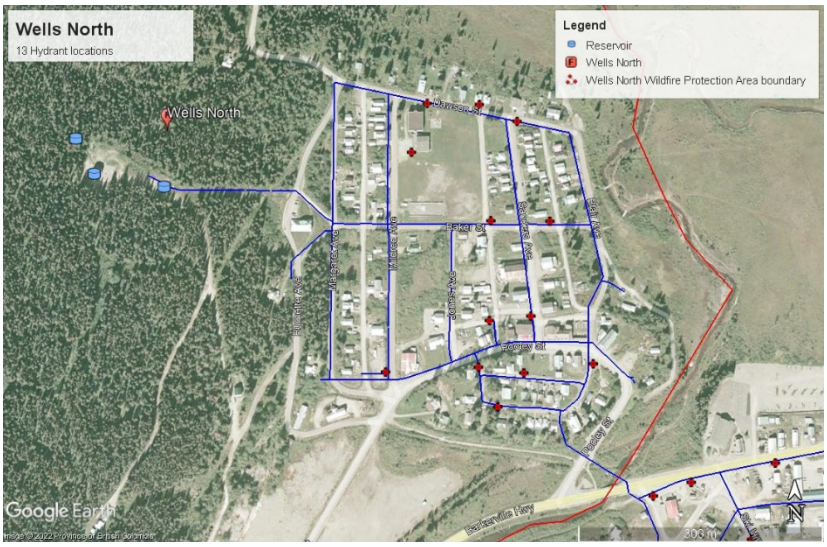
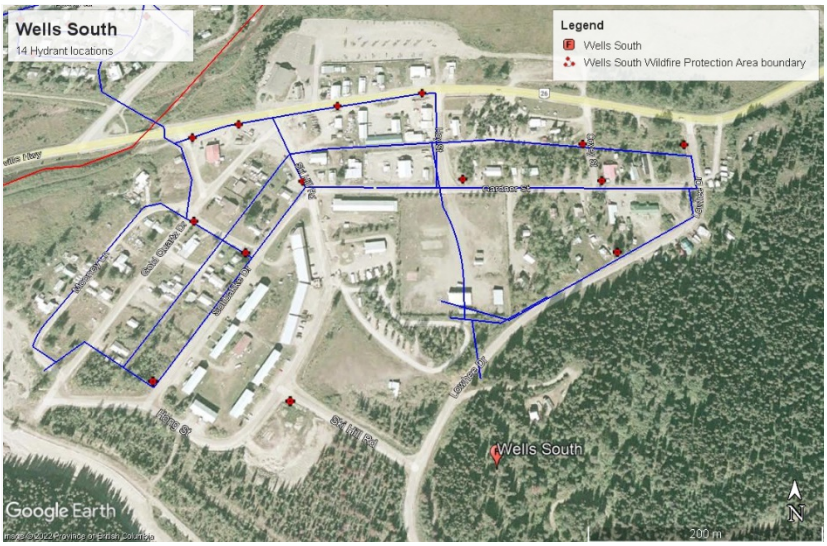
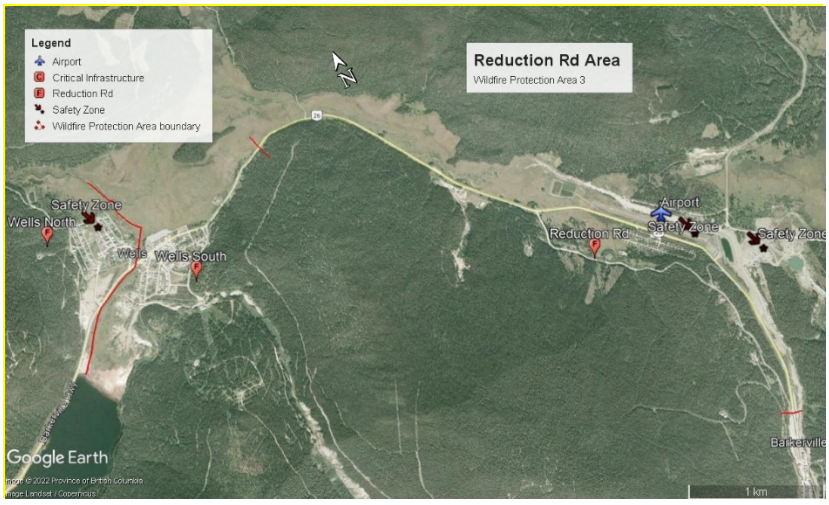


Hydrants all maintained by municipality.

Barkerville Gold Mine has cisterns – fire protection pumps

What is FD redsponsability for Gold Mine fire protection?

Pump to reservoir, with back up power, _____ Imp gal of reservoir and refresh rate __ imp gal/min.

Wells North Wildfire Protection Area 1 of 2 13 Fire hydrants and Willow River using MK3 and BB4 pumps to operate sprinklers. Reservoir located in Wells North.	
Wells South Wildfire Protection Area 2 of 2 14 Fire hydrants. Well and Water Treatment Plant located in Wells South.	
Reduction Rd Area Tender fill from river (_name_) Does Barkerville Reservoir have capacity to supply water to Tenders to protect Reduction Rd Area including Mine camp? Barkerville Reservoir __ imp gal	

Tender Fill Sites

Jack Of Clubs Rest Area

Mid way along the lake, off of Wells/Barkerville Hwy

Wells Visitor Centre	
Willow River Rec Trail Bridge Tender access off of Blair St.	

DEFINITIONS

Anchor Point: A safe location, such as a river or road, that is a barrier to fire spread and from where crews should start building a fire break or line. Anchor points should prohibit fire from establishing itself on the other side of an unsuspecting crew.

Community: An area or place considered together with its inhabitants, whether or not the community represents an official jurisdiction.

Drafting: The use of suction to move water from a vessel or body of water below the intake of a suction pump

Drafting Site: An area with water source that is suitable for the access and positioning of firefighting equipment (portable pump, tankers, brush trucks, and/or engines) to engage in drafting.

Escape Routes: Predetermined routes out of the hazard zone that leads back to the safety zone. Crews should always have two escape routes that are marked, walkable, clear of debris, and allow for expedient emergency egress.

Fill Site: A pressurized water source where fire apparatus can fill their tanks without drafting. Examples include hydrants, raised reservoirs, or pumps.

Fire Smart: A national program designed to reduce interface fire risk to communities. In BC, the program is administered by the Ministry of Forests, Lands and Natural Resource Operations Wildfire Management Branch.

Fuel Management: Generally associated with the reduction of surface and ladder fuels through mechanical removal, biological methods, or prescribed burns.

Lookout: Person who has the responsibility of watching fire behaviour and relating the situation to their supervisor. Should be located in an advantageous position for wildfire observation.

Risk Management: The continuous process of identifying, analyzing, and evaluating risks and resources; and weighing these factors against operational objectives. Risk management at WUI events must prioritize the life safety of first responders.

Safety Zone: An area devoid of combustibles and fuels, that provides a separation distance for firefighters and their apparatus that is four times the anticipated flame lengths.

Situational Awareness: The perception of environmental elements with respect to time and/or space, the comprehension of their meaning, and the projection of their status as variables (time, weather, resources, tactics, etc.) change.

Structure Triage: The process of inspecting and classifying structures according to the defensibility or non-defensibility based on numerous factors including the establishment of a safety zone, fire behavior, location, construction, and adjacent fuels.

Value: A generalized term used by responding emergency officials to identify structures (private and public) whether commercial, industrial, public infrastructure or residential.

STRUCTURE TRIAGE CATAGORIES

Structures identified in this report were deemed to be priorities in the community's resilience to continue servicing local residents in the aftermath of a wildfire event, or they were identified as" historically/culturally significant" in the identity of the community or area. The categories listed below provide a baseline in determining if the structure(s) are Defensible or Non-Defensible. Certain initiatives could change a structure from Non-Defensible to Defensible i.e. FireSmart

1. **Defensible – Prep and Hold**
   - **Determining factor:** *Safety Zone present for firefighters with water supply.*
   - **Size up:** Structure has some tactical challenges.
   - **Tactics:** Firefighters needed onsite to implement structure protection tactics during fire front contact.

2. **Defensible – Standalone**
   - **Determining factor:** *Safety Zone present.*
   - **Size up:** Structure has very few tactical challenges. (Owners heavily invested in Fire Smarting).
   - **Tactics:** Firefighters may not need to be directly assigned to protect structure as it is not likely to ignite during initial fire front contact. However, no structure in the path of a wildfire is completely without need of protection. Patrol following the passage of the fire front will be needed to protect the structure.

3. **Non-Defensible – Prep and Go**
   - **Determining Factor:** *NO Safety Zone present.*
   - **Size up:** Structure has some tactical challenges.
   - **Tactics:** Firefighters not able to commit to stay and protect structure. If time allows, rapid mitigation measures may be performed. Set trigger points for safe retreat. *Remember, pre-incident preparation is the responsibility of the homeowner.* Patrol following the passage of the fire front will be needed to protect the structure.

4. **Non-Defensible – Rescue Drive-by**
   - **Determining factor:** *NO Safety Zone present.*
   - **Size up:** Structure has significant tactical challenges. (Owners not invested in Fire Smarting the structure).
   - **Tactics:** Firefighters not able to commit to stay and protect structure. If time allows, ensure people are not present in the threatened structure (especially children, elderly, and invalid). Set trigger point for safe retreat. Patrol following the passage of the fire front will be needed to protect the structure.

When a community or fire protection area is overwhelmed in its ability to defend itself from wildfire, a request for additional firefighting resources may be submitted to the Province via the Office of the Fire Commissioner under an EMBC incident task number or through BCWS under a wildfire incident number. The management of the Provincial resources are detailed in the Inter-Agency Agreement between the Office of the Fire Commissioner, Fire Chiefs Association of BC and BCWS.

The Structure Defense Plan (SDP) that follows was created by a Structure Protection Specialist for this community. The SDP is a foundation of planning for what Fire Defense resources may be required during a wildfire event. During an actual event the plan will be reviewed with the BCWS Incident Command Team and local authorities to determine what will be requested through the OFC. A general guideline for the number and types of fire apparatus required for an SDP is as follows:

- (1) Type 3 Engine per home within the intermix
- (1) Type 1 Engine per 2-3 homes within the interface when hydrants are present and working
- (1) Type 1 Tender to support 3 water bladders or 2 Engines
- (1) Type 2 Tender to support 2 Engines in areas without hydrants
- Type 4-6 Engines (Bush Truck) as required to support tactical patrols in the Incident Action Plan

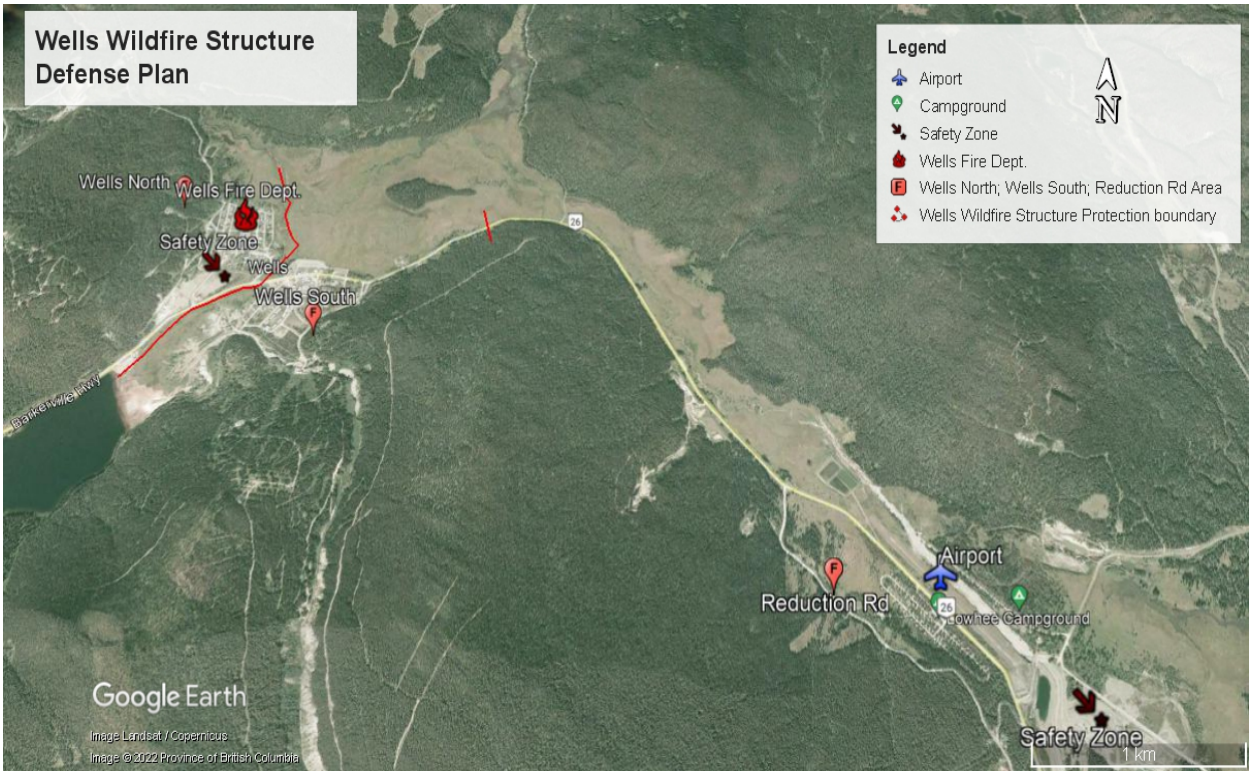
With due respect to the general guidelines above, there are several other factors that must be considered when drafting an SDP for an area under threat of wildfire. These factors will vary as much as the communities that require defending. These factors may include but not limited to the following:

- Expected fire behavior and weather forecast.
- Type, volume, distribution, and proximity of natural fuels surrounding the improved areas and local infrastructure.
- Availability of outside resources.
- Access and egress in and around properties in the interface and intermix areas.
- Volume and distribution of properties and improved values in the area.
- Water Sources.
- Availability of Safe Zones.
- Time required to deploy provincial resources.

The community is medium lot residential with some Large Lot Commercial. Most driveways are short similar to a interface community. Majority of homes back onto the forest.

The Wells Structural Defense Plan is divided into Wildfire Protection Areas for purposes of allocating resources to protect structures from a wildfire.

Area Overview

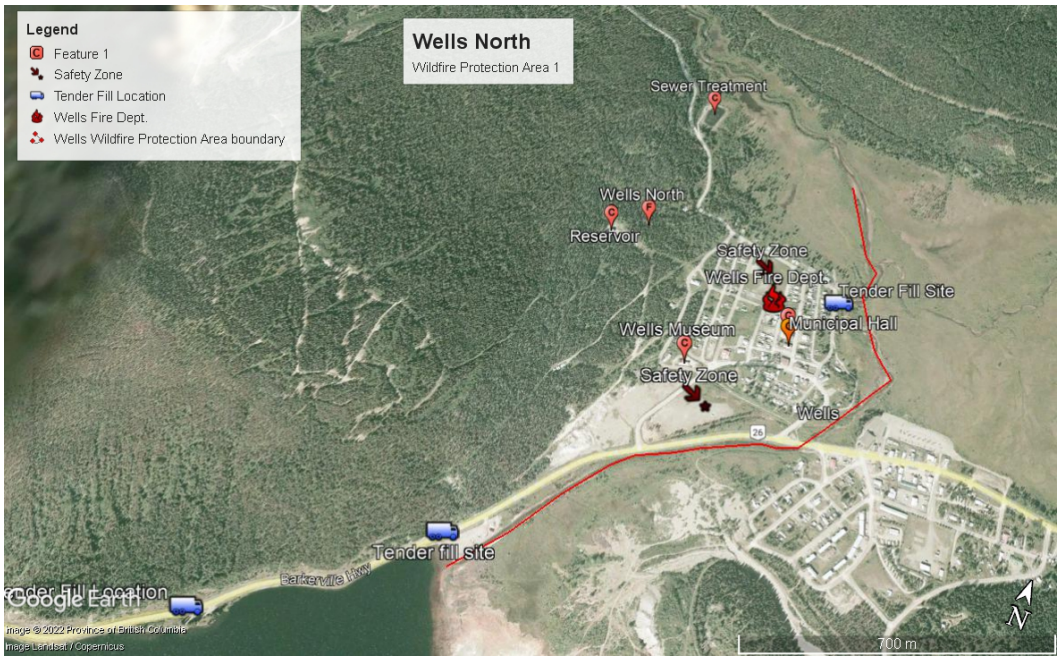


Wells North

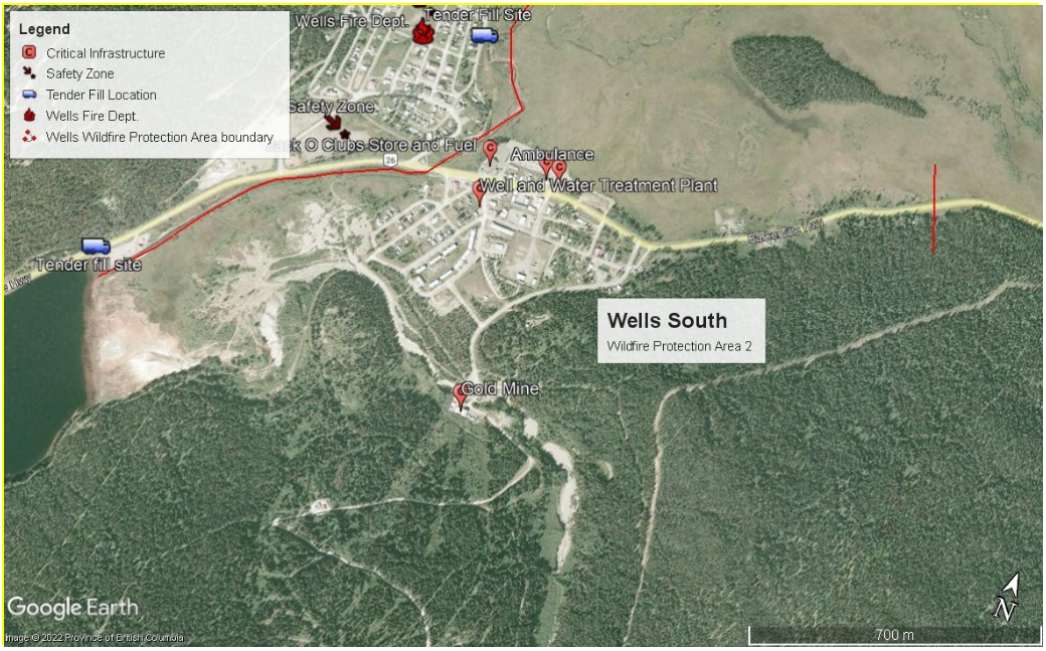
13 Fire hydrants.

80 medium sized residential lots with homes backing onto the forest.

8 commercial structures.



Coordinate Structure Protection utilizing resources such as cat guard, and aerial retardant. Fire Dept. and Structue Protection crews Defense Tactics
Structure Protection – Prep and Go with priority of Critical Infrastructure followed by primary structures closest to fire front. Time and resources complete as many structures as possible.
Structure Supression – Tactical Patrol down wind of predicted significant ember cast. Extinguish hot spots. Resources leave with adequate time to avoid loss of escape routes. Withdraw along Escape Route into the Safety Zone. Verify that fire activity supports use of school field and or ball diamond and adequate water supply from the hydrants.
Tactical Patrol after fire front passage for mop up around structures.

Wells South 14 Fire hydrants. 50 medium sized residential lots with homes backing onto the forest. 7 commercial structures. 8-2 story appartment buildings	 Coordinate Structure Protection utilizing resources such as cat guard, and aerial retardant. Fire Dept. and Structue Protection crews Defense Tactics Structure Protection – Prep and Go with priority of Critical Infrastructure followed by primary structures closest to fire front. Time and resources complete as many structures as possible. Structure Supression – Tactical Patrol down wind of predicted significant ember cast. Extinguish hot spots. Resources leave with adequate time to avoid loss of escape routes. Withdraw along Escape Route into the Safety Zone. Verify that fire activity supports use of school field and or ball diamond and adequate water supply from the hydrants. Tactical Patrol after fire front passage for mop up around structures.

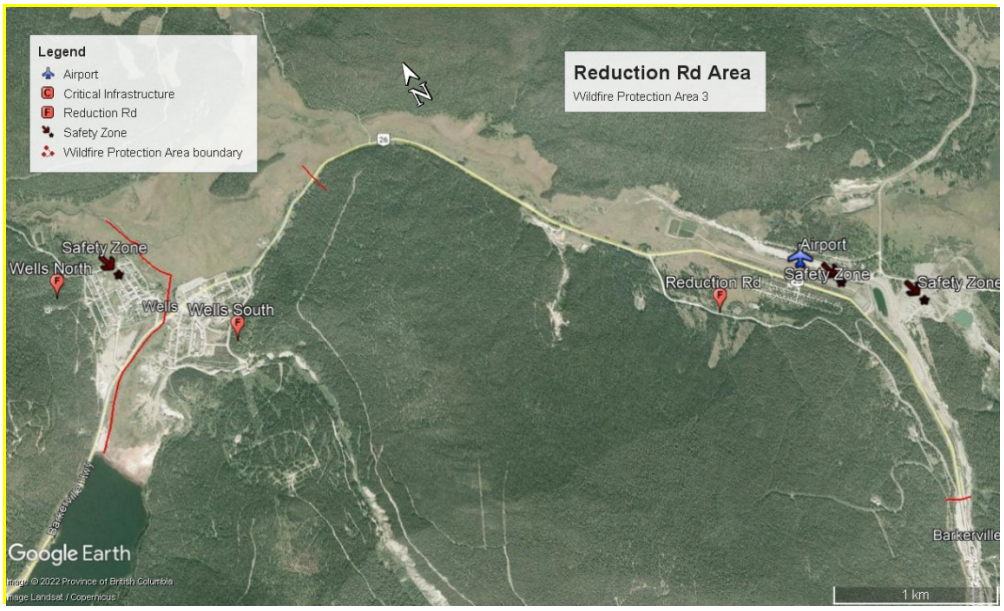
Reduction Rd. Area

15 large lot intermix

2 camp grounds Interface

1-50 person mine camp Interface

Outside of Wells Fire Protection Area is Reduction Rd. Area that if threatened by wildfire a BC Wildfire Structure Protection Specialist will arrange for prioritized and triaged for structure protection.



Coordinate Structure Protection utilizing resources such as cat guard, and aerial retardant.
Fire Dept. and Structue Protection crews Defense Tactics
Structure Protection – Prep and Go with priority of Critical Infrastructure followed by triaged prioritized properties protecting primary structures first. Time and resources complete as many primary structures as possible.
Structure Supression – Tactical Patrol down wind of predicted significant ember cast. Extinguish hot spots. Resources leave with adequate time to avoid loss of escape routes. Withdraw along Escape Route into the Safety Zone. Verify that fire activity supports use of airport and or mine camp and adequate water supply from the river.
Tactical Patrol after fire front passage for mop up around structures.

Forestry cat guard with retardant lines will support the fire dept actions to protect the homes and businesses. With so much forest around homes it is important for residents to clean up dead wood and trim up branches to control ground fires.

If possible, prior to homeowners being evacuated, the structure protection crew should notify residents in person and explain the actions that residents can take prior to evacuating that will help save the home. Distribute Fire Smart material for occupants to focus on Zone 1a. Fuel free the min 1.5m zone around buildings.

Please be advised that the structure defense plan below is based on observations and are recommendations only. It is critical for the Structure Protection Specialist to develop his/her own structure protection plan as the fire dynamics might allow for different tactics.

Strategies must reflect a realistic approach taking into consideration the available resources. A strategy will fail if it requires a large number of resources that can not arrive in a timely fashion. Strategy is subject to change due to changes in weather, fire behavior, resources availability, and objectives. Never get locked into a single plan of action.

Date: June, 2022 Evaluator(s): Dalgarno

BC Wildfire Service

STRUCTURE DEFENSE PLAN

Date	**June 2022**
Incident name / Number	**Wells**
EMBC Task #	
Fire Centre	**Cariboo Fire Centre at Williams Lake Airport**
GrpS Name, Ph#, email	
Area / Community	**District of Wells**

Communications P		
Function	**Channel No.**	**A**
Ground to Ground	**OFC 01**	**S**

Primary Value RES. COM. OTHER	**Location: Street / Unit #**	**Intermix** **Interface**	**Triage Category:** **Defensible: 1 Stand alone, 2. Prep and Defend** **Non defensible: 3. Prep & Go 4. Rescue Drive-by**	**Tactical Actions (SPU/ENG)**	**Resources** **Ie: 3E = Type 3 Engine 2T = Type 2 Tender**	**Water Source**	**Comments**
Commercial / Residential Seasonal Recreational	**Wells North** 90 medium sized residential lots with homes backing onto mature forest. 8 business in Wells North. 2 multi floor hotels. 2 – 4 story apartment buildings.	Interface residential Intermix reservoir and sewage treatment plant	Structure Protection utilizing resources such as cat guard, and aerial retardant. Structure Protection crews Defense Tactics - Prep and Go Structure Supression – Tactical Patrol Tactical Patrol after fire front passage.	SPC's – Prep & Go with priority of Critical Infrastructure followed by primary structures closest to fire front. ENG – Task Force Tactical Patrol down wind of predicted significant ember cast. ENG/SPC – Tactical Patrol after fire front passage.	SPC 5 Pack x 2 SPU Type 1 x 1 SPU Type 2 x 1 2T x 2 2E x 3 supported by hydrants and the 2 Tenders resouced to SPC's . DTA/DTF, Powerline Rep, and the Engine and Tender Resources identified above	13 Hydrants gravilty fed from reservoir. Hydrants to maintain 2,500 gal relay tanks with MK3's running sprinklers. Tender support to maintain adequate reservoir in event of structure fire. How long can the well pump and water treatment pumps run on Backup if the powerline is lost due to the wildfire?	High degree of mitigated if pro strategies arou structure to str Structural Prote Structure Supre When hot fire e Tactical Patrol e structures as pc to avoid loss of Route into the use of school fi supply from the Tactical Patrol a have subsided f

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Residential / Commercial Seasonal Recreational	**Wells South** 50 medium sized residential lots with homes backing onto mature forest. 7 business in Wells South. 2 multi floor hotels. 8 – 2 story apartment buildings.	Interface residential Intermix Barkerville Gold Mine	Structure Protection utilizing resources such as cat guard, and aerial retardant. Structure Protection crews Defense Tactics - Prep and Go Structure Supression – Tactical Patrol Tactical Patrol after fire front passage.	SPC's – Prep & Go with priority of Critical Infrastructure followed by primary structures closest to fire front. ENG – Task Force Tactical Patrol down wind of predicted significant ember cast. ENG/SPC – Tactical Patrol after fire front passage.	SPC 5 Pack x 2 SPU Type 2 x 2 2T x 2 2E x 2 supported by the 2 Tenders resouced to SPC's . DTA/DTF, Powerline Rep, and the Engine and Tender Resources identified above	14 Hydrants gravilty fed from reservoir. Hydrants to maintain 2,500 gal relay tanks with MK3's running sprinklers. Tender support to maintain adequate reservoir in event of structure fire. How long can the well pump and water treatment pumps run on Backup if the powerline is lost due to the wildfire?	Some homes l homes along l Structural Pro Structure Supr manpower. When hot fire commence Ta defend as mar with adequate Withdraw alon Verify that fire ball diamond a hydrants. Tactical Patrol flames have su

Primary Value RES. COM. OTHER	Location: Street / Unit #	Intermix Interface	Triage Category: Defensible: 1 Stand alone, 2. Prep and Defend Non defensible: 3. Prep & Go 4. Rescue Drive-by	Tactical Actions (SPU/ENG)	Resources Ie: 3E = Type 3 Engine 2T = Type 2 Tender	Water Source	Comments
Commercial / Residential Seasonal Recreational	**Reducion Rd. Area** Approx. 15 residential 2 camp grounds 1-50 person mine camp	Intermix for Reduction Rd. Interface for camp grounds and Mine camp	Structure Protection utilizing resources such as cat guard, and aerial retardant. Structure Protection crews Defense Tactics – Prep and Go Structure Supression – Tactical Patrol Tactical Patrol after fire front passage.	SPC's – Prep & Go with priority of Critical Infrastructure followed by primary structures closest to fire front. ENG – Task Force Tactical Patrol down wind of predicted significant ember cast. ENG/SPC – Tactical Patrol after fire front passage.	SPC 5 Pack x 1 SPU Type 2 x 2 2T x 2 2E x 2 supported by the 2 Tenders resouced to SPC's . DTA/DTF, Powerline Rep, and the Engine and Tender Resources identified above	Tender support for 2,500 gal Relay Tanks with MK3's to run roof top sprinklers Tenders support the 2 Type 2 Engines during Tactical Patrol	Pump from riv where possibl supported by Structural Pro Structure Supr manpower. When hot fire commence Ta defend as mar with adequate Withdraw alon Verify that fire mine camp and Tactical Patrol flames have su

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Date: June, 2022 Evaluator(s): Dalgarno