Greater Bragg Creek

Wildfire Mitigation Strategy

2025





ROCKY VIEW COUNTY
Cultivating Communities

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Introduction

The Greater Bragg Creek area, situated in the foothills of the Canadian Rockies, is characterized by dense forests, dry conditions, and varied topography — all factors that contribute to a high wildfire risk. Climate change has further increased the frequency, intensity, and duration of wildfire seasons in Alberta, amplifying the area's vulnerability. These combined natural and anthropogenic factors highlight the need for enhanced wildfire planning. The Greater Bragg Creek Wildfire Mitigation Strategy outlines a comprehensive approach to reducing the impacts of wildfire in Bragg Creek and surrounding developments. The first half of the report, **Wildfire Hazard and Risk Assessment**, applies current wildfire science and industry best practices to assess hazards and vulnerabilities. The second section, **Mitigation Recommendations**, provides clear, actionable strategies to strengthen the area's wildfire resilience.

Objectives

The 2025 Wildfire Mitigation Strategy will complete the following objectives:

1. **Update the Greater Bragg Creek Hazard and Risk Assessment.** The Hazard and Risk Assessment will include the following analysis tools:
    a) Wildland Fuel Types and Wildfire Behavior Potential
    b) Neighbourhood Wildfire Ignition Exposure Assessment
    c) Landscape Exposure Assessment
    d) Wildfire Directional Vulnerability

2. **Review the recommendations from the 2012 Wildfire Mitigation Strategy.**
    a) Categorize completed, ongoing, and outstanding recommendations

3. **Provide a set of Mitigation Recommendations to complete over the next 5 years.**
    a) Use the 7 FireSmart Disciplines as a framework for mitigative recommendations
    b) Develop a 5-year roadmap to complete the recommendations.

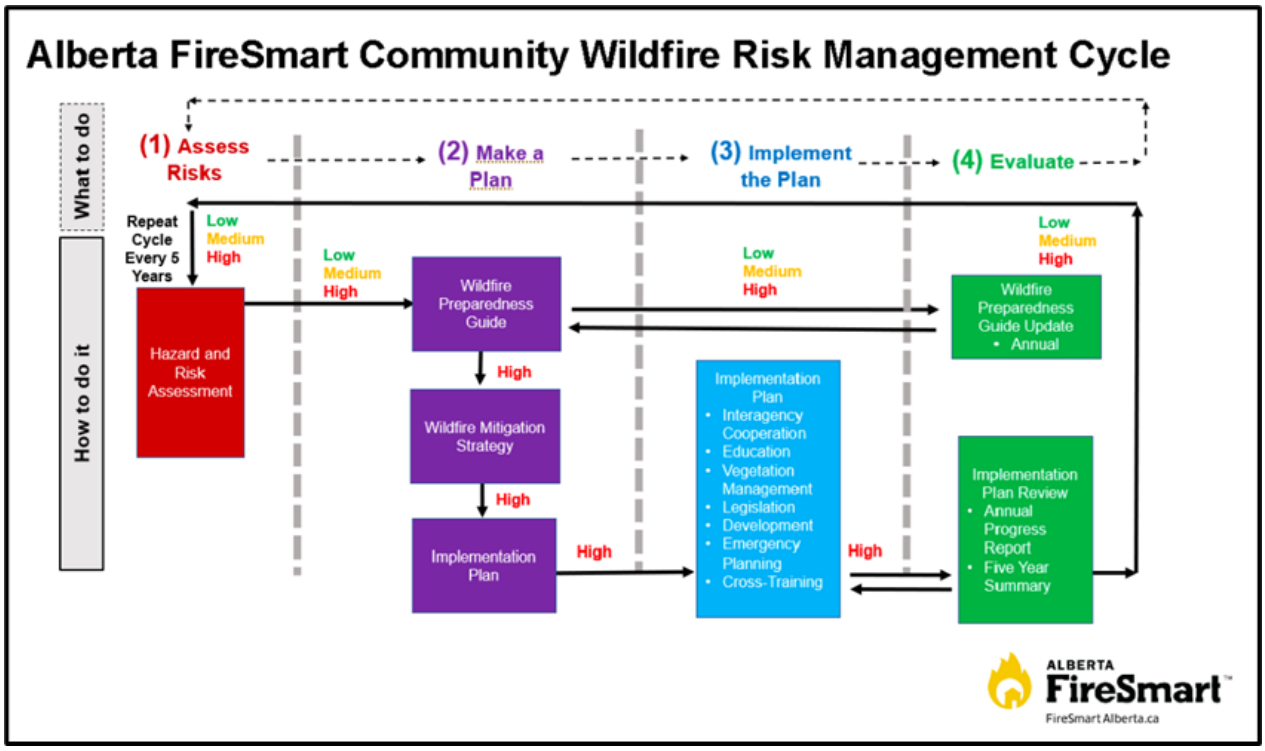
Stakeholders

Identifying and communicating with individuals and groups who may be impacted by wildfire is a key component to successful FireSmart planning. The following table provides a list of stakeholders to consider during FireSmart projects.

Agency	Name	Description
Provincial Government	Forestry and Parks & Alberta FireSmart	Wildfire prevention and response within the Forest Protection Area.
	Environment and Protected Areas	Support environmental conservation and sustainability. Land approvals, such as Temporary Field Authorizations (TFA).
	Municipal Affairs	Guidance on governance, safety standards, and funding support systems.
	Driving and Transportation	Construction and maintenance, signage installation/approvals, and traffic control and planning.
	Ministry of Public Safety and Emergency Services	Support for emergency planning, response, and recovery (AEMA).
Municipal Government	Rocky View County Fire Services	Guidance on FireSmart and Wildfire Prevention.
	Rocky View County Building and Planning	Guidance on land use, development, and design standards.
	Kananaskis Improvement District (KID)	Municipal authority for FireSmart projects in KID
Residents and Associations	Greater Bragg Creek Area	Implement FireSmart mitigation actions on private property and around the home.
	Bragg Creek FireSmart Committee	Provide leadership and guidance for FireSmart projects around the community
Business and Industry	FORTIS	Manage powerlines/poles and utility right of ways.
Not-for-Profit Organizations	Forest Resource Improvement Association of Alberta (FRIAA)	Provides funding for FireSmart projects
	FireSmart Canada	Provide leadership, resources, and best practices for FireSmart Principles across Canada.

Mitigation Strategy Review Process

Alberta FireSmart recommends the implementation of the Alberta FireSmart Community Risk Management Cycle to ensure that a community's FireSmart Program is reviewed and updated regularly. The Wildfire Mitigation Strategy should be reviewed annually to evaluate the progress of mitigative recommendations and updated every five years (see figure below). The *Greater Bragg Creek Wildfire Mitigation Tracking Ledger* can be used to provide annual updates to the plan.



Greater Bragg Creek Wildfire Mitigation Tracking Ledger		
Review (year)	**Description of Change**	**Effective Date**
2025	Initial Release	August 2025

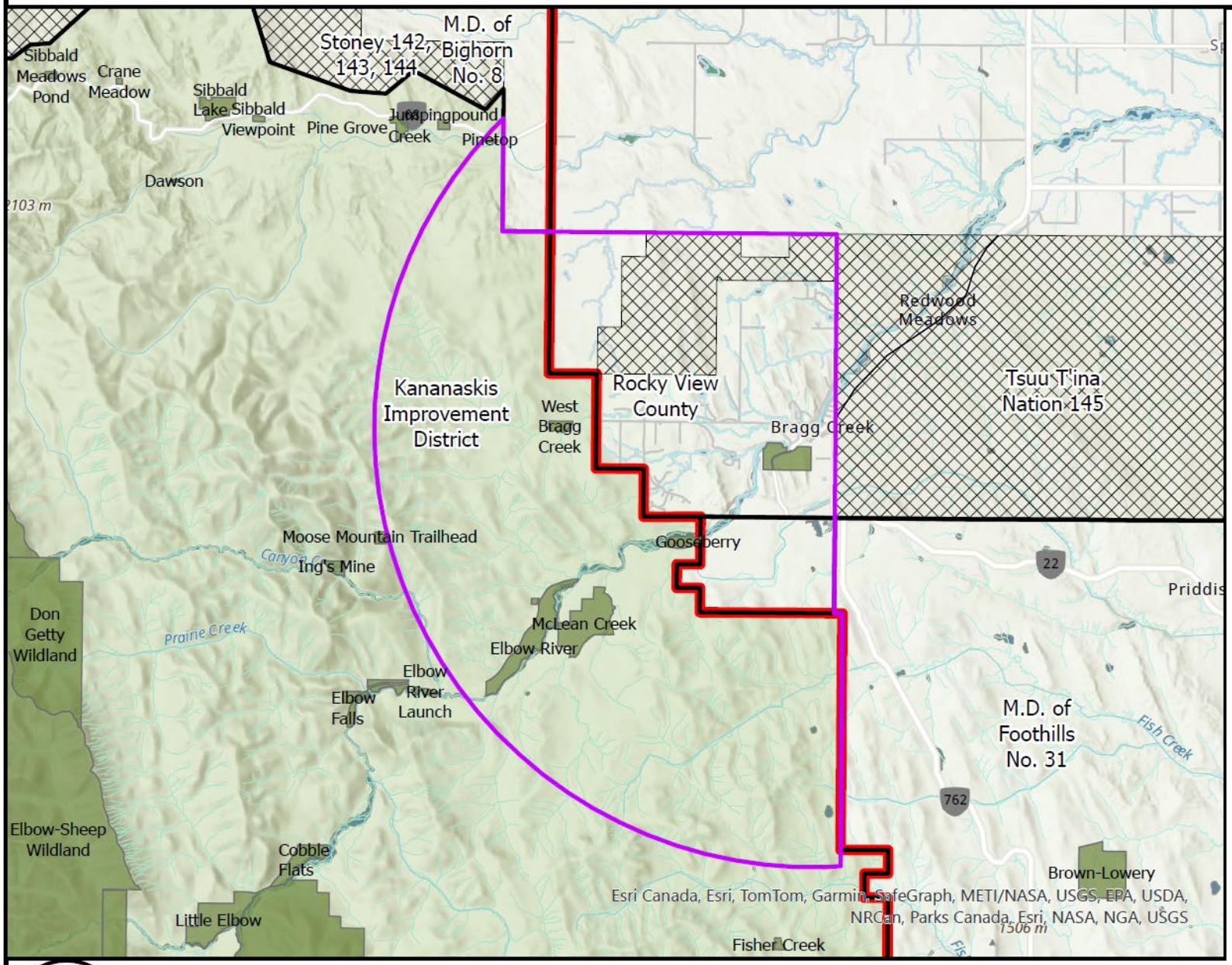
Planning Area

The planning area is located in southern Alberta surrounding the Hamlett of Bragg Creek. The area includes lands within Rocky View County (RVC), the Hamlet of Bragg Creek, Kananaskis Improvement District (KID), and Provincial Land. The area is bordered by the Tsuu T'ina First Nations to the east and Spray Lakes Sawmills Forest Management Area to the west. Approximately 50% of the planning area is located within the Forest Protection Area (FPA).

Primary access routes within the planning area include Highway 22, providing northbound egress to residents of the greater Bragg Creek Area; Highway 66,; and TWP 232 (West Bragg Creek Road). The nearest Fire Emergency Services provider is the Redwood Meadows Fire Department located approximately 7 kilometers northeast of the Hamlet. Alberta Wildfire has a primary fire base (Elbow Firebase) located approximately 10 kilometres west of Bragg Creek.

Description of the Greater Bragg Creek Planning Area				
Planning Area	Greater Bragg Creek			
Location	45km west of Calgary along Hwy 22			
	Latitude	50.94890854	Longitude	-114.563663
Description	Number of Dwellings	~995	Number of Residents	~2,985
	Structures with Ignition Resistant Siding	25% to 50%	Structures with Ignition Resistant Roofing	>75%
	Wildfire Response	• Elbow Valley Fire Station 101 • Redwood Meadows Fire Department • Alberta Wildfire – Calgary Forest Area		
	Wildfire Planning & Legislation	• Fire Services Bylaw & Land Use Bylaw • Wildfire Mitigation Strategy • Emergency Management Bylaw • Bragg Creek Area Structure Plan		

Greater Bragg Creek Planning Area



Legend

- Forest Protection Area
- Planning Area
- Municipalities
- First Nations
- Provincial Parks

0 5 10 20 Kilometers

Wildfire Hazard & Risk Assessment

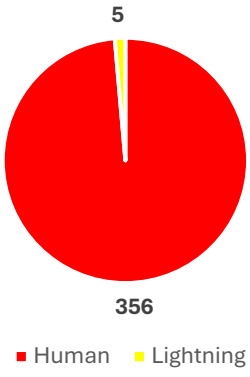
Historical Wildfires

Investigation reports identified that 99% of wildfires within the greater Bragg Creek area were human caused.

Historical wildfire data can provide additional information on the wildland fuel types and potential wildfire risk. Areas that have been burned recently will have a reduced fuel load and will generally burn at a lower intensity. The locations and causes of historical wildfires can also help identify areas where there is increased fire activity and whether wildfires are occurring naturally, or anthropogenically (human caused).

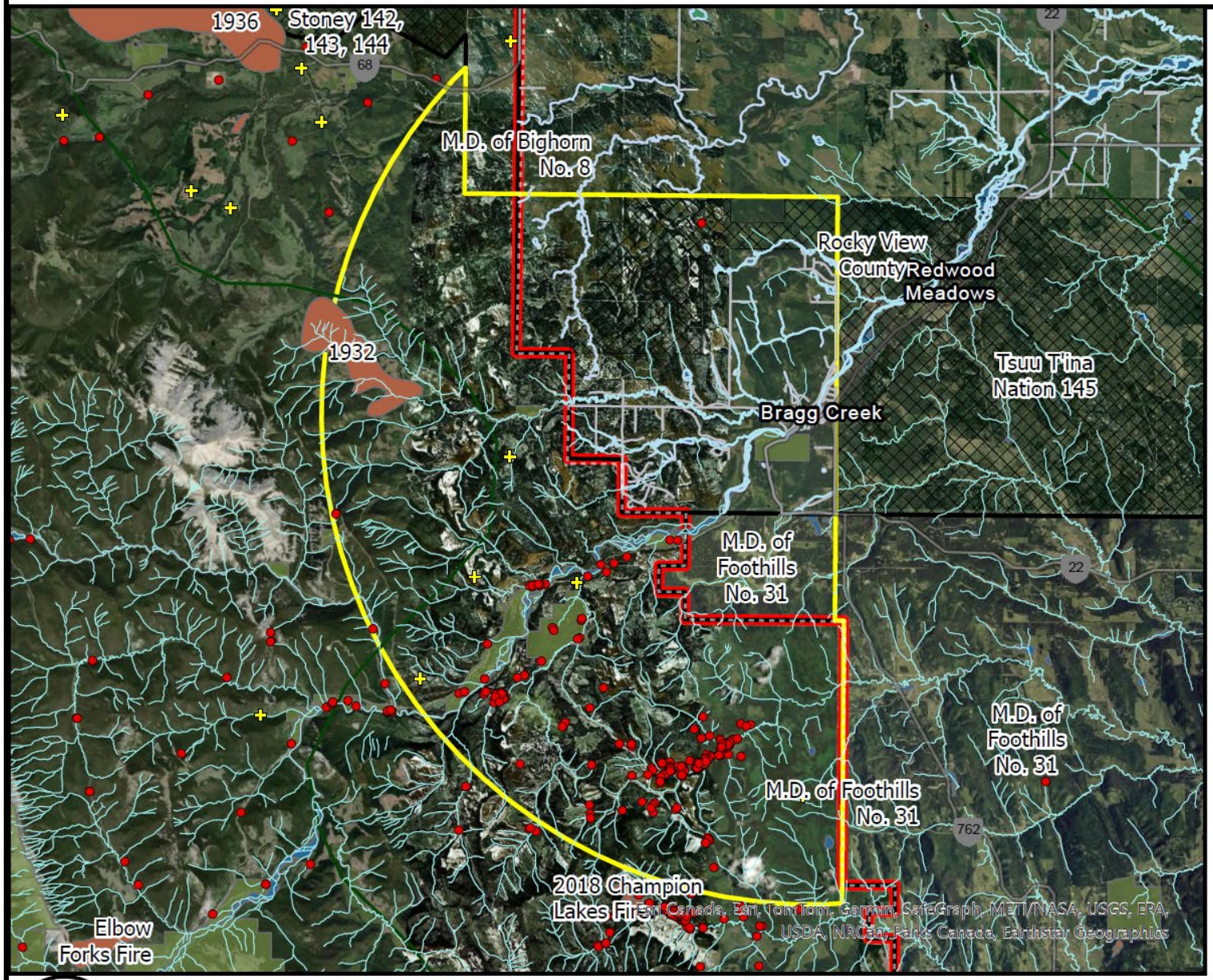
Between 2006 to 2024, there have been three hundred and sixty-one wildfires within the greater Bragg Creek area. The largest wildfire of note was the 2018 Champion Lakes Fire. The 30-hectare wildfire, started by an unsafe campfire, was located half a kilometer south of the planning area in McLean Creek. Analysis of Alberta Forestry's historical wildfire data suggests that ninety-nine percent of the wildfires actioned by Alberta Wildfire were human caused.

Wildfire Cause Between 2006-2024



Wildfire Cause (2006-2024)	Number
Human-Caused Wildfire	**356**
Incendiary	1
Arson Suspected	1
Oil & Gas Industry	**1**
Burning Substance	1
Power Line Industry	**1**
Insufficient Buffer	1
Recreation	**347**
Abandoned Fire	128
Burning Substance	1
Unattended Fire	6
Unclassified	1
Unsafe Fire	210
Vehicle Fire	1
Resident	**5**
Abandoned Fire	1
Burning Substance	2
Unsafe Fire	1
Vehicle Fire	1
Undetermined	**1**
Lightning-Caused Wildfire	**5**
Grand Total	**361**

Greater Bragg Creek Historical Fires



Historical Fire Locations

- Human-Caused Wildfire
- Lightning-Caused Wildfire
- Large Fire Perimeter
- Forest Protection Area
- Planning Area Boundary

0 3.75 7.5 15 Kilometers

Fire Weather Analysis

Greater Bragg Creek is located in the Boreal Plains Ecozone. The Boreal Plains are primarily comprised of coniferous, fire-adapted vegetation such as White spruce and Lodgepole pine. Research has shown that the probability of fire spread days in the Boreal Plains ecozone increase rapidly after certain fire conditions are met[1]. The table below provides a summary of the severe fire threshold conditions for the Boreal Plains ecozone and the associated Alberta Fire Danger Rating.

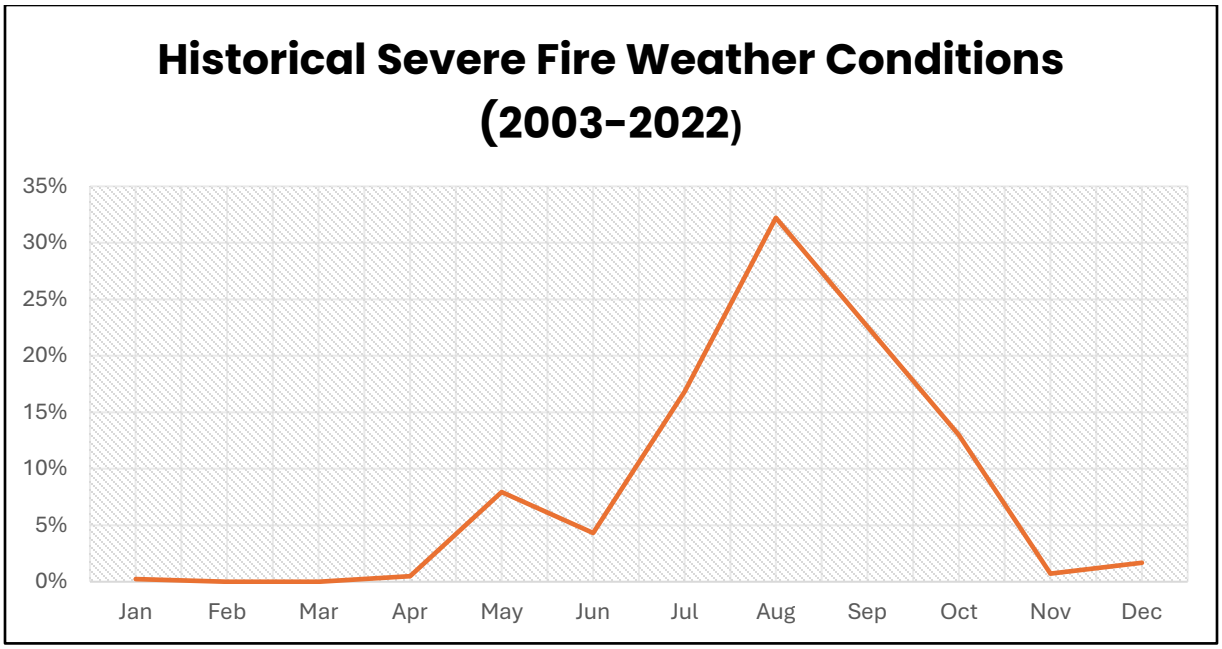
Over 70% of critical fire weather conditions in Greater Bragg Creek occur between July and September

Severe Fire Spread Conditions in the Boreal Plains Ecozone		
Indices	**Indices Threshold**	**Fire Danger Rating**
Fire Weather Index (FWI)	**> 23**	**Very High**
Buildup Index (BUI)	**> 57**	**High**
Initial Spread Index (ISI)	**> 8**	**High**
Drought Code (DC)	**> 205**	**High**
Duff Moisture Code (DMC)	**> 41**	**Very High**
Fine Fuel Moisture Code (FFMC)	**> 92**	**Extreme**

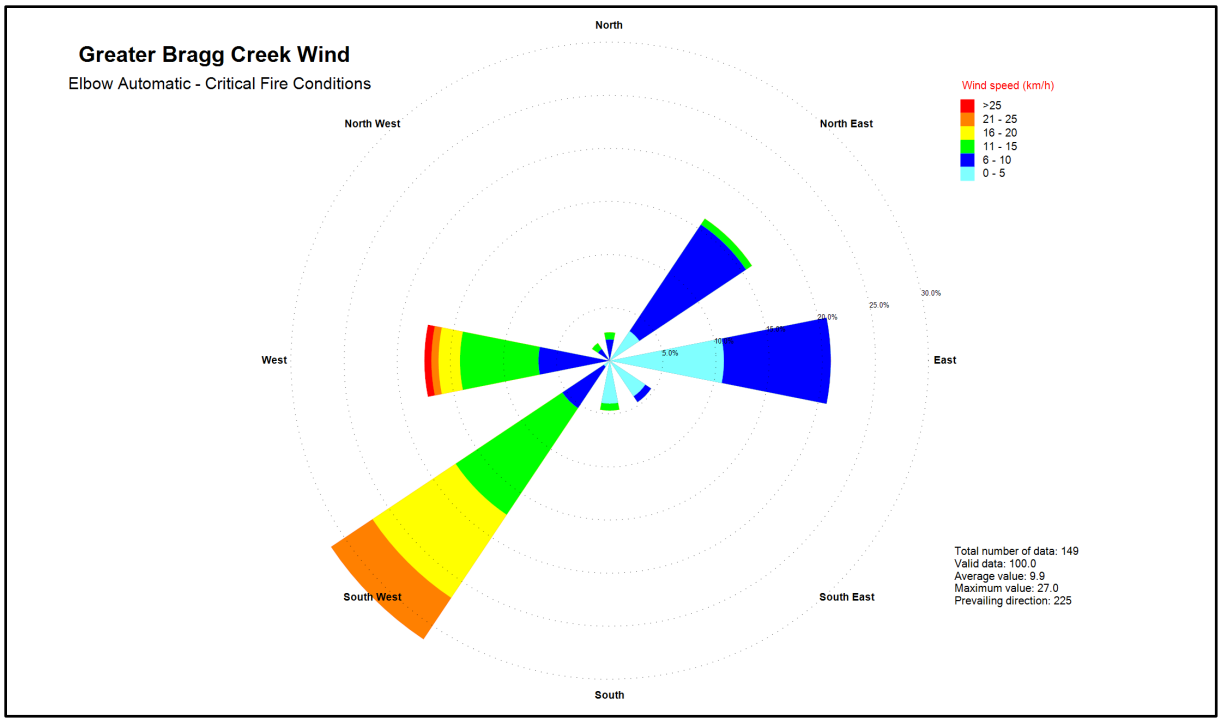
Wang's (2023) research shows that the Greater Bragg Creek area may experience severe fire conditions before the Alberta Fire Danger Rating reaches extreme for most indices. The research suggests that preparation for a large fire event in Greater Bragg Creek should start commencing long before the Fire Danger Rating reaches Extreme. The dates where the Fire Weather Index was over 23 were compiled and distributed by month over 10 years (2003-2022) from the Elbow Automatic Weather Station (B7). Based on this analysis, Bragg Creek is most likely to experience severe fire conditions in August. The graph on the next page summarizes the historical fire weather conditions.

Under critical fire weather conditions, wind is most commonly blowing from the southwest to the northeast.

[1] Wang, X (2023). Critical fire weather conditions during active fire spread days in Canada. The Science of the Total Environment.



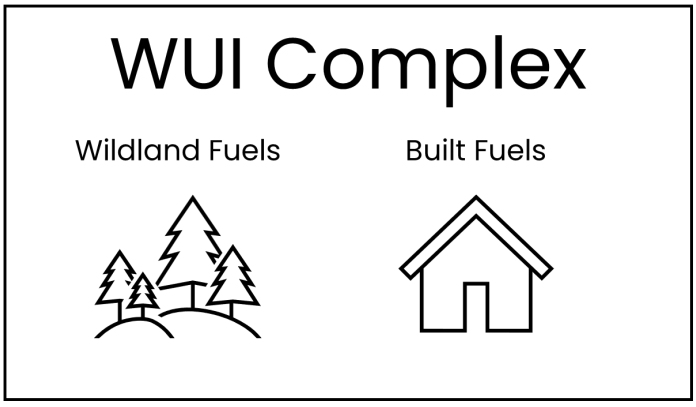
Analysis of winds from the Elbow Automatic Weather Station during severe fire weather conditions showed that the Greater Bragg Creek area experiences winds predominantly from the southwest at an average windspeed of 10km/h.
This data suggests that under severe fire weather conditions, wind-driven wildfire in the Bragg Creek area would most likely move from the southwest to the northeast.



Wildland Urban Interface (WUI)



Wildfire plays a vital role in maintaining the health of Alberta's ecosystems. Many of the province's landscapes depend on periodic fire to regenerate plant communities, maintain wildlife habitat, and sustain biodiversity. In the absence of wildfire, ecosystems can experience a decline in species diversity, while aging forests may become increasingly susceptible to disease and insect infestations. As communities extend further into forested areas, there is an increased risk of wildland urban-interface (WUI) fires. An estimated 60% of all Canadian communities are located within the wildland-urban-interface[2]. The Wildland Urban Interface is described as the area where human development and the natural environment intersect[3]. The fuels in the WUI complex are categorized as wildland fuels and built fuels. Wildland fuels include natural vegetation such as forests and grasslands. Built fuels refer to human-made structures such as residential homes and infrastructure. When combined, they create a complex mosaic of fuel that causes unique burning characteristics affecting fire behaviour. By understanding the factors that influence fire behavior such as fuel-type, weather, and historical fire trends, we can assess the potential adverse effects of wildfire on communities and homeowners.

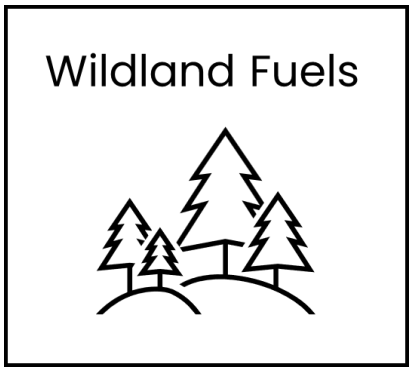


[2] Johnston, L., & Flannigan, D. (2018). Mapping Canadian wildland fire interface areas. International Journal of Wildland Fire, 27, 1-14. https://www.publish.csiro.au/wf/pdf/WF16221

[3] Canadian Wildland Fire Management Glossary. https://www.ciffc.ca/sites/default/files/2019-03/CIFFC_Canadian_Wildland_Fire_Mgmt_Glossary_2017_10_24.pdf

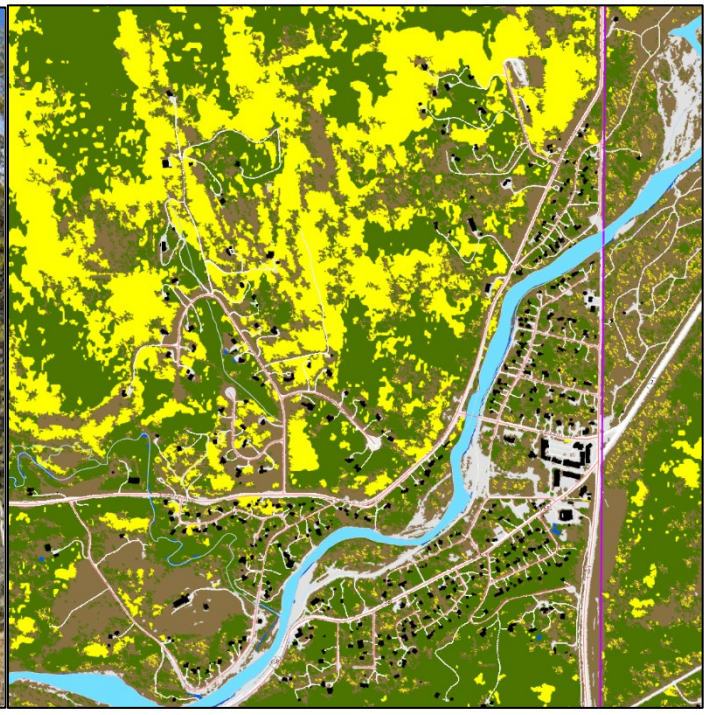
Wildland Fuels

Wildland fuel refers to vegetation capable of igniting and sustaining wildfire, particularly in proximity to communities and critical infrastructure. Identifying and classifying wildland fuels provides valuable insight into potential fire behavior and the associated risks to nearby development. For this project, wildland fuel types were identified using a combination of GIS data, high-resolution multispectral satellite imagery, and ground-truthing. The resulting data was classified into distinct fuel types based on characteristics relevant to wildfire spread and intensity.



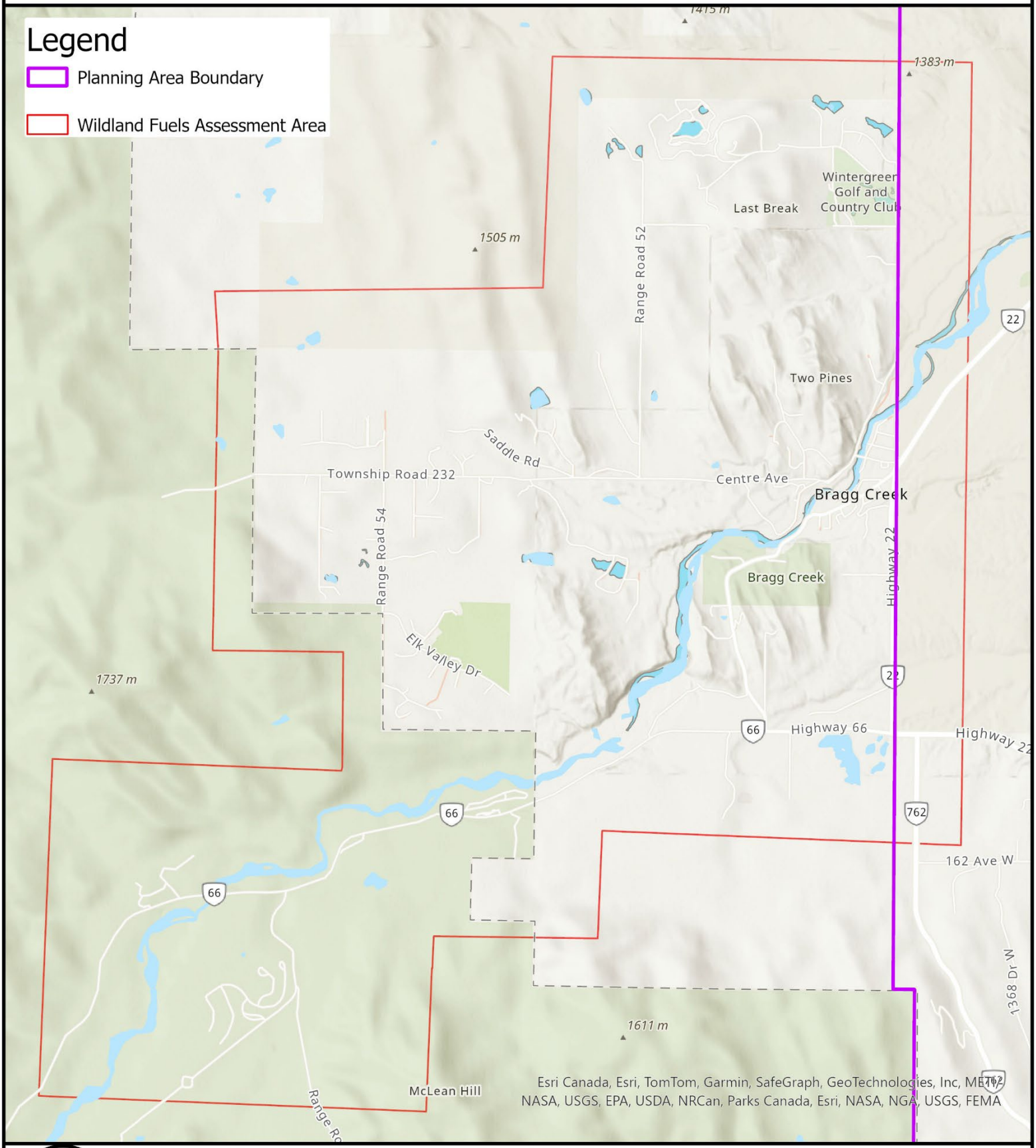
Given the scale of the project area, a Wildland Urban Interface (WUI) Wildland Fuel Assessment Area was delineated to include all fuels within 500 metres of communities and major developments in the Bragg Creek area. The map on the following page summarizes the extent of the detailed wildland fuel assessment conducted within this zone.





Identifying Wildland Fuel Types can provide important information on how wildfire may behave, and the potential impacts of wildfire to a community.

WUI Wildland Fuel Assessment Area



Wildland Fuels Classification

The data indicates that the Greater Bragg Creek area is predominantly composed of coniferous vegetation, interspersed with clusters of deciduous trees and grassland. The coniferous stands—primarily mature White spruce and Lodgepole pine—represent a significant wildfire hazard due to their high potential for crown fire and elevated fire behavior potential during the wildfire season. In addition to supporting intense fire activity, coniferous vegetation is a prolific source of embers, which can be transported by wind and cause spot fires ahead of the main fire. These spot fires pose a threat to both wildland and structural fuels, increasing the risk of fire spread into developed areas. Between 50% – 90% of homes destroyed by wildfires are originally ignited by embers[4].

The data also indicates that over 30% of the assessment area is comprised of grassland. While generally supporting lower-intensity fire compared to coniferous fuels, grasslands can pose a significant wildfire hazard during periods when grasses are cured or dry. In southern Alberta, this hazard can persist into the winter months, particularly when grasses remain exposed and free of snow cover. The table below provides a summary of the wildland fuel types identified within the WUI assessment area.

Bragg Creek WUI Wildland Fuel Type Summary		
Wildland Fuels	**Area (ha)**	**Proportion of Area (%)**
Needleleaf Trees (Coniferous)	3,580	37.5%
Grassland	2,951	30.9%
Broadleaf Trees (Deciduous)	2,405	25.2%
Barren Land	265	2.8%
Roads	180	1.9%
Water	133	1.4%
Buildings	37	0.4%
Vegetated Non-Fuel	4	0.0%

[4] https://content.naic.org/sites/default/files/cipr_report_wildfire_mitigation.pdf

Bragg Creek
Wildland Fuels Classification



0 0.5 1 2 Kilometers

Wildfire Behaviour Potential

Once vegetation is classified into fuel types, it can be further categorized using the Canadian Forest Fire Behavior Prediction (FBP) System, which helps estimate key fire behavior characteristics such as rate of spread, flame length, and fire intensity. For example, areas classified as C-2 (Boreal Spruce) are associated with highly active fire behavior, where direct suppression efforts may be ineffective or unsafe. In these cases, fire response may be limited to indirect attack strategies and the use of aerial resources such as helicopters and airtankers. Understanding wildfire behavior potential across the landscape is a valuable tool for identifying and prioritizing areas for FireSmart mitigation. With appropriate vegetation management, fire intensity can often be reduced to a level that improves the effectiveness and safety of suppression operations.

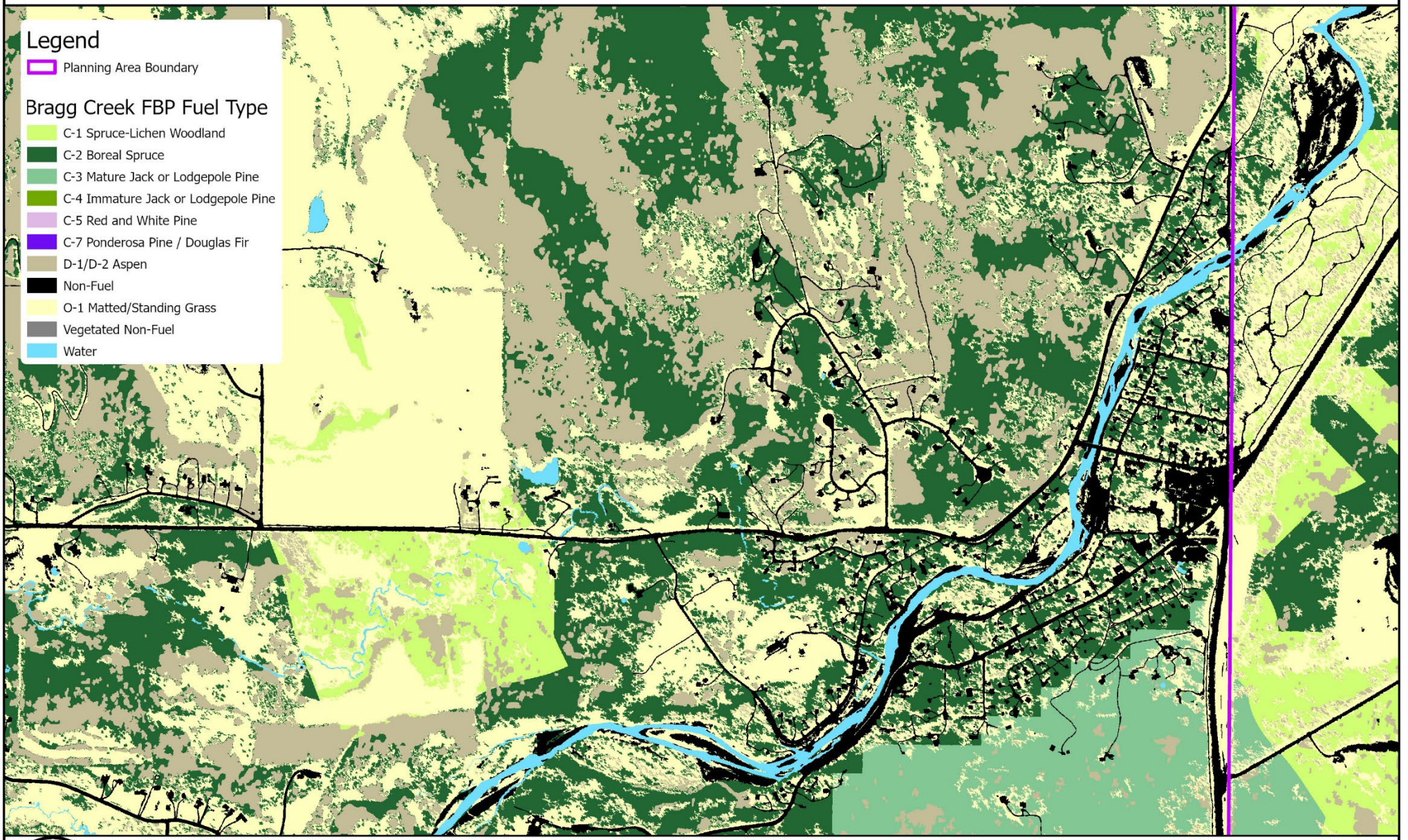
The wildfire hazard associated with grassland fuel types (O-1) can vary significantly depending on the degree of grass curing. Grass curing refers to the drying process in which grass loses moisture, becoming more flammable and more susceptible to ignition and rapid fire spread. In southern Alberta, curing typically peaks in the spring and fall, while during the summer, grass is often greener and retains more moisture, resulting in reduced fire behavior potential.

The table below provides the wildfire behaviour potential estimates in each of the different FBP fuel types. More information on FBP fuel types can be found on the Natural Resources Canada website[5]

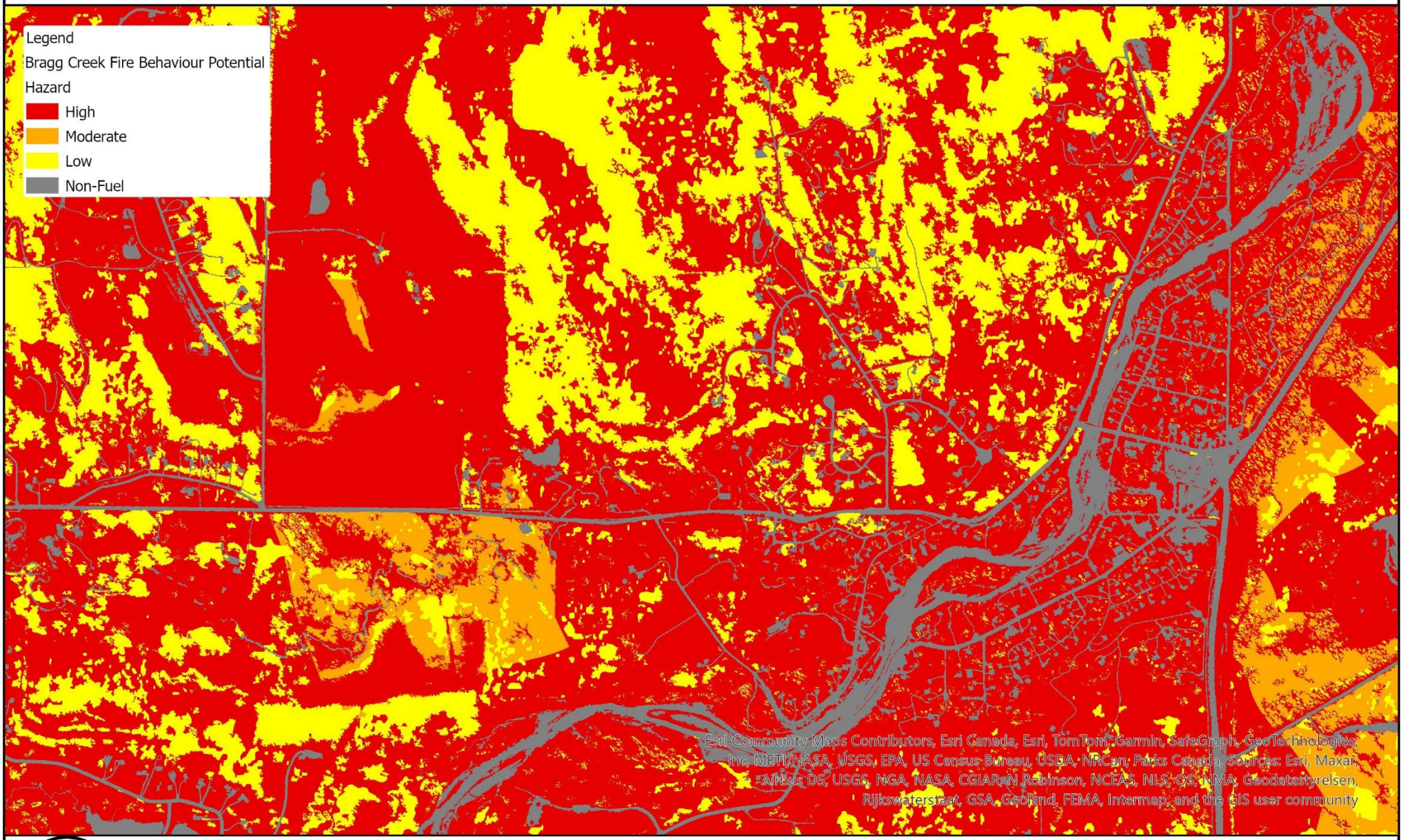
FBP Fuel Type	**Wildfire Hazard Classification**	
C2 - Boreal Spruce	High	
C3 – Mature Jack or Lodgepole Pine	High	
C4 – Immature Jack or Lodgepole Pine	High	
C5 – Red and White Pine	High	
C1 – Spruce-Lichen Woodland	Moderate	
C7 – Ponderosa Pine – Douglas Fir	Moderate	
M1/2 – Boreal Mixedwood	Moderate	
O1 – Grass	Low % cured	High % cured
D1/2 – Aspen	Low	

[5] https://cwfis.cfs.nrcan.gc.ca/background/fueltypes/c1

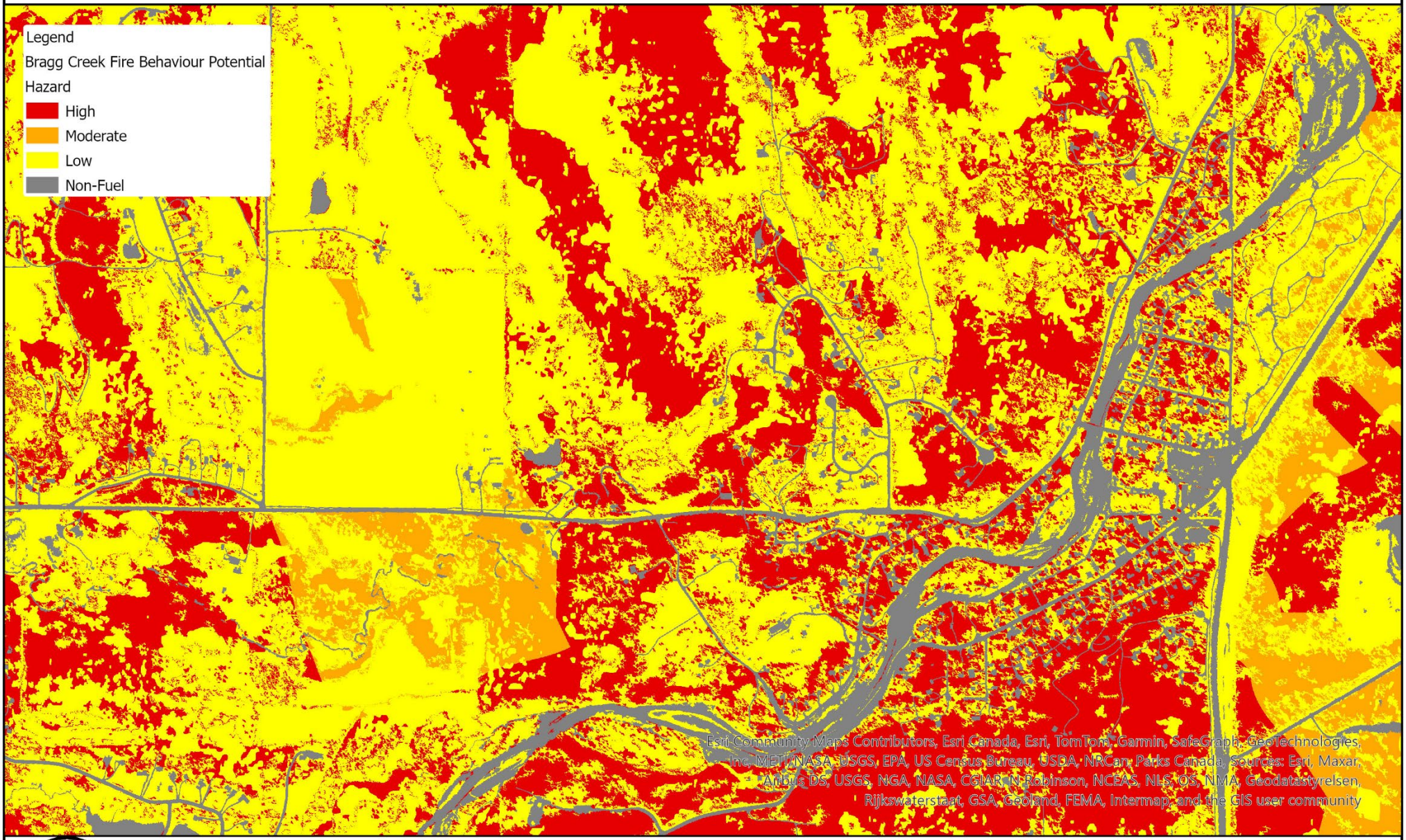
Bragg Creek
FBP Fuel Type Classification



Bragg Creek
Wildfire Behaviour Potential (Fall/Spring)

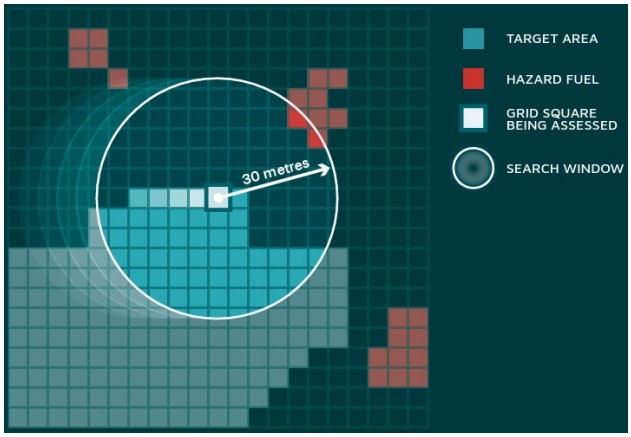


Bragg Creek
Wildfire Behaviour Potential (Summer)



Exposure Assessment

Exposure Assessments are tool to identify where built fuels are most susceptible to fire transmission from wildland fuels. Exposure Assessments can help prioritize mitigation efforts by identifying infrastructure that is most vulnerable to wildland fuels. Research has shown that wildfire transmission to built structures generally occurs through three primary methods: ember transport, radiant heat, and direct flame[6].



Wildfire Exposure Assessment: Courtesy of FireSmart Alberta

Radiant Heat/Direct Flame

High temperatures generated by wildfire have the potential to ignite nearby built or wildland fuels. The intensity of the wildfire directly influences the likelihood of ignition through radiant heat or direct flame contact. Implementing mitigative measures within the first 30 metres of a home—commonly referred to as the Home Ignition Zone—can significantly enhance a structure's resilience to wildfire.

Ember Transport

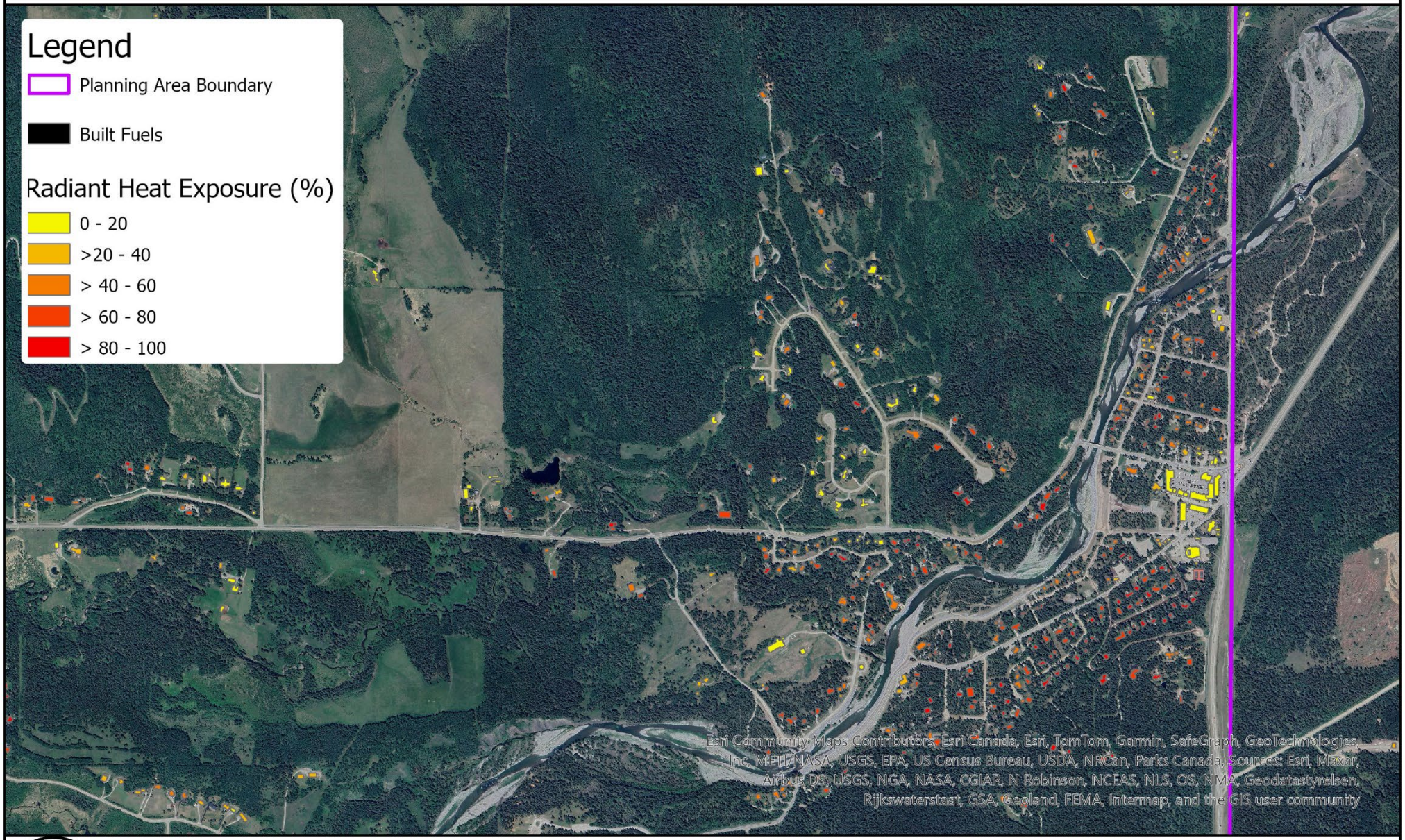
Wind-driven embers can ignite new fires beyond the main fire perimeter, known as spot fires. These spot fires can ignite both wildland and built fuels. Most embers, called short-range embers, typically travel up to 100 metres from their origin, while long-range embers can travel beyond 100 metres. The Exposure Assessment accounts for ember exposure up to 500 metres from a structure to better understand potential wildfire threats.

Prioritizing mitigative activities around structures can reduce their exposure to:

1) **Radiant heat/Direct Flame (0 to 30 metres)**
2) **Short range embers (0 to 100 metres)**
3) **Long range embers (100 to 500 metres)**

[6] https://firesmartcanada.ca/wp-content/uploads/2022/01/FS_ExposureAssessment_Sept2018-1.pdf

Bragg Creek
Wildfire Exposure to Radiant Heat (0-30m)



Bragg Creek
Wildfire Exposure to Short Range Embers (0-100m)



Bragg Creek
Wildfire Exposure to Long Range Embers (0-500m)



Analysis

The Exposure Assessment analyzed over 10,000 hectares of land surrounding Bragg Creek, including more than 2,000 individual pieces of infrastructure such as homes, garages, schools, and stores. The data revealed that 45% of built fuels are highly exposed to radiant heat from wildfire, and over 50% of homes face significant exposure to short-range embers. These findings underscore the critical need for coordinated wildfire prevention strategies across multiple jurisdictions, including private, municipal, and provincial lands.

Greater Bragg Creek Wildfire Exposure Assessment - Built Fuels		
Wildfire Exposure Category	**Number of Structures**	**Proportion of Structures (%)**
Exposure to Radiant Heat		
Low (>0-0.20)	310	16%
Moderate (0.2-0.4)	304	16%
High (0.4-0.6)	438	23%
Extreme (>0.6)	876	45%
Exposure to Short Range Ember Transport		
Low (>0-0.20)	221	11%
Moderate (0.2-0.4)	381	19%
High (0.4-0.6)	563	28%
Extreme (>0.6)	863	43%
Exposure to Long Range Ember Transport		
Low (>0-0.20)	20	1%
Moderate (0.2-0.4)	186	9%
High (0.4-0.6)	781	38%
Extreme (>0.6)	1048	52%

The majority of exposure from wildland fuels is located on private land

Landscape Wildfire Analysis

Landscape Wildfire Analysis extends beyond the Wildland Urban Interface to evaluate factors influencing wildfire behavior across a continuous, multi-jurisdictional landscape. For this report, the landscape wildfire analysis was conducted within the Planning Area outlined on page 8.

Landscape Fire Exposure

In recent years, Alberta researchers have developed a process known as landscape exposure assessments to predict where wildfires are most likely to occur. Although predicting the location of a wildfire is an extremely difficult task, the exposure assessment has shown promise compared to previous predictive systems that relied on fire growth models[7]. The analysis showed that 'exposed fuels' (hazardous wildland fuels capable of transmitting fire) correlate closely with where historical fires have occurred, and where they are more likely to occur in the future. This does not mean fires won't occur in low exposure areas, but their probability of turning into large fires is reduced.

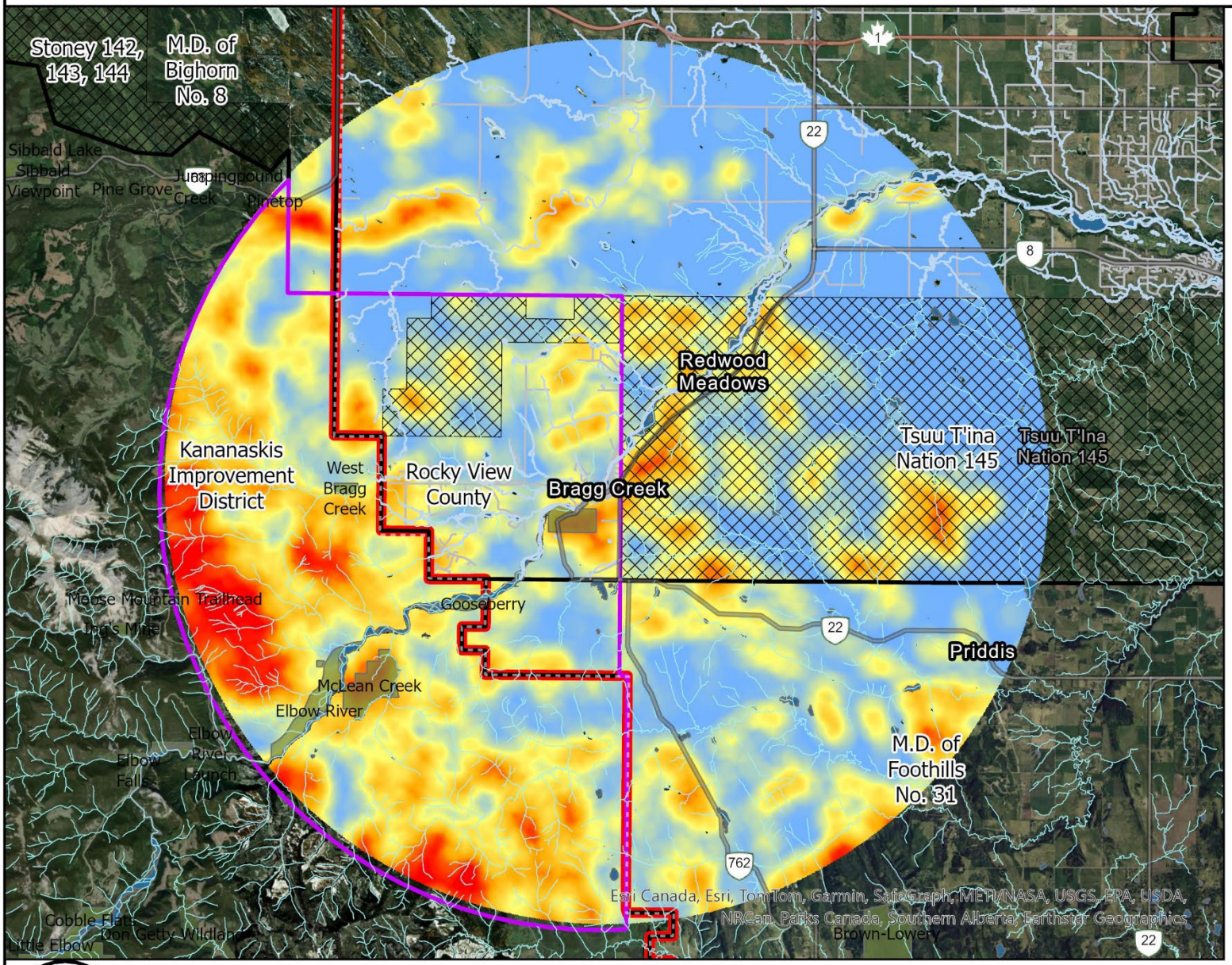
Analysis

The area most likely to transmit fire in Greater Bragg Creek is the forested vegetation down slope from Moose Mountain in the Kananaskis Improvement District. This area contains continuous mature White Spruce and Lodgepole pine. Additional areas identified with elevated wildfire exposure include Forestry Way, Hawkeye, Elk Valley, East Park Place, and Wintergreen (see Wildfire Exposure Map on Page 28).

Greater Bragg Creek Wildfire Exposure Assessment		
Exposure Category to Hazardous Fuels (%)	**Area (ha)**	**Proportion of Area**
Very Low (0-20)	3,579	48%
Low (20-40)	1,866	25%
Moderate (40-60)	1,271	17%
High (60-80)	534	7%
Extreme (80-100)	259	3%

[7] https://link.springer.com/content/pdf/10.1007/s10980-020-01173-8.pdf

Greater Bragg Creek
Landscape Wildfire Exposure



Legend

- Forest Protection Area
- Planning Area
- Municipalities
- First Nations
- Provincial Parks

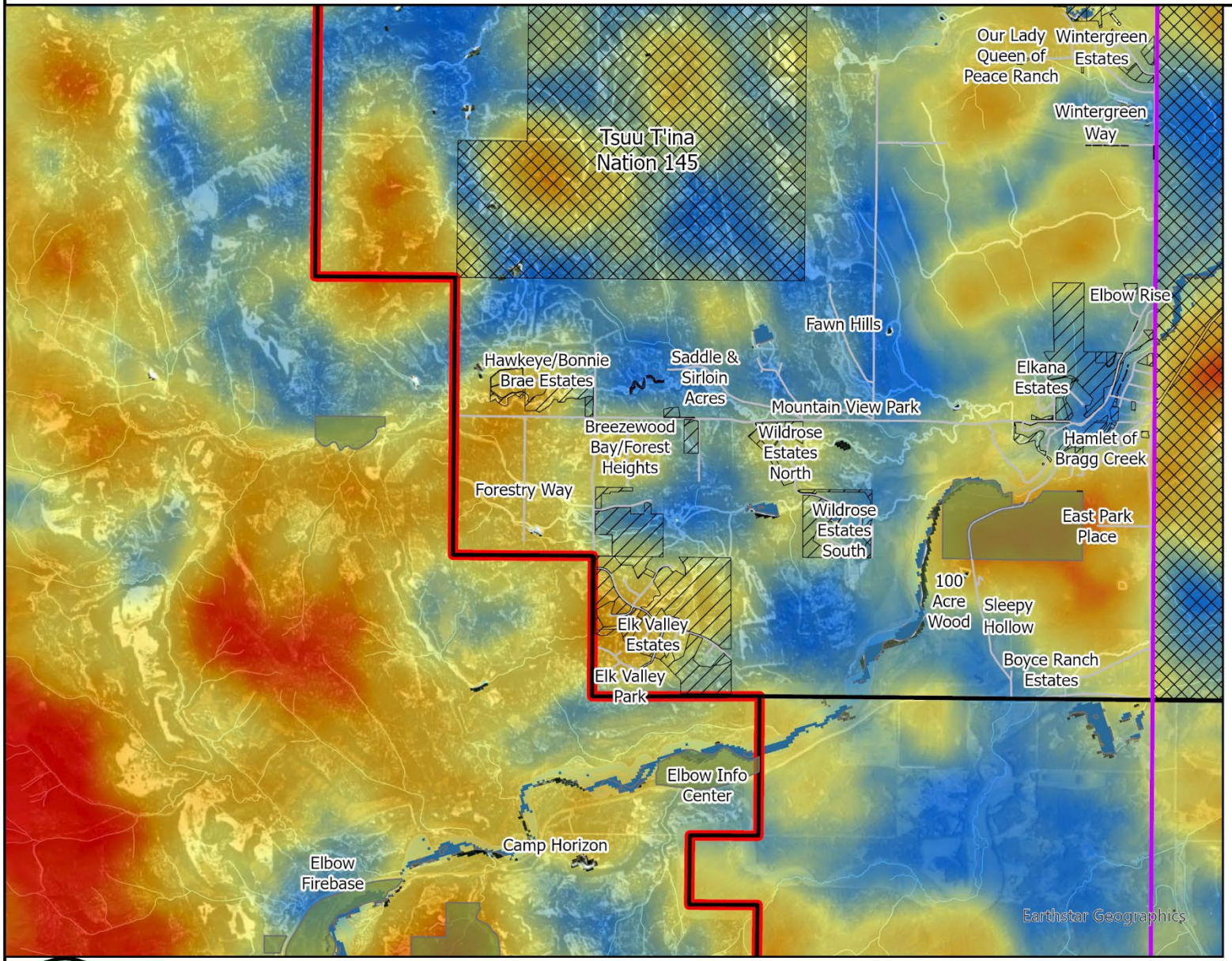
Exposure (%)

100

0

0 5 10 20 Kilometers

Greater Bragg Creek
Wildfire Exposure with Developments



Legend

- Forest Protection Area
- Planning Area
- First Nations
- RVC Municipal Land
- Provincial Parks

Exposure (%)

100

0

0 1.25 2.5 5 Kilometers

Directional Vulnerability

Directional vulnerability assessments examine the role that wildland fuels play in determining a wildfire's viable trajectory (or *pathway*) into a community. Researchers at the University of Alberta examined over 500 historical wildfires to develop a list of common characteristics that wildfire pathways typically possess (for example, more than 80% of a pathway is comprised of highly exposed fuels)[8]. Wildfire pathways were divided into three 5-kilometer segments to create a 15-kilometer circle around Bragg Creek that illustrates the probability of wildfire along each degree of the circle. Using these criteria to analyze the wildland fuels around Greater Bragg Creek, a wildfire directional vulnerability assessment was developed. Identifying these pathways can assist in evaluating how vulnerable a community is to a wildfire approaching from a specific direction and assist with:

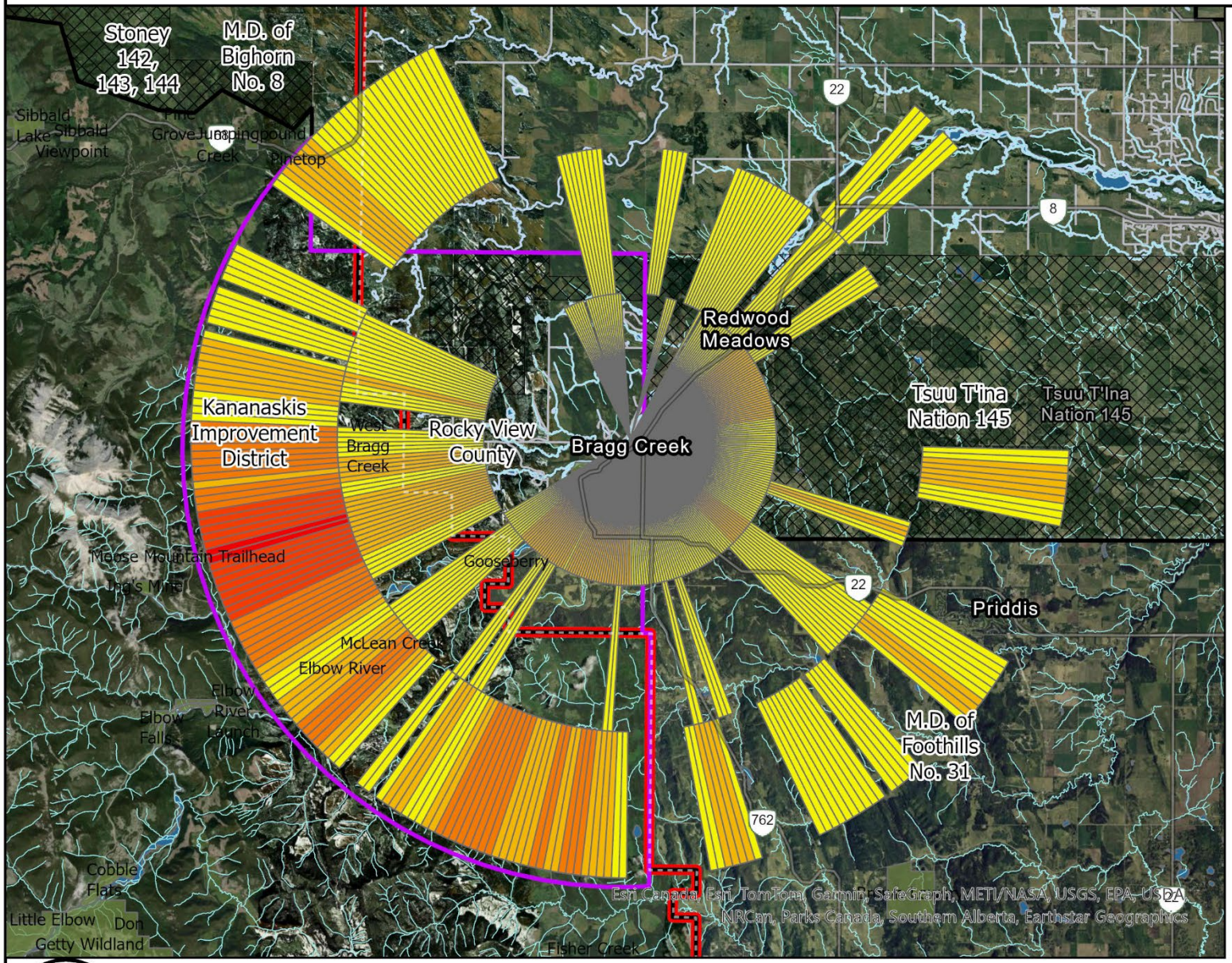
- Strategically planning or prioritizing fire suppression resources
- Planning fuel reduction treatments or fire guards
- Assessing emergency egress vulnerabilities
- Engaging in emergency scenarios and simulations

Analysis

The Wildfire Directional Vulnerability model suggests that a large wildfire has the highest probability of advancing towards Bragg Creek from the west/southwest through the Elbow River Valley. The increased vulnerability of Bragg Creek from wildland fuels to the southwest also aligns with the most common prevailing winds during severe fire conditions. These models emphasize the importance of mitigative actions in local developments around Bragg Creek and landscape-level mitigation activities southwest of Greater Bragg Creek.

[8] https://link.springer.com/content/pdf/10.1007/s11069-023-05885-3.pdf

Greater Bragg Creek
Wildfire Directional Vulnerability



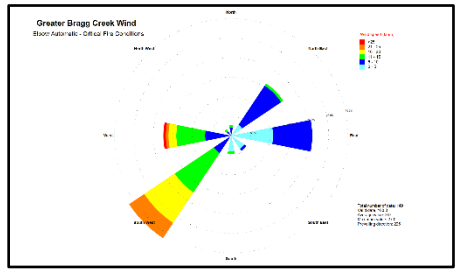
Legend

- Forest Protection Area
- Planning Area
- Municipalities
- First Nations
- Provincial Parks

Potential Wildfire Pathway Viability (%)

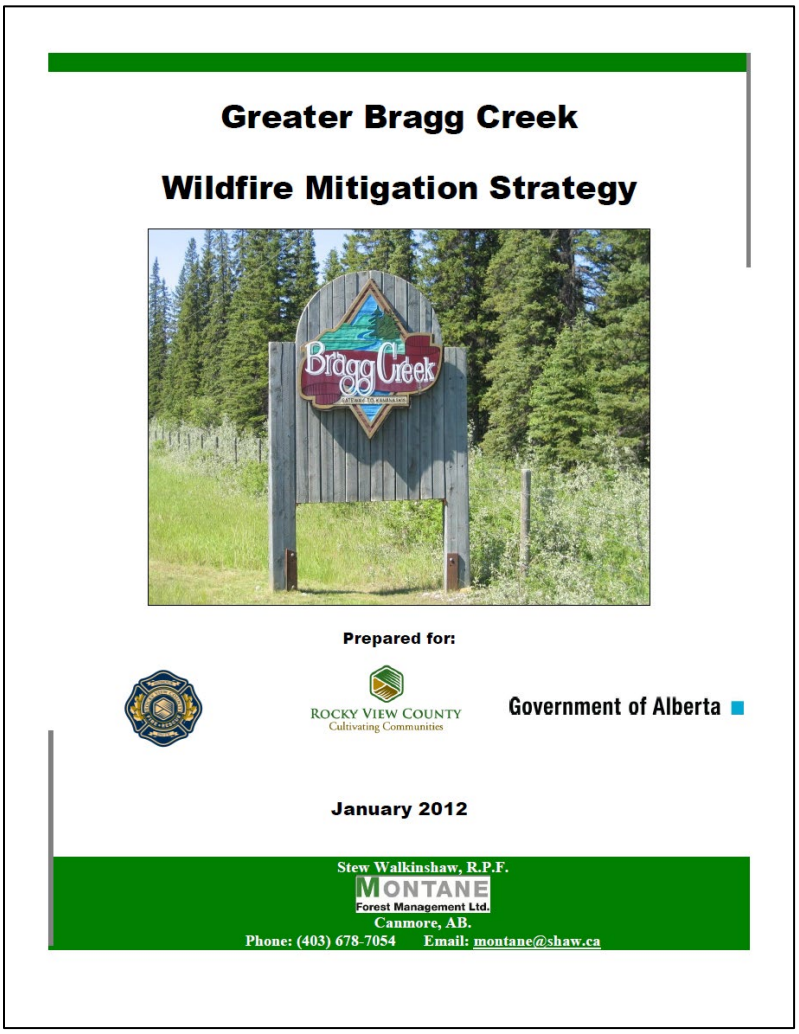
- Very Low (0-20)
- Low (20-40)
- Moderate (40-60)
- High (60-80)
- Extreme (80-100)

Wildfire Pathways separated into 5 kilometer segments



Wildfire Mitigation Review

The following section provides a review of the recommendations from the 2012 Greater Bragg Creek Wildfire Mitigation Strategy. The 2012 report provided 27 recommendations. To date, 8 recommendations have been completed, 13 recommendations are ongoing, and 6 are outstanding. As there are still several recommendations outstanding, overlap exists between the new recommendations and recommendations that have not been completed since 2012.



Summary of 2012 Wildfire Mitigation Recommendations		
FireSmart Discipline	**Recommendation**	**Status**
Fuel Modification Maintenance	**Recommendation 1:** Ensure that all fuel modification projects are inspected on a regular basis and maintained as necessary.	Ongoing
Fuel Modification Prescription Planning	**Recommendation 2:** Detailed fuel modification prescriptions must be developed for each proposed vegetation management project prior to implementation.	Complete
Zone 1-2 Vegetation Mgt	**Recommendation 3:** Zone 1-2 vegetation management is necessary for a large proportion of the structures in the project area and is the responsibility of residents, business owners, and facility operators. Vegetation management required includes: ▪ Removal of flammable forest vegetation within 10 metres of structures. ▪ Removal of all coniferous ladder fuels (limbs) to a minimum height of 2 metres from ground level on residual overstory trees. ▪ Removal of all dead and down forest vegetation from the forest floor. ▪ Increased maintenance to ensure that all combustible needles, leaves, and native grass are removed from on and around structures. ▪ Establishment and maintenance of a non-combustible surface cover around the structure including the use of FireSmart landscaping species. ▪ Removal of all combustible material piles (firewood, lumber, etc.) within 10 metres of the structure.	Ongoing
Zone 2-3 Vegetation Mgt	**Recommendation 4:** Zone 2-3 vegetation management is the responsibility of municipal and provincial governments, residents and landowners, and business owners/facility operators. All stakeholders should implement fuels reduction based on the priorities identified in this plan.	Ongoing
Private Land Debris Disposal	**Recommendation 5:** RVC should consider innovative methods to assist private landowners with debris disposal from Zone 1, 2, and 3 private land FireSmart vegetation management actions.	Ongoing
Municipal Environmental Reserve Lands	**Recommendation 6:** Rocky View County, along with other municipal governments, and Sustainable Resource Development should investigate the possibility of amending Section 664(3)(b) of the Municipal Government Act to permit fire hazard reduction on environmental reserve lands.	Ongoing
Zone 3 Vegetation Mgt	**Recommendation 7:** Zone 3 containment areas should be planned with collaboration of all parties in the West Bragg Creek Land Users Group. The responsibility for approval lies with Sustainable Resource Development and the strategy will be implemented jointly by Sustainable Resource Development and Spray Lake Sawmills (1980) Ltd.	Ongoing
FireSmart Exterior Structural Materials	**Recommendation 8:** Establish and implement FireSmart standards for exterior building materials for all new developments and retrofits of existing structures.	Ongoing

FireSmart Access Road Standards	**Recommendation 9:** Establish and legislate FireSmart access road standards for all new developments to ensure safe ingress and egress routes for residents/public and emergency responders.	Ongoing
Fire Suppression Water Supply	**Recommendation 10:** Ensure that adequate fire suppression water supply is provided for the Hamlet of Bragg Creek and all new developments within Rocky View County. Consideration should be given by RVC to the integration of the existing Elkana Ranch Elbow River water gallery and pumphouse as a water tender fill station.	Ongoing
Overhead Powerlines	**Recommendation 11:** Establish a powerline tree-freeing program with the distribution power provider to reduce the threat of wildfire ignition from downed powerlines.	Ongoing
Propane Tanks	**Recommendation 12:** Ensure adequate FireSmart defensible space is established and maintained around propane tanks at Elbow Housing area.	Complete
Address Signage	**Recommendation 13:** Develop and implement a standardized FireSmart signage system for Rocky View County address signage.	Incomplete
FireSmart Communications Plan	**Recommendation 14:** The Greater Bragg Creek FireSmart Committee and Rocky View County should professionally build and implement a FireSmart Communications Plan to ensure that target audiences, effective key messages, and communications methods and tools are identified.	Incomplete
Greater Bragg Creek FireSmart Strategy Open House	**Recommendation 15:** Provide an open house and information session to inform public and stakeholders of the findings and recommendations of the Greater Bragg Creek Wildfire Mitigation Strategy.	Complete
Public Education Priorities	**Recommendation 16:** Resident education should focus on the following items in order or priority: ▪ FireSmart Zone 1 and 2 fuels management options ▪ FireSmart structure and site maintenance focusing on annual maintenance items ▪ FireSmart structural options including roofing and siding materials, decks/open spaces, and combustibles storage ▪ Emergency planning including evacuation planning and structure and site preparation during a wildfire	Ongoing
Demonstration Forest	**Recommendation 17:** Develop the Rocky View County FireSmart Demonstration Forest areas to provide FireSmart educational opportunities for all local residents of the area to understand the role of wildfire in the area and the need for FireSmart actions to reduce the threat to values at risk.	Complete
FireSmart Legislation	**Recommendation 18:** Complete a review and revise all applicable RVC bylaws and planning documents to ensure alignment with the Greater Bragg Creek Wildfire Mitigation Strategy and FireSmart best-practices.	Incomplete
Rocky View County Municipal Development Plan	**Recommendation 19:** Complete a review and update of the Rocky View County Municipal Development Plan to include a policy that requires the "*preparation and submission of a Wildfire Risk Assessment, completed by a qualified professional, and a requirement to implement the recommendations for all new developments in the Greater Bragg Creek planning area*".	Incomplete

Rocky View County Land Use Bylaw	**Recommendation 20:** Complete a review and update the Rocky View County Land Use Bylaw to consider revision or inclusion of the following FireSmart policies. **a) Revise Section 20.1(d) to read:** 20.1 The Development Authority may consider with respect to land that is the subject of an application for a Development Permit: (d) its potential for flooding, subsidence, erosion, ***or wildfire***; **b) Structure Exterior - Add Sections to read:** i) All roofing materials on new, replacement, or retrofitted dwellings, accessory buildings and commercial buildings within 2 kilometres of High and Extreme FireSmart hazard class areas shall meet a minimum Class "C" U.L.C. rating or as specified by the Development Authority based on wildland/urban interface hazard and risk. ii) All siding materials on new, replacement, or retrofitted dwellings, accessory buildings and commercial buildings within High and Extreme FireSmart hazard class areas shall use fire resistant materials a minimum of 12 millimetres thick and extend from ground level to the roofline. iii) All new dwellings, accessory buildings, and commercial buildings with exposed undersides and/or with raised decks and porches less than 2 metres from ground level shall be sheathed from the floor level to the ground level to prohibit the entry of sparks and embers under the structure. **c) Water Supply – Add a Section to read:** i) All new multi-lot subdivision developments and commercial developments shall be required to provide adequate fire suppression water supply as required by the Development Authority. **d) Vegetation Management – Add Sections to read:** i. All new dwellings, accessory buildings, and commercial buildings shall establish and maintain *FireSmart* defensible space for a minimum of 30 metres from the structure or to lot boundary. ii) All new dwellings, accessory buildings, and commercial buildings shall have a minimum of one-metre of non-combustible surface cover (gravel, rock, concrete, etc.) around the perimeter of the structure. All new exposed decks, greater than 2 metres from ground level shall require a minimum one-metre of non- combustible surface cover placed around the outside perimeter and underneath. iii) Fire resistant species, as per the attached list and *FireSmart – Protecting Your Community from Wildfire* (2003), shall be used for all landscaping within 10 metres of the all structures. **e) Access Standards – Add a Section to read:** i) Access to all new dwellings and commercial buildings shall meet adequate standards for emergency vehicle access as requested by the Development Authority.	Incomplete
Greater Bragg Creek Area Structure Plan	**Recommendation 21:** Review and implement all FireSmart recommendations/policies from the Greater Bragg Creek Area Structure Plan (2007).	Ongoing

Development Referrals	**Recommendation 22:** All new development applications should be referred by Rocky View Planning and Development department to Rocky View Fire Services for FireSmart review and comment.	Incomplete
FireSmart Committee	**Recommendation 23:** The Greater Bragg Creek FireSmart Committee should continue to be the coordinating group for all agencies and stakeholders involved in the Greater Bragg Creek *FireSmart* program.	Ongoing
Cross-Training	**Recommendation 24:** Rocky View Fire Services and Redwood Meadows Emergency Services staff should be cross-trained and certified to the following minimum standards: ▪ Wildland Firefighter (NFPA 1051 Level I or equivalent) ▪ Structure & Site Preparation Workshop (S-115) ▪ Fire Operations in the Wildland/Urban Interface (S-215) ▪ Incident Command System (I-100 to I-400) as applicable Sustainable Resource Development should assist with this cross-training where applicable and qualified training providers should be used.	Complete
Rocky View County Municipal Emergency Plan	**Recommendation 25:** Ensure that wildland/urban interface fire is recognized as a risk in the updated Rocky View County Municipal Emergency Plan and that Sustainable Resource Development is consulted for input into the plan.	Complete
Community Wildfire Pre-Plan	**Recommendation 26:** Develop a detailed Community Wildfire Pre-Plan for the Greater Bragg Creek planning area to provide greater detail to emergency responders during a wildland/urban interface incident.	Complete
Emergency Exercise	**Recommendation 27:** Conduct a wildland/urban interface emergency exercise to train local emergency responders, test the pre-plan for operational effectiveness, and educate residents of the issues and impacts related to interface fire incidents.	Complete

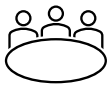
Mitigation Recommendations

This section is designed to guide Greater Bragg Creek toward enhanced wildfire resilience by outlining clear, actionable goals. Some recommendations will require substantial time and resources and should be implemented as separate projects. It is strongly recommended that agencies such as Alberta Forestry, FireSmart Alberta, and the Forest Resource Improvement Association of Alberta actively support and collaborate with the community in pursuing these goals.

Recommended Wildfire Mitigative Actions		FireSmart Discipline
Goal #1	Update the Rocky View County FireSmart Website	
Goal #2	Develop a Regional FireSmart Committee	
Goal #3	Develop an internal program that provides Greater Bragg Creek with Neighbourhood Recognition Program (NRP) Specialists.	
Goal #4	Enhance the process that provides Greater Bragg Creek with access to FireSmart Advanced Home Assessments	
Goal #5	Update the Wildfire Preparedness Guide for Greater Bragg Creek	
Goal #6	Conduct at least one (1) wildfire emergency tabletop exercise, and one (1) wildfire simulation exercise.	
Goal #7	Complete Priority 1 and 2 Fuel Treatment Units in the *2025 Bragg Creek Vegetation Management Plan*	
Goal #8	Complete the Fuel Management Treatments identified on Crown Land and Provincial Land	
Goal #9	Develop a Fireguard Plan to remove hazardous vegetation southwest of Greater Bragg Creek	
Goal #10	Encourage Vegetation Management on private land	
Goal #11	Review all relevant municipal documents, guidelines, and legislation to increase their alignment with FireSmart principles.	
Goal #12	Develop an RVC FireSmart Working Group	
Goal #13	Mandate the use of wildfire-resilient building materials for new developments and renovations.	
Goal #14	Mandate address signage policy that meets FireSmart principles.	
Goal #15	Develop a new evacuation route for West Bragg Creek	
Goal #16	Hire a Regional FireSmart Coordinator	
Goal #17	Offer (at minimum) the FireSmart 101 Course to Municipal Staff who are engaged in projects related to the 7 FireSmart disciplines.	

The Seven FireSmart Disciplines

The recommendations in the following section use the Seven FireSmart Disciplines as a framework for mitigative actions. The Seven FireSmart Disciplines were developed by FireSmart Canada to provide a systematic approach to increasing a community's wildfire resiliency. Below is a summary of the Seven FireSmart Disciplines:

	**Education**	Informing homeowners on how to reduce potential hazards and risks from wildfire.
	**Emergency Planning**	Developing FireSmart plans such as Wildfire Mitigation Strategies or Wildfire Preparedness Guides
	**Vegetation Management**	Reduce the intensity of wildfire by reducing, removing, or replacing wildland fuels.
	**Legislation**	Incorporating FireSmart into municipal legislation such as land-use planning, building legislation, or enforcement programs.
	**Development**	Integrate FireSmart into development standards and land-use planning to increase wildfire resiliency and infrastructure survivability.
	**Interagency Cooperation**	Promoting collaboration and partnerships between various agencies, organizations, associations, and levels of government.
	**Cross-Training**	Increase the capabilities of first responders by exposing them to a more diverse range of training and education.

**Although FireSmart principles can help reduce the threat of wildfire to communities and structures, they cannot remove the threat entirely. For additional information on the 7 FireSmart Disciplines visit https://firesmartalberta.ca/communities/*

Education

FireSmart Education is one of the most important FireSmart Disciplines when considering the growing impacts of Wildland Urban Interface (WUI) wildfires. FireSmart Education can drive community-wide impact from the grassroots level, creating positive change not only among individual homeowners but also at the community and municipal levels. Awareness drives action: FireSmart Education encourages homeowners to understand the important role they play in creating wildfire resilient homes and communities. Below is key messaging to use when providing FireSmart Education to homeowners:

- Homes and buildings ignite from wildfires because of the materials, condition, and fuels that surround them. The area within 30 metres of the home is called the Home Ignition Zone (HIZ):
    - **The Immediate Zone** (0m-1.5m) should not be able to support wildfire of any kind. Use wildfire resilient building materials and remove as many combustibles within the Immediate zone as possible.
    - **The Intermediate Zone** (1.5m-10m) should have fire-resistant trees and shrubs for landscaping. Remove flammable species such as spruce, pine, and juniper.
    - **The Extended Zone** (10m-30m) should have any flammable species spaced 3 metres apart and branches removed within 2 metres of the ground to reduce the intensity of wildfire.
- **Learn More** about FireSmart by taking the FireSmart 101 Course.
- **Take Action** by getting involved in your neighbourhood's FireSmart program or become your neighbourhood's FireSmart Ambassador.
- **Stay prepared** by regularly checking the status of local wildfires and evacuations. Use the FireSmart Evacuation Checklist to help you respond quickly to wildfire emergencies.

Education Recommendations

Goal #1	**Update the Rocky View County FireSmart Website**	**Rocky View County**
Rational	The Rocky View FireSmart Website is a powerful platform that offers residents access to FireSmart information and resources. Consider adding information on webpage about The FireSmart Advanced Home Assessment Program, FireSmart Neighbourhood Recognition Program, FireSmart Community Preparedness Day, and wildfire analysis mapping tools.	
Goal #2	**Develop a Regional FireSmart Committee**	**Bragg Creek FireSmart Committee & Rocky View County**
Rational	Greater Bragg Creek contains several neighborhoods who should consider developing a FireSmart Committee. Developing a regional FireSmart Committee will provide guidance to neighborhood FireSmart Committees and support the FireSmart program at the municipal level.	
Goal #3	**Develop an internal program that provides Greater Bragg Creek with Neighbourhood Recognition Program (NRP) Specialists.**	**Rocky View County**
Rational	The FireSmart Neighbourhood Recognition Program relies heavily on the leadership of local NRP Specialists. The FireSmart Level 2 NRP Specialist course can be requested through FireSmart Alberta.	
Goal #4	**Enhance the process that provides Greater Bragg Creek with access to Advanced FireSmart Home Assessments.**	**Rocky View County**
Rational	Consider using existing resources such as the Rocky View County FireSmart Page, and FireSmart Education Days to promote FireSmart Assessments. The Level 3 Home Ignition Zone Specialist course can be requested through FireSmart Alberta to increase the number of the County's Assessors.	

Emergency Planning

Emergency planning ensures that in the event of a worst-case scenario, firefighters, residents, and government are better prepared. Strong emergency planning relies on a combination of local knowledge and expertise from first responders. The two ways that FireSmart Canada approaches the planning discipline is through the creation of wildfire prevention and mitigation specific plans (such as this one) and accounting for wildfire in existing emergency response and community preparedness. The table below provides a list of recommendations for Emergency Planning.

Emergency Planning Recommendations

Goal #5	**Update the Wildfire Preparedness Guide for Greater Bragg Creek**	**Rocky View County**
Rational	A Wildfire Preparedness Guide (WPG) can assist First Responders during wildfires by providing critical information such as values at risk, structure protection, contact information and water sources. Consider using the *FireSmart Guidebook for Community Protection*[9] as a template for the WPG.	
Goal #6	**Conduct at least one (1) wildfire emergency tabletop exercise, and one (1) wildfire simulation exercise.**	**Rocky View County**
Rational	Conduct at least one wildland urban interface emergency tabletop exercise and one wildfire simulation exercise to train local and interagency emergency responders. Consider using a tabletop exercise as a tool to test the Wildfire Preparedness Guide for its operational effectiveness once it is updated.	

[9] https://firesmartalberta.ca/wp-content/uploads/2023/09/FireSmart-GuideCommunityProtection-Nov2013.pdf

Vegetation Management

Applying vegetation management strategies can reduce the intensity of wildfire in wildland fuels. Vegetation management can consist of the following strategies:

- **Fuel Removal**
  - Physically removing hazardous vegetation to create a break in the wildland fuels. This strategy can include the construction of fireguards.
- **Fuel Reduction**
  - Selective thinning hazardous vegetation such as pine or spruce to reduce the available amount of fuel for a fire to spread.
- **Species Conversion**
  - Replace hazardous vegetation with less flammable vegetation to reduce the intensity of wildfire.

Research has shown that the most critical area to apply FireSmart principles to reduce the impact of wildfire are within 30 metres of a home in the Home Ignition Zone (HIZ). The HIZ in Greater Bragg Creek primarily located on private land, highlighting the importance of generating homeowner engagement for FireSmart activities such as Vegetation Management. Resources such as the FireSmart Canada's FireSmart Begins at Home Guide can provide home owners with guidance on how to apply FireSmart principals to their own property. For additional information on Vegetation Management recommendations within Rocky View County, see the *2025 Bragg Creek Vegetation Management Plan.*



The information below provides a general set of vegetation management recommendations for the Home Ignition Zone.

Immediate Zone (0-1.5m)

- Choose wildfire resilient building materials when constructing or renovating your home.
- Clear vegetation and combustible material down to mineral soil or cover with non-combustible materials like gravel, brick, or concrete.
- Avoid planting woody shrubs or trees. If any are present, prune and maintain them regularly.

Intermediate Zone (1.5m-10m)

- Plant fire-resistant vegetation and select non-combustible landscaping materials.
- Avoid incorporating any woody debris, including mulch.
- Keep combustible items like firewood piles, construction materials, tools, and decorative pieces out of this zone.
- Move trailers, recreational vehicles, storage sheds, and other combustible structures into the Extended Zone. If that is not possible, store firewood inside your mitigated garage, shed, or other ember-resistant structures.
- Create a non-combustible ground cover, like a gravel pad, underneath and 1.5 metres around trailers, recreational vehicles, and sheds.

Extended Zone (10m-30m)

- Selectively remove evergreen trees to create at least 3 metres of horizontal space between single or grouped tree crowns.
- Remove all branches to a height of 2 metres from the ground.
- Regularly clean up accumulations of fallen branches, dry grass, and needles to eliminate potential surface fuels.
- Continue to apply these principles if your property extends beyond 30m.

Areas that have previously undergone vegetation management typically exhibit reduced fire behavior, though the extent of reduction depends on the original fuel treatment prescription and the time elapsed since treatment. These factors also inform when Fuel Treatment Units (FTUs) may require maintenance or retreatment in the future.

Proposed FTUs were identified through a combination of wildfire behavior analysis tools and on-the-ground field reconnaissance. The 2025 Bragg Creek Vegetation Management Plan outlines approximately 105 hectares of municipally owned FTUs within the Greater Bragg Creek area. These units have been prioritized into Priority 1 and Priority 2 zones based on wildfire risk and strategic value.

The table below summarizes the key recommendations from the report.

Proposed Vegetation Management		
Land Ownership	**Description**	**Area (ha)**
Crown Land (Alberta Forestry)	**Total**	**15.0**
	Camp Horizon	8.6
	Elbow Firebase	6.4
Municipal (Rocky View County)	**Total**	**105.4**
	Bragg Creek	20.0
	Elk Valley	44.8
	Hawk Eye	2.5
	Wildrose	28.4
	Wintergreen	9.7
Provincial Park (Alberta Parks)	**Total**	**10.6**
	Bragg Creek Provincial Park	5.1
	Gooseberry Provincial Park	4.5
	McLean Creek Store	1.0
Grand Total		**131**

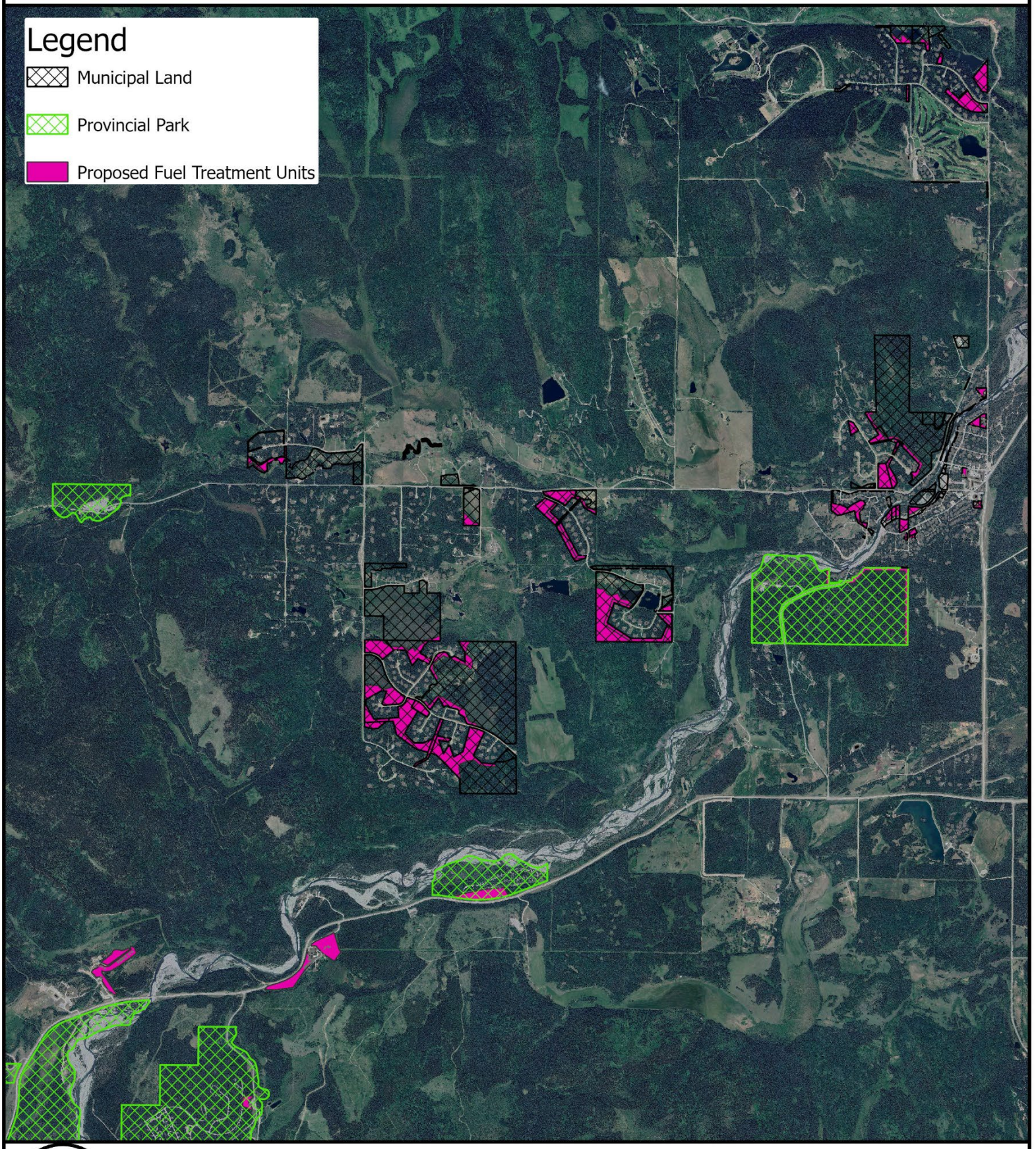


Bragg Creek Provincial Park falls under the jurisdiction of Alberta Forestry and Parks. Its popularity and high volume of recreational use contribute to elevated wildfire risk from human-caused ignitions and may complicate potential evacuation efforts. It is recommended that vegetation management treatments are developed in coordination with the province, consistent with the approach taken in the 2025 Bragg Creek Vegetation Management Plan.

Vegetation Management Recommendations

Goal #7	**Complete Priortiy 1 and 2 Fuel Treatment Units in the 2025 Bragg Creek Vegetation Management Plan**	**Rocky View County**
Rational	The 2025 Bragg Creek Vegetation Management Plan identifies over 100 hectares of Municipal land that should receive Vegetation Management.	
Goal #8	**Complete the Fuel Management Treatments identified on Crown Land and Provincial Land**	**Alberta Parks & Alberta Forestry**
Rational	Select Fuel treatment units identified with high fire hazard—such as Bragg Creek Provincial Park—are located on provincial land. Since vegetation management in these areas falls under provincial jurisdiction, it is recommended to engage Alberta Forestry and Parks to explore opportunities for treatment that align with the strategies outlined in the 2025 Bragg Creek Vegetation Management Plan.	
Goal #9	**Develop a Fireguard Plan to remove hazardous vegetation southwest of Greater Bragg Creek**	**Rocky View County**
Rational	The Directional Vulnerability and Landscape Wildfire Exposure identified a significant wildfire threat southwest of Greater Bragg Creek. Consider utilizing project partners and resources such as Alberta Forestry and the FRIAA Community Fireguard Program for funding and guidance on a fireguard project.	
Goal #10	**Encourage Vegetation Management on private land**	**Rocky View County**
Rational	A fuel treatment optimization analysis identified that most of the land that should be prioritized for vegetation management is on Private Land. Develop incentives for homeowners to conduct vegetation management on their private land.	

Greater Bragg Creek
Proposed Vegetation Management



Legislation

Another characteristic of wildfire resilient communities is the development of legislation and policies that align with FireSmart principles. Activities such as land use planning, development, vegetation management, and regulatory compliance are shaped by municipal legislation. Ensuring these activities adhere to FireSmart principles are paramount for protecting lives, infrastructure and the ecological integrity of Bragg Creek. This report provides a high-level review of the current municipal documentation and policies that should incorporate FireSmart principles. Such legislation and policies include the Municipal Development Plan, Bragg Creek Area Structure Plan, and the Land Use Bylaw.

Municipal Development Plan Section 3.9.2(h):
Develop and maintain measures to prevent and control wildland fires, including public education, design of efficient emergency access, and measures to effectively slow fire growth.
Bragg Creek Area Structure Plan Section 7.4.1(a)
Limit the removal of existing vegetation to accommodate additional building sites while encouraging implementation of Fire Smart design principles.

Although the Bragg Creek Area Structure Plan provides guidance on the implementation of FireSmart principles during development, other forms of documentation and legislation such as the Municipal development Plan and Land Use Bylaws do not address wildfire mitigation adequately. Implementation of FireSmart principles requires a cohesive legislative framework that integrates FireSmart into legislation at all levels. For example, consider developing MDP policies that mandate FireSmart principles for new developments that also include the allocation of funding and staff resources towards long-term wildfire resilience. These mandates can be reinforced by providing specific FireSmart policies in legislation such as the Land Use Bylaw and Fire Services Bylaw.

Legislation Recommendation

Goal #11	**Review all relevant municipal documents, guidelines, and legislation to increase their alignment with FireSmart principles.**	**Rocky View County**
Rational	Develop a cohesive framework that integrates FireSmart into all municipal documentation. Consider developing a process that ensures the integration of FireSmart into documents, guidelines, and legislation as they are updated.	
Goal #12	**Develop an RVC FireSmart Working Group**	**Rocky View County**
Rational	Several departments within Rocky View County have opportunities to apply FireSmart Principles (e.g. Asset Management, Emergency Management, Policy, Planning, etc.) ensuring these departments are connected will help support a consistent and cohesive municipal FireSmart program.	

Development

Effective development and land use planning utilizes FireSmart recommendations and best practices to create communities with greater wildfire resiliency and infrastructure survivability. While significant overlap exists between the FireSmart disciplines of Development and Legislation, Development focuses on analyzing the built fuels and their capacity to withstand wildfires.

Utilities

In 2024, Alberta's 5th largest cause of wildfires was powerlines[10]. Powerline fires are typically a result of line strikes caused by nearby vegetation. Historical wildfire data has identified only one wildfire caused by a powerline since 2006, suggesting that vegetation management programs by local utility companies, such as FORTIS, have been mostly effective in successfully mitigating hazard vegetation. However, issues can still arise from hazard trees located outside of the utility Right of Way—especially on private land.

[10] https://open.alberta.ca/publications/alberta-wildfire-season-statistics

Building Materials

Federal and Provincial Building Code Regulations provide minimum requirements for building materials on new developments and renovations; however, these requirements do not always align with FireSmart best practices. As wildland urban interface fires become more prevalent and the technology of building material advances, there is a growing market of materials meeting and exceeding fire rating testing standards. Talking to local builders and distributers is a great way to learn more about new and innovative building materials with increased fire resilience. FireSmart Canada, in collaboration with Canada Wildfire, Alberta University, and the Intact Center, developed the *Wildfire Resilience Best Practice Checklist*[11] to provide further guidance on construction, renovations, and landscaping. Below is a summary of building materials recommended in the report.

EXAMPLES OF ACCEPTABLE WILDFIRE-RESILIENCE BUILDING MATERIALS		
Component	**Material**	**Testing Standards**
Roofing	Asphalt shingles, clay tiles, slate, (non-aluminum) metal roofs, concrete tiles, and Ethylene Propylene Diene Monomer (EPDM) roofing.	• **ASTM E108** • **ULC S107** • **"Class A" rating.**
Venting	ASTM Tested Ember Resistant Vents	• **ASTM E 2886** • **ASTM E 2886M.**
Gutters	Non-combustible aluminum, copper, stainless steel.	• **CAN/ULC-S135**
Siding	Non-combustible cladding systems such as metal, fibre cement panels/ boards, cementitious, stucco, stone, rock, heavy timber logs, and concrete block	• **ASTM E108** • **ULC S107** • **"Class A" rating**
Windows and Doors	Minimum 30-minute fire-rated; non-combustible frame.	• **CAN/ULC-S104** • **SFM Standard 12- 7A-2**
Fencing	Non-combustible concrete, cement fibre and metal (aluminum, chain-link, page wire).	• **CAN/ULC-S135,**
Decking and Balconies	Concrete, stone, fibre cement, fire rated composite, Class A fire rated Vinyl, fire retardant treated wood	• **ASTM E2632 / E2632M** • **ASTM E2726 / E2726M** • **CAN/ULC S107** • **"Class A" rating**

***Using building materials in FireSmart Canada's current list of best practices does not eliminate the risk of wildfire, it only reduces it**

[11] https://www.firesmartcanada.ca/wp-content/uploads/2022/04/FSC_ConstructionChecklist_converted_rev.pdf

Signage

During an emergency, first responders rely on clear and visible signage to locate specific areas around a community. Ensuring that a homeowner's address sign meets FireSmart principles can help responders reach the right home. The list below provides standardized criteria for home address signs[12]:

- Signs should be clearly visible and legible from the road and use a consistent system that provides for sequenced or patterned numbering and non-duplicated naming.
- Signs should be built of non-combustible materials and mounted 2 metres above the surface of the road.
- Signs with information such as "dead-end" or "bridge out" will be placed by designated by fire officials. Signs will be placed identifying firefighting water source and type of location.
- Letters, numbers, and symbols used on all signs should be at least 10 centimetres high with a 12-millimetre stroke, contrast with the background color of the sign, and be reflective.

Access/Evacuation Routes

Greater Bragg Creek includes municipal roadways, such as Wintergreen Road and West Bragg Creek Road, which may present challenges for the efficient execution of organized evacuations during a wildfire event. Additionally, many private driveways feature steep slopes and limited turnaround space, complicating access for emergency responders. FireSmart Canada offers the following recommendations for roadways and driveways, which should be considered in the planning of new developments.

Roadways:

- Provide safe simultaneous access for emergency vehicles and public evacuation with a traveled way of not less than 6.1 metres horizontally and 4.1 metres vertically. Where parking is permitted, an additional 2.7 metres of improved road width should be provided.
- Road curvature radius should be at least 30 metres, measured from the centre line. Road gradient should not exceed 10 percent.
- Dead-end roads more than 90 metres in length should be provided with a

[12] https://firesmartcanada.ca/wp-content/uploads/2022/01/FireSmart-Protecting-Your-Community.pdf

turnaround at the terminus having no less than 36 metres outside diameter of traveled way. Fire officials may authorize a "hammerhead T" turnaround to provide three point turnaround ability. Dead-end roads should have their non-through traffic status posted.

- All gates should be located at least 9 metres from the public right of way and should not open outward. Gate openings should provide a clear opening of not less than .6 metres wider than the travelled way.

Driveways:

- Driveways more than 45 metres in length should be a minimum of 3.7 metres in width and provide 4.1 metres vertical clearance over the full width. Fire officials may specify additional width and clearance.
- Turnouts shall be spaced so that drivers can see from one turnout to the next.
- Driveway gradients should not exceed 10% Exceptions to this may be negotiated with fire officials.
- All gates should be at least 9 metres from the public right-of-way and should not open outward. Gate openings should provide a clear opening at least .6 metres wider than the travelled way.

In the event a landscape-level wildfire, the West Bragg Creek emergency access and evacuation is limited to a single egress route across the Elbow River at Balsam Avenue. The loss of the crossing could leave residents of West Bragg Creek isolated without a secondary emergency access route, while also preventing emergency services from reaching the area efficiently.

Development Recommendations

Goal #13	**Mandate the use of wildfire-resilient building materials for new developments and renovations.**	**Rocky View County**
Rational	The implementation of such policy will increase the wildfire resiliency of not only the new development, but the entire community.	
Goal #14	**Mandate address signage policy that meets FireSmart principles.**	**Rocky View County**
Rational	Consider using recommendations from the *FireSmart: Protecting your Community from Wildfire Guidebook* and the *National Fire Protection Association (NFPA) Standards* when selecting the criteria for a standardized signage policy.	

Goal #15	Develop a new evacuation route for West Bragg Creek	
Rational	Given the elevated wildfire risk identified in the Landscape Wildfire Exposure and Directional Vulnerability Assessments, and the *2017 West Bragg Creek Emergency Access Route Study*, continue working towards a new evacuation route for West Bragg Creek.	**Rocky View County & Government of Alberta**

Interagency Cooperation

Building a wildfire resilient community relies on a variety of different stakeholders working together including Fire Departments, Municipalities, Committees, Not-for-Profits, Industry partners, and Provincial/Federal government. The implementation of FireSmart programs often begins at the municipal level, led by the local fire department. While this is a common starting point, the effectiveness of the program can be significantly enhanced through strong partnerships and collaboration with a range of stakeholders. By engaging multiple jurisdictions, the responsibility is distributed more evenly, alleviating some of the pressure on the fire department and ensuring a more comprehensive and sustainable approach to wildfire mitigation. For example, Rocky View County's Asset Management Division assists the Fire Services and Emergency Management Division with FireSmart Vegetation Management on Municipal Land. Such partnerships utilize resources and expertise that ultimately lead to a more successful FireSmart program.

Interagency Cooperation Recommendation

Goal #16	Hire a Regional FireSmart Coordinator	
Rational	A Regional FireSmart Coordinator can enhance the Municipalities FireSmart program by providing a higher degree of interagency cooperation. Consider utilizing the FRIAA Regional FireSmart Coordinator Program (when available) to assist with funding and role descriptions for the position.	**Rocky View County**

Cross Training

As Wildland-Urban Interface (WUI) fires become more common, gaining proficiency in both wildland and structural firefighting techniques will better equip firefighters to respond effectively. Courses such as the ones below can assist structural firefighters

with responding to and working with other agencies on WUI fires[13].

- Incident Command System (ICS) 100-400
- NFPA 1140 Standard for Wildland Fire Protection
- Canadian Interagency Forest Fire Center (CIFFC) CIFFC Online S-131[14]
- Wildland Urban Interface Members Course (WUIM)

FireSmart Canada and FireSmart Alberta also offer courses that can provide a better understanding of how to apply FireSmart principles at various levels within a community. Visit https://firesmartalberta.ca/training/ for more information.

- FireSmart 101
- Level 1 – FireSmart Ambassador Training
- Level 2 – Neighbourhood Recognition Program (NRP) Specialist
- Level 3 – Home Ignition Zone Specialist
- Level 4 – Program Coordinator

Cross Training Recommendation

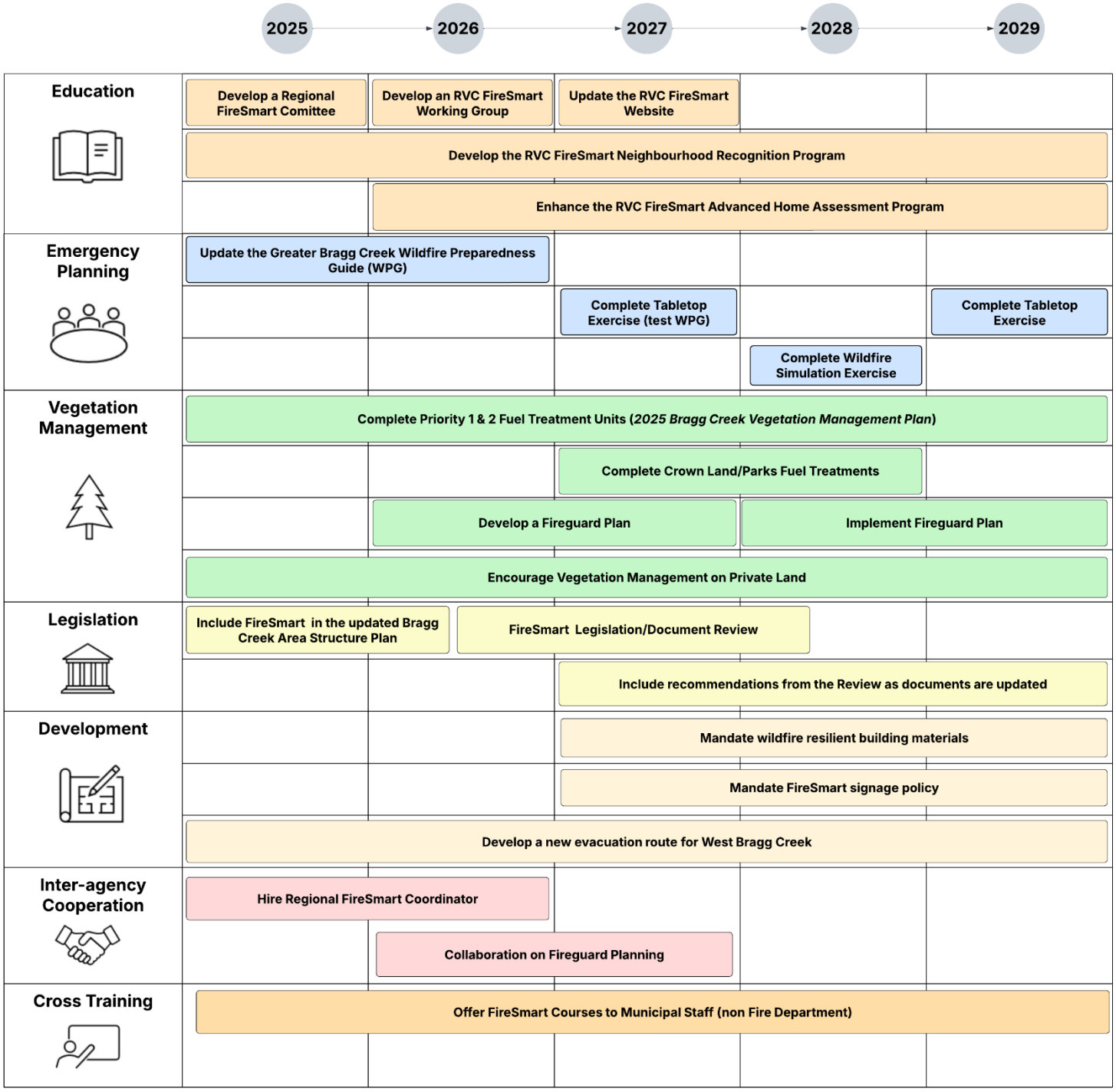
Goal #17	**Offer (at minimum) the FireSmart 101 Course to Municipal Staff who are engaged in projects related to the 7 FireSmart disciplines.**	**Rocky View County**
Rational	A better understanding of FireSmart will assist Municipal staff who are involved in projects that are related to FireSmart disciplines such as Vegetation Management, Legislation, Development, and Planning.	

[13] https://open.alberta.ca/publications/alberta-wildland-urban-interface-guidelines

[14] https://www.alberta.ca/hinton-training-centre-course-listing

Appendix A -Action Plan

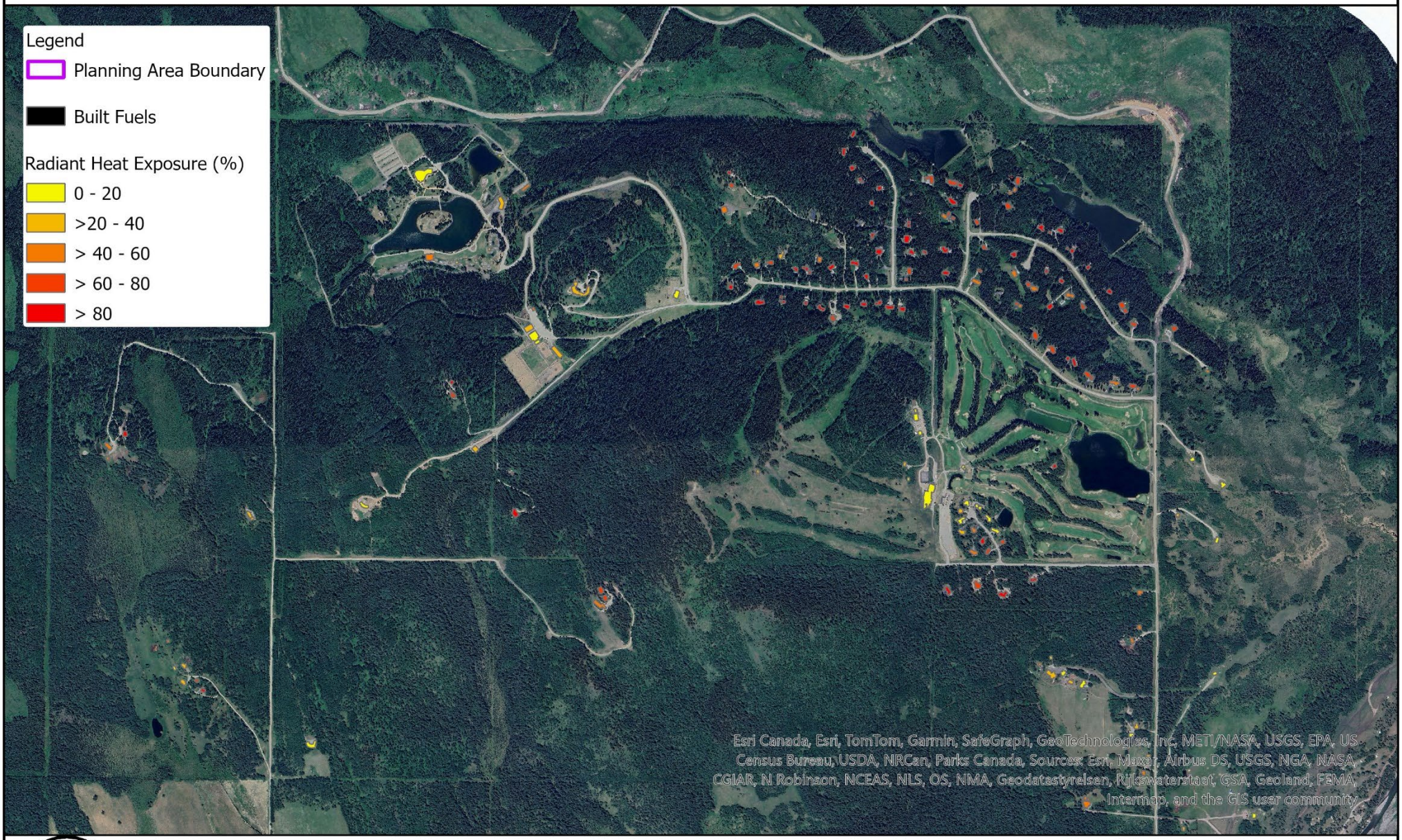
Greater Bragg Creek
5-Year FireSmart Action



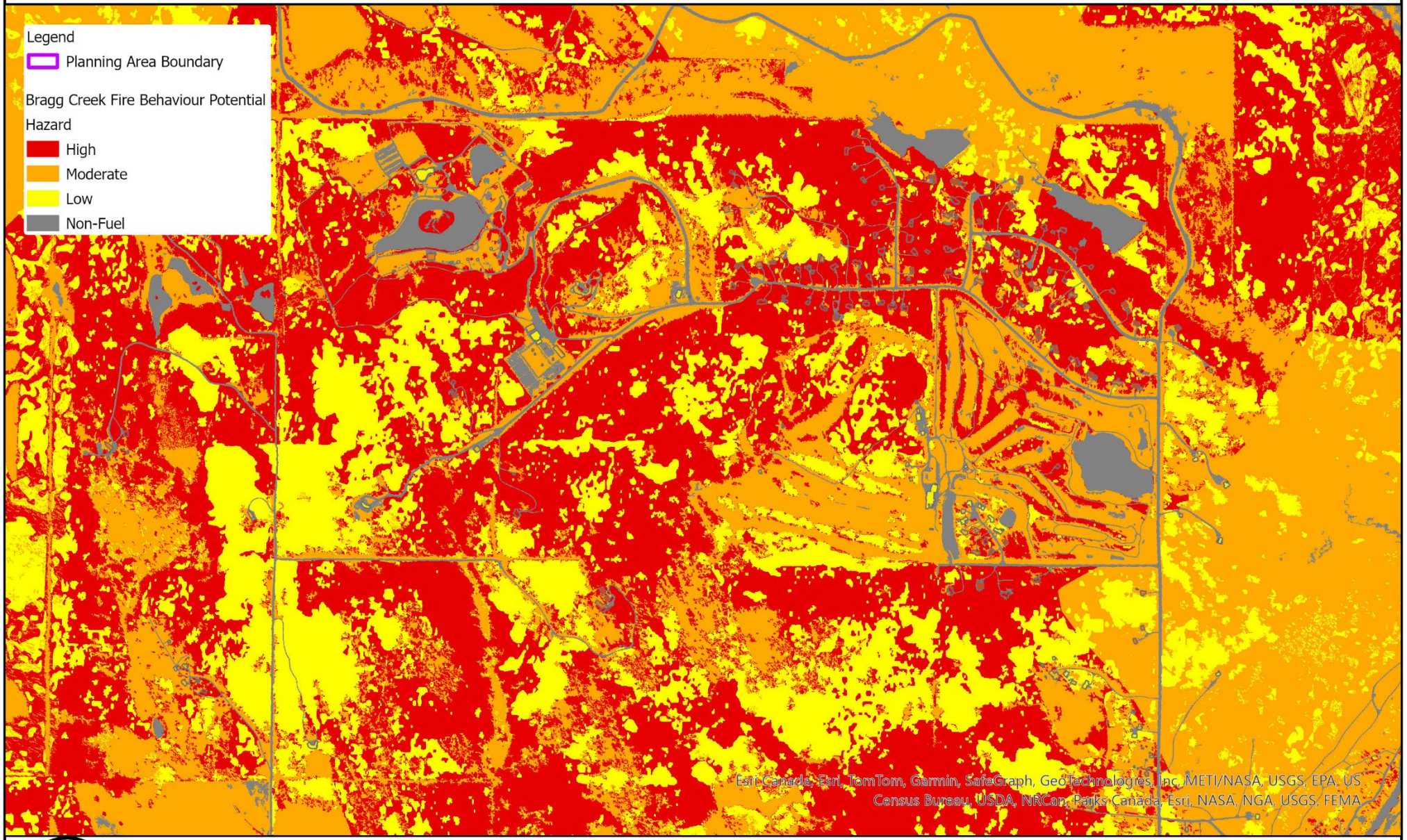
Appendix B -Additional Mapping

(Contact Rocky View County for additional wildfire analysis mapping information)

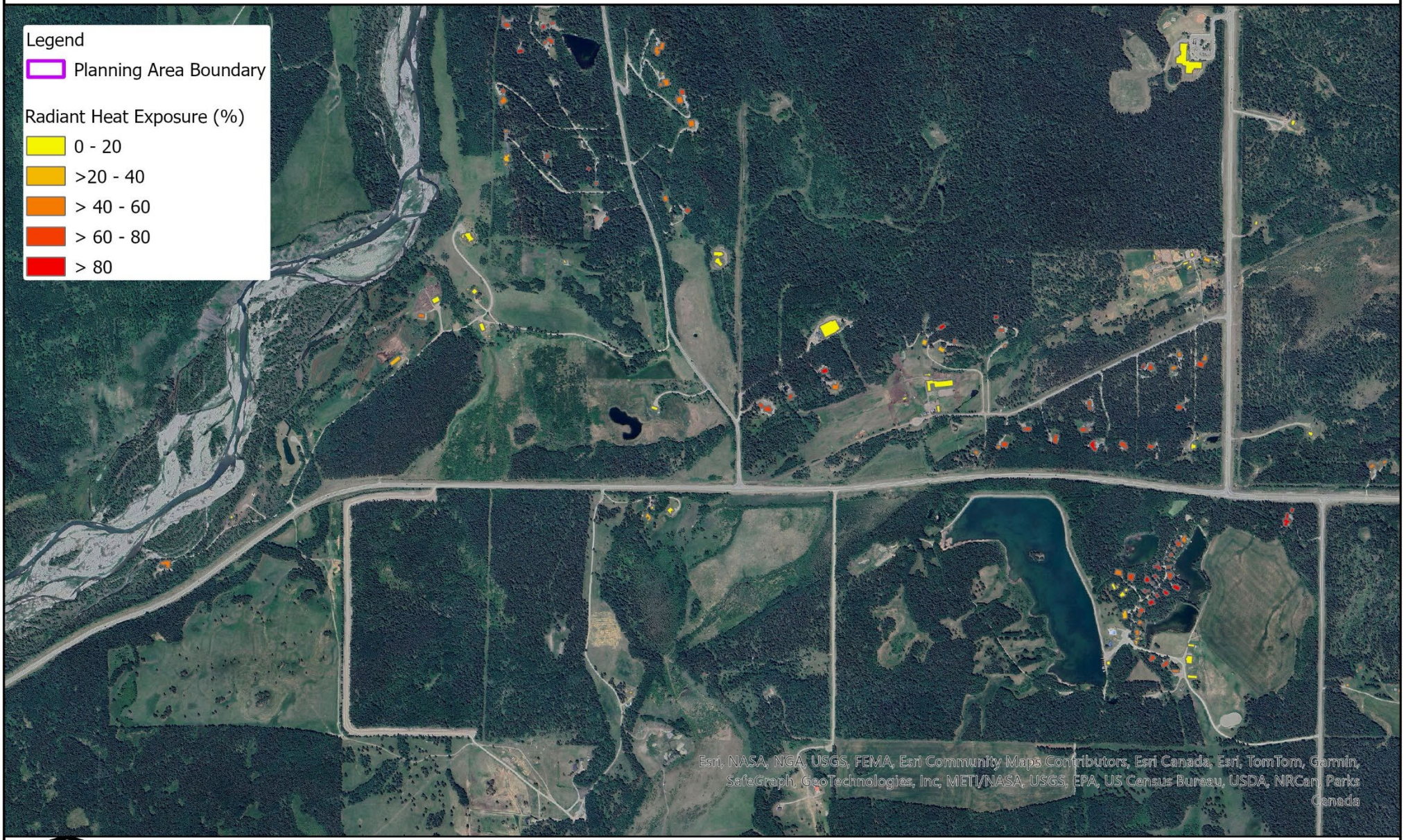
Greater Bragg Creek North (Wintergreen)
Wildfire Exposure to Radiant Heat (0-30m)



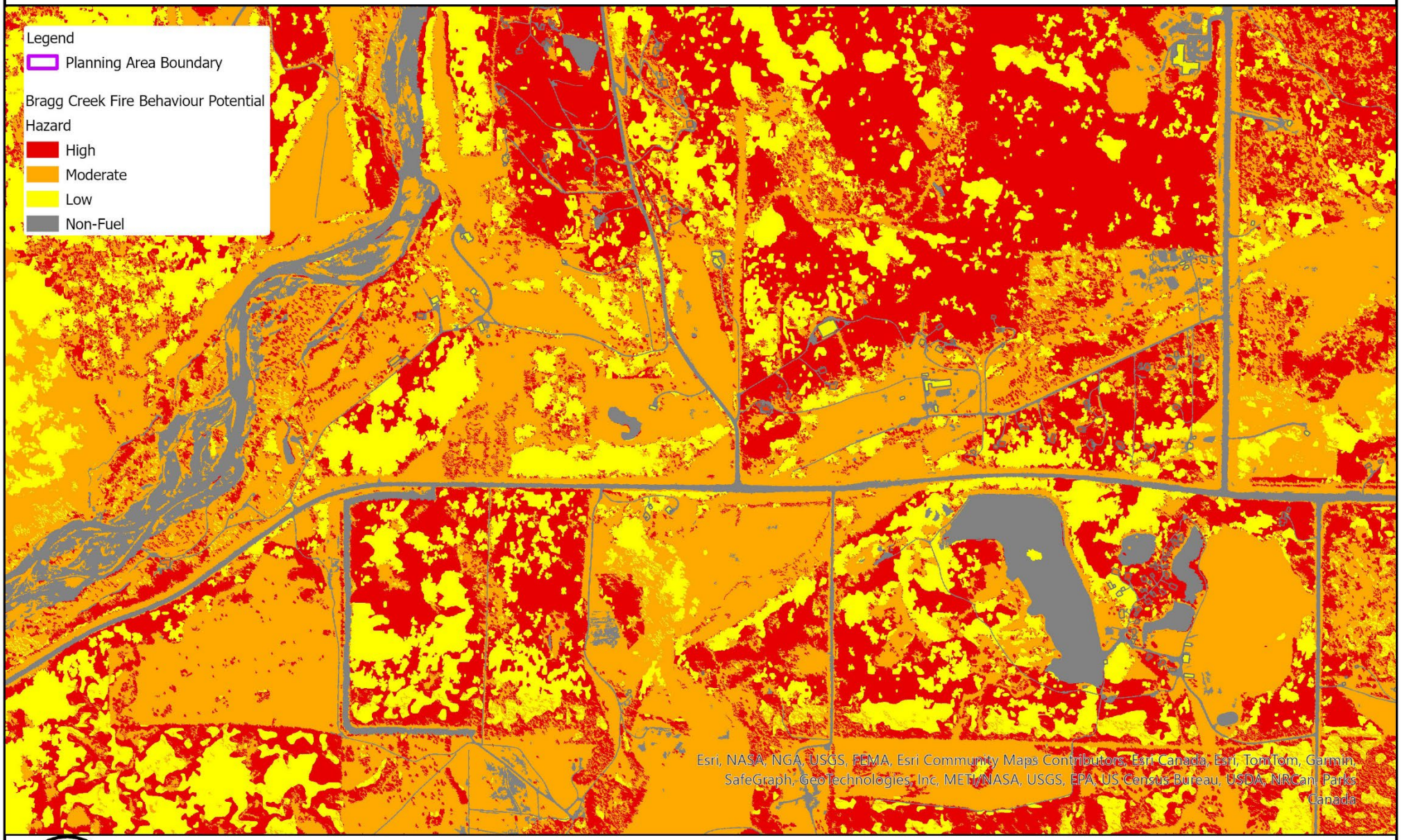
Greater Bragg Creek North (Wintergreen)
Wildfire Behaviour Potential (Summer)



Greater Bragg Creek South (Boyce Ranch Estates)
Wildfire Exposure to Radiant Heat (0-30m)



Greater Bragg Creek South (Boyce Ranch Estates)
Wildfire Behaviour Potential (Summer)



Greater Bragg Creek West (Elk Valley)
Wildfire Exposure to Radiant Heat (0-30m)



Greater Bragg Creek West (Elk Valley)
Wildfire Behaviour Potential (Summer)

