

Community Wildfire Resiliency Plan

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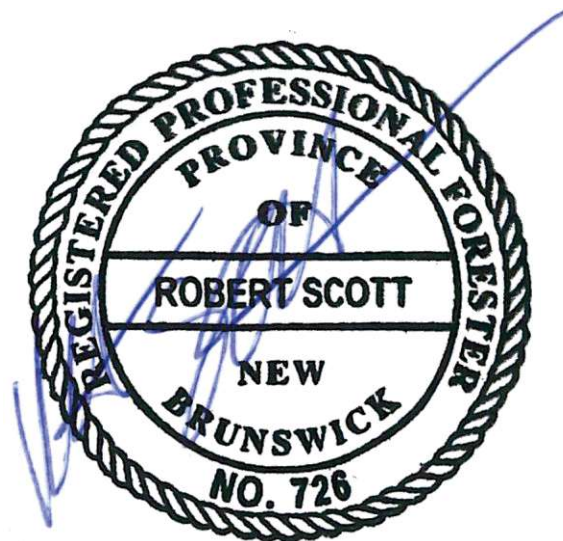
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The community members of Nackawic-Millville Rural Community that engaged with the survey and open-house, asking questions and providing insight into what their concerns are. Wildfire is a growing concern for the Maritimes and it takes community involvement to have a resilient community.

Registered Professional Sign and Seal



Robert Scott, RPF no. 726 - ARPFNB

Executive Summary

This Community Wildfire Resiliency Plan (CWRP) was developed in early 2026 for the Nackawic-Millville Rural Community through funding from the government of New Brunswick. The purpose of the CWRP is to assess the current state of community preparedness in advance of wildfire events, to highlight areas of greatest concern, and suggest actions that can be taken to increase preparedness and reduce risk. The planning process included ground and spatial verification of mapped fuel types, engagement of community members and administration on concerns and needs, consideration of local planning and emergency response documents, and modelling of fire exposure and risk using fireexposuR and BurnP3+.

Stakeholders that had input into the plan through both a public open house and a survey provided valuable insight into their concerns and current gaps in emergency preparedness. Cultural and economic importance of places throughout the region were highlighted, and the need for education on risk reduction and emergency preparedness was emphasised, as well as a concern for seniors and others who will find preparation and evacuation challenging.

Based on the modelling results, the fire risk within the Nackawic Millville Rural Community area of interest is not evenly distributed and is generally moderate on account of the significant presence of hardwood species in the region. Areas such as Millville and the corridor along Route 615 indicate a greater risk to structures. Middle Hainesville, though on the border of the administrative extents of the rural community, also has a cluster of greater relative risk. Central Waterville also has structures identified at higher risk.

The plan outlines sixteen recommendations for increasing community wildfire resilience, broken down into the seven FireSmart disciplines: education, legislation and planning, development considerations, cross-training, emergency planning, vegetation management, and interagency cooperation. Actions that are recommended in these plans may be eligible for future implementation funding from the province.

Table 1 Summary of Community Wildfire Resiliency Plan (CWRP) Recommendations

No.	Priority	Objective	Recommendation	Next Steps	Success Metric	Responsibility
Education						
1	High	To educate the community about measures to reduce the risk of structure fires from nearby wildfire	Education Campaign: Wildfire Risk Reduction - Carry out a FireSmart Public Education Campaign using available materials from FireSmart Canada and other sources	Hire Emergency Measures Organization (EMO) coordinator; create campaign outline; collect materials; implement	Number of people reached by education campaign; Follow-up survey to show learnings; Number of people having completed FireSmart 101 training	Nackawic-Millville EMO coordinator, in partnership with local fire stations and local champions / ambassadors
Rationale: Information gleaned through public consultation strongly supported the idea that education is necessary and that many people are not aware of the risks or what they can do to reduce risk.						
2	High	To prepare the community to respond in the event of a wildfire and possible evacuations	Education Campaign: Emergency Preparedness and Evacuation Planning - Carry out a public education campaign to encourage the development of household emergency preparedness and evacuation plans	Hire EMO coordinator; create campaign outline; collect materials; implement	Number of people reached by education campaign; Follow-up survey – number of people with evacuation plans	Nackawic-Millville EMO coordinator, in partnership with local fire stations
Rationale: Information gleaned through public consultation strongly supported the idea that education is necessary and that many people are not aware of what they would need to consider in an evacuation.						
3	High	To direct FireSmart resources to areas of highest risk and efficiently reduce the potential for structure fires	Engage with residents in high-risk areas to offer Home Ignition Zone assessments and deliver wildfire preparedness information	Hire EMO coordinator; prioritize areas for assessment; develop information packages; carry out assessments	Percentage of high-risk residential properties assessed and residents engaged	Nackawic-Millville EMO coordinator
Rationale: Giving site-specific recommendations will help remove dangerous fuels and could reduce the risk of wildfires becoming structure fires.						
4	Med	To reduce human-	Education Campaign -	Hire EMO coordinator;	Number of people	Nackawic-Millville

No.	Priority	Objective	Recommendation	Next Steps	Success Metric	Responsibility
		caused ignition of wildfires	Recreation activities - Carry out targeted education campaign to reduce the likelihood of human-caused wildfires	create campaign outline; collect materials; implement	reached by education campaign, partnerships established with recreation groups	EMO coordinator, in partnership with local fire stations
Rationale: Overall, 63% of fires in New Brunswick are within the 500m WUI, and of those 84% are human caused. Information gleaned through public consultation indicated that some individuals still do not follow burn restrictions.						
Legislation and Planning						
5	Med	To direct development to lower risk areas; to reduce the risk of structure fires if new developments are in higher-risk areas	Integrate considerations for reducing wildfire risk into the new municipal plan and planned developments	Nackawic-Millville shares mapping layers with Capital Region Service Commission (CSRC); consideration of where planned developments will occur and risk mitigation measures; integrating measures into appropriate planning documents	Integration of risk mapping and measures into planning documents	Nackawic-Millville Rural Community; the CRSC
Rationale: According to the Nackawic-Millville Strategic Plan 2025-2030, the region is expected to grow in the near future, with new homes and subdivisions being built. Integrating new mapping from this report and the listed considerations into planning could reduce the risk of future structure fires.						
Development Considerations						
6	Low	To reduce the risk of structure fires from wildfires	Consider supporting FireSmart building standards in new developments in the municipal plan being created for this region	Meeting of planning staff from Nackawic-Millville and CRSC to discuss inclusion of FireSmart recommendations in plan update	Percentage of new homes built according to FireSmart recommendations	CSRC
Rationale: According to the Nackawic-Millville Strategic Plan 2025-2030, the region is expected to grow in the near future, with new homes and subdivisions being built. Supporting FireSmart building design could mitigate the risk of structures igniting.						
7	Low	To encourage the use of fire-resistant building	Use fire-resistant construction materials,	Integrating recommendation into	% of new community buildings that follow	Nackawic-Millville Rural Community

No.	Priority	Objective	Recommendation	Next Steps	Success Metric	Responsibility
		materials and designs in important new structures	building design and landscaping for all critical infrastructure when completing upgrades or establishing new structures	planning documents	FireSmart recommendations	
Rationale: Constructing new community buildings according to FireSmart building design could mitigate the risk of structures igniting. With significant WUI area and rural environment, ensuring building materials are non-combustible (metal roof, metal siding, etc.) compensates for longer response times and increases chances of structure survival. These materials increase the chance of structure protection during firefighting triage efforts.						
Cross-Training						
8	Med	Enable volunteer fire fighters to respond to wildfires and support DNR fire suppression efforts	Continue DNR training (Emergency Forest Firefighter (EFF) program) for all new volunteer fire fighters	Request a new session of training prior to the 2026 fire season, if any fire fighters have not yet received it	% volunteer fire fighters who have received the training (should aim for 100%)	Local fire departments – DNR only offers the training when a request is received
Rationale: This training is available from DNR. As new volunteers join the force, there should be a continued effort to ensure they access this training. Municipal firefighters need this training in order to combat wildfires before DNR takes command.						
Emergency Planning						
9	High	To have dedicated staff time to plan and prepare for emergencies like wildfire; to implement many of the recommendations of this plan; to further relationships and make use of available resources to the community	Hire an Emergency Measures Organization coordinator	Create and share job posting; carry out interviews; hire staff person	Position filled	Nackawic-Millville Rural Community
Rationale: This position has been vacant but is critical for moving forward with the recommendations in this plan and liaising with the PSC						
10	High	To prepare the community to respond to emergencies	Create an Emergency Response Plan for the entire municipal area	Hire EMO coordinator; draft new plan (consulting examples from other	Completed and endorsed plan	Nackawic-Millville Rural Community; PSC

No.	Priority	Objective	Recommendation	Next Steps	Success Metric	Responsibility
				jurisdictions); integrate feedback from PSC and community; finalize plan; adoption by Council; publication of plan details		
	Rationale: The Nackawic Emergency Response Plan By-Law (2006) is the most recent emergency planning document for the area. This is 20 years old and does not apply to the new amalgamated region. A new plan is necessary for effective planning.					
11	Med	To identify and enable effective communication with, and evacuation of, those who may require increased assistance in the event of an emergency	Create a Disaster Response Registry	Hire EMO coordinator; research similar programs in other jurisdictions; develop online and hard copy form; publicize online and at community events (targeting events for seniors); integrate into updated Emergency Response Plan	Registry created; community response to program	Nackawic-Millville EMO coordinator
	Rationale: Public consultation confirmed that many are concerned about seniors and others who would need additional support in an emergency or evacuation, especially including those who do not use cell phones, do not follow social media, or have mobility or cognitive impairments. Allowing these individuals to identify themselves in advance if they would like assistance would address this concern.					
12	Med	To improve the fire suppression capacity of the area	Assess the need for additional fire suppression water sources in each community; Install additional infrastructure as needed	Map existing hydrants; spatial analysis to identify need and locations for new water sources; installation of new infrastructure	Map of existing dry hydrants completed; needs itemized and ranked; installation of infrastructure completed, filling highest priority needs	CSRC, in conjunction with local fire departments and EMO coordinator
	Rationale: Consultation with the PSC indicated that the community lacks accessible maps of the location of dry hydrants, and that more dry hydrants would improve the fire fighting capacity.					
Vegetation Management						
13	Med	To reduce the risk of fire by implementing silvicultural treatments	Fuel reduction measures in high-risk forests - Identify and reach out to owners of	Municipality identifies high-risk woodlots based on the mapping from this	Number of high-risk hectares treated	Nackawic-Millville Rural Community to reach out to forest

No.	Priority	Objective	Recommendation	Next Steps	Success Metric	Responsibility
		to reduce fuel loading and / or shift species composition of high-risk forest stands in proximity to infrastructure	forested areas that contribute long range risk to community structures. Encourage forest owners to engage a forestry professional to create site-level prescriptions for forests to reduce the risk to values, and to carry out those prescriptions.	report; Outreach to owners and discussion of needs and opportunities; municipality could consider how to work with existing institutions (e.g., Marketing Board) to support implementation this objective		owners; forest owners to engage forestry professional and carry out treatments; possibility for assistance by municipality or other institutions
Rationale: Silviculture treatments that restore the natural diversity (including a higher percentage of hardwoods) can reduce fire risk in stands that have a higher proportion of conifers.						
14	High	To reduce the risk of structure fire of important infrastructure caused by nearby wildfire in high-risk areas	Conduct hazard assessment around community buildings in high-risk areas	Hire EMO coordinator; prioritize buildings for assessment; carry out assessments; develop plan to carry out action items	% of high-risk buildings assessed; % of subsequent recommended actions accomplished	Nackawic-Millville EMO coordinator (could contract another party to carry out the assessments and recommended actions)
Rationale: Removing dangerous fuels around community buildings could reduce the risk of wildfires becoming structure fires.						
Interagency Cooperation						
15	Med	To regularly prepare for the fire season and keep new staff, volunteer fire fighters and council members up to date on emergency procedures.	Hold an annual meeting to review wildfire response procedures	Hire EMO coordinator; hold initial meeting in spring 2026 (likely prior to Emergency Response Plan finalization); hold annual meetings after Emergency Response Plan finalization	Annual meeting held, minutes recorded for meeting content	Nackawic-Millville EMO coordinator
Rationale: An annual meeting could prompt regular review of procedures and highlight new needs and concerns.						
16	Med	To allow integration of updated information into forest management	Share risk mapping with forest industry and be informed of forestry	Connect with relevant contacts at each organization to discuss	GIS layers and maps shared; information integrated into forest	Nackawic-Millville Rural Community, Crown licensees

No.	Priority	Objective	Recommendation	Next Steps	Success Metric	Responsibility
		planning	operations	process (data sharing agreement); Share information as appropriate; Establish stakeholder committee and meet quarterly to be informed of operations and opportunities for collaboration	management plans	
Rationale: New information generated by this CWRP could be integrated into forest management planning. Given the amount of Crown and industrial freehold lands within the rural community, the formation of a stakeholder group to liaise between citizens and forestry operations would be important. The establishment of a stakeholder group to be informed of, and inform, the management of forests on Crown lands in the region could support the integration of fire risk mapping and appropriate actions into forest management plans for the area.						

Table 2 Summary of Known Resources and Funding Supports

Origin	Resource	Eligibility
FireSmart Canada	- Educational materials to help homeowners reduce the risk of wildfire to their property - FireSmart 101 training	Open-access information resources
Government of Canada	- Wildfires in Canada: Toolkit for Public Health Authorities	Open-access information resources
Government of New Brunswick	- Community Wildfire Resiliency Program	Funding to be available in the future to implement recommendations from CWRPs
Private Woodlot Silviculture Program Private Woodlot Sustainability Fund	- Management planning for woodlots - Silviculture funding disbursed by marketing boards - Possibility of fuel reduction and fire resilience treatments	Private woodlot owners who would like fuel reduction treatments on their forests

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Frequently Used Acronyms

AOI	Area of Interest
BP3+	BurnP3+ software
CIFFC	Canadian Interagency Forest Fire Centre
CFFDRS	Canadian Forest Fire Danger Rating System
CFS	Canadian Forest Service
CRSC	Capital Region Service Commission
CWRP	Community Wildfire Resiliency Plan
DNR	New Brunswick Department of Natural Resources
EFF	Emergency Forest Firefighter training
EMO	Emergency Measures Organization
FBP	Canadian Forest Fire Behaviour Prediction System
FPL	Forest Protection Limited
FWI	Canadian Forest Fire Weather Index System
NB	New Brunswick / Nouveau-Brunswick
NBAC	National Burned Areas Composite
NDVI	Normalized Difference Vegetation Index
NFDB	National Fire Data Base
PSC	Protective Services Committee
RCMP	Royal Canadian Mounted Police
WUI	Wildland Urban Interface, also called Vegetation Urban Interface
YSC	York Sunbury Charlotte Forest Products Marketing Board

1. Introduction

The newly released New Brunswick Climate Change Risk Assessment describes how the frequency and magnitude of wildfires is projected to rise, with an increase in the length of the fire season and greater number of days with high fire danger.¹ Recent fire seasons have shown a much greater number of fires and areas burned in comparison to the previous recorded averages. To address the growing risk of wildfire on communities in New Brunswick, the Government of New Brunswick has offered funding to municipalities to create Community Wildfire Resiliency Plans (CWRP) to assess local risks, develop mitigation strategies and response plans, and engage the community in wildfire preparedness and resilience. Actions that are recommended in these plans may be eligible for future implementation funding. Wildfire has always been an element of disturbance in the Wabanaki / Acadian forests of the Maritimes, but changes to the forest composition, diverse management structures, and the expansive interface between human use and development and the forested landscape presents the need for increased awareness and resiliency in our region.

The purpose of the CWRP is to act as a substantial resource for the community regarding the current state of its preparedness in the face of wildfire events and to highlight areas of greatest concern such that the community can take actions to reduce the potential consequences of wildfire. This structure of plan is used across Canada, but its use in New Brunswick is novel and will evolve as greater research is conducted on Maritime specific fuels and fire behaviour. Nackawic-Millville Rural Community contracted ACFOR Forestry to develop a CWRP for the region in fall of 2025. The planning process included ground and spatial verification of mapped fuel types, engagement of community members and administration on needs and risks, and modelling of fire exposure and risk. The results of this process are presented here.

Section 2 includes a description of the community and a summary of local planning documents. It presents the geographic scope of the evaluation and describes the results of community engagement. In general, there is acknowledgement amongst respondents that they do not know what steps to take in advance or during a wildfire in the community. **Section 3** discusses the values that are considered in the risk assessment, including the infrastructure and natural resources. For the purposes of this CWRP, building footprints were the modeled value at risk, but other model outputs can be applied by the community to additional values within it. **Section 4** outlines the modelling approach used and presents the results of both the FireExposuR and BurnP3+ models, including maps. Separate, higher resolution maps and data are provided to the community. **Section 5** outlines the recommendations for increasing community wildfire resilience, broken down into the seven FireSmart disciplines: education, legislation and planning, development considerations, cross-training, emergency planning, vegetation management, and interagency cooperation. **Section 6** explores the existing local and provincial fire response resources. Finally, **Section 7** provides a brief summary of the results.

2. Local Area Description

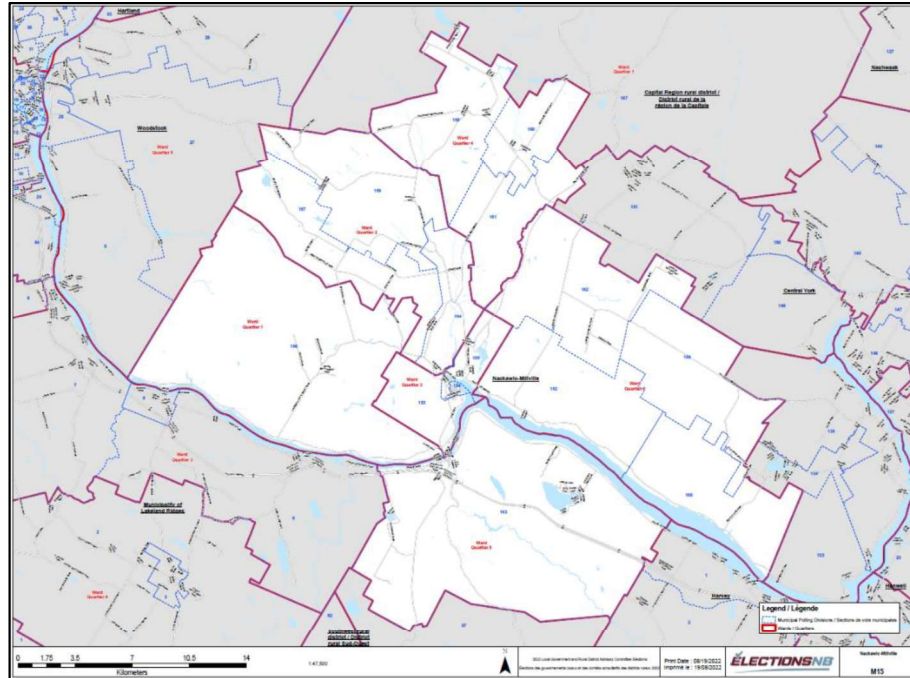


Figure 1. Map of Nackawic-Millville Rural Community administrative boundary and wards.

2.1. Community Description

The Nackawic-Millville Rural Community is an amalgamation of the Village of Millville, the Town of Nackawic, and a portion of the districts of Southamptton, Queensbury, Dumfries, and Bright. It is referred to as Entity 71 within the Capital Region Service Commission (CSRC). This amalgamation took place in 2023 as part of New Brunswick's local governance reform. Nackawic-Millville is governed by a Mayor (Tim Fox) and 7 Councillors.

This community is shaped by its connection to the river (and the flooding and subsequent resettlement caused by the Mactaquac dam construction) as well as its history of forestry. Nackawic is the home of the World's Largest Axe, commemorating its designation in 1991 as the Forestry Capital of Canada.² Statistics for the population of this rural community can be found in Table 3.

The Vision for Nackawic-Millville is to “be a preferred destination for those seeking a fulfilling rural lifestyle – where nature, recreation, and community come together. We envision a thriving, connected, and family-friendly community that offers the perfect balance between small-town tranquility and access to urban opportunities, making it an ideal place to live, work and grow.”³

Within this rural community, the Nackawic Ward has a well-based public drinking water system with wellfield protected areas designated by schedule A.38 under the Clean Water Act.⁴ The rest of the rural community uses private wells as a drinking water source. As a result, only the built-up area of Nackawic has fire hydrants while the other areas rely on dry hydrants, as shown in Figure 2. These structures have an intake underwater of a natural water feature and a wide fitting that can be connected by hoses to a high-capacity pump to fill fire engines.

Table 3. Community demographics and statistics – Census Data, 2021.

	<u>Nackawic</u>	<u>Millville</u>	<u>Dumfries</u>	<u>Southampton</u>	<u>Queensbury</u>
Total Population (2021)	962	274	240	1497	1237
Population Density (people per sq. km)	125.2	22.6	1.4	3.4	4.2
Median Age (years)	52.4	45.6	54.4	50.4	49.2
Housing Units (private dwellings)	451	145	304	699	579
Median Home Value (Assessed Value)	\$148,600	\$66,900	\$99,950	\$61,500	\$66,900
Median Total Income of Household (2020)	\$69,000	\$54,800	\$71,000	\$69,500	\$74,500
Poverty Rate (Prevalence of low income based on the Low-income measure, after tax)	14.4%	16.5%	10.4%	18.2%	15.2%
Unemployment Rate	6.1%	0 %	0%	10.6%	10.1%

Note: The most recent census took place prior to amalgamation.



Figure 2: Dry hydrant filling station in Dumfries along route 102 that feeds from the Wolastoq - Saint John River.

Land ownership of the area is mostly by private landholders at 46%, including the community, individual owners, and woodlot areas. Second most abundant is by The Crown through provincial ownership such as protected natural areas and industrial forest lands (28%). Freehold owners such as AV Group, Crabbe Lumber, and JD Irving among others make up 26% of the landbase. This data is sourced from the provincial “Holder” layer, with subsequent coded values for Crown licences and freehold owners. **Error! Reference source not found.** displays the distribution of these ownership types.

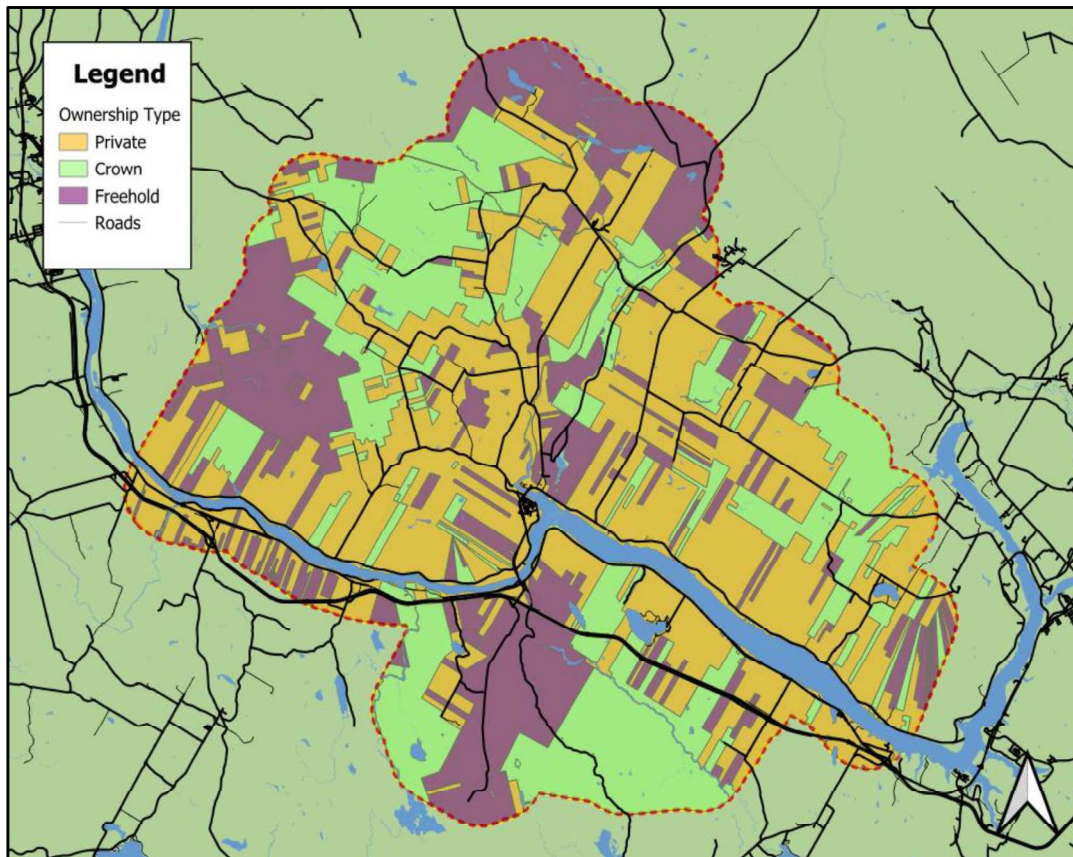


Figure 3: Ownership types within the area of influence (AOI).

Table 4: Landbase ownership summary

Holder	Area (ha)	%
Freehold	29,677	26%
Crown	32,191	28%
Private	53,666	46%

2.2. Current Emergency Response Procedures

There are three volunteer fire departments in the rural community, located in Nackawic, Millville (North York) and Dumfries. Three councillors sit on a **Protective Services Committee** (PSC), along with fire chiefs or representatives. As of fall 2025, there is no person currently filling an EMO coordinator position with the rural community.

Consultation with local fire departments indicates that there is no existing emergency response plan with reference to wildfire. In the event of a wildfire, current protocols are that volunteer fire departments would protect properties (their primary mandate) and would support wildfire suppression within their training as directed by the Department of Natural Resources (DNR). Evacuations would be conducted in association with the Royal Canadian Mounted Police (RCMP).

The section of the Nackawic-Millville website about [EMO](#) refers residents to the Lions Club in case of an extended power outage to access food, drinks, and cell phone charging. Other than this direction and the municipal office number, no EMO-related information is described on the website.

The section below on planning documents includes a description of the 2006 Nackawic Emergency Response Plan By-Law.

2.3. Summary of Relevant Local Planning Documents

Although Dumfries, Millville and Nackawic amalgamated in 2023 as part of the municipal reform, their local land use plans are still in effect until a new land use plan is put in place. The CRSC is mandated to provide regional and local planning and regional emergency measures planning to areas within its jurisdiction.⁵ The Commission intends to have a new land use plan for Nackawic-Millville in place by 2028. The 2020 National Building Code has been adopted by the CRSC.

Until a new land use plan is in place, the following local plans still apply:

- **Town of Nackawic Zoning By-Law 2017⁶**
This zoning by-law divides the municipality into zones and prescribes the purposes for which land, building and structures may be used and standards to which buildings, structures and lots must conform. It also describes wellfield protection areas and permitted land uses. There is nothing specifically relevant to the development of the CWRP.
- **Dumfries Local Service District Rural Plan Regulation - Community Planning Act, 2014⁷**
This regulation describes policies aimed at managing development, encouraging economic opportunities, and protecting water body health while also promoting public access. It outlines zoning provisions, zones and permitted uses, lot sizes and standards relating to permitted uses. There is nothing specifically relevant to the development of the CWRP.
- **Village of Millville Rural Plan – By-Law No.26, 2019⁸**
This rural plan contains policies that support the vision of the Village, as well as general and zoning provisions to support their vision and objectives. Policies support protecting natural resources, encouraging recreation, minimizing development impacts, and zoning provisions outline setbacks, lot sizes, standards and permitted uses. There is nothing specifically relevant to the development of the CWRP.

Other planning documents that may relate to the CWRP include:

- **Nackawic-Millville Strategic Plan, 2025-2030⁹**
A Strategic Plan was developed after the amalgamation to provide a roadmap for the next 5 years, building on the pillars of population growth and economic development, community enrichment, efficient delivery of community services, and sustainable governance. Each pillar has initiatives, expected outcomes and key strategies. Sections that are relevant to the CWRP are outlined Table 5 below.
- **Nackawic Emergency Response Plan By-Law**
The former Municipality of Nackawic has an “Emergency Response Plan By-Law” from 2006, from before the amalgamation. This by-law called for the establishment of the PSC and an Emergency Measures Organization (EMO) Committee. An EMO coordinator is to participate in both committees. The by-law discusses declaring a state of local emergency, the implementation of the Municipal Response Plan, designation of an Emergency Operations Centre, the powers of the Town during the state of local emergency, and the designation of auxiliary fire persons (see Table 5 for description of some relevant sections). There is currently no person filling the EMO coordinator position. Municipal representatives recognize that this Emergency Response Plan By-Law needs to be updated and that an EMO coordinator is required.

Table 5. Sections of relevant local planning documents and their relationship to wildfire resiliency planning.

Planning document	Section of planning document	Benefit to community	Relationship to CWRP
Nackawic Emergency Response Plan By-Law (2006)	3.01 and 3.02 - Establishment of the Protective Services Committee & Emergency Measures Organization Committee	Provides a designated group to plan for emergencies	These committees will be the principal groups addressing emergency response in case of a wildfire
	4. Declaration of a State of Local Emergency	Enables swift mobilization of resources in an emergency	Enables swift mobilization of resources in an emergency
	6. Powers – outlines the Municipality’s powers in a state of local emergency	Enables the Municipality to respond in an emergency	Enables emergency response plans to be implemented, requiring qualified people to render aid, control/prohibit travel, enact evacuations, demolish structures, trees or crops
Town of Nackawic Zoning By-Law (2017)	21.11 Landscaping Landscaping “may include the placement of such paths, patios, walkways, trees, ornamental shrubs, vines and flowers as are not prohibited by this or any other by-law, rule or regulation” (b ii)	The purpose of this provision is likely aesthetic and to divert water flow away from the structure	- Landscaping around homes can directly affect the probability that embers will ignite - This provision implies that other by-laws could prohibit certain landscaping decisions, which may be recommendable
Common Council Priorities 2025-2030 ¹⁰	Population growth and economic development: “Expand the population by 5% over the next five years by expanding housing initiatives”	Increased economic development, new businesses, workforce development	- Population growth will expand the wildland-urban interface (WUI) - For new housing initiatives, there is an opportunity to require FireSmart standards
Nackawic-Millville Strategic Plan 2025-2030 ¹¹	Community Enrichment: Increase community participation in local programs	Increased civic engagement, volunteerism, and community participation	Opportunity for FireSmart programs to fit into enhanced local education & training

2.4. Area of Interest

An Area of Interest (AOI) needs to be defined to limit the scope of the investigation. By limiting the landbase to the defined area, modelling and subsequent action recommendations are within the reasonable scope of the community to influence. An AOI that is too large results in a dilution of already limited efforts across a larger space that is beyond the reasonable influence of the community. An AOI that is too small may allow areas that pose disproportionate risk to be excluded from the investigation. This AOI is 120,585 hectares or 1,206 square kilometres.

In this AOI, the administrative extent of Nackawic-Millville Rural Community was buffered by 2,500m. This buffer was chosen because fires that originate immediately outside the administrative boundaries can still spread into the community. A buffer radius of 2,500 m prevents arbitrary small corridors from forming as a result of the original shape and offers a greater area to include in modelling that is at little computational cost. It is also equivalent to five times the largest ember transmission distance used for exposure modelling based on agreed-upon 500 m critical distance.¹²

Administratively, it is expected that there will be situations where emergency services located in Nackawic will respond to situations within, and potentially beyond, this buffered limit.



Figure 4. AOI for Nackawic-Millville CWRP. The AOI is shown in red and yellow while the administrative boundary of the rural community is shown in black.

2.5. Wildland-Urban Interface

The wildland-urban interface (WUI) is the zone where human development meets relatively unmanaged vegetation. As communities expand into forested landscapes, values such as homes, infrastructure, and people are exposed to greater wildfire risk, while human activities simultaneously increase the likelihood of fire ignition. The WUI is critical because fires in these areas can spread rapidly from the surrounding vegetation into neighbourhoods, threatening lives, property, and essential services, and making fire suppression more complex and dangerous. Within the WUI, there are vegetative fuels (natural and cultivated) as well as built fuels (human made structures), each with different burning characteristics. Effective wildfire prevention in the WUI includes reducing ignition potential and possible fire intensity, as well as increasing defensible spaces around structures. Understanding and managing the WUI is therefore essential to minimizing wildfire impacts and enhancing community resilience in fire-adapted landscapes. For the purposes of this CWRP the WUI will be defined with two distances, one extending 500 m from structures, and another at 100 m.

During a wildland fire, embers will be produced from the burning fuels that can then travel some distance, possibly igniting structures or fuels in advance of the fire. More intense fires burning fuels that are a greater hazard can transmit embers over 500 m, while less intense fires burning moderately hazardous fuels are assumed to be more frequent but emit embers over a shorter distance of 100 m.

Within the AOI of Nackawic-Millville, the 500 m WUI encompasses 29% of the area.

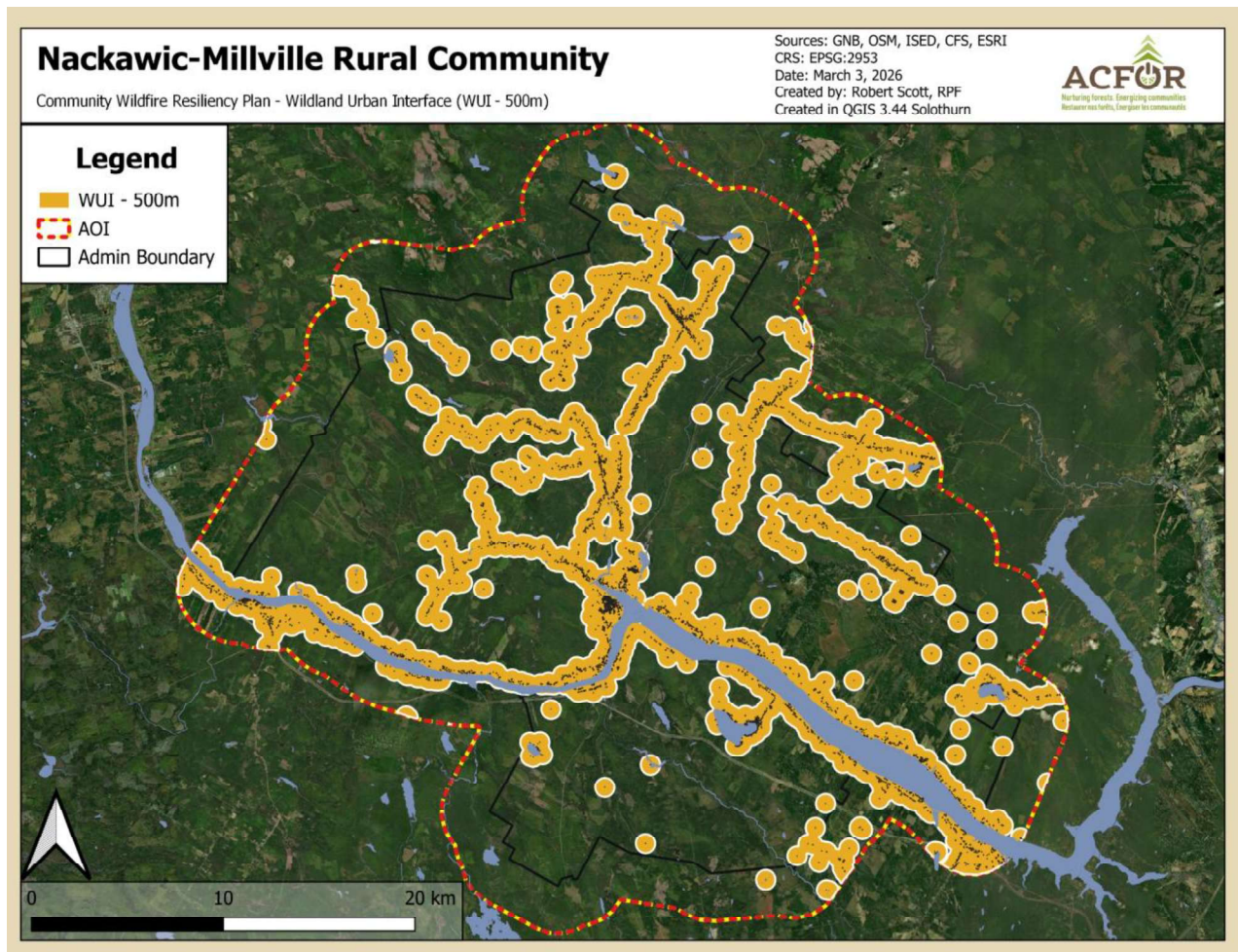


Figure 5: WUI within the AOI for Nackawic-Millville. This is the 500m buffer around structures

2.6. Summary of Community Engagement

Open House

During the preparation of the CWRP, ACFOR and the Nackawic-Millville Rural Community held an open house on October 30, 2025, to gather information about the community and their concerns, values, and opinions as they relate to wildfire and resiliency planning. Eighteen people attended, including several Councillors, the Chief of the Nackawic Fire Department and representatives of the Dumfries Fire Department. Some participants provided written observations about their state of readiness (variable), their concerns (fuel loading in the forest, people not following restrictions, seniors living near forested areas), and their ideas (prioritizing forest health, restricting forest access during high-risk times).

Survey

An online and printed survey were also developed to seek input from the community, with similar questions from the open house. The survey (see Appendix A for questions) was available at the Municipal office in printed form and online from December 12, 2025 - January 19, 2026. Twenty-one survey responses were received during this time. Results of the survey indicate that residents strongly support maintaining nearby forests and mainly believe that wildfire poses a risk to their household (see Figure 6). Almost half have taken no actions to prepare for wildfire, but all believe that a Community Wildfire Resiliency Plan will help to prepare the community.

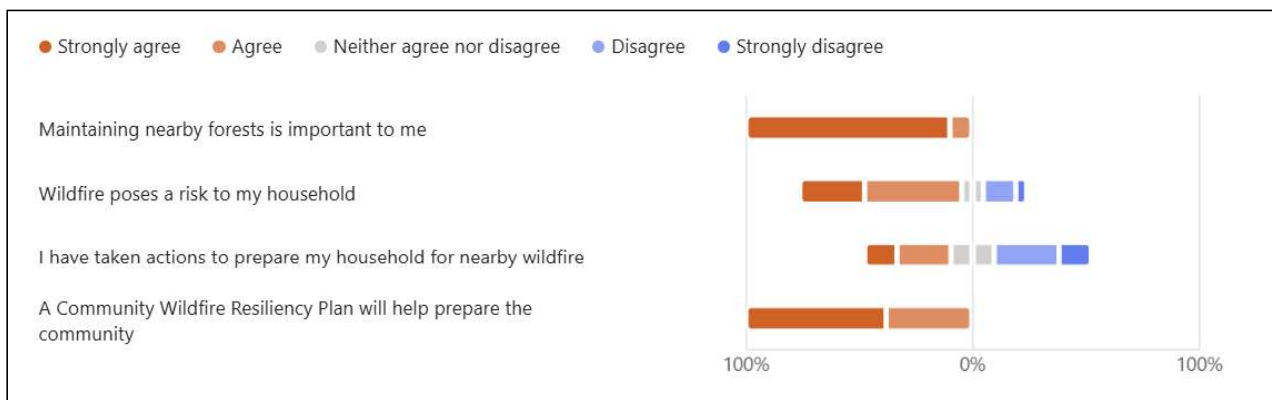


Figure 6. Results of some questions from the community survey.

Many respondents said that more information on emergency preparedness, mitigating risks (at home and in the community), and evacuation plans would help them take action to prepare for wildfire. If a wildfire happened nearby, many agreed that good communication of important information would be key. Assistance and information on evacuating people and animals and fire protection for homes were also important themes. Many respondents noted that individual finances, funding for fire fighting, and lack of knowledge would be barriers in preparing for wildfire, as well as age and communication barriers (e.g., elderly residents not using social media or cell phones). There was broad agreement that seniors would need extra support during a wildfire event, as well as those with disabilities, children, farmers, and those with lower incomes. People noted several areas that are vulnerable to catching fire, including ATV trails, roadsides, powerline corridors, logging sites, yards where burning occurs, and anywhere the forest is adjacent to residential structures. Areas that were noted as important to protect include schools, McNair Park, Crabbe Mountain (outside the AOI), AV Group's Nackawic mill, and municipal sites, among others.

Protective Services Committee

Input via email and a virtual session with the PSC provided valuable information for the plan development and context. It was confirmed by members of the committee that the area has no current emergency plan in place. Fire stations would provide property protection in the event of a wildfire and would assist DNR with wildfire suppression within their capacity. It was noted that volunteer firefighters may also need to respond to evacuation of their own properties, including livestock, in the event of a significant wildfire.

There was some discussion about the various firehalls and community spots that have generators (making them useful community hubs in emergency events), and it was noted that the Nackawic firehall does not have one. It was also noted that the community lacks accessible maps of the location of dry hydrants, and that more dry hydrants would improve the fire fighting capacity. It was agreed that Nackawic-Millville (including the PSC) would be the lead in any EMO activities, and that the fire departments and the RCMP station in Nackawic would be the main responders.

It was mentioned several times that community education would be very useful in preparing people for wildfire, but that volunteer fire departments do not have any additional capacity for leading FireSmart education campaigns. Barriers to community participation were noted as general lack of concern for this risk and knowledge of how to prepare. Groups that may need extra support during a wildfire were identified as elderly and low-income populations. Various sites were noted as important to protect from wildfire, including fire stations, emergency medical service bases, municipal buildings, water supply and pumping stations, refuge centres, communications towers, and the TransCanada highway. Areas of vulnerability were identified as Howland Ridge Road, Allandale Road, Pokiok Road from end of Route 102 at the exit to Nackawic, and Davidson Lake, with limited evacuation routes.

Observations were shared by one Councillor and retired fire fighter about grass fires and the intensity and rapidity of spread of these fires. Burning yard waste is a common practice and can lead to grass fires.

AV Group

A meeting was held with staff from AV Group to discuss the CWRP and preliminary results (January 23, 2026). With respect to wildfires, AV Group shared information about wildfire preparedness, including that staff are trained in forest fire fighting and that contractors must meet safety requirements prescribed by DNR. They also have trained dozer operators for creating fire breaks, if necessary. Their forest management plans do not include considerations for forest fire prevention, but their silviculture practices favour hardwoods, which should lead to a lower fire risk. Staff did present a concern over Nature Legacy sites and other protected areas that are not actively being managed and the risk of wildfire in those areas. They noted that because forestry roads are no longer maintained in those areas, the capacity to fight forest fires there would be more limited. AV Group does not have a standing citizen or stakeholder committee but does engage the community regularly on various topics. AV Group, like other licensees in New Brunswick, is a shareholder of Forest Protection Limited (FPL).

3. Values

A value is defined as a feature, natural or human-made, that would cause financial or personal distress if lost or significantly changed by wildfire. Nackawic-Millville Rural Community is an administrative unit amalgamating multiple small rural settlements, and by that nature there are many dispersed values across the landscape. While these rural characteristics include low-structure density, they also include longer response times and greater exposure to hazardous fuels than an area that is more heavily developed. These factors, combined with the demographics of the community, must be considered when planning for emergencies.

For the sake of simplicity and efficacy of results, building footprints are used during risk analyses as the primary *values at risk*. This investigation is more approachable in its execution, relates directly to quantifiable, spatial, and important values, and provides actionable recommendations to reduce risk posed by wildfire to homes and businesses.

Risk modelling outputs can also be used by the community to evaluate exposure and modeled probability for additional values, such as natural resources, but the quantification is more difficult and requires nuanced consideration. Mitigation measures depend on the site conditions, use of the site, and surrounding value density.

3.1. Human Life and Development

When considering the risks and impacts of wildfire, the greatest concern is human life and the safety of human communities. Wildfire that consumes structures, blocks emergency exit routes, and produces significant smoke can have a measurable impact on human health even if not through direct loss of life.

The values that are examined with explicit consideration during this CWRP are building structures found in the provincial building footprint layer, which is derived from LiDAR collections. It is mostly complete and provides wide coverage with accurate building perimeters for the data that are included.

3.2. Critical Infrastructure

In Nackawic, key infrastructure includes:

- The municipal water supply areas, pumping stations and wellhead zones
- The AV – Nackawic mill
- The Fire Station
- The municipal building,
- Bridges to north and south of town
- The Lion’s Club building (muster point)

In Dumfries, key infrastructure includes:

- Industry
- Dry hydrants, road structures
- The Fire Station/Community Hall (refuge centre)
- Three communications towers
- The Trans Canada Highway

In Millville, key infrastructure includes:

- Acreages and farmlands
- Bridge structures
- The Fire Station/Community Hall (refuge centre)

- Evacuation routes and bridges
- Millville Community Centre (refuge centre)

3.3. Natural Resources

Forests and Forestry

The forest within the AOI is a mix of private properties and woodlots (46%), industrial freehold (26%) and Crown land (28%, including license 8 which is managed by AV Group). Based on available public data in the New Brunswick Forest Layer¹³, the leading forest types include intolerant hardwoods (14%), cedar (6.7%), balsam fir-mixedwood (6.7%), and balsam fir (5.7%). It should be noted that the average percent hardwood across all stands is 43% compared to 36% for the province at large, denoting an increased presence of hardwoods in this AOI.

AV Group is clear in their forest management regime being focused on hardwoods, which leads to a more fire-resistant forest. They have made many changes in their thinning programs to remove fire prone trees like fir and leave hardwoods in their place. The mill is a consumer of hardwoods and therefore silvicultural systems on Crown land will be used to encourage broadleaf (hardwood) species.

Private woodlots in the area likely host a range of activities and management goals, from active management for income purposes to absentee or hands-off landholders, and everything in between. The area is within the YSC Forest Products Marketing Board's jurisdiction, and management plans and silviculture funding is available through this entity.

Water Bodies

The Wolastoq - Saint John River flows through the AOI and is an important resource of water for fire fighting, recreation, access to natural resources, and aesthetics. Notable lakes within the AOI include Tweedie Lake, Davidson Lake, Scotch Lake, Indian Lake, and the chain associated with Killburn Lake.

3.4. Cultural and Recreation

Dumfries Maples is a staple of the community, and the management of a sugar bush lends itself to fire resistance. It is open year-round by appointment, but its main season coincides with sap flow in early spring, the same time of year that the greatest number of fires occur provincially. Sugar maple trees themselves are not resistant to fire damage however, and fires during the spring season could be consequential if conditions are conducive.

There are a number of private campgrounds in the AOI, including one immediately east of Nackawic.

Davidson Lake has been identified as an important feature of seasonal and year-round recreation with the presence of four-season homes and cottages along the perimeter and Sandy Cove Bible Camp. Some structures here are only accessible by boat. There is a privately owned road along the east side of the lake that fire engines have difficulty navigating due to low road height clearance and roadbed substrate.

4. Wildfire Threat and Risk

4.1. Public Resources on Risk Levels

The Government of New Brunswick's website hosts a [Fire Watch](#) page with links to the [Burn Notice Map](#). The Forest Fire Season runs from the third Monday in April until October 31st each year. Each day during the Forest Fire Season, the Department of Natural Resources determines the burn risk and assigns a burn category by county according to the following:

- Open (green)
- Permitted 8pm-8am (yellow)
- Closed (red)

These categories are updated at 14:00 daily and are valid until the next update the following day.

DNR also has a [dashboard of active wildfires](#) that reports on existing fires during fire season, and defines their status as one of the following, in order of increasing control:¹⁴

- Out of control
- Percent contained
- Contained
- Under control
- Patrolled
- Being monitored
- Out

During the fire season, for category 1 fires (including campfires and other open burning), a written permit is not required but local permits may be required. For example, in Nackawic-Millville, a free permit must be obtained from the Nackawic Fire Department for back yard fire pits or for each individual fire (outside of a fire pit).¹⁵ These types of permits generally confirm that there are no combustible materials within a specified distance of the fire pit. In addition to permits, the daily burn notice status must be followed. For category 2 fires (larger than category 1), or category 3 fires (blueberry fields), a written permit from DNR is required and pre-inspection by a forest service officer is required. Category 4 fires (prescribed burns and grass fires) require a written permit, pre-inspection and a written burn plan.¹⁶

4.2. Wildfire History

Provincial History

Unlike the boreal forest, research to date indicates the Wabanaki / Acadian forest of the Maritimes has not been especially known for frequent and extensive forest fires. The historically cool, moist conditions and the relatively high percentage of broadleaf trees in this forest type have been associated with a lower fire frequency than other areas in Canada.¹⁷ However, wildfires have shaped the forests of New Brunswick in the past, to varying degrees. Prior to European settlement, there are accounts and shared histories that Indigenous peoples used fire to manage the landscape, although there is not much evidence to support that this had significant influence in this region during the past 6,000 years.¹⁸ These fires would have been attended to and used for some land management objective. After European settlement, fires were more frequent and often related to land clearing.¹⁹ There were some large historical fires during this time, including the Great Miramichi Fire (1825) that burned 15,500 square kilometers (equivalent to a fifth of the province).²⁰ As a result of land clearing, land use changes, and forest harvesting, less than 1% of the Wabanaki / Acadian forest is old-growth or primary forest.²¹ Recent fire suppression technology and response efforts have reduced the incidence of fire in the region.²² Until the 2025 fire season, every reported fire was assigned 100% suppression efforts, and with the availability of air tractors from FPL, response is very fast in the province.

Most fires in New Brunswick are human-caused, and the greatest number begin in spring, prior to leaf emergence on broadleaf trees.²³ In New Brunswick, the 2024 10-year average for the annual was 246 fires

with 454.5 ha burned annually.²⁴ The 25-year average was 278 fires with 408 ha burned annually.²⁵ At this time, only unofficial numbers for the 2025 fire season are available, which report that there were 447 fires burning 3,514.4 ha²⁶ - a significant increase over the 10 year averages.

Table 6: Causes of fires in New Brunswick and Canada.²⁷

New Brunswick Statistics			National Statistics		
Fire cause	Number of fires since 1980	%	Fire cause	Number of fires since 1980	%
Human	9,059	79%	Human	168,436	51%
Lightning	1,022	9%	Lightning	149,704	46%
Undetermined	1,376	12%	Undetermined	9,570	3%

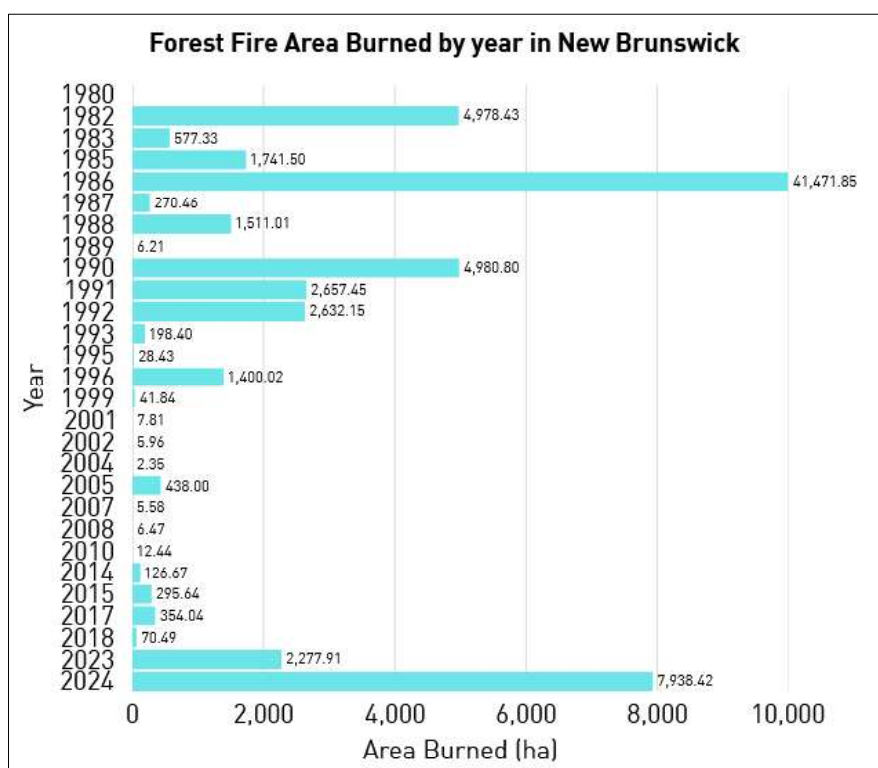


Figure 7. Forest Fire History of New Brunswick. ²⁸

Community

Using data sourced from the National Fire Data Base (NFDB), there have been few fires within the AOI with a total of 147 fires from 1989 to 2024. 82% of these fires were human caused, 12% unknown origin, and only 6% were lightning in origin. The total burned area over that same time period was 117 ha, with a similar distribution for burned area by cause. Of important note is that 63% of those recorded fires are within the 500 m WUI, and 40% were in the 250 m WUI zone. These data suggest a strong correlation between proximity to human development and fire ignition.

Some of the fires included in the NFDB may originate from structure fires, industrial fires, or grass fires that then transition to wildfires, and only represent fires that have been reported by the responsible agency and then submitted to the federal dataset. This is a limitation across the country however it is

very pronounced in the Maritimes.

Changes in the Fire Regime

In combination with rapid response and long-term suppression efforts, the forest composition has changed significantly over the past 200 years. A greater preference for species that can produce structural timbers, notably spruces and balsam fir, has resulted in greater “borealization” and presented an increased risk of ignition and intense fires when compared with historic species compositions.²⁹

Warming temperatures and less predictable precipitation are leading to increased fire frequency.³⁰ The annual area burned and the number of fires in New Brunswick is projected to double (at a minimum) in the 21st century, although this could be offset by suppression efforts.³¹ The length of the fire season is predicted to increase by at least one month, and more fires are predicted to happen later in the fire season.³²

4.3. Wildfire Prediction

Canada is a global leader in wildfire science, prediction, and response. The systems described below have been adopted by many other countries for their fire modelling and response activities. Significant research has taken place, dominantly in the boreal forests of Canada, to determine ignition parameters, fire behaviours, and the influence of different fuel characteristics on fire spread and intensity among other values. Work is ongoing in the Maritimes to provide greater confidence in this system for the Wabanaki / Acadian forests.³³

Canadian Forest Fire Danger Rating System (CFFDRS)

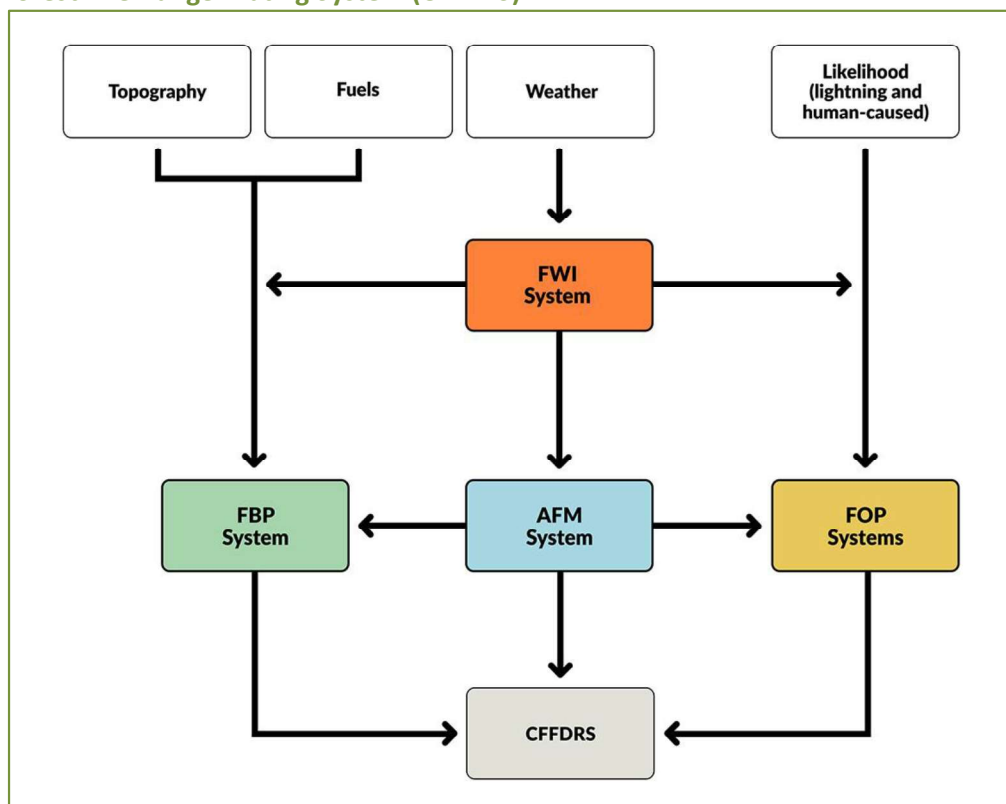


Figure 8. Flow chart depicting the complementary elements of the CFFDRS.³⁴

The CFFDRS is a system for rating wildfire risk across Canada.³⁵ It is used nationally and internationally to determine how to minimize impacts of wildfire and identify days of highest fire activity potential.³⁶ It helps to prioritize which fires require the use of the limited resources of fire suppression teams and equipment. The inputs to the system include topography, fuels, weather, as well as two other systems of

interest that are described below. Other sections are not discussed in this document. This process is continuing to evolve with the work toward the Next Generation CFFDRS or CFFDRS2025.³⁷

Canadian Forest Fire Behaviour Prediction System (FBP)

This system provides estimates of the potential rate of spread, total fuel consumption, head fire intensity, and description of forest fires occurring in specific fuel types.³⁸ It considers the typical organic matter, species composition, foliar moisture content, and groundcover materials. The fuel types that are used in this system are described in Appendix B along with their relatedness to the region and modelling efforts.³⁹ The FBP helps to predict for a given fuel type how fast a fire might spread, how much fuel could be burned, whether it might be a surface or crown fire, and how the fire may behave compared to other fuel types.⁴⁰

A key limitation to the FBP fuel types, as discussed in *Appendix B: Local fuel adjustments and typing*, is that they have been established based on boreal forest conditions. Wabanaki / Acadian forest conditions are then assigned fuel types that produce fire behaviour that is most similar to the corresponding FBP type. Research is underway to develop additional fuel types for areas outside the boreal.

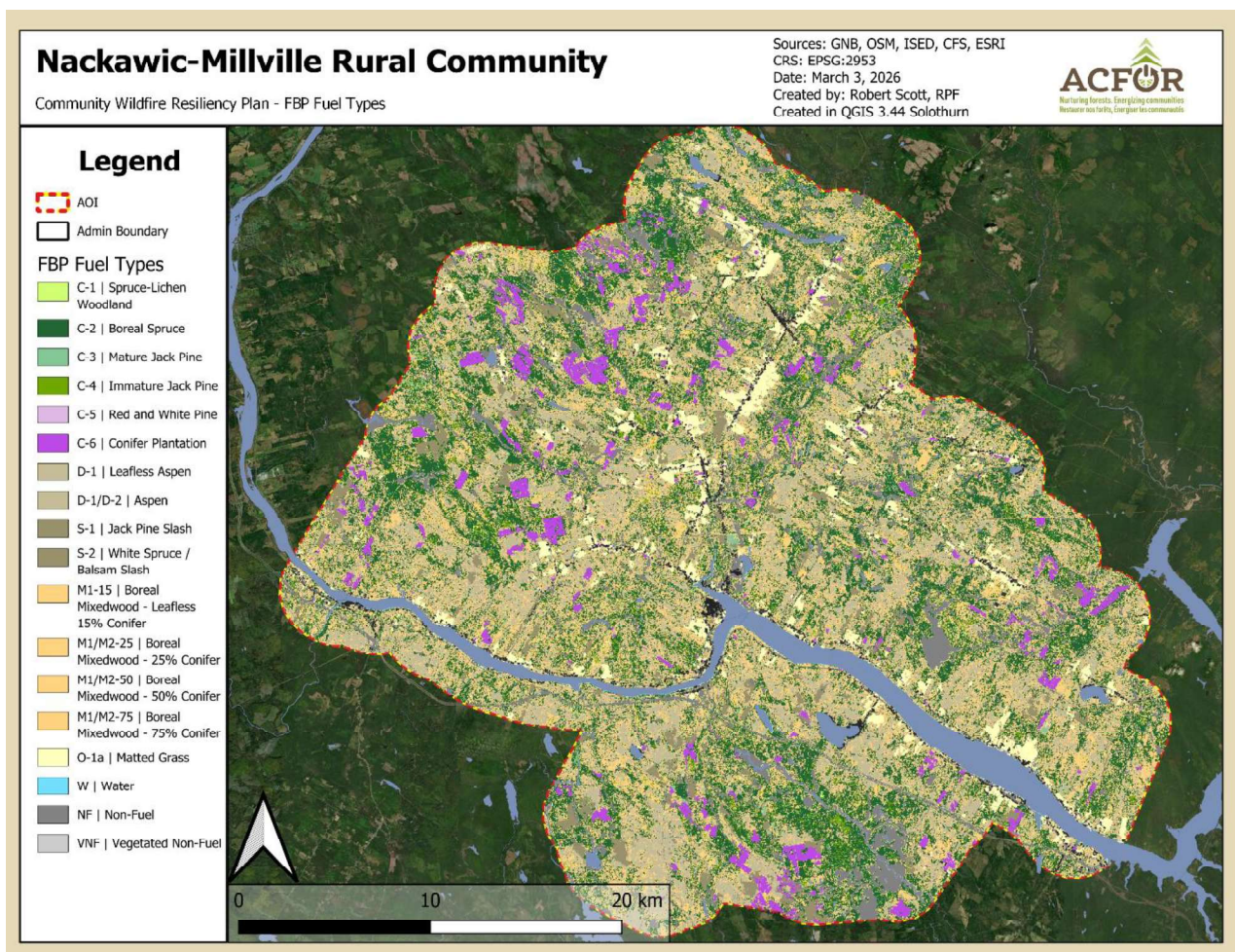


Figure 9: FBP Fuel types of the Nackawic-Millville AOI.

Canadian Forest Fire Weather Index System (FWI)

This system integrates the effects of weather on fuels and environment to produce reference values that predict fire behaviour.⁴¹ Inputs include relative humidity, temperature, wind, and precipitation to produce outputs such as the duff moisture code (DMC) and the drought code (DC), which together provide information for the buildup index (BUI, the total fuel available for burning). It also produces the fine fuel moisture code (FFMC) which together with wind produce the initial spread index (ISI). The BUI and ISI combine to provide a rating called the fire weather index (FWI) which is an at-a-glance value for assisting response decisions and ultimate predicted fire intensity. This value is used by fire scientists and incident commanders in addition to their local experience to assist in decision making and fire behaviour predictions.

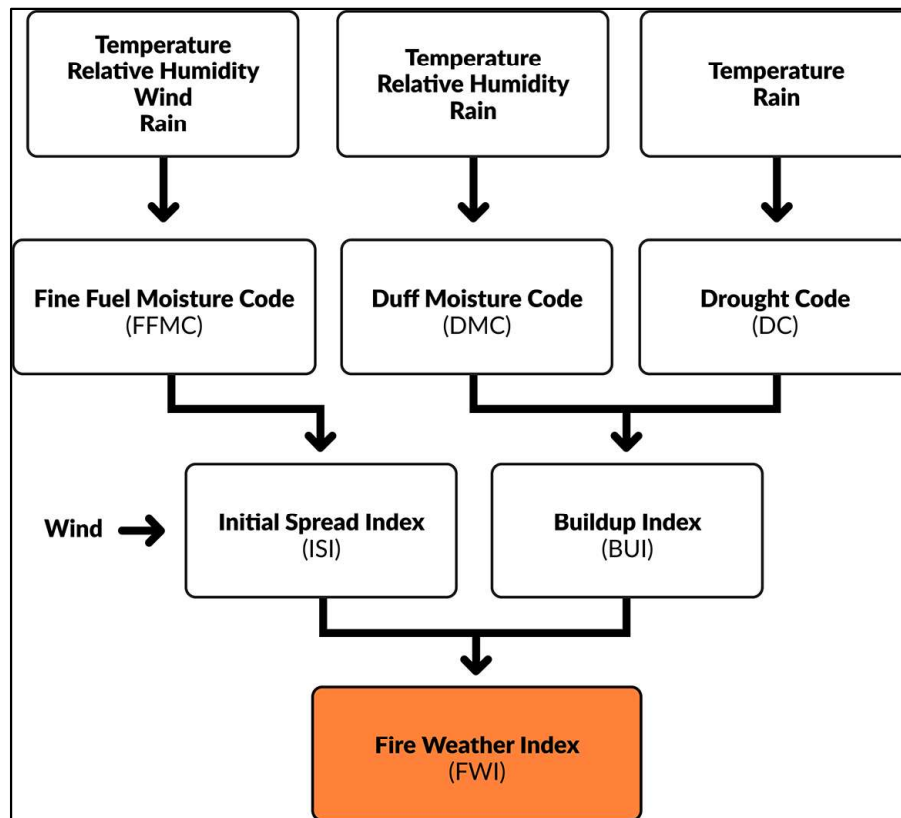


Figure 10. Canadian Forest Fire Weather Index System.⁴²

Both the inputs (weather observations) and the outputs (index values) of the FWI system are used in the BurnP3+ modelling, further discussed below. There is a considerable amount of research that has been done over the last 50 years regarding fire behaviour given specific conditions and more research is ongoing.

4.4. Exposure to hazardous fuels

It is important to spatially recognize areas and values that are adjacent to fuels that have been classified as “hazardous” – if these hazardous fuels ignite, they have the capacity to produce burning embers that can transmit fire over distance to other fuels or to structures. The general methodology is described in the *FireSmart Wildfire Exposure Assessment guide*.⁴³ The model used to determine exposure to hazardous fuels across the AOI is *fireexposuR*. This is a low-computational cost model that uses simplified inputs to calculate exposure. The output is a spatial product assigning an exposure rating of the proportion of forest fuel that is hazardous around a particular area.⁴⁴

These outputs do not describe the intensity, speed, or likelihood of wildfire occurrence, but describe the **proportion of the cells surrounding a point that are composed of hazardous fuels**. In doing so, it is one approach to area-based prioritization of FireSmart actions. Values with an exposure rating closer to 1 are more exposed, while values with an exposure rating closer to 0 are less exposed to hazardous fuels.

Two ranges of ember transmission were used in the exposure calculations:

- **500 m**, considered long-range transmission from wildland fuels with significant proportions of coniferous species, and
- **100 m**, considered short-range transmission from fuels within the WUI and closer to structures. Hazardous fuels in this assessment include grasses and some leafless hardwoods in addition to the long-range fuel types.

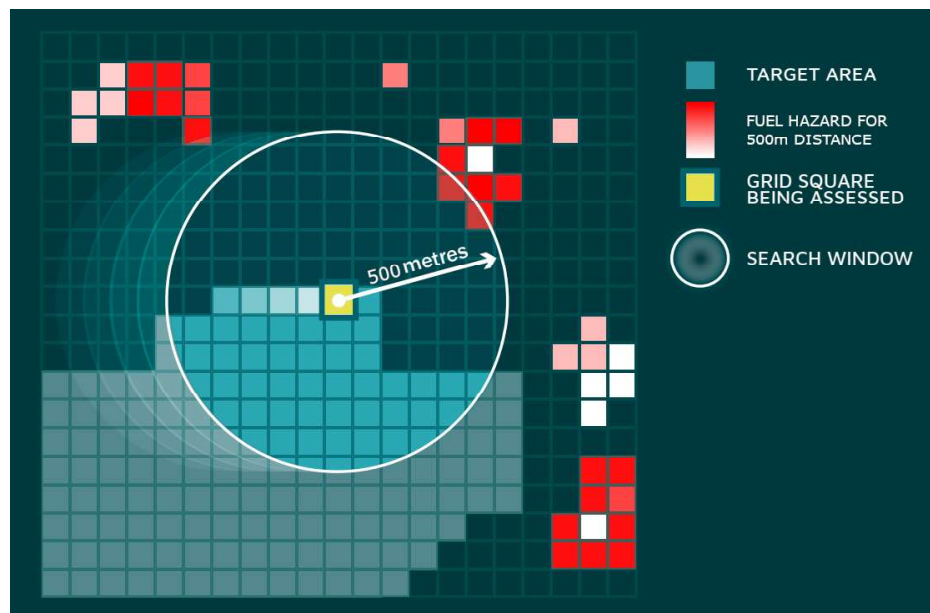


Figure 11: Modified exposure calculation diagram for 500m transmission distance adapted from the 2018 *FireSmart Wildfire Exposure Assessment guide*. An identical process is completed for the 100m transmission distance with altered fuel hazard values.

Model Specifics - fireexposuR

fireexposuR can accept fuel inputs that are generated using any method provided they are in a raster format. A raster is essentially a georeferenced grid of cells (pixels), much like a digital photo. The model's main input is a raster that is either a binary or decimal scale of hazardous fuels as its main input. The determination of a hazardous fuel is its capacity to emit embers over a specified distance. The FBP fuel raster was reclassified using the following typing converting the fuel types to hazard ratings along a decimal scale of 0.00 to 1.00. A decimal rating was used over a binary rating because of the boreal fuel typing used for the Wabanaki / Acadian forest stands and species. There are multiple layers of abstraction from the real forest condition and a model is only a single tool in the toolbox.

Another input for the model is a raster of areas of non-fuel, such as water and paved areas. For the purposes of this model execution, no changes were made to the non-fuel typing of structures. Modelling of inter-structure fires can be done but is out of scope and not often conducted.⁴⁵ This raster removes exposure values calculated from areas that cannot burn for the purposes of landscape-scale summaries. This removal was not performed for the subsequent step involving buildings.

Finally, for attributing the calculated exposure to the examined values, the building footprint layer (polygon spatial file) was used in the model to extract the average and maximum exposure experienced by each structure polygon.

There appears to be a “higher” resolution for the short distance transmission because a smaller radius is considered for each pixel

FBP Code	Long (500m) Hazard Rating	Short (100m) Hazard Rating
1	0.80	1.00
2	1.00	1.00
3	1.00	1.00
4	0.90	1.00
5	0.75	0.80
6	0.80	1.00
11	0.00	0.20
13	0.00	0.10
21	0.20	0.60
22	0.20	0.60
31	0.20	0.90
101	0.00	0.00
102	0.00	0.00
105	0.00	0.00
415	0.10	0.30
625	0.25	0.45
650	0.75	0.85
675	0.85	0.95
nodata	0.00	0.00

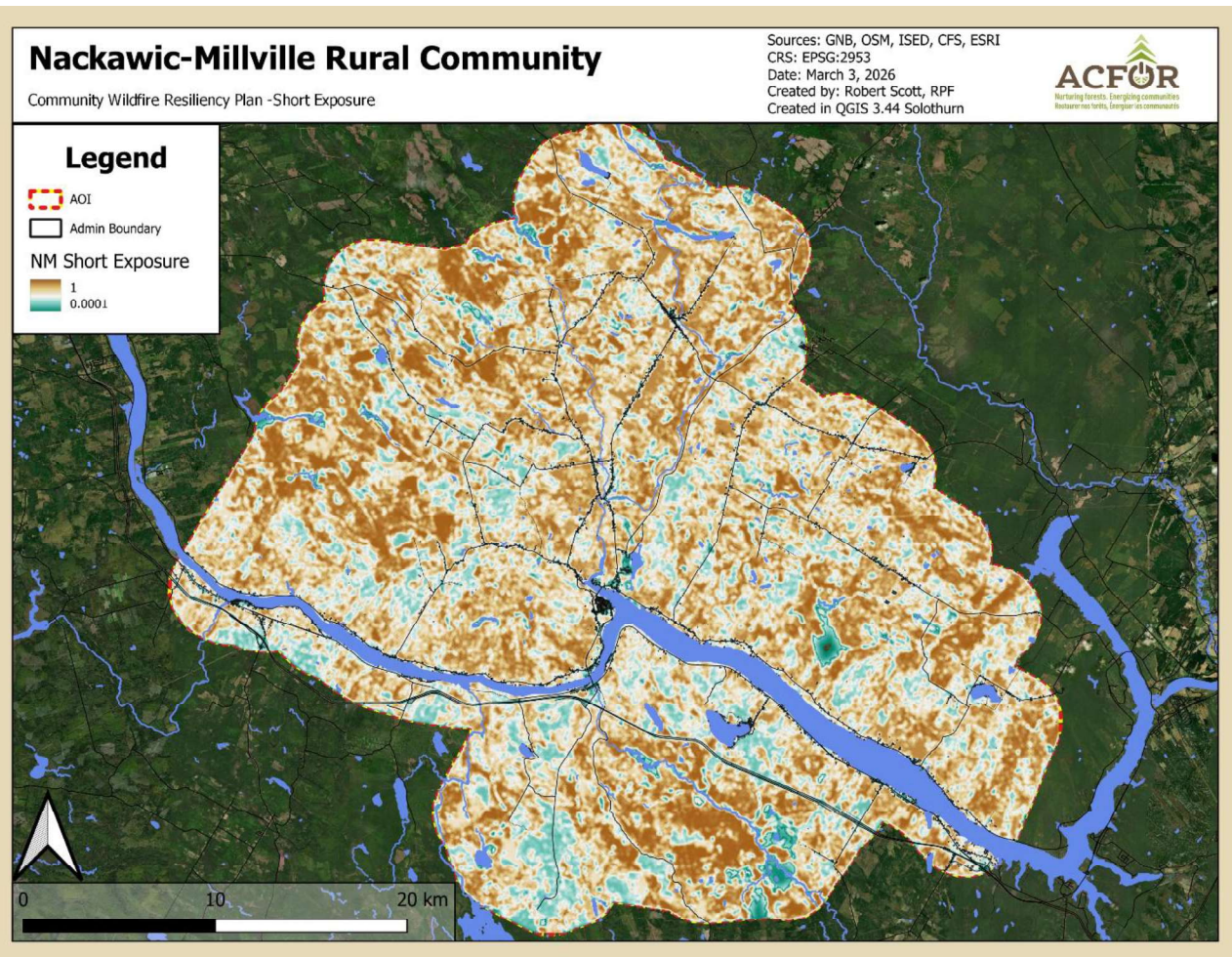


Figure 12: Exposure to hazardous fuels capable of transmitting embers over 100m.

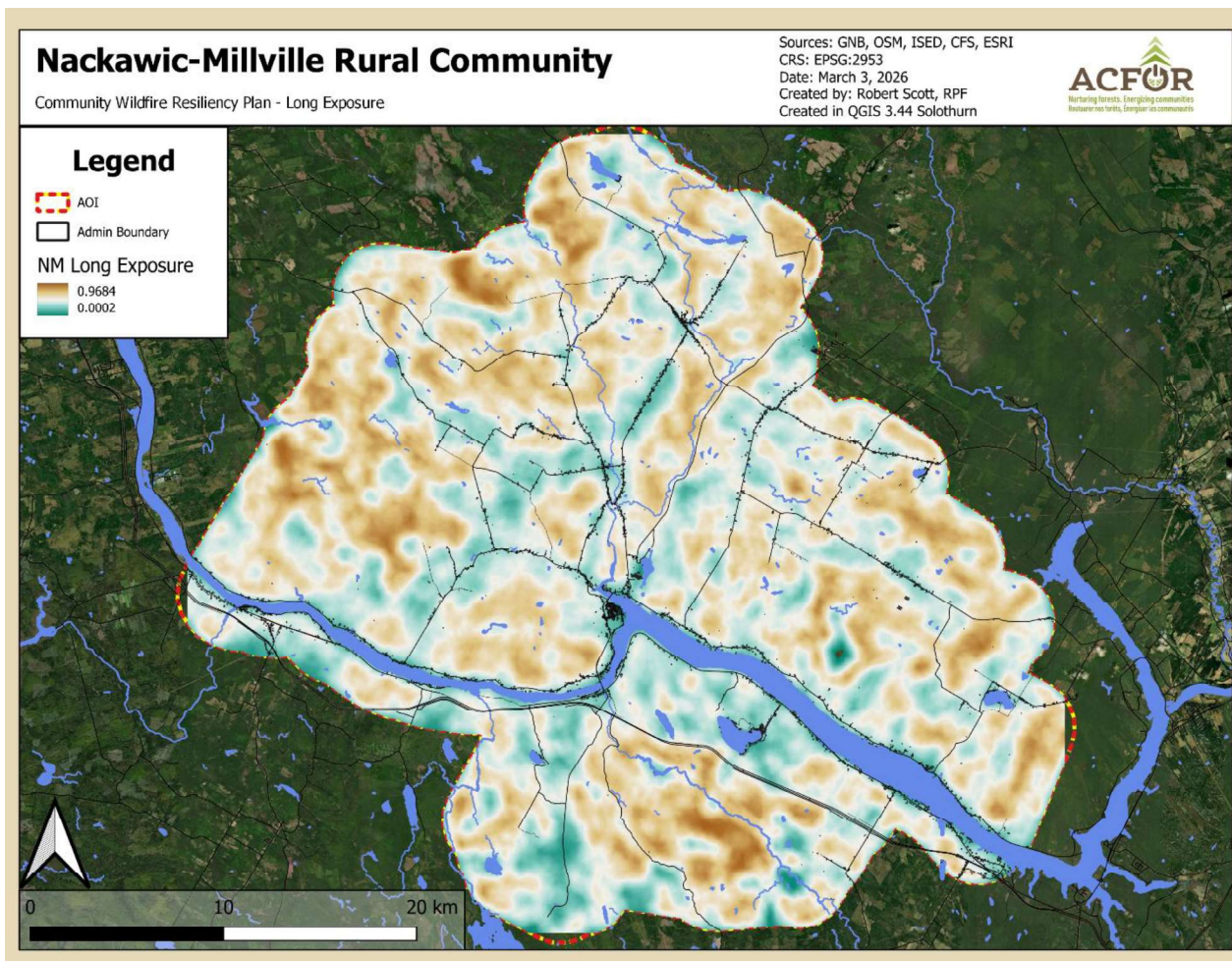


Figure 13: Exposure to hazardous fuels capable of transmitting embers over 500 m.

It is clear that there is a greater exposure to hazardous fuels that are capable of transmitting embers over the short distance (100 m). Grasses were included in this 100 m transmission distance and there are many grass coded fuel types in the area. Additionally, some of the more hardwood dominated fuel types were assigned a hazard value for the 100 m distance but not the 500 m distance. The short- and long-range exposure maps respectively highlight areas that would benefit from local home assessments and larger more strategic considerations.

4.5. Burn Probability

To model the probability that any given area will burn, a modelling software called **BurnP3+** was used - a wildfire prediction model developed by the Canadian Forest Service (CFS).⁴⁶ It is a landscape-level simulation model used for probability, prediction and planning, and it integrates information on fire behaviour, forest fuels, topography, probability of fire ignition and spread based on historical events and weather data.⁴⁷

The primary inputs are the FBP fuel types as shown in Figure 9, the elevation across the AOI, and typical weather conditions sampled from real weather data. More information is available below.

The outputs of this model indicate areas that, over the course of tens of thousands of simulated ignitions, are more likely to have experienced a fire.

Model Specifics - BurnP3+

BurnP3+ has undergone many iterations and is now capable of using multiple fire growth models in addition to its underlying probability calculations. The fire growth model used in these simulations was FireSTARR, also developed by CFS. The model currently runs in a software developed by ApexRMS called SyncoSim.

The inputs include the topography, weather data including FWI values, ignition likelihood rasters, daily burning hour distributions, and distributions for the number of days a fire is permitted to spread.

It is important that only recent weather data is included in the calculations. This is because of a changing climate and the acknowledgement that fire weather has increased in severity since records began.⁴⁸ If all available weather data was used, it could reduce the relevance of the modelling by reducing the average fire weather values. Weather data was collected from nearby stations with IDs of 71606, 9418, and 9419 for the previous 20 years and FWI values were filtered to ≥ 12 based on best available values, lowered from the recommended value of ≥ 19 to ensure that there were more opportunities for burning during spring conditions. This weather data was then used repeatedly in the simulations to ignite fires and spread them using the measured windspeed and direction, along with relative humidity and temperature values.

A Digital Elevation Model (DEM) is used in modelling because fire spreads faster going up slopes and slower going down slopes. As heat rises and flame energy is delivered above the fuels, additional combustible material upslope of the fire can pre-heat before ignition.

The ignitions were sampled randomly across the AOI. This was done following the guidance of a CFS research analyst who supports the development of ignition distribution grids for BurnP3+. Applying random ignitions can highlight hazardous areas not necessarily within or near the WUI, although it also does not recognize the influence humans have over the ignition distribution. However, given that the AOI has an extensive WUI, we assumed that any point in the AOI could have an ignition with an equal probability. Additional model iterations were implemented to account for this, and the outputs are not being interpreted in the absence of assumptions and other outputs. In addition, an anticipated greater frequency of lightning-producing weather systems will lead to more random ignition distributions across the landscape.

The duration over which a fire is modeled to burn is based on a distribution of daily burn hours and also the number of days over which a fire is permitted to burn. These durations are different for spring and summer conditions, as solar energy and temperature changes are delivered over different time periods throughout the year.

The presence of leaves on broadleaf trees is also a factor considered in the modelling. Many forests across the Wabanaki / Acadian forest are assigned the D1 fuel type, translating to 'leafless aspen', further discussed in Appendix B. In the seasonality of the model fuel types that have been coded as M1/2 or D1/2 will switch to leaf-on conditions for summer burn modelling, reducing the fire intensity, likelihood of ignition, and rate of spread in those fuel types.

Grass curing is assigned for each season as well, with a value of 85 being assigned in spring and 65 assigned for summer. In general, cured grasses are more present during spring conditions after dying the previous year before, being compressed over the winter, and curing in the full sun of spring without shade from trees or shrubs.

The minimum fire size was set at 0.5ha, in line with fire history for the region. Any fire that is generated during the execution of the model that does not exceed this size is then removed from the simulation and another fire is resampled in order to meet a minimum number of fires over the total number of iterations.

These other factors are assumed to be congruent in this AOI because of its small size:

- weather zones to differentiate between areas of stratified weather patterns
- fire zones which allow broad, coarse differentiations between fire regimes
- specific ignition distributions for human and lightning as a product of many different considerations

Outputs from BurnP3+ include:

- Burn Probability
 - A map layer displaying the likelihood of burning for a specific area across the series of simulations (see Figure 14). This is the layer that will contribute to risk ratings,
- Fire intensity
 - A map layer showing the average intensity of fires with the specific simulation parameters (see Figure 15), and
- Rate of Spread
 - A map layer with average speed at which fires spread across the landscape in a given area (see Figure 16).

For the purposes of community wildfire resiliency planning, the specific predictions of fire intensity (kW/m) and rate of spread (m/min) metrics are not as informative as their relative values. The simulation output values are compared to each other over the AOI to indicate areas that are different. Essentially, all that is important is which areas spread faster relative to other areas, which areas are more likely to burn relative to other areas, and which areas burn more intensely relative to other areas. Specific values are more important for model tuning and research endeavours.

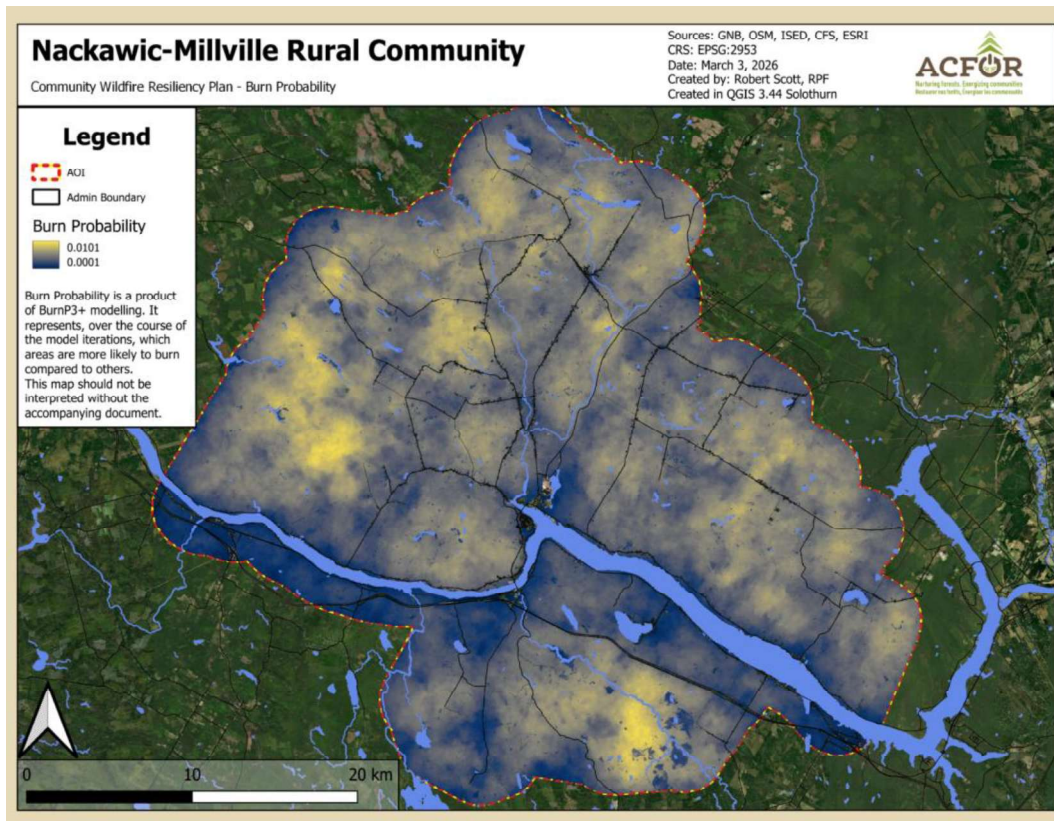


Figure 14: Burn probability in the AOI. A lighter colour indicates areas that burned more frequently across the model iterations. Darker areas burned less frequently.

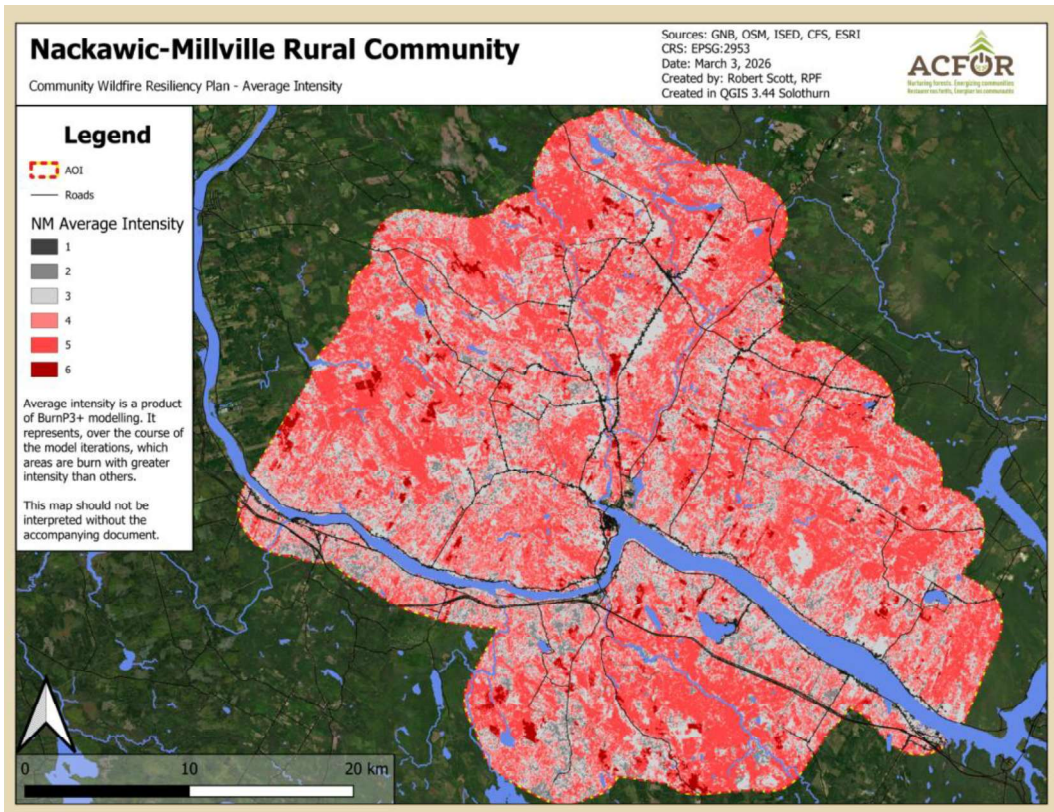


Figure 15: Predicted fire intensity by fire intensity class in the AOI. A higher intensity class means that the fire burned with greater energy, entering the crown of trees and burning a greater proportion of the available fuels. The greatest intensity often occurred in slash fuel types, where abundant dead materials are close to the ground, exposed to the sun and wind, and have little moisture.

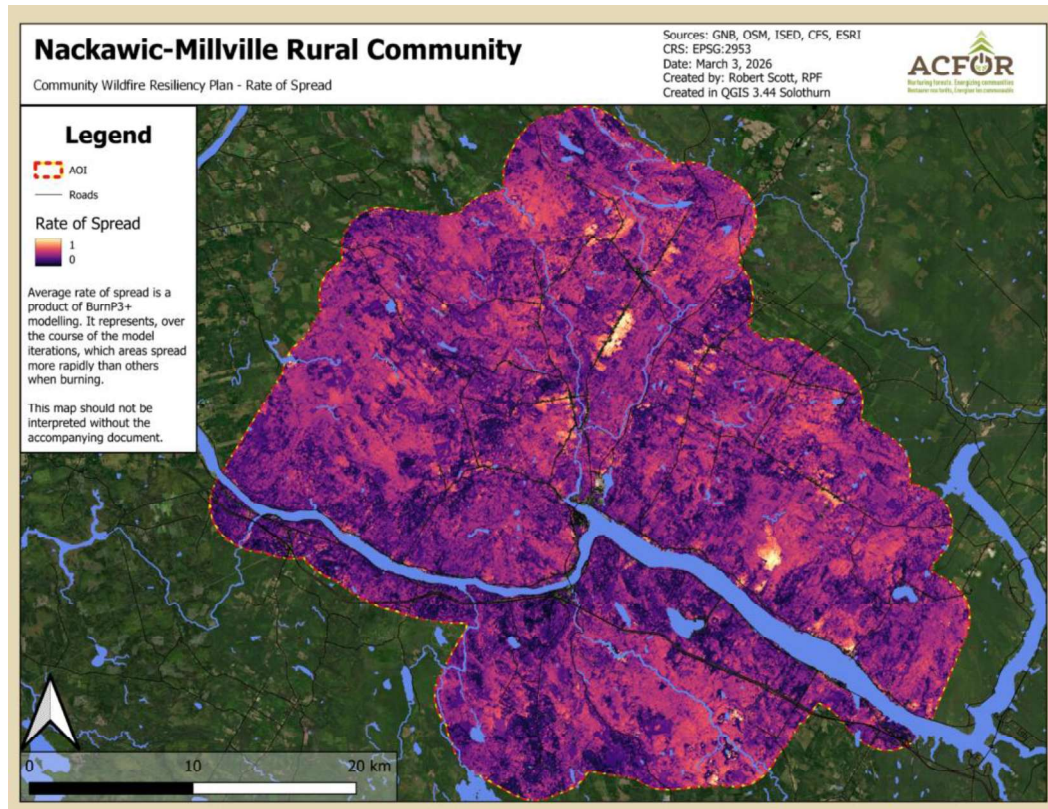


Figure 16: Relative predicted rate of spread in the AOI. Areas of lighter colour were modeled to spread faster than those in darker colours. The fastest moving fires occurred in grass fuel types.

4.6. Wildfire Risk

Using the outputs of both models creates a greater picture of the risk associated with wildfires in the Nackawic-Millville Rural Community. Risk has many different meanings, but it is generally accepted to be **the combination of likelihood and consequence of the examined event**. In this case we are examining the product of burn probability as likelihood and the exposure to structures as the consequence. This is done for each exposure rating to help triage properties that should receive FireSmart structure assessments from those that may need more elaborate forest interventions in addition to home ignition zone work.

$$R_{SY} = \text{Normalized} (P_Y * E_Y)$$

Where:

- R_{SY} is the risk for a given structure and exposure distance Y
- P_Y is the averaged burn probability of the cells within Y distance of the structure
- E_Y is the exposure assigned to that structure for hazard distance Y
- Normalization simply plots the calculated risk value on a scale of 0 to 1, with higher values equating to higher risk

These model outputs effectively highlight areas that are at greater risk of wildfire but need to be compared with the community input and values to adequately determine areas for direct action. The risk values are displayed using a *Natural Breaks (Jenks)* delineation between colours to ensure there is minimal variation among values in the same colour grouping.

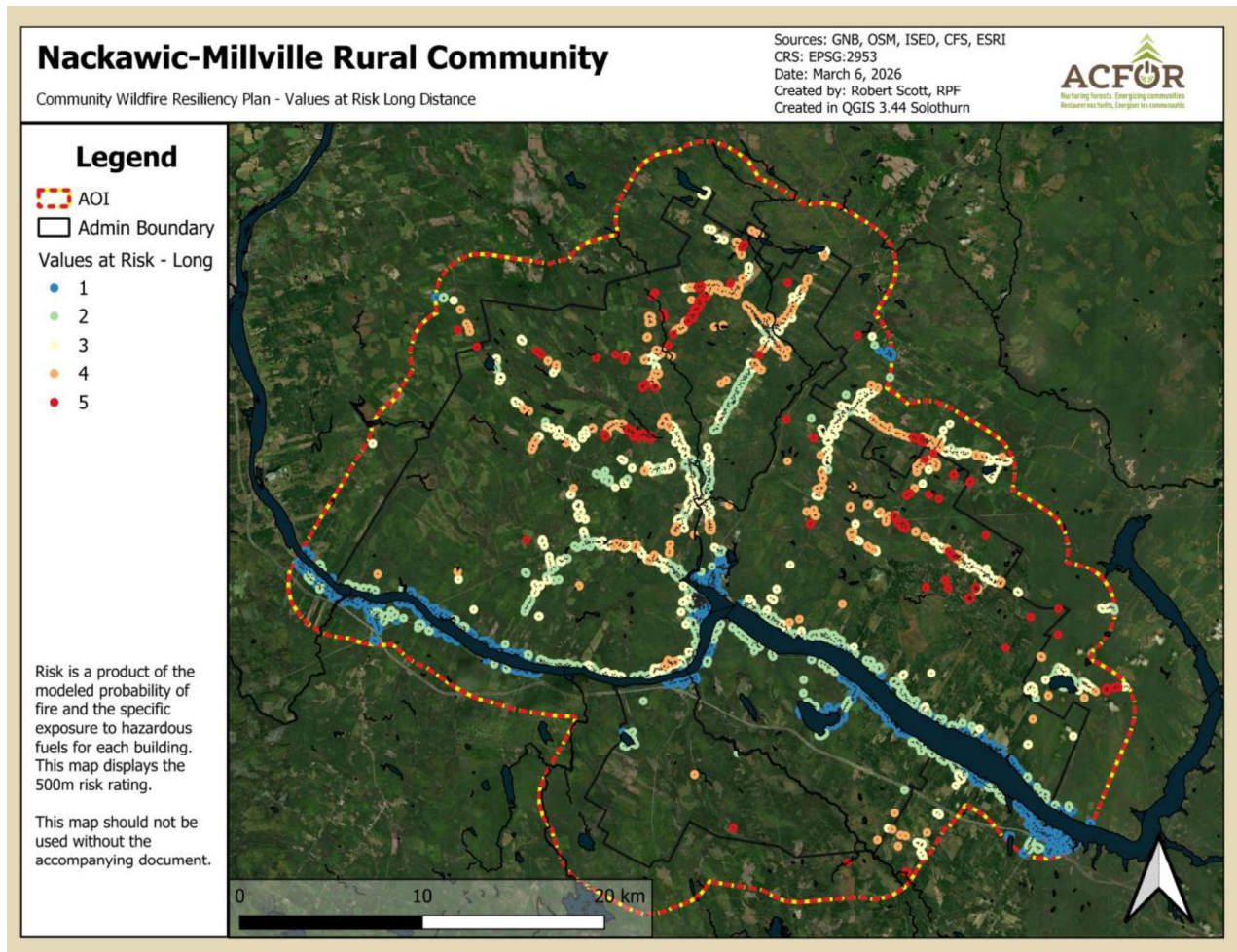


Figure 17: Long-range (500 m) risk rating for structures in the Nackawic-Millville Rural Community.

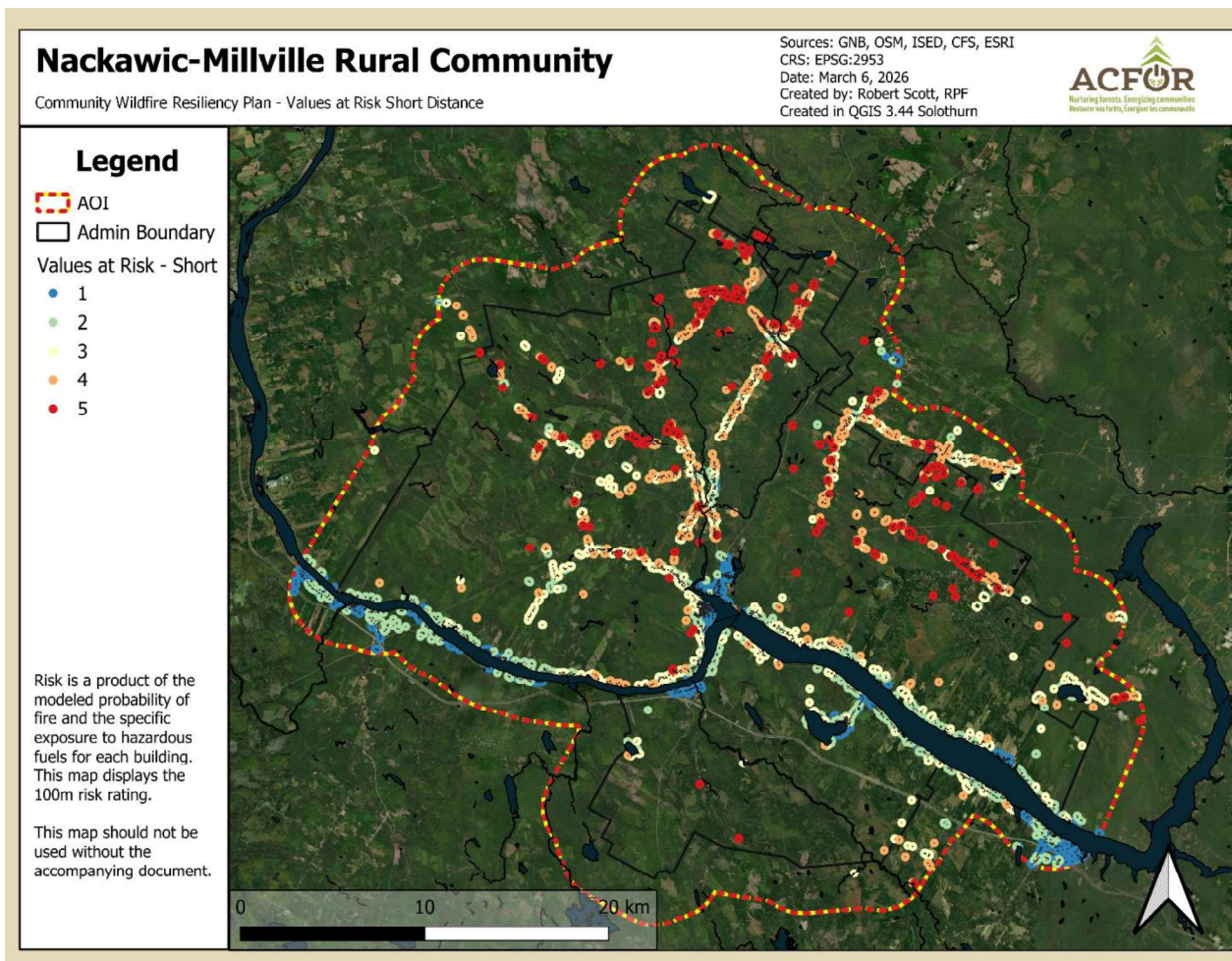


Figure 18: Short-range (100 m) risk rating for structures in the Nackawic-Millville Rural Community.

Limitations and Assumptions

It is important to revisit these outputs as the inputs are fixed in time and only represent conditions with the limitations in the models and inputs. Subsequent evaluations are important to measure the impact that community resiliency efforts have had.

Assumptions undertaken for the probability modeling must be acknowledged. Some of those assumptions include:

- All fires were allowed to grow under conditions in the absence of suppression
- Non-fuel (roads, wetlands, and developed areas) types were not allowed to burn despite the possibility of fire consuming or breaching them during extreme events
- Weather data from local weather stations

Current **limitations** of the modelling include:

- Random ignition grids
- Use of past weather history and not projected weather
- Limited fire data availability for model validations
- Specific fire data particulars such as the level of suppression each fire receives in New Brunswick
- Reporting accuracy of fires to national datasets.

Overcoming these limitations would require significant additional time, climate modelling, and explicit research outcomes from ongoing work regarding fuel classification and fire history in the Maritimes.

Map Interpretation and Use Disclaimer

The wildfire risk maps presented in this plan are strategic planning tools intended to support community-level wildfire resilience planning and prioritization. They are not predictions of wildfire occurrence, not parcel- or structure-level risk assessments, and not intended for use in insurance underwriting, real estate valuation, or lending decisions.

These maps depict relative wildfire conditions based on the best available data at the time of preparation, including fuels, topography, weather indices, and historical fire activity. They do not incorporate all factors that influence wildfire outcomes, including but not limited to:

- Extreme weather events
- Fire suppression effectiveness and response capacity
- Individual structure characteristics and construction materials
- Parcel-level defensible space or FireSmart treatments
- Fuel management activities
- Human behaviour and ignition prevention measures

As a result, areas identified as higher modeled wildfire likelihood or hazardous fuel exposure do not equate to a higher likelihood of property loss, nor do areas identified as lower threat imply an absence of wildfire risk.

Wildfire behaviour is highly conditional. We have done our best to consider the variability and describe the assumptions and limitations of this work. Risk levels shown on these maps may change substantially over short periods. These maps are not intended to be permanently fixed nor do they represent absolute inherent characteristics of a location. Risk evaluations should be an ongoing process.

These maps support:

- Community-scale planning and prioritization
- Identification of areas for further assessment
- Coordination of mitigation, preparedness, and education efforts

They should not be used as a sole basis for regulatory, financial, or insurance decisions without site-specific assessment by qualified professionals. Users of this information are cautioned against drawing conclusions beyond the intended planning purpose of the maps.

5. Risk Management and Mitigation Factors

Risk management is multi-faceted and any efforts to reduce either fire exposure or fire likelihood will thereby reduce risk. The strategies for reducing and mitigating the risk of wildfire in the community have been divided into the seven FireSmart principles and are presented below. Each recommendation is grounded in information (ideas and needs) gathered from community engagement or based on the risk mapping.

Demographic and situational factors of the community are relevant to consider in developing recommendations to manage fire risk. The recommendations below reflect information gathered about the community and from the community. For example, population growth in Nackawic-Millville means that the WUI will likely increase in area.⁴⁹ An aging population may mean people are less able to implement recommendations to fireproof their homes or properties and are more vulnerable in an evacuation scenario. Community coordination is a necessary part of any risk mitigation and emergency response planning, and having a local EMO coordinator would greatly improve the municipality's ability to carry out recommendations.

The heterogeneity in ownership and high proportion of private ownership of forested properties in the AOI make recommendations for fuel reduction and vegetation management difficult. In other jurisdictions, where Crown land managed by one licensee surrounds a community, it is relatively simple to recommend fuel breaks or fuel reduction treatments. That is not the case in this AOI, as seen by the ownership map in Figure 3 (section 2.1). Small scale actions can be taken by individual owners in areas shown to be high risk to reduce this risk.

Success in wildfire resiliency does not mean putting all effort toward one task as not all aspects of any one variable can be controlled.

5.1. Education

Recommendation # 1. Education Campaign - Wildfire Risk Reduction

Carry out a FireSmart Public Education Campaign using available materials from FireSmart Canada and other sources. Resources for such a campaign can be found here (<https://firesmartcanada.ca/resources-2/>), including the following:

- [Home Ignition Zone Self-Assessment](#)
- [FireSmart Begins at Home Guide](#)
- [FireSmart Guide to Landscaping](#)

Information pages could be added to the [Fire Department webpage](#) of the Nackawic-Millville website with links to the above documents. A social media campaign with posts at regular intervals (e.g., early April, mid April, early July, early August – times of highest risk) could publicize this information. Local fire stations have Facebook pages ([North York Fire Department](#), [Nackawic Fire & Rescue](#), [Dumfries Volunteer Fire Department](#)) that could share prepared FireSmart information campaigns. Information could also be shared at a booth at local events and markets. It could also entail an event to designate local FireSmart champions to carry this initiative forward.

An annual event could be hosted prior to the fire season to encourage actions that reduce the risks of wildfire, such as cleaning up the 10 m zone around homes and buildings, promoting alternatives to burning yard waste, and could include in-person or virtual FireSmart presentations. Residents could also be encouraged to do the free one-hour [FireSmart 101 training](#) program through this educational campaign, and an incentive could be offered for participation. An in-person offering of the course could be considered for those who would benefit.

Additional methods for publicizing the daily burn category from DNR during the fire season could be

considered in high profile areas, especially during periods of peak risk. Physical structures or signage that is updated daily at strategic locations (such as the bridges) could be a reliable source for community members that don't access the online resources.

Priority: High

Objective: To educate the community about measures to reduce the risk of structure fires from nearby wildfire.

Rationale: Information gleaned through public consultation strongly supported the idea that education is necessary and that many people are not aware of the risks or what they can do to reduce risk. Consultation highlighted that implementation of education campaigns should not fall only to the local fire stations, who have limited capacity for additional tasks. It was also noted that some community members do not follow burn category requirements, meaning that improved communication of the restrictions during times of peak risk may reduce non-compliance. Reducing human caused ignitions is important because 80% of fires are human caused in New Brunswick.

Responsibility: Nackawic-Millville EMO coordinator, in partnership with local fire stations and local champions / ambassadors.

Next Steps: Hire EMO coordinator; create campaign outline; collect materials; implement.

Success Metric: Number of people reached by education campaign; Follow-up survey to show learnings; Number of people having completed FireSmart 101 training.

Recommendation # 2. Education Campaign - Emergency Preparedness and Evacuation Planning

Carry out a public education campaign to encourage the development of household emergency preparedness and evacuation plans using available materials such as:

- [Make an Emergency Plan](#)
- [Evacuation Preparedness List](#)
- [Preparing for wildfire smoke events](#)

This should include checklists for recommended fire suppression and personal protective equipment, communications devices, and first aid materials that are recommended. The education campaign should also include considerations for protecting and evacuating pets. More information on preparing for pets and wildfire can be found here:

- [How to keep your pets safe during wildfires](#)
- [Sample emergency plan guide](#)
- [Wildfire Smoke Fact Sheet – Protect Your Pets from Wildfire Smoke](#)
- Signage to indicate pets are on a property: see [here](#) for a sample.

Priority: High

Objective: To prepare the community to respond in the event of a wildfire and possible evacuations.

Rationale: Information gleaned through public consultation strongly supported the idea that education is necessary and that many people are not aware of what they would need to consider in an evacuation. Concerns over pet evacuation during a fire were also mentioned during public consultation. This recommendation is applicable to all emergency evacuation circumstances.

Responsibility: Nackawic-Millville EMO coordinator, in partnership with local fire stations (who can share information but should not shoulder the burden of the campaign).

Next Steps: Hire EMO coordinator; create campaign outline; collect materials; implement.

Success Metric: Number of people reached by education campaign; Follow-up survey – number of people with evacuation plans.

Recommendation # 3. Engage with residents in high-risk areas to offer Home Ignition Zone assessments and deliver wildfire preparedness information

Deliver FireSmart information packages and offer residential assessments and recommendations for mitigating risks in priority areas (see map in Figure 18). Assessments should list recommended actions to remove hazards.

Priority: High

Objective: To direct FireSmart resources to areas of highest risk and efficiently reduce the potential for structure fires.

Rationale: Giving site-specific recommendations will help remove dangerous fuels and could reduce the risk of wildfires becoming structure fires.

Responsibility: Nackawic-Millville EMO coordinator (could contract another party to carry out the assessments and recommended actions).

Next Steps: Hire EMO coordinator; prioritize areas for assessment; develop information packages; carry out assessments.

Success Metric: Percentage of high-risk residential properties assessed and residents engaged.

Recommendation # 4. Education Campaign - Recreation activities

Carry out targeted education campaign to reduce the likelihood of human-caused wildfires. This could include education on the provincial burn categories and restrictions, directed at campgrounds, ATV clubs, and other recreation groups. It could also include the installation of signage in high profile locations or in social media groups to communicate burn bans.

Priority: Medium

Objective: To reduce human-caused ignition of wildfires.

Rationale: Overall, 63% of fires in New Brunswick are within the 500 m WUI, and of those 84% are human caused. Information gleaned through public consultation indicated that some individuals still do not follow burn restrictions. Before recommending increased fines or enforcement, education should be prioritized.

Responsibility: Nackawic-Millville EMO coordinator, in partnership with local fire stations (who can share information but should not shoulder the burden of the campaign).

Next Steps: Hire EMO coordinator; create campaign outline; collect materials; implement.

Success Metric: Number of people reached by education campaign, partnerships established with recreation groups.

5.2. Legislation and Planning

Recommendation # 5. Integrate considerations for reducing wildfire risk into the new municipal plan and planned developments

Integrate risk mapping from this plan into planning documents and processes. Integrate considerations for wildfire, including mitigating wildfire risk, in the new municipal plan and in planning new developments. This could include:

- Incorporating the goal of minimizing wildfire risk into planning processes
- Locating new developments in areas of lowest possible wildfire exposure and consider mitigation measures where risks are higher
- Not intensifying development in areas with high wildfire exposure
- Avoiding development in ecologically sensitive areas, where vegetation management to mitigate fire risk would compromise other values

- Considering FireSmart priority zones when establishing lot sizes and the number of lots in a new subdivision
- Avoiding development on steep slopes and ridgetops
- Ensuring hazardous land uses that could cause ignitions or have a high proportion of combustible materials are located outside areas of high exposure
- Integrating landscape features that could provide improved access for emergency responders or act as firebreaks (e.g., trails, golf courses, parks)
- Ensuring adequate fire fighting infrastructure in new developments
- Identifying muster points in new developments
- Ensuring road networks and bridges are adequate for evacuations and emergency access

Note: See this resource for more key planning considerations:

[National guide for wildland-urban-interface fires: guidance on hazard and exposure assessment, property protection, community resilience and emergency planning to minimize the impact of wildland-urban interface fires. 2021.](#)

Priority: Medium

Objective: To direct development to lower risk areas; to reduce the risk of structure fires if new developments are in higher-risk areas.

Rationale: According to the Nackawic-Millville Strategic Plan 2025-2030⁵⁰, the region is expected to grow in the near future, with new homes and subdivisions being built. Integrating mapping from this report and the above considerations into planning could reduce the risk of future structure fires.

Responsibility: Nackawic-Millville Rural Community; the Capital Region Service Commission (CRSC is responsible for building inspection, subdivision approval, development control and planning).

Next Steps: Nackawic-Millville shares mapping layers with CRSC; consideration of where planned developments will occur and risk mitigation measures; integrating measures into appropriate planning documents.

Success Metric: Integration of risk mapping and measures into planning documents.

5.3. Development Considerations

Recommendation # 6. Consider supporting FireSmart building standards in the municipal plan

Consider including support for FireSmart building standards in new developments in the municipal plan being created for this region.

There are many existing resources that describe FireSmart building materials and considerations, including:

- [FireSmart Residential Development Guide](#)
- [Home Development Guide](#)
- FireSmart fact sheets:
 - [Decks and Porches](#)
 - [Fences](#)
 - [Gutters and Eaves](#)
 - [Roof](#)
 - [Siding](#)
 - [Windows and Doors](#)
- Landscaping:
 - [FireSmart landscaping](#)
 - [Yard Guide](#)

In any new developments where developers are required to plant trees, plans should specify the planting of broad-leaf trees (not conifers) in the intermediate zone (1.5-10 m from a structure).

Priority: Low

Objective: To reduce the risk of structure fires from wildfires.

Rationale: According to the Nackawic-Millville Strategic Plan 2025-2030⁵¹, the region is expected to grow in the near future, with new homes and subdivisions being built. Supporting FireSmart building design could mitigate the risk of structures igniting. The existing Town of Nackawic Zoning By-Law (2017) contains provisions relating to landscaping. The new municipal plan could feasibly also specify landscaping requirements, including those recommended by FireSmart.

Responsibility: The Capital Region Service Commission (CRSC is responsible for building inspection, subdivision approval, development control and planning).

Next Steps: Meeting of planning staff from Nackawic-Millville and CRSC to discuss inclusion of FireSmart recommendations in plan update.

Success Metric: Percentage of new homes built according to FireSmart recommendations.

Recommendation # 7. Use fire-resistant construction materials, building design and landscaping for all critical infrastructure when completing upgrades or establishing new structures

Use fire-resistant construction materials, building design and landscaping for all critical infrastructure when completing upgrades or establishing new structures. Include support for FireSmart building standards in new developments in the municipal plan.

Priority: Low

Objective: To encourage the use of fire-resistant building materials and designs in important new structures.

Rationale: Constructing new community buildings according to FireSmart building design could mitigate the risk of structures igniting. With significant WUI area and rural environment, ensuring building materials are non-combustible (metal roof, metal siding, etc.) compensates for longer response times and increases chances of structure survival. These materials increase the chance of structure protection during firefighting triage efforts.

Responsibility: Nackawic-Millville Rural Community.

Next Steps: Integrating recommendation into planning documents.

Success Metric: % of new community buildings that follow FireSmart recommendations.

5.4. Cross-training

Recommendation # 8. Continue DNR training for all new volunteer fire fighters

Ensure all new volunteer firefighters are trained in the Emergency Forest Firefighter (EFF) program through DNR (see section 6.1). While most current volunteer fire fighters in the area have this training, all new volunteer fire fighters should be trained each year.

Priority: Medium

Objective: Enable volunteer fire fighters to respond to wildfires and support DNR fire suppression efforts.

Rationale: This training is available from DNR. As new volunteers join the force, there should be a continued effort to ensure they access this training. Municipal firefighters need this training in order to combat wildfires before DNR arrives on site and takes command.

Responsibility: Local fire departments – DNR only offers the training when a request is received.

Next Steps: Request a new session of training prior to the 2026 fire season, if any fire fighters have not yet received it.

Success Metric: % volunteer fire fighters who have received the training (should aim for 100%).

5.5. Emergency Planning

Recommendation # 9. Hire an Emergency Measures Organization Coordinator

Fill the currently vacant EMO coordinator position in Nackawic-Millville. This position is critical to improving emergency preparedness and implementing many of the recommendations in this plan. Further relationship building would be best done by this position.

Priority: High

Objective: To have dedicated staff time to plan and prepare for emergencies like wildfire; to implement many of the recommendations of this plan; to further relationships and make use of available resources to the community.

Rationale: This position has been vacant but is critical for moving forward with the recommendations in this plan and liaising with the PSC.

Responsibility: Nackawic-Millville Rural Community

Next Steps: Create and share job posting; carry out interviews; hire staff person.

Success Metric: Position filled.

Recommendation # 10. Create an Emergency Response Plan for the entire municipal area

Update and expand the Emergency Response Plan to cover the expanded community boundary. It is recommended that the plan should include the following:

- Emergency preparedness and evacuation plans for each community
- An assessment and mapping of emergency evacuation routes and muster points for each community
- Special consideration for areas with only one evacuation route as primary evacuation areas (these areas could require more time to evacuate). From consultation on the CWRP, the following areas were noted as having limited evacuation routes:
 - Howland Ridge Road in Millville – only one access route
 - Davidson Lake, including Sandy Cove Bible Camp – only private road access on east of lake and some structures are boat-access only
 - Allandale Road
 - Pokiok Road (from end of Route 103 at the exit to Nackawic and Davidson Lake)
- Consideration for the fact that many volunteer fire fighters also have personal livelihoods that they'll need to protect (e.g., dairy farms) and thus might have limited availability in a wider-spread local emergency like a wildfire
- Information on community notification protocols for emergencies and evacuation
- Identification of public buildings that can be used as clean air shelters during occurrences of poor air quality

The [EMO page](#) on the Nackawic-Millville website should be updated with new information based on the completed Emergency Response Plan. A pamphlet could also be created to summarize the Emergency Response Plan to enable sharing information with those who do not use the website.

Priority: High

Objective: To prepare the community to respond to emergencies.

Rationale: The Nackawic Emergency Response Plan By-Law (2006) is the most recent emergency planning

document for the area. This is 20 years old and does not apply to the new amalgamated region. A new plan is necessary for effective planning.

Responsibility: Nackawic-Millville Rural Community; PSC.

Next Steps: Hire EMO coordinator; draft new plan (consulting examples from other jurisdictions); integrate feedback from PSC and the community; finalize plan; adoption by Council; publication of plan details on website.

Success Metric: Completed and endorsed plan.

Recommendation # 11. Create a Disaster Response Registry

A Disaster Response Registry could enable identification of vulnerable sectors of the population, improving communication and evacuation in case of an emergency. An example of such a program from the City of Fredericton can be found [here](#). A form could be created on the EMO page of the municipal website and hard copies could be distributed at local events for people to identify themselves for this registry and provide their contact information. The updated Emergency Response Plan should designate which bodies are responsible for responding to registered individuals in specific areas. A system of signage could also be used in designing the response registry and plan, where residents who require assistance can post a sign in the window confirming their need and those who have already evacuated or do not require assistance can post an “OK” sign in the window (see [example from BC](#)). Promotion of this registry could occur simultaneously with other education campaigns (e.g., recommendation #2).

Priority: Medium

Objective: To identify and enable effective communication with, and evacuation of, those who may require increased assistance in the event of an emergency.

Rationale: Public consultation confirmed that many are concerned about seniors and others who would need additional support in an emergency or evacuation, especially including those who do not use cell phones, do not follow social media, or have mobility or cognitive impairments. Allowing these individuals to identify themselves in advance if they would like assistance would address this concern.

Responsibility: Nackawic-Millville EMO coordinator.

Next Steps: Hire EMO coordinator; research similar programs in other jurisdictions; develop online and hard copy form; publicize online and at community events (targeting events for seniors); integrate into updated Emergency Response Plan.

Success Metric: Registry created; community response to program.

Recommendation # 12. Assess the need for additional fire suppression water sources in each community; Install additional infrastructure as needed

Conducting a needs assessment that includes mapping existing resources would identify whether additional water sources and/or dry hydrants are necessary. It is likely that additional dry hydrants would improve the ability of fire fighters to respond to structure fires that result from wildfire. There are no current accessible maps of the locations of the existing dry hydrants and water sources for fire suppression.

Priority: Medium

Objective: To improve the fire suppression capacity of the area.

Rationale: Consultation with the PSC indicated that the community lacks accessible maps of the location of dry hydrants, and that more dry hydrants would improve the fire fighting capacity.

Responsibility: Capital Region Service Commission, in conjunction with local fire departments and EMO coordinator.

Next Steps: Map existing hydrants; spatial analysis to identify need and locations for new water sources; installation of new infrastructure.

Success Metric: Map of existing dry hydrants completed; needs itemized and ranked; installation of infrastructure completed, filling highest priority needs.

5.6. Vegetation Management

Recommendation # 13. Fuel reduction measures in high-risk forests

Identify and reach out to owners of forested areas that contribute long range risk to community structures (Figure 17**Error! Reference source not found.**). Encourage forest owners to engage a forestry professional with experience in forest management with the objective of wildfire risk reduction to create site-level prescriptions for forests to reduce the risk to values, and to carry out those prescriptions.

Treatments to reduce fire risk could include but are not limited to:

- Stand thinning with onsite mulching
- Partial harvests to shift toward fire-resistant species composition
- Plantation tending and pruning
- Perimeter fuel breaks
- Restoration after mass-mortality events such as hurricanes or pest outbreak

Treatments should not include:

- Removing all vegetation under the guise of fire risk management
- Conversion of stands with fire-resistant species present to coniferous plantations

Important considerations:

- Treatments are directly related to the present forest conditions, and a professional opinion is required
- The wildfire hazard should be considered within the larger hazard context, ensuring that mitigation against ignitions does not intensify other hazards (e.g., removing vegetation where it could increase erosion or flooding)⁵²
- **While implementing treatments would be the responsibility of the owner of the high-risk forest properties, incentives or support mechanisms could be considered by the municipality and/or Forest Products Marketing Board to access possible funding and ensure high quality work is carried out**
- Efficient mitigation when using heavy equipment can depend on logistics, coordination and local scale. Small individual treatment areas can have extraordinary cost due to project overhead such as administration, floating, permitting, etc.

See Appendix C for suggested details on engaging a forest professional.

Priority: Medium

Objective: To reduce the risk of fire by implementing silvicultural treatments to reduce fuel loading and / or shift species composition of high-risk forest stands in proximity to infrastructure.

Rationale: Silviculture treatments that restore the natural diversity (including a higher percentage of hardwoods) can reduce fire risk in stands that have a higher proportion of conifers.

Responsibility: Nackawic-Millville Rural Community to reach out to forest owners; forest owners to engage forestry professionals and carry out treatments; possibility for assistance by municipality or other institutions.

Next Steps: Municipality identifies high-risk woodlots based on the mapping from this report; outreach to owners and discussion of needs and opportunities; municipality could consider how to work with existing

institutions (e.g., Marketing Board) to support implementation this objective.

Success Metric: Number of high-risk hectares treated.

Recommendation # 14. Conduct hazard assessment around community buildings in high-risk areas

Using the [FireSmart resources](#), conduct a hazard assessment in the Immediate, Intermediate and Extended zones around any community buildings in areas that are identified at greater short- and long-range risk from wildfire (Figure 17 and Figure 18). Assessments should list recommended actions to reduce or remove hazards.

The goals with these assessments are to reduce the likelihood of fires igniting structures and to provide more defensible spaces for responders in the case of fires within the WUI.

Note: Make sure to consider wildfire hazard within the larger context, ensuring that mitigation actions against ignitions do not intensify other hazards (e.g., removing vegetation where it could increase erosion or flooding).⁵³

Priority: High

Objective: To reduce the risk of structure fire of important infrastructure caused by nearby wildfire in high-risk areas.

Rationale: Removing dangerous fuels around community buildings could reduce the risk of wildfires becoming structure fires.

Responsibility: Nackawic-Millville EMO coordinator (could contract another party to carry out the assessments and recommended actions).

Next Steps: Hire EMO coordinator; prioritize buildings for assessment; carry out assessments; develop plan to carry out action items.

Success Metric: % of high-risk buildings assessed; % of subsequent recommended actions accomplished.

5.7. Interagency Cooperation

Recommendation # 15. Hold an annual meeting to review wildfire response procedures

An annual meeting prior to fire season between the EMO coordinator, the PSC, and the three fire departments could be held to review emergency support services and evacuation procedures in the event of wildfire. Additional information could be sourced from DNR or CFS fire scientists.

Priority: Medium

Objective: To regularly prepare for the fire season and keep new staff, volunteer fire fighters and council members up to date on emergency procedures.

Rationale: An annual meeting could prompt regular review of procedures and highlight new needs and concerns.

Responsibility: Nackawic-Nackawic EMO coordinator.

Next Steps: Hire EMO coordinator; hold initial meeting in spring 2026 (likely prior to Emergency Response Plan finalization); hold annual meetings after Emergency Response Plan finalization.

Success Metric: Annual meeting held, minutes recorded for meeting content.

Recommendation # 16. Share risk layers and be informed of forest operations

The mapping layers that have been generated for this project are the property of the Nackawic-Millville Rural Community. Sharing these layers with the YSC Forest Products Marketing Board and local forestry companies like AV Group and Irving could enable these groups to integrate the information into forest management planning. The layers could also be shared with DNR.

Given the amount of Crown and industrial freehold lands within the rural community, the formation of a stakeholder group to liaise between citizens and forestry operations would be important. The establishment of a stakeholder group to be informed of, and inform, the management of forests on Crown lands in the region could support the integration of fire risk mapping and appropriate actions into forest management plans for the area.

Priority: Medium

Objective: To allow integration of updated information into forest management planning.

Rationale: New information generated by this CWRP could be integrated into forest management planning.

Responsibility: Nackawic-Millville Rural Community, Crown licensees.

Next Steps: Connect with relevant contacts at each organization to discuss process (data sharing agreement); Share information as appropriate; Establish stakeholder committee and meet quarterly to be informed of operations and opportunities for collaboration.

Success Metric: GIS layers and maps shared; information integrated into forest management plans.

6. Wildfire Response Resources

The following sections highlight the resources that are currently available to the community in the event of a wildfire.

6.1. Provincial Resources

The agency responsible for wildfire response in New Brunswick is the Department of Natural Resources. The DNR has approximately 140 Forest Ranger positions which act as the province's firefighting resources in the case of wildfire events.⁵⁴ Recently, 74 of the seasonal Forest Ranger positions have been converted to FTE positions which will increase the experience and retention of those trained individuals.

FPL supports the province (who is its primary shareholder) in fighting wildfires with a fleet of air tankers.⁵⁵ FPL's aircraft support on-the-ground fire suppression efforts, with 11 reload bases across New Brunswick and a home base in Fredericton.⁵⁶ The province contracts 8 airtankers as well as 4 support aircraft from FPL for to assist with firefighting efforts in New Brunswick.⁵⁷

DNR can provide municipal fire fighters (and the forest industry) with Emergency Forest Firefighter (EFF) training, which offers an introduction to Wildland Fire Fighting and then permits firefighters to do initial attack on the wildfire before DNR arrives. This training is a requirement for any structure or industry firefighter to work an active fire – if they do not have the training, they may only operate the Engine or do traffic but may not engage the wildfire.⁵⁸

6.2. Municipal Resources

Three volunteer fire departments serve the Nackawic-Millville Rural Community, located in Nackawic, Millville (North York) and Dumfries. Fire stations would provide property protection in the event of a wildfire and would assist DNR with wildfire suppression within their capacity. A number of local volunteer firefighters have received the EFF training from DNR noted above. Recommendations in this plan, including mapping of dry hydrants, installing additional dry hydrants, and continued EFF training, could improve the capacity of local fire departments in fire suppression.

6.3. Other Relevant Emergency Plans

The New Brunswick Emergency Measures Organization (NBEMO) coordinates provincial-level emergency operations.⁵⁹ The organization offers training on emergency management, incident command, emergency operations centre, and emergency public information.

Wildfire evacuation measures are in place for human life and safety and are outlined by the New Brunswick EMO group. There are two phases to a wildfire evacuation situation:⁶⁰

1. Evacuation advisory

- Issued when there is a real potential threat to a community
- Review emergency preparedness kit *or create one if not already done*
- Talk with family and neighbours to ensure everyone is aware and prepared
- Execute FireSmart tactics within the 10m Intermediate Zone of your home

2. Evacuation alert

- Issued when there is immediate threat to lives or property
- Details recommended evacuation route
- Close windows, doors, and leave interior and exterior lights *on* to assist firefighters in smoky conditions
- Leave the area immediately

- Register with the Red Cross even if not using their services
- Do not return home until the alert is lifted
- *Remaining in your home during an evacuation alert puts yourself and first responders at risk.*

If an alert must be delivered, it is done so using the National Alert Ready system, which broadcasts over cellular networks, television systems, and radio stations. In 2023 with the evacuation involved with the Stein Lake Fire, a subsequent review of the system was undertaken and the recommended improvements have since been made.⁶¹

By hiring an EMO person and updating the 2006 emergency response plan bylaw (and expanding it to the new regional area), Nackawic-Millville will be better positioned to respond to emergencies like wildfire.

7. Conclusions

Based on the modelling undertaken, the fire risk in the AOI for Nackawic-Millville Rural Community is not distributed evenly. Areas such as **Millville** and the corridor along **Route 615** indicate greater risk to structures. **Middle Hainesville**, though on the border of the administrative extents of the rural community, also has a cluster of buildings at greater relative risk of wildfire. **Central Waterville** also has structures identified at higher risk. These areas should be the focus of preliminary outreach and FireSmart assessment efforts.

The presence of a hardwood pulp mill does provide an incentive for Crown lands in the area to be managed for mill-desired species. These species, such as birch, ash, maple, poplar, and oak are all less flammable than coniferous species. That being said, the risk of fire when those species are bare of leaves is still present – New Brunswick has most of its forest ignitions and some significantly volatile wildfires in the spring season often when people engage in yard cleanups or other bulk burning.

With a landscape of many different owners and interested parties, it must be acknowledged that wildfire does not discriminate against property owners, and it ignores any blazes or no-trespassing signs. Forests are an asset that influences neighbours and communities, and careless ignitions can have drastic consequences beyond an individual property.

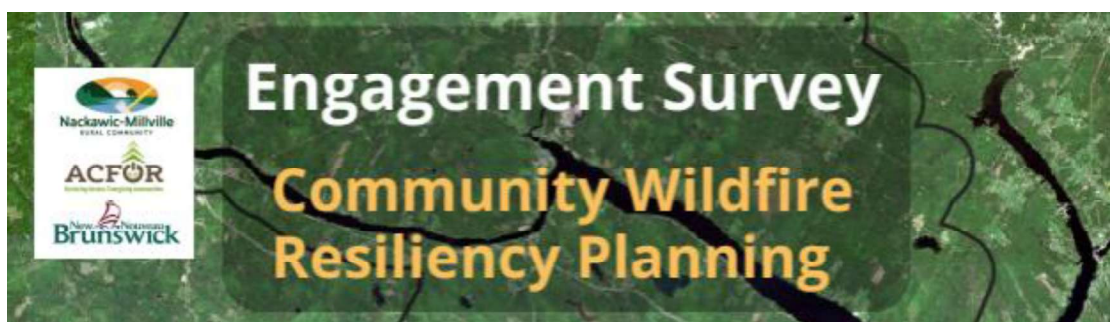
Recommendations provided in this plan are meant to reduce the risk of wildfires and to improve the ability of the community to respond in the event of wildfires. Sixteen recommendations have been provided that are within the Seven FireSmart Disciplines. The critical recommendation is hiring an EMO coordinator for the Nackawic-Millville Rural Community. Subsequent high priority recommendations include updating the Emergency Response Plan, education campaigns about wildfire risk reduction and emergency preparedness, engaging with residents in high-risk areas, and conducting hazard assessments around community buildings in high-risk areas. Other important recommendations are of medium and lower priority, though still important.

The 2023 and 2025 wildfire seasons in New Brunswick were exceptionally intense. Neighbouring provinces also struggled with wildfires these past years. This fact, combined with the anticipated lengthening of the fire season and increased weather variation, underscores the importance of community risk assessment and mitigation in the face of wildfires. The work contained in this document reflects current assessment practices and information. It is critical that the risk of wildfire be re-examined in the future after mitigation efforts are underway and as methodologies change.

Information on the use of these models and wildfire behaviour in the Wabanaki / Acadian forest is swiftly progressing; new information may become available in the near future that would further refine the mapping in this plan. If it is determined that new research materially changes the spatial results of this plan, ACFOR will provide an update to the mapping resources and integrate that new information at no cost.

APPENDIX A: ENGAGEMENT SURVEY

The following survey was posted from December 12, 2025 - January 12, 2026 and available in hard copy at the municipal office.



Why are we collecting these responses?

- These responses will better inform the planning process of the Community Wildfire Resiliency Plan. A draft of the document will be presented in early 2026.

Who is listening to these responses?

- Robert Scott, RPF and Kate Turner of ACFOR and Kathryn Clark, CAO of Nackawic-Millville Rural Community.

Please respond to the following statements related to wildfire risk around the community.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Maintaining nearby forests is important to me	☐	☐	☐	☐	☐
Wildfire poses a risk to my household	☐	☐	☐	☐	☐
I have taken actions to prepare my household for nearby wildfire	☐	☐	☐	☐	☐
A Community Wildfire Resiliency Plan will help prepare the community	☐	☐	☐	☐	☐

What information, resources, or training would help you take action in preparing for wildfire?

If a wildfire happened nearby, what would you need most from your community?

What barriers might prevent you or your neighbours from preparing for wildfire?

Are there groups who may need extra support before or during a wildfire event?

Are there areas of the community that are particularly vulnerable to catching fire?
Feel free to reference the map below.

Are there areas that are of great importance to protect from fire?
Feel free to reference the map below.



Further discussions or insights can be emailed to robert.scott@acfor.ca.

Please share your postal code (to confirm you reside in the planning area)

If you'd like, please share your name and contact info in case further discussion is required.

APPENDIX B: LOCAL FUEL ADJUSTMENTS AND TYPING

In-field fuel confirmations were performed in December. These basic fuel plots provided for interpretation of the FBP maps provided by the province and the correlation with Wabanaki / Acadian forest types to the designated fuel classification system for the CFFDRS.

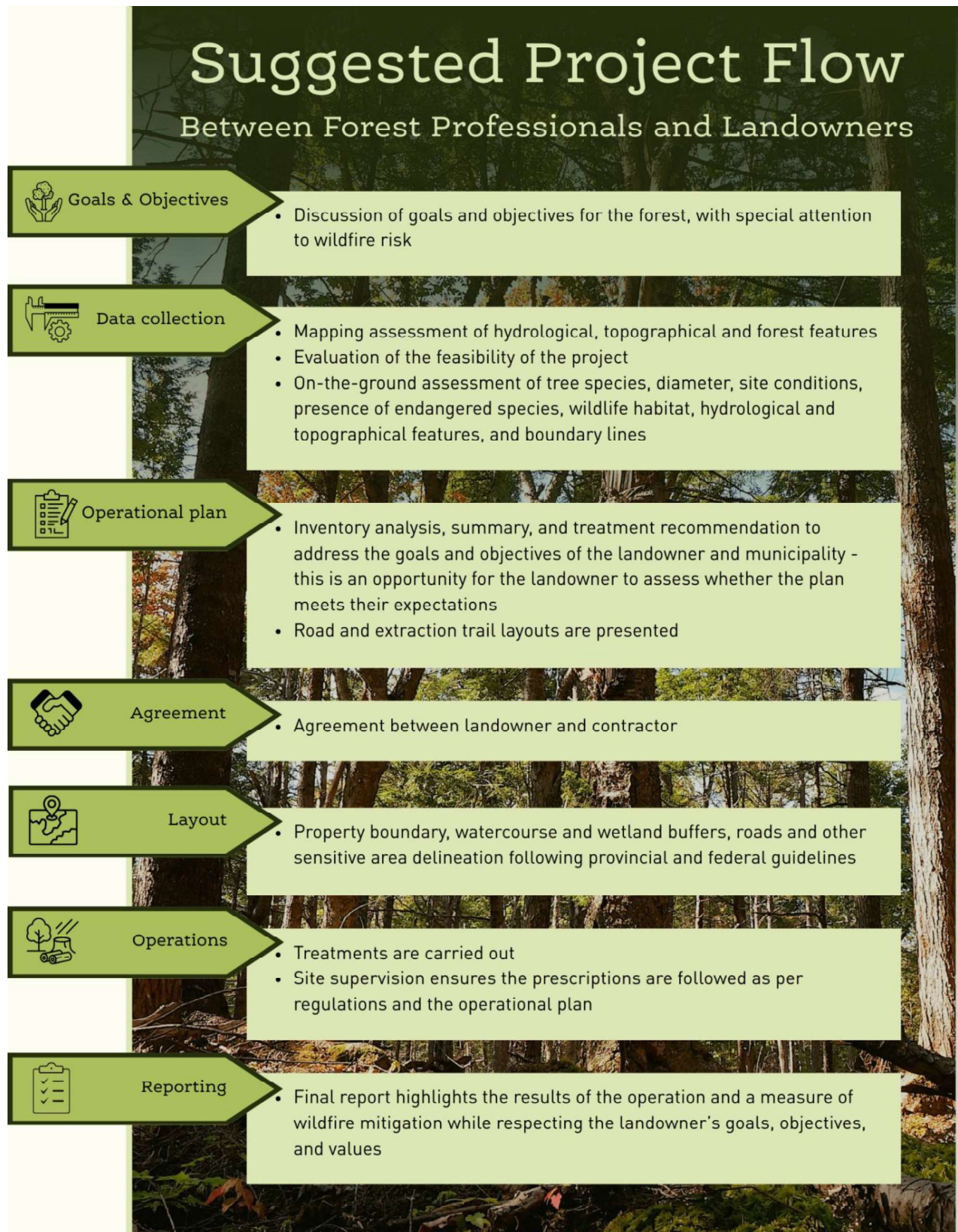
To generate a more recent fuel raster, the provincially provided FBP fuel map (produced in 2023) was used as a starting point. From there, using the Global Forest Loss layer, any cells that had been “lost” in 2023 or 2024 were converted to S2 slash fuel type. Then, satellite imagery from Copernicus Browser was accessed for August 2024 and August 2025 to calculate the normalized difference vegetation index (NDVI). A raster calculation to determine the difference between two NDVI values resulted in the equivalent of the HANSEN layer for 2025. These combined rasters were then used to convert standing forest to S2 fuel type. This fuel code was preferred over S1 because of the reduced intensity of burn and because there are no hardwood slash options and that limitation is acknowledged - the main alteration was to prevent standing forest fuel types from being included in the fuels input.

The table below summarizes the FBP types, the applicability to local fuel types, and any adjustments made.

FBP Fuel Type	FBP Simple description	Wabanaki / Acadian Types	Changes made
C-1	Spruce-lichen woodland	Not frequent but includes open spruce species with exposed ground surfaces	
C-2	Boreal spruce	Dominant conifer coverage and extended live crown portion	
C-3	Mature jack / lodgepole pine	Complete crown closure with high base crown heights. Present but not frequent in AOI	
C-4	Immature jack / lodgepole pine	Dense stands of conifers that have considerable dead material in them. Most pine shelterwood systems are included in this type or intermediate aged balsam fir spruce	
C-5	Red and white pine	Mature stands of red or white pine with some beaked hazel and white birch understorey. Effectively not present in AOI.	
C-6	Conifer plantation	Pure conifer with closed crowns and no understorey. Includes different ages but generally density and conifer content is very high.	None but limitation of inherent variability must be acknowledged
D-1 / D-2	Leaf-off / Leaf-on aspen	Any hardwoods, with the majority of hardwood stands being classified as D1 in both	

		spring and summer seasons. This is atypical from most modelling but was performed from a	
S-1	Pine slash	Not present in AOI	
S-2	White spruce and balsam fir slash	Present for recent harvests.	Any forest loss in 2023 to the summer of 2025 were classified as S-2, including hardwood harvests for simplicity and because there is no hardwood fuel type.
S-3	Coastal cedar-hemlock-Douglas fir slash	Not present in AOI	
M-1 / M-2	Boreal mixedwood leaf off / leaf on	Mixedwood stands such as those containing spruce/fir/pine/red maple/ash/birch	
O-1a	Matted grasses	Agriculture and hayfields	
O-1b	Standing grasses	Not present in AOI	
NF	Non-fuel	Roads, buildings, built-up areas, gravel pits, areas of bare earth	Non-forested wetlands were reclassified to non-fuels
VNF	Vegetated Non-Fuel	Not present in AOI	

APPENDIX C: FUEL MANAGEMENT CONSIDERATIONS



Regulations to Consider

Land, Watercourse, & Wetland Protection

Clean Water Act – Watercourse and Wetland Alteration Regulation (NB Reg 90-80)

- Regulates any alteration to watercourses or wetlands, including work in or within 30 m of these features, requiring a permit before proceeding.
- Applies to activities like vegetation removal, soil disturbance, construction near streams, lakes, ponds, or regulated wetlands.
- Includes definitions and permitting guidelines to protect water quality and wetland function.

Clean Water Act – Wellfield Protected Area & Watershed Protected Area Designation Orders (NB Regs 00-47 & 01-83)

- Restrictions on activities (including tree harvesting) apply in areas designated for the protection of drinking water systems.

New Brunswick Wetlands Conservation Policy

- Policy that guides the protection of wetlands and specifies buffers around Provincially Significant Wetlands.

You need a permit for any alteration in or within 30 m of a wetland or watercourse. This includes cutting trees or building roads

Environment & Land Use

Clean Environment Act & Environmental Impact Assessment Regulation

- Governs broader environmental impacts of projects that may include harvesting activities depending on scale and effect (e.g., large earthworks).

Pesticide Control Act - Provincial

- Regulates use of pesticides/herbicides that could be involved during harvest site prep or vegetation management.

Other Relevant Acts & Bylaws

Heritage Conservation Act

- If the land is designated under this Act, alterations (including harvest-related work) may need a heritage permit.

Forest Fire Act

- Prescribes permits and outlines fire equipment requirements for industrial operations.

Municipal & Local Bylaws

- Local land-use bylaws can regulate access, roads, soil disturbance, and infrastructure associated with harvesting – especially within municipal boundaries.

Regulations to Consider

Species Protection

Species at Risk Act (SARA) - Federal

- Provides federal protection for wildlife species at risk and, in some cases, their habitat.
- Prohibits killing, harming, capturing, taking, possessing, or destroying residences (e.g., nests, dens) of listed species.
- Federal prohibitions can apply even on private land in specific cases (e.g., aquatic species or migratory birds that are on Schedule 1).

Species at Risk Act (SARA) - Provincial

- Provides protection for wildlife species at risk and, in some cases, their habitat.
- Prohibits killing, harming, harassing, taking, possessing, or destroying residences (e.g., nests, dens) of listed species.

Your forestry professional must be aware of what at-risk species and their habitats may occur in your area and act accordingly

Migratory Birds

Migratory Birds Convention Act, 1994 (MBCA)

- Protects migratory birds, their eggs and nests across Canada, including on private land.
- Prohibits disturbance, destruction, or removal of listed birds, nests or eggs without appropriate authorization.

Suggestion:

Pausing forest harvesting during nesting season (mid April to late August) in natural forest stands can protect nesting migratory birds

Fisheries & Habitat

Fisheries Act (Canada)

- Protects fish and fish habitat; harmful alteration, disruption or destruction (HADD) of fish habitat generally requires federal authorization (applies to watercourses on private land). Inferred from general Fisheries Act protections and federal application to waterways.

Beneficial Management Practices

Find a Forestry Professional who will...



Community and
Indigenous
Engagement

Respect and protect special cultural and historical sites

including Indigenous land-use areas. Ensure Free, Prior, and Informed Consent (FPIC) where applicable and maintain open communication channels to engage with communities and address concerns.



Erosion &
Soil Protection

Mitigate soil erosion and compaction during operations by:

- Utilizing brush matting and low-impact machinery to minimize soil disturbance.
- Maintaining vegetation cover to stabilize soil and prevent erosion.
- Flagging and avoiding tracking in sensitive soil areas to prevent disturbance.
- Scheduling operations in sensitive soil areas for the winter to reduce impact.
- Retaining standing, living trees to maintain soil microbiomes.



Roads

Create a road network that is designed with minimal environmental impact:

- Planning & design:
 - Place roads strategically to serve the largest area most efficiently while minimizing ecological disturbance.
- Construction & maintenance:
 - Build to provincial standards with appropriate drainage systems.
 - Install culverts and erosion controls to maintain water quality and fish passage.
 - Where possible, reuse existing roads to reduce forested area loss.
 - Follow spring weight restrictions to protect infrastructure.

Beneficial Management Practices

Find a Forestry Professional who will...



Wildlife and Species Protection

Protect biodiversity and maintain wildlife habitats and protect species at risk by:

- Maintaining large cavity trees and/or dead standing trees as permanent retention for soil protection and wildlife habitat.
- Leaving at least 10-30% of trees as permanent retention, prioritizing uncommon species, wildlife trees, advanced regeneration, and high-quality trees.
- Maintaining large coarse woody material to mimic natural disturbances.
- Monitoring wildlife and halting operations if species at risk are detected.



Wildfire Management

Mitigate wildfire risk by:

- Reducing fuel loads through scattered biomass retention rather than piling.
- Training all personnel in FireSmart practices and proper use of suppression equipment that are required during fire season.
- Equipping all worksites with fire suppression equipment for rapid response (in adherence to work permits).
- Adhering to provincial wildfire notices.



Safety

Maintain a safety standard and culture to protect workers and operations by:

- Providing comprehensive training on occupational health and safety.
- Implementing emergency response plans, including fire safety and first aid.
- Conducting regular inspections and maintenance on all equipment.

APPENDIX D: FIRESMART PROGRAM

[FireSmart](#) is a Canadian program to help increase resilience and minimize the impacts of wildfire. The program has free public resources to help communities reduce the risk of wildfire around their homes and properties.

[FireSmart 101 training](#) is free and introduces the seven FireSmart principles. It explains the main concepts associated with wildfires, the seven FireSmart disciplines, and describes the “home ignition zone,” with guidance on what hazards can exist in these areas and recommendations to mitigate them.



Figure 1. Home Ignition Zone graphic, from [FireSmart Canada](#).

Other FireSmart Resources include the following:

- [Home Ignition Zone Self-Assessment](#)
- [FireSmart Begins at Home Guide](#)
- [FireSmart Guide to Landscaping](#)
- [FireSmart Residential Development Guide](#)
- [Home Development Guide](#)
- FireSmart fact sheets:
 - [Decks and Porches](#)
 - [Fences](#)
 - [Gutters and Eaves](#)
 - [Roof](#)
 - [Siding](#)
 - [Windows and Doors](#)
 - [FireSmart landscaping](#)
 - [Yard Guide](#)

The FireSmart program also has numerous [videos](#) as well as a smartphone app ([FireSmart Begins at Home app](#)) to guide a home assessment.

The seven FireSmart disciplines include:⁶²

Education	FireSmart neighbourhoods all have one thing in common: an organized group of passionate and educated residents, bolstered by their local government, driving positive change. The whole process starts with a neighbourhood, or a group, or an individual, taking an interest in learning more about the threat of wildfire and how that threat can be mitigated. The grassroots implementation of FireSmart by empowered members of the public often results in the most robust neighbourhood programs. Through online and printed resources available from FireSmart Canada, education can be promoted and shared within a neighbourhood and neighbourhood, raising further interest and awareness among more residents. Neighbours talk, friends talk, people share information that is important to them and FireSmart is no different. Phone calls and face to face conversations from residents and professionals can have a more meaningful and lasting effect on people.
Emergency Planning	There are two ways of approaching the planning discipline: the creation of wildfire prevention and mitigation specific plans, and accounting for wildfire in existing emergency response and neighbourhood preparedness. When multiple agencies join forces to respond to an emergency, the process can be complex. Addressing interface characteristics and response strategies will help you to prepare for wildfire. Evacuations, response and recovery from a wildfire should be considered in your emergency plans.
Vegetation Management	Vegetation management, broadly speaking, is the augmentation of wildland fuels (vegetation that can contribute to wildfire is known simply as 'fuel') for the purpose of mitigating the potential intensities and impact of wildfire. Intuitively vegetation management as a strategy for reducing wildfire hazard makes sense: wildfire requires fuel, in the form of vegetation, to burn; if we can augment the fuel, we can augment the wildfire. Projects can serve many different purposes: they can reduce wildfire intensity, severity and rate of spread, they can provide a strategic tool for incident management teams responding to wildfires near neighbourhoods and they can also additionally provide areas within a neighbourhood to promote education around wildfire and the principles of FireSmart. Fuel treatments can be moderate or intensive depending on the intended objectives of a government agency, neighbourhood or homeowner implementing them. In general, vegetation management can be carried out in three different ways: fuel removal, fuel reduction and fuel conversion. All fuel treatments will generally incorporate some combination of these three methodologies. Fuel treatments may also range from many hectares in size to specific trees and ground debris, depending on the objectives and scale of the project. Fuel Removal – flammable vegetation is removed. For example removing mature spruce trees adjacent to ones home. Fuel Reduction – flammable vegetation is lessened. Examples pruning, thinning, mowing, grazing, mulching, hazard reduction burning or pile burning. Species Conversion – removal of flammable species and replace with less flammable species. Example is replacing conifers with deciduous species. Reducing, removing and converting combustible vegetation within the home ignition zone on our private properties is critically important. More than 90% of homes damaged or destroyed by wildfires are ignited by embers. Maintaining a 1.5 metre non-combustible surface around your entire home will reduce the chance of wind-blown embers igniting materials near your home.
Legislation	Post-fire studies, experiments and models have shown that homes ignite due to the condition of the structure and everything around it, up to 100 metres from the foundation. Legislation, bylaws, plans, policies and development standards all play a significant role in building and maintaining FireSmart neighbourhoods. Consideration of wildfire at the

	development planning stage is a key step in protecting neighbourhoods from wildfire. There are many ways to integrate FireSmart principles into planning and development in a neighbourhood. Each neighbourhood must determine what mechanisms are most appropriate for achieving their FireSmart goals. Determining which mechanism will be most effective is at the discretion of local staff.
Development	As neighbourhoods extend further into forested areas, homes and neighbourhoods are becoming more exposed to ignition from wildfire. A structure is more likely to be destroyed in a wildfire when it is located in a high-density area where homes can ignite and fire is able to easily transfer from building to building. Development standards play a significant role in reducing the potential impact a wildfire may ultimately have on a neighbourhood. The potential for damage intensifies when flammable building materials are used.
Interagency Cooperation	A successful neighbourhood FireSmart program requires engagement and strong partnerships. Elected officials, neighbourhood planners, developers, government, industry and residents all have an important role to play. Public education is one of the most challenging components of creating a FireSmart neighbourhood as many residents do not understand the local threat from wildfire and assume emergency services will be able to protect the neighbourhood during a wildland urban interface wildfire (WUI) event. The practice of FireSmart deals with complex problems that require a collaborative approach to solve. The ongoing education of all stakeholders is critical to ensure informed decisions are being made. An educated group of stakeholders will help to build support for the adoption of FireSmart principles, which can be costly and time consuming. Transparency during the neighbourhood FireSmart planning process can also go a long way in increasing interest and knowledge of the general public; and a greater overall understanding of FireSmart principles will ultimately improve efficiency of implementing mitigative strategies.
Cross Training	Wildfires do not respect jurisdictional boundaries and can move from forested lands into neighbourhoods and from neighbourhoods into forested lands. In many cases, wildland urban interface (WUI) events require the response of many different emergency response organizations. In order for response to be efficient, safe and organized, planning and training must be completed ahead of time, training cannot be effective when done in isolation. Cross-training aims to bring emergency response organizations together for the purpose of identifying potential weaknesses and gaps in response efforts prior to an actual emergency. Training can also be completed to familiarize organizations with the equipment, procedures and strategies of other agencies which may potentially be involved in a wildfire emergency. The overall all goal is to reduce any required on-the-job learning that might occur during an emergency.

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