

Community Wildfire Protection Plan

Fort Simpson



Table of Contents

1	Introduction	1
2	Planning Area and Stakeholders	2
3	Hazard & Risk Assessment	4
3.1	Wildfire Ignition Potential	4
3.2	Wildfire Behaviour Potential	6
3.3	FireSmart Hazard Assessments	6
4	Vegetation Management Options	10
4.1	Existing Vegetation Management	10
4.2	Proposed Vegetation Management	12
4.2.1	Zone 1a (0-1.5metres).....	14
4.2.2	Zone 1 (1.5- 10metres).....	14
4.2.3	Zone 2-3 (10-30metres and 30-100metres).....	15
4.3	Vegetation Management Maintenance	14
5	Development Options	17
5.1	Structural Options	17
5.2	Infrastructure Options.....	17
5.2.1	Access.....	19
5.2.2	Water Supply.....	19
5.2.3	Franchised Utilities.....	19
6	Public Education Options	19
7	Legislation Options.....	21
7.1	Village of Fort Simpson General Plan – Bylaw No. 674 (2008).....	21
7.2	Village of Fort Simpson Zoning Bylaw No. 675 (2008)	21
8	Inter-Agency Cooperation and Cross-Training Options	23
9	Emergency Planning Options.....	24
10	Recommendation Summary	25

1. Introduction

In 2011, a Community Wildfire Protection Plan (CWPP) was developed for the Village of Fort Simpson to provide practical and operational wildland/urban interface (WUI) risk mitigation strategies to reduce the threat from wildfire to the community.

The original CWPP was developed by Montane Management Ltd. in cooperation with the Government of the Northwest Territories (GNWT) and the Village of Fort Simpson.

In 2018, the GNWT Department of Environment and Natural Resources (ENR) updated the Fort Simpson CWPP using the most recent information, science and expertise available. This included using standardized FireSmart assessment protocols and mitigative measures developed based on the 7 disciplines of FireSmart:

1. Vegetation Management
2. Development
3. Legislation
4. Public Education and Engagement
5. Inter-Agency Cooperation
6. Cross Training
7. Emergency Planning

This updated plan reflects:

- FireSmart mitigation efforts completed around the community
- The change in hazard around the community
- New recommendations or modification to existing recommendations

The Village of Fort Simpson, in cooperation with ENR, implemented some of the original recommendations, but there is still work to do.

The update includes recommendations to assist in setting priorities to reduce the threat from wildfire. It is important to note that while implementing these recommendations will reduce the threat from wildfire to structures, it will never completely remove this threat.

This plan should be reviewed regularly to ensure that it remains a priority to the community and its residents.

2. Planning Area and Stakeholders

The planning area includes all lands within the Village of Fort Simpson municipal boundary and a two-kilometre buffer surrounding the Village (Map 1).

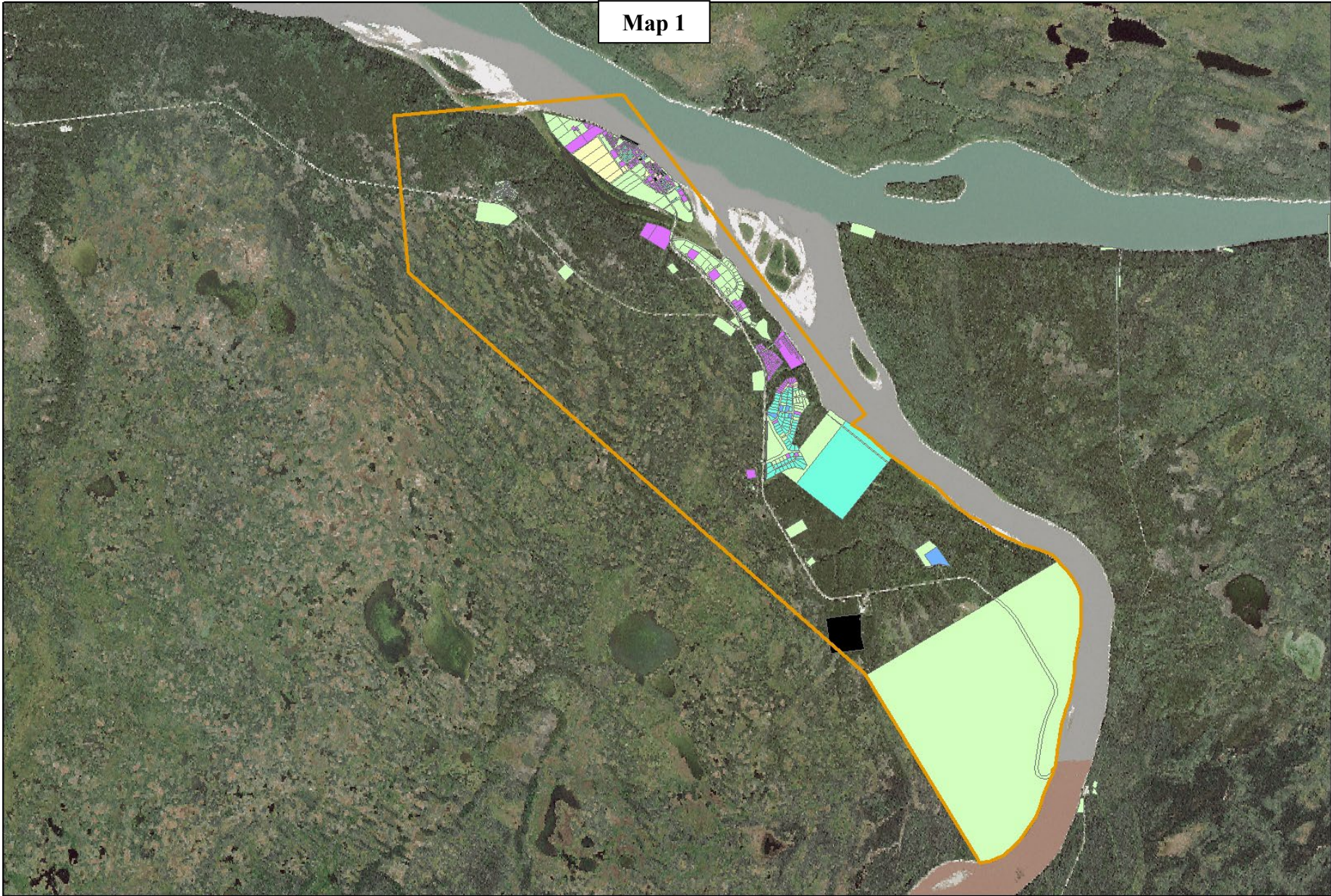
Stakeholders involved in the planning process included:

- Government of the Northwest Territories, Environment and Natural Resources
- Village of Fort Simpson

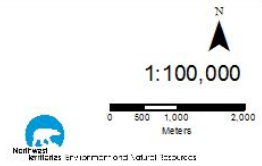
Land status authority is varied and is represented by the following:

- Commissioner
- Federal
- Indian Affairs Branch
- Mixed
- Municipal
- Private
- Territorial

Map 1



Fort Simpson Land Status Authority



3. Hazard & Risk Assessment

In the original 2011 CWPP, a hazard and risk assessment was undertaken to determine the potential impact wildfire could have on the community. This was based on an analysis of the historical wildfire ignition sources, fire incidence and the wildfire potential of the forest surrounding the community.

3.1 Wildfire Ignition Potential

The assessment of recent fire incidence was completed using historical fire data from ENR for the nine year period from 2009 to 2018.

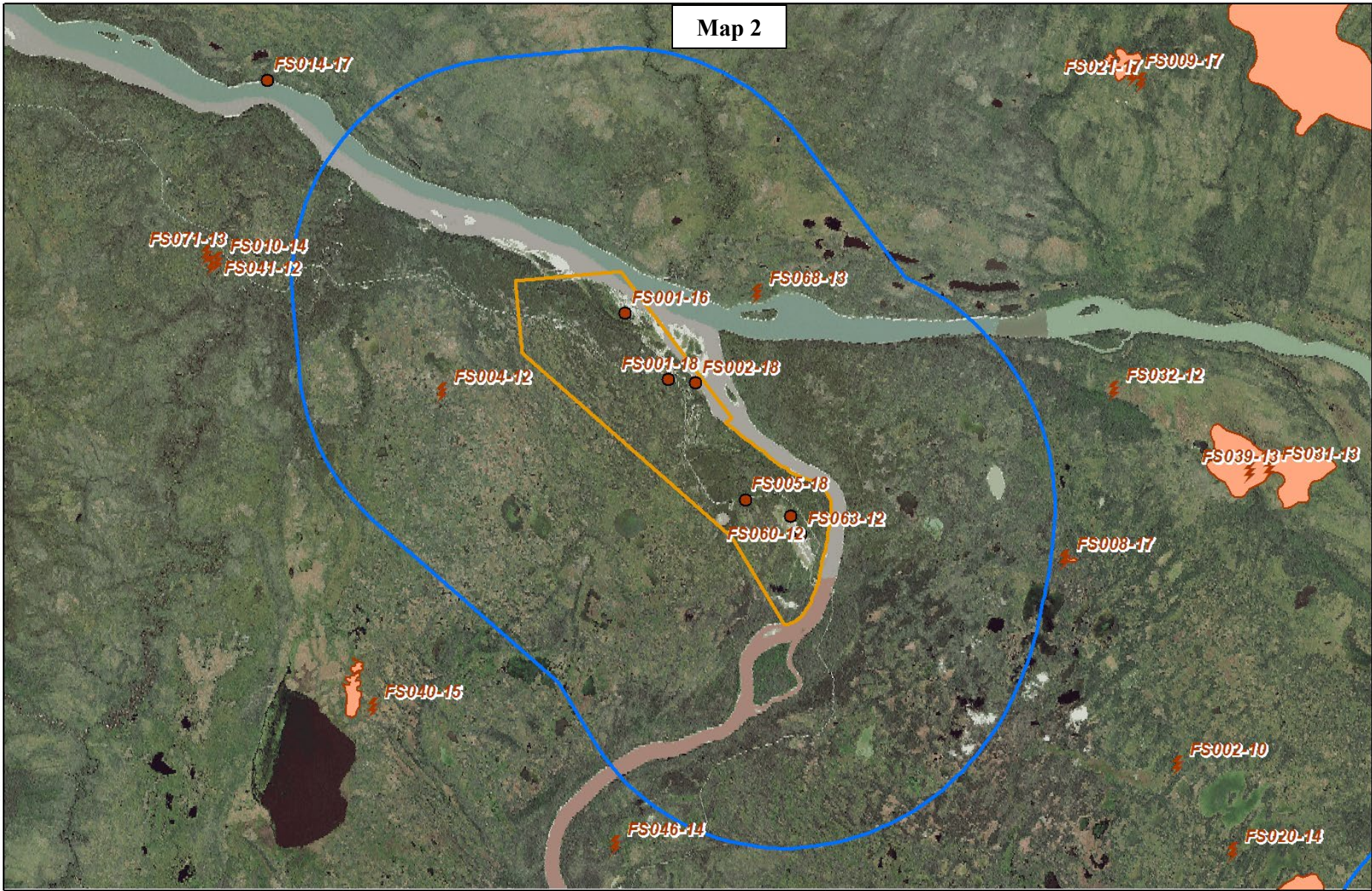
Data within a 10 kilometre radius of the planning area boundary indicates that the risk of wildfire is present. Fire incidence data indicates that fire agencies responded to 7 wildfires in the planning area (Map 2). The majority of the wildfires were human caused and within the municipal boundaries.

Table 1: Fire Incidence by Cause (2009 - 2018)




General Cause	Number of Fires	Percent of Total
Human-Caused	5	71
Lightning-Caused	2	29
Totals	7	100.0




The risk of wildfire in the planning area exists and most frequently occurs in areas accessible to residents and recreating public.

Map 2



Fort Simpson Ten Year Fire History


-  Planning Area 10km Buffer
-  Planning Area
-  Large Fire History

-  Human Caused
-  Lightning
-  Unknown

N

1:225,000

0 1,875 3,750 7,500
Meters



Northwest Territories Environment and Natural Resources

3.2 Wildfire Behaviour Potential

Forest Fuel Types

Fire Behaviour Prediction (FBP) fuel types (Taylor, 1997) were used to analyze the fuel types and fire behaviour potential within and adjacent to Fort Simpson.

The planning area is dominated with boreal spruce (C-2) fuel types with patches of mixedwood (M-1), mature pine (C-3), deciduous (D-1), and cured-grass (O1) fuel types. Each of these fuel types can present hazard to interface structures based on fuel moisture conditions and time of year, however in the Fort Simpson area it is typically the C-2 and M-1 fuel types that present the highest hazard to development.

3.3 FireSmart Hazard Assessments

FireSmart hazard assessments (P.I.P., 2003) were conducted on developments and adjacent wildland fuel types within the planning area. The FireSmart hazard assessment process evaluates wildland and structural fuel types, structural features, and topography within and adjacent to the development area to consistently quantify the wildland/urban interface hazards within the planning area and to help set priorities for mitigative options.

Developments at the highest risk to wildfire include (Table 2):

1. Wildrose Acres
2. Nogha Heights
3. Bannock Land

Hazard factors for each of the development zones are discussed below.

Table 2: FireSmart Hazard Assessments

Development Zone	Structure/Site Hazard (0 - 30m)
Airport	Low
4 Miles	Low
Wildrose Acres	High-Extreme
Nogha Heights	High-Extreme
Bannock Land	Mod-High
Fort of the Forks (Tank Farm)	Low
Industrial Area	Low-Moderate
Simpson Island	Low-Moderate

Airport

The airport area includes the Ft. Simpson Airport, ENR Tanker Base, Nav Canada Tower, and VOR sites. FireSmart hazard is rated as Low for all structures based on the clearance from low hazard deciduous fuels and the non-combustible structural materials used for all structures.



4-Mile Settlement

The 4-Mile settlement is comprised of residential dwellings with non-combustible roofing materials and wood or log siding. The development is at Low hazard to wildfire due to the excellent Zone 1a and Zone 1 defensible space and surrounding deciduous fuel types.

Wildrose Acres

Wildrose Acres country-residential subdivision is at High to Extreme hazard due to the surrounding C-2 and C-3 fuel types and lack of adequate Zone 1a, Zone 1, and Zone 2 defensible space for many of the dwellings. Structural materials include asphalt shingle and metal roofs and hardi-plank, wood, or vinyl siding.





Nogha Heights

Nogha Heights country-residential subdivision is currently under development and is at High to Extreme hazard due to the surrounding C-2 fuel types and lack of adequate Zone 1a, Zone 1, and Zone 2 defensible space for the majority of the dwellings. Structural materials include asphalt shingle and metal roofs and wood or vinyl siding.

Bannock Land

Bannock Land is at Moderate hazard for the majority of the development and High risk on the north perimeter due to the adjacent C-2 fuels. Structural materials include asphalt shingle or metal roofs and wood or log siding. The dead-end access road could be cut-off by wildfire resulting in difficulty evacuating the residents.



Fort of the Forks

Fort of the Forks Open Camp is at Low hazard due to the metal exterior structural materials and the amount of clearing around the site. The debris pile from site clearing presents some threat to the development.

Industrial Area

The Ft. Simpson Industrial Area consists of several commercial and industrial storage yards, the Cooper Barging yard, ENR Firebase/Helipads, and Rowes Trailer Park. The area is at Low to Moderate hazard due to the amount of Zone 1a/1/2, defensible space and the mixedwood or deciduous fuel types surrounding the area.



Simpson Island

The Simpson Island area consists of the main residential and commercial portion of the Village of Fort Simpson. The area is at Low/Moderate hazard due to the lack of coniferous fuel types on the Island. Structural materials include primarily asphalt shingle or metal with scattered wood-shake roofs and wood or vinyl siding.

FireSmart hazard is High/Extreme for the rural-residential developments along Hwy 1. The threat of structure loss within the Wildrose Acres and Nogha Heights subdivisions is significant.

4. Vegetation Management Options

The goal of vegetation management is to create a clear space between the community and the forest to reduce the intensity and rate of spread of wildfire approaching or leaving the community. Vegetation management options are proposed at the appropriate scale, based on hazard and risk, to reduce the threat of wildfire to developed areas. While fuel modification projects reduce the threat of wildfire to developments, they do not ensure structure survival under all hazard conditions.

Vegetation management consists of one or any combination of the following options:

- Fuel removal (remove trees)
- Fuel reduction (thin and prune trees)
- Species conversion (plant less flammable trees)

Complete descriptions of the methods included in each of the above options can be found at www.firesmartcanada.ca.

FireSmart standards refer to the interface priority zones with vegetation management for interface structures recommended in Zones 1 and 1a, 2 at a minimum and in Zone 3 based on hazard and risk.

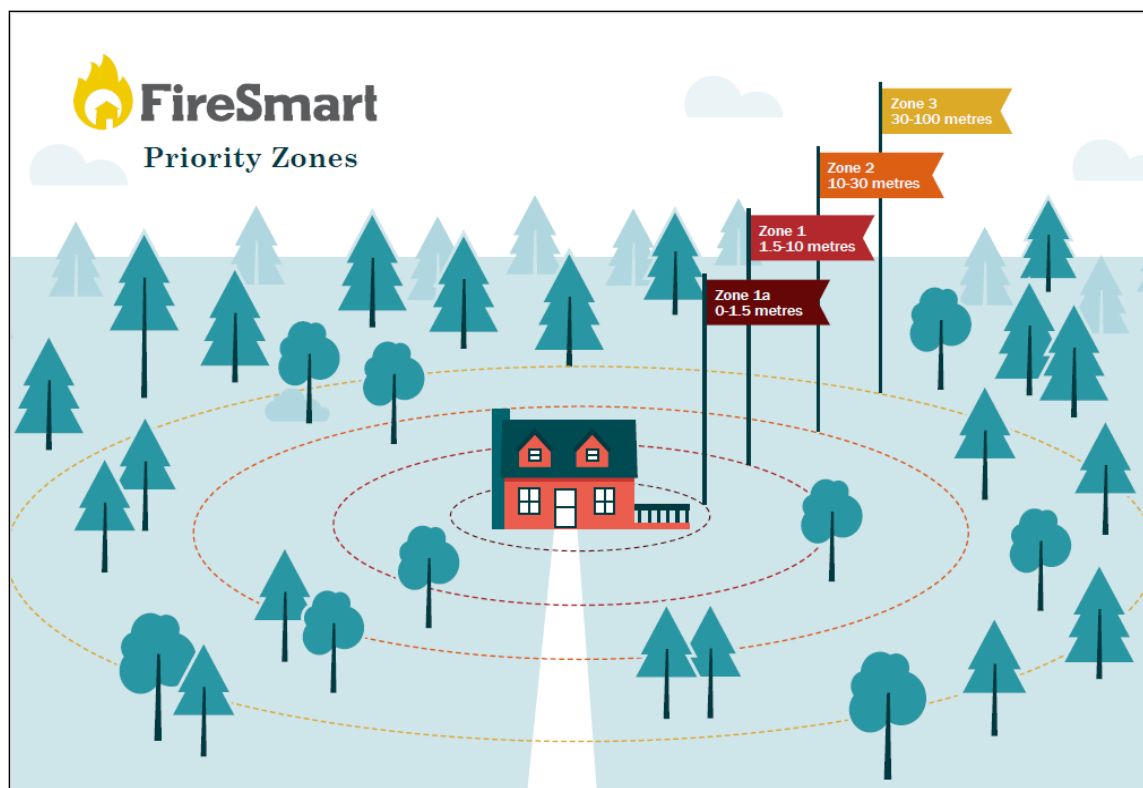


Figure 1 – Interface Priority Zones (PIP, 2017)

4.1 Existing Vegetation Management

Fuels removal and reduction projects have been completed within the planning area by the GNWT (Map 4 & Table 3).

Table 3: Existing Vegetation Management Areas

Name	Area (ha)	Year	Agency	Comments
South Fireguard	3.0	2010	GNWT	Widen and continue
Wildrose Acres South	3.0	2010	GNWT	Widen and continue
Nogha Heights	1.2	2009/10	Residents	

The South Fireguard was originally constructed in the mid-1980's and has become overgrown with deciduous and coniferous regrowth. GNWT ENR maintained approximately 1 kilometre of the existing line to its original width of 25 metres with heavy equipment during the winter of 2010. The project was stopped due to steep ground and requires additional maintenance work to complete the remaining 1.4 kilometres and widen the entire fireguard to a minimum width of 40 metres.



The Wildrose Acres fuel modification area consisted of hand-crew fuels reduction work during the winter of 2010 on the south perimeter of the development to approximately 25 metres in width. The project area should be widened to a minimum of 100 metres in width for the entire area surrounding the development.

The Nogha Heights fuels reduction has been completed by local residents immediately behind some of the lots on the east side of the development. These areas require further work to complete the work started and to include the remaining perimeter areas around the development.

4.2 Proposed Vegetation Management

4.2.1 Zone 1a (0-1.5metres)

Zone 1a vegetation management is **inadequate** for some structures due to encroachment of native grass fuels.

FireSmart Zone 1a vegetation management options include:

- Creating a noncombustible zone around structures by clearing vegetation and combustible material down to mineral soil within 1.5 metres of structures.
- Use noncombustible materials in this critical zone of 1.5 metres directly adjacent to your home such as gravel, bricks or concrete.
- Woody shrubs, trees or tree branches should be avoided in this area and any that are present should be properly mitigated.

4.2.2 Zone 1 (1.5- 10metres)

Zone 1 vegetation management is lacking throughout the Wildrose Acres and Nogha Heights developments thereby increasing threat of wildfire to homes in those areas.



the

FireSmart Zone 1 vegetation management options include:

- Removal of flammable forest vegetation within 10 metres of structures.
- Removal of all coniferous ladder fuels (limbs) to a minimum height of 2 metres from ground level on residual overstory trees.
- Removal of all dead and down forest vegetation from the forest floor.
- Increased maintenance to ensure that all combustible needles, leaves, and native grass are removed from on and around structures.
- Establishment and maintenance of a non-combustible surface cover around the structure including the use of FireSmart landscaping species.
- Removal of all combustible material piles (firewood, lumber, etc) within 10 metres of the structure.

For more information on FireSmart Zone 1 standards refer to: www.firesmartcanada.ca.

Recommendation 1: Encourage residents to establish adequate Zone 1a and Zone 1 defensible space around their structures.

4.2.3 Zone 2-3 (10-30metres and 30-100metres)

Five priority areas are recommended for Zone 2-3 fuels management based on hazard and risk and the need to progressively complete areas (Table 4 Map 3 & 4). The intent is to establish fireguards around the development area perimeters as the first priority with fuels reduction inside the developed areas as subsequent priorities.

Proposed fuels management areas are conceptual at this time and will require detailed fuels reduction planning to identify fuels management prescription, unit boundaries, and operational constraints.

Table 4: Priority Fuel Modification Areas

Priority	Area (Ha)	Proposed Fuel Modification Standards	Land Status Authority
1 Fireguard	6.2	<ul style="list-style-type: none"> ▪ Fuels removal to <u>maintain and widen</u> existing fireguard to minimum 40m width ▪ Dispose of debris by piling and burning onsite 	<ul style="list-style-type: none"> ▪ Village of Fort Simpson
2 Wildrose Acres	37.1	<ul style="list-style-type: none"> ▪ Fuels reduction to widen existing and create new fuelmod area by spacing Spruce to 2-3 m crown spacing for a minimum 75-100m wide behind homes ▪ Remove all dead standing and dead & down coniferous and deciduous ▪ Retain deciduous overstory stems ▪ Prune limbs to 2 metres ▪ Dispose of debris by piling and burning onsite 	<ul style="list-style-type: none"> ▪ Village of Fort Simpson
3 Nogha Heights	12.0	<ul style="list-style-type: none"> ▪ Fuels reduction to space Spruce to 2-3 m crown spacing for a minimum 75-100m wide behind homes ▪ Remove all dead standing and dead & down coniferous and deciduous ▪ Retain deciduous overstory stems ▪ Prune limbs to 2 metres ▪ Dispose of debris by piling and burning onsite 	<ul style="list-style-type: none"> ▪ Village of Fort Simpson
4 Bannock Land	3.5	<ul style="list-style-type: none"> ▪ Fuels reduction to space Spruce to 2-3 m crown spacing for a minimum 75-100m wide on north perimeter of Bannock Land ▪ Remove all dead standing and dead & down coniferous and deciduous ▪ Retain deciduous overstory stems ▪ Prune limbs to 2 metres ▪ Dispose of debris by piling and burning onsite 	<ul style="list-style-type: none"> ▪ Village of Fort Simpson
5 Golf Course	5.4	<ul style="list-style-type: none"> ▪ harvest and removal of all trees ▪ Leave buffer between golf course and harvest ▪ Dispose of debris by piling and burning onsite 	<ul style="list-style-type: none"> ▪ Village of Fort Simpson

Recommendation 2: Zone 2-3 fuels reduction and maintenance is the responsibility of the Land Status Authority holder(s) and should be implemented based on the priorities identified in this plan.

4.3 Vegetation Management Maintenance

Fuel modification area maintenance schedules depend on many factors including fuel type, soil and moisture conditions, and specific weather events. It is suggested that land managers provide periodic inspections of their fuel modification project areas and complete maintenance as required. It is projected that fuel modification area maintenance will be required at least each five-year period.

Recommendation 3: Ensure that all existing fuel modification projects are inspected on a regular basis and maintained as necessary to ensure fuel modification effectiveness. Maintenance should be the responsibility of the land manager or landowner.

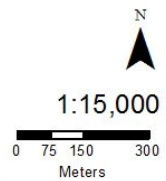
Map 3



Fort Simpson (North)
Fuel Modifications
Completed and Proposed

Fuel Modifications

-  Completed
-  In Progress
-  Proposed



Map 4

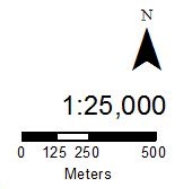


Fort Simpson (South) Fuel Modifications

Completed and Proposed

Fuel Modifications

-  Completed
-  In Progress
-  Proposed



5. Development Options

Consideration of wildfire at the planning stage of new development is encouraged to ensure that wildfire hazard and appropriate mitigation measures are developed and implemented prior to development.

New developments may overlap or conflict with existing fuel modification resulting in a reduction in fuel break effectiveness and an increase in wildfire threat to the new or existing development in the area.

Recommendation 4: If a new development removes or reduces the effectiveness of any existing or proposed FireSmart mitigation measures or introduces new wildfire hazards, the area must be assessed and measures implemented to maintain the community protection standards.

5.1 Structural Options

Structural characteristics that contribute to a structure's ability to withstand wildfire ignition include type of roofing and siding material, structure siting with respect to steeper forested slopes, and proper construction and maintenance of eaves, vents, and openings that can accumulate flammable debris and allow wildfire to gain entry to the structure.

The most common roofing materials in the planning area are asphalt shingle and metal. There are scattered dwellings in the Village with combustible wood-shake roofing materials, putting these structures at risk to airborne firebrand ignition.

The most common siding materials are combustible vinyl and wood with scattered structures with non-combustible metal and hardi-plank siding.

5.2 Infrastructure Options

Infrastructure options include provision of adequate access standards to ensure quick and safe ingress and egress for residents and emergency responders during a wildfire, adequate and accessible water supply for structure protection and suppression, and utility installation standards that do not increase risk to emergency responders during a wildfire emergency.

5.2.1 Access

Access road standards throughout the planning area are mainly adequate for an interface community. Most access roads are gravel loop-road design and cul-de-sacs have adequate turnaround dimensions for fire apparatus.

The main access roads to 4-Mile and Bannockland developments are dead-end access which may create evacuation problems for residents and responders during a rapidly-moving wildfire.

5.2.2 Water Supply

Fort Simpson Island is provided with municipal hydrant water-supply. All other development areas do not have dedicated fire suppression water-supply and would rely on water-tender supply for structure protection activities. Each home is equipped with an in-house water tank (3100 – 5400 litres).

5.2.3 Franchised Utilities

Franchised utilities affected by an interface fire include electrical power and gas. Proper installation and maintenance of these services can minimize the risk to residents and emergency services personnel.

Electrical Power

Power distribution and residential service is provided through above-ground distribution lines from the NTPC power generation plant in Ft. Simpson. Some overhead distribution and service lines in the area are at risk to hazard trees which could result in wildfire ignition or downed lines during a wildfire resulting in a risk to emergency responders and a loss of power, and critical services, during the emergency.

Heating Fuel

Gas distribution is provided by heating oil or propane. Most of the propane tanks have adequate defensible space from wildland fuels.

6. Public Education Options

Public education plays a key role in promoting and implementing FireSmart principles and projects. Residents, landowners, municipal administration, and elected officials all need to be aware of the risk of wildfires and the solutions to minimizing the risk, and need to become a partner in implementation of the solutions in their communities. If stakeholders understand the issues relating to wildland/urban interface hazard they will be more likely to take action on their own property or to support actions taken by other authorities.

Residents and stakeholders can refer to the GNWT ENR, Forest Management Division website at: www.enr.gov.nt.ca/en/services/be-firesmart for further information on the GNWT FireSmart program, current wildfire updates, and other wildfire management related information.

Key Messages

FireSmart hazard assessments identified the need for the following key messages to target audiences in the planning area.

Homeowners

Homeowners can increase resiliency of homes and make them less vulnerable to wildfire by development and maintenance of the FireSmart Non-Combustible Zone 1a (0-1.5 metres) and Zone 1 (1.5-10 metres) defensible space surrounding the home, by:

- Clearing vegetation and combustible material down to mineral soil within 1.5 metres of structures
- Using noncombustible materials in this critical zone of 1.5 metres directly adjacent to your home such as gravel, bricks or concrete
- Woody shrubs, trees or tree branches should be avoided in this area and any that are present should be properly mitigated
- Storing firewood and other combustible materials more than 10 metres away from the home
- Keeping roof and eaves clear of leaves and other combustible debris
- Creating propane and fuel-tank FireSmart defensible space
- Creating a non-combustible zone for underneath and around any trailers/vehicles and mitigate sheds and other structures to the same standards as those of your home
- If possible and/or applicable maintain Zone 2 (10-30 metres) and Zone 3 (30-100 metres) recommendations, and work with neighbours in any overlapping Priority Zones

Communities

Communities can reduce wildfire risk and adopting FireSmart principles by:

- Holding a FireSmart Wildfire Community Preparedness Day or workshop
- Using local government websites, social media and newsletters to promote FireSmart principles
- Asking ENR staff what educational and/or promotional resources they have available, such as: wildfire information pamphlets, posters, educational resources, videos etc.
- Applying for the FireSmart Community Recognition Program. For more information visit: www.firesmartcanada.ca/firesmart-communities/firesmart-canada-community-recognition-program/

Recommendation 5: Public education on acceptable FireSmart Zone 1a and Zone 1 standards is recommended for all residents, and specifically for residents located in Wildrose Acres and Nogha Heights.

7. Legislation Options

Legislating FireSmart requirements can assist municipalities to achieve their FireSmart objectives. The Village of Fort Simpson uses the General Plan (2008) and the Zoning Bylaw (2008) to control land use and development within the planning area.

7.1 Village of Fort Simpson General Plan – Bylaw No. 674 (2008)

The purpose of the General Plan is to describe the manner in which development, or redevelopment projects may be best carried out to contribute to the economy, character, and future of the Village of Fort Simpson.

The General Plan:

- provides guidelines to Council and administration for the consistent review of subdivision and development applications;
- establishes a strategy for future development that takes growth and the effect on existing municipal reserves into account;
- includes proposals for the financing of public development projects; and
- identifies objectives to be accomplished in the Zoning bylaw.

The General Plan recognizes the threat of wildfire to community development and offers objectives and policies to manage the threat.

3.7 Future Urban Use - Objective UR(c) identifies the need to reduce the risk to buildings and other infrastructure from forest fires by managing undeveloped areas within the Village boundaries.

3.10 Landscaping and Environmental Protection – Objective E(b) identifies the desire to maintain stands of existing trees in the Village while providing protection from forest fires and **Policy E2** states that all development applications will be reviewed to encourage development that balances the conservation of the natural environment with the need to provide protection from forest fires.

7.2 Village of Fort Simpson Zoning Bylaw No. 675 (2008)

The purpose of the Zoning Bylaw is to facilitate the orderly, economic and convenient development of the Village of Fort Simpson by controlling the development and use of land, and for that purpose, among other things:

1. To divide the Village into districts
2. To prescribe and regulate for each district the purposes for which buildings and land may be used
3. To prescribe and regulate standards for related development matters such as landscaping, parking, signage and others, in the interests of amenity and **safety**

It is within the Zoning Bylaw that specific FireSmart development regulation can be achieved with respect to exterior structural materials. The following recommendations are offered to assist with future revisions to the Village of Fort Simpson Zoning Bylaw.

Recommendation 6: Revise the Fort Simpson Zoning Bylaw to include the following:

- a) All roofing materials on new, replacement, or retro-fitted residential, commercial, or accessory buildings shall have a minimum Class C U.L.C. fire rating or as determined by the Development Authority based on wildland/urban interface hazard.
- b) All siding materials on new, replacement, or retro-fitted residential, commercial, or accessory buildings within 30 metres of high or extreme hazard combustible wildland fuels and as determined by the Development Authority shall be fire-resistant material including, but not limited to, stucco, metal, brick, cement shingles, concrete block, poured concrete, rock, or fibre-cement siding extending from ground level to roofline.
- c) All new dwellings, accessory buildings, and commercial buildings with exposed undersides and/or raised decks and porches less than 2 metres from ground level shall be sheathed from the floor level to the ground level with fire-resistant material, to prohibit the entry of sparks and embers under the structure.
- d) All new dwellings, accessory buildings, and commercial buildings shall establish and maintain FireSmart defensible space for a minimum of 10 metres or to lot boundary.
- e) All above-ground propane tanks greater than or equal to 80 U.S. gallons (420 lbs) shall have a minimum of 3 metres clearance from combustible vegetation and materials.

8. Inter-Agency Cooperation and Cross-Training Options

Interagency cooperation and cross-training between all stakeholders is necessary to ensure cooperative and effective implementation of wildland/urban interface mitigation options and to coordinate an effective response to a wildland/urban interface fire.

Interagency stakeholders within the planning area include:

- Village of Fort Simpson
- GNWT

Recommendation 7: Develop a FireSmart Committee, consisting of all relevant stakeholders, to coordinate and lead the FireSmart program for the area.

Cross-training for Fort Simpson Fire Department and ENR wildfire suppression personnel should include basic wildfire, wildland/urban interface fire, and incident command system training courses.

The following cross-training courses are available.

Wildland Fire

- Wildland Firefighter (NFPA 1051 Level I, S-131, or equivalent)

Wildland/Urban Interface Fire

- Structure and Site Preparation Workshop (S-115)

Incident Command System

- ICS Orientation (I-100)
- Basic ICS (I-200)
- Intermediate ICS (I-300)

Recommendation 8: Village of Fort Simpson Fire Department and the GNWT should partner on cross-training initiatives to ensure emergency responders are cross-trained to the following:

- Wildland Firefighter
- Structure and Site Preparation Workshop (S-115)
- Incident Command System (I-100 to I-300) as applicable

9. Emergency Planning Options

Emergency preparedness is an important part of any disaster planning. The need for organization, clear chain of command, and an understanding of job responsibilities during an interface fire are of paramount importance.

At present the Village does not have a wildfire pre-plan to provide emergency responders with detailed tactical information with respect to values at risk and operational strategies and tactics to minimize losses during a wildland/urban interface fire. A suggested outline is as follows:

- Planning Area Jurisdictional Authority
- Values at risk (life, structures, infrastructure)
- Fire operations plan (strategies/tactics, water sources, equipment, communications plan)

Recommendation 9: Develop a Community Wildfire Pre-Plan for the Village of Fort Simpson to provide greater operational detail to emergency responders during a wildland/urban interface incident.

10. Recommendation Summary

Vegetation Management

Issue	Recommendation	Responsible Agency
Zone 1a and Zone 1	Recommendation 1: Encourage residents to establish adequate Zone 1a and Zone 1 defensible space around their structures.	Village of Fort Simpson
Zone 2-3	Recommendation 2: Zone 2-3 fuels reduction and maintenance is the responsibility of the Land Status Authority holder(s) and should be implemented based on the priorities identified in this plan.	Village of Fort Simpson
Maintenance	Recommendation 3: Ensure that all existing fuel modification projects are inspected on a regular basis and maintained as necessary to ensure fuel modification effectiveness. Maintenance should be the responsibility of the land manager or landowner.	Village of Fort Simpson

Development

Issue	Recommendation	Responsible Agency
FireSmart Development Planning	Recommendation 4: If a new development removes or reduces the effectiveness of any existing or proposed FireSmart mitigation measures or introduces new wildfire hazards, the area must be assessed and measures implemented to maintain the community protection standards.	Village of Fort Simpson

Public Education

Issue	Recommendation	Responsible Agency
Public Education Priorities	Recommendation 5: Public education on acceptable FireSmart Zone 1a and Zone 1 standards is recommended for all residents, and specifically for residents located in Wildrose Acres and Nogha Heights. Priority items include: <ul style="list-style-type: none"> ▪ Education on the development and maintenance of FireSmart defensible space surrounding the home 	Village of Ft. Simpson GNWT

Legislation

Issue	Recommendation	Responsible Agency
Village of Fort Simpson Zoning Bylaw	Recommendation 6: Revise the Fort Simpson Zoning bylaw to include regulation relating to the following: <ul style="list-style-type: none"> ▪ Roofing and siding materials ▪ Sheathing requirements ▪ Defensible space requirements ▪ Propane tank clearances 	Village of Ft. Simpson

Interagency Cooperation & Cross-Training

Issue	Recommendation	Responsible Agency
Interagency Cooperation	Recommendation 7: Develop a FireSmart Committee, consisting of all relevant stakeholders, to coordinate and lead the FireSmart program for the area.	Village of Fort Simpson
Cross- Training	Recommendation 8: Village of Fort Simpson Fire Department and the GNWT should partner on cross-training initiatives to ensure emergency responders are cross-trained to the following: <ul style="list-style-type: none"> ▪ Wildland Firefighter ▪ Structure and Site Preparation Workshop (S-115) ▪ Incident Command System (I-100 to I-300) as applicable 	Village of Ft. Simpson GNWT

Emergency Planning

Issue	Recommendation	Responsible Agency
Community Wildfire Pre- Planning	Recommendation 9: Develop a Community Wildfire Pre-Plan for the Village of Fort Simpson to provide greater operational detail to emergency responders during a wildland/urban interface incident.	Village of Ft. Simpson GNWT