City of Yellowknife
Community Wildfire Protection Plan Review

CITY OF YELLOWKNIFE

GNWT Environment & Climate Change

January 2025

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MONTANE
Forest Management Ltd.

Contents

1.0 INTRODUCTION

The City of Yellowknife Community Wildfire Protection Plan Review (CWPP) was developed to provide practical and operational wildland/urban interface risk mitigation strategies to reduce the threat of wildfire to development in the City of Yellowknife (Yellowknife).

The project objectives include:

- Assess wildfire hazard and risk to development; and
- Based on interface hazard and risk, develop and prioritize recommendations to reduce the threat of wildfire to development in the planning area

A progress status review of the recommendations in the Yellowknife Community Wildfire Protection Plan (2019) was completed with City of Yellowknife and GNWT Environment and Climate Change personnel (Table 1).

This CWPP was developed using standardized FireSmart hazard assessment protocols and mitigation measures were developed based on the seven disciplines of wildland/urban interface approach and current research and knowledge in interface community protection.

An implementation plan is included in this Plan to assist Yellowknife to budget and complete projects based on the priorities identified. FireSmart mitigation measures recommended in this strategy reduce, but do not remove, the threat of wildfire to communities.

This plan should be reviewed and updated at **five-year intervals** to ensure it is based on current conditions

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Table 1: FireSmart Mitigation Progress Summary 2019-2024

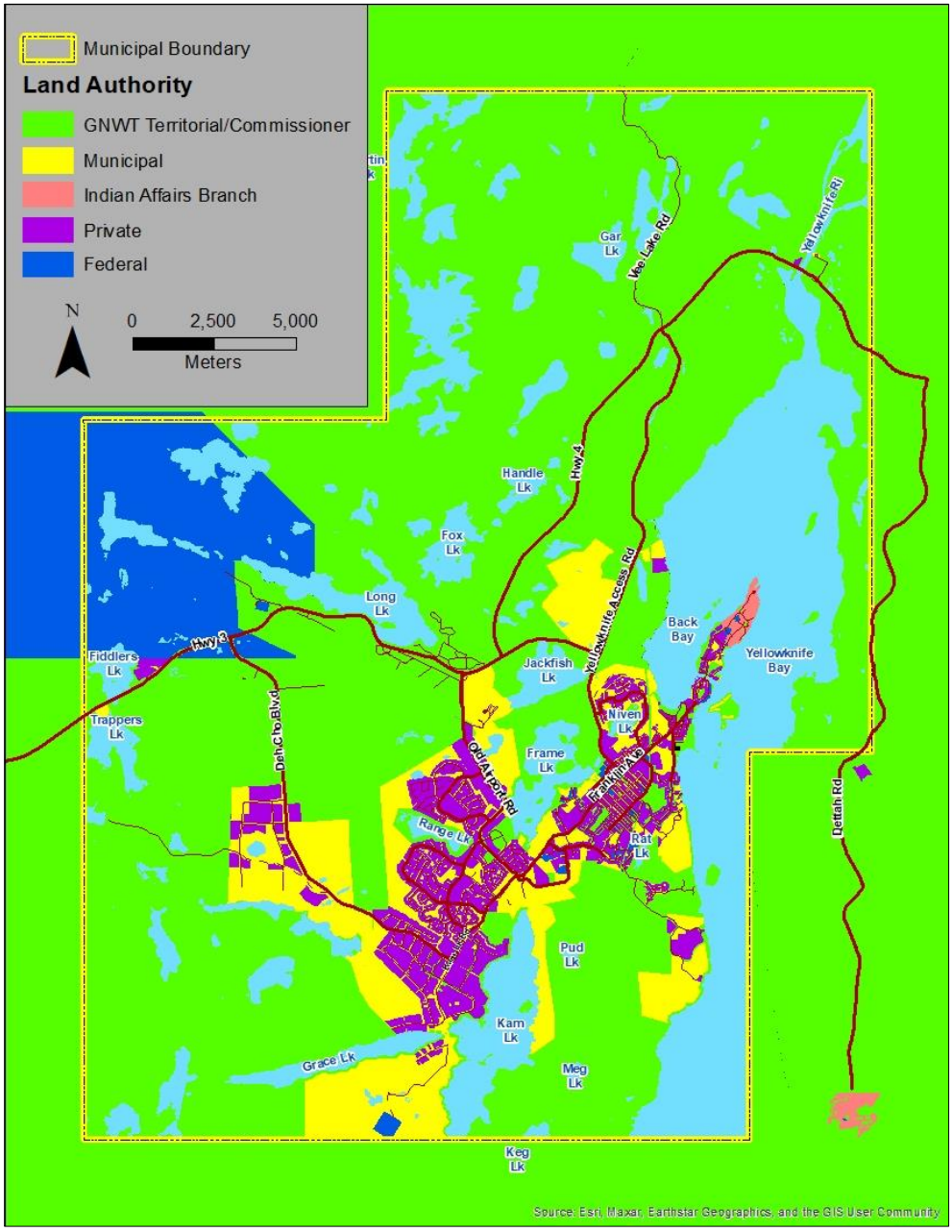
2019 Recommendation	2024 Status
Recommendation 1: Educate and encourage all Yellowknife residents to establish FireSmart recommended guidelines for the Non-Combustible Zone and Priority Zone 1 within 10 metres of their structures.	▪ FireSmart mitigation conducted by residents on 24 dwelling properties ▪ Free FireSmart debris disposal program implemented ▪ Yellowknife Fire Division personnel trained as Advanced FireSmart Home Assessors
Recommendation 2: Complete proposed Zone 2-3 fuel reduction on Municipal and Territorial lands based on priority and funding.	▪ 2019-24 Zone 2-3 fuel reduction completed = 68ha ▪ 2023 fireguards constructed = 880ha ▪ 2023 fuel removal/reduction completed = 94ha
Recommendation 3: Conduct inspections of all completed fuelbreaks and implement maintenance for those that require it.	▪ Fireguards/Fuelbreaks needing maintenance = 460ha
Recommendation 4: Include FireSmart best-practices into future revisions of the City of Yellowknife development legislation and policy.	▪ Strategic-level FireSmart policies included in the City of Yellowknife Community Plan (2019) ▪ No FireSmart regulation provided in the Zoning Bylaw (2024)
Recommendation 5: Develop and deliver a focused, repetitive, long-term FireSmart education and awareness program, including FireSmart home assessments, to ensure that residents are aware of options available to reduce the hazard and risk to their properties and are engaged and assisted to take action in their own backyards.	▪ FireSmart communications provided to residents during 2024 Emergency Preparedness week ▪ Spring 2024 – Community Wildfire Engagement session provided by GNWT ECC along with the City of Yellowknife
Recommendation 6: Develop a FireSmart Committee, consisting of all relevant stakeholders, to coordinate and lead the FireSmart program for the area.	▪ Determined as unnecessary by City of Yellowknife Fire Division and GNWT ECC North Slave Region
Recommendation 7: The Yellowknife Fire Department and GNWT should partner on cross-training initiatives to ensure emergency responders are cross-trained to the appropriate standards.	▪ Emergency management cross-training completed: o Incident Command System 100 o Emergency Operations Centre (EOC) Essentials o Annual wildfire refresher training o Sprinkler deployment training 2023 o Advanced FireSmart Home Assessor Workshop
Recommendation 8: Design and implement a table-top and/or functional exercise to test emergency management preparedness for a wildland/urban interface fire.	▪ Exercises completed: o 2023 – Interface Engine Operations o 2024 – EOC Wildfire Exercise (2 days)
Recommendation 9: Develop a Community Wildfire Pre-Plan for the City of Yellowknife to provide greater operational detail to emergency responders during a wildland/urban interface incident.	▪ Completed December 2024

2.0 PLANNING AREA

The planning area includes all lands within the boundary of the City of Yellowknife (Map 1). Land Authority is a mixture of:

- GNWT Territorial/Commissioner lands
- Municipal lands
- Indian Affairs lands
- Private lands
- Federal lands

Map 1 – Planning Area



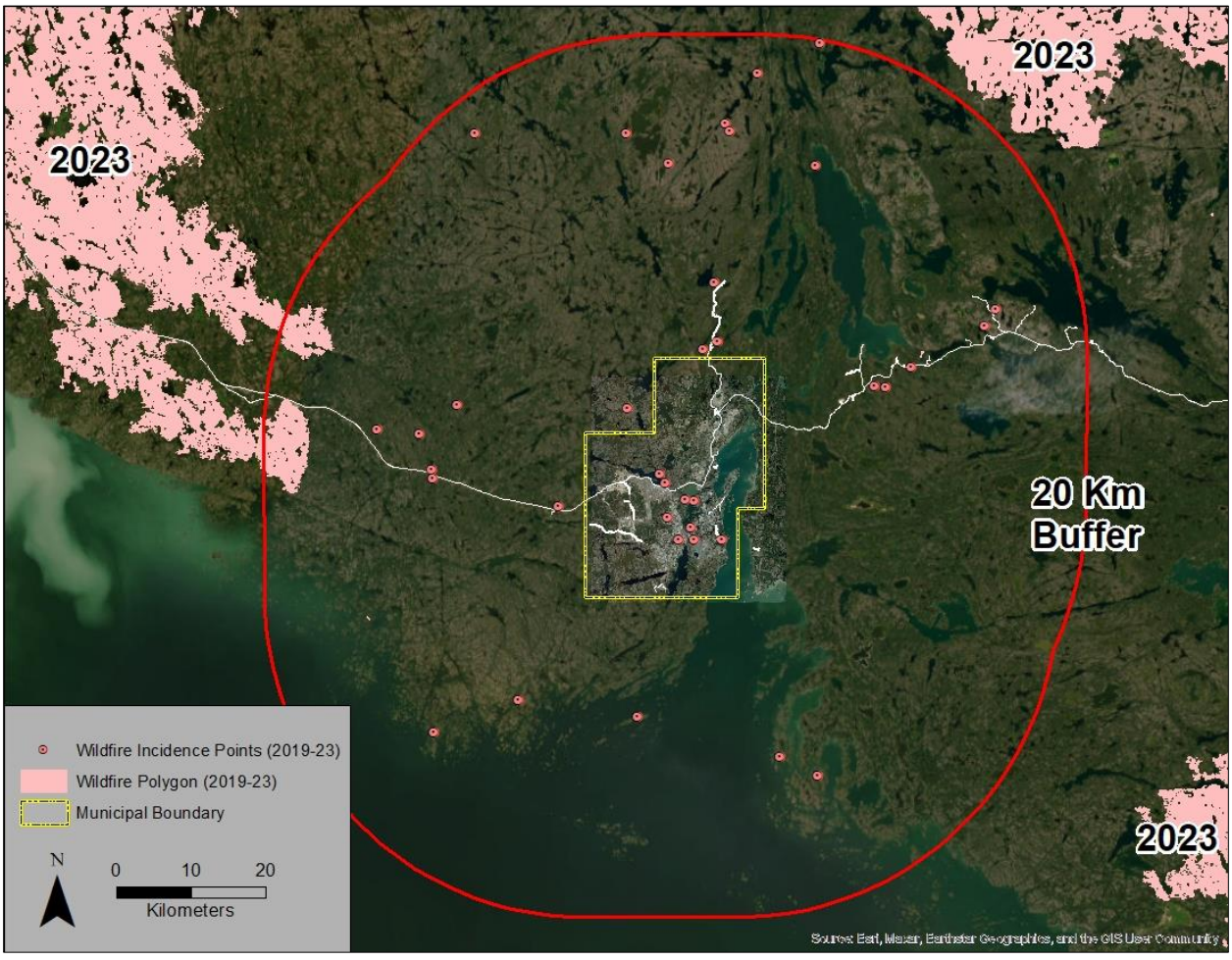
3.0 HAZARD & RISK ASSESSMENT

Hazard and risk are assessed using wildfire incidence and wildfire behaviour potential to quantify overall wildfire threat to developments and to determine priorities for FireSmart mitigation actions.

3.1 Wildfire Incidence

GNWT ECC wildfire data (2019-2023) shows a total of 37 wildfires ignitions within and 20 kilometers surrounding the City of Yellowknife boundary (Map 2). Fourteen were natural-caused and twenty-three were human-caused including all of the wildfires within the Yellowknife municipal boundary. The 2023 wildfire season had large wildfires to the west, north, and east of Yellowknife, resulting in the full evacuation of Yellowknife and surrounding area.

Map 2 – Wildfire Incidence



3.2 Wildfire Behaviour Potential

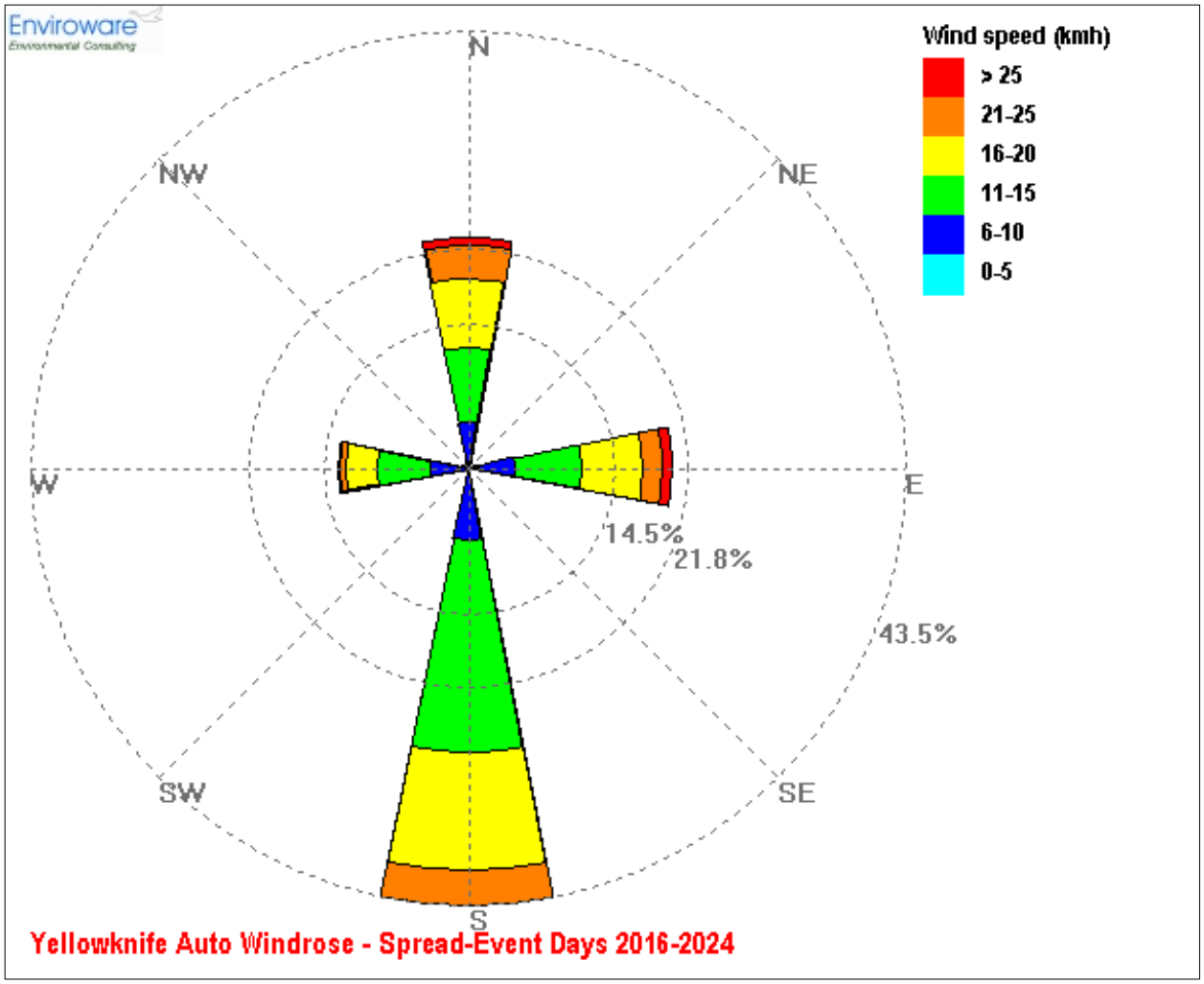
Wildfire behaviour potential is assessed using Territorial fire weather indices data and wildland fuel types.

- Fire weather data from 2016 to 2024 from the Yellowknife Auto weather station is used to determine average number of "spread-event days" per year and the predominant wind direction and speed on those days. **A "spread-event day" is defined as "a day when the fire actively spreads with high intensity" which corresponds to a Fire Weather Index value of 19 or higher** (Podur & Wotton, 2011)
- Wildland fuel types from the Territorial Fire Behaviour Prediction (FBP) fuel grid were used (Map 3)

3.2.1 Fire Weather

An average of ***48*** "spread-event days" per year occur. The predominant and strongest winds on those days are from the south (Figure 1).

Figure 1: Predominant Wind Directions on "Spread-Event Days"



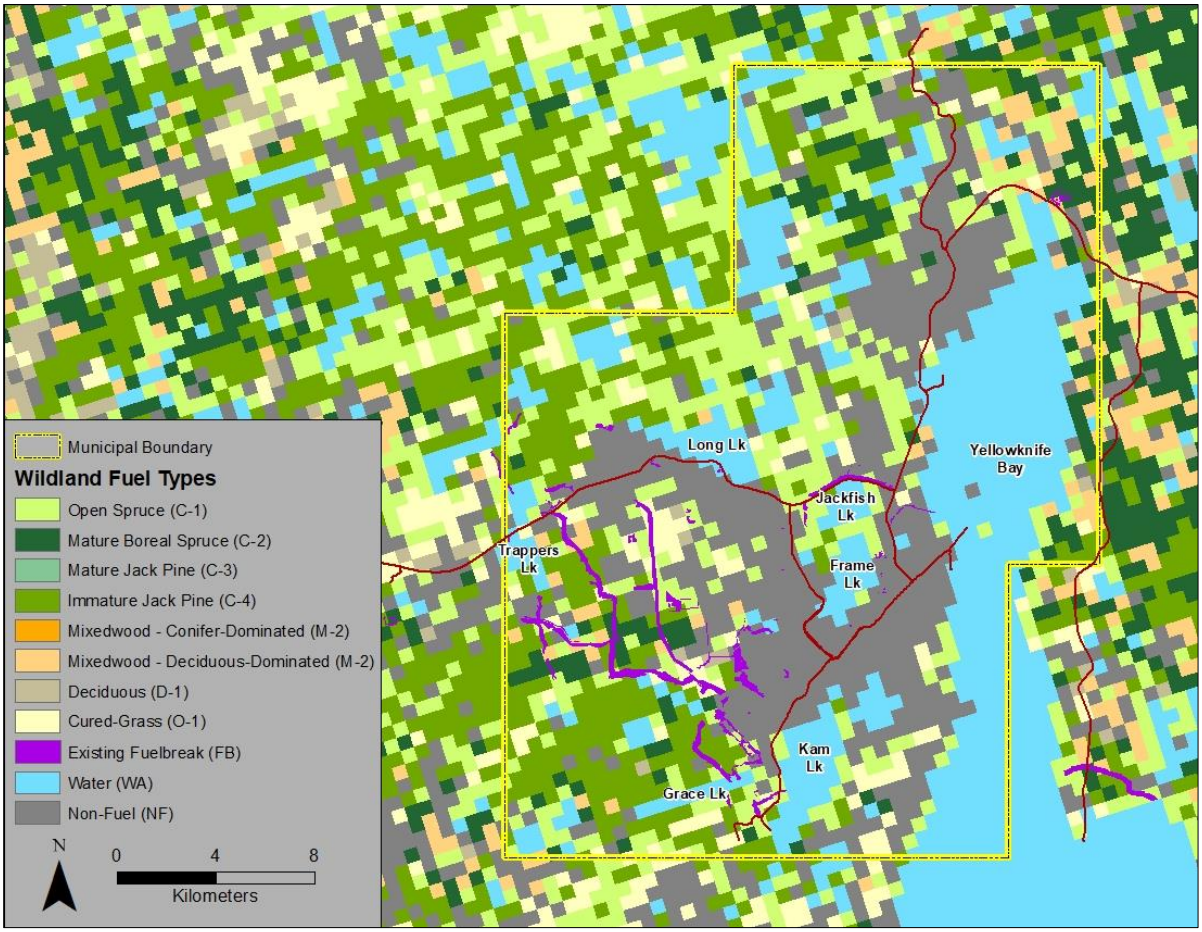
3.2.2 Wildland Fuel Types

Wildland/urban interface structures are often ignited by one or more of the following (Beverly et al., 2010):

- Radiant heat from hazardous wildland fuels less than 30 meters from the structure;
- Short-range ember transport from hazardous wildland fuels less than 100 meters from the structure; and/or
- Long-range ember transport from hazardous wildland fuels less than 500 meters from the structure.

Hazardous wildland fuel types (Map 3) within and surrounding Yellowknife predominantly consist of immature Jack pine (C-4) and open spruce (C-1) with scattered patches of mature boreal spruce (C-2). Significant fuelbreaks were established in 2023.

Map 3 – Wildland Fuel Types



Hazardous coniferous wildland fuel types within and surrounding Yellowknife provide the opportunity for intense wildfire behaviour and structure ignition from radiant heat/direct flame impingement and short-range and long-range embers.

4.0 VEGETATION MANAGEMENT OPTIONS

FireSmart guidelines recommend vegetation management within the Home Ignition Zone to reduce the threat of wildfire to the structure and/or structure fire to the wildland. The Home Ignition Zone (Figure 2) consists of the Immediate Zone (Structure and 0-1.5m from structure), Intermediate Zone (1.5-10m from structure), and Extended Zone (10-30m+ from structure).

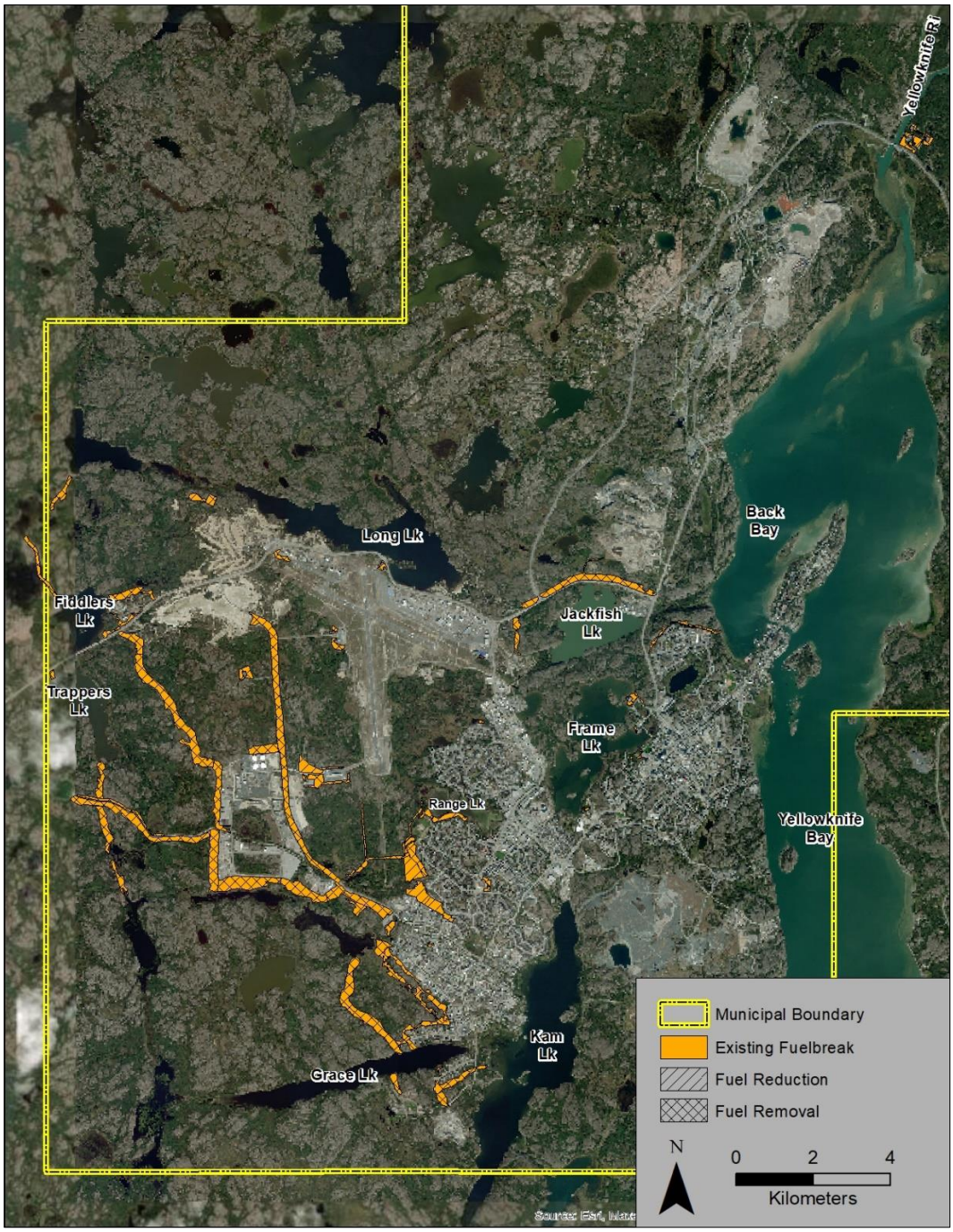
Figure 2: Home Ignition Zone

Vegetation management options are proposed to reduce the threat of wildfire to developed areas however **they do not ensure structure survival under all hazard conditions.**

4.1 Existing Vegetation Management

The City of Yellowknife and GNWT ECC have conducted FireSmart fuel reduction for several years and in 2023, significant fuel removal fireguards were constructed in anticipation of possible wildfire impingement on Yellowknife (Map 4). Existing fuelbreaks were assessed and classified by type (fuel reduction or fuel removal). The City of Yellowknife reports that debris disposal was completed on the 2023 fireguards in the summer/fall of 2024 by the City of Yellowknife.

Map 4 – Existing Fuelbreaks



4.2 Proposed Vegetation Management

FireSmart vegetation management is proposed at three levels:

- **Private Lot** – Privately owned lands within 10 meters of structures (Immediate and Intermediate Zones)
- **Neighbourhood** – Municipal and Territorial-owned lands within 100 meters of developed areas (Extended Zone)
- **Landscape** – Municipal and Territorial-owned lands outside of the Extended Zone

4.2.1 Private Lot Fuelbreak Standards

Adequate clearance from wildland and/or ornamental landscaping fuels on private lands within 10 meters of the structure is lacking for many Yellowknife structures.

Items in the privately-owned Immediate and Intermediate Zones (0-10m) not meeting FireSmart standards include:

- Combustible surface cover including unmaintained native grass, needles, and/or leaves
- Combustible materials and landscaping including outbuildings, fences, firewood piles, coniferous shrubs, and bark mulch
- Combustible natural and planted conifer trees (spruce, pine)

FireSmart vegetation management guidelines for the Immediate and Intermediate Zones (0-10m from footprint) recommend:

- **Establishment** of a 1.5 meter **non-combustible** buffer around the outer footprint of the structure
- **Removal** of flammable forest vegetation
- **Removal** of all flammable landscaping plants/shrubs and materials (bark mulch)
- **Removal** of all combustible material piles (firewood/lumber) within 10 meters
- Regular **maintenance** to ensure that grass is irrigated and mowed to less than 4cm height and all combustible needles, leaves, and native grass are removed from on and within 10 meters around structures

Recommendation 1: Educate and encourage residents to establish adequate FireSmart Immediate and Intermediate Zone vegetation management standards on their private-lots.

4.2.2 Neighbourhood Fuelbreak Standards

Municipal and Territorial-owned lands within 100m of the community that are rated with Moderate to High wildfire behaviour potential have been proposed for FireSmart vegetation management (Table 2 & Map 5).

FireSmart vegetation management guidelines for the Extended Zone (10-30m+) recommend:

- **Reduction and/or removal** of flammable forest vegetation
- **Pruning** of all limbs on residual evergreen trees to a minimum height of 2 meters at lowest point from ground level
- **Removal** of all dead standing and dead and down forest vegetation from the forest floor
- Regular **maintenance** to ensure that all flammable regrowth, dead and down and dead standing are removed

Prior to implementation, **detailed FireSmart vegetation management prescriptions** should be developed for each area to determine treatment types and methods, unit boundaries, and sensitive areas.

Vegetation management units are prioritized as Priority A or B based on the following criteria:

Priority	Comments
A	Located around community perimeter to reduce the threat of wildfire moving from the landscape into the community and/or for protection of critical infrastructure and/or vulnerable populations
B	Occluded patches of hazardous wildland fuels within neighbourhoods with the potential to produce radiant heat, long-range, and short-range structure ignition potential

Agencies should complete units by priority ranking however may complete lower priority units before higher priority units based on operational or budgetary considerations.

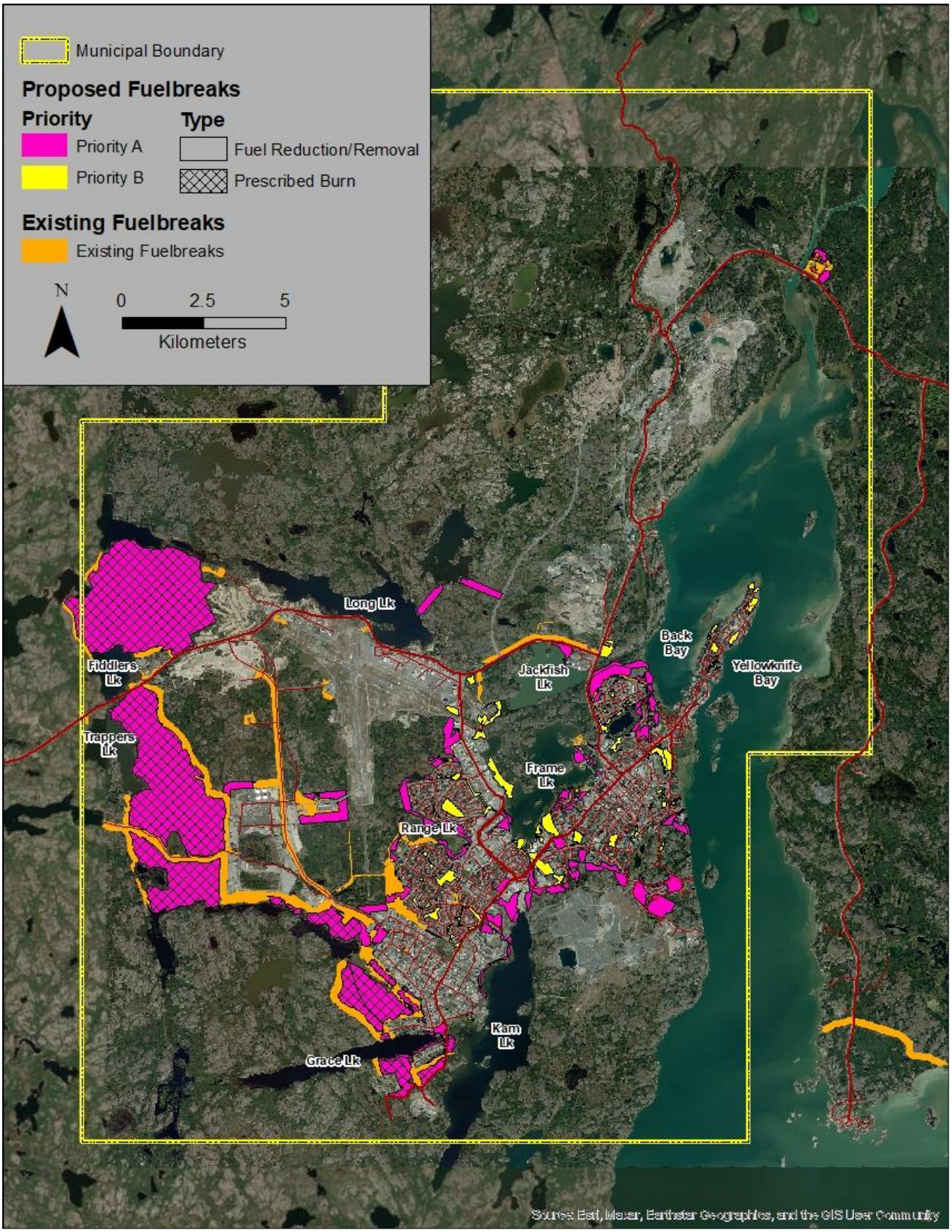
Table 2 – Proposed Vegetation Management Priorities by Land Authority

Land Authority	Area (Ha)		Total Area (Ha)
	Priority A	Priority B	
Municipal	163	58	221
Territorial	386	14	400
Federal	245	4	249
Totals	**794**	**76**	**870**

Municipal land authority constitutes the minimum jurisdictional responsibility for FireSmart fuel management within the municipal boundary. The City of Yellowknife cannot advance planning priorities in the absence of Territorial support.

Recommendation 2: City of Yellowknife and GNWT Environment and Climate Change should determine jurisdictional responsibilities for FireSmart fuel management within the city and plan and implement fuelbreaks on Municipal, Territorial, and Federal lands based on priorities.

Map 5 – Proposed Fuelbreaks by Priority



4.3 Vegetation Management Maintenance

Private land owners and public land managers must provide periodic inspections of fuel modification areas and complete maintenance as required. Fuel modification maintenance is required at different timelines depending on many factors.

Immediate and Intermediate Zones (0-10 meters from structure) – must be maintained regularly throughout the year including:

- Irrigating and mowing grass
- Removal of dead needles/leaves and combustible debris piles on and around structures

Extended Zone (10-30+ meters from structure) – should be maintained when required including:

- Removal of accumulated litter, dead and down logs, and dead standing trees
- Thinning/removal of re-growth after original fuel reduction

Recommendation 3: Ensure that residents are educated and engaged on Immediate and Intermediate Zone FireSmart vegetation management maintenance and that Extended Zone FireSmart vegetation management area maintenance is planned, budgets are allocated, and projects are implemented.

5.0 DEVELOPMENT AND MUNICIPAL BY-LAW/POLICY OPTIONS

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

5.1 Structural Options

Structural characteristics that contribute to a structure's ability to withstand wildfire ignition include exterior roofing, siding, and decking materials and proper construction and maintenance of eaves, vents, and openings to reduce the threat of airborne ember ignition of the structure.

- Roofing materials in Yellowknife primarily consist of ignition-resistant asphalt-shingle or metal with scattered dwellings having combustible wood shake or older curled asphalt-shingle roofing materials
- Siding materials consist primarily of combustible wood or vinyl with some ignition-resistant stucco, metal, or fibre-cement
- Combustible wooden decks and porches with open undersides are common

Combustible Wood-Shake Roof & Wood Siding

Combustible Siding and Deck Construction

FireSmart recommended guidelines for structural options include:

FireSmart Recommended Guidelines for Structural Options

Feature	FireSmart Recommended Guidelines
Roofing	▪ Use only ULC-rated Class A roofing materials
Siding	▪ Use only ignition-resistant materials extending from ground-level to the roofline
Decks/Porches	▪ Use non-combustible or ignition-resistant materials ▪ Enclose undersides with fire-resistant sheathing ▪ Provide access to slotted-deck surface undersides to allow for regular debris removal

5.2 Infrastructure Options

Infrastructure options include provision of adequate access standards, adequate and accessible fire suppression water supply, utility installation standards, and adequate road and address signage.

5.2.1 Access

Access road standards throughout the planning area are mainly adequate for an interface community. Most access roads are all-weather loop-road or dead-end design and with adequate turnaround dimensions for fire apparatus.

5.2.2 Water Supply

Yellowknife has municipal fire hydrant water-supply for the majority of the city except for the Kam Lake Industrial Park, Old Town, Engle Business District, Old Airport Road from the Coop corner to Highway 3, and the new Grace Lake North and South developments. The city water pumphouses have diesel backup fire pumps.

5.2.3 Franchised Utilities

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

Electrical Power

Power transmission is provided by the Northwest Territories Power Corporation (NTPC) Snare River and Bluefish hydro-stations and the Jackfish Lake diesel-electric plant. Power distribution and residential service is provided by Naka Power through above-ground distribution lines.

Heating Fuel

Heating fuel is primarily provided by diesel tank supply with a small number of structures relying on propane tank supply.

5.3 Development Bylaws & Policy Options

The Yellowknife Community Wildfire Protection Plan (2012) and Community Wildfire Protection Plan Update (2019) offered recommendations to include FireSmart best-practices into the City of Yellowknife General Plan and Zoning By-law.

2012 CWPP recommendations included:

- Recognition of wildfire as a development constraint
- Developer requirement to provide a Wildfire Risk Assessment for any new developments located in hazard areas
- Review of landscaping requirements to ensure they do not conflict with FireSmart recommended guidelines
- Regulation requiring the use of fire-rated roofing materials and fire-resistant siding materials for all new, replacement, or retro-fitted buildings

- Regulation requiring skirting of all new, replacement, or retro-fitted decks/porches
- Regulation requiring the establishment of FireSmart Zone 1 vegetation management standards for all new development

2019 CWPP recommendations recommended inclusion of FireSmart best-practices into City of Yellowknife development by-laws and policy including:

- Recognize wildfire as development constraint
- A requirement for developers to complete a wildfire risk assessment and mitigation plan, developed by the Yellowknife Fire Department and/or GNWT Environment and Natural Resources, for submission at the subdivision approval stage and to implement the recommendations at the development stage
- Develop standards for the use of FireSmart exterior building materials for new construction and re-builds
- Develop standards for FireSmart vegetation management and landscaping requirements on all new developments

City of Yellowknife Community Plan (2019)

The following FireSmart related items are included in the current Community Plan:

- Section 2.3.6 Climate Change and Adaptation states "Implementation of Fire Smart planning practices will need to be more widely adopted to reduce the risk that forest fires pose to buildings and infrastructure in the City. This may include building with more fire-resistant materials, selective removal of natural fuels like brush and trees on the periphery of the built area of the City, and construction of fire buffers in at-risk areas. Fire risks throughout the City, due to increased frequency and severity of forest fires, should also be identified and mitigation plans to reduce risks should be implemented."
- Section 4.8 Kam Lake Planning and Development Objective 10 provides Policy 10-c which states "Landscaping will support FireSmart principles."
- Section 5.1 Climate Change Adaptation Objective 2 is to "Create a built environment that will lower the risk of wildfires spreading to structures and key infrastructure" and the following Policies:
  - 2-a. The City will manage vegetation between structures and flammable wildland vegetation, where it has access, to reduce the intensity and rate of spread of wildfire approaching or leaving development.
  - 2-b. A low fuel buffer will be maintained between structures and flammable vegetation in accordance with the *Yellowknife Community Wildfire Protection Plan*.
  - 2-c. There will be regular removal of combustible fuels such as dead vegetation along trails, alleys, electrical corridors and road right of ways.
  - 2-d. New or re-development construction areas shall pile combustible construction material no closer than 10 m to a structure.
  - 2-e. Development will follow FireSmart practices.
- Section 7 – Glossary of Terms defines FireSmart Planning as "A land use planning practice to ensure that communities are better protected from the risks of structural fires and wildfires. Typically involves building with fire resistant materials, minimizing fuel sources

on properties like dead brush and branches, and creating buffers free of fuels between building structures and forests.

City of Yellowknife Zoning Bylaw (as amended to 2024)

A review of the Zoning Bylaw revealed that there are no specific regulations related to FireSmart development.

Recommendation 4: City of Yellowknife should Include FireSmart best-practices into future revisions of the City of Yellowknife development by-laws and policy regulating exterior structure materials, infrastructure development, landscaping standards, and wildland fuels treatment and ensure they are enforced for all new development.

6.0 PUBLIC EDUCATION OPTIONS

Many of the structures within the planning area are at Moderate-High wildfire threat due to inadequate structural options and/or FireSmart vegetation management on private and/or public lands. Residents, business owners, developers, and City of Yellowknife administration and elected officials all need to be aware of the FireSmart hazard and the solutions to minimizing the risk and become a partner in implementation of FireSmart solutions in their own backyards and community.

6.1 Key Messages

The following key messages are recommended to educate residents on their priorities to reduce the threat of wildfire to their structures:

- Use fire-rated/fire-resistive roofing, siding, and decking materials when building a new structure or when retro-fitting an existing structure
- Establish a minimum of 1.5 meter non-combustible clearance around the outer extent of all structures and outbuildings
- Maintain the grass around all structures and outbuildings for a minimum of 10 meters
- Remove conifer trees within 10 meters of structures and thin conifer trees for a minimum of 30 meters
- Provide regular maintenance of native grass, forest vegetation, and dead needles and leaves for a minimum of 30 meters around your house
- Skirt the undersides of your decks and porches to reduce the chances of fire getting underneath
- Store combustible material piles (firewood, lumber piles, etc.) a minimum of 10 meters away from your structures
- Contact City of Yellowknife Fire Division to arrange for a FireSmart Hazard Assessment of your home and property

Recommendation 5: City of Yellowknife should develop and implement a focused, long-term, and repetitive FireSmart education program for all Yellowknife residents and administration/ elected officials.

6.2 FireSmart Hazard Assessments

Residents benefit from a FireSmart Hazard Assessment of their home and property, conducted by a qualified individual, to identify those items that present wildfire threat and recommended methods to reduce that threat.

The Yellowknife Fire Division offers the Advanced Fire Smart Home Assessment program and completed 23 assessments in the 2024 season that residents can use to take FireSmart actions in their own backyards.

Recommendation 6: Yellowknife Fire Division to advertise and continue to provide Advanced FireSmart Hazard Assessments to those residents that request one.

6.3 FireSmart Neighbourhood Recognition Program

FireSmart Canada has initiated the FireSmart Neighbourhood Recognition Program to motivate and engage residents to plan and take FireSmart actions in their "own backyards" to reduce wildfire losses from the "grassroots" level.

The program is driven through identification and training of key Municipal fire agency personnel to act as Local FireSmart Representatives to guide the process and community members to act as Neighbourhood Champions to lead and implement the FireSmart Neighbourhood Recognition Program within their community.

Recommendation 7: Yellowknife Fire Division should identify and train key personnel to act as Local FireSmart Representatives to implement the FireSmart Canada Neighbourhood Recognition Program in Yellowknife neighbourhoods.

7.0 INTER-AGENCY COOPERATION AND CROSS-TRAINING OPTIONS

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

7.1 Inter-Agency Cooperation

Inter-agency stakeholders within or adjacent to the planning area include:

- City of Yellowknife
- GNWT Environment & Climate Change (ECC) – North Slave Region

The Yellowknife Fire Division and GNWT ECC currently hold a Memorandum of Understanding regarding wildfire jurisdiction and mutual-aid response. The City of Yellowknife is responsible for all wildfires within the City limits however GNWT ECC has the authority to respond if they identify significant threat or if requested by Yellowknife Fire Division.

7.2 Cross-Training

The City of Yellowknife has provided the following emergency management training to staff over the past several years:

- Incident Command System
- Emergency Operations Centre
- Wildland/Urban Interface Engine Operations Workshop
- Sprinkler Workshop
- FireSmart Canada Advanced FireSmart Home Assessor Workshop

Recommendation 8: Continue and enhance cross-training related to the to the following standards:

- Incident Command System (I-100 to I-400) as applicable
- Wildland Firefighter (NFPA 1140 Level I or equivalent)
- Wildland/Urban Interface Structure & Site Preparation (WUI-M, S-115)
- Fire Operations in the Wildland/Urban Interface (S-215)
- FireSmart Canada - Advanced FireSmart Home Assessment Workshop

8.0 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 a wildland/urban interface fire are of paramount importance.

8.1 Community Emergency Planning

The City of Yellowknife updated the Community Emergency Plan and the Evacuation Plan as a result of findings from the 2023 wildfire season.

8.1.1 Community Emergency Plan

The City of Yellowknife Community Emergency Plan provides an overall guidance structure to plan and prepare for, respond to, and recover from an emergency or disaster. The Plan is prepared with an all-hazards approach, and a wide scope, to allow a flexible response to any emergency and is intended to provide the foundation for which other detailed operational procedures and guidelines are correlated, including detailed response protocols normally handled by the appropriate responding Divisions and Departments.

A review of the Community Emergency Plan reveals:

- The Incident Command System (ICS) is the accepted emergency management system for site and support/coordination functions which will provide a common incident management system for all response agencies when working together on a wildland/urban interface fire incident in the area
- Wildfire is recognized as a Critical risk level with ***Expected*** probability and ***Catastrophic*** consequences

8.1.2 Evacuation Plan

The purpose of the City of Yellowknife Evacuation Plan is to guide efforts to manage threats that may result in a partial or full evacuation of the City of Yellowknife and to guide efforts to manage threats that may result in a partial or full evacuation of the City of Yellowknife.

The Plan provides details on evacuation authority and process and identifies fourteen evacuation zones within the City of Yellowknife which coincide with the Zones used in the Wildfire Interface Response/Value Protection Pre-Plan described below.

8.2 Wildfire Interface Response/Value Protection Pre-Plan (2024)

Wildfire pre-plans provide emergency responders with strategic and tactical information to protect values at risk from approaching wildfire. The Yellowknife Fire Division completed a pre-plan for Yellowknife in 2024.

8.3 Value Protection Units

Value Protection Units containing portable pumps, hose, sprinklers, and tools to protect structures from advancing wildfire have been shown to be successful in reducing losses.

City of Yellowknife Fire Division would benefit from having one or more Value Protection Units, providing them with adequate value protection equipment for an initial response on a wildland/urban interface fire.

Recommendation 9: City of Yellowknife should design and purchase Value Protection Unit(s) to provide adequate equipment for initial response to a wildland/urban interface fire.

8.4 Wildland/Urban Interface Exercises

Exercises to test emergency plans, personnel, and equipment for operational effectiveness are an excellent tool to ensure emergency management personnel and mutual-aid partners are familiar with the tools and tactics available.

Recommendation 10: Conduct regular wildland/urban interface table-top, functional, and/or field exercises with applicable mutual-aid partners to test the Yellowknife Community Emergency Plan, Wildfire Interface Response/Value Protection Pre-Plans, and value protection equipment.

9.0 IMPLEMENTATION PLAN

Vegetation Management

Item	Recommendation	Responsible Agency
Private Land	**Recommendation 1:** Educate and encourage residents to establish adequate FireSmart Immediate and Intermediate Zone vegetation management standards on their private-lots.	City of Yellowknife GNWT ECC
Public Lands	**Recommendation 2:** City of Yellowknife and GNWT Environment and Climate Change should determine jurisdictional responsibilities for FireSmart fuel management within the city and plan and implement fuelbreaks on Municipal, Territorial, and Federal lands based on priorities.	City of Yellowknife GNWT ECC
Fuelbreak Maintenance	**Recommendation 3:** Ensure that residents are educated and engaged on Immediate and Intermediate Zone FireSmart vegetation management maintenance and that Extended Zone FireSmart vegetation management area maintenance is planned, budgets are allocated, and projects are implemented.	City of Yellowknife GNWT ECC

Development & Municipal By-Laws & Policy

Item	Recommendation	Responsible Agency
Municipal Development By-Laws & Policy	**Recommendation 4:** City of Yellowknife should Include FireSmart best-practices into future revisions of the City of Yellowknife development by-laws and policy regulating exterior structure materials, infrastructure development, landscaping standards, and wildland fuels treatment and ensure they are enforced for all new development.	City of Yellowknife

Public Education

Item	Recommendation	Responsible Agency
FireSmart Education	**Recommendation 5:** City of Yellowknife should develop and implement a focused, long-term, and repetitive FireSmart education program for all Yellowknife residents and administration/ elected officials.	City of Yellowknife
FireSmart Hazard Assessments	**Recommendation 6:** Yellowknife Fire Division to advertise and continue to provide Advanced FireSmart Hazard Assessments to those residents that request one.	City of Yellowknife
FireSmart Canada Neighbourhood Recognition Program	**Recommendation 7:** Yellowknife Fire Division should identify and train key personnel to act as Local FireSmart Representatives to implement the FireSmart Canada Neighbourhood Recognition Program in Yellowknife neighbourhoods.	City of Yellowknife

Interagency Cooperation & Cross-Training

Item	Recommendation	Responsible Agency
Cross-Training	**Recommendation 8:** Continue and enhance cross-training related to the to the following standards: ▪ Incident Command System (I-100 to I-400) as applicable ▪ Wildland Firefighter (NFPA 1140 Level I or equivalent) ▪ Wildland/Urban Interface Structure & Site Preparation (WUI-M, S-115) ▪ Fire Operations in the Wildland/Urban Interface (S-215) ▪ FireSmart Canada - Advanced FireSmart Home Assessment Workshop	City of Yellowknife GNWT ECC

Emergency Planning

Item	Recommendation	Responsible Agency
Value Protection Unit	**Recommendation 9:** City of Yellowknife should design and purchase Value Protection Unit(s) to provide adequate equipment for initial response to a wildland/urban interface fire.	City of Yellowknife
Emergency Exercises	**Recommendation 10:** Conduct regular wildland/urban interface table-top, functional, and/or field exercises with applicable mutual-aid partners to test the Yellowknife Community Emergency Plan, Wildfire Interface Response/Value Protection Pre-Plans, and value protection equipment.	City of Yellowknife GNWT ECC

10.0 REFERENCES

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