

Community Wildland Fire Protection Plan:

10/20/2021

*Biinjitiwaabik Zaaging Anishinaabek
(Rocky Bay First Nation)*



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Contents

Executive Summary.....	2
Introduction	3
Community of Bijjitiwaabik Zaaging Anishinaabek.....	3
FireSmart® Management Zones	6
Community Risk Assessment	9
Wildland Fire Risk to the Community	9
Forest Fire Fuel Rating	9
Probability of Ignition	10
Fire Severity Rating	11
Risk Assessment.....	12
Community Statistics and Information	12
Population.....	12
Infrastructure Values at Risk.....	12
Hazardous Fuel Sources	13
Natural Resources.....	13
Commercial Entities	14
Road Corridors and Transportation	14
Land Use in the Community.....	14
Fire History.....	15
Fire Suppression Resources	16
Community Wildland Fire Risk Assessment.....	17
Priorities and Mitigative/Preventative Measures.....	17
Monitoring and Evaluation	19
Enforcement	19
Wildfire Response	20
Emergency Service Equipment	20
Public Warning System	20
Water Sources.....	20
Training and Equipment.....	20
Mapping Products.....	22

Executive Summary

Wildland fire planning has become an increasing priority in many communities due to the frequency and nature of wildfires occurring across Canada and Ontario annually. Additionally, with the implementation of the Provincial Policy Statement in 2014, First Nation Communities must ensure their emergency planning is consistent with that of provincial legislation. The identification and assessment of potential risks as well as the development and implementation of treatment options and mitigation measures is of critical importance in the prevention and planning for occurrences of wildland fire. Biinjitiwaabik Zaaging Anishinaabek (BZA) places high priority on emergency preparedness to ensure the safety of its community members. In response to the requirement to be prepared for a wildfire emergency, Biinjitiwaabik Zaaging Anishinaabek has developed a Community Wildland Fire Protection Plan, which serves as the framework or roadmap to wildfire preparedness.

This Community Wildland Fire Protection Plan includes a Community Risk Assessment which identifies and prioritizes fuel hazards, risk of wildfire occurrence, essential infrastructure, and at-risk community values as well as current resources and preparedness capability in the event of a wildfire. This Plan also includes community priorities, mitigation, and fuel treatment recommendations for future planning. Several community maps are included in the Wildland Fire Protection Plan which delineate inhabited areas at risk, forested areas that contain critical human infrastructure and forested areas at risk for large-scale fire disturbance.

The BZA Wildland Fire Protection Plan has been developed in collaboration with New Leaf Forestry and with funding support from the Ministry of Natural Resources and Forestry.

Introduction

Wildland fire is an important natural disturbance in Ontario's forests and grasslands. Fire renews the forest, creates healthy natural habitat, and provides diverse landscapes. However, wildland fires can also pose a risk to public safety and values such as communities, property, timber supply and infrastructure.

In any year, the number, size, and intensity of wildland fires are highly variable because they are significantly influenced by weather, relative humidity, and level of dryness (amount of precipitation). Most wildland fires are kept small through firefighting actions, but in a few cases, may grow to a large size primarily due to strong wind and dry forests, requiring sustained effort over many days. This variability presents a challenge for managing a wildland fire program.¹

Preparing for and responding to wildland fires requires an understanding of the science of wildland fire, weather forecasts, daily planning and preparation, and mobile resources such as firefighters and aircraft. When wildland fires occur, the timely dispatch of resources such as aircraft and staff provide for effective protection of public safety. However, maintaining a constant firefighting capacity capable of meeting the highest level of demand is not practical. Managing wildland fires requires working with partners and expanding capacity at critical times.

Community of Biinjitiwaabik Zaaging Anishinaabek

The Biinjitiwaabik Zaaging Anishinaabek (BZA) community, formerly known as Rock Bay, is located within Robinson Superior Treaty Area, approximately 176 km northeast of Thunder Bay and is situated along the eastern shore of Lake Nipigon. The Community land base totals 20.8 ha and is located along Highway 11, 57 km northeast of the Nipigon Township. BZA has been involved in the Addition to Reserve Process for the past 25 years as part of the Land and Larger Land Base initiative. The addition to the reserve will add nearly 700 ha to BZA's total Reserve landbase.

BZA is home to the ancestors of Rocky Bay First Nations people who survived by hunting, trapping, fishing, and gathering food. The community is accessible year-round via Highway 11, operates a self government, which is responsible for the day-to-day operations of the community, and belongs to the Nokiiwin Tribal Council.

The community of BZA is well-developed and continuously expanding. The landbase has an effective road network, numerous commercial and residential buildings, community areas and other infrastructure. Below is a list of the notable pieces of infrastructure currently situated on the Reserve Land:

- 73 Residential Homes
- Band Office
- Community Center
- Elementary and Junior High School (Junior Kindergarten [JK] to Grade 8)
- Maintenance Garage
- Old sawmill building
- Ice Skating Arena

¹ Ministry of Natural Resources and Forestry. 20. *Wildland Fire Management Strategy*. <https://www.ontario.ca/page/wildland-fire-management-strategy>.

- Spirit Bay Gas Bar/Variety Store
- Cemetery
- Church
- Boat Launch/Dock (2)
- Fish Plant
- Water Treatment Plant
- Sewage Plant
- Firehall
- Medical Center
- BZA Family Services Building

The mapping products associated with this Community Wildland Fire Protection Plan display the location of the various infrastructures listed above. Figure 1 displays the location of infrastructure within the Community.

BZA has approximately 754 members; 250 members are presently living year-round on reserve and another 504 living off reserve. With one-third of BZA's membership living on reserve, coupled with the well-developed landbase with numerous industrial, public and residential infrastructures, the importance of having a Community Wildland Fire Protection Plan in place is truly relevant.



Figure 1. Biinjitiwaabik Zaaging Anishinaabek community basemap.

FireSmart® Management Zones

A Potential Forest Hazard Classifications for Wildland Fire Map (Figure 2) for the community of Biinjitiwaabik Zaaging Anishinaabek was developed and outlines the various hazard classifications from High to Low. This analysis is based on forest cover type and does not account for infrastructure, residences and other development that may be at risk within the community. This Community Wildland Fire Protection Plan has taken the extra steps and has mapped out inhabited areas at risk, forested areas that contain critical human infrastructure and forested areas at risk for large-scale fire disturbance. These additional steps will facilitate land-use planning and aid in the implementation of mitigative measures where required.

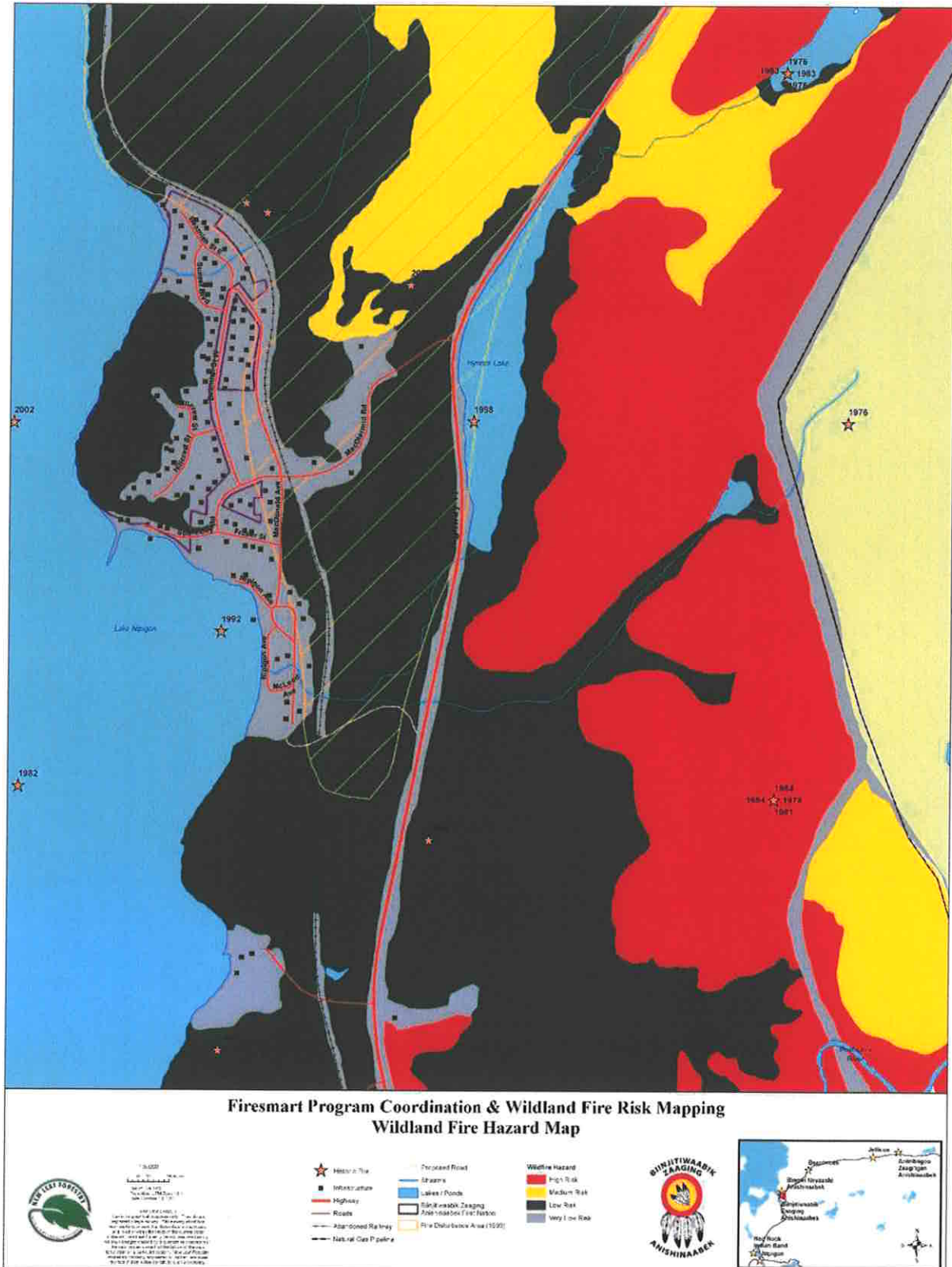


Figure 2. Biinjitiwaabik Zaaging Anishinaabek potential forest hazard classifications for wildland fire map.

Virtually all the infrastructure in the community is surrounded by low-risk fire hazards. The only exception is in the northeastern section of the Reserve, adjacent to the Gas Station; a portion of this site is bordered by medium risk fire hazard forest composition. The treed areas that surround almost the entire Reserve Land area is generally hardwood dominate, with a minor conifer composition and a negligible amount laddering fuels and dry/coarse woody debris.

Although the Community is generally bordered by low-risk fire hazard areas, there are areas of medium and high-risk fire hazards in proximity. To the north/northeast of the Community, there is a large swath of medium-risk hazards that begin ~150 meters from infrastructure along MacDonald Ave and the Gas Station. Medium-risk fuels do not possess laddering fuels, but the conifer composition is generally higher (40 to 7-%). Additionally, a wide-spread area of high-risk fuels is located across Highway 11. At its closest point, roughly ~350 meters east of the infrastructure situated in the southern portion of the Community, along McLoed Ave. This section of high-risk fuels continues north along Highway 11; however, the central and northcentral portions are subject to natural fire breaks – the Highway corridor itself and Hynrick Lake. The high-risk areas are characterized by mature conifer tree species, which are more susceptible to wildland fire when compared to hardwood species. A complete description of the of the parameters used to create the wildfire hazard map and evaluate the wildfire risk in different portions of the community, is documented in the *Forest Fuel Rating* section of this report.

It is advantageous that the Community is immediately surrounded by low-risk fuel sources but understanding the proximity of other medium to high-risk fuels is imperative to FireSmart® the BZA Community and protect members and infrastructure.

Community Risk Assessment

In addition to the development of the Community Base Map and Hazard Classifications map, the Community Wildland Fire Protection Plan involves communicating the wildfire risk to BZA, a description of forest fire fuel ratings, prioritization of fuel hazards, risk of wildfire occurrence, essential infrastructure, and at-risk community values as well as the current resources available to respond to a wildfire event. This plan also includes community priorities, mitigation, and fuel treatment recommendations for future planning.

Wildland Fire Risk to the Community

The frequency, occurrence, and behaviour of wildland fires in Canada have varied greatly over time. The influences of climate change and climate variability are complex contributing factors to the risk of wildland fires. These complex influences make it difficult to identify when and where wildland fires will occur. Changes in the climate during the 21st century are expected to result in more frequent fires across the boreal forest with severe environmental and economic consequences.

Wildland fires are natural disturbances that pose risks to First Nation Communities in both the Province of Ontario and Canada. Annually, there are approximately 8,000 wildfires that burn ~2.5 million hectares per year in Canada², and specifically in Ontario, the number of annual wildfire events [based on a 10-year average] is 870³.

There are numerous examples of wildfire events that have inflicted life altering damage on communities both nationally and provincially. One of the most destructive wildland fires in recent history occurred in May 2016, southwest of Fort McMurray, Alberta in the Regional Municipality of Wood Buffalo. The community faced an evacuation of ~88,000 people, which is the largest wildfire evacuation in Alberta's history. The Alberta wildland fire destroyed approximately 2,400 homes and buildings and 2,000 residents were displaced after their homes were declared unsafe for reoccupation due to contamination and the estimated value of the damage caused by the fire was \$9.9 billion. A more local example of the effect of wildland fires on communities is the Sandy Lake First Nation wildfire, which resulted in a full evacuation of the community members in July 2011. A case study completed by Natural Resources Canada revealed that the lack of emergency wildland fire preparedness at the community level and the nature/organization of the evacuation process contributed to a negative evacuation experience⁴. Other Northern Ontario communities that have been either partially or completely evacuated from their homes because of wildfires include Terrace Bay (twice), Schreiber, Pays Plat, Gillies, Beardmore and Caramat. The number of wildfire-induced emergencies in Northern Ontario highlights the importance for communities to have a Community Wildland Fire Protection Plan in place and educated community members.

Forest Fire Fuel Rating

This assessment will identify the predominant forest fire fuel type for the community of BZA. There are four forest fuel risk ratings:

² Government of Canada. 2019. *Wildfires*. <https://www.getprepared.gc.ca/cnt/hzd/wldfrs-en.aspx>.

³ Ministry of Natural Resources and Forestry. 2021. *Forest fires*. <https://www.ontario.ca/page/forest-fires>.

⁴ Natural Resources Canada. 2017. *Wildland Fire Evacuations in Canada* [Presentation]. <https://www.cif-ifc.org/wp-content/uploads/2017/10/20171101-E-Lecture.pdf>.

- High
- Moderate
- Low
- Seasonally High

Below are the characteristics of these fuel risk ratings as developed by the MNRF.

High Fuel Risk Rating

High risk fuels include conifer and mixed wood forests (70%-100% conifer) that are left unmanaged and are occupied by species including pine, spruce, or balsam fir. These plantations are characterized by trees with laddering fuels that meet the ground, which has an accumulation of fine fuels on the forest floor. These forests can also include slash debris or woody debris from storm damaged areas such as blowdown and other debris that is laying horizontal on the ground. Forested area with a species composition containing >40% balsam fir content is also considered high risk fuel areas due to the volatile nature of the tree species.

Moderate Fuel Risk Rating

Moderate risk fuels include managed conifer plantations that do not possess laddering fuels or slash/debris on the ground. These forests are generally mixed wood forests with 40% to 70% conifer content.

Low Fuel Risk Rating

Low risk fuels are mixed wood forests with 40% or less conifer content. These are typically hardwood forests predominately occupied by tree species such as maple, birch, oak and poplar with an herbaceous understory that is only flammable in very dry conditions.

Seasonally High Fuel Risk Rating

A seasonally high-risk fuel rating is applied to areas like grassy fields and agriculture land, especially when there is a heavy accumulation of dead woody material in the spring and fall. These conditions are typically found on both actively managed and abandoned/unmanaged farmland and can vary in risk potential from year to year.

There is some variation in the risk values depending on seasonality and as such during times of extreme fire hazards all fuels have the potential to be high risk. The presence of horizontal and vertical fuels can increase the risk from moderate to high.

BZA is a wildland/urban interface area where residences and businesses are built up adjacent to wildfire fuel areas (forested areas). Wildland fires that start in the wildland can easily spread into the interface area, which can threaten both infrastructure and lives.

Probability of Ignition

Wildland fires react to fuel sources regardless of their location. Types of fuels include solid wood in tree form, brush and shrubbery, woody debris and grass. When a wildland fire moves into a settled area, the fuel source may switch from natural sources to other man-made sources such as building structures and other flammable materials. There are three (3) factors that contribute to fire behaviour:

- 1) Fuel
- 2) Topography
- 3) Weather

Of the three factors, fuel is the only factor that can be managed by exercising mitigative measures to reduce fuel sources or manage them through land use planning.

Climate change during the 21st century is expected to result in more frequent fires, especially in the boreal forest range, which would have severe environmental and economic consequences. The changing climate can also be expected to add coarse woody debris to the forest fuel load (because of increased natural disturbance rates – i.e., insect outbreaks, ice storms or high winds) and may increase the risk and severity of wildfire events. New research is aimed at refining these climate change estimates as they relate to fire activity, and at investigating adaptation strategies and options to deal with future fire occurrence. There is growing consensus that as wildland fire activity increases, fire agency suppression efforts will be increasingly strained.

From global climate models and scenarios, researchers are interpreting how climate change and climate variability may alter patterns of lightning, fuel moisture, temperature, precipitation, and vegetation—all factors that can affect fire occurrence.

In addition to the changing climate, wildland fire hazard and associated risks are created when human activity and development intersect with forested areas. These areas, where residential, commercial and/or industrial development is located close to wildland or forested areas, are known as the wildland-urban interface. The wildland-urban interface is any point where the fuel feeding a wildland fire changes from natural (wildland) fuel to human-made fuel.

Fire Severity Rating

Fire severity is generally defined as the magnitude of ecosystem changes caused by fire. Severity of a wildfire is a critical component of the fire regime and plays an important role in determining forest ecosystem response to fire disturbance. Predicting spatial distribution of potential fire severity can be valuable in guiding fire and fuel management planning. Table 1 provides a fire severity matrix that displays the impacts of a wildland fire by the significance of a community value and associated fuel type hazard rating.

Table 1. Fire severity matrix for a community value, by fuel type hazard rating.

Community Value	Fuel Type Hazard Rating		
	Low	Medium	High
Low	Negligible	Negligible	Marginal
Medium	Negligible	Marginal	Critical
High	Marginal	Critical	Catastrophic

Risk Assessment

Hazardous forest types for wildland fire are forest types that are associated with the risk of high to extreme wildland fire. Understanding the factors contributing to the hazard of these forest types is necessary to effectively reduce the risks that wildland fires pose to values. A wildfire risk assessment uses the fire severity ratings from Table 1 to analyze areas that have been identified to be at risk if a wildfire would occur. The assessment can focus on single value or a group of values in a certain area of similar characteristics to have a ‘rating’ applied. Examples of a group assessment include community forests, residential subdivisions, or corridor areas. The table below (Table 2) depicts a risk assessment matrix, which is used to assess the risk of wildfire for community values and infrastructure.

Table 2. Community value risk assessment matrix.

Community Value	Fire Severity Rating	Probability of Ignition				
		Unlikely	Seldom	Occasional	Likely	Frequent
[Name of Community Value]	Negligible	D	D	D	D	C
	Marginal	D	D	C	C	B
	Critical	D	C	B	B	A
	Catastrophic	C	C	B	A	A

A: Extreme Risk
B: High Risk
C: Moderate Risk
D: Low Risk

Community Statistics and Information

Population

BZA has approximately 754 members, ~250 of which are currently living on reserve.

Infrastructure Values at Risk

Biinjitiwaabik Zaaging Anishinaabek Community has a numerous piece’s infrastructure in the community. Understanding the infrastructure values at risk will support an effective Community Wildfire Protection Plan as some pieces of infrastructure may be more essential to the welfare of the community than others. The infrastructure that will be considered in wildfire protection planning are [in no specific order of importance] listed below:

- 73 Residential Homes
- Band Office
- Community Center
- Elementary and Junior High School
- Maintenance Garage
- Old sawmill building
- Ice Skating Arena
- Spirit Bay Gas Bar
- Cemetery
- Fish Plant
- Church
- Water Treatment Plant
- Sewage Plant
- Firehall
- Medical Center
- BZA Family Services Building
- Boat Launch/Dock (2)

Hazardous Fuel Sources

The hazardous fuel sources in the Community of BZA are predominantly located at the Spirit Bay Gas Bar.

Gas Station (Spirit Bay Gas Bar)

The hazardous fuel sources found at the Spirit Bay Gas Bar site are transportation fuels and oils or fluids. Transportation fuels primarily included gasoline stored in the above ground, stationary slip tank. The hazardous oils and fluids on site include engine oil and hydraulic oil found in the variety store (trailer). Engine oil is far more combustible when compared to hydraulic, but understanding it has the capacity to increase the intensity of a burning fire is why its presence is noted.

Transportation Fuels

Most hazardous transportation fuels, oils & fluids are located at the Spirit Bay Gas Bar (located at the corner of Highway 11 and MacDiarmid Rd.) and the maintenance garage. Hazardous transportation fluids are also found at residential locations, but generally in a reduced quantity.

Natural Resources

Biinjitiwaabik Zaaging Anishinaabek is located within the bounds of the Lake Nipigon Forest (Management Unit #816). The forested area that surrounds the community is home to spruce, pine, fir, birch, aspen, which supports a thriving forest industry while providing habitat for various wildlife species and areas for BZA's membership to exercise traditional activities. The impacts of wildland fire can be distressing to both animal populations and the human population through the destruction of habitat, food sources and culturally significant values.

In addition to the forested area itself, there are areas on the Lake Nipigon Forest where specific management directions are identified for a variety of different reasons – this information is found in the Crown Land Use Policy Atlas. The Crown Land Use Policy Atlas is the source of area-specific land use policy for Crown lands in a large part of central and mid-northern Ontario. Biinjitiwaabik Zaaging Anishinaabek reserve land borders two (2) Crown Land Use Policies areas:

- 1) Onaman/Barbara Lake General Use Area (policy ID: G2617) and
- 2) Biinjitiwaabik Zaaging Anishinaabek First Nation – Addition to Reserve (policy ID: G2615h)⁵.

The Onaman/Barbara General Use Area is located both east and west of the Community and its land use intent is to provide social and economic benefits of lands and resources, contributing to self-reliant and self-sustaining communities. The second Land Use Policy, BZA First Nations Addition to Reserve, is located north, south and east of BZA's perimeters and is a parcel of land that is being considered in the Addition to Reserve process, under the *Land and Larger Land Base* initiative.

Although wildfires are an important renewal agent in the boreal forest, risk mitigation remains one of the highest priorities for communities who reside within the wildland-urban interface and use the natural resources for sustenance, recreational, economic, and spiritual purposes.

⁵Ministry of Natural Resources and Forestry. *Crown Land Use Policy Atlas*.

<http://www.gisapplication.lrc.gov.on.ca/CLUPA/Index.html?site=CLUPA&viewer=CLUPA&locale=en-US>.

Commercial Entities

Within the Community there are two primary commercial entities. The first is the Spirit Bay Gas Bar and second is the commercial fishery – BZA currently holds three (3) provincial commercial fishing licenses.

Road Corridors and Transportation

The Biinjitiwaabik Zaaging Anishinaabek Community is accessible year-round via Highway 11 and a road network within the Community that totals 3.95km. There are currently ten (10) primary access roads in the Community. A breakdown of road lengths by road name is provided in Table 3.

Table 3. Names and lengths of roads within the Community of BZA First Nation.

Road Name	Length (km)
Beamish St E	0.29
Beamish St W	0.43
Fraser St	0.15
Hillcrest St	0.35
MacDiarmid Rd	0.59
MacDonald Ave	1.12
McLeod Ave	0.07
Nipigon Ave	0.33
Spirit Bay Rd	0.42
Sunset Blvd	0.21
Total	3.95

Land Use in the Community

Residential

The Community of Biinjitiwaabik Zaaging Anishinaabek currently has 73 residential buildings on the Reserve. Being that the Community is so developed residentially, it is essential to understand the location, quantity, and size of the residential structures to ensure that the Community Wildland Fire Protection Plan applies to them. The risk of residential fire is very possible given the volume of houses and the location of the reserve land, relative to forested area. FireSmart® recommends that homeowners be proactive in reducing the risk of fire and damage to property by completing a home assessment and taking the appropriate steps to mitigate potential threats.

Residents are encouraged to FireSmart® their homes and properties. There are several measures that can be taken to reduce the risk of fire at a residence. Residents are encouraged to reduce the risk of fire by eliminating potential sources of ignition. Strategies are outlined in the *Priorities and Mitigative/Preventative Measures* section of this document and is also detailed in the Community Awareness Information Brochure distributed to all homeowners.

Recreation and Traditional Activities

Biinjitiwaabik Zaaging Anishinaabek engages in numerous recreational and traditional activities like hunting, fishing, snowmobiling, skiing and hiking. In addition to these conventional forms of recreation, the community also engages in activities such as trapping and resource collection of medicinal plants, berries and traditional items.

Forestry Related Activities

The community of Biinjitiwaabik Zaaging Anishinaabek is located directly within the bounds of the Lake Nipigon Forest Management Unit (MU #816) and has always participated in forestry sector. The Community has aggressively invested itself in the Lake Nipigon Forest through tree planting programs, brush sawing and firewood production. These endeavours have increased employment opportunities for its members and yielded revenues for development. BZA's forestry involvement and accomplishments are described in more detail below.

BZA Forestry Resources Inc.

BZA Forestry Resources is a forest company established in 2014 to provide seasonal forest management work for their membership (primarily in silviculture related activities). The company has continuously participated in the annual tree plant program on the Lake Nipigon Forest. They began planting ~200,000 to 300,000 trees a year but have since more than doubled their tree planting capacity to ~800,000 trees during the 2021 program. In addition to tree planting, BZA Forestry Resources has been involved in brush sawing programs, both for the purposes of plantation cleaning and roadside brushing along forest access roads.

Lake Nipigon Forest Management Inc. (LNFMI)

LNFMI is a First Nation-owned forestry cooperative that maintains the Sustainable Forest Licence on the Lake Nipigon Forest. BZA is one of four First Nation Communities that kept the forest solvent during the 2008 economic downturn and continue to manage the forest today. LNFMI is responsible for all forest activities that occur on the Lake Nipigon Forest, including, but not limited to: wood sales and licensing, forest management planning, forest renewal, forest operations oversight, compliance, and road maintenance.

Four Nations Forestry

In partnership with the other three shareholder communities that comprise LNFMI, an operational arm was developed to explore forestry-related business potentials. Four Nations Forestry is an Indigenous owned cooperative that was founded to enhance, advocate, and facilitate local jobs in the natural resources sector. The company strives improve the skill sets of the local workforce while providing cost-effective solutions to our customers.

Fire History

Biinjitiwaabik Zaaging Anishinaabek has a relatively broad wildfire history. Available wildfire activity data documents a total of 16 wildfires in the area dating back to 1976 that have occurred in, near and adjacent to the Community. Fifteen out of the sixteen documented wildfire events were small, with the majority totalling >1 ha in size. The sixteenth fire, which occurred in 1999, was far more destructive, effectively burning most of the area around/adjacent to the BZA Reserve landbase. The 1999 fire ignited immediately south of the BZA Community and burned north along the eastern shore of Lake Nipigon. The fire ultimately scorched ~3% of the entire Lake Nipigon Forest landbase. This data indicates that the last catastrophic fire to impact the Community was in 1999.

The ignition day for most of the wildfire events occurred between the months of May to August, with a smaller subset occurring in late spring or early to mid fall. A summary of the wildfire events near the Biinjitiwaabik Zaaging Anishinaabek Community is provided in Table 4.

Table 4. Summary of fire activity near the Biinjitiwaabik Zaaging Anishinaabek Community.

Year	Number of Wildfire Events	Total Area Burned (ha)
1976	3	1.1
1978	2	0.6
1980	1	0.2
1981	1	0.2
1982	1	1
1983	2	0.3
1984	2	1.4
1986	1	0.1
1987	1	1
1991	1	1.5
1992	2	0.2
1998	1	0.3
1999	1	N/A*
2002	1	0.5
2012	1	0.1
2020	1	0.1

* The specific hectarage is not known.

Fire Suppression Resources

Currently, the community of Biinjitiwaabik Zaaging Anishinaabek has a modest fire suppression capacity. The Community owns an operational Fire Truck with all associated equipment (e.g., hose, nozzles, fire extinguishers, etc.). Following the implementation of the FireSmart® program, the community will have additional fire suppression equipment at their disposal. The list of equipment the community will obtain, and receive training on, is listed in the *Training and Equipment* section of this document.

Community Wildland Fire Risk Assessment

The community wildland fire risk assessment is classified into seven categories, based on a two-tier system to analyze associated risk and fire severity. Fire hazard risk and asset type are the factors that influence the severity of a wildland fire in the Community. The fire hazard map in figure 2 displays the fire hazard fuel rating, relative to the location of Community infrastructure. The seven (7) risk assessment categories are listed below:

- High Risk → High Assets
- High Risk → Medium Assets
- Moderate Risk → Medium Assets
- Moderate Risk → Low Assets
- Low Risk → High Assets
- Low Risk → Medium Assets
- Low Risk → Low Assets

*NOTE: In the list above, red indicates a high impact and green indicates a low impact to Community infrastructure.

Priorities and Mitigative/Preventative Measures

As part of the Biinjitiwaabik Zaaging Anishinaabek Community Wildland Fire Protection Plan, there are recommendations for fire suppression within the community. Implementing the recommended mitigative/preventative measures will ensure the Community does everything in its power to minimize the impacts of wildland fires while educating all community members on the FireSmart® program.

Community Wildfire Preparedness Day

To guarantee that all community members are aware of the contents in the Biinjitiwaabik Zaaging Anishinaabek Community Wildland Fire Protection Plan, it is strongly encouraged that the Community implements an annual Wildfire Preparedness Day. The Community Wildfire Preparedness Day is intended to be an information sharing forum to allow leadership to review FireSmart® procedures, educate community members and receive feedback on ways to improve the Wildland Protection Plan. To supplement the annual Wildfire Preparedness Day, additional Fire Safe documentation can be distributed to community members on a more regular basis or as there are changes made to the plan.

Vegetation Management and Value Protection Measures

Mitigation measures should be prioritized in the High risk → High assets areas and then applied as needed to the categories of declining concern. The High risk → High assets category encompasses areas that are more densely populated and possess valuable infrastructure with mature conifer forests accompanied by both fine and ladder fuels. The mitigation recommendations are as follows:

- Thinning of mature conifer stands to remove understory fuels
- Pruning programs to eliminate ladder fuels that facilitate the spread of fire to the crown
- Creation of fire breaks
- Readily available fire suppression equipment

Where structures are present in areas of high risk, a program should be developed to educate individuals on ways to reduce structural ignitability. Some examples of methods to reduce ignitability include:

- Regular cleaning of the roof and gutters to remove accumulated debris
- Replacing single pane glass windows with double pane/thermal glass windows
- Regularly cleaning the chimney
- Clearing vegetation near the structure
- Removing flammable items (i.e., tires, oils, fuels) away from the structure

Through discussions with BZA Community representatives, it was determined that there is a desire cut a fire line/fire break between theirs and Bingwi Neyaashi Anishinaabek (BNA) First Nations Reserve Land boundaries (north of the Community). This fire line would inhibit the spread of a wildfire north into BNA's Community, should a wildland fire ignite to the south.

Volunteer Fire Department/First Response Team

With the remote northern location of the Bijnjitiwaabik Zaaging Anishinaabek Community, it is recommended that a volunteer fire department, or emergency response team be developed to serve as the first line of defence in a wildfire event. The team would be comprised of individuals who live on reserve with a thorough understanding of the Community Wildland Fire Protection Plan and have received the pertinent training on fire suppression procedures and equipment. This team of individuals could also serve as an educational group to spread FireSmart® awareness to the rest of the community and participate in the Community Wildfire Preparedness Day.

Brushing MacDiarmid Rd.

MacDiarmid Rd. is the only primary access route into the Community from Highway 11. Knowing this, it is recommended that vegetation management/brushing be prioritized along the road to protect its integrity. Removing higher risk hazards, like laddering fuels and flammable understory tree species, will reduce the ignitability/flammability along the road and, in the event of a wildfire, will ideally allow members to use it as safe passage if evacuation is necessary.

Emergency Road Development

Currently, there is only one primary access route in and out of the Community; MacDiarmid Rd. In the event of a wildfire, it may not be safe for members to exit, or responders enter the community via MacDiarmid Rd. It is strongly recommended that an emergency access road be developed to provide an alternate access point in and out of the Community. A proposed road location is included in the Community Fire Plan to facilitate planning and construction. The proposed road would begin at the southern extent of MacDonald Ave and extend east, across the old railbed, toward Highway 11. The proposed corridor is approximately 375m long and is displayed in the mapping products included as part of the plan.

Public Warning System

The safety of all BZA Community members is the highest priority in the event of a wildfire. To uphold the safety of the community members, it is strongly recommended Bijnjitiwaabik Zaaging Anishinaabek develop a warning system to alert residents [and the Ministry of Natural Resources and Forestry] of an imminent wildfire event. Below are a few examples of a public warning system that can be adopted by Bijnjitiwaabik Zaaging Anishinaabek:

- Siren(s) or horn(s)

- A small group of dedicated individuals going door to door
- Social media posting
- Emergency text message system

Monitoring and Evaluation

The Community Wildland Fire Protection Plan should be reviewed by Council whenever there are changes to the landscape, however, it is suggested that cursory review take place every 5 years at minimum.

Enforcement

Type of enforcement is dependent on cause and location of wildland fire. One or more of the following enforcement agencies may be required for a given incident: OPP, the Office of the Fire Marshal and Emergency Management (OFMEM), MNRF and Community Leadership.

Wildfire Response

A Wildfire Response Plan describes how to prepare for and respond to wildfires. The purpose of a Wildfire Plan is to ensure safety of staff in the event of wildfire, and to prepare the property for reduced wildfire impacts. The three primary goals of wildfire response planning are:

1. Prevent the loss of human life or injury
2. Prevent the losses, economic and social disruptions
3. Promote the understanding of the ecological role that fire plays in renewing the boreal forest

Emergency Service Equipment

The Community of Biinjitiwaabik Zaaging Anishinaabek owns and maintains a fire truck, but does not currently have a Volunteer Fire Department or First Response Team. As previously noted, it is strongly advised that the Community develop such a team to mitigate, prevent and suppress wildfire threats to the Community population and infrastructure.

Public Warning System

Biinjitiwaabik Zaaging Anishinaabek does not currently have an official public warning system. The development of this system is discussed in the *Priorities and Mitigative/Preventative Measures* section.

Water Sources

The primary water source in the event of a wildfire event is Lake Nipigon, which is the body of water that that the Community is situated on the shores of.

Training and Equipment

Through the course of the FireSmart® Program implementation in the Biinjitiwaabik Zaaging Anishinaabek Community, supervisor and crew will be provided with basic training to ensure the safe operation of equipment and a safe work environment for all participating. Online training modules include:

- Basic First Aid
- Workplace Harassment
- WHMIS 2015
- Chain Saw Safety
- Tree Felling

The follow list of equipment is also required to ensure safe and efficient implementation of the FireSmart® program:

- Brush Saw
- Chain Saw
- Saw materials – fuel, lubricants, sharpener
- Personal Protective Equipment – steel toe boots, cutting chaps, hardhat, gloves, hearing protection and safety glasses

In addition to the training modules and equipment provided, there are several Wildland Fire training programs available, and they are listed below:

- SP103 Municipal Fire Fighter Course
 - Entry level fire fighter course
 - Equipment maintenance
 - Wildland suppression strategies using power pumps, hose and hand tools effectively
 - Pre-requisite to the SP 230 course
- SP230 Strategies and Tactics Course – Designed for Fire Officers or Fire Officer Candidates
 - Advanced fire behaviour understanding
 - Designed to assist Fire Officers to be able to assess fires and employ various suppression strategies
 - Wildland fire safety principles
- Aircraft Safety Training
 - How to work with MNRD aircraft
 - Safety protocols during water bombing activities
- FireSmart® Community Training
 - Presentations to train staff on how to conduct assessments
 - Community planning guide
 - Homeowner Engagement strategies

The Community's proximity to forested land increases the probability of wildland fires within its jurisdiction. If a Volunteer Fire Department is developed in the Community, the crew should remain current with all pertinent training and information.

Mapping Products

Four (4) maps and a Community Information Brochure have been created to display the Community layout, community assets and wildland fire hazard rating. These maps include:

- Community Base Map
- Forest Cover and Topography Map
- Wildland Fire Hazard Map
- Imagery Map
- Wildland Fire Risk Assessment Brochure