



Aviation, Forest Fire and  
Emergency Services

Services d'urgence, d'aviation et de  
lutte contre les feux de forêt

# Wildland Fire Management Strategy

## Executive Summary

The *Wildland Fire Management Strategy* provides strategic direction for the Ministry of Natural Resources and Forestry's (MNR) management of wildland fire within the province of Ontario.

Wildland fire management goals and objectives are:

### Goals

1. Prevent loss of human life and injury;
2. Prevent and mitigate losses, economic disruption and social disruption;
3. Promote the understanding of the ecological role of fire and use fire to benefit resource management.

### Objectives

1. **Prevent:** The threat to people and values is diminished by reducing the number of human-caused wildland fires.
2. **Mitigate:** Property owners and land managers take action to mitigate the undesirable impacts of wildland fires on their property or other values.
3. **Respond:** All fires are assessed and receive an appropriate response.
4. **Understand:** The people of Ontario are aware of and support the ecological role of wildland fire.
5. **Apply:** Wildland fires and prescribed burns are safely and effectively used to reduce wildland fire hazards and meet ecological and resource management objectives.

This strategy moves away from the previous zone-based approach to one where each wildland fire is assessed and receives an appropriate response according to the circumstances and condition of the fire. Under this approach, wildland fires that are an immediate threat to high values, such as communities or infrastructure, will be responded to as quickly as possible to minimize damages and disruption. Wildland fires that are not threatening values can be managed effectively to limit negative impacts, enable the beneficial ecological role of fire and manage costs. The strategy also renews commitment for wildland fire prevention and mitigation actions which also help achieve the wildland fire management goals of protecting public safety and reducing losses.

The fire management program will produce annual wildland fire statistics and will report on progress every five years and use this information to improve our performance and raise awareness and understanding among our partners and all Ontarians.

The MNR remains committed to ensuring public safety and reducing economic and social disruption.

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## 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. 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 (Figure 1). Most wildland fires are kept small through firefighting actions. In a few cases, fires 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.

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 provides 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.

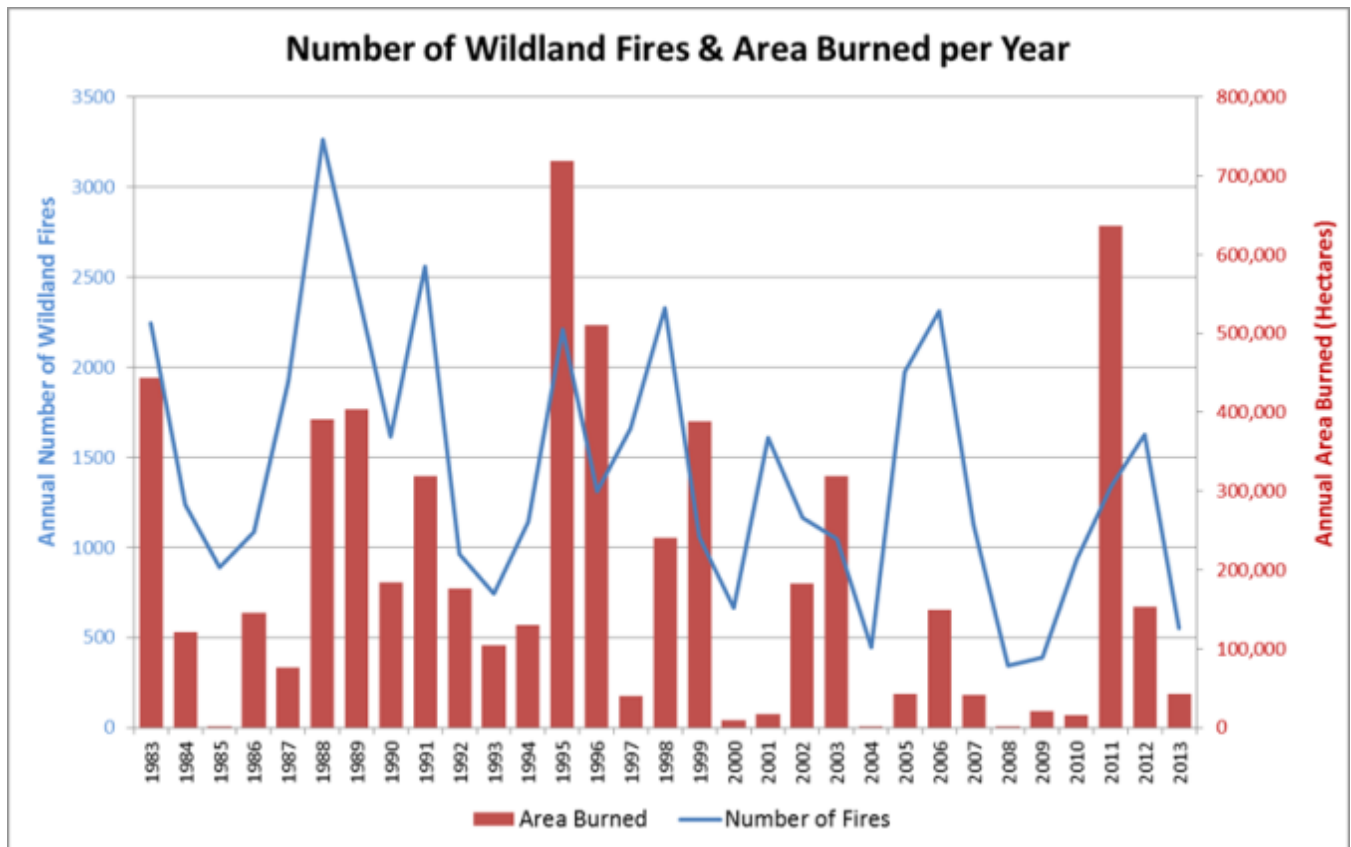
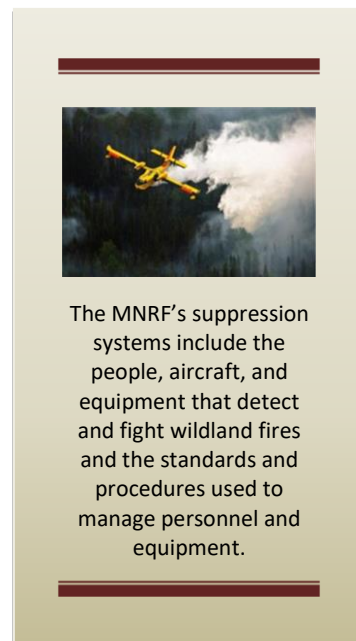


Figure 1: Fire Statistics

In 2004, the *Forest Fire Management Strategy for Ontario* was approved to provide direction to wildland fire management in the province. The province was divided into zones which prescribed the general initial response to wildland fire. For example, in the Great Lakes-St. Lawrence Zone, which covers central Ontario, the initial fire response would be full suppression to minimize the area burned. Other zones had different direction, for example, in the Northern Boreal Zone, fire managers were directed to assess each fire to determine whether values were threatened and consider resource availability before determining the fire response. Generally, if there was no threat to values, alternative responses could be used or the fire could be monitored.

In addition to fire management direction provided in relation to each zone, specific localized plans could be developed to provide direction for defined geographic areas that may be different from that of the surrounding zone. For example, the *Quetico Provincial Park Fire Management Plan* allows for a modified or monitored response within the Park whereas the zone surrounding the Park requires full suppression.

In the coming years, a number of factors will increasingly challenge our ability to respond to wildland fires. Continued population expansion and industrial activity will mean more people living and working in areas of high wildland fire potential. Climate change is expected to result in more variable and extreme weather patterns that may result in longer and more severe fire seasons in some areas. Changes in the duration and extent of drought and forests damaged by wind, insects and disease will create more complex situations for wildland fire managers as they support diverse land management objectives. Program capacity issues and higher costs related to firefighting are also always a challenge to wildland fire managers. Most jurisdictions across North America are addressing similar challenges and recognize this may affect the dependability of resource sharing among governments.



In 2013, the Ministry of Natural Resources and Forestry (MNRF) engaged governments, stakeholders, Aboriginal communities and the public on the need to update the direction for wildland fire management across the province. Comments generally supported the direction the MNRF is taking, and offered advice on directions proposed in this *Wildland Fire Management Strategy*.



The MNRF will address challenges by continuing to maintain a fire management program that is mobile, flexible and able to expand when necessary to respond to areas of fire hazard and fire activity.

This *Wildland Fire Management Strategy* builds on the direction introduced in 2004 and the knowledge and expertise gained over more than a century of fire management. The MNRF remains committed to ensuring public safety and reducing economic and social disruption.

## Context

### Mandate

The MNR is the steward of Ontario's forests, fisheries, wildlife, provincial parks and protected areas, mineral aggregates, petroleum resources and the Crown lands and waters that make up 87 per cent of the province. The MNR accomplishes its mandate to protect and sustainably manage Ontario's natural resources through a broad range of laws and programs. Part of this mandate includes the responsibility to lead the prevention and mitigation of, preparedness for, response to, and recovery from, wildland fires.

The MNR is committed to conserving biodiversity and managing our natural resources in an ecologically sustainable way to ensure that they are available for the enjoyment and use of future generations. While wildland fire can threaten communities and economic activity, it also has an important role to play in maintaining healthy diverse ecosystems. Therefore, wildland fire management also includes ensuring opportunities exist for fire to function naturally in the environment.

### Legislation

Ontario's natural resources are regulated under various pieces of legislation that together help to manage these resources. Authority relative to wildland fire management comes from the *Forest Fires Prevention Act (FFPA)*.

The *FFPA* applies to the fire regions as set out in regulation (Figure 2). The Act establishes:

- The fire season from April 1 to October 31, may be extended by regulation.
- Where and when fire permits are required.
- Penalties for contravention of the Act and regulations.
- Provision for implementing restricted fire zones where outdoor burning can be restricted.
- Declaration of emergency areas and orders for fire suppression and the safety and evacuations of persons.
- Responsibility of municipalities with respect to the suppression of wildland fires within their jurisdiction.

As wildland fire affects many of our natural resource values, other legislation also influences wildland fires management, such as:

- The Public Lands Act*
- Endangered Species Act*
- Crown Forest Sustainability Act*

Fire protection in municipalities and outside the fire regions is also regulated by the *FFPA*.

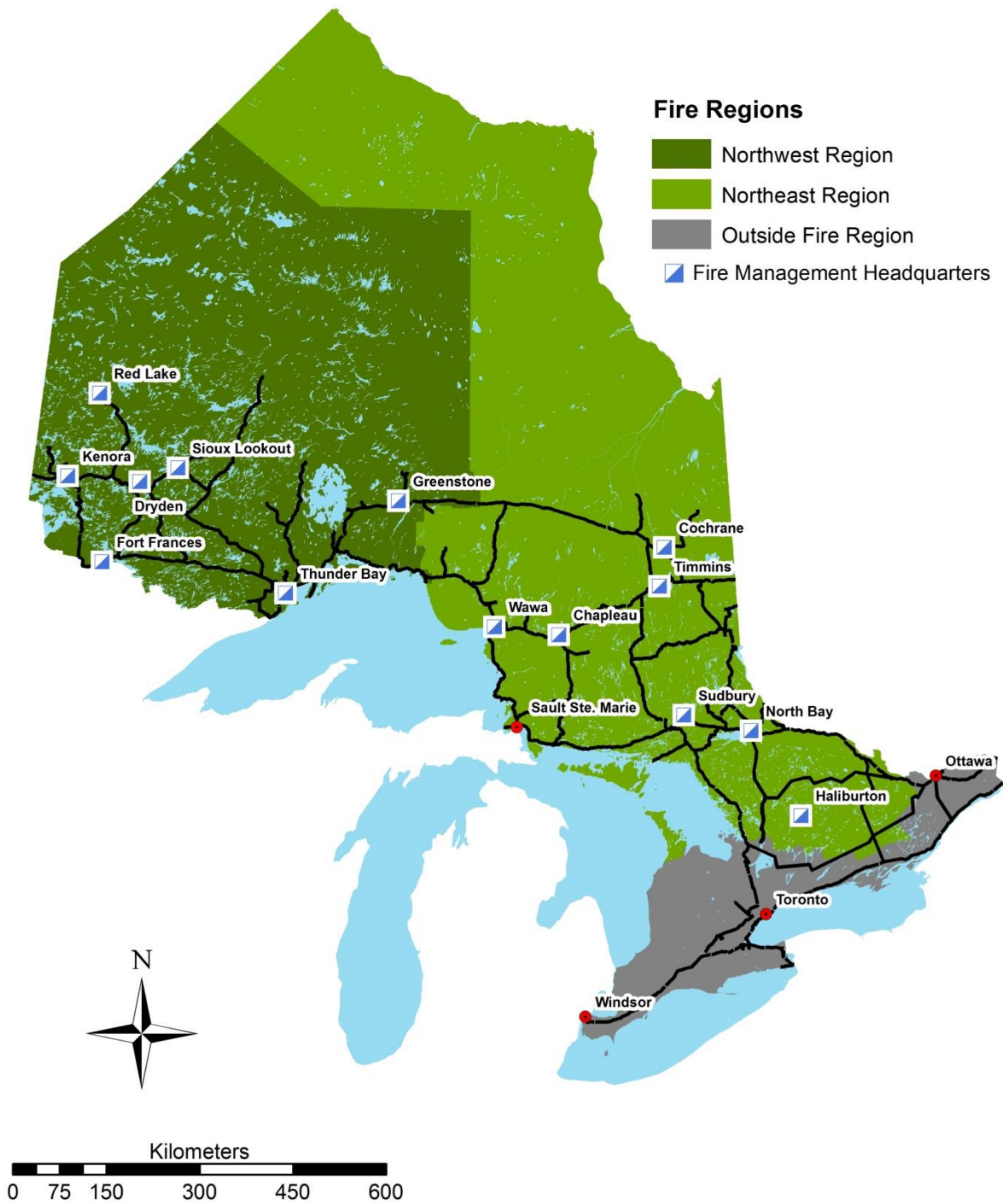


Figure 2: The fire regions of Ontario

## Strategic Direction

The direction set out in this document provides the foundation for daily wildland fire response decisions for the protection of human life and values and recognizes the strong link between land use/resource management plans and the role wildland fire has in achieving resource management objectives. The *goals, objectives and actions* outlined in this strategy strive to balance the needs for public safety and economic protection, the ecological role of wildland fire and the capacity of the fire management program within the MNRF.

This strategy moves away from the previous zone-based approach to one where each wildland fire is assessed and receives an appropriate response according to the circumstances and condition of the fire. Under this approach, wildland fires that are an immediate threat to high values such as communities, power lines, roads, etc. will be responded to as quickly as possible to minimize damages and disruption. Wildland fires which are not threatening values can be managed effectively to limit negative impacts, enable the beneficial ecological role of fire, and manage costs. The strategy also outlines direction for wildland fire prevention and mitigation which are also tactics for achieving wildland fire management goals.

The *goals, objectives and actions* in the strategy are derived from considerable knowledge, experience, public, stakeholder and community engagement and analysis of information to ensure that our activities focus on supporting public priorities. Figure 3 illustrates how the MNRF's wildland fire management inputs and activities support high level government priorities.

### Principles

All actions related to managing wildland fire in Ontario are guided by the following principles:

- Safety: The safety of the public and firefighters is always our first priority.
- Efficiency: Preparedness and response should minimize the expected fire management costs and net losses while accounting for risk.
- Responsibility: All governments, Aboriginal peoples, the public, and industry have shared responsibility for wildland fire prevention, loss mitigation and supporting the ecological role of wildland fire.

### Goals

- Prevent loss of human life and injury;
- Prevent and mitigate losses, economic disruption and social disruption;
- Promote the understanding of the ecological role of fire and use fire to benefit resource management.

### Objectives

1. **Prevent:** The threat to people and values is diminished by reducing the number of human-caused wildland fires.



2. **Mitigate:** Property owners and land managers take action to mitigate the undesirable impacts of wildland fires on their property or other values.
3. **Respond:** All fires are assessed and receive an appropriate response.
4. **Understand:** The people of Ontario are aware of and support the ecological role of wildland fire.
5. **Apply:** Wildland fires and prescribed burns are safely and effectively used to reduce wildland fire hazards and meet ecological and resource management objectives.

The following sections provide a description of each of the wildland fire management objectives and the actions to be taken.



**Figure 3: Wildland Fire Management Strategic Process**

## **Objective 1 – Prevent**

***The threat to people and values is diminished by reducing the number of human-caused wildland fires.***

Fire prevention measures include public education, following best practices and regulation of high risk activities, particularly during times of high wildland fire danger.

The MNRF is responsible for education and enforcement of the FFPA and regulations. This Act sets out rules aimed at preventing wildland fires from starting. Under the Act people living and working in forested areas must follow fire prevention rules. However, human activity still results in hundreds of fires every year. With increased development activity, particularly in the Far North, there is a greater potential for wildland fires in proximity to people, infrastructure and buildings. This emphasizes the need to continue to take steps to reduce the number of human-caused fires especially those related to land clearing or equipment working in remote, fire-prone areas.

In addition to continuing public wildland fire prevention and compliance programs, the MNRF will consult on amendments to appropriate regulations for industrial activity, such as road or transmission line construction, mine site clearing, exploration, or other activities. Such proposals may include requirements to plan for wildland fire occurrence and protect resources and infrastructure by preventing fires, including:

- Controls on the type and/or timing of activities in forested areas based on the risk of fires starting from that activity, consistent with the current Modifying Industrial Operations Protocol used by forest industry; and
- Requirements for having plans in place to protect assets and infrastructure and to reduce losses, should a fire occur, such as wildland fire prevention and preparedness plans and community protection plans.

### Actions:

- Increase awareness of the safe use of fire and wildland fire prevention practices through education programs directed at priority fire causes and responsible groups;
- Continue to enforce wildland fire prevention regulations to ensure consistency in fire prevention rules so the number of wildland fires starting from industrial activities is minimized;
- Continue to restrict use of open fires during periods of elevated wildland fire activity or high fire danger;
- Continue to analyze trends in wildland fire causes to direct prevention activities.

## **Objective 2 – Mitigate**

### ***Property owners and land managers take action to mitigate the undesirable impacts of wildland fires on their property or other values.***

While our primary goal is to prevent or reduce losses and economic and social disruption related to wildland fires, there will be times when, in spite of our best efforts, losses will occur. In severe fire situations, firefighters will not be able to eliminate or reduce impact on all values. There are steps that property owners and land managers can and should take to reduce the risk of losses due to wildland fires. These mitigating actions increase public safety and are an effective way to lessen property damage, value loss and economic and social disruption resulting from wildland fires.

The MNRF has adopted the [FireSmart](#)<sup>1</sup> program used across Canada to engage property owners, municipalities and industry in reducing property loss in the event of a wildland fire. We will continue to work with partner agencies such as *FireSmart* Canada, the Ontario Office of the Fire Marshal and Emergency Management, and other ministries to support communities and individuals to prepare for wildland fire emergencies.

#### Actions:

- ❑ Develop and provide information on the risks of living in fire-prone environments and the benefits of mitigation activities;
- ❑ Enhance promotion of and assist in the development of community *FireSmart* initiatives;
- ❑ Renew commitment to work with industrial and commercial operations to develop and implement *FireSmart* strategies.

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*FireSmart in Ontario*  
Ontario adopted FireSmart in 2004 as an educational program that provides information and tools to assist communities and homeowners in reducing losses due to wildland fires.

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*The FireSmart program focuses on reducing the threat of wildfire to human life and communities through application of the seven mitigation principles for the wildland/urban interface:*

1. *Vegetation management*
  2. *Development considerations*
  3. *Public education*
  4. *Legislation*
  5. *Inter-agency cooperation*
  6. *Cross-training*
  7. *Emergency planning*
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<sup>1</sup><https://www.ontario.ca/environment-and-energy/wildfire-protection>

### Objective 3 – Respond

#### ***All fires are assessed and receive an appropriate response.***

Values are those ecological, social and economic resources that could be lost, disrupted or damaged because of a wildland fire. Values can be many things to different people: homes, timber resources, species at risk habitat, infrastructure, towns and communities, remote cabins or cultural heritage sites. Wildland fire and resource managers, industry, communities and others need to continue working together to identify values and communicate resource and other management objectives at risk from wildland fire.

An appropriate response to a fire is an action intended to get the best overall results with the aim of:

- Low losses from damage and disruptions caused by fire;
- High resource and ecological benefits from fire; and
- Low cost.

Appropriate response also considers:

- Safety as the highest priority;
- The availability of firefighting resources; and
- Managing risk by taking into account the uncertainty about many factors including the state of the fire, weather, fire behaviour, potential values at risk, potential resource and ecological benefits, as well as the cost and effectiveness of various suppression options.

Determining an appropriate response requires considerable knowledge and experience to assess many factors. The fire program has a long history of wildland fire response both during quiet and very busy wildland fire seasons when the number of fires requires resources beyond the available capacity. This is when the need to prioritize is required. Much of the time, wildland fires will continue to be suppressed because of the potential threat to values such as communities, infrastructure, and timber supplies. Some wildland fires, however, will receive a less aggressive response or will be monitored based on a combination of factors such as where values are at low risk, potential benefits of wildland fire are high, anticipated suppression costs are high and/or work conditions for staff are hazardous.

Examples of where a wildland fire may be monitored are:

- Fires that are distantly located from communities, homes, or timber supplies;
- Fires in provincial parks and conservation reserves to maintain or enhance ecological integrity;
- Fires on islands and peninsulas;
- Fires burning toward water or wetlands; and
- Fires burning damaged fuels such as trees damaged by storms or killed by insects.

Actions:

- Maintain wildland fire management resources, including highly trained and capable staff and modern equipment;
- Ensure that fire managers have the tools and knowledge to determine an appropriate response for each wildland fire by considering all the available information on the potential

threat to values, ecological benefits, anticipated firefighting costs and the availability of firefighting resources;

- Employ the best fire management tactics available to safely, effectively and efficiently manage wildland fires for value protection and ecological benefits;
- Use standard procedures and tools to predict, detect, assess and respond to wildland fires;
- Work with interested partners to identify values and improve wildland fire response planning;
- Develop and maintain partnerships for mutual support.

#### **Objective 4 – Understand**

##### ***The people of Ontario are aware of and support the ecological role of fire.***

Ontario's ecosystems have evolved with fire and many depend on it for renewal and maintenance of natural conditions. Fire is a natural force that sustains the cycle of growth, death and re-growth. For example, frequent grassland fires promote the growth of native herbs and grasses and prevent trees, shrubs and non-native plants from invading. Many forests naturally depend on fire for renewal. The plants and animals in these ecosystems are adapted to fire and the conditions it creates.

Many of Ontario's Aboriginal peoples possess a deep understanding of the traditional role of fire. This traditional knowledge, along with science on fire ecology and behaviour can help inform and guide wildland fire management.

Provincial parks and protected areas offer excellent opportunities to demonstrate the use of fire and educate the public about the ecological benefits of fire. Allowing fire to burn in these areas also provides opportunities for learning about the effect of fire on vegetation and wildlife.

In order to continue to have healthy ecosystems, the people of Ontario need to understand the role fire plays in nature, even though it adds some complexity to managing wildland fire.

#### **Actions:**

- Develop and distribute public education and information products about the benefits of wildland fire and how wildland fire is managed to ensure understanding of the ecological and historical role of fire in Ontario;
- Partner with other government programs in public education;
- Expand and maintain expertise related to fire ecology and fire science;
- Support existing and explore new research partnerships related to the role of fire in Ontario's ecosystems;
- Promote the sharing of information and knowledge about wildland fire.

## **Objective 5 – Apply**

### ***Wildland fires and prescribed burns are safely and effectively used to reduce wildland fire hazards and meet ecological and resource management objectives.***

The MNRF's resource management program uses the beneficial effects of wildland fire where possible to help achieve diverse resource and land management objectives. This is done either by allowing wildland fire to burn under low risk conditions or planned prescribed burning. In the absence of wildland fire, prescribed burning, including traditional burning done by Aboriginal communities, promotes long-term ecological sustainability in many of Ontario's ecosystems. Identifying opportunities for the use of wildland fire to support biodiversity and ecosystem health will assist fire managers in choosing the appropriate response to achieve desired objectives. A firm understanding of fire science, and continued monitoring and measurement of ecosystem status will support effective use of wildland fire and prescribed burning.

Some of the common examples of where prescribed burning or wildland fires are used include:

**Forest Renewal** - Prescribed burns can prepare harvested areas for planting or seeding to regenerate the next forest.

**Ecosystem and Habitat Maintenance** - Fire can be selectively used by resource managers to renew fire dependent ecosystems and wildlife habitat on a local scale. Ontario's provincial parks and conservation reserves are areas where the use of fire is a key management tool for maintaining or restoring healthy ecosystems.

**Hazard Reduction** - Fires that occur in decaying, insect, or wind damaged forest often grow rapidly and become very difficult and costly to extinguish. In some cases, fires that start in a decadent or damaged forest can be safely managed to natural boundaries to reduce hazardous forest conditions, improve safety, and reduce costs. Prescribed burns can be used in much the same way.

**Actions:**

- Work with resource, land and protected area managers, Aboriginal communities, stakeholders and the public to identify opportunities to use wildland fire and prescribed burning for ecological and resource management benefits;
- Develop and maintain a knowledgeable workforce able to manage wildfires for ecological and resource management benefits;
- Enable a workforce within AFFES, Ontario Parks and partner organizations capable of safely and cost-effectively delivering prescribed burns;
- Employ a flexible fire response system to manage fire for ecological and resource management benefits;
- Ensure policy, standards and planning processes are in place for using fire.

#### ***Fire in Protected Areas***

*Ontario's provincial parks and conservation reserves provide opportunities to demonstrate how fire can be used to maintain and enhance ecosystems such as tallgrass prairie and boreal forests*



**Table 1: Summary Table – Goals, Objectives and Actions**

**Wildland Fire Management Goals:**

1. **Prevent loss of human life and injury;**
2. **Prevent and mitigate losses, economic disruption and social disruption; and**
3. **Promote the understanding of the ecological role of fire and use fire to benefit resource management.**

Objective	Actions
<p><b>Prevent</b></p> <p>The threat to people and values is diminished by reducing the number of human-caused wildland fires.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Increase awareness of the safe use of fire and wildland fire prevention practices through education programs directed at priority fire causes and responsible groups;</li> <li><input type="checkbox"/> Continue to enforce wildland fire prevention regulations to ensure consistency in fire prevention rules so the number of wildland fires starting from industrial activities is minimized;</li> <li><input type="checkbox"/> Continue to restrict use of open fires during periods of elevated wildland fire activity or high fire danger;</li> <li><input type="checkbox"/> Continue to analyze trends in wildland fire causes to direct prevention activities.</li> </ul>
<p><b>Mitigate</b></p> <p>Property owners and land managers take action to mitigate the undesirable impacts of wildland fires on their property or other values.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Develop and provide information on the risks of living in fire-prone environments and the benefits of mitigation activities;</li> <li><input type="checkbox"/> Enhance promotion of and assist in the development of community <i>FireSmart</i> initiatives;</li> <li><input type="checkbox"/> Renew commitment to work with industrial and commercial operations to develop and implement <i>FireSmart</i> strategies.</li> </ul>
<p><b>Respond</b></p> <p>All fires are assessed and receive an appropriate response.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Maintain wildland fire management resources, including highly trained and capable staff and modern equipment;</li> <li><input type="checkbox"/> Ensure that fire managers have the tools and knowledge to determine an appropriate response for each wildland fire by considering all the available information on the potential threat to values, ecological benefits, anticipated firefighting costs and the availability of firefighting resources;</li> <li><input type="checkbox"/> Employ the best fire management tactics available to safely, effectively and efficiently manage wildland fires for value protection and ecological benefits;</li> <li><input type="checkbox"/> Use standard procedures and tools to predict, detect, assess and respond to wildland fires;</li> <li><input type="checkbox"/> Work with interested partners to identify values and improve wildland fire response planning;</li> <li><input type="checkbox"/> Develop and maintain partnerships for mutual support.</li> </ul>
<p><b>Understand</b></p> <p>The people of Ontario are aware of and support the ecological role of wildland fire.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Develop and distribute public education and information products about the benefits of wildland fire and how wildland fire is managed to ensure understanding of the ecological and historical role of fire in Ontario;</li> <li><input type="checkbox"/> Partner with other government programs in public education;</li> <li><input type="checkbox"/> Expand and maintain expertise related to fire ecology and fire science;</li> <li><input type="checkbox"/> Support existing and explore new research partnerships related to the role of fire in Ontario’s ecosystems;</li> <li><input type="checkbox"/> Promote the sharing of information and knowledge about wildland fire.</li> </ul>
<p><b>Apply</b></p> <p>Wildland fires and prescribed burns are safely and effectively used to reduce wildland fire hazards and meet ecological and resource management objectives.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Work with resource and land managers, stakeholders and the public to identify opportunities to use wildland fire and prescribed burning for ecological and resource management benefits;</li> <li><input type="checkbox"/> Develop and maintain a knowledgeable workforce able to manage wildfires for ecological and resource management benefits;</li> <li><input type="checkbox"/> Enable a workforce within AFFES, Ontario Parks and partner organizations capable of safely and cost-effectively delivering prescribed burns;</li> <li><input type="checkbox"/> Employ a flexible fire response system to manage fire for ecological and resource management benefits;</li> <li><input type="checkbox"/> Ensure policy, standards and planning processes are in place for using fire.</li> </ul>

## **Identifying Local Values and Setting Priorities**

The implementation of strategic directions and objectives for a specific wildland fire or local area depends on other plans and information about the values at risk and opportunities for fire use. In the best case, wildland fire direction will be included in other planning activities such as land use or forest management plans to improve wildland fire management decision making by providing direction on the role and use of wildland fire in significant advance of fire situations.

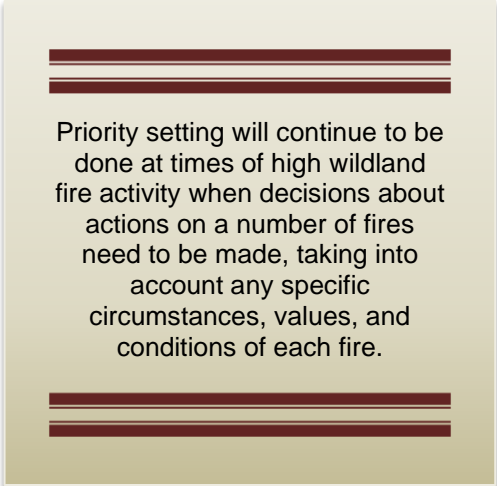
Resource managers, communities and individuals can identify landscape scale or site-specific values-at-risk, opportunities for beneficial fire and general management objectives on the landscape. Gathering this information and keeping it up to date is an existing process that will need to evolve over time under this strategy.

Ontario's system of provincial parks and conservation reserves provides opportunities for achieving the ecological benefits of fire by managing fire response. Protected area, resource and land managers along with wildland fire managers will continue to work together to identify values requiring protection and setting priorities that will allow appropriate fire use on the landscape. This will ensure efficient decision making when fires start within these areas.

While as much information as possible should be collected and priorities set before fires occur, ultimately decisions are made in the context of fire situations, when fire locations, forecast weather and location of values can be discussed. The work of identifying values, opportunities and objectives will continue at local and regional levels to ensure that wildland fire supports sustainable forests, and biodiversity goals and values are protected.

## **Working with Aboriginal Communities**

Some Aboriginal communities, because of the nature of forests on their traditional lands and the risk of wildland fire, have a keen interest in more detailed planning, priority setting, and partnerships than are specified in this strategy. The MNR will work to engage those communities in a dialogue to mitigate risks locally and ensure management of wildland fire adds to the sustainability of both the communities and the land those communities rely upon. Dialogue initiated during the building of this strategy is just a beginning. The MNR recognizes several years of building understanding, capacity, and collaborative working models will be required to address wildland fire response planning, prevention, priority setting, and mitigation activities appropriate to the local situation.



Priority setting will continue to be done at times of high wildland fire activity when decisions about actions on a number of fires need to be made, taking into account any specific circumstances, values, and conditions of each fire.



## Reporting

The MNRF is committed to measuring, assessing and reporting on outcomes from this strategy so that the public and stakeholders can be informed about wildland fire management. Results will be used to guide decision making and support efforts for continuous improvement.

Up-to-date information about the fire situation will be provided throughout every fire season so that the public, local stakeholders and Aboriginal communities will be informed about the ongoing wildland fire situation. Overall fire outcomes will be reported annually following the end of each fire season.

Every five years, a review of impacts and trends will be reported which will serve to identify emerging needs and issues to guide program development in the future. Table 2 outlines the type of information that will be reported.

Table 2: Types of Report-Back on Wildland Fire

Reporting Frequency	Reporting
In-Year Current Fire Situation	<ul style="list-style-type: none"> <li><input type="checkbox"/> Number, status, location and the size of wildland fires.</li> </ul>
Annual Impacts & Outcome Reporting	<ul style="list-style-type: none"> <li><input type="checkbox"/> Number of wildland fires and area burned: total and by cause;</li> <li><input type="checkbox"/> Assessment of impacts of area burned on values (e.g., undesirable, beneficial and neutral);</li> <li><input type="checkbox"/> Map of wildland fire locations with perimeters for large fires;</li> <li><input type="checkbox"/> Initial attack success on full suppression fires;</li> <li><input type="checkbox"/> Report on firefighting resource sharing with other jurisdictions;</li> <li><input type="checkbox"/> Fire program expenditures;</li> <li><input type="checkbox"/> Prescribed burning; and</li> <li><input type="checkbox"/> Fire Related Emergency Response (e.g., evacuations, emergency area orders).</li> </ul>
Five Year Performance Measurement	<ul style="list-style-type: none"> <li><input type="checkbox"/> Fire program efficiency;</li> <li><input type="checkbox"/> Impact of fire disturbance on areas of concern (e.g., wood supply, species at risk);</li> <li><input type="checkbox"/> Social disruption and mitigation, such as:               <ul style="list-style-type: none"> <li>○ Evacuations related to wildland fire; and</li> <li>○ <i>FireSmart</i> and prevention program achievements.</li> </ul> </li> <li><input type="checkbox"/> Utilization of beneficial role of fire.</li> </ul>

## Keeping the Strategy Current

The *Wildland Fire Management Strategy* will be reviewed and revised as necessary to meet emerging needs identified through the five year reports. This will allow ongoing adaptation to support the delivery of an effective and efficient fire management program for Ontario.

## Implementation

This strategy guides wildland fire management actions for now and the future. It will take time, effort and cooperation amongst many diverse groups to fully implement the strategy. The MNRF will ensure that wildland fire management aspects are incorporated into appropriate policy, procedures and guidelines.

Implementation requirements that are planned or in development, include:

- Provincial *FireSmart* implementation plan;
- Proposal to create hazard-based wildland fire prevention rules for industrial activities in wildland areas;
- Updating fire response and fire use practices and procedures;
- Developing new risk-based wildland fire decision support tools;
- Developing effective ways to measure the success or impacts of managing wildland fire on various values (e.g., timber supply, species at risk habitat) to lead to program improvements; and
- Continuing dialog with Aboriginal groups and stakeholders on the management of wildland fire and to develop ways to ensure other land use processes also plan for wildland fire strategically.

The MNRF will support and continue to build on these initiatives and work towards achieving the goals outlined in the strategy. Implementation of this strategy will result in protection from wildland fire hazards for Ontarians and support the maintenance of healthy, resilient ecosystems.

## **APPENDIX A – Glossary of Terms**

Many of the terms listed are found in the *2000 Glossary of Forest Fire Management Terms* (Canadian Interagency Forest Fire Centre – CIFFC) and the *Forest Management Planning Manual* (MNR). Other terms included are generally accepted and understood in the Ontario Ministry of Natural Resources and Forestry.

Beneficial Fire:	Fire burning in forest, grass and shrub that contributes to the proper ecological function of the ecosystem, contributes to resource management objectives or protects public safety (e.g., by reducing hazardous forest conditions).
Biodiversity:	The variety of life on Earth, which is the variability among living organisms from all sources, including, among other things, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are a part. This includes diversity within species, between species and of ecosystems.
Boreal Forest:	The world's largest terrestrial ecosystem characterized by coniferous forest consisting of pines, spruces and larches within the northern temperate zone of North America and Asia.
Crown Land:	Land vested in Her Majesty in the right of Ontario.
Ecological Role of Fire:	Fire plays an important role in the ecology of the forest regions of Ontario. It is a natural force that sustains the cycle of growth, death and regrowth. Ecosystems and fire are linked in an irregular sequence of alternating fire disturbance and regrowth that repeatedly rejuvenates the ecosystem.
Ecosystem:	A biological community of interacting organisms and their physical environments.
Far North:	The northern part of Ontario as defined in the <i>Far North Act, R.S.O. 2010</i> . The Far North spans the width of Northern Ontario, from Manitoba in the west, to James Bay and Quebec in the east and covers more than 40 percent of the province - approximately 450,000 square kilometres.
Fire Behaviour:	The manner in which fuels ignite, flames develop, fire spreads and fires go out. These involve the physics and chemistry of combustion, and the interactions among fire, fuel, terrain, and weather.
Fire Ecology:	The study of the relationship between fire, the physical environment and organisms.

Fire Management:	The activities concerned with the protection of people, property, and forest values from wildland fire and the use of wildland fire for the attainment of forest management and land management goals and objectives, all conducted in a manner that considers environmental, social and economic criteria.
Fire Prevention:	Activities directed at reducing fire occurrence; includes public education, law enforcement, personal contact and reduction of fire hazards and risks.
Fire Science:	The study and practice of analyzing, building and organizing knowledge related to wildland fire including fire ecology, fire behaviour, and the application of advanced analytical methods to improve efficiency, aid decision making, and manage risks in wildland fire management.
Fire Season:	April 1 to October 31 of each year as defined by the <i>Forest Fires Prevention Act (FFPA)</i> .
FireSmart:	<i>FireSmart</i> is a mitigation program that focuses on how individuals and communities can work together to reduce the risk of loss from wildland interface fires.
Forest Fire:	Any fire burning in forested areas, grass, or alpine/tundra vegetation -- - <i>synonymous with wildland fire</i> .
Forest Fires Prevention Act (FFPA):	An Act of the Ontario legislature that mandates the Minister of Natural Resources and Forestry to provide forest fire protection in the fire region of Ontario as defined by the <i>FFPA</i> .
Fuels:	Wildland vegetation materials that can burn. While usually referring to aboveground living and dead wildland surface vegetation, roots and organic soils such as peat often are included.
Hazard Reduction:	A treatment of dead or dying forest fuels to diminish the chance of fire starting, and to lessen the potential rate of spread and resistance to control.
Preparedness:	Condition or degree of being able and ready to cope with an anticipated fire situation.
Prescribed Burning:	The deliberate, planned and knowledgeable application of fire by authorized personnel and in accordance with the MNR policy and guidelines to a specific land area to accomplish pre-determined forest management or other land use objectives.
Resource	The science-based management of public or private land, water, soil,

Management:	plants and animals for ecological sustainability, economic viability and social benefits for current and future generations. It involves the scientific and technical understanding of biology, physiology and ecology and the life-supporting capacity of the natural environment.
Restricted Fire Zone:	An area in which specified activities related to open burning are temporarily restricted by the MNRF by the authority of the <i>Forest Fires Prevention Act</i> to reduce risk of human-caused fire.
Suppression:	All activities concerned with controlling and extinguishing a fire following its detection.
Unwanted Fire:	Any wildland fire that puts human life and property at unnecessary risks or is deemed by a management agency to cause unnecessary social and economic disruption.
Values:	The specific or collective set of natural resources and human-made development/improvements that have measurable or intrinsic worth and that may be destroyed or otherwise altered by fire in any given area.
Wildland fire:	Any fire burning in forest, grass, or alpine/tundra vegetation --- <i>synonymous with forest fire.</i>
Wildland Fire Manager:	The person empowered by a wildland fire management agency to make decisions to manage, control and direct wildland fires and fire management resources.
Wildland-Urban Interface:	Areas where residential, commercial and industrial development is located in close proximity to wildland areas.