Forest Fire Management Strategy for Ontario

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Executive Summary

Ontario developed area-based fire management strategies during the 1980's. Since that time, a number of provincial policy initiatives and changes in the fire environment have set the stage for developing a new Forest Fire Management Strategy for Ontario.

Ontario's Land Use Strategy called for the development of a new Forest Fire Management Strategy for the province that would provide for a stable social and business environment, promote and protect natural heritage, support resource based tourism and support increased investment in forest management. The development of Ontario's Forest Fire Management Strategy is also required by commitments in the Ontario Forest Accord that calls for increased levels of protection within Enhanced Forest Productivity Areas. In addition to these commitments, a new strategy must address plans to expand harvesting into new areas of the province in addition to changing forest fuels and climate that has resulted in more frequent periods of severe fire weather and more severe fire behaviour.

Ontario's Forest Fire Management Strategy links the need for public safety and the objectives for land management to the priorities and activities of the fire management program. To set the level of protection, this Strategy goes beyond statements of strategic direction and includes broad direction for the fire management program.

To achieve provincial, regional and local fire management objectives, the Forest Fire Management Program will be guided by a number of strategic directions:

- *Ensure public safety;*
- *Protect wood supply;*
- *Promote fire's role in the ecosystem;*
- *Enhance partnerships and agreements;*
- *Promote public education and prevention;*
- *Manage the business of fire management; and*
- *Manage fire response.*

Six new Fire Management Zones are defined in this Forest Fire Management Strategy: Southern Ontario; Parks; Great Lakes/St. Lawrence; Boreal; Northern Boreal; and Hudson Bay. Each Fire Management Zone has common land use, resource management and fire management objectives.

The Strategy balances the protection of human values with the positive effects of fire as a management tool to meet silvicultural and ecological objectives. This means the fire management program will move aggressively in suppressing fire in some circumstances, but will manage or use fire in other situations to achieve ecological objectives or reduce cost or hazard.

Fire management delivery targets that are attainable and affordable have been developed for each Zone. The fire management program will report annually its success in meeting these targets by Zone and by Ecoregion.

Ontario's Forest Fire Management Strategy has an objective to restrict fire depletion of valuable forest resources to less than 75,100 hectares per year, on average, and to provide ecological renewal through fire of up to 160,100 hectares per year.

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Purpose of Ontario's Forest Fire Management Strategy

Ontario's Forest Fire Management Strategy provides the strategic direction for the management of wildfire on 107 million hectares of Crown and private lands that comprise the province of Ontario. Figure 1 shows the Planning Area with Ontario's Ministry of Natural Resource's (OMNR) Administrative Regions. This *Strategy* provides province-wide strategic direction; divides the province into Fire Management Zones of similar land management objectives; and provides general operational direction for each of those Zones. Zone-specific objectives, direction and targets are described in Appendix A.

Objectives of the Fire Management Program

This *Strategy* supports the policy objectives of the fire management program, which are:

- to prevent personal injury, value loss, and social disruption resulting from a forest fire; and
- to promote the understanding of the ecological role of fire and utilize its beneficial effects in resource management.

This policy is included in Appendix C.

These objectives recognize the balance between the Ministry's mandate to provide public safety and socio-economic stability, and the Ministry's role in management of resources and ecosystems.

The objectives for the management of wildfire are achieved through a coordinated approach that incorporates adequate capacity, proper preparedness, appropriate deployment and effective action to ensure that:

- every fire in Ontario receives a response; and
- each response is governed by:
- the predicted behaviour of that fire;
- the potential impact of the fire on persons, property and values; and
- the estimated cost of the response.

Objectives for specific Fire Management Zones are described in Appendix A.

Figure 1- Ministry of Natural Resources Administrative Regions in Ontario

To achieve provincial, regional and local fire management objectives, seven strategic directions will guide the forest fire management program:

- Ensure public safety;
- Protect wood supply;
- Promote fire's role in the ecosystem;
- Enhance partnerships and agreements;
- Promote public education and prevention;
- Manage the business of fire management; and
- Manage fire response.

Direction set out in this *Strategy* document, through fire management objectives and targets, provides a foundation for daily fire response decision-making and priority setting. In addition, the *Strategy* is the primary linkage between land use/resource management plans and fire operations, setting fire management program performance targets that can be related to land use and resource management objectives.

This *Strategy* recognizes that fire is a natural agent of change in Ontario's ecosystems that has the potential to do great damage to property, business, forest resources and cause extensive social disruption. This strategic direction balances needs for public safety and economic protection, the ecological role of fire on some landscapes, and the capacity of the fire management program.

Each of the seven strategic directions is described in detail in the following sections.

ENSURE PUBLIC SAFETY

The fire management program will protect life, communities, and the infrastructure that supports the economic and social fabric of Ontario.

Maintaining Ontario's Public Safety and Economic Security

The rationale for forest fire management in Ontario is broadly based - "to prevent injury, value loss and social disruption resulting from a forest fire" (Ontario's Forest Fire Management Policy, Appendix C). The genesis of the fire program in Ontario was in response to fires associated with agricultural burning that threatened and destroyed several communities in the early part of the twentieth century. This era was marked by a series of conflagrations in which hundreds of lives were lost. Protecting the people of Ontario from the negative consequences of fires was the focus during the early development of Ontario's forest fire management program; and the protection of public safety and stability of the socio-economic fabric within the forested areas of the Province remain key priorities of fire protection today. The Fire Management Strategy is designed to help protect communities, homes, cottages, lodges, and infrastructure such as roads, railways, hydro/communications lines, and recreation developments.

While the economy in forested areas of the province depends largely on forests directly, people and businesses that are not directly linked to resource-based industries must live and work in an environment free of forest fire related damage and disruption. All aspects of the economy depend on uninterrupted service provided by transportation, telecommunication, electrical and natural gas corridors that link Ontario communities and link Ontario with the rest of the world. Ontario has an extensive 72,000-kilometre network of paved roads and highways and the rail system has over 13,351 kilometres of track that provides passenger and freight service to eastern and western Canada. Ontario's telecommunications networks often run parallel to the road and rail corridors, as do extensive transmission and distribution systems required to support 81 hydroelectric, nuclear and fossil fuel-fired stations located across the province. Natural gas is the primary fuel for all sectors of the economy and natural gas pipelines run across forested areas. Interruptions resulting from wildfire to these vital services (community evacuations, highway / railway closures, delivery interruptions of hydro, gas or telecommunications) can impact large populations in both Canada and the United States.

Figure 2 illustrates the location of the greatest of concentration of population, urban development, private land and infrastructure (such as highway, hydro and natural gas pipeline corridors) in Ontario. These areas represent the greatest risk from fire at the “wildland-urban interface” places where human values, from homes to small businesses, to energy systems are in direct contact with a flammable forest environment.

OMNR has the lead government responsibility in Emergency Response for fire, flood and drought in Ontario. OMNR also plays a co-operative role in other emergencies such as ice storms. This document refers only to the fire management portion of the emergency response mandate. The fire management program will protect life, communities and the infrastructure that supports the economic and social fabric of Ontario.

By keeping the majority of forest fires to a relatively small size, the fire management program reduces the threat to most property and infrastructure across the forested landscapes. On occasion, property is directly threatened by fire and, in these cases; the program will often take direct action to protect these values. Because of the potential for forest fire situations to escalate rapidly, however, the program must consider the expected fire behaviour, safety, the value of the property, and the cost of the response in its protective actions.

Figure 2 Infrastructure of Ontario

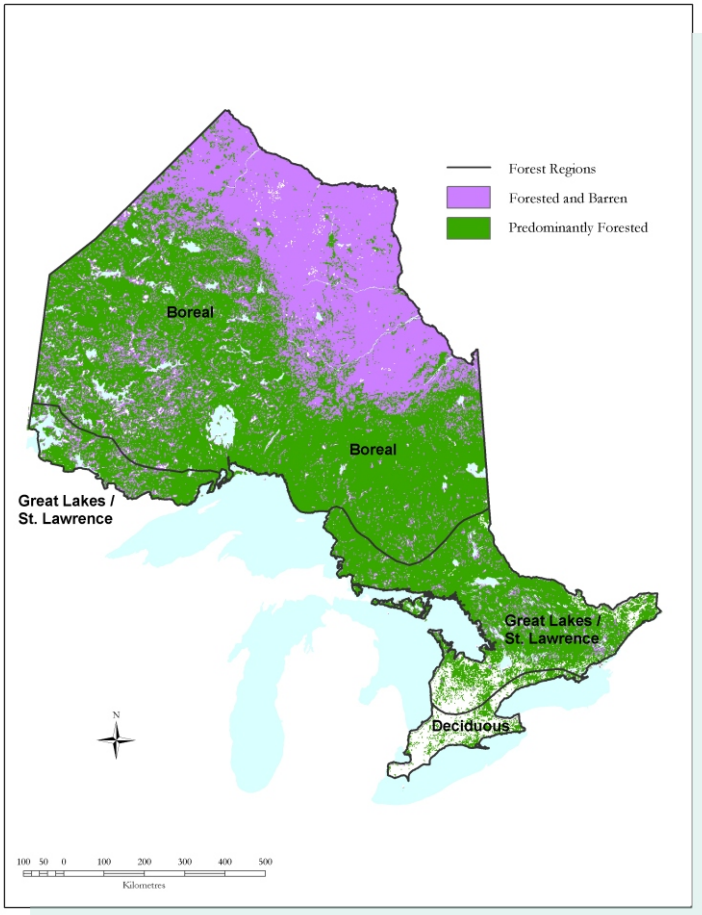
Protecting Wood Supply and Forest Productivity

Fire management program activities protect sustainable forest management and in doing so provides economic stability for all industries and communities that rely on forest resources. The level of protection will match the values at risk and the potential for loss.

Balancing the Level of Protection

Forest managers work within a complex environment that must provide for fibre, forest renewal, wildlife, long-term forest health, and the uncertainties of weather, insects, and disease. Figure 3 shows the extent of forest cover in each of the forest regions of Ontario.

Figure 3 Forest Cover in Ontario



The amount of fire in the forest is also an important forest management decision some disturbance by fire is required for forest renewal and long-term forest health but too much fire will reduce wood supply. Wood supplies in the fire-prone spruce and pine forest types are extremely tight across many areas of the boreal forest.

Since the late 1980's, Ontario has experienced repeated infestations of the Spruce Budworm resulting in large tracts of forested area suffering mortality. There are large areas of insect damaged spruce, fir, and poplar forest that are highly flammable and now unproductive from a wood supply perspective. The forest industry has successfully salvaged and renewed significant portions of this area; however, there are still large tracts of dead or dying budworm killed forest that pose a fire hazard. In addition to the budworm mortality, the Northeast Region has experienced a significant poplar decline and mortality caused by repeated infestations by the Forest Tent Caterpillar that was mapped in 2001 (figure 4). Forest harvesting is active throughout these areas and available wood supply must be protected from fire. The insect damaged areas illustrated in Figure 4 are an example of the challenge of managing fire to support wood supply.

Without fire protection, these forests would burn, renew themselves to healthy young forests, and return to productive forests more quickly. Unfortunately, they are interspersed with valuable timber stands, representing a challenge to forest managers, who would like them to be more productive. Fire managers also face a challenge managing forests that would benefit from fire, both ecologically and economically, but are very flammable and risk-laden.

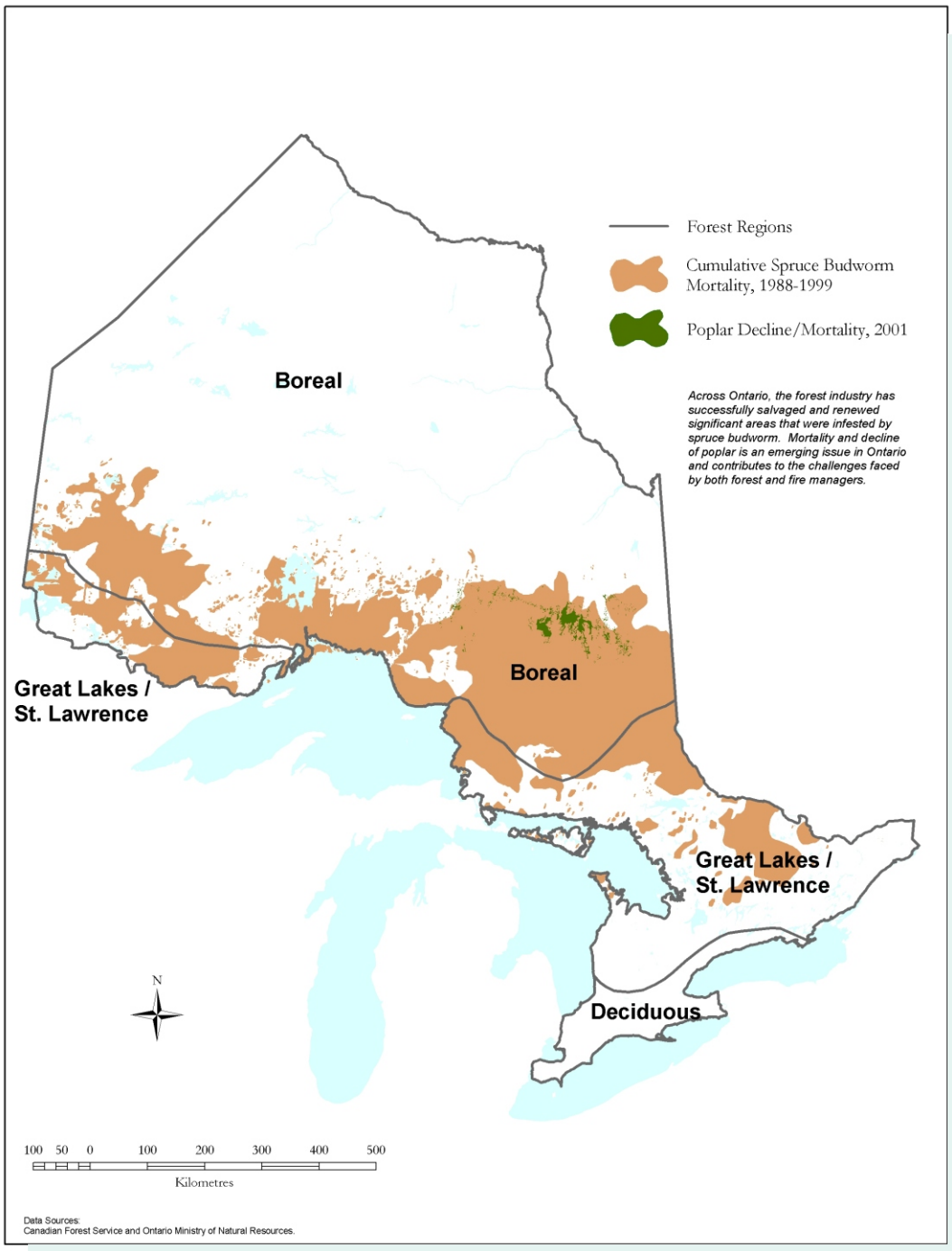
Recent initiatives including the *Ontario Forest Accord* have placed increased emphasis on the protection of wood supplies across the province. Parks and protected areas have been set aside, defining the industrial forest land base that will support mills and economic growth based on wood fibre. The Ontario Forest Accord also states a commitment to increase the intensity of forest management in areas of the province and calls for increasing the fire response priority on these areas to protect this forest investment from fire. Fire management activities outlined in this strategy will help to protect existing sustainable forest management and in doing so provide economic stability for industries and communities that rely on forest resources.

Existing Wood Supply

The fire management program recognizes the importance of providing a balanced level of protection to all industrial forest areas currently licensed in Ontario but will not erode its capacity across the licensed forest area by providing new services in specific areas of the province.

Long-term security of wood supply and protecting areas from fire in which there has been, or will be increased silvicultural investment are linked. The Ontario Forest Accord provides for the long-term continuity and security of wood fibre supply and recognizes that there will be increasing investment in silviculture to increase wood supply on the available landscape.

Figure 4 Natural Tree Mortality in Ontario



Increased silvicultural investment made with the purpose of increasing volume and growth of high-quality wood and wood products and to facilitate the more intensive use of silvicultural knowledge and management activities to improve, restore, and diversify the forest.

If investment in silviculture is made to improve or secure wood supply increases, the fire management needs for these areas will be examined and will be matched to wood supply priorities. The overall impact on levels of protection and fire management costs will have to be determined as the silvicultural investment increases. In addition, fire managers will work with forest managers to ensure the design of these areas takes best advantage of natural fire protection opportunities.

Future Wood Supply

The Northern Boreal Initiative (NBI) is committed to the orderly development of forestry north of the *"Area of the Undertaking for the Class Environmental Assessment for Timber Management on Crown Lands in Ontario"* (the AOU).

The NBI sets the stage for commercial forest management north of the AOU. This initiative provides for the development of forestry jobs within First Nation communities and will allow the government to meet commitments for wood supply under the Forest Accord. These partnerships will develop a more positive relationship with First Nations around forestry in the north.

The NBI is linked to fire management in two ways existing wood supply opportunities should be protected from fire to ensure they are available once forestry investments are made, and the expansion of roads and industry into the area will increase the incidence of wildfire, exacerbating the fire situation.

There is an area north of Red Lake, the Bak Lake Subzone, which has a higher level of protection than the remainder of the NBI. This area has been identified under the Northern Boreal Initiative and is proceeding toward the development of a community driven commercial forestry opportunity. As an interim measure, the fire management program will continue to provide an increased level of protection in this area. All fires across the remainder of the Northern Boreal Zone will receive a response, but if fires escape initial attack and the fire program has to deal with many other problem fires across the province, fires in this portion of the zone may be left unattended.

Hazard Reduction

Forest health depends on fire - particularly in converting insect and disease infested or wind-damaged stands to fire origin species. Forest managers confronted with damaged forest areas recognize the value of fire in renewing these stands.

This *Strategy* supports this forest renewal goal: particularly where fire management costs or

long-term fire hazard can be reduced. When forest managers have identified areas that can benefit from fire, fire managers will, where risks and costs are acceptable, use Modified Response methods to allow fire disturbance within these areas.

Promote Fire's Role in the Ecosystem

Fire will be used and managed to achieve positive ecological benefits in disturbance dependent ecosystems.

Working with Fire

Fire renews the forest, creates natural habitats, and provides diversity on the landscape. In the past, fire was often viewed as a negative force that required aggressive suppression. Within the context of this *Strategy*, fire is viewed as both a positive and negative force. Fires that pose a threat to public safety or have detrimental effects on current and future wood supply are negative. The fire management program will suppress these fires with the goal of minimizing the area burned.

Fires that burn and do not threaten public safety or human values can be viewed as positive. Examples of these areas include fires on islands, within Parks and Protected Areas and areas identified by resource managers for hazard reduction. These fires, for the most part, do not impact wood supply, and are a positive outcome for fire management.

When risks of negative impacts are acceptable, the fire management program will apply a Modified or Monitored Response to these positive fires, with the goal of optimizing area burned. The fire management program has developed performance measures of the area burned with positive effects by Fire Management Zone and by Ecoregion.

Fire in Ontario's Parks and Protected Areas

Ontario's Land Use Strategy establishes 378 new provincial parks and protected areas totaling 2.4 million hectares. These new areas include tracts of old-growth forests, woodland caribou ranges, scenic coastlines, wilderness rivers and important wildlife habitat. Ontario's system now totals 650 parks and protected areas encompassing 9.5 million hectares a landmass equal to all of Ontario south of Algonquin Park.

Many ecosystems within Ontario's parks and protected areas require fire disturbance for natural renewal. Parks and other protected areas containing examples of these fire-dependent ecosystems will not continue to represent the natural heritage they were designed to protect unless exposed to fire in the coming decades. Ontario Parks and the fire management program have had some success using fire to restore and maintain unique and threatened Tallgrass Prairie and Oak-Savannah ecosystems in Southern Ontario. This is a small example of the work that needs to be done. Detailed planning will be required to re-introduce fire to parks in Ontario. In addition, the application of fire in parks will require a firm understanding of

science, monitoring and measurement of ecosystem status, planning for safe and effective fire use through prescribed burning and prescribed fire. The fire management program will continue to discuss these science, planning and fire management policies and programs in partnership with Ontario Parks.

The fire management program also recognizes the need to be sensitive to the many environmentally and culturally significant sites that may be disturbed by fire suppression activities. As such, the fire management program will continue to use "Light on the Land" techniques to reduce human impact during fire response in Parks and Protected Areas and anywhere natural or culturally sensitive values have been identified. Examples of light on the land techniques may include limiting the use of heavy equipment or limiting the number of trees felled during fire response efforts. These techniques will be used whenever feasible, commensurate with the risk and potential behaviour of the fire.

Prescribed Fire and Prescribed Burning

Within the context of this *Strategy*, a prescribed fire refers to forest fires deliberately utilitzed in a predetermined area in accordance with a pre-specified and approved burning prescription to achieve preset objectives. A prescribed burn refers to the deliberate, planned and knowledgeable application of fire by authorized personnel and in accordance with MNR policy and guidelines to a specific land area to accomplish pre-determined forest management or land management objectives. Prescribed burns are carefully planned and set on the landscape to meet specific resource management, hazard reduction, or silvicultural objectives.

The intentional application of fire to a forest site or grassland requires careful planning, technical skill, and sound decision making. Within its capacity, the fire management program will work with clients, the private sector and other ministries to promote and deliver safe and effective prescribed burning.

To enable staff, clients, and the private sector to use fire, prescribed burn policies and practices will be reviewed on a "continuous improvement" basis to ensure prescribed

burning is a safe, cost-effective, and reliable part of silviculture, hazard reduction, and ecosystem management programs across the province.

Maintaining and Restoring Ecosystems and Habitats

Human development across the province has reduced some ecosystems and wildlife populations to remnants of their former extent. OMNR's Species at Risk program is mandated to determine species status, ensure protection, and develop recovery plans across the province. Small areas now represent unique and significant natural heritage sites that depend on fire to regenerate native plants and keep invading species out. Across large landscapes, habitat structure relies on disturbance patterns and the return of fire is important in maintaining the balance of forest stages on which wildlife depend. Fire managers are currently working with resource managers and many partners to use fire to restore and maintain examples of Tallgrass Prairie and Oak Savannah in Southern Ontario, where wildfire is now rare. The Species at Risk program will advance the value and focus on species and ecosystems at risk, resulting in increased demand for using fire as a management tool on these sites.

The fire management program will work with its partners to develop delivery mechanisms to enable prescribed burning for the restoration and maintenance of significant fire dependent sites and habitats across Ontario. Information sharing and prescribed fire research opportunities will also be pursued with the partners of the fire management program.

Enhance Partnerships and Agreements

Fire management is best delivered by building on a long history of partnership with stakeholders and other governments.

Working with Municipalities and the Federal Government

Fire prevention and cooperative fire management delivery within municipal and federal areas provides the most effective fire response at the overall lowest cost to taxpayers. Provincial, Federal, and municipal governments benefit from these partnerships.

The fire management program will continue to assist all municipalities and federal areas to meet their responsibilities for forest fire protection within their boundaries. The fire management program will also maintain agreements with municipalities to strengthen cooperative delivery on both Crown and private land.

In the areas of training, fire prevention, and prescribed burning, the fire management program will continue to provide its advisory role to municipalities.

The southern boundary of the East Fire Region describes the southern extent of the influence of the Forest Fires Prevention Act (FFPA). Discussions between the OMNR and municipalities outside the fire region will continue in an effort to address future concerns about the application of Forest Fires Prevention Act.

Working with First Nations

OMNR will continue to work closely with First Nations throughout Ontario to enhance existing, or develop new partnerships for fire management delivery, to develop fire prevention initiatives, and to minimize social disruption resulting from forest fires.

Resource-based Tourism

Resource-based tourism operations can be affected by forest fires in three ways: business interruptions during fire events, the loss of infrastructure, and activity restrictions caused by Restricted Fire Zones. These businesses are often located in forested areas where forest fires are likely to occur.

The fire management program will work with the resource-based tourism industry to develop cooperative programs, based on education and engineering, to enhance the business owner's capability to provide safe space around structures that may be confronted by fire.

Private Land Agreements

The Ontario Property Assessment Corporation indicates businesses and individuals hold some 1.877 million hectares of private land outside of municipalities within the East and West fire regions. This figure is based on all private land parcels over 200 hectares. There is currently no strategy or funding for the protection of these lands. The fire management program will discuss opportunities for fire prevention, suppression and cost recovery agreements for forest fire protection on these lands.

Forest Industry

The fire management program has a long history of working in partnership with the forest industry particularly when establishing response priorities and developing prevention initiatives. As this fire strategy is implemented, the fire management program will continue a discourse with the forest industry. This dialogue will be expanded to identify key forestry objectives in Forest Management Plans such as: hazard reduction opportunities, response priorities in areas where there has been a significant silvicultural investment, and prescribed fire opportunities. Discussions will also take place with the forest industry to address key strategic issues such as fire prevention and the impacts of forest fires on critical wood supply.

Promote Public Education and Prevention

It is important the public understands the complex role of fire, and fire management in ecosystems and within natural resource management. The fire management program will provide the public with balanced information about fire, the role of fire management, regulations, and the public's responsibility with fire such that compliance programs reduce unwanted human-caused wildfires and fires are enabled to play a role in natural resource management.

Public Education Programs

Education means providing all forest users with an awareness and knowledge of fire laws, safe practices when using fire, and the ecology of fire in the natural environment. This knowledge will assist stakeholders and the public to make informed and educated decisions regarding the use of fire and the prevention of wildfires.

The fire management program will maintain and enhance the development of educational programs for the general public and stakeholders with an emphasis on providing access to information products.

Preventing Fires

Statistics on the cause of fires will be analyzed to determine priorities for fire prevention programs. Strategies will be developed to reduce the occurrence of the most serious wildfires, and to mitigate the level of damage that occurs.

Strategies will also be developed to encourage people working or recreating in forest areas to adhere to fire prevention rules and ensure they are held accountable for careless actions. Guidelines and operating procedures will be developed that will reduce the risk of fire being started by people working or recreating in forested areas.

Manage the Business of Fire Management

The fire management program will design seasonal and daily preparedness and fire response actions to effectively and efficiently achieve this Strategy within available funding.

Total Cost Management

Fire management spending is managed in three components. Two of these components (Infrastructure Management and Response Preparedness) are annual investments designed to prepare the program for expected fire load and to minimize spending the third component: Fire Suppression. If the fire management program infrastructure and seasonal preparedness components are reduced single-mindedly, not only will protection levels be compromised, but suppression spending will escalate once fires arrive and resources are hired on an emergency basis, at a higher cost to the government. In turn, over-investment up front will reduce some suppression costs, but will be costly in the long run.

When the level of protection described in this *Strategy* is stable, the fire management program must ensure each component of spending works to limit the total cost of fire management.

The fire management program will continue to weigh costs against the demands for protection and fire use and will operate its provincial fire management financial framework under the concept of *Total Cost Management* (TCM) which is the reinvestment of funds traditionally spent on fire suppression into fire management program preparedness.

Cost-effective Fire Management

Levels of protection described in this *Strategy* cover a continuum from areas where wildfires have the potential to cause major social disruption and significant economic loss, to areas where forest fires cause little economic hardship and should be encouraged to support ecological sustainability.

The concept of Managed Fire is much more than fire suppression. When fires are monitored, steered, or contained to predetermined boundaries, there is also a level of management: fire is suppressed or encouraged that costs and/or damage are minimized, while the benefits from the fire are maximized to meet resource management, ecological and financial objectives.

As fire managers implement the concept of Managed Fire in a dynamic and demanding natural environment, they will be challenged to select the most responsible and cost-effective response that meets the strategic directions described in this *Strategy*.

Manage Forest Fire Response

This Strategy calls on fire managers to both reduce unwanted fire and promote the role of fire in ecosystem health, often on neighbouring landscapes. Fire managers will employ a flexible approach to manage fire that ranges from prompt and complete suppression of fires that threaten human values to monitoring fires that renew and sustain the forest without threat.

Managed Fire

Fire will exhibit both positive and negative impacts on the landscape depending upon the variable measured. The desired net effect of impacts on all the variables will determine the preferred management objective for the landscape and therefore will govern the selection of the most appropriate fire management response.

Prompt suppression of a wildfire is the best way to minimize the impacts on natural resources, adjacent values, and cost for suppression activities. However, at times and under certain conditions, fire should be allowed to function as the fundamental agent of renewal and suppression activities should be focused on the protection of values rather than complete suppression of the fire perimeter.

Within *Ontario's Forest Fire Management Strategy*, the levels of protection vary so that all fires can be managed appropriately to meet public safety, economic and land use objectives. The concept of Managed Fire will enable fire managers to cost-effectively protect the forest from adverse impacts of fire while enabling fire to renew and sustain forest ecosystems.

Managed Fire provides three main options for wildfire response: Full Response, Modified Response and Monitored Response. Fire managers may choose the appropriate response option and adapt the response option to the changing fire situation. Fire will be managed using full, modified, or monitored response such that costs and/or damage are minimized and benefits from the fire are maximized. With the Zone specific direction provided in Appendix A, fire managers will provide the most appropriate and cost-effective response to each situation.

Full Response

Full Response requires suppression action to be taken on the entire perimeter to acquire control. Both direct and indirect attack may be used. It is important that fires are actioned at a small size to minimize resource, time and cost commitments. Full Response is utilized where the objective is to minimize the area burned and where fires have the potential to cause major social disruption and/or significant negative impacts to values and resources.

Modified Response

Modified Response requires suppression action to be taken on key areas of the fire perimeter to achieve the desired objective. Modified Response requires the use of a combination of suppression techniques, including direct and indirect attack as well as monitoring to steer, contain or otherwise determine fire activity within a preset perimeter. Modified Response is utilized within the AOU under situations of problematic control, or when management guidelines such as an approved resource management plan (Park Management Plan, Wildlife Management Plan, Forest Management Plan, Conservation Reserve Management Plan, etc.) provides the criteria for the beneficial use of fire to achieve the desired management objective. North of the AOU, Modified Response is an option where managing the fire will achieve control objectives, the minimizing of negative social impacts and where beneficial ecological, economic or resource management objectives could be achieved. Fires should receive initial action according to the current and forecasted burning conditions and the desired final fire perimeter.

Opportunities when fire managers could consider utilizing Modified Response include:

- during initial attack to steer, to control or to manage the intensity of the fire;
- on selected islands where there is minimal risk of fire spreading to the mainland;
- in selected forest types such as blowdown or insect killed forests identified by resource managers with the intent to accomplish fuel hazard reduction; and,
- within parks and protected areas.

Monitored Response

Monitored Response is an option where forest fires are observed and assessed to determine the response option if response is required to minimize social disruption and/or economic impact. Opportunities that fire managers can consider for utilizing Monitored Response include:

- on selected islands where there are no structural values at risk or there is minimal risk of spread to the mainland;
- in pre-determined areas where human and resource values are not immediately threatened by adverse fire impacts and where it is desirable to promote the ecological role of fire; or
- within designated wilderness areas of parks in the Parks Zone.

Fire Response Actions

Within the context of Full, Modified or Monitored Response, there is a hierarchy of fire response actions the fire manager may consider. The response actions are Direct Attack, Indirect Attack and Sustained Action, as described below.

Direct Attack is a fire-fighting tactic where a fire is attacked immediately adjacent to the burning fuel. This is accomplished with the individual or combined use of aircraft, hose, pumps and hand tools. This tactic is generally employed when the fire management objective is to minimize area burned (as part of Full Response, for example).

Indirect Attack is a fire fighting tactic whereby a control line is strategically located some distance from the actively burning fuel to take advantage of favourable terrain and boundaries in the advance of a fire perimeter. The intervening strip is usually burned out. This tactic is employed when the fire management objective is to extinguish the fire and minimize the area burned in escaped fire situations, or when the fire management objective is to control or steer a fire to optimize area burned for ecological, hazard reduction or silvicultural purposes. This tactic can be used during Full or Modified Response.

Sustained Action is necessary when control has not been established after the initial burning period; when a fire receiving Modified Response requires suppression action after the initial burning period; or when a fire that is being Monitored begins to burn outside of pre-determined control lines. Sustained action continues until fire management objectives have been achieved.