ENIRONMENTAL ASSESSMENT

for

Fond du Lac Reservation

WILDLAND FIRE MANAGEMENT PLAN

2019
Environmental Assessment
for
Fire Management Plan
Fond du Lac Band

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Chapter I - Purpose and Need for Action

Introduction
This document is an environmental assessment to evaluate alternatives for implementing a wildland fire management plan on the Fond du Lac Reservation, Cloquet, Minnesota. The assessment is an analysis of effects associated with implementing alternative fire management strategies during the future management of the trust lands administered by the Fond du Lac Band. It satisfies requirements of the National Environment Policy Act (NEPA). A proposed action alternative is identified and is the basis of the Fire Management Plan.

Background
The Fond du Lac Reservation in east central Minnesota was established in 1854. Prior to occupying the Reservation, the Band inhabited about one-third of the eastern portion of what is presently the State of Minnesota, for several thousand years. A series of treaties and land cessions forced them to their present location on the Reservation in May of 1854.

The present ownership is a scattered pattern of tribal, allotment, private, county, state and federal parcels. The external boundary of the Fond du Lac Reservation encompasses approximately 101,400 acres in St. Louis and Carlton Counties. The land ownership within the external boundaries of the Fond du Lac Reservation is comprised of the following categories:

1. Tribal Lands (15,600 acres)
2. Allotted Lands (15,800 acres)
3. Tribal Fee lands (non-Trust) 13,600 acres
4. State/County (17,700 acres)
5. Private (37,000 acres)

Fond du Lac lands provide its members with sustenance through the use of a diverse variety of plants and animals, many of which are considered sacred. Tribal lands are rich in ancestral values, provide opportunities for hunting, fishing, gathering of foods and medicines, and are an important source of spiritual growth and relaxation.

Purpose
The purpose of the proposed Fire Management Plan is to provide programmatic direction for managing wildland fire on Tribal Land while ensuring protection of valued cultural and natural resources. The plan will be used to guide the development of site-specific project plans for fire management activities, such as prescribed burns and other fuel reduction methods. The wildland fire management program will be implemented using a variety of management strategies including:

Education and prevention of unplanned human ignitions,
Reduction of hazardous fuel situations,
Appropriate management response to wildland fire ignitions
Prescribed fire as a management tool,  
Cultural and natural resource protection and enhancement.

The Plan integrates existing data on fire management, fire history, and natural and cultural resources. These aspects are integrated to produce a stand-alone program document for the management of wildland fires.

**Need**


The Fire Management Plan emphasizes protection and enhancement of values important to Tribal members including: the safety and well-being of firefighters and Tribal members; the protection of property; the preservation of cultural, historic, and religious values; and the protection and improvement of forest resources including wood products, wildlife, soils, and water.

Fire has long been an important natural force helping to shape ecosystems and landscapes throughout America, including the Fond du Lac Reservation. Historically, American Indian Bands actively used fire to alter vegetation in an effort to meet their needs. However, during more recent times fire has been aggressively excluded in an effort to protect public and private investments, as well as human life. This policy, and its successful implementation, has led to significant changes in the amount, and type of vegetation found throughout the United States.

While the benefits of fire suppression are often obvious and immediate, resulting long term changes to vegetation types and fuel buildup are slow to develop and sometimes difficult to recognize. In some areas, fire exclusion policies have resulted in dangerously high levels of fuel buildup which present a serious threat for a large, hot wildfire, causing damage to the long term productivity of the land. On the Fond du Lac Reservation, fire exclusion has caused changes in vegetation types and wildlife found on Tribal lands.

The goal of the fire management planning process for the Fond du Lac Reservation is to develop a plan that protects human life and private property while using fire, when appropriate, to enhance natural resources and established Tribal values.

**National Environmental Policy Act**

The planning process used to develop this environmental assessment and the Fire Management Plan is compliant with the National Environmental Policy Act (NEPA) of 1969, which applies to environmental actions on federal lands. All projects outlined in the plan will be NEPA compliant. Some projects under 2000 acres, and sufficiently addressed in this document, are eligible for a categorical exclusion as per BIA policy. Other projects will require individual review and NEPA compliance documentation.
Chapter II - Issues, Concerns, Values, Opportunities

Scoping
Scoping efforts identified important issues, concerns, and opportunities related to the proposed action, including a number of public meetings to identify specific issues, concerns and opportunities.

County, state, and federal participation helped identify how the local fire management program is commensurate with alternatives suggested in this environmental analysis and those administered by the BIA, Minnesota Agency and the Minnesota Department of Natural Resources.

The discussion topics addressed during the scoping visit and meetings are summarized below.

*Identify Tribal Goals and Objectives*

- General expectations of fire management planning (FMP) process
- Content of questionnaires, if required
- Community and Tribal officials to contact
- Resource values needing protection and, or, enhancement

*Identify Area Characteristics and Concern*

- Resource Specialists to contact for data and field assessment
- Availability of existing fire and fuels data
- Public safety
- Heritage values to be protected

*Fire Management and Response Strategies*

- Organization and conceptual framework
- Local, State, and Federal stakeholders involved in the FMP process
- Availability of existing fire management data and analyses
- Fire hazard reduction
- Preferred preparedness, mobilization, and prevention alternatives

The scoping process, identified the primary Tribal values to be considered during the fire planning process. These values were identified during discussions with Fond du Lac Reservation Resource Management personnel. The values are as follows:

- Tribal member safety
- Firefighter safety
- Water quality
- Fish & Wildlife
- Cultural Resources
- Air quality
- Commercial forest resources
Tribal property
Fire management effectiveness

To make certain that appropriate issues, concerns, and opportunities were accurately characterized during the initial scoping process, a draft version of the Fond du Lac Reservation Fire Management Plan was posted on the Tribal Web Site for review and comment by Tribal members. Comments provided by the reviewers were integrated into this analysis and the proposed Fond du Lac Reservation Fire Management Plan.

Issues, Concerns, and Values to be Protected
The scoping process identified issues and concerns of the Fond du lac Indian Reservation in the context of the wildland fire management program. The results are summarized below based on the values to be protected.

Tribal Member Safety
There are many residencies spread throughout the Reservation that would be at risk in a wildland fire situation. Some of the home-owners have taken measures to reduce the risk of a wildfire affecting their buildings, but others may be high-risk from an approaching wildfire. There is a need to educate home-owners about the risk they face from wildfires and what actions can be used by them to reduce that risk. It is notable that Fond du Lac is a FireWise community, which stresses the importance of fire safety and the protection of resource values on the Reservation.

Well over 3000 members live on the Reservation in a variety of residential subdivisions or single residences throughout the Reservation.

Fire Fighter Safety
Fire fighter and public safety is first priority in the fire management program. All fire management activities will reflect this commitment. Once people have been committed to an wildland incident, or involved with implementation of a fire management activity, their safety becomes the highest value to be protected. If it becomes necessary to prioritize between property and natural/cultural resources, this is done based on relative values to be protected, commensurate with fire management costs.

Water Quality
Protecting, maintaining, and enhancing water quality is an important concern of the Fond du Lac people and must be considered during the implementation of the fire management plan. Surface water (lakes, streams, and wetlands) as well as groundwater must be protected from harmful chemicals that may be released into the environment during implementation of wildland fire management activities. These activities may involve application of fire retarding chemicals.

Appropriate management response guidelines for protecting these valued resources must be included in the fire management plan. Firefighters and Incident Commanders should be trained to identify potential surface water and groundwater quality impacts to meet Tribal goals and objectives.
Wetland habitat dominate much of the Fond du Lac Reservation. Wetland habitat at Fond du Lac provide waterfowl with highly suitable protective cover, as well as foraging and reproductive sites. In addition to providing wildlife habitat, wetlands are also important in maintaining and enhancing both surface water and groundwater quality through various biogeochemical processes. Wetlands also serve as an effective means of flood control.

The Clean Water Act of 1972 provides for restoration and maintenance of the biogeochemical integrity of U.S. waters including wetlands, prairie potholes and vernal pools. The Fond du Lac Fire Management Plan suggests prescribe fire as one means to control shrub encroachment and enhance wildlife habitat for a variety of wildlife species.

Precautions need to be taken to protect wetland habitat during the implementation of strategies suggested in this fire management plan alternative.

**Fish & Wildlife**

The recently approved Integrated Resource Management Plan (2019) characterizes most fish and wildlife resources occurring on the Fond du lac Reservation. Tribal members value the fish and wildlife resources found on the Reservation and these must be key considerations in the development of the Fire Management Plan alternatives. Uncontrolled wildfire can degrade or destroy some habitat while the careful use of prescribed fire can play an important role in the protection and enhancement of their habitat.

Raptors (predatory birds) such as osprey and hawks are common on the Reservation. Several nest sites occupy portions of the Reservation. While many wildlife species benefit from the effects of fire, some do not at certain times of the year. Proposed fire management activities must take this into consideration. Those species listed as threatened and endangered on the USFWS listing by County (St. Louis and Carlton) also apply to the Fond du Lac Reservation. Species such as Canada Lynx, Gray Wolf, Northern Long Eared Bat, and Ruffa Red Knot and Piping Plover are such species. The affects on these will be addressed and analyzed during review of specific project proposals.

**Cultural Resources**

There are cultural resource sites on the Reservation that could be harmed from the effects of fires, or fire fighting operations. Known cultural resources on the Fond du Lac Reservation include ceremonial sites, burial grounds and traditional gathering sites. Considering the Fond du Lac people’s historical seasonal movements and camp locations, it is highly probable that cultural sites exist around many of the lakes and along the rivers and streams that are still not discovered. The Fire Management Plan must recognize these values and establish strategies designed to reduce the threat to both known and unknown sites from fire or suppression activities.

**Commercial Forest Resources**

Timber is a major natural resource on the Fond du Lac Reservation. There are markets for most species and size classes on the Reservation. Aspen accounts for approximately 60% of the commercial volume. Unfortunately, overall, the aspen cover type is not in ideal condition. More than 80% of the type is past it’s rotation age and declining in vigor.
The primary forest product derived from the Reservation is cordwood. Waferboard and paper companies within close hauling distance provide an excellent market for wood material from the Reservation.

Emphasis has been on the management of over-mature and decadent aspen. Because of limited hardwood market, management of these species has only occurred as a by-product of aspen harvesting activity and special attention has recently been given to sugar maple and birch stands, in particular, due to their cultural importance.

Red pine has been the species of choice for planting. The Fond du Lac red pine type is primarily concentrated in the 40-50 year age class. The red pine stands are also the areas where housing developments have been designated. This adds complexity to the overall fire management planning and protection strategies.

The Forest on the Reservation is for the most part healthy and fairly vigorous. Large areas in mature to over-mature age classes expose these trees to increased risk of damage by disease and insects. Shifting the balance of these stands toward growth of younger, more vigorous stands will help solve this problem.

The forest is not only important for jobs and income, but as a way of life as well. The Fond du Lac Band wants to continue this forest management concept and have used prescribed fire to help enhance their management efforts. Some of the important considerations connected with the fire planning process and commercial forest management are:

**Support for prescribed fires:** There is need to work with some Tribal members in understanding potential benefits from the use of fire. While some members agree that fire, in the right place, and at the proper time, can be beneficial, others feel that all fires are bad and should be extinguished as fast as possible.

**Noxious weeds:** As with most disturbances, there is potential for serious weed problems. Wildland fires especially of high heat intensity can help noxious weeds spread. The Fire Management Plan alternative needs to consider this concern.

**Vegetative control:** Tribal forest managers prefer to use a shelterwood harvest method to favor pine/oak types. Maples and other aggressive hardwood species, which can outgrow these preferred species are problems. In some situations, prescribed fire can be used to control unwanted vegetation and allow the preferred species to become established. Some sites may require multiple burns to assure success and some mechanical treatment may be necessary to avoid heat damage to residual trees, in the case of shelterwood harvesting.

**Property**

Property on the Reservation or owned by Fond du Lac Band ranges from residential to commercial (i.e. casino at Vermillion Lake). Homes, out-buildings, fences, power lines, etc. can be damaged, or destroyed, by wildfire. Some isolated residential properties have difficult access and pose additional concern from a fire suppression aspect. Protection of properties is a primary consideration in the development of the Fire Management Plan.
Several fire starts in the urban interface areas are a result of children playing with matches or debris burning by residents. A Fire Management Plan needs to address how best to protect these resources through prevention, residential fire-proofing as well as effective suppression activities. Provisions with all lease lands for private residents provide for protection of wildlife habitat and aquatic ecosystems, however they seem to be void of resident’s responsibility for fire protection.

**Air Quality**

Tribal leaders value the clean air conditions found on the Reservation and feel it is important to limit the impacts from fire to this value. Provisions of the Clean Air Act pose additional challenges, however through wise and professional management, these provisions and tribal concerns can be achieved. A Fire Management Plan must address strategies for reducing particulate emissions, impacts to air quality, while managing both wildland and prescribed fire to benefit natural and cultural resources.

**Fire Management Effectiveness**

Although the benefits of fire are recognized, the ability to effectively manage it depends on the status of other considerations:

**Resource needs**: There is a shortage of qualified personnel and equipment needed to carry out the desired fire management program for the Fond du Lac Reservation. Normally, when conditions are right for conducting a prescribed burn, there is a need to assign fire personnel and equipment for fire suppression needs. In order to assure a viable prescribed fire management program, additional trained people and appropriate equipment need to be acquired and designated for that purpose.

**Window of Opportunity**: Because of climatic conditions and vegetative types, there are normally only a few days in which to accomplish prescribed burning objectives. This situation requires the availability of a sufficient number of personnel and equipment that coincides with other demands placed on the fire management program. Unfortunately, the best days to conduct prescribed burns are often on high fire danger days and a sufficient amount of fire related equipment must also be held in reserve for suppression responsibilities.

**Initial attack responsibility**: The Fond du Lac Band has responsibility for initial attack on trust lands throughout the Reservation. Minnesota DNR assumes responsibility for initial attack on private lands within the Reservation. Due to the inter-mix ownership of lands within the Reservation, often both units will respond to a wildland fire dispatch. A working relationship has been established and appears to be mutually beneficial for both agencies.

**Access**: There are some areas on the Reservation that have minimal, or no vehicle access. Being able to reach these areas for suppression within adequate time causes concern. A knowledge of the existing road system is also essential. However for unfamiliar suppression resources, this adds to the concern.

**Training needs**: There is a need to increase the prescribed fire skills available on the Reservation. The availability of training courses needed and cost to attend adds to the challenge.
Opportunities

Opportunities with the fire management program, such as use of prescribed fire to meet Tribal goals & objectives, and funding for these activities, were addressed in the scoping process. Some potential opportunities considered during the fire planning process included:

**Prescribed Fire use to benefit resources:** Prescribed fire could be used on Fond du Lac Reservation to:

- Reduce natural fuels and the threat of wildland fire in the urban interface. The Band already conducts some activities for this purpose, but there is a need to increase the program.
- Improve wildlife habitat by maintaining existing wildlife openings or edge-effect, stimulating native grasses and rejuvenating desired shrubs. This is being done but the number of burns and acres accomplished annually could be increased.
- Reduce the occurrence of noxious weeds.
- Lessen the threat of large, damaging wildland fires.
- Control un-wanted vegetation in timber harvested units.
- Prepare seed beds for desired commercial tree species including pine, aspen, and mid-tolerant hardwoods.
- Reduce the need for herbicide use.
- Encourage native plant species in some vegetational types, i.e. ecosystem maintenance.
- Stimulate berry production when desired.

**Programmatic Prescribed Burn Plans:** With completion of the Wildland Fire Management Plan, the Band can develop programmatic burn plans to meet prescribed fire objectives on the Reservation. Presently, fire managers often write a separate burn plan for each prescribed burn project. A programmatic burn plan could be written which would cover all prescribed burns intended to meet a particular goal and objectives. For example, one programmatic burn plan would cover all prescribed burns to create or maintain wildlife habitat during a given year(s). The same could be done for prescribed burns for silvicultural purposes or to meet other goals/values identified in the Fire Management Plan. This would simplify the NEPA review process.

**Fire Management Resources:** The approved Fire Management Plan will enable the Band to apply for additional money to support their prescribed fire projects and prevention program.

**EFF Funding to Accomplish Tribal Goals and Objective:** When the Fire Management Plan is approved, the Band will have the opportunity to use federal Emergency Firefighting Funds (EFF) to manage their prescribed fire program. Until recently, these funds could only be used to support suppression actions. The current Wildland Fire Policy allows EFF funds to be used for additional purposes to help ensure a more cost efficient Fire Management Program for a planning unit.

**Fuel-breaks:** Fuel-breaks are a consideration to help control the spread of wildfires. These “breaks” can be a result of silvicultural activities within the same stand or a planned species
composition change over time. Fuelbreaks have been created in a shorter time frame by a more drastic approach of total overstory removal in an linear fashion about a homesite or area of concern. Due to rapid growth of vegetation in these disturbed areas, maintenance is necessary every few years in order to be an effective fuel-break feature.

_Prevention news/education:_ The Fond du Lac newspaper is a media that can be used to help disburse information to Band members about the Fire Management Program and help gain their support. Additionally, other public contacts including visits at schools and special events can be used.

_Cooperators:_ The Band, through the BIA, is a participant in the Minnesota Incident Command System (MNICS). This organization helps provide a resource for additional wildland fire management skills, training, and equipment needs.

_T&E & Cultural Resource Inventories:_ Approval of the Fire Management Plan should help provide additional assistance in identifying and locating critical wildlife and plant communities, and cultural resources. Surveys, before and after prescribed fire projects, can be conducted and paid for with EFF funds to assure protection of these resources.

_Chapter III - Proposed Action and Alternatives_

This chapter displays two alternatives to be considered for the Fire Management Plan. Alternative one is the current program. Alternative two is the proposed Fire Management Plan.

_Alternative 1: No Action (current program) Alternative_

In this alternative, Fond du Lac would continue to manage the Reservation Fire Management Program within Tribal goals and objectives. This alternative meets some guidelines established in the 1995 Federal Wildland Fire Management Policy and Program Review. Except for fire suppression, other elements of the policy and program review have not been implemented.

Effective October 1, 1997, under the Self Determination Act, the Fond du Lac Band assumed fire preparedness activities and protection responsibilities on all lands within the boundaries of the Reservation per agreement with the Minnesota DNR. In addition, the Fond du Lac Band and the BIA, Minnesota Agency agree that it is their joint responsibility to adequately manage and protect forested lands and other natural resources on trust lands (Annual Wildfire Management Memorandum of Agreement). In the agreement, Fond du Lac and BIA, Minnesota Agency identify those functions of the fire management program that is the responsibility of each. Wildland fires that involve extended attack are coordinated by the BIA, Minnesota Agency.

The basic elements of the existing fire management program for the Fond du Lac Reservation are:

_Preparedness:_

The Fire Management Planning Analysis through the BIA, Minnesota Agency, currently provides the base fire management organization and qualified positions:
**Initial Attack Program:**

One Initial Attack Incident Commander  
Four Firefighters  
One J-5 Bombardier  
Two Type 6 Engines (4x4)

**Support Program - Suppression:**

One Forester  
One Resource Advisor  
Four Forestry Technicians  
One Administrative Assistant  
One Clerk

**Facilities:**

Office facilities are co-located with the Reservation’s Department of Natural Resources. This facility also provides storage for equipment and fire management related supplies.

**Mobilization:**

Responsibilities for initial attack fire suppression for trust lands on the Reservation are performed by the Fond du Lac Fire Management Program. Dispatch is provided by the Minnesota DNR at Cloquet. Requests for additional resources during initial attack are made through this same unit. Initial attack on non-trust lands within the Reservation is provided by the Minnesota DNR. In reality the two parties work very closely together and frequently both will respond to a fire call regardless of the land ownership status. Wildland fires that involve extended attack are coordinated by the BIA, Minnesota Agency.

Fire detection is provided through many different sources:

- forestry staff while conducting their regular duties,
- law enforcement officials (Reservation CO’s) and,
- Residents of the Reservation.

The Minnesota DNR provides aerial detection for the Reservation when conditions warrant. The minimum staffing, fire resources available and deployment will be according to fire danger levels outlined in the annual MNICS Mobilization Plan. Additional emergency firefighters are available within the vicinity of the Reservation if needed.

**Fire Prevention:**

Prevention programs on the Reservation are conducted as a cooperative effort between the Fond du Lac Fire Management Program and the Minnesota DNR. Programs and prevention information are presented at the schools and made available at various Tribal events that occur
throughout the year. Fire prevention posters are placed and maintained throughout the Reservation. Fire-proofing information is made available to homeowners.

A Reservation ordinance requires all Reservation members to have a burning permit before ignition. The Fond du Lac Forester staff monitors fuel conditions and coordinates with the Tribal Council regarding the period of time (dates) a burning permit is valid. Burning permits coincide with the State of Minnesota's system and use a similar format.

**Appropriate Management Response:**

According to current Wildland Fire Management Policy (1998), the objective of appropriate management response is the implementation of “a specific action or actions taken in response to a wildland fire to accomplish protection and fire use objectives.” To facilitate this implementation, the Reservation is identified according to Fire Management Units (FMU).

A FMU is a unique land management area defined by Tribal objectives, values to be protected, political boundaries, or fuel types that sets it apart from an adjacent fire management unit. Prescription criteria for each FMU are expected to achieve positive fire behavior effects for the valued resources and desired benefits within that unit. The appropriate management response should be actions that maximize the natural and cultural benefits identified for the unit while providing cost-effective suppression tactics.

**Prescribed Burning Program:**

According to natural resource managers, several areas on the Reservation present opportunities to use prescribed fire to accomplish Tribal goals and objectives. During recent years, Bois Forte Fire Management Program has conducted prescribed burns to accomplish various objectives within the same project unit. These are:

- **Wildlife Habitat:** Wildlife habitat objectives included stimulating a 50% increase of native grasses in the more open meadow areas and wetlands for waterfowl; rejuvenation of shrub species for deer, grouse and waterfowl, and an increase of “edge-effect” between vegetational type which would be habitat enhancement for a variety of species. In the long term, it is anticipated fire would help restore original vegetative conditions existing before aggressive fire suppression policies were enacted.

- **Silvicultural purposes:** A major objective accomplished by the prescribed burns was site preparation for certain desired species through control of unwanted competing vegetation, exposure of mineral soil for natural regeneration, and reduction or elimination of damaged or poorly formed trees from the site.

- **Hazard Reduction:** Besides being an objective in the forested areas to less threat of damaging wildfire to the timber resource, each year the Fond du Lac Fire Management Program and local fire departments provide consultation with home owners to reduce hazard fuels in the urban interface areas. Typically, these hazard reduction activities are burns in the grass fuels adjacent to nearby homes and range from less than one acre to as large as five acres. This type of burning depends on the availability of resources and appropriate moisture conditions.
Currently the Fond du Lac Fire Management Program has individuals qualified for the following prescribed fire positions:

- One Burn Boss Type II
- One Holding Boss
- One Ignition Specialist Type II
- Three Crew Members

**Budget:**
The base fire management program budget for the Fond du Lac Reservation includes direct costs for the initial attack personnel (salaries, travel and training) and support costs for equipment and supplies used for initial attack.

**Alternative 2: Proposed Action, Moderate Increase in the Use of Prescribed Fire to Achieve Tribal Goals**

In this alternative, fire management on the Fond du Lac Reservation would continue with the same goals, objectives, and agency agreements, as were in effect during previous fire seasons. In addition, the active use of prescribed fire would be moderately intensified to better meet Tribal goals, as well as accomplish guidelines from the 1995 Federal Wildland Fire Management Policy and Program Review.

The basic elements of the proposed action alternative are:

**Preparedness:**
The Fond du Lac Fire Management Program will provide the same equipment and personnel as described under alternative one, the no-action alternative.

Possibly one additional type six engine and and crew member would be available during the fire season to assist with initial attack, although the base cost associated with both resources would be financed from prescribed burn projects.

**Mobilization:**
Initial attack and dispatch responsibilities remain the same as described in alternative one.

**Fire Prevention:**
Fire prevention efforts would continue as described in alternative one. In addition to those activities already conducted in the current situation, Fond du Lac would initiate an increased role in prevention by expanding their educational activities with all grades in the schools and at Tribal events held on the Reservation throughout the year, by including the message about the use of fire to help manage natural resources. Photos illustrating post burn effects from prescribed burns conducted on the Reservation should be used in conveying this additional message.

The Fond du Lac Fire Management Program is expected to also take a more active role in educating urban interface home owners about the danger of wildland fire and how they can help
reduce the threat to their property and lives. As a part of this effort, they would distribute handouts related to wildland home defensible space and assist homeowners with reducing hazards around their property.

**Appropriate Management Response**

The prescription criteria, identified natural and cultural values, and corresponding management responses in all Fire Management Units, would be the same as in alternative one.

**Prescribed Burning Program**

Under this alternative, the Fond du Lac Natural Resources Dept. will moderately increase the number of acres burned under prescription as follows:

**Wildlife Habitat Enhancement:** The overall goal with this alternative is to increase the prescribed use of fire approximately 20% to achieve the same willife habitat objectives identified for alternative one.

**Silviculture Purposes:** With the increase demand for more volume and quality of tree species for pulpwood and other products, the overall goal for prescribed fire use for silviculture purposes is expected to be approximately 30% more than noted for alternative one. The increased number of acres effected is expected to primarily occur on the higher productive sites, in order to maximize benefits for volume and desired species with high wood fiber quality.

**Hazard Reduction:** Prescribed burns for hazard reduction within or near urban interface is expected to be the same as alternative one. There would be an increase of prescribed fire use for hazard reduction around existing pine plantations, expected to benefit at least 50% of the plantations during the next three years.

Additional qualified positions necessary to accomplish the anticipated prescribed fire workload for this alternative are:

- One Burn Boss Type I
- One Ignition Specialist Type I
- Two Ignition Specialist Type II
- One Holding Specialist
- One Prescribed Fire Monitor
- Four Crew Members

A critical element of this prescribed burn strategy must be a proactive public education program. Fond du Lac natural resource and fire managers must make a strong effort to inform Tribal leaders and members about the purpose and need for the prescribed burn program. Importantly, these managers should establish some permanent photo points on prescribed burn projects, as a means to provide a more continuous documentation of post fire effects for educational and project evaluation reasons. Field trips with Tribal leaders and interested Tribal members should also be conducted to show first hand, the benefits of the prescribed fire program.
The number of acres burned annually by resource category in this alternative are guides and the intent would be to accomplish these as averages during a five year period. This would allow for variations in weather conditions from year to year.

**Budget:**

The budget for the base fire management program for preparedness and initial attack capabilities with this alternative is expected to remain about the same.

Additional costs is attributed to the increased prescribed fire workload. Project planning and prescribed burn plan development requires additional time from existing natural resource specialists or the need to detail-in these qualified individuals from an adjacent unit or agency. The additional time for project planning is estimated to be approximately $14,000. Implementation of the prescribed burn projects is expected to cost approximately $50,400. All totaled, planning and implementation of additional prescribed burn activities is anticipated to cost $64,400 annually.
Chapter 4 - Effects of Implementing the Alternatives

The following section describes the effects to people and resources by implementing the alternatives described in Chapter 3. Alternative 1, the No Action alternative, is considered the base level from which alternative 2 is compared. The effects are focused on the issues, concerns, and values to be protected as described in Chapter 2.

Tribal Member Safety

**Alternative 1** Under the current situation, the threat of wildland fire to Tribal members exists. The risk is both to the urban interface communities and to the residents living in more isolated rural areas. Currently, efforts are being made to reduce fuels around residences but there is a need to increase these fuel reduction measures. Also, additional work is needed to provide information and possibly hands-on demonstrations for residents regarding wildland fire danger. The incidence of wildland fire often occurs during dry and windy conditions, which adds an increased risk factor regarding Tribal member safety and wildland fire.

**Alternative 2** With this alternative, the increase use of prescribed fire to reduce fuel levels near residential or scattered home sites throughout the Reservation is expected to lessen risk of wildland fire threat. The increase prevention educational efforts to inform residents about the risk associated with wildland fires is expected to lessen this threat considerably.

Fire Fighter - Crew Member Safety

It is recognized that individuals presently employed as firefighters will most likely also be the "crew" implementing a prescribed burn project, therefore both positions need to be considered in the discussion of safety.

**Alternative 1** Fire fighter safety is the number one priority with the current fire management program. Regardless, any time fire fighters are involved with a wildland fire, whether under prescription or not, there is a risk to their safety. Tribal fire fighters will be exposed to continued risks from wild land fires with this alternative.

**Alternative 2** Fire fighter safety is still the number one priority. Because of the increased use of fire for beneficial purposes, there could be a slight increase in the risk to firefighters (crew members) because they will be exposed to more fire situations. However, this increased risk is expected to be offset because of increased training and experience available to these individuals (firefighters & overhead).
Water Quality

Alternative 1  Protection of water quality in Fond du lac Reservation lakes and streams is a high priority with the current fire management program. However, a threat to water quality is a potential from large, hot fires which could result in soil erosion to some degree. This threat increases each year in those areas where fuels continue to buildup because of fire exclusion. The accidental use of fire retardant chemicals near bodies of water poses an additional risk.

Alternative 2  With the moderate increase in the use of prescribed fire to reduce hazardous wildland fuels, improve forest conditions and wildlife habitat, there would be a corresponding reduction in the potential for large, hot wildfires and resultant damage to soil and watershed values. This alternative would have a long term positive effect of maintaining and enhancing the current water quality level. The risk of fire retardant chemical use to water quality remains the same as under alternative 1, although it might be expected that fuel reduction activities will result in less intense and/or spreading fires, and the need for chemical fire retardant use.

The increase use of prescribed fire will cause increased threat of water quality degradation, due to increased exposure of desiel fuel and gasoline for the ignition devices. Mitigating measures are known and practiced, and expected to offset this increased threat.

Fish & Wildlife

Alternative 1  Fires on the Fond du lac Reservation tend to benefit some wildlife species, while it may have negative effects for others. Many variables such as fuel loads, habitat type, time of the year, type of burn, and the wildlife species, must be assessed when considering the effects from a particular fire. Small, less intense fires might have more benefits to wildlife than large, hot fires. Under the current fire management program, the Bois Forte Natural Resources Department uses fire to enhance designated wildlife habitat, which is a positive effect for most wildlife populations on the Reservation.

The current fire suppression program on the Reservation may be causing some long-term, negatives effects to habitat for some wildlife species important to Tribal members. The current program tends to exclude fire as an important force in the ecosystem causing unnatural fuel buildups and reduction in available habitat openings as a result of natural vegetational succession. This situation poses the increasing threat of a larger size, hot fire(s) in the future. These hot fires could cause long term damage to soil resources and reduce wildlife habitat for some species. Conversely, excluding fires may benefit some wildlife populations that are dependent on undisturbed areas.

With the exception of large, hot fires, there are typically few effects to fish populations from wildland fires. The prescribed burns currently being conducted for the Fond Du Lac Natural Resources Department have little, or no, impact on Tribal fisheries.

Alternative 2  This alternative introduces a moderate increase in the use of prescribed fire for beneficial purposes which would tend to improve wildlife habitat in the long-run for
many important species. When used to reduce fuel levels, fire tends to rejuvenate existing older shrubs and stimulate an increase growth of new, more succulent plants, highly desirable to many wildlife species including deer and grouse. Gradually reducing the fuel load in high priority areas would reduce the threat of large, hot fires which could cause habitat damage, at least in the short term. In general, this alternative would be more beneficial to wildlife than the current fire management program because it places emphasis on maintaining habitat diversity.

Cultural Resources

**Alternative 1**  The protection of cultural resources on the Fond du Lac Reservation is a high priority with all aspects of the current fire management program. Fires can threaten above-surface cultural sites because it may expose evidence of their existence, making them vulnerable to vandalism. Fire suppression activities can threaten both above-surface and below-surface sites. The exclusion of fire for long periods can cause heavy fuel buildup creating the potential for large, hot fires. Such fires can cause even greater damage to cultural sites because of the potential for soil erosion.

**Alternative 2**  This alternative has the same high priority for the protection of cultural resources as in alternative one. However, the introduction of a moderate increase in the use of prescribed fire may cause both a short term negative effect to cultural resources, and a long term benefit to the same values. In the short term, there would be a greater threat to exposing cultural sites from the use of prescribed fire. This same use of prescribed fire though, would tend to reduce the threat of large, hot fires which could cause even more serious damage to cultural sites.

Commercial Forest Management

**Alternative 1**  The current fire management program provides some support to the active management of the Fond du Lac Reservation forest through the use of prescribed fire. Prescribed fire has been recently introduced in an attempt to control unwanted vegetation for site preparation objectives. The program has been successful, but has been applied to relatively small acreage thus far.

**Alternative 2**  A goal of this alternative is to moderately increase the use of prescribed fire to reduce unwanted vegetation, and prepare seed beds for certain species. Because the use of prescribed fire would be increased, this strategy offers increased benefits to commercial forest management goals for the Reservation.

Property

**Alternative 1**  The protection of private property on the Fond du Lac Reservation is a high priority under the current fire management program.
**Alternative 2**  The long term reduction in hazard fuel resulting from the prescribed fire program will reduce the intensity for fire and risk to property. The increase in education efforts directed at property owners would also reduce the risk to property. On the negative side, there would an increased risk to property from a prescribed fire that escapes and becomes a wildfire. This potential could be mitigated with increased fire fighter training, and careful planning.

**Air Quality**

**Alternative 1**  While air quality is an important to members of the Fond du Lac Reservation, it has not been a major issue to-date. Climatic conditions during the normal fire season generally cause good smoke dispersal, and there have been few prescribed fires in recent years.

**Alternative 2**  There could be a slight negative impact to air quality under this alternative because of the moderate increase in the use of prescribed fires. This negative effect could be mitigated by the careful planning of burns to take advantage of favorable conditions which tend to minimize and disperse smoke.

**Fire Management Effectiveness**

**Alternative 1**  The Fond du Lac managers currently have an effective fire management program for suppression which they share with the Minnesota DNR. A concern existing today is the shortage of available resources during good prescribed burn days. More prescribed fire qualified individuals and equipment are needed to meet the increased emphais for prescribed fire use.

**Alternative 2**  With the approval of the Fire Management Plan, and subsequent increase use of prescribed fire, additional qualified personnel and resources should be available as a result of increased funds and training, and from adjacent units/agencies via the normal dispatch channels.
Chapter V  Consultation and Coordination

The required consultation with the State Historic Preservation Office (SHPO) or equivalent, was made. Additionally, the BIA Archaeologist was consulted.

Recommendations of the BIA and the State Historical Society of Minnesota (in their role as the State Historical Preservation Office) will be followed to ensure that historic and cultural properties would not be affected.

The Reservation has a active archeological survey program and is aggressively surveying it’s cultural resources. The Historic Preservation Office is developing guidelines in the form of a Memorandum of Understanding (MOU) with the BIA, Minnesota Agency that, when approved, will be attached to the Fire Management Plan to guide staff in implementing the plan.

Consultation with the U.S. Fish and Wildlife Service (or Tribal Equivalent) regarding possible impacts to threatened and endangered species will be done.

Implementation of an approved Fire Management Plan will require the cooperation of Federal and State partners. The BIA, USFWS, US Forest Service and the State of Minnesota all join the Band to implement plans or in suppression actions at some point. Additional partners from other agencies will be called upon through the normal wildland fire dispatch system to assist in complex prescribed burns.
Chapter VI  Selection of Prefered Alternative

An evaluation of effects associated with each alternative and the identified Tribal values and concerns is summarized below.

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Legend:
“o” indicates no effect
“-” indicates negative effect
“+” indicates positive effect
Chapter VII Finding of No Significant Impact (FONSI)

(Refer to Decision Notice and Finding of No Significant Impact on Regional Letterhead, included herein).