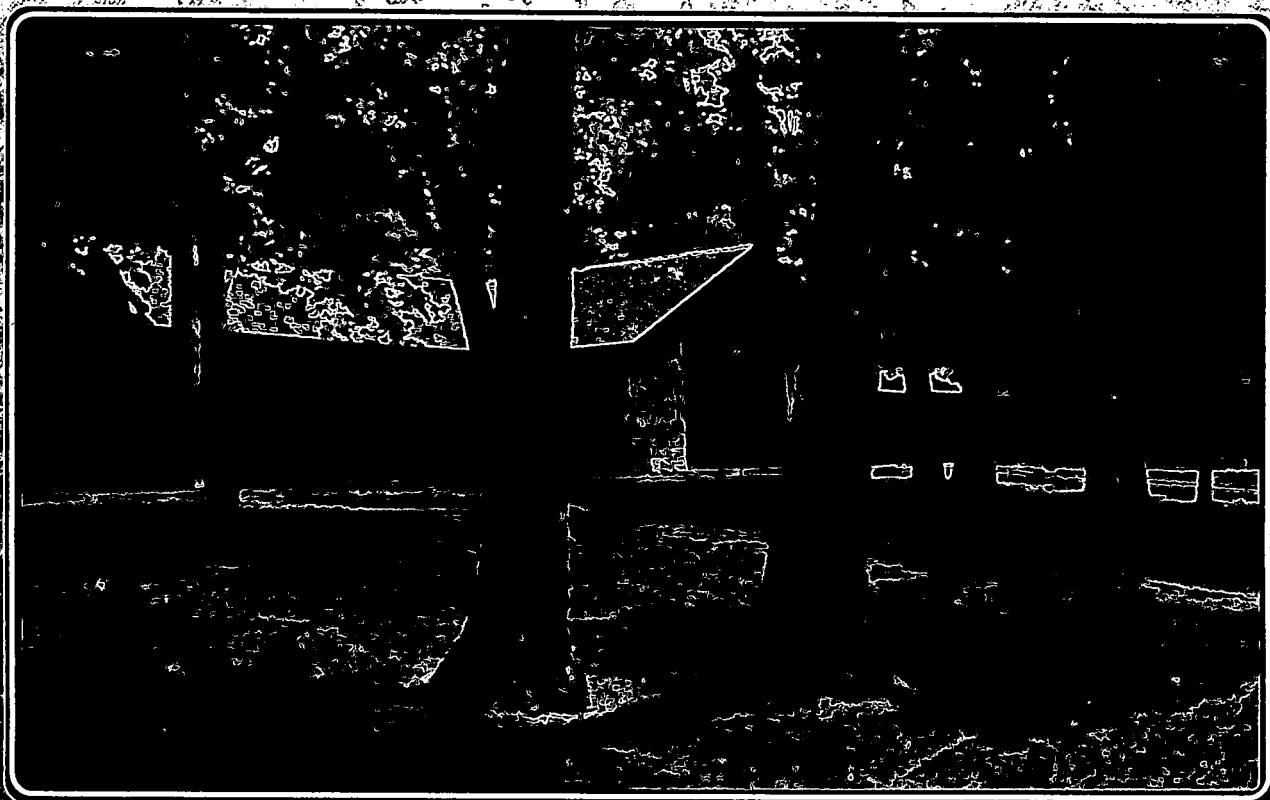


Itasca State Park Fire Protection Plan

March 1990

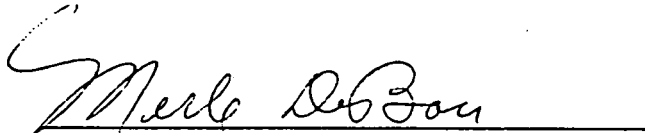


Minnesota Department of Natural Resources

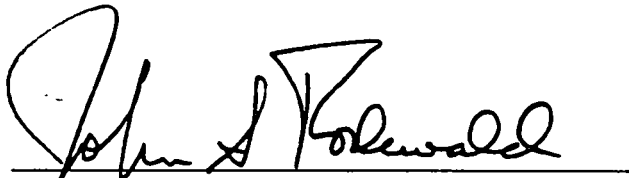
Itasca State Park Fire Protection Plan

This attached plan details responsibilities of the Division of Forestry and the Division of Parks and Recreation in providing fire protection for the resources and facilities of Itasca State Park. It also prescribes specific objectives to be met and procedures to be followed that will ensure an effective and efficient protection effort.

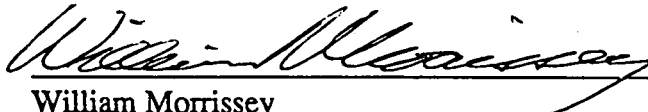
We, the undersigned, accept the responsibilities, objectives and procedures as outlined in the plan. We also intend to commit our organizational resources, to the greatest extent possible, in carrying out these responsibilities.


Merle DeBoer
Regional Parks Supervisor

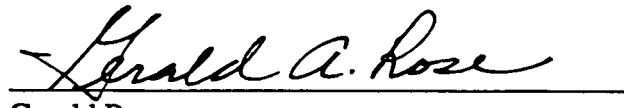
9-5-91
Date


John Rodewald
Regional Forestry Supervisor

April 23, 1991
Date


William Morrissey
Director, Parks and Recreation Division

6-29-91
Date


Gerald Rose
Director, Forestry Division

May 31, 1991
Date

Itasca State Park Fire Protection Plan

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1. Introduction

1.1 Background

It is the responsibility of the Minnesota Division of Forestry to prevent and suppress wildfires based on the 1925 Forestry Act (MN Statutes 88.03 through 88.21). In order to meet this charge and the needs of a growing rural population, the Division has grown into a modern wildfire suppression organization. This growth included the acquisition of sophisticated radio communication systems, procurement of special fire fighting equipment and adoption of aerial suppression methods. As these developments took place, the Division experienced significant improvement in its ability to move and communicate with fire control personnel.

When the Forest Resource Management Act was passed in 1982, it directed the Commissioner of Natural Resources to "propose a realignment of the Division of Forestry which would provide cost-effective administration and reasonable convenience to the public." After evaluation of all administrative units and consideration of expanded mobility and communication capabilities, the Itasca station was selected to be closed. Its jurisdiction was divided between Districts at Bagley and Guthrie, and the station closed in February 1987.

The Itasca station closure was followed by an unusually severe spring fire season and marked by a 1,300 acre fire four miles north of Itasca State Park (the LaSalle Fire). These events created concern within the Itasca State Park Advisory Board, and the issue of "adequate fire protection" for Itasca was raised.

As a result of discussions that followed, the Directors of the DNR Divisions of Parks and Forestry gave instruction to their field staff to prepare a fire protection plan for Itasca State Park (Itasca). To this end, a committee of seven (7) individuals was assembled. They were:

- John Mathweg, Area Forest Supervisor, Bemidji Area
- Jack Nelson, Assistant Park Manager, Itasca State Park
- Paul Rundell, Regional Resource Specialist, Bemidji Region
- Jon Ross, University of Minnesota Biology Station, Itasca State Park
- Charles Krysel, Area Field Forester, Guthrie Field Station
- George Meadows, Fire Management Specialist, St. Paul
- Richard Gartner, Park Advisory Board Member and Township Fire Warden

This committee first convened in February of 1988 to prepare the plan that follows.

1.2 Objectives

At its first meeting, the Committee determined that the fire protection plan should contribute to attainment of the Itasca Park goal. Essentially that is to:

"Protect and perpetuate extensive areas possessing resources which illustrate and exemplify Minnesota's natural phenomena and provide for the use, enjoyment and understanding of such resources without impairment for the enjoyment and recreation of future generations."

This goal suggests that the plan and the activities it prescribes, should have five (5) primary objectives. These would be to:

1. Provide for public safety.
2. Minimize wildfire within the Park boundaries.
3. Suppress wildfire in a manner that is consistent with park management objectives.
4. Minimize loss of Itasca facilities, unique natural, historical and cultural resources.
5. Maximize the efficient use of resources and cooperation between the Division of Forestry, the Division of Parks and Recreation and the University of Minnesota Forestry and Biological Station.

1.3 Reasons for Plan

There are many reasons to have a well thought out and documented fire protection plan for Itasca. Some of the primary ones are:

1. Itasca is one of the most significant natural resource features in Minnesota. It was first designated by the Minnesota State Legislature in 1891. This makes it the longest protected concentration of virgin pine forest in Minnesota. It also forms the immediate watershed for Lake Itasca, the source of the Mississippi River.
2. Itasca is an extremely important economic resource in Hubbard, Clearwater, and Becker Counties. Its high visitor load has been estimated to produce millions of dollars worth of economic impact in the local communities. Any substantial reduction in park attractiveness could result in significant local impacts.
3. Itasca has been studied intensively by domestic and foreign researchers since 1909. For this reason it contains some of the oldest continuous research projects as well as one of the oldest research stations in North America.

1.4 Scope and Life of Plan

It should be recognized that this plan is not intended to be a fire management plan. Although it relates to fire management, it does not attempt to deal with all the specifics of how fire should be used in Itasca. It does recognize that fire is beneficial in some instances but focuses on preventing unwanted fire and suppressing it in an appropriate manner when it occurs.

This plan was developed, reviewed and trial implemented over the course of two (2) years. During that period, the suppression resources of the Department have continued to

improve. Since change is inevitable, the plan will need to be updated periodically. It is the recommendation of the Committee that the original version remain in force until both the Division of Forestry and the Division of Parks and Recreation consent to its revision.

1.5 Approach to Protection

It is the intention of this plan to emphasize the prevention and early detection of fires, for several reasons:

First, many of Itasca's buildings have a structural and historical character that could be substantially threatened by even a small fire. This, coupled with the remoteness of these facilities from structural fire fighting forces, makes prevention the most viable strategy.

Second, Itasca has not exhibited a high level of wildfire occurrence in the past. A recent analysis by the Division of Forestry office in Bemidji showed that four fires occurred in Itasca during an eleven year period from 1980 to 1990. This level of occurrence compares to a Bemidji average of 29.9 fires for areas of similar geographic size (1.4 townships) during the same period. In addition, Itasca's average fire size of one-tenth acre compares to an average size of 10.7 acres in the 62 townships within which Bemidji provides intensive wildfire protection.

A comparison of the annual fire occurrence based on the study period would be as follows:

	Itasca Park	Average for Areas the Size of Itasca
Number of Fires/Year	.4	2.7
Acres Burned/Year	.025	29.3

Third, those familiar with Itasca know that accumulations of large dry fuels are developing due to the maturing of the forest. Should these accumulations be ignited, they would constitute extremely difficult control problems. Since it would be difficult to reduce these fuel accumulations, it seems better to concentrate on preventing ignition.

Fourth, Itasca represents a uniquely controllable environment as well as an excellent opportunity for fire prevention contact. The limited access, required registration and designated use characteristics all lend themselves to limiting the likelihood of a fire starting.

2. Structural Fires Inside Itasca State Park

Itasca has approximately 170 buildings within its boundaries. These buildings date as far back as 1893, and 90 of these buildings are on the National Registry of Historic Sites. Itasca's buildings are important for their historical and functional value. In addition, they are an integral part of the aesthetic and economic value of Itasca as well as the educational mission of the University Forestry and Biological Station (University).

2.1 Prevention

Itasca and the University have active fire prevention programs. In addition to formal inspections, the nature of their operations provide reduced risk and improved detection.

Itasca and the University facilities are inspected annually by the State Fire Marshal. Any deficiencies noted are corrected within 30 days (usually immediately). Smoke detectors are required and provided in all lodging rooms and cabins. Douglas Lodge has an alarm system and a sprinkler system. In addition to the annual inspections, any major building remodeling projects are inspected for hazards relating to electrical, mechanical, gas, etc.

The potential for grease fires is virtually eliminated by the installation of automatic fire extinguishers over the cooking areas in Douglas Lodge and Brower Inn. Part of Itasca's preventive maintenance program includes the servicing of these extinguishers each spring. The University complex does not have deep fat fryers and, therefore, does not have automatic extinguishers, but relies on conventional hand-held extinguishers. Squaw Lake Group Camp also uses conventional fire extinguishers. All fire extinguishers are inspected and serviced annually by a certified contractor. Additionally, Douglas Lodge utilizes fully experienced cooking staff able to quickly deal with potential kitchen fires.

The seasonal use of many Itasca and University buildings diminishes the risk of structural fires. During high use periods, the opportunities for detection are improved due to the numerous visitors and high level of security. All buildings have well maintained access roads for emergency vehicles.

Cross training of Division of Parks and Recreation (Parks) staff and University staff will be conducted to familiarize them with each others various trucks, pumps, etc. Additionally, they will be trained on the use of fire extinguishers annually. This training should include practical hands-on experience.

2.2 Suppression

Responsibility for structural fire suppression is divided between Parks, University, and local fire department personnel, while Forestry personnel provide support.

Itasca and the University will maintain a contract for fire protection services with the local fire department that offers the most cost effective alternative. At present, Itasca and the University have a contract with Lake George Volunteer Fire Department. They provide a response time of approximately 20 minutes.

Planning and implementation of a structural fire protection agreement will be coordinated with the local fire department under contract. The agreement will cover responsibilities and will be updated annually if needed. The agreement will serve as a working addendum for structural fire protection.

When there is a danger of a structural fire spreading to wildlands, Forestry will be notified to prepare for any spotting. Any wildland fire threatening buildings will be handled as noted in "Wildland Fires Inside Itasca State Park" found elsewhere in this plan. It should be noted, however, that the protection of structures threatened by wildfire would be greatly

improved if local Forestry staff had foam application capability. Consequently, it is recommended that the Division of Forestry pursue the development of foam capabilities on their units, and both Parks and Forestry encourage the development of the same by the structural protection contract holder.

University and Parks staff are responsible for their respective areas as follows:

1. **Detection.** Detection of structure fires will be direct observation by staff, visiting public, or alarm.
2. **Notification.** Staff will notify appropriate emergency personnel according to emergency procedures which will be consistent with 911 dispatch system.*
3. **Evacuation.** Structures involved in or threatened by a fire will be evacuated according to the Emergency Procedures.
4. **Containment.** Staff will attempt to contain the fire to the structure involved. Staff will not enter burning buildings. They will only attempt to halt the spread of fire to adjacent buildings or wildlands.**

3. Wildland Fire Prevention Inside Itasca State Park

Itasca is an environment within which close clientele contact and control is the rule. This enhances the opportunity to effectively prevent wild fires. The existing staff is skilled in public relations and will work to increase fire prevention awareness among visitors and help them understand the need for restrictions.

3.1 Use Limitations and Restrictions

In order to ensure public safety and prevent fires, it is reasonable to place some limitations or restrictions on the visiting public during critical times. The Park Manager or his designee have the authority to implement limitations and forestry can assist by providing input on conditions and forecasts. Two levels of restriction have been developed which the park manager can institute based on the level of fire danger. A condition of Very High Fire Danger will prescribe a **Limited Use Status** and a condition of Extreme Fire Danger will prescribe a **Restricted Use Status**.

Limited Use Status. When conditions of Very High Fire Danger exist, a Limited Use status for park facilities and visitor activities will be implemented. On the average, Itasca can expect to be in a Limited Use Status five days of the year. These limitations will include the following:

- (1) All campfires will be restricted to the hours of 6:00 PM to 2:00 AM. This will limit them to periods when winds are low and humidity high. It will also

* Parks and University staff will periodically evaluate and rewrite emergency procedures.

** OSHA requirements regarding personal protection equipment and training make entry into burning buildings cost prohibitive.

ensure that fires are out by morning and allow Parks staff time to confirm this prior to rising winds and temperatures. This approach will reduce fire risk while allowing guests to have an enjoyable park experience.

- (2) Wilderness Drive will be closed to through traffic between the hours of 10:00 AM and 6:00 PM, except for University research project staff and guests registered at either of the two group camps or Bert's Cabins. (Guests at Bert's Cabins will be allowed access only as far as Bert's Cabins.) This action will reduce the potential for accidental ignition in a heavy fuel area and will reduce risk to human life in a hazardous area during very high fire danger. It will still allow park guests access to Itasca's pristine wilderness during morning and evening hours.
- (3) Itasca's remote use areas will be limited to daytime use only with no fires permitted. These remote areas include Morrison Lake, Twin Lakes, and all backpack campsites. This action will reduce the potential for accidental ignition in areas with limited access and reduce risk to human life in areas of limited access and difficult escape. The greatest inconvenience will be experienced by backpack campers since their activity will be eliminated. It is likely that fewer than ten (10) campers per year will be affected, however, and little impact will be seen on lake access use.

Restricted Use Status. When conditions of Extreme Fire Danger exist, a Restricted Use status for park facilities and visitor activities will be implemented. On the average, Itasca can expect to be in a restricted use status three (3) days of the year. These restrictions will include the following:

- (1) No campfires will be permitted. This will eliminate the possibility of a campfire turning into a wildfire.
- (2) No outdoor smoking or charcoal grill fires will be permitted. This will eliminate two potential sources of wildfire and heighten the public's awareness of fire danger and prevention.
- (3) Wilderness Drive will be closed to all use, except for University research project staff and guests registered at either of the two group camps or Bert's Cabins. This will eliminate the potential for accidental ignition in a heavy fuel area and reduce risk to human life in a hazardous area during periods of extreme fire danger.
- (4) Remote use areas will be closed. This will greatly reduce the potential for wildfires and risk to human life in areas with limited access and difficult escape.

Closure. Itasca State Park and the University of Minnesota Forestry and Biological Station may be closed in the event of an ongoing wildfire in the Park or Buffer Zone. The decision to close will be made by the Park Manager in consultation with Fire Suppression forces. A plan for managing traffic and removing the public from endangered portions of the Park is included in Appendix A - Traffic Management Plan.

3.2 Public Awareness

For the public to accept and comply with limitations or restrictions, they must be given reasons. To aid in their understanding of the fire problem and increase sensitivity toward fire prevention, several actions will be taken. Information will be provided by way of handout literature, signs, personal contact with Park staff and interpretive programs. This will be done primarily when there is a risk of wildfire so as not to confuse or desensitize the public.

Park staff will develop literature with a general fire prevention theme. It will be designed to increase the public's awareness of the fire problem and aid in compliance with the restrictions. A brochure will be developed to explain the different limitations or restrictions and the reasons for them.

Park staff will develop signs to be displayed when the Limited or Restricted Use Status applies. These signs will increase public awareness and alert them to conditions. They will also advertise restrictions state-wide so visitors know in advance that their use may be limited in various ways. This information will be publicized through Department news releases, public service announcements, and the DNR Information Center. Forestry may assist by publicizing restrictions through the local media.

Personal contacts by Park staff will also be important for communicating prevention information. All staff will be instructed to mention fire prevention during contact with visitors. During fire season, interpretive programs will mention limitations or restrictions on use as well as the importance of fire prevention. In addition, law enforcement personnel will utilize fire equipment while conducting their patrols to increase visibility and public awareness. This will also prepare them to respond to any fire emergency.

3.3 Prevention Responsibilities

Forestry staff will be responsible for monitoring weather and related fire conditions. They will communicate with Parks on things such as forecasted weather conditions, ongoing fires in the area and the need for use restrictions.

Parks staff will be responsible for communicating with the University staff, informing visitors, implementing preplanned limitations or restrictions and conducting enforcement patrols within the Park.

3.4 Hazard Reduction

Reducing fire hazard in Itasca is potentially an immense job that is beyond the scope of this plan. Consequently, measures such as prescribed burning and hardwood buffer rejuvenation will be left to be addressed in the Park vegetation management plan when it is developed.

In the meantime, application of hazard reduction measures to roadsides along Wilderness Drive seem reasonable and plausible. These measures should be designed to reduce the encroachment and accumulation of fuel (e.g. brushing, mowing, etc.).

4. Wildland Fire Prevention Adjacent to Itasca State Park

To prevent wildfires from occurring adjacent to Itasca's boundary, local Forestry staff will work on implementing the following prevention measures:

4.1 Buffer Area Designation

A buffer area will be designated for the purpose of preventing and suppressing fires that could threaten Itasca. It will be comprised of a clearly defined zone within which a fire could realistically reach the Park within a short period of time (see Figure 1). Local citizens, township fire wardens, and emergency response personnel will be made aware of its existence.

4.2 Enhancing Public Awareness

- a) Smokey the Bear "Prevent Forest Fires" signs will be maintained along the five (5) major routes to the Park.
- b) Public Service Announcements will be made during fire season through the local news media and through the state-wide media when special restrictions are in effect.

4.3 Reducing Fire Risk

- a) During periods of high to extreme fire danger, the Buffer Area will receive concentrated law enforcement attention.
- b) During periods of high to extreme fire danger, the Area Field Forester will contact Township Fire Wardens and/or permittees in the Buffer Area for the purpose of obtaining information on active burning permits. This information will be used to enforce compliance with burning regulations and to speed up implementation of burning permit regulation changes or cancellations. Under these conditions, Forestry personnel will attempt to check permit fires the day following so that a possible holdover fire will not become a wildfire.
- c) The Park Manager will be kept informed of current burning permit regulations through receipt of notices. This will be the same notice that is sent to inform Township Fire Wardens of regulation changes.

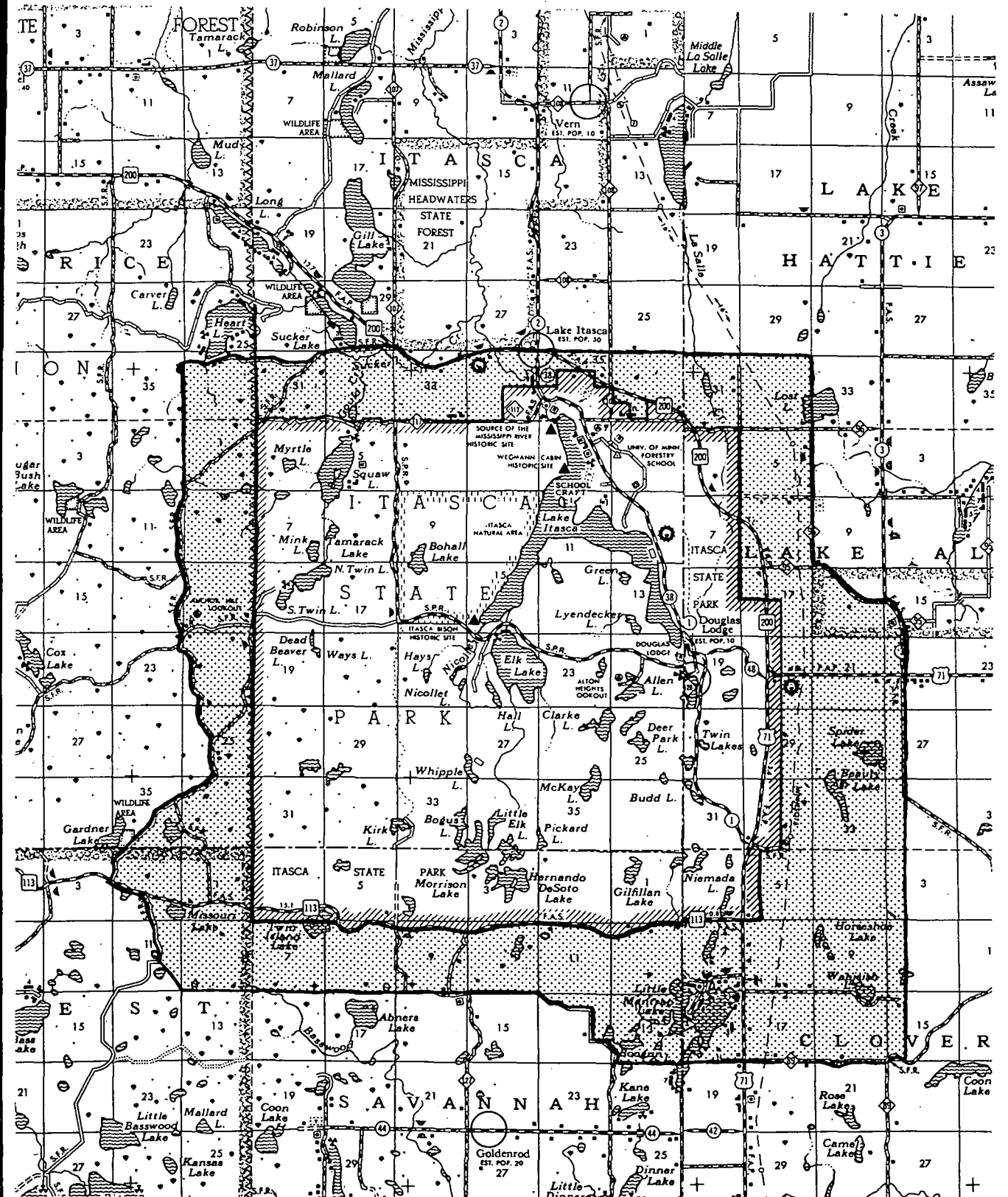
4.4 Reducing Fire Hazard

It should be noted that opportunities for hazard reduction in the Buffer Area will be limited, due to the fact that the majority of the lands are not State owned. However, the following are possibilities that do exist:

- a) Cooperate with the counties on forest management activities on county lands. An example might be to recommend that a specific slash treatment measure be done during a timber harvest operation.

Figure 1

Itasca State Park Buffer Area



- b) Work with private landowners through the Private Forest Management program. Foresters can make specific recommendations to reduce hazards during management activities.
- c) Seek reduction of hazards encountered during routine work and patrols. An example might be a substandard burning barrel located in a resident's yard. The resident could be contacted and informed on how to correct the hazard.

5. Wildland Fire Pre-suppression

5.1 Suppression Planning

Suppression of a wildfire in Itasca will likely depend on the Incident Commander's familiarity with the Park's physical features, improvements and special resources. To ensure the availability of this information, the Divisions of Forestry and Parks have cooperated in the preparation of a Wildfire Suppression Map showing:

- a) Facilities (e.g., buildings, campgrounds, picnic areas, etc.)
- b) Improvements (e.g., roads, trails, parking areas, power lines, etc.)
- c) Natural features (e.g., lakes, streams, hazardous fuels, fuel breaks, etc.)
- d) Special resources (e.g., Preacher's Grove, Wilderness Area, Nicollet Cabin, archaeological sites, etc.)

This map appears as an appendix item in the back pocket. It has also been prepared in "field map" form and made available to fire suppression personnel as well as Parks and Forestry managers.

Successful completion of any large scale fire suppression or management effort will also depend heavily on the development of an organization that fire personnel know and understand. For this reason a large fire organization chart has been developed reflecting both the anticipated organizational structure and probable sources of personnel for filling key positions. This information is discussed in the section on Wildland Fire Suppression and depicted in Figure 2 on page 21. This is the organization recommended for use on any rapidly developing wildfire prior to assignment of a Minnesota Incident Command System (MNICS) Overhead Team.

One other planning aid that has been developed is the Itasca Wildfire Planning Guide depicted in Table 1. It prescribes key actions to be taken by Parks and Forestry personnel at various levels of fire danger. It lists activities designed to both prepare for a fire suppression effort and reduce the chance that one becomes necessary. Each prescribed action is discussed in some detail elsewhere in the plan.

Table 1: Itasca Wildfire Planning Guide

Prescribed Action	Fire Danger Status				
	Low	Moderate	High	Very High	Extreme
Parks with slip-on unit(s) in regular patrol trucks					
Forestry with initial attack cat and plow unit readied					
Forestry providing air attack helicopter and air tanker on standby (as per statewide contract)					
Region 1 Forestry Extended Attack Action Plan available					
Forestry flying detection					
Forestry communicating daily with Parks on pre-suppression efforts					
Forestry patrolling Park zone					
Forestry manning tower(s)					
Forestry with contract equipment on standby					
Itasca in Limited Use Status					
Itasca in Restricted Use Status					

Prescribed Action:

 Probable

 Very Likely

5.2 Suppression Readiness

The following measures will contribute to the achievement of fire suppression readiness:

- a) The Area Field Forester and Park Manager will exchange updated personnel rosters and fire emergency call lists annually.
- b) Prior to fire season each year, the Area Field Forester and Park Manager will ensure that appropriate personnel are reoriented to suppression plans, techniques, and equipment. This will include a review of the recommended organization, staffing and roles to be used in managing a large suppression effort.
- c) Prior to fire season each year, the Area Field Forester and Park Manager will exchange information on available suppression resources including manpower, equipment, and facilities.
- d) When Forestry is conducting fire detection activities, the Area Field Forester will communicate daily with the Park Manager. They will discuss the current fire weather forecast, detection and patrol plans for the day, in-park patrol coordination efforts, etc.

5.3 Detection of Fires

Both the Bemidji and Park Rapids Forestry Areas fly aerial patrols for fire detection. The combined effect of these patrols allows Itasca State Park to be observed at least twice per hour. The Bemidji Area Forest Supervisor also provides for a backup observation aircraft when fire conditions dictate. During periods of high fire danger and low visibility, aerial detection efforts are supplemented by staffing selected lookout towers. The LaSalle and Little Mantrap Towers will be used to provide coverage for Itasca (see Table 1).

To enhance detection, the Area Forest Supervisor will provide for radio communication between the aerial observation aircraft and Park headquarters. This is vital to ensure the quickest initial attack response to a fire. It is also a critical link in providing effective and coordinated fire suppression efforts on the ground.

5.4 Positioning and Allocation of Resources

Proper positioning and allocation of resources will shorten response time and initiate appropriate fire control efforts before a fire can gain momentum. Appropriate measures that can be applied with existing resources are listed below. Ongoing measures that will be continued include:

- a) During moderate to extreme fire danger periods, the Area Field Forester will assign an initial attack unit to patrol the Park Zone during peak burning hours. The Park Zone consists of the Townships of Lake Hattie, Lake Alice, and Clover, as well as the Buffer Area and Itasca itself.

- b) During moderate to extreme fire danger periods, the Area Field Forester will have an initial attack cat/plow unit in readiness at the Guthrie Field Station.
- c) During fire season, Forestry will station an air attack helicopter and air tanker on standby at Bemidji or other suitable location according to normal contracts and procedures.
- d) Region I Forestry's Extended Attack Plan will be available for implementation. This plan makes resources available from surrounding Forestry Areas to aid in suppression of a potentially large fire. In addition, fire suppression resources will be available from other locations in the state.
- e) Private fire suppression equipment will be available through normal Forestry Equipment Service Agreement procedures.

Additional measures that will be instituted to protect Itasca Park include:

- a) During moderate to extreme fire danger periods, Parks will outfit their patrol truck(s) with radio(s) and slip-on fire suppression unit(s). Forestry will supply the slip-on units.
- b) Forestry's initial attack unit assigned to the Park Zone will visit Itasca daily.
- c) The following equipment will be kept in readiness at Itasca:
 - Ten backpack pump cans
 - Hand tools
 - Dozer
 - Front-end loader
 - University of Minnesota fire truck

5.5 Recommended Action Items

During discussions on resource preparation and positioning, a number of actions were identified that have potential to significantly enhance the quality of fire protection for Itasca. They are activities beyond the scope of local authority or funding so they are listed here as recommendations. Additional detail is included in Section 9:

- A) Provide radio communication capabilities between Forestry and Parks personnel.
- B) Upgrade Forestry Field Station's fire units; equip with new "western" style slip-ons and foam application capability.
- C) Replace 34 year-old Cat/Plow unit including transport vehicle.
- D) Replace the Parks 1975 International 1 Ton 4X4 with a new vehicle so it can be fitted with a slip-on fire unit.
- E) Upgrade at least one Parks slip-on unit to a "western" style high-pressure system.

F) When fire conditions necessitate, station an initial attack helicopter in a location that will augment existing coverage of Itasca.

G) Move the Forestry field station from its present location to Lake George, 7 miles east of the Park's east entrance. This would be consistent with Forestry's consolidation plan.

5.6 Training

Training for Forestry personnel should include familiarization with the Park and its special features in addition to their routine fire training. Itasca shall maintain 5 to 10 people trained to help on emergency fire suppression as needed. The basic training recommended will be Basic Firefighter (S-130) and Introduction to Fire Behavior (S-190). Local refresher courses should be utilized whenever possible. These include:

University of Minnesota Forestry session

DNR fire school

DNR Itasca fire refresher session

Itasca and University staff should be cross-trained on all local equipment. Key Itasca personnel who should be trained include those in charge of campgrounds, enforcement activity, and the security guards.

6. Wildland Fire Suppression Inside Itasca State Park

It is likely that some sort of fire management will ultimately be necessary to reduce hazards and manage pine stands in Itasca. Before this is undertaken, however, some sort of vegetative management plan and burning prescriptions need to be developed. Until then, the following principles will guide fire suppression:

1. The lowest impact effective measure will be employed which will allow the fire to be controlled prior to development of hazardous burning conditions the second day. This means that suppression forces should strive for minimum disturbance of the soil and associated vegetation. In some cases, this may result in additional acreage being burned and additional costs being incurred.
2. All wildfires will be treated the same regardless of the form of ignition.
3. In all but the most extreme cases, fire will be allowed to burn over special resources rather than impact them by plowing, dozing, or fire retardant. These "Special Resources" include:
 - a) Wilderness Area Scientific and Natural Area
 - b) Cemeteries
 - c) Endangered species sites
 - d) Archaeological sites
 - e) Historic sites
 - f) Permanent research plots
 - g) Forestry demonstration area

6.1 Suppression Priorities

Priorities for fire suppression in the Park shall be for the protection of:

1. Human life
2. Key facilities
 - a. Douglas Lodge complex
 - b. Headquarters area
 - c. Headwaters zone
 - d. East contact station
 - e. University of Minnesota station
 - f. Museum, Beach house, Wegmann Cabin, Old Timer's Cabin
3. Special Natural Resources Areas
 - a. Preacher's Grove
 - b. Wilderness Area, SNA
 - c. Nicollet Cabin area
 - d. Forestry demonstration area
4. Other facilities
5. Other resources

This list of priorities acknowledges the need to protect human life and key facilities first. It recognizes the beneficial aspects of fire and the appropriateness of lower priority and less intensive suppression for natural resource areas.

6.2 Suppression Techniques

Fire suppression techniques can be categorized as high and low impact based on the degree to which they alter the soil and its associated vegetation. For the purposes of this plan, techniques in each category would be as follows:

1. Low Impact
 - a. Water applied with or without a wetting/foaming agent by:
 - Backpack pump
 - "Slip-on" pump unit
 - Pump and hose-lay
 - ATV mounted pump unit
 - Helicopter
 - Air tanker
 - Structural fire engine
 - b. Hand constructed fireline exposing mineral soil
 - c. Burning out
2. High Impact
 - a. Fireplow constructed firebreak
 - b. Dozer constructed firebreak
 - c. Fire retardant (e.g., Firetrol, LC, etc.)

As stated earlier, low impact techniques would be the preferred choice. They should be sufficient in virtually all cases. However, if conditions are such that they would not be effective in controlling the fire before the second day or if life and property are immediately threatened, the Incident Commander may choose to escalate efforts to include high impact

techniques. The Park Manager or Resource Advisor will be provided complete information on the need for this escalation. Every practical effort will be made to avoid the use of high impact techniques within concentrated Special Resource areas (i.e. cemeteries, archaeological sites, historic sites, and research plots). The Incident Commander must also recognize that state and federal law prohibit the disturbance of soil within cemeteries and archaeological sites. (There are 20 archaeological sites within Itasca, averaging between two and three acres in size.)

6.3 Suppression Strategies

The two alternative fire suppression strategies that will be employed in Itasca include "indirect" and "direct" attack.

Indirect attack involves allowing the fire to spread away from the flaming front to a selected or constructed fuel break. It frequently involves the burning of fuels between the break and the fire to halt its spread. It would be used if indicated by the nature of the fire or if it would reduce suppression impacts without risking loss of control. It is also likely to be the technique used to preserve the integrity of the "Special Resource" areas.

Direct attack involves suppression actions applied directly to the flaming front. This approach is likely to be applied in most cases but especially when people or key facilities are at risk. It would also be the favored approach if indirect attack would greatly complicate extinguishment due to heavy fuel loads, inaccessible terrain, etc.

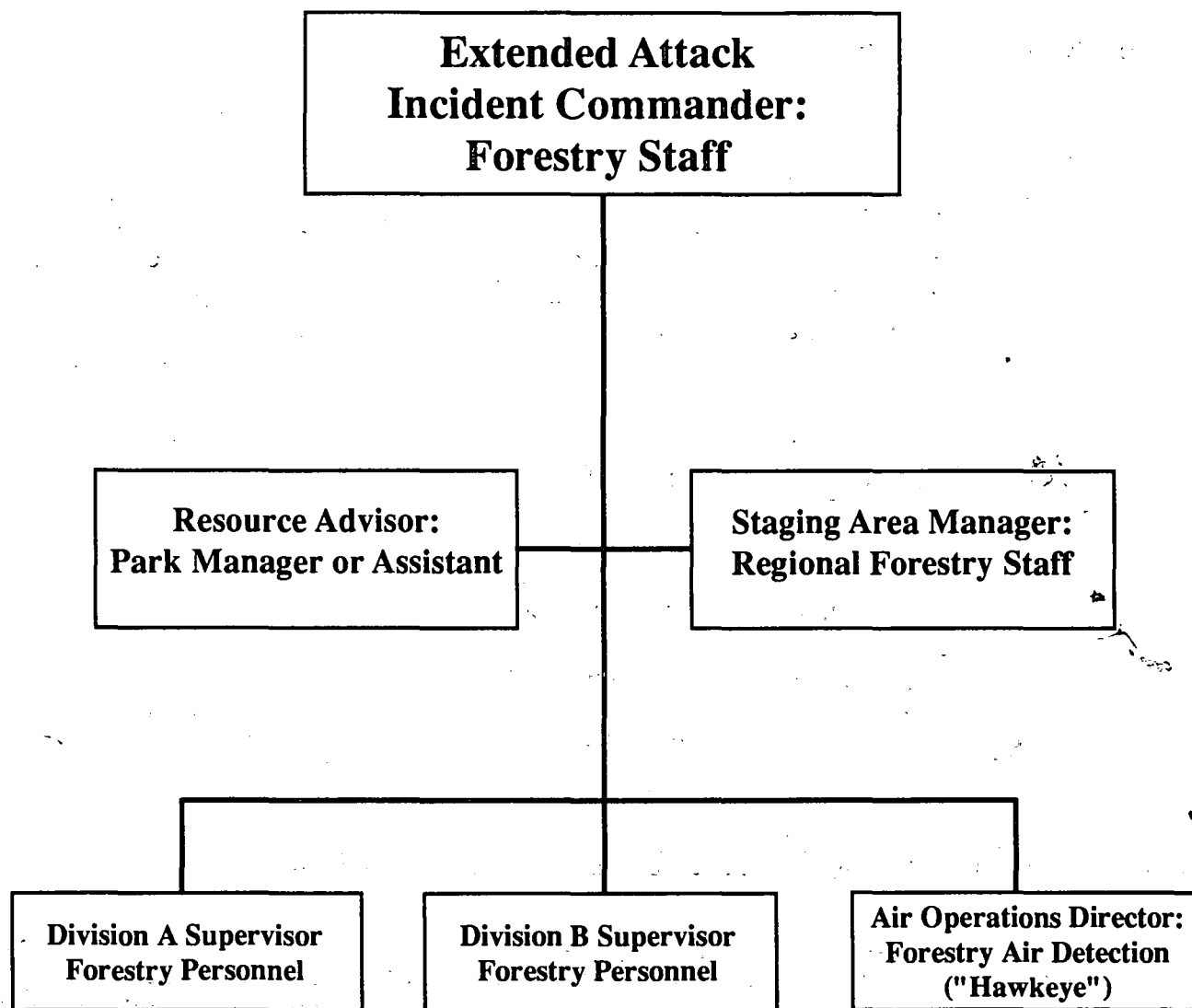
6.4 Roles and Responsibilities

The primary detection role within Itasca shall rest with Forestry utilizing the normal aircraft patrol schedule. On extreme danger days, Forestry shall staff the appropriate fire detection towers. Park patrols and visitors can provide opportunistic detection in the course of routine activities.

The responsibility for wildfire suppression shall rest with Forestry. When a fire is detected, however, suppression efforts will be initiated immediately by Forestry or Parks personnel, depending on availability. When qualified Forestry personnel arrive, they will take control and manage the incident. Parks will provide a Resource Advisor to assist and advise the Incident Commander on park conditions. Parks will also provide suppression crew assistance when requested by the Incident Commander. These suppression forces shall be directed by Forestry according to normal fire suppression procedures.

In a growing fire situation, Forestry will supply the Incident Commander, overhead personnel, and suppression crews as needed. The fire organization will be structured as depicted in Figure 2 and will be supported by the Area Forestry office. The organization will be responsible for managing traffic and public safety in the vicinity of the fire and will cooperate closely with Parks staff in their efforts to manage traffic and public safety throughout the Park. It will also manage information and publicity regarding the incident by preparing releases for the media and keeping Parks and Forestry managers informed. This will ensure that an orderly and accurate flow of information is maintained.

Figure 2: Extended Attack Fire Organization



In any growing fire situation, the Area Forest Supervisor will establish and maintain a communication link with the Park Manager. This will provide a reliable flow of information and ensure good planning.

To ensure that everyone is aware of their responsibilities, a pre-fire season meeting will be held each year. This will involve representatives from Forestry, Parks, and the University.

6.5 Manpower Allocations

Itasca will maintain 5-10 of their regular personnel with basic fire suppression training (Basic Firefighter and Introduction to Fire Behavior). When on duty, these people should be available for fire suppression within the Park. In addition, a trained resource advisor will be available at all times to assist a Forestry employee working as Incident Commander. This person must be aware of special features, trail conditions, emergency procedures and suppression procedures in the Park. We stress that their role is to be advisory to the Incident Commander. The following six people will be trained as Resource Advisors:

- Park Manager
- Assistant Park Manager
- Park Ranger
- Campground Manager
- Park Forest Management Coordinator (when available)
- Building Maintenance Supervisor

Forestry will provide an initial attack unit in the vicinity of Itasca during high fire danger periods. In most cases, this will be staffed by one permanent Forestry employee and one hired firefighter. Forestry will also provide overhead and fire fighting personnel as required using routine and normal fire fighting procedures.

7. Wildland Fire Suppression Adjacent to Itasca State Park

The Division of Forestry will use its usual aggressive approach to fire control within the Buffer Area so that fires are suppressed before they enter the Park. The key is to provide quick response of initial attack resources, utilizing all available means to control the fire. Therefore, Parks staff will be responsible to provide assistance as described in b) and c) below.

Special measures that will be applied to fires that occur in the Buffer Area will include:

a) Forestry staff will alert Parks headquarters. Thereafter, Parks will be kept informed of the fire status and control efforts until the fire is controlled.

b) If Itasca is in imminent danger, Parks staff will provide a "Resource Advisor" to the Incident Commander to assist and coordinate efforts. The Resource Advisor's role is as described in "Suppression Inside the Park" (section 6.5) found elsewhere in this plan.

c) Parks resources may be called upon to aid in the initial attack if deemed necessary by the Incident Commander.

The results of these efforts will be increased communication and coordination between local Forestry and Parks staff on suppression activities critical to Itasca.

8. Recommended Action Summary

Following is a list of recommended action items identified by the Fire Plan Committee. Since they are beyond the authority and/or fiscal resources of local managers, they are listed here with additional detail, priority assignment and cost estimates as an aid to decision makers.

1st Priority

- Maintain funding for a structural fire protection contract with the closest Rural Fire Department that is willing and adequately equipped.
- Provide for radio communications between Parks and Forestry personnel. At a minimum, this would require:
 - 6 Multi-channel mobile radios:
 - 1 - Forestry patrol unit
 - 3 - Parks patrol cars (10 channel minimum)
 - 3 - Parks fire units (4 channel minimum)
 - 4 Hand-held programmable radios:
 - 2 - Forestry personnel
 - 2 - Parks personnel
- Upgrade Forestry slip-on fire units at Guthrie, Bagley and Park Rapids to "Western" style high pressure pump units. (Approximate cost for 6 = \$18,000)
- When conditions necessitate, locate a helicopter at a site that will augment initial attack of fires. (Approximate annual cost = \$25,000)

2nd Priority

- Replace the Parks 1975 International 1 Ton with a new vehicle so it can be fitted with a slip-on fire unit. (Approximate cost is \$15,000)
- Upgrade at least one Parks slip-on unit to a high pressure "Western" style unit.
- Close the Guthrie Forestry Station and move it to a new facility at Lake George. (Approximate cost is \$80,000)
- Replace the 1954 International dozer and transport vehicle at the Guthrie Station to a John Deere 450 class unit with tandem axle trailer. (Approximate cost is \$69,000)

3rd Priority

- Provide local Parks and Forestry fire fighting units with foam application capabilities. (Approximate cost for 2 = \$3,000)

APPENDIX

Appendix A

Traffic Management Plan

Introduction

Following is a basic traffic management strategy that may be used for a growing fire situation in Itasca. It is intended to give the fire manager a starting point for direction of traffic control forces. It is not intended to cover all alternatives or constrain on-site decisions.

Traffic Management Procedures

This plan recommends that traffic management measures be implemented according to the following progression:

1. The need for traffic management is identified by incident management personnel.
2. Traffic management personnel are identified, briefed, and spotted at strategic locations in advance of the need to control traffic.
3. The decision to close, clear, or evacuate a facility is made by the Incident Commander or a designee and communicated to the traffic managers by radio.
4. Traffic managers implement the measure and remain to enforce or rescind it.

Alternative Strategies

A wide variety of traffic control strategies may be employed ranging from no restriction to evacuation and removal of all personnel. Some of the main alternative strategies would be:

1. **Stop and Inform** - In this case, all traffic would be allowed to continue on its intended route. Signs and/or personnel would be used to stop traffic and warn of potential hazards such as emergency vehicle traffic, roadside activities, etc.
2. **Emergency Personnel Only** - In this case, all traffic, other than emergency personnel, would be denied access. The public should be briefed on the reason for the access restriction. Emergency vehicles may be waved through or stopped and briefed on situations or hazards.

3. **Area Closed** - In this case, all traffic would be stopped, denied access, and informed as to the justification and projected duration of the restriction.
4. **Evacuate Area** - In this case, all traffic intending to enter an area would be denied access as described in number three (3) above. Additionally, emergency personnel should enter the restricted area and ensure the safe removal of all occupants. This removal may involve the public only or all people including emergency personnel.

In the event of an evacuation, all visitors should be identified and evacuated to a prescribed location. From this point they can be allowed to proceed on their way once sufficient information is provided to attest to their personal safety and whereabouts.

Zone Plans

Itasca Park can be divided into two zones based on the level of public use. These might be called the **West Zone** (extensive use) and the **East Zone** (intensive use). Since these two locales are separate and different in their traffic control needs, a brief plan was developed for each.

West Zone (From the east shore of Lake Itasca and the Hubbard County line west)

1. Close Wilderness Drive and guard entrance (north end) and exit (south end).
2. Evacuate **threatened** facilities (i.e., Squaw Lake Group Camp, Elk Lake Group Camp, Mary Lake Area) via the most direct safe route.
3. Evacuate campers from threatened walk-in campsites.

East Zone (lake shore/county line and east)

1. Close all but most direct egress routes from populated facilities (this would likely entail closure of the Park Drive from Bear Paw Campground entrance to Douglas Lodge and the south entrance road from Highway #71 to Wilderness Drive). Guard entrances to closed routes.
2. Evacuate **threatened** facilities by the most direct safe route.
3. Close and /or guard entrance to Wilderness Drive if necessary to prevent entrance to restricted areas by an alternate route.

For further information on the Itasca State Park Fire Protection Plan you may contact:

Manager
Itasca State Park
Lake Itasca, MN 56460
(218) 266-3654

Area Forest Supervisor
Department of Natural Resources
2220 Bemidji Ave.
Bemidji, MN 56601
(218) 755-2890

Wildfire Suppression Map

Itasca State Park

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Traffic Management Map

(FOR FIRE EMERGENCY)

Itasca State Park

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