

APPENDIX F

FIRE SUPPRESSION IN WILDERNESS STUDY AREAS

BLACK CREEK	4,560 ACRES
LEAF	940 ACRES

INTRODUCTION

The Black Creek area is composed mostly of typical pine stands of Longleaf and Loblolly with mixed species of hardwood occurring along the creeks and drains. Fine fuels, mostly needle litter, will accumulate rapidly since periodic prescribed burning to reduce this accumulation has been terminated. The buildup of needle and leaf litter combined with an increase of yaupon and gallberry in the understory provide for a high ignition component and a fast rate of spread during periods of moderate and above fire weather.

The west edge of the Leaf area has timber types and fuel conditions similar to those described for the Black Creek area. The majority of the area contains stands of mixed bottomland hardwood species and Spruce Pine. Approximately fifty percent of the area is inaccessible by mechanized equipment because of flooding, beaver ponds, deep sloughs and windfalls caused by Hurricane Frederic.

NORMAL MEANS OF FIRE SUPPRESSION

Tractor-plow units are normally used for fire suppression in this area except in those parts of the Leaf area which are inaccessible to mechanized equipment. Due to dense undergrowth, line construction by hand crews is slow and tedious. Hard line construction is often ineffective due to rapid rates of spread. Initial action by water equipment is confined to the areas that can be reached by pumpers from roads.

RISKS AND HAZARDS

Located on the periphery of the Black Creek area are eleven dwellings (some with outbuildings and other capital improvements), a Florida Gas Pumping Station, which is a complex of buildings, and other structures. Within the area are forty acres of private land and a cemetery. Only four dwellings are located on the periphery of the Leaf area. Any of these structures and improvements might be threatened, damaged, or destroyed in the event of a wildfire without expedient control.

Suppression crews involved in the construction of control lines by means of hand tools would be exposed to extra hazardous conditions.

These conditions would result from the isolation of the area and insufficient escape routes.

A larger area burned with high fire danger conditions with suppression by hand tools will have a more damaging effect on the wilderness character than the damaging effect of a tractor-plow unit on a smaller area. The high ratio of private land on the perimeter of the recommended wilderness and the potential for a large fire building up in the area and escaping to other National Forest land on the outside is a strong justification of using mechanized equipment.

FIRE OCCURRENCE

Five wildfires have occurred in the Black Creek area within the last five years. Prompt suppression action with tractor-plow units has resulted in containing the size of the fires to a minimum (one to fourteen acres).

Only one fire has occurred within the last five years in the Leaf area. The fire (located in the forks of a creek) was contained at four acres by means of hand tools.

INITIAL ATTACK TIME

The Black Creek area is located within six to twelve miles of the District work center from which most suppression crews are dispatched. The initial attack time is normally less than thirty minutes with mechanized equipment.

The Leaf area is approximately twenty-five miles from the normal point of dispatch. Initial attack time is normally from forty-five minutes to one hour for mechanized equipment.

During periods of moderate or high fire danger, a crew of approximately twenty men might be required to construct a hand line through the dense undergrowth. A crew of this size would strip the District of all qualified firefighters and would probably constitute an initial attack time of approximately two hours. Dispatching crews from other Districts would require additional time of one hour or more.

Under these types of weather conditions, the District would be unable to assemble an adequate size crew which could make an initial attack within the desired time response.

CONSEQUENCES

Economic consequences would result from delayed control time in the form of capital losses of private property.

Cost with hand tools would be higher than mechanized equipment due to more people being involved and greater travel distance to obtain enough qualified people.

In the event of abnormal resource damage or damage to private property, as a result of insufficient initial attack, political consequences could be severe. Criticism of Forest Service suppression policies could possibly come from local residents and landowners, state and local governments, and U. S. Congressmen and Senators.

Under certain conditions, the ecological relationship of the biological communities could be altered as a result of a man-caused wildfire. This would be in direct conflict with the intent of the wilderness program.

MITIGATION

Where feasible, tractors will travel routes which will result in a minimal amount of aesthetical and resource damage (old logging trails, ridges, etc.). Control lines will be constructed on the contour, where feasible, and plowed furrows will be backfilled and water barred as necessary to prevent erosion.

The lines in these areas are soon covered with pine needles and lose their identity within three to four years, if erosion is controlled. If natural leaf fall is not sufficient to prevent soil loss, restoration work will include seeding, and if required, only native grasses will be used.

DISPATCHING INSTRUCTIONS

MANNING LEVEL A, B, AND C (Flame length less than 3 ft.)

Initial dispatch will consist of pumper units and hand crews. The crew boss in charge of the initial attack will evaluate fire behavior on the ground and take action based on FLOW CHART Table F-1.

MANNING LEVEL, A, B, AND C (Flame length greater than 3 ft.)

Initial dispatch will consist of one or more tractor-plow units and hand crews. The initial action crew boss will evaluate fire behavior on the ground and take action based on FLOW CHART (attached).

The Zone Dispatcher will immediately notify the District Ranger, or his representative, after initiating action, and request further instructions. The District Ranger, or his representative, will notify the Forest Fire Staff Officer.

If the fire escapes initial action and an analysis indicates that units such as bulldozers are needed, the initial action fire boss will request the Zone Dispatcher to notify the Forest Supervisor, or Acting, to request permission from the Regional Forester to utilize heavy equipment.

TABLE F-1
FLOW CHART
TRACTOR-PLOW USE IN WILDERNESS
STUDY AREA

FIRE

Calculation of
 Probabilities
 (Size up)

Management Fire

No_____

Yes_____ **Must be Monitor
 authorized.**

*FL < 3.0 Ft.
 Handtools or water
 can control - size
 is no problem at
 this level - damage
 potential negligible.

*FL > 3.0 Ft.
 Precludes handtools.

Key Elements of Decision
 Calculate control forces.
 Calculate R.O.S./perimeter
 and acres.
 Project control date and time.
 Estimate of suppression cost.
 Environmental effects.
 Social and political effects.
 Rehab cost.
 Narrative - summary.

Tractor-Plow

Use Tractor-Plow

Use

Yes _____

No_____

*FL (Flame length)

TABLE F-2
FIRE BOSS
INITIAL ACTION PLAN

Size up Situation

Evaluate probabilities using checklist in Chapter 20 of Fireline Handbook and Fire Behavior Officer's Field Book. Be sure to include elements listed below:

DATE/TIME	FIRE NAME	LOCATION
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Present Situation

FL _____ Ft.

Size _____

Fuel _____

ROS _____

(Ch/Hr.)

Control Objective

Size _____

Time _____

Ch of line to build

Hand _____

Mech. _____

Forces needed by
 _____ (time)

_____ Hand

_____ Mech.

_____ Air

_____ Water

Will control with Hand tools or Water

Yes _____

No _____

If no, inform Ranger/Forest Supervisor immediately.

Signed: _____
 Initial Action Plan Fire Boss

Figure F-1
 Fire Behavior
 Fire Characteristics Chart

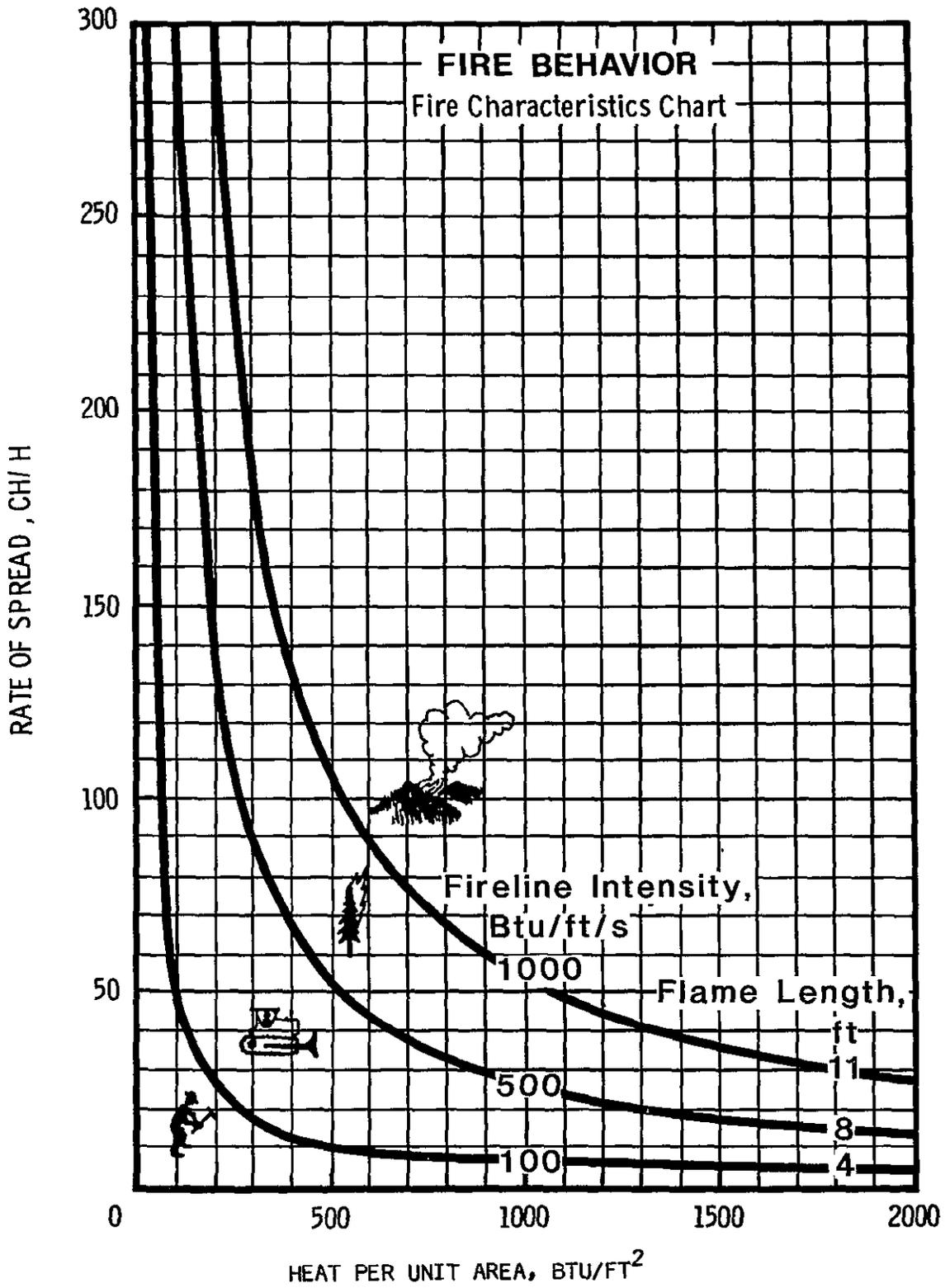


Figure F-2
National Fire Danger Rating
Fire Characteristics Chart

