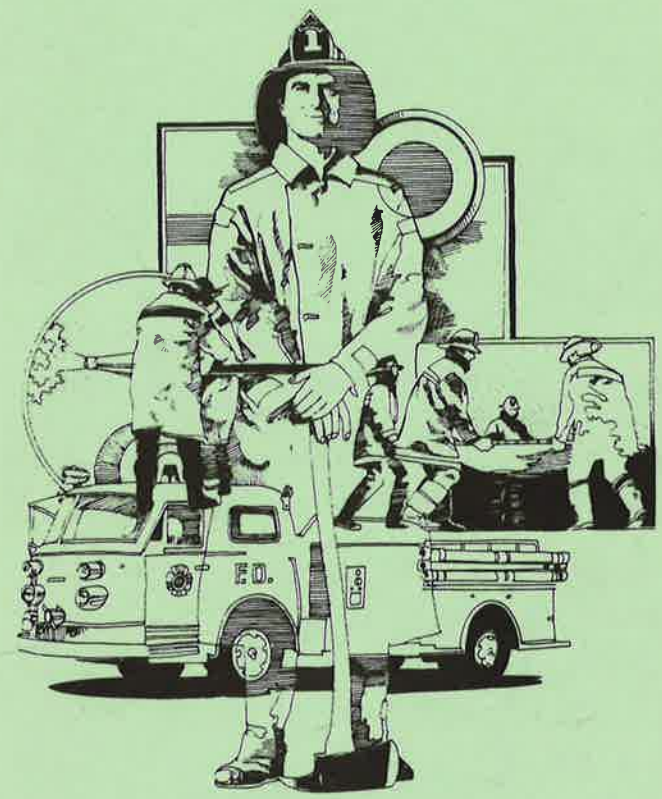
Appendix C to the Master Plan

FIRE PROTECTION PLAN



MISSISSIPPI RIVER

Rock Island District
U.S. Army Corps of Engineers

NCDCO-MQ (10 Apr 80) 1st Ind
SUBJECT: Project Master Plans

DA, North Central Division, Corps of Engineers, 536 South Clark Street, Chicago, Illinois 60605
6 June 1980

TO: District Engineer, Rock Island
ATTN: NCRO

The Coralville Lake Project Resource Management Plan, the Mississippi River Fire Protection Plan, the Lake Red Rock Fire Protection Plan and the Saylorville Lake Project Resource Management Plan are approved.

FOR THE DIVISION ENGINEER:

CARL C. CABLE, P.E.
Chief, Construction-Operations Division

Incl
wd

MISSISSIPPI RIVER

MASTER PLAN

APPENDIX C

FIRE PROTECTION PLAN

US ARMY ENGINEER DISTRICT, ROCK ISLAND
CORPS OF ENGINEERS
CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61201

February, 1980

Mississippi River

Fire Protection Plan

Appendix C to the Master Plan

Table of Contents

1.01 Purposes and Scope of Problem. The fire protection plan will serve as a guide for the prevention and suppression of forest fires (wildfires) on fee title lands purchased for the Mississippi River Nine-Foot Channel Project. The fire protection plan presents general procedures to follow in case of wildfires and indicates the necessary equipment and tools needed for suppression activities. With 314 miles of river in the Rock Island District containing 50,000 acres of woodland, 85 percent of which is on islands, the cost and manpower requirements of a comprehensive fire suppression program for Corps-managed areas is prohibitive.

2.01 Cooperative Agreements with Other Agencies. At present, 83,712 fee title acres are outgranted through a 1963 Cooperative Agreement with the US Fish and Wildlife Service as General Plan lands for wildlife management. Much of these lands are actually managed for wildlife purposes by the respective state fish and game departments which have agreements with local fire departments for firefighting assistance. The Corps of Engineers represents the US Government as owner of the project land and assists with fire prevention and suppression by:

a. Direct participation when needed.

b. Coordinating preparedness activities.

c. Periodic inspections of land and facilities to detect and eliminate fire hazards. Follow-up corrective action is considered a part of these inspections.

The local fire departments fire fighting services are available to the Corps of Engineers as property owners in the area. They are considered as additional services to be used as individual situations dictate. The list in Attachment A gives the telephone numbers of area fire departments and the district offices of US Fish and Wildlife Service.

2.02 Payment for Local Fire Protection. Public Law 93-498, Section 11, provides for reimbursement of costs for fire fighting on Federal property incurred by fire services outside the Federal Government. Claimants will be advised to direct their claim to the Administrator of the National Fire Prevention and Control Administration in accordance with this Public Law. This applies to all project land that is Federally owned. There is some confusion as to whether Iowa law allows local fire departments to accept payment for fire suppression on Federal land.

3.01 Training Program of Permanent Rock Island Operations Division Personnel. The Corps of Engineers project personnel training is the park manager's responsibility. Fire Prevention and Suppression Training is an ongoing program and is a part of the orientation of each new employee. Due to the 314 river mile length of the project, and the absence of a central project operations complex, rangers stationed at Lock and Dam Nos. 11, 13, 16, and 21 will

be responsible for maintaining an effective fire plan within their assigned areas. Minimum training requirements for ranger personnel on the project include:

a. How to report and respond to fires.

b. Location and knowledge of all available fire suppression equipment.

c. Proper use of the tools and equipment to bring a fire under control.

d. Knowledge of ground keeping requirements and the project's Fire Prevention Program.

e. Knowledge of fire control and suppression techniques.

f. Refresher training on fire suppression techniques will be done on an annual basis in conjunction with other service training programs.

4.01 Wildfire Risk Index Rating. The fire risk index is a rating based on the combustibility of fuel material (primarily moisture content), wind speed and humidity.

Extreme Risk - Low moisture in fuel
Low humidity
High winds

High Risk - Low moisture in fuel
Normal humidity
No winds

Moderate Risk - Low moisture in fuel
Normal to high humidity
No winds

Low Risk - High moisture in fuel
High humidity
No winds

5.01 Presuppression Check. The Mississippi River Park Manager or his representative will conduct a presuppression check of equipment and personnel availability readiness at the beginning of each fire season; and if time is available, weekly, during periods of extreme or high risk. During periods of moderate risk, the check will be conducted if the park manager thinks it is needed.

6.0 Tools and Equipment for Wildfire Suppression Use.

6.01 Initial Wildfire Suppression Equipment. This equipment will be used by Rock Island District personnel that happen to be in the vicinity of a recently started wildfire. Most wildfires can be contained and possibly controlled by one or two individuals if early detection and suppression can be accomplished.

Equipment shall be kept at field ranger stations located at Lock and Dam Nos. 11, 13, 16, and 21. Equipment shall be readily accessible and well organized during fire season. Fire rakes, fire swatters, round-nose shovels, double-bit axes, and broom rakes shall be kept on hand in reasonable quantities to combat area wildfires.

6.02 Wildfire Suppression Equipment Listing. The following equipment will be on hand at Locks and Dams 11, 13, 16, and 21 for use by initial fire attack personnel:

(2) Round-Nose Shovels

(2) Canteens

(1) Swatter

(1) Pulaski

(2) Portable Radios

(2) Hard Hats

(1) First Aid Kit

(1) Backpack Pumps

(1) Fire Rake

The recreation maintenance crew has the following equipment which is capable of being employed in a major fire suppression effort:

(2) Dump Trucks

(2) 1/2 Ton Pick-ups

(1) 3/4 Ton Pick-up

(1) Crawler-type Tractor with 4-way bucket scarifier

(1) Rubber-tire Tractor with bucket

(3) Chainsaws

(6) Shovels

(6) Broom Rakes

(4) Axes

(4) Mattocks

(1) Boat with Outboard Motor

In addition, each ranger patrol vehicle will be equipped with a fire extinguisher, portable radio, first-aid kit, and shovel at all times.

6.03 Assignment, Care, and Location of Equipment. Each month the Park Manager, Mississippi River Section, or a delegated representative should inspect all the equipment to insure that it is present, and in good working order. The frequency of inspection increases as described in Section 5.01, Presuppression Check. Equipment will also be inspected and repaired after each use.

7.01 Reporting. On project lands, all confirmed occurrences of wildfires will be reported first to the area fire department and sheriff's department and then to the Mississippi River Project Manager. It will be the ranger's responsibility to keep the Park Manager advised on the fire status in order that additional Corps personnel and equipment can be utilized, if needed.

8.01 Wildfire Suppression Procedures. The responsibility of the supervisor of the crew fighting the fire is to direct and coordinate the suppression efforts from initiation of the fight through and including the final mop-up activities. The supervisor, normally the area park ranger, will be referred to as the fire boss. The fire boss will ensure the safety of both his crew and the general public during a wildfire. The fire boss should obtain information on current fire conditions from the National Weather Service. Fire fighting procedures will vary from situation to situation. However, the following may be used as a guide:

1. Principles of first attack:

a. Size up! Go around the fire or find a vantage point and inspect the entire edge.

Look for: Fuel burning adjacent to edge of fire
Fuel in immediate path of fire
Natural barriers
Slopes
Spot fires

Other factors: Weather conditions, wind, temperature, and relative humidity.

Determine: Danger spots
Vital point of attack

b. Attack: Take most effective action possible with available forces and equipment.

Direct Method - A method of suppression that treats the fire as a whole, or on its burning edge by wetting, smothering, or by separating the fire from the unburned fuel.

Indirect Method - A method of suppression in which the control line is located along natural firebreaks, favorable breaks in topography, or at a considerable distance from the fire and the intervening fuel is backfired or burned out.

c. Correct Practices to Use on Any Fire:

1. Scout fire in order to know what your fire is doing and where it is going.

2. Attack at the key points.

3. Locate lines. Do not let them just grow.

4. Burn out lines as they are built.

5. Mop-up lines. Dead out.

6. Patrol lines until all danger of escape is past.

7. Use natural barriers to save work and speed line building.

8. Look for spot fires and burning snags.

9.0 Duties at a Wildfire.

9.01 The fire boss must determine which approach will be used to suppress the wildfire and direct the crew in suppression of that fire.

9.02 If additional help is needed, personnel will be dispatched by the Park Manager and report to the fire boss.

9.03 At no time will a wildfire be suppressed within a stand containing mass planting of coniferous species (pine trees). The danger of a grass fire changing to a crown-fire endangers the fire crews within the planting. Suppression of these areas will use a firebreak made around the edge of the planting.

9.04 Because of the remoteness of most government-owned lands and the lack of adequate Corps personnel, local fire departments and volunteers may comprise the entire crew fighting the fire. If structures or private lands are in the path of the approaching fireline, the local fire protection agencies should be dispatched by the fire boss to control points to protect such property first.

9.05 The fire boss will maintain surveillance over the burned areas until mop-up activities are completed.

9.06 Additional surveillance at the site will be maintained after the fire is suppressed to guard against flareups.

9.07 Return to Station. Prior to post-suppression maintenance, an official debriefing of the personnel will be conducted by the fire boss. Any suggestions for improving the wildfire suppression procedures will be noted. The fire boss will discuss the fire crew's problems; such as access, response time, equipment, dispersion, and present his conclusions to the Park Manager.

10.01 Fire Prevention Activities. Informing the public of fire safety measures is generally the most important prevention activity. Successful methods of educating the visiting public include fire risk index signs, news releases, fire prevention posters, brochures, talks by rangers, and presentations to local governmental agencies and citizen's groups.

10.02 All project land and facilities have legal protection under 16 U.S.C. 4601-6a, Title 36, Part 327. Applicable sections are as follows:

327.10 Fires.

(a) Gasoline and other fuels, except that which is contained in storage tanks of vehicles, vessels, camping equipment, or hand portable containers, shall not be carried onto or stored within the project without permission of the District Engineer.

(b) Fires shall be confined to those areas designated by the District Engineer, and shall be confined to fireplaces, grills, or other facilities designed for this purpose. Fires shall not be left unattended and must be completely extinguished prior to departure.

327.12 Restriction.

(a) The District Engineer may establish and post a schedule of visiting hours and/or restrictions on the public use of a project or portion of a project. The District Engineer may close or restrict the use of a project or portion of a project when necessitated by reason of public health, public safety, maintenance, or other reasons in the public interest. Entering or using a project in a manner which is contrary to the schedule of visiting hours, closure or restrictions is prohibited.

327.13 Explosives, firearms, other weapons and fireworks.

(b) The possession or use of fireworks is prohibited unless written permission has been received from the District Engineer.

327.14 Public property.

Destruction, injury, defacement, removal, or any alteration of public property, including, but not limited to constructed facilities, natural formations, historical and archeological features, and vegetative growth, is prohibited without the written permission of the District Engineer. Any such destruction, removal, or alteration of public property shall be in accordance with the condition of any permission granted.

11.01 Prescribed Burning. Air pollution laws of the state EPA agencies indicate that burning of slash after a logging operation is permissible. Before burning of brushland, grassland, or any other area is allowed on Federal property, a letter describing the burn will be forwarded to the District Engineer who must approve the burn. Where a planned burn becomes a wildfire because of lessee negligence, the lessee will be held liable for the suppression costs. The District will determine its' effect on air quality. The current laws and standards pertaining to air quality that are applicable to the Mississippi River are as follows:

The National Ambient Air Quality Standards (NAAQS) were established by the US Environmental Protection Agency in 1971, as required by the Clean Air Act of 1970. These standards were developed for six pollutants: suspended particles, sulfur dioxide, carbon monoxide, nitrogen dioxide, hydrocarbons, and photochemical oxidants. Each standard specifies a concentration and an exposure time which were developed from research on the physiological effects of various pollutant levels.

The NAAQS for the six pollutants are separated into two categories, primary and secondary. Primary ambient air quality standards define levels of air quality which are necessary to protect the public health from adverse effects of a pollutant. Secondary ambient air quality standards, which are generally more restrictive than primary, define levels of air quality which are necessary to protect the public welfare from adverse effects of a pollutant. For some pollutants, the primary and secondary standards, excluding annual means, are to be exceeded more than once per year. Attachment B lists the NAAQS for the six pollutants listed above.

All burning will comply as closely as possible to these standards.

12.01 Updating the Plan: This Fire Protection Plan will be revised on a need basis as changes in the project situation become apparent.

Attachment A

US Fish and Wildlife Service

Upper Mississippi River Wildlife and Fish Refuge

Cassville District		
Pools 10 and 11	Cassville, WI	608-725-5198
Savanna District		
Pools 12, 13, and 14	Savanna, IL	815-273-2732

Mark Twain National Wildlife Refuge

Louisa and Keithsburg Divisions		
Pools 17 and 18	Wapello, IA	319-523-6982
Gardner Division		
Pool 21	Quincy, IL	217-224-8580

Pool 11

Cassville, WI	608-725-5133
Potosi, WI	608-763-2127
Guttenburg, IA	319-252-1221

Pool 12

Dubuque, IA	319-556-2211
Bellevue, IA	319-872-4141
East Dubuque, IL	815-742-3113
Savanna, IL	815-273-2246

Pools 13, 14, 15

Fulton, IL	815-772-2181
Thomson, IL	815-259-3131
East Moline, IL	309-755-4524
Clinton, IA	319-243-2424

Pools 16, 17, 18, 19, 20

Andalusia, IL Andalusia Slough	309-798-2030
Eliza, IL Blanchard Island	309-537-3575
Montpelier, IA Montpelier P.U.A.	319-381-1125
Wilton, IA Shady Creek	319-732-2323
Grandview, IA Kilpeck Landing	319-729-2051
Oakville, IA Ferry Landing	319-766-3001
Davenport, IA	319-322-4473
Buffalo, IA	319-381-1311
Muscatine, IA	911 from Muscatine phone
Burlington, IA	911 from Burlington phone
Rock Island, IL	309-786-3321
New Boston, IL	309-587-8555
Keithsburg, IL	309-374-2205
Oquawka, IL	309-867-2951

Pool 21

Quincy, IL	217-222-2121
Tri-Township, IL	217-222-2121
Ursa, IL	217-964-2215
Canton, MO	314-288-3133
LaGrange, MO	314-644-4143

Pool 22

Payson, IL	217-248-3221
Hull, IL	217-432-8341
Hannibal, MO	314-221-9000

ATTACHMENT B

NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS*

Suspended Particulates

Primary	Secondary	
a) 75 mg/m^3	a) 60 mg/m^3	Annual geometric mean
b) 260 mg/m^3	b) 150 mg/m^3	Maximum 24-hour concentration not to be exceeded more than once per year.

Sulfur Dioxide

Primary	Secondary	
a) 80 mg/m^3 (0.03 ppm)		Annual arithmetic mean
b) 365 mg/m^3 (0.14 ppm)		Maximum 24-hour concentration not to be exceeded more than once per year.
	1300 mg/m^3 (0.5 ppm)	Maximum 3-hour concentration not to be exceeded more than once per year.

Carbon Monoxide

Primary and Secondary	
a) 10 mg/m^3 (9 ppm)	Maximum 8-hour concentration not to be exceeded more than once per year.
b) 40 mg/m^3 (35 ppm)	Maximum 1-hour concentration not to be exceeded more than once per year.

Photochemical Oxidants

Primary and Secondary	
160 mg/m^3 (0.08 ppm)	Maximum 1-hour concentration not to be exceeded more than once per year.

Hydrocarbons

Primary and Secondary	
160 mg/m^3 (0.24 ppm)	Maximum 3-hour concentration not to be exceeded more than once per year.

Nitrogen Dioxide

Primary and Secondary	
a) 100 mg/m^3 (0.05 ppm)	Annual arithmetic mean.

*Published in the Federal Register, Vol. 36, No. 84, Part II - Friday, April 30, 1971; Revised in the Federal Register, Vol. 38, No. 178, Part I - Friday, September 14, 1973.