City of Rocks National Reserve

A partnership between the National Park Service
and the Idaho Department of Parks and Recreation

FIRE MANAGEMENT PLAN

September 30, 2005

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Approved: _____ September 30, 2005

Wallace Keck, CIRO Superintendent — Date

TABLE OF CONTENTS

City of Rocks National Reserve, Twin Sisters and Pinnacle Pass

Castle Rocks State Park, view east from Steins Pass

EXECUTIVE SUMMARY

When approved, this document will become the fire management plan for City of Rocks National Reserve. Major components include:

1. Implementation of current Director's Order # 18 Wildland Fire Management (NPS 1998).
2. Format changes under the direction of RM- 18 (NPS 1999 and 2002).
3. Reinforces updated 1995 Federal Wildland Fire Management Policy and Review.
4. A management plan for preserving historical and cultural landscapes and fire dependent ecosystems.
5. Guidelines for the use of Minimum Impact Suppression Tactics (MIST) during all suppression activities and restriction of retardant and foam use in the Reserve
6. Fire management organization for City of Rocks National Reserve.

All Department of Interior (DOI) agencies with vegetation capable of sustaining wildland fire are required by the 1998 National Park Service (NPS) Director's Order 18 (DO-18) to prepare fire management plans. The fire management plan is a fundamental strategic document that guides the full range of fire management related objectives and activities. It provides a framework for the management of wildland fire, introduces potential use of prescribed fire and potential hazard fuel reduction techniques as tools to safely accomplish the resource protection and management objectives of City of Rocks National Reserve.

Also important are providing for firefighter and public safety and protection of natural and cultural resources, and protection of human developments from unwanted wildland fire.

Applicable resource goals and objectives are derived from approved agency resource and general management plans.

The Plan is organized to combine the latest scientific knowledge, including regional and local studies, with policy direction from the National Park Service, the Departmental of the Interior, the Federal Wildland and Prescribed Fire Management Policy and Program Review (USDI/USDA1995), and other Federal Government level wildland fire policies to accomplish resource and fire management goals and objectives. The intent of the plan is primarily operational in nature.

This Plan is in compliance with the requirements found in the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). These requirements ensure a prudent assessment and balance between a federal action and any potential effects of that action, leading to consensus between fire managers, agency resource specialists, and the public. Any constraints or limitations imposed on the fire management program are also included.

INTRODUCTION

The Fire Management Plan

This document is the Fire Management Plan (FMP) for City of Rocks National Reserve (CIRO). Upon issuance of the Categorical Exclusion for Hazard Fuel Reduction *Federal Register* (Vol. 68, No. 108, pages 33814-33824), this plan will meet the requirements of the National Environmental Policy Act (NEPA) as well as the National Historic Preservation Act. (NHPA)

Fire is a natural disturbance process of the ecosystems present at CIRO, as well as anthropogenic actions resulting in fire – both in the past and today. Fire can have a devastating or rejuvenating effect on the resources of an area. Therefore it is important that fire be maintained as a natural process to perpetuate certain plant and animal communities while still providing for the protection of life and property. The role that fire can play in CIRO is determined by resource and fire management objectives. The particular role(s) that fire plays in CIRO are generally focused on:

1. Providing specific types of vegetative mosaics (Bonniicksen and Stone 1982)
2. Reversing or mitigating anthropogenic influences (Leopold et al 1963)
3. Fire acts as a natural process in the environment being managed or protected (Parsons et al 1986)

The FMP delineates the appropriate management response that CIRO managers will follow in the event of a wildland fire. The plan defines levels of protection needed to insure personnel and public safety, protect facilities and resources. The plan introduces the concepts of prescribed fire and mechanical fuels reduction but will not implement these fire management activities for this planning effort.

CIRO staff will review and update the fire management plan annually. Annual review is essential to ensure that the Plan continues to conform to current laws, objectives, procedures and strategies. A comprehensive plan revision, and National Environmental Policy Act (NEPA) compliance review, is required every five years. CIRO will provide a digital copy of each approved Fire Management Plan and all subsequent amendments to the NPS Fire Management Program Center (FMPC), located at the National Interagency Fire Center (NIFC), in Boise, Idaho, as well as to Pacific West Regional Staff.

Collaborative Processes Used to Develop the Plan

City of Rocks Fire Management Plan was written using the NEPA process, incorporating the CATX allowances as allowed in the aforementioned Federal Register (Vol. 68, No. 108, pages 33814-33824). Interested publics as well as adjoining agencies were solicited through public scoping sessions to help determine the fire management tools available for use in CIRO. Efforts were made to develop, where appropriate similar management objectives with adjoining agencies. These

shared objectives will facilitate sharing of projects and resources in the future. Future prescribed burns or other vegetation management projects across agency boundaries for habitat/forage improvement for wildlife and cattle are being discussed.

DO-18 Wildland Fire Management Guidelines requires that all parks with vegetation capable of sustaining wildland fire develop a fire management plan (FMP). (Director's Order #18, Wildland Fire Management, 12/01/97)

This plan is tiered to the CIRO Comprehensive Management Plan and CIRO Resource Management Plan and has been developed to assist park management in achieving resource-based objectives identified in the CIRO Resource Management Plan (RMP) and Comprehensive Management Plan (CMP) (1994).). The FMP CATX is attached in Appendix IV.

City of Rocks National Reserve's Fire Management Plan is written to implement current fire management policies, as well as helping to achieve resource and fire management goals as defined in the following:

1. Federal Wildland Fire Management Policy and Program Review (2001)
2. Managing Impacts of Wildfires on Communities and the Environment, and Protecting People and Sustaining Resources in Fire-Adapted Ecosystems – A Cohesive Strategy (USDOI/USDA)
3. A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10 Year Comprehensive Strategy Implementation Plan

The activities covered by the Plan have been determined through an interdisciplinary process and conform to interagency formats.

The superintendent is responsible for assuring policy compliance and the technical and operational soundness of the wildland fire management plan before he or she approves it. Before approving the plan, the superintendent sought the review and advice of Park staff, area and regional staff, and other fire professionals.

Authorities

Fire Management

Authority for fire management is found in 16 USC Sec. 1 (August 25, 1916), which states that the agency's purpose:

> ...is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

This authority was clarified in the National Parks and Recreation Act of 1978:

Congress declares that...these areas, though distinct in character, are united...into one national park system....The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress."

Fire Management Funding

The authority for FIREPRO funding (Normal Fire Year Programming) and all emergency fire accounts is found in the following authorities:

Section 102 of the General Provisions of the Department of Interior's annual Appropriations Bill provides the authority under which appropriated monies can be expended or transferred to fund expenditures arising from the emergency prevention and suppression of wildland fire.

P.L. 101-121, Department of the Interior and Related Agencies Appropriation Act of 1990, established the funding mechanism for normal year expenditures of funds for fire management purposes.

31 US Code 665(E)(1)(B) provides the authority to exceed appropriations due to wildland fire management activities involving the safety of human life and protection of property.

Procurement /Administrative Activities

Authorities for procurement and administrative activities necessary to support wildland fire suppression missions are contained in the Interagency Fire Business Management Handbook.

Cooperative Agreements

Authorities to enter into agreements with other Federal bureaus and agencies; with state, county, and municipal governments; and with private companies, groups, corporations, and individuals are cited in NPS-20 (Federal Assistance and Interagency Agreements). These include the Reciprocal Fire Protection Act of May 27, 1955 (42 USC 815a; 69Stat 66).

Authority for interagency agreements is found in Interagency Agreement between the Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service of the United States Department of the Interior and the Forest Service of the United States Department of Agriculture, State of Oregon and the State of Washington (1998). Authority for rendering

emergency fire or rescue assistance outside the National Park System is the Act of August 8, 1953 (16 USC 1b(1)) and the Departmental Manual (910 DM). (1.)

Fire Management Plan Implementation

Authorities for implementing this plan are identified in DO-18 and RM-18.

RELATIONSHIP TO LAND MANAGEMENT PLANNING AND FIRE POLICY

The National Park Service management policies, Director's Order 18 (1998), the Guiding Principles and 2001 Federal Fire Policy, provide the requirements for national park units to build a program consistent with stated land and resource goals and objectives while ensuring firefighter and public safety. These requirements for the fire management program are listed in Table 2.1. The City of Rocks Reserve fire management plan/environmental analysis process is in compliance with these policies.

National Park Service Management Policies

National Park Service Management Policies, Section 4.5 – Fire Management, as revised in 2001, states the following:

> "Naturally ignited fire is a process that is part of many of the natural systems that are being sustained in parks. Human-ignited fires often cause the unnatural destruction of park natural resources. Wildland fire may contribute to or hinder the achievement of park management objectives. Therefore, park fire management programs will be designed to meet park resource management objectives while ensuring that firefighter and public safety are not compromised.
>
> "Each park with vegetation capable of burning will prepare a fire management plan and will address the need for adequate funding and staffing to support its fire management program. The plan will be designed to guide a program that responds to the park's natural and cultural resource objectives; provides for safety considerations for park visitors, employees, neighbors, and developed facilities; and addresses potential impacts to public and private property adjacent to the park. An environmental assessment developed in support of the plan will consider the effects on air quality, water quality, health and safety, and natural and cultural resource management objectives. Preparation of the plan and environmental categorical exclusion will include collaboration with adjacent communities, interest groups, state and federal agencies, and tribal government.
>
> "All fires burning in natural or landscaped vegetation in parks will be classified as either wildland fires or prescribed fires. All wildland fires will be effectively managed through application of the appropriate strategy and tactical management options. Strategic and tactical options will be determined by the Incident Commander and a CIRO designated representative. These options will be selected after comprehensive consideration of the resource values to be protected, firefighter and public safety, and costs. All wildland fires in CIRO will be suppressed as efficiently as possible. Prescribed fires are those fires ignited by fire managers to achieve resource management and fuel treatment objectives. This plan will not implement a prescribed fire program during this planning cycle. New budgeting processes and improved information relevant to the use of

prescribed fire to achieve resource values will occur during this planning cycle and will be incorporated when appropriate. Parks will use methods to suppress wildland fires that minimize impacts of the suppression action and the fire, and are commensurate with effective control, firefighter and public safety, and resource values to be protected."

In addition, Section 5.3.1.2 states:

"The NPS will take action to prevent or minimize the impact of wildland, prescribed, and structural fires on cultural resources, including the impact of suppression and rehabilitation activities.

"In the preservation of historic structures and museum and library collections, every attempt will be made to comply with national building and fire codes. When these cannot be met without significantly impairing a structure's integrity and character, the management and use of the structure will be modified to minimize potential hazards, rather than modify the structure itself.

"Subject to the previous paragraph, when warranted by the significance of a historic structure or a museum or library collection, adequate fire detection, warning, and suppression systems will be installed. 'Pre-fire plans' will be developed for historic structures and building housing museum or library collections designed to identify the floor plan, utilities, hazards, and areas and objects requiring special protection. This information will be kept current and made available to local and park fire personnel.

Table 1 National Park Service Fire Management Program Requirements

National Park Service Policy Directing Development of Fire Management Plans—Director's Order 18: Wildland Fire Management **Section 5: Program Requirements**
Every park area with burnable vegetation must have a fire management plan approved by the superintendent.
All approved fire management plans will: • Reinforce the commitment that firefighter and public safety is the first priority. • Describe wildland fire management objectives, which are derived from land, natural and cultural resource management plans and address public health issues and values to be protected. • Address all potential wildland fire occurrences and consider the full range of wildland fire management actions. • Promote an interagency approach to managing fires on an ecosystem basis across agency boundaries and in conformance with the natural ecological processes and

conditions characteristic of the ecosystem. • Include a description of rehabilitation techniques and standards that comply with resource management plan objectives and mitigate immediate safety threats. • Be developed with internal and external interdisciplinary input and reviewed by appropriate subject matter experts and all pertinent interested parties, and approved by the park superintendent. • Comply with the National Environmental Policy Act (NEPA) and any other applicable regulatory requirements. • Include a wildland fire prevention analysis and plan. • Include fuels management analyses and plan. • Include procedures for short and long term monitoring to document that overall programmatic objectives are being met and undesired effects are not occurring.
Until a Fire Management Plan is approved, park areas must take an aggressive suppression action on all wildland fires, taking into account firefighter and public safety and resources to be protected within and outside the park.
Although resource impacts of suppression alternatives must always be considered in selecting a fire management strategy, resource benefits may not be the primary consideration unless there is an approved Fire Management Plan.

"Park and local fire personnel will be advised of the locations and characteristics of cultural resources threatened by fire, and of any priorities for protecting them during any planned or unplanned fire incident. At parks with cultural resources, park fire personnel will receive cultural resource protection training. At parks that have wildland or structural fire programs, cultural resource management specialists will receive fire prevention and suppression training and, when appropriate, will be certified for incident management positions commensurate with their individual qualifications."

Federal Wildland Fire Management Policy

The Interagency Federal Wildland Fire Policy Review Working Group revised the Federal Wildland Fire Management Policy in 2001. Main elements of the policy are listed in Table 2.

Table 2 2001 Federal Wildland Fire Management Policy

POLICY	***2001 FEDERAL WILDLAND FIRE MANAGEMENT POLICY***
Safety	Firefighter and public safety is the first priority. All Fire Management Plans and activities must reflect this commitment.
Ecosystem Sustainability	The full range of fire management activities will be used to help achieve ecosystem sustainability including its interrelated ecological, economic, and social components.
Response to Wildland Fire	Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to wildland fire is based on ecological, social, and

	legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected dictate the appropriate management response to the fire.
Use of Wildland Fire	Wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Use of fire will be based on approved Fire Management Plans and will follow specific prescriptions described in operational plans.
Rehabilitation and Restoration	Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.
Protection Priorities	The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have committed to an incident, these human resources become the highest value to be protected.
Wildland Urban Interface	The operational roles of federal agencies as partners in the Wildland Urban Interface are wildland firefighting, hazardous fuel reduction, cooperative prevention and education, and technical assistance. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify mutual responsibilities of the partners, including funding. (Some federal agencies have full structural protection authority for their facilities on lands they administer; they may also enter into formal agreements to assist state and local governments with full structural protection.)
POLICY	***2001 FEDERAL WILDLAND FIRE MANAGEMENT POLICY***
Planning	Every area with burnable vegetation must have an approved Fire Management Plan. Fire Management Plans are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plan. Fire Management Plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations.
Science	Fire Management Plans and programs will be based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, Fire Management Plans, and implementation plans.
Preparedness	Agencies will ensure their capability to provide safe, cost-effective fire management programs in support of land and resource management plans

	through appropriate planning, staffing, training, equipment, and management oversight.
Suppression	Fires are suppressed at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
Prevention	Agencies will work together and with their partners and other affected groups and individuals to prevent unauthorized ignition of wildland fires.
Standardization	Agencies will use compatible planning process, funding mechanisms, training and qualification requirements, operational procedures, values-to-be-protected methodologies, and public education programs for all fire management activities.
Interagency Cooperation and Coordination	Fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.
Communication and Education	Agencies will enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and education programs. These programs will be continuously improved through the timely and effective exchange of information among all affected agencies and organizations.
Agency Administrator and Employee Roles	Agency administrators will ensure that their employees are trained, certified, and made available to participate in the wildland fire program locally, regionally, and nationally as the situation demands. Employees with operational, administrative, or other skills will support the wildland fire program as necessary. Agency administrators are responsible and will be held accountable for making employees available.
Evaluation	Agencies will develop and implement a systematic method of evaluation to determine effectiveness of projects begun under the 2001 Federal Fire Policy. The evaluation will assure accountability, facilitate resolution of areas of conflict, and identify resource shortages and agency priorities.

Enabling Legislation

City of Rocks National Reserve was established in 1988 by Congressional Legislation under Public Law 100-696, the Arizona-Idaho Conservation Act Of 1988. The legislation recognizes Reserves role is to:

"…preserve and protect the significant historical and cultural resources; to manage recreational use; to protect and maintain scenic quality; and to interpret the nationally significant values of the reserve…"

City of Rocks National Reserve was created to manage recreational pursuits centered around the geological rock formations present within CIRO's boundaries. Also preservation and interpretation of the California Trail segment, with its associated

cultural relics, found within the confines of CIRO is extremely important. CIRO allows grazing within its boundaries.

Significant resources and values of CIRO are:

Cultural resources: The California Trail, the Salt Lake Alternate Trail, the Stage Station, Emigrant signatures on rocks and an unknown number of Native American cultural features and sites.

Grazing: All private land and a significant portion of public land within the reserve is utilized for grazing, as a part of the historic rural setting. CIRO manages grazing allotments through a special use permit system and in accordance with a grazing management plan.

Recreation: CIRO contains world class rock climbing routes, as well as extraordinary opportunities for photography, hiking, camping and other non-consumptive uses. The Idaho Department of Parks and Recreation is investing significant resources into developing facilities outside the reserve to handle increased visitation to the area.

Desired Future Conditions for City of Rocks National Reserve

In general CIRO wants:

1. To reestablish and maintain a cultural landscape along the California Trail and the Salt Lake Alternate Trail.
2. For ecological and hazard fuel objectives reduce the amount of PJ stands
3. Decrease the total amount of sagebrush acreage
4. Increase the acreage of native annual grasses and forbs.
5. Protect culturally significant resources.
6. Protect grazing viability
7. Create wildland fire safety awareness among recreationists, neighbors and employees.

Comprehensive Management Plan Objectives

The 1994 City of Rocks National Reserve Comprehensive Management Plan identifies the following points:

> Page 42: "Various methods would be developed involving fire and vegetation management to protect the natural diversity of the native plant communities to the extent possible."
>
> "A coordinated wildland fire management plan would be prepared…"

"This plan would include provisions for prescribed natural fire and prescribed burning."

Page 143: "The development of a fire management plan with prescriptions for allowing prescribed fire use and permitting natural fires to burn within CIRO would help ensure a heterogeneous natural landscape with diverse habitats. Natural fire would be excluded as necessary to protect lives, private property, range developments, cultural resources, and visitor facilities."

Also,

"Elimination of grazing on up to 543 acres and prescriptions for fire would have a beneficial effect on natural biological diversity."

Resource Management Plan Objectives

National Park Service Management Polices (USDI 1988) defines Natural Resource Management as the concept of perpetuating a total natural environment or species. This concept is a distinguishing feature of the Service's management of natural lands. Accordingly, the primary goal outlined in CIRO's Resource Management Plan is the preservation of natural and cultural resources. Toward this end the objectives of this plan aim to restore or maintain the natural resources of CIRO, in part by emphasizing natural systems, which means allowing natural processes to play their roles. This concept is not limited to impacts solely within CIRO's boundary. Management actions are designed to mitigate resource impacts both within CIRO, as well as, disturbances outside CIRO, which could adversely affect CIRO's resources. Both CIRO's Resource Management Plan and Comprehensive Management Plan document the need for a Fire Management Plan that will emphasize fire's natural role in the ecosystem. Upon Fire Management Plan approval, it will be considered an action plan in conjunction with the Resource Management Plan.

The Fire Management Plan when implemented will assist CIRO in meeting the goals of the Comprehensive Management Plan (CMP) as well as the Resource Management Plan (RMP). Fire management tools for managing vegetation can be utilized to:

1. promote forage for cattle and other wildlife,
2. create and maintain vegetative mosaics compatible with a desired cultural landscape,
3. modify fuels for protection of park infrastructure as well as inholdings and cultural sites
4. develop a vegetative landscape more conducive to the natural range of variation.

Implementation of Federal Fire Management Policy

This Fire Management Plan will implement fire management policies and help achieve resource management and fire management goals defined in:

Federal Wildland Fire Management Policy and Program Review (1995)
Managing Impacts of Wildfires on Communities and the Environment, and Protecting People and Sustaining Resources in Fire Adapted Ecosystems – A Cohesive Strategy (USDOI/USDA, 2002)
A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10 Year Comprehensive Strategy Implementation Plan (2001)
The Wildland and Prescribed Fire Management Policy: Implementation and Reference Guide (1998)
Managing the Impacts of Wildfires on Communities and the Environment (2002)
National Fire Plan (2001)
10-Year Comprehensive Strategy (2001)
Implementation Plan, 10-Year Comprehensive Strategy (2001)
National Park Service Management Policies (2001)
City of Rocks National Reserve Comprehensive Management Plan (1994)

WILDLAND FIRE MANAGEMENT STRATEGIES

The following wildland fire management options are available for use at City of Rocks, for this planning period only fire suppression and Non-Fire Applications will be used:

Wildland Fire Suppression

Historically, all wildland fires have been suppressed at City of Rocks. Under this plan, the Park will continue to suppress all wildland fires using the most appropriate management action. Determination of the most appropriate management action will consider human safety, threat and potential damage to property, resources, and cost effectiveness. Suppression may not be used to accomplish resource objectives.

Prescribed Fire

Prescribed fire is not an option at City of Rocks National Reserve under this plan.

Wildland Fire Use

Wildland fire use will not be used at City of Rocks National Reserve. This option was rejected due to the small size of the Park, and the lack of available qualified fire personnel required to manage these fires.

Non-Fire Applications

The reduction or removal of fuels by mechanical means is an option that may be used for objectives such as protection of resources, historic scene restoration and maintenance, protection of private property located in the wildland/urban interface, invasive species control, or other natural resource objectives. Consult Appendix H for actions covered by the Categorical Exclusion.

SCOPE OF WILDLAND FIRE MANAGEMENT PROGRAM

General Management Considerations

The City of Rocks National Reserve Fire Management Plan is being developed in accordance with the National Park Service Wildland Fire Management Guidelines (DO-18), which identifies three paramount considerations for each Park's fire management program:

1. To protect human life and property both within and adjacent to Park areas
2. To perpetuate, restore, replace, or replicate natural processes to the greatest extent practicable
3. To protect natural and cultural resources and intrinsic values from unacceptable impacts attributable to fire and fire management activities.

Current fire management activities include the suppression of all wildland fires. All unplanned ignitions, both lightning-caused and human-caused, will be suppressed, using the appropriate suppression response, to protect sensitive park resources.

Agreements with the Southern Idaho Interagency Fire Dispatch Center will be maintained. This agreement is for initial attack resources provided by the BLM or other wildland firefighting agencies using the closest forces concept for dispatch. Also there is an initial attack agreement which will be maintained with the ACE Rural Fire Department.

Collaboration in developing multi-agency wildland fire budgets has been initiated and CIRO will be an active member of the Federal 'Fire Program Analysis' budgeting process. CIRO has also been involved in the promotion of projects leading to the protection of communities at risk from the effects of wildland fires.

Collaboration in development of cross boundary prescribed burn projects is also being discussed, and upon completion of an analysis of the role of fire in CIRO and required prescribed fire NEPA and SHPO requirements, prescribed fire will become a more viable management option.

CIRO's Wildland Fire Management Goals

Goal 1: *Maintain highest standard of firefighter and public safety, while protecting private property, park infrastructure, cultural resources and other social values.*

Objectives: All FMUs

1. Sustain no injuries or near miss incidents during the next five years of fire operations.
2. Reduce incidents of fire spread from NPS property on to private lands by 25% over the next 15 years.

3. Acquire training and qualifications for minimum staffing levels outlined in FMP, by FY 07.
4. Assure a safety briefing, describing known hazards, mitigating actions (LCES), current fire season conditions and historical trends (Pocket Cards) as well as current and predicted fire weather/ behavior are provided to all firefighting personnel over the life span of this plan.
5. Make an assessment of sites with high risk of fire impacts incorporating minimum fuel clearing prescriptions for each site, as outlined in the FMP, by FY07.
6. Develop and implement a prevention plan by FY 07.

Goal 2: *Facilitate reciprocal fire management activities through the development and maintenance of cooperative agreements and working relationships with pertinent fire management entities, neighbors and in holdings*:

Objectives: All FMUs

1. Complete development of cooperative FMUs, with partner agencies, prior to FPA implementation in FY07.
2. Complete annual review of all cooperative assistance and mutual aid agreements.
3. Attend annual preseason preparedness meeting with all responding agencies.
4. Coordinate review and secure buy-in of completed FMP by agency representatives from BLM, USFS, Idaho Department of Recreation and Idaho Fish and Game by end of FY 05.

Goal 3: *Develop processes for determining how to restore fire as a natural process through the appropriate application of prescribed fire. Prescribed fire will be explored as a methodology for achieving resource management objectives, maintaining historic and cultural landscapes and improving forage production.*

Objectives: **California Trail FMU**

1. Complete historic vegetation study prior to FY 2007. Adapt fire management approach in accordance with results.
2. Determine areas of current or potential pinyon and juniper invasion where reduction of stem densities would be appropriate. Treatment success will be achieved on *15%* of currently invaded zone over the next 15 years.

Objectives: **Natural and Historic FMU**

1. Determine the appropriate vegetative mosaic for these zones
2. Improve quantity and quality of available forage within grazing allotments, so AUM requirements can continue to be met, while target conditions for

vegetation communities are achieved. By 2019 more production should be possible utilizing fewer acres.

Goal 4: *Refine the fire management program through research, monitoring and an adaptive management approach.*

Objectives: All FMUs

1. Complete identification of research needs and applied fire management questions by FY07.
2. Develop, implement and monitor one experimental fire treatment by FY08.
3. Complete annotated bibliography of fire effects literature for Pinyon-Juniper and Sagebrush shrublands by FY 07.
4. Facilitate annual program review to integrate relevant experiences and new information.

Goal 5: *Facilitate public participation in review of fire management activities.*

Objectives: All FMUs

1. Develop Superintendent Operating Plan for public notification for all planning and fire management actions by FY07.
2. Develop fire information brochure, describing planned activities and program justifications, by FY07. The overall objectives of the City of Rocks National Preserve Fire Management Plan are the following:

    - Prevent fire spread onto adjacent public and private lands by containing all fires within the park boundary.
    - Maintain an active fire prevention program to reduce the incidence of human caused wildfires.
    - Ensure adequate suppression response capability to meet expected wildland fire complexity.
    - Take special precautions to preserve historical and cultural landscapes and fire dependent ecosystems.
    - Continue to research the role of fire in various City of Rocks National Reserve ecosystems. Comply with air pollution control regulations and smoke management concerns as required by the Clean Air Act and in cooperation with the State of Idaho
    - Take special precautions to preserve and perpetuate sensitive, rare, threatened, or endangered plant and animal species.

These goals are consistent with regional and national strategic plans such as the 10-Year Comprehensive Strategy and National Park Service Strategic Plan, as well as wildland fire policy.

Description of Fire Management Units (FMUs)

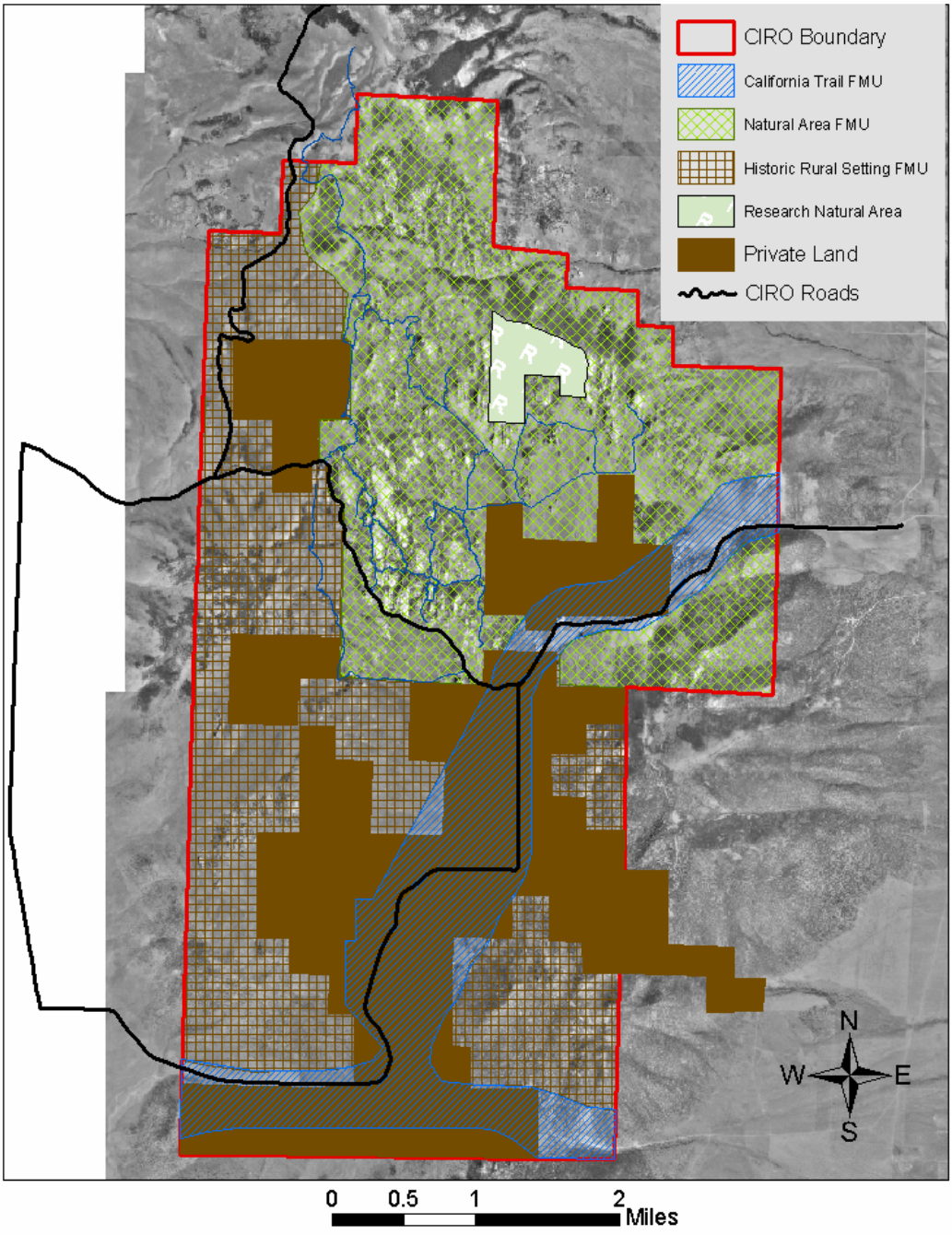
A fire management unit (FMU) is any land management area definable by objectives, topographic features, access, values to be protected, political boundaries, fuel types, or major fire regimes, etc. that sets it apart from management characteristics of an adjacent unit.

Within City of Rocks National Reserve there will be three fire management units (FMUs). These units directly correlate to three management zones outlined in the Reserve Comprehensive Management Plan. The three FMUs are:

1. California Trail Fire Management Unit
2. Natural Area Fire Management Unit
3. Historic Rural Setting Fire Management Unit

A map of CIRO FMUs is shown below

CIRO Fire Management Units



California Trail FMU

The California Trail FMU contains a remnant wagon road and other irreplaceable artifacts of national cultural significance. The trail section within CIRO moves through a fairly incised valley, opening up around Circle Creek basin. The trail then proceeds to the SW moving through an ever-broadening valley. At Pinnacle Pass the trail moves into a broad valley, which then leads out of CIRO. It is important to note that the trail goes in and out of private property.

The trail at the NE corner of CIRO passes through dense stands of Piñon/Juniper and the Circle Creek drainage containing riparian vegetation and open areas of sage-grasslands. As the trail proceeds to the SW the stand of Piñon Juniper transition to sage-shrub/steppe grasslands. There are an abnormally high percentage of sage-shrubs within this vegetation type, due to the modern day absence of fire. There are plants of concern in this FMU as listed in Appendix III.

Wildlife is abundant in this FMU. Large mammals such as mule deer and mountain lions are present as well as smaller mammals like badgers and ground squirrels. There are also many types of birds within CIRO. Species of concern are listed in Appendix III.

The trail does and will contain interpretive facilities for visitors. These facilities are subordinate to the landscape and sited to remain unobtrusive to the visitor to help maintain the culture landscape of the trail.

The management intent for this zone would be to preserve the major landmarks, trail remnants, and inscription rocks associated with the California Trail and to give visitors the opportunity to walk along side the entire length of the California Trail and to walk within Circle Creek encampment area. For the purposes of zoning in this plan the term California Trail includes the Salt Lake Alternate. Minimal modern intrusions would be allowed in the foregrounds of the views from these areas to allow visitors to experience a landscape reminiscent of the trail period. Adhering to these objectives will protect significant cultural values and provide for those activities which do not adversely affect cultural resources. The accompanying view shed analysis identifies uses that affect the foreground, middle ground, and background views from the California Trail. Based upon this analysis it can be determined if either mitigating measures or restrictions will be needed to ensure the retention of these values.

Management Considerations

1. Cultural
2. MIST
3. Air Quality

Historic Role of Fire

Fire in the park historically was ignited by occasional lightning storms and more frequently by humans. Native Americans used fire for cooking, creating defensible spaces across the landscape and for manipulating vegetation promoting forage for their livestock. Forage enhancement was also beneficial to wildlife hunted for food. Fire was also used to promote vegetation used for foodstuffs.

Fire has created a mosaic of vegetative patterns across the landscape. Piñon pine and juniper generally were found in areas where fire did not frequent. These were rocky areas with little fine fuels present.

Grasses and sages were interspersed across the landscape, a function of where wind and slope moved a fire through receptive fuel beds.

Stands of aspen where rejuvenated by infrequent fire and stands of firs were replaced by fire.

California Trail FMU Fire Management Situation

Historical weather analysis

CIRO is semi-arid in its lower elevations. Elevations range from 5,720 feet to 8,867 feet. The climate exhibits dry summers and cold winters. The climate is similar to the basin and range country in the northern intermountain west.

Weather based on the nearest weather information station, Strevell. Mean annual temp is 45.2 degrees (F.) at Strevell and 48.3 degrees F. at Oakley. The maximum and minimum temperatures for Oakley are about 37 degrees/20 degrees and 85 degrees/53 degrees for January and July. In the Raft River Valley near Malta, 15 miles to the NE recorded temperature extremes of 99 degrees F. and 114 degrees F.

The average annual precipitation in the park is approx. 18 inches, with the highest precipitation estimated at 30 inches (Graham Peak). Most precipitation occurs from January to May. Average summer humidity is estimated to be less then 20%. Predominate winds are from the west. Active thunderstorms accompanied by strong winds occur between May and October.

Fire Season

Fire season generally runs from May to October, depending on the snowpack present in the park and the return of the wet season in the fall.

Fuel characteristics / Fire behavior

The major fire regime for pre-settlement piñon/juniper has a fire return interval of approximately 100 years in the old growth stands and 50 years in the piñon/juniper/sage/grass stands. Areas with sage brush as the major vegetative component have a fire return interval of 15-25 years and areas of predominantly grasses have 5-10 year fire return interval.

There are three major fuel models represented in this FMU. The fire spread characteristics under normal and extreme conditions for these fuel types is summarized below.

Fire Behavior Characteristics

Extreme Conditions*			
Fuel Model	Rate of spread	Flame Lengths	Fire Characteristics
Fuel Model 9	40 ch/hr	6.5'	These fires would create hot fast moving fires that would be stand replacement in nature, especially in areas of heavy fuel loading and closed canopies. In areas of lighter fuel loadings the fire would tend to torch out individual and clumps of trees. Spread rates could increase markedly if the fire became a crown fire through the stand.
Fuel Model 1	126 ch/hr	5.6'	Fires in this fuel model would move extremely fast. They would have a short residence time as these fuels are consumed rapidly.
Fuel Model 5	88 ch/hr	11.8'	Fires in this fuel type would also exhibit fast rates of spread. Again residence time is rather short as the larger woody fuels burn out fairly quickly.
Normal Conditions			
Fuel Model	Rate of Spread	Flame Length	Characteristics
Fuel Model 9	10 ch/hr	3.5'	These fires would tend to torch out periodically, but most of the time they would be ground fires. Torching would occur on sites with heavy fuels near a tree or clump of trees.
Fuel Model 1	101 ch/hr	5.0'	These fires also exhibit fast rates of spread. They will burn out rather quickly.
Fuel Model 5	28 ch/hr	6.9'	These fires are relatively fast moving and would tend to be stand replacement in nature.

*Extreme is for slopes greater then 41%, 1 hr fuel moisture 3% and midflame wind speeds of 15 mph

**Normal is for slopes less then 40%, 1 hr fuel moisture 6% and midflame wind speeds of 15 mph

NFDRS Fuel Model H and Fire Behavior Fuel Model 9.

A significant vegetation type found in CIRO is the piñon-juniper woodland which densely covers higher elevations. Trees in this dwarf forest rarely grow more than 20-30 feet high. This fuel model becomes progressively more fire prone as the fire season progresses and live fuel moistures diminish and dead and down fuel moistures decrease. As the stand canopy closes over time and dead and down components increase they become more susceptible to large scale stand replacement fire events.

Early season fire effects in this fuel type will be minimal. Higher fuel moistures will reduce the overall consumption of fuels on the site. Reduced fuel consumption means less residence time for fire to impact soils, resident seed beds and plant roots and stems. As the sites dry out, increases in fuel availability occur, therefore the more fuels present the more intense and longer duration the fire will exhibit, leading to more direct effects on the resident flora and fauna.

Fuel Model T, Fire Behavior Fuel Model 5

Big sagebrush and rabbitbrush dominated areas are scattered throughout CIRO. These stands generally have a component of fine grass fuels which will cure and become very flammable as the fire season progresses. Older shrubs contain a high percentage of dead material which then becomes a fuel source for high intensity fast moving fires, especially under wind or slope influences

Fire effects in this fuel bed are very seasonal. During the early green-up season these areas will not burn very hot. As the plants decrease in live fuel moisture they will contribute more available fuel to the fire creating more direct effects on burned sites.

Fuel Model A, Fire Behavior Fuel Model 1

Fire effects from burns in these fuel beds are minimal until the grasses have actually cured out. Early season fires tend to burn off any buildup of thatch from preceding years. Fires tend to have very little residence time and therefore do not impact soils due to excessive heat.

California Trail FMU Values to be Protected and Special Concerns

Urban interface and administrative areas near the California Trail FMU boundary are of concern.

1. Any known T&E species sites will be acknowledged and mitigated for during fire suppression actions.
2. All known archeological and cultural sites will be mitigated for in all fire management activities. Mitigation measures are commensurate with the

potential for damage from fire activities. Known sites will be identified and protected during all fire operations up to the point where potential safety of personnel is threatened. Assignment of resource advisors to fire teams as well as providing locations of sensitive cultural sites to fire teams are examples. The implementation of minimum impact fire suppression tactics (MIST) will assist in minimizing impacts to cultural sites.

Annual fire weather cycles

The annual fire weather cycles are similar to that for the entire Reserve. The average high temperature will be higher for the sites closest to the valley bottom and on south, southwest and west slopes as would the lowest relative humidities; otherwise the general climatic effects will be the same. Areas in the higher altitudes will receive slightly lower high temperatures and higher relative humidities. Strong canyon winds both upslope and downslope can occur depending on diurnal wind effects in association with general wind patterns. Generally the fire season extends from May to October.

Grass dominated fuel beds exhibit a propensity to burn early in the fire season, dead grass acting as the available fine fuel, prior to green-up, and later in the fire season as new growth cures and dries out adding to the previous years cured fuels. At these times fire behavior can be significant especially under wind and slope effects. Fast moving fires would be expected in these fuel beds and would be a challenge to handcrews to stop. During periods of green-up fires would be dampened by the amount of green material in relation to the amount of dead thatch on the ground surface.

Brush dominated fuel beds w/o a grass understory would need to be have high dead to live fuel ratio and strong winds to create a fire scenario of fast spreading extreme fire behavior.

In order to achieve extreme fire behavior piñon pine/juniper stands w/o a grass understory would need the same high winds to move fire through the stands or significant slopes to increase flame contact with available tree crowns.

Impacts of Suppression on Fire Regime

Fire suppression has allowed an increase in spatial distribution of piñon/juniper stands in the park. Current fires have significantly reduced the acreage in piñon/juniper stands in the southern end of CIRO. Historically piñon/juniper stands were located in areas infrequently visited by fires.

Significant grazing in the region prior to establishment of the park also helped reduce the role of fire, as the fine fuels were consumed by livestock, reducing the available fuels for fire spread. Today under a closely regulated grazing allotment system there are more fine fuels present and therefore more opportunity for fire to move across the landscape.

The extensive acreages of piñon/juniper existing outside of their natural areas would represent a Condition Class 3 as there have been three or more lost opportunities for significant fire events to occur in these areas, due to suppression and livestock grazing.

Topography/Control Challenges

California Trail FMU contains a broad valley boarded by steep slopes. Access to the slopes is limited, reducing the effectiveness of firefighting equipment. Fine fuels in the valley when ignited tend to burn fast especially under direct influence of wind and slope. The rate of spread of these fires will create a significant challenge to firefighters, both from a safety and an effectiveness of action standpoint.

Values to be Protected

Within the California Trail FMU there is one home site and several developed park recreation sites that need to be protected. Culturally significant sites also occur in the FMU.

Natural Area FMU

Description

The Natural Area FMU resides in the northern section of the park. The Natural Area FMU contains steep slopes and topographic features important to the park. This area encompasses higher elevation zones, containing a diverse mosaic of vegetation types ranging from brushfields, aspen stands, grass/forb openings, Douglas-fir stands and riparian areas. There as plants of concern in this FMU as listed in Appendix III.

Wildlife is abundant in this FMU. Large mammals such as mule deer and mountain lions are present as well as smaller mammals like marmots and ground squirrels. There are many types of birds within CIRO.

The management intent of this zone would be to preserve the exceptional natural resource values of the reserve and to provide for recreational activities where appropriate. Areas included within the natural area zone include most of the crescent shaped rock outcrops of the Circle Creek basin, the ridgeline and northern slopes of the reserve, the research natural area, and most of the Indian Grove and Graham Peak areas. Use of these areas would focus on natural resource preservation. The National Park Service would seek to acquire the private lands in this zone on an opportunity basis to protect sensitive habitats and scenic vistas from livestock grazing and development.

Management considerations

1. Cultural
2. MIST
3. Air Quality

Historic Role of Fire

Fire in the park historically was ignited by occasional lightning storms and more frequently by humans. Native Americans used fire for cooking, creating defensible spaces across the landscape and for manipulating vegetation promoting forage for their livestock. Forage enhancement was also beneficial to wildlife hunted for food. Fire was used to promote vegetation used for foodstuffs.

Fire has created a mosaic of vegetative patterns across the landscape. Piñon pine and juniper generally were found in areas where fire did not frequent. These were rocky areas with little fine fuels present.

Grasses and sages were interspersed across the landscape, a function of where wind and slope moved a fire through receptive fuel beds.

Stands of aspen where rejuvenated by infrequent fire and stands of firs were replaced by fire. Isolated stands of Douglas-fir have persisted without the presence of fire, and in their current condition are very susceptible to stand replacing fire events.

Fire Management Situation

Historical weather analysis

City of Rocks is semi-arid in its lower elevations (about 6,000 feet), with dry summers and cold winters. The climate is similar to the basin and range country in the northern intermountain west.

Weather based on the nearest weather information station, Strevell. Mean annual temp is 45.2 degrees (F.) at Strevell and 48.3 degrees F. at Oakley. The maximum

and minimum temperatures for Oakley are about 37 degrees/20 degrees and 85 degrees/53 degrees for January and July. In the Raft River Valley near Malta, 15 miles to the NE recorded temperature extremes of 99 degrees F. and 114 degrees F.

The average annual precipitation in the park is approx. 18 inches, with the highest precipitation estimated at 30 inches (Graham Peak). Most precipitation occurs from January to May. Average summer humidity is estimated to be less then 20%. Predominate winds are from the west. Active thunderstorms accompanied by strong winds occur between May and October.

Fire Season

Fire season generally runs from July to October, depending on the snowpack present in the park.

Fuel characteristics / Fire behavior

Fuels in this FMU are similar to that found throughout CIRO. There is a component of fuel model 10 found in stands of Douglas-fir and stands of other fir species found at the higher elevations, generally located on North and Northeast slopes.

Extreme Conditions*			
Fuel Model	Rate of spread	Flame Lengths	Fire Characteristics
Fuel Model 9	40 ch/hr	6.5’	These fires would create hot fast moving fires that would be stand replacement in nature, especially in areas of heavy fuel loading and closed canopies. In areas of lighter fuel loadings the fire would tend to torch out individual and clumps of trees. Spread rates could increase markedly if the fire became a crown fire through the stand.
Fuel Model 1	126 ch/hr	5.6’	Fires in this fuel model would move extremely fast. They would have a short residence time as these fuels are consumed rapidly.
Fuel Model 5	88 ch/hr	11.8’	Fires in this fuel type would also exhibit fast rates of spread. Again residence time is rather short as the larger woody fuels burn out fairly quickly.
Fuel Model 10	50 ch/hr	13’	These fires are relatively fast moving and would tend to be stand replacement in nature.
Normal Conditions			
Fuel Model	Rate of Spread	Flame Length	Characteristics

Fuel Model 9	10 ch/hr	3.5’	These fires would tend to torch out periodically, but most of the time they would be ground fires. Torching would occur on sites with heavy fuels near a tree or clump of trees.
Fuel Model 1	101 ch/hr	5.0’	These fires also exhibit fast rates of spread. They will burn out rather quickly.
Fuel Model 5	28 ch/hr	6.9’	These fires are relatively fast moving and would tend to be stand replacement in nature.
Fuel Model 10	32 ch/hr	9’	Fires are still fairly fast moving, especially under wind and slope effects and could still be stand replacing

Grass dominated fuel beds exhibit a propensity to burn early in the fire season, dead grass acting as the available fine fuel, prior to green-up and later in the fire season as new growth cures and dries out. At these times fire behavior can be significant especially under wind and slope effects. Fast moving fires would be expected in these fuel beds and would be a challenge to handcrews to stop. During periods of green-up fires would be dampened by the amount of green material in relation to the amount of dead thatch on the ground surface.

Brush dominated fuel beds w/o a grass understory would need to be have high dead to live fuel ratio and strong winds to create a fire scenario of fast spreading extreme fire behavior.

In order to achieve extreme fire behavior piñon pine/juniper stands w/o a grass understory would need the same high winds to move fire through the stands or significant slopes to increase flame contact with available tree crowns.

Fir stands in the upper elevations tend to burn infrequently, although fuel loadings in some of the stands are quite high and would exhibit extreme stand replacing fire behavior in the case of an ignition. Typical fire impacts for these stands are for many low impact fires and an occasional stand replacing event.

Impacts of Suppression on Fire Regime

Fire suppression has allowed the increase in spatial distribution of piñon/juniper stands in the park. Current fires have significantly reduced the acreage in piñon/juniper stands, but there are still many more areas across the landscape of the park historically exhibiting limited densities of this vegetation type that are covered with piñon pine/juniper. Historically piñon/juniper stands were located in areas infrequently visited by fires.

Significant grazing in the region prior to establishment of the parks also helped reduce the role of fire, as the fine fuels were consumed by livestock, reducing the

available fuels for fire spread. Today under a closely regulated grazing allotment system there is more fine fuels present and therefore more opportunity for fire to move across the landscape.

The extensive acreages of piñon/juniper existing outside of their natural areas would represent a Condition Class 3 as there have been three or more lost opportunities for significant fire events to occur in these areas, due to suppression and livestock grazing.

Fire suppression and grazing have reduced the beneficial fire impacts on aspen stands in the park. Many of the stands are in need of fire induced benefits leading to healthier rejuvenated stands.

Fire suppression has also allowed a significant down woody component to build-up in the fir stands present in this FMU. Diseased trees have added to that component.

Topography/Control Challenges

Natural Area FMU contains steep slopes and ridges. Access to the slopes is limited, reducing the availability of firefighting equipment to be effective. Fine fuels in the valley when ignited tend to burn fast especially under direct influence of wind and slope and tend to run into the Natural Area FMU. Rock formations, small valleys, benches and ridges have significant effects on wind directions and speeds, as well as sudden changes in slope and aspect, creating erratic fire behavior. The speeds at which these fires can move create a significant challenge to firefighters, both from a safety and an effectiveness of action standpoint.

Values to be Protected

Within the Natural Area FMU there are several park recreation sites that need to be protected. Culturally significant sites also occur in the FMU.

Historic FMU

The Historic FMU contains the remainder of CIRO. This includes many of the rock climbing sites.

There are plants of concern in this FMU see the Species list in Appendix III and the map in the Preattack Plan in Appendix VII.

Wildlife is abundant in this FMU. Large mammals such as mule deer and mountain lions are present as well as smaller mammals like badgers and ground squirrels. There are many types of birds within CIRO.

Most of the private lands in the reserve, along with some public lands outside the natural preservation fire management unit, would be in this FMU. The management intent would be to preserve the historic rural setting and to perpetuate ongoing ranching activities that captured the rural character of the reserve at the time of its establishment. Uses of lands in this zone would include continued ranching use, interpretive activities, and day recreation on public lands. While preservation of historic resources and the historic rural setting are the primary emphasis of this management of this zone, appropriate recreation, including day uses such as hiking, informal picnicking (no facilities), photography, nature viewing, and climbing would be permitted. Since much of this zone is private ownership, the public would be directed to seek the permission of the landowner prior to entering private land.

Management considerations

1. Cultural
2. MIST
3. Air Quality

This FMU is very similar to the Natural Area FMU and the California Trail FMU in regards to fuels present, types of fire behavior possible, fire season and values at risk. This FMU does contain most of the facilities in CIRO, located near the rock climbing sites.

WILDLAND FIRE MANAGEMENT SITUATION

Wildland Fire Management Program Components

General Implementation Procedures

Implementation of the components of the wildland fire management program at CIRO is consistent with the park's fire management capabilities and will consider the current and predicted conditions affecting fire behavior. When possible, preplanned decisions, based on historical fire behavior indices will be considered in *Stage I Wildland Fire Implementation Plan* development to select an appropriate management response.

A Wildland Fire Implementation Plan (WFIP) will be initiated for all wildland fires. This plan will provide the framework for determining the appropriate management response. The WFIP Stage I: Initial Fire Assessment will be the responsibility of the Incident Commander or CIRO's Fire Coordinator. Since the Fire Management Plan requires suppression of all wildland fires, the requirement for a decision checklist as a part of the Stage I analysis can be considered met. Subsequently, Stage I analysis may be satisfied at the programmatic level in the Fire Management Plan through determinations made by combinations of values to be protected and/or fire behavior thresholds. A copy of the WFIP Stage I form can be found in Appendix D.

Wildland Fire Suppression

Range of potential fire behavior

Fuels present in the park, range from grass/forbs, to brush and timber stands all located on gently to steep slopes. This combination creates a range of fire behavior exhibited by cooler burns under less extreme weather conditions to extreme fire behavior during drought and/or strong wind conditions. The ranges of fire behavior are summarized in Tables XXX listed under the FMU descriptions.

Preparedness actions

"Preparedness" refers to activities that lead to a safe, efficient, and cost-effective fire management program in support of land and resource management objectives through appropriate planning and coordination. Preparedness includes planned activities for the development and implementation of the wildland fire management program. These activities include staffing, training, fire prevention activities, education, provision and maintenance of support facilities, purchase of and contracting for equipment, supplies, support, planning and coordination, policy development and oversight, research, and interagency coordination."

Departmental policy requires that all personnel engaged in wildland fire suppression and prescribed fire duties meet the standards set by the National Wildfire Coordinating Group (NWCG, *PMS-310-1*). These standards are discussed within the National Interagency Fire Center (NIFC) website, linked through the "Interagency Fire Program Management – Qualifications Standards and Guide section. CIRO will conform strictly to the requirements of the NPS wildland fire management qualification and certification system.

CIRO currently has no qualified wildland firefighter personnel and relies on ACE Rural Fire District as well as the BLM for initial attack and extended attack support.

Fire Prevention, Education, and Community Assistance

CIRO's fire prevention and education program may be implemented in conjunction with other fire management and public safety agencies. The purpose of this program is to increase awareness of fire prevention, develop understanding of the dangers and benefits of fire, protect human life and property, and prevent damage to cultural resources, real property, and natural resources.

The program of public education regarding wildland fire prevention, potential fire benefits and dangers will be conducted as appropriate to help support management goals. Visitor contacts, bulletin board materials, handouts, and interpretive programs may be used to increase visitor and park neighbor awareness of fire hazards and benefits. The Network Area fire prevention and education specialist may provide

assistance to the park for its fire prevention, education and community assistance programs.

Park employees will be provided with information about fire prevention, the wildland/urban interface, the objectives of the fire management program, and the dangers and benefits of prescribed fire and wildland fire. Employees will be kept informed about changes in the fire situation throughout the fire season.

Park staff will work with the local fire department and other agencies with fire management and public safety responsibilities to establish common protocols and procedures identify training needs, conduct joint training, and develop strategies for safer and more efficient fire management operations.

Fire Danger

The park will utilize the fire danger rating generated by the BLM for the area, as determined at the South Central Idaho Interagency Dispatch Center.

Fire Weather

The BLM RAWS station (Goose Creek) will be the reference station for CIRO.

Step-Up Staffing Plan

The Burning Indices established below are based on ten years of data collection at the Goose Creek fire weather station from 1979-1988. Those data indicate a value for the 90th percentile equaling a BI of 21. The value for the 97th percentile is 24. The analysis was based on using Fuel Model H, a Slope Class of 2 (26-40 percent), perennial herbs, and a Climate Class of 1 (Semi-arid).

Table I - Burning Index and Staffing Class

Burning Index	Staffing Class
0-5	I
6-10	II
11-20	III
21-23	IV
24+	V

Fire conditions that typify each staffing class and the corresponding preparedness actions required are as follows:

Staffing Classes I and II ***(BI 0-10)***

Conditions:

Fires will present a low to moderate level of control difficulty. Fires occurring at this level may be controlled with existing forces. Wind speed and direction will determine severity of fire spread. Fine fuels will be drying.

Preparedness Actions:
Fire weather reviewed daily.

Hand tools and other fire equipment in a state of readiness.

If the Lightning Activity Level (LAL is between 4 and 6 for the next day automatically bump up to a staffing class 4

Suppression Actions:
CIRO's fire coordinator or Designated fire coordinator will depart within five minutes of notification for the reported fire location. ACE and/or BLM will supply initial attack resources and the appropriate level incident command structure.

Additional attack forces will be dispatched after size-up and upon request of the first firefighter to arrive.

Staffing Class III (*BI 11-20)*

Conditions:
Fires will present a moderate level of control difficulty. Light fuels are becoming dry. Heavy fuels are drying. Mop-up will be more difficult and time-consuming.

Preparedness Actions:
All actions specified for Staffing Class I and II days will be conducted.

Ensure that a minimum of two qualified fire personnel are available for initial attack.

If the LAL is between 4 and 6 for the next day automatically bump up to a staffing class 5

Suppression Actions:
All suppression actions indicated for Staffing Classes I and II will be taken.

Staffing Classes IV and V (*BI 21+)*

Conditions:
Fire will present a moderate to high level of control difficulty. Initial attack and reinforcing crews may have difficulty controlling a fire at this level. All fuels are dry. Air temperature is high and humidity is low. Strong gusty winds are possible. Spotting may occur.

Preparedness Actions:
All actions specified for Staffing Class III days will be conducted.

Detection road patrols will be increased.

CIRO staff will monitor Fire Situation reports entered by the South Central Idaho Interagency Dispatch Center into the NIFC computer. Generally these reports are entered before 9:30 A.M. daily.

Visitor Center personnel will alert the public to fire hazards.

Interpretive activities will include a fire safety message.

Emergency preparedness funds (PWE 343) may be used to bring staff to required levels. However, regularly scheduled personnel will be used to the extent possible. It is recognized that both nonessential routine activities and project work may be postponed on Class IV and V days.

Fire danger notices will be posted.

Wildland fire use monitor will be identified and ordered immediately upon reports of ignitions.

Suppression Actions:
All actions specified for Staffing Class III days will be taken.

Pre-Attack Plan

CIRO's pre-attack plan is found in Appendix VII. The BLM has its own protocols and procedures for initial attack of fires within CIRO. Homes and structures receive the highest priority in regard to any suppression action.

Detection

There are no staffed fire lookouts at CIRO. Detection efforts will consist primarily of foot and vehicle patrols by park employees. The park also relies on fire reports from visitors, neighbors, and other agencies. Private and commercial pilots on aerial overflights may also alert the park to "smokes". Any fires discovered by park personnel or reported to them that are within the park shall be immediately reported to the park headquarters.

The Fire Management Plan does not discriminate between human-caused and lightning caused fire. All wildland fires will be suppressed. However, detection shall include a determination of fire cause. Moreover, human-caused fires will require an investigation and report by law enforcement personnel. For serious human-caused fires, including those involving loss of life, a qualified arson investigator will be

requested.

Initial Attack

CIRO relies on the BLM and ACE Rural Fire District for initial attack.

Extended attack and large fire suppression

CIRO relies on the BLM and ACE Rural Fire District for extended attack.

Aircraft Operations

Aircraft may be used in all phases of fire management operations. All aircraft must be Office of Aircraft Services (OAS) or Forest Service approved. A complete list of OAS approved aircraft will be supplied by the Regional FMO. An OAS Aviation Policy Department Manual will be provided by OAS. As in all fire management activities, safety is a primary consideration. Qualified aviation personnel will be assigned to all flight operations.

Exceeding WFIP and New Strategy Selection

A Wildland Fire Implementation Plan (WFIP) has been exceeded when a fire cannot be suppressed during initial attack suppression actions, or when a prescribed fire becomes an escaped fire. Then, a Wildland Fire Situation Analysis must be developed. When completed, the WFSA will develop a new strategy by which the fire should be managed.

Minimum Impact Suppression Tactics

All suppression activities will follow MIST guidelines. These include:

1. Keep fire engines or slip-on units on existing roads.
2. Restrict the use of heavy equipment such as bulldozers or plows for constructing fire lines. A tractor with box blade or disc will be used for fire line construction only in extreme situations when high value resources are at risk, and then only with the authorization of the Superintendent or designee.
3. Use existing natural fuel breaks and human-made barriers, wet line, or cold trailing the fire edge in lieu of handline construction whenever possible.
4. Keep fire line widths as narrow as possible when they must be constructed.
5. Avoid ground disturbance within known natural and archaeological/cultural/historic resource locations. When fire line construction is necessary in proximity to these resource locations, it will involve as little ground disturbance as possible and be located as far outside of resource boundaries as possible.

6. Use soaker hose, sprinklers or foggers in mop-up, avoid boring and hydraulic action.
7. Protect air and water quality by complying with the Clean Air Act, the Clean Water Act, and all other applicable federal, state, and local laws and requirements.
8. Require the approval of the Superintendent or Acting Superintendent before use of retardant or foam in the Reserve is allowed.

RM-18, Chapter 9, provides minimum impact suppression tactics guidelines and is included in Appendix VIII. The park Superintendent will provide input in the selection and implementation of minimum impact suppression tactics for any wildland fires that go into extended attack.

Fire Investigation

Fire management personnel will attempt to locate and protect the probable point of origin and record pertinent information required to determine fire cause. They will be alert for possible evidence, protect the scene and report findings to the fireline supervisor.

Prompt and efficient investigation of all suspicious fires will be carried out. However, fire management personnel should not question suspects or pursue the fire investigation unless they are currently law enforcement commission qualified. Personnel and services of other agencies may be utilized to investigate wildland fire arson or fire incidents involving structures. Information obtained will be documented on a Case Incident form 10-343 and State Agency form Idaho Department of Recreation Incident Report Form. Evidence discovered will be protected and left in place until an investigator can collect it properly.

Rehabilitation Guidelines

When a suppression action is taken, rehabilitation may be necessary. The most effective rehabilitation measure is prevention of impacts through careful planning and the use of minimum impact suppression tactics. The Incident Commander will initiate immediate rehabilitation actions. Rehabilitation will be directed toward minimizing or eliminating the effects of the suppression effort and reducing the potential damage and hazards caused by the fire.

If re-vegetation or seeding is necessary, only native plant species will be utilized, and the Natural Resource Specialist will be consulted for approval of the species chosen. Rehabilitation efforts should be initiated as soon as they can be safely implemented, which may be before the fire is declared controlled.

If extensive emergency rehabilitation is needed or if rehabilitation is needed to reduce the effects of a wildland fire then the Park can request appropriate funding through the Burned Area Emergency Rehabilitation (BAER) fund. The BAER fund is

administered through the NPS Branch of Fire and Aviation Management at the National Interagency Fire Center. The specifics of the policy can be found in 620 DM 3 DOI BAER Policy (2001). BAER project requests totaling $300,000 or less can be approved by the Regional BAER Coordinator. Submissions over this amount are reviewed at the regional level, and forwarded to the Fire Management Program Center for approval. Requests for BAER funding must be made to the Area Fire Management Officer within 72 hours of control of the fire.

Records and Reports

The Park Fire Coordinator is responsible for all fire related records and reports except the WFIP. This responsibility may be delegated to an incoming Incident Commander for any fire escaping initial attack.

Wildland Fire Use

This option was rejected due to the lack of available qualified personnel required to manage these fires and the current lack of interagency agreements allowing wildland fire use projects to cross agency boundaries. All wildland fires in CIRO will be suppressed using the most appropriate management action.

Prescribed Fire

Due to the uncertainty of the objectives for a prescribed fire program at this time, prescribed fire will not be an option. It is fully recognized that in the future, with more concrete knowledge of the needs for fire in CIRO that prescribed fire will become a very useful tool to help achieve resource and management objectives.

Debris Disposal

Fire may be used to eliminate various types of debris generated from resource management or maintenance activities, such as brush clipping, pruning, and hazard tree removal, according to the guidelines established in RM- 18.

The Collateral Duty FMO will review all debris burning activities. If it is determined that a burn has virtually no chance to exceed the planned perimeter, will not damage surrounding natural or cultural resources, does not present a safety threat to crew members, will not require curtailment during the burning operation, and is an established rather than a new practice, a prescribed fire burn boss, fire qualified personnel, a formal prescribed fire burn plan, and a monitoring plan are not needed. Otherwise, it will constitute a prescribed fire and must comply with all requirements.

For debris burns, all personnel will wear appropriate personal protective equipment (hard hat, eye protection, leather gloves, Nomex shirt and pants, leather boots). The supervisor of the burn will notify appropriate agencies (e.g., air quality, local fire departments) and neighbors and obtain all needed permits, and will develop an

appropriate safety and evacuation plan in case of injuries or other emergencies. The crew should include someone who has previously conducted a similar burn at the site or a similar site.

Non-Fire Fuel Treatment Applications

Mechanical treatments

a. Annual Activities

Hazard fuels at CIRO are typically managed through mowing (grasses and other herbaceous vegetation), raking or vacuuming (fallen leaves), cutting and chipping (woody vegetation), or other mechanical or cultural means.

Fuels around buildings, boundaries, roads, trails, picnic areas and other sites occasionally accumulate sufficient fuel density to create a hazard to real property, historic resources, or human health and safety. These fuels are usually managed by mechanical removal. Firebreaks are maintained around most structures in the Park.

Heavy equipment including industrial mowers, large trucks, and trailer-mounted wood chippers could be used in mechanical fuel removal. Heavy equipment except mowers should usually be confined to existing roads and trails. In all cases, tracked and wheeled vehicles should only be used off roads and on trails under conditions where they will not significantly disturb soils, compact soils, or break up vegetative cover.

b. Required Monitoring

Monitoring will be done to determine if the project objectives were met. This monitoring may be through the use of photo plots, vegetation transects, or a visual assessment.

c. Critique Format

Accomplishment of objectives, methodology, cost effectiveness, safety issues, and resource damage are some of the topics to be discussed. A written project completion report incorporating the findings of the critique will be filed at the CIRO headquarters with a copy forwarded to the Regional Fire Management Officer.

d. Funding and Cost Accounting

FIREPRO funding requests for individual projects may be submitted to the Regional Fire Management Officer. Documentation of individual project costs will be submitted to the Regional Fire Management Officer for review. Expenditures will not exceed the authorized project amount.

e. Reporting and Documentation

All project forms will be completed as outlined by the Park Fire Coordinator. All records will be archived with the Park's fire records for future use and reference. A completion report will be forwarded to the Regional Fire Management Officer.

The Park Fire Coordinator is responsible for preparing a final report on each project. Information will include a narrative of the project operation, a determination of whether objectives were met, map of the area, photographs of the site, number of work hours, and final cost of the project.

f. Annual Planned Project List

Proposed projects may be submitted to the Park Fire Coordinator by any division chief. The Park Fire Coordinator will compile a list of these projects and submit them to the Superintendent for approval and prioritization.

Air Quality and Smoke Management

City of Rocks National Reserve has been designated a Class II Airshed. The Fire Management Plan will comply with all federal, state, and local laws and regulations, namely the U.S. Clean Air Act and the Idaho State Implementation Plan, prior to any debris pile burning. Park staff will also contact ACE Rural Fire District to check local burning conditions or restrictions.

National Park Service Management Policies state:

> "The National Park Service will seek to perpetuate the best possible air quality in parks because of its critical importance to visitor enjoyment, human health, scenic vistas, and the preservation of natural systems and cultural resources ... The Park Service will assume an aggressive role in promoting and pursuing measures to safeguard (air quality related values) from the adverse impacts of air pollution. In cases of doubt as to the impacts of existing or potential air pollution on park resources, the Park Service will err on the side of protecting air quality and related values for future generations." (Chapter 4:17 December 1988)

The park will manage smoke from planned ignitions and to the extent possible, from unplanned wildland fires. The influence of smoke on health and safety and visual resources will be considered and kept to a minimum. Complaints regarding smoke will be documented and communicated daily to the Chief Ranger and Superintendent. Every attempt will be made to burn during periods when winds are favorable for associated smoke dispersion.

Emergency Rehabilitation and Restoration

On January 19, 2001, the Department of the Interior issued new policy on burned area emergency stabilization and rehabilitation. The specifics of the policy can be found

in 620 DM 3 DOI BAER Policy (2001). The Park Fire Coordinator and the Natural Resource Specialist, subject to review by the Park Fire Committee, will jointly formulate a rehabilitation plan for each fire. The BAER plan will be submitted to the Regional BAER Coordinator (Regional Prescribed Fire Specialist) through the Area Fire Management Officer for approval within 72 hours of the date the fire is declared controlled. BAER project requests totaling $300,000 or less can be approved by the Regional Baer Coordinator. Submissions over this amount are reviewed at the regional level and forwarded to the NPS Fire Management Program Center for approval.

ORGANIZATIONAL AND BUDGETARY PARAMETERS

Organizational Structure of the Fire Management Program

This section discusses areas of responsibility for implementation of the fire management program by specific Park position. There may be instances that the same person functions in two areas of responsibility, e.g., the Natural Resource Specialist and the Park Fire Coordinator may be the same person. The purpose of this section is to clearly define areas of responsibility, provide clear direction and accountability, and further the development of a responsive fire management program.

1. Superintendent

Fire management at CIRO is the responsibility of the Superintendent, with technical duties and accompanying responsibilities delegated to staff members. The Superintendent will be responsible for management of the program within Departmental and National Park Service policy, Director's Order 18; Wildland Fire Management (DO-18), and all relevant laws and regulations.

a. Ensures that a comprehensive fire management program is adequately planned, staffed, implemented, and that the Fire Management Plan is reviewed annually and revised as necessary.

b. Maintains and facilitates public and media relations pertaining to all fire-related activities.

2. Acting Superintendent

Is delegated all decision making responsibility when the Superintendent is absent from the Park.

3. Natural Resource Specialist/Park Fire Coordinator

a. Coordinates fire research efforts, and serves as the primary resource advisor for fire-related activities.

b. Serves as a member of the Fire Management Committee.

c. Plans and coordinates non-fire hazard fuels and wildland/urban interface treatment projects.

d) Responsible for implementation and execution of all aspects of the Park fire management program except research.

e) Responsible for overall coordination, direction, and supervision of wildland fire prevention, preparedness, and suppression and coordinates all wildland fire emergencies.

f) Briefs the Superintendent on current and planned fire management activity.

g) Develops and recommends approval of the Fire Management Plan to the Superintendent.

h) Serves as chair of the Fire Management Committee. Presents approved committee recommendations to the Superintendent.

i) Responsible for overseeing all Park fire management program activities. Prepares and administers the Fire Management Plan and the annual FIREPRO budget. Revises the plan annually and incorporates any necessary changes.

j) Responsible for completing the prevention analysis to determine the level and type of prevention effort required by the Park. Ensures implementation of the approved fire prevention program.

k) Responsible for initial attack and implementation of appropriate suppression response as recommended by the Fire Management Committee.

l) Responsible for the overseeing of safe suppression of all wildland fires, demobilizations, and rehabilitation of the burned area.

m) Responsible for submission of fire situation reports to NPS Branch of Fire Management through the Area Fire Management Officer.

n) Responsible for providing fire-training opportunities to Park personnel to maintain predetermined fire qualification skills in critical positions. Reviews, updates, and maintains fire training and fire experience records. Submits updated records to the Regional Fire Management Officer.

o) Ensures adequate inventory of equipment and supplies to efficiently implement the fire management program.

p) Ensures that both a briefing statement and delegation of authority, approved by the Superintendent, are prepared for incoming Incident Management Teams.

q) Coordinates dispatch of Park personnel for in-Park fire assignments and to provide assistance to other Parks and agencies. Requisitions fire crews, or fire resources and supplies for use within the Park.

r) Prepares, reviews, and revises cooperative agreements with interagency cooperators. Maintains liaison with interagency cooperators through annual meetings to review agreements.

s) Maintains technical references, maps, and aerial photos for the fire program.

t) Responsible for completion of all fire reports (DI-1202s), and coordinates the timely entry of reports into the NPS Fire Management Computer System through the Area Fire Management Officer within 10 days of a fire.

u) Coordinates initial attack of wildland fires.

5. Regional Fire Staff/ Upper Columbia Basin Network Fire Staff

Regional fire staff will provide requested expertise to the park. Also the newly established Upper Columbia Basin park network can provide technical fire management assistance when available.

The Upper Columbia Basin Network Fire Staff provides the first level of technical assistance to the park for all fire management planning, and implementation activities. This includes assistance for managing the Park's use of fire management programs such as the National Fire Danger Rating System, the Weather Information Management System (WIMS), the NPS Wildland Fire Computer System (SACS), the resource ordering system (ROSS), the Incident Qualification and Certification System (IQCS), Fire Program Analysis (FPA), FIREPRO budgeting, etc.

The **Regional Fire Staff/** Upper Columbia Basin **Network Fire Staff** assists with the Park's wildland fire qualification and certification program, fire monitoring, fire training and mobilizations, development of preparedness, suppression, wildland/urban interface, fuels management, development of cooperative agreements with local and state agencies, and administration of Rural Fire Assistance Program grants to local fire departments.

Park requests for assistance from the **Regional Fire Staff/** Upper Columbia Basin **Network Fire Staff** will be coordinated through the Park Fire Coordinator. Requests should be made as far in advance as is practical.

The **Regional Fire Staff/** Upper Columbia Basin **Network Fire Staff** will assist the Park in acquiring needed resources and equipment, and in preparing 'Fire Program Analysis' funding requests.

The **Regional Fire Staff/** Upper Columbia Basin **Network Fire Staff** may be requested to serve on an incident management team as an agency representative regarding fire management operations.

CIRO will participate with any fire network program agreement.

6. Area Fire Prevention and Education Specialist

The Area Fire Prevention, Education and Wildland/Urban Interface Specialist (Area PEWS) is a FIREPRO funded position.

Area 'PEWS' are located in the Pacific West Region and are available upon request to assist parks. The Area PEWS provides assistance to the Park in conducting fire prevention and education programs. The Area PEWS can also assist the park in evaluating park structures for wildland/urban interface issues and with an outreach interface program to park neighbors and local governmental bodies and agencies.

7. Regional Fire Management Officer

The Regional Fire Management Officer (Regional FMO) has delegated authority for the management of the region's fire management program. The Regional FMO is responsible for planning, training, technical assistance, budget prioritization, coordination, and interagency issues for units of the National Park Service in the Pacific West Region. The Regional FMO assures that the regional fire management program is conducted accordance to established policy and procedures and that FIREPRO funds are used appropriately.

The Regional FMO represents the parks in the region to the NPS Fire Management Program Center, the Northwest Coordination Center (GACC), and other regional and national fire management organizations.

8. Regional Prescribed Fire Specialist

The Regional Prescribed Fire Specialist (Regional PFS) provides technical assistance to the park on fire ecology, prescribed fire and fuels treatment matters.

9. NPS Fire Management Program Center

The NPS Fire Management Program Center (FMPC) is located in Boise, Idaho and provides national leadership, direction, coordination and support for NPS fire, aviation and incident management. The primary purposes of the FMPC are:

1. Achieving national mandates for firefighter, NPS employee and visitor safety.
2. Protecting natural and cultural resources.
3. Maximizing partnerships with federal, state, local and tribal entities, in order to achieve the greatest benefit for park resources.
4. Achieving and maintaining the highest standard of professionalism, using state-of-art concepts, technologies and practices. -

Annual wildland fire management appropriation provides FIREPRO funding for necessary expenses for fire planning and oversight functions, along with budgeted activities necessary to prepare for the normal fire season, and for the development and implementation of the wildland fire emergency suppression, emergency rehabilitation, and hazard fuels reduction program.

The Park is not a base funded FIREPRO park and does not have FIREPRO funded positions. . FIREPRO funding is available for approved fire training, prevention, preparedness, suppression, prescribed fire, wildland/urban interface, fuels treatment, and burned area emergency stabilization and rehabilitation projects. Related equipment, personal protective equipment and supplies may be acquired with FIREPRO funding. Financial grants may be provided to qualifying local fire departments through the Rural Fire Assistance Grant Program (RFA).

All FIREPRO funding requests are made through the Area Fire Management Officer.

10. Fire Management Committee

The Fire Management Committee will be comprised of the Park Management Team comprised of the following positions: Superintendent, Administrative Officer, Chief of Maintenance, Climbing Ranger, Chief Natural Resources and Chief of Visitor Services. The Chief of Natural Resources will facilitate meetings. The Committee may request technical expertise from other individuals at any time.

In an effort to coordinate the Park's fire management program with those of other nearby Pacific West Region parks, representatives of the Network Area Fire Management Officer and those parks may meet to organize equipment and personnel needs relating to fire programs at each park.

The Fire Management Committee will convene at the request of the Park Fire Coordinator, Chief of Visitor Services or Superintendent. The primary purpose of the Committee is to coordinate preparedness, suppression, and prescribed fire activities between the Park's division's, and between the Park and cooperating agencies.

1. Committee Actions during Suppression Fires

   Any wildland fire that threatens to exceed the initial attack capabilities will have a qualified Incident Commander assigned to manage the fire. If a fire extends beyond one operational period, the Incident Commander will ensure that a Wildland Fire Situation Analysis (WFSA) is prepared.

2. Committee Actions during Non-Fire Periods

   The Committee may be convened during periods of elevated fire danger to coordinate preparedness activities. The Committee will also be convened at other times to coordinate the Park's prevention, wildland/urban interface, prescribed fire and fuels treatment activities. As mentioned above, the Committee will coordinate equipment and personnel needs with those of other nearby parks with fire programs.

Wildland Fire Use Certification

The Park has rejected the strategy of wildland fire use. This option was rejected due to the lack of available qualified personnel required to manage these fires and the size of the park without interagency agreements in place to accept wildland fire use projects across agency boundaries.

Interagency Coordination

Interagency cooperation is vital to the full realization of NPS fire management program objectives. The ability of a single agency to implement a fire management program of any complexity is limited without coordination with and assistance from other organizations. Interagency cooperation and the coordination of shared resources and common activities are critical to the success of the Park's fire management program.

CIRO has a written cooperative agreement with the BLM, South Central Idaho Dispatch Center and the ACE Rural Fire District for wildland fire suppression within the park and surrounding areas.

Area Coordination

Through a regional networking agreement with other Upper Columbia Basin network parks, CIRO as a member receives and provides appropriate technical support. Fire management support will come from other network parks as well as Regional Staff, as requested.

Regional Coordination

The NPS Pacific West Region coordinates with the Eastern Great Basin Geographic Area. Mobilization and dispatch of fire resources (staff, equipment, and supplies) is through the Eastern Great Basin Coordination Center (EGBCC). A list of available resources and detailed procedures for requesting assistance are documented in the Eastern Great Basin Region Fire Mobilization Plan. The mobilization plan is updated annually.

National Coordination

The National Park Service is a member of the Interagency Cooperative Fire Agreement and the National Wildfire Coordinating Group (NWCG). Participating members of the agreement include the U.S. Forest Service of the Department of Agriculture, the Bureau of Indian Affairs, Bureau of Land Management, National Park Service, and U.S. Fish and Wildlife Service of the Department of the Interior. Through additional agreements, state forestry and wildland fire agencies, private forestry companies, the Association of State Foresters, and many states participate in this agreement.

The principle objective of the Interagency Cooperative Fire Agreement is the cooperative and cost effective sharing of fire resources during national and regional emergencies. Through this agreement, a wide variety of fire resources and support services can be made available to units of the National Park Service. All requests for assistance through this agreement are directed to the Eastern Great Basin through the Network Area FMO.

MONITORING AND EVALUATION

Monitoring Programs

The park will implement long and short term monitoring to access accomplishments, and determine the effects of fire management activities on cultural and natural resources.

The Park will work closely with the Regional Ecology Group in developing and implementing a fire monitoring program. Assistance in conducting fire monitoring activities, including the establishment and sampling of monitoring plots, will be coordinated through the Area Ecology Group.

NPS Fire Monitoring Handbook

This handbook will serve as the source document providing monitoring needs with minor adaptations made for local situations and conditions. An electronic copy can be found at http://www.nps.gov/fire/fmh/FEMHandbook.pdf

Fire Monitoring Plan

A Fire Monitoring Plan, based upon the protocols found in the *NPS Fire Monitoring Handbook* will be developed when a prescribed fire program is initiated in the park and will be part of a revision of this Fire Management Plan.

FIRE RESEARCH

Research is a necessary element in the fire management program at CIRO. The primary objective of fire research is to provide information for making fire management decisions. Fire research will be coordinated through the Natural Resource Specialist of the park.

PUBLIC SAFETY

Public Safety Issues and Concerns

The Park is dedicated to ensuring the safety of each visitor and to all residents and property adjacent to the Park's boundary with regards to its fire management program. The Superintendent may close all or a portion of the Park (including roads and trails) when elevated fire danger, wildland fire or a prescribed fire pose an imminent threat to public safety.

Mitigation Safety Procedures

The Park will implement a notification system to inform visitors, neighbors, and political audiences of all fire activity through normal communication channels. A fire activity report will be updated, as significant changes occur to inform Park personnel of potential fire threats. Areas of fire activity will be clearly signed at the visitor center. Law enforcement agencies will be notified as standard operating procedure during a wildland fire event, at the same time as the fire department.

PUBLIC INFORMATION AND EDUCATION

Public Information Capabilities and Needs

The Park is committed to keeping the public informed of its fire management program and activities. The Area Fire Prevention, Education and Wildland/Urban Interface Specialist (Area PEWS) is an available resource to the Park for consultation, support and assistance.

Step-Up Public Information Activities

Information and education are important processes in public acceptance of the managed fire program at Park. The Park Fire Coordinator will provide the Superintendent with accurate information regarding current fire situations and management activities. The public information program will be developed as follows:

1. Concepts of the NPS prescribed fire program will be incorporated, as appropriate, in Park publications, brochures, and handouts.
2. The fire management program will be incorporated into visitor contacts, interpretive talks, walks, and tour programs. Particular attention will be given when fires are conspicuous from roads or visitor use areas.
3. The public information outlets of neighboring and cooperating agencies, the area fire management office and the regional office will be provided with all fire management information.
4. The role of the fire management program at the Park will be developed and discussed, as appropriate, in off-site programs and talks.
5. The fire management program will be discussed in informal talks with employees of all divisions, contractors, volunteers, residents, and Park neighbors.

Emergency closures or restrictions may become necessary during periods of elevated or extended fire danger. Such closures will necessitate additional coordination and communication with the public and the media.

PROTECTION OF SENSITIVE RESOURCES

Cultural and Historic Resources Needing Protection

The greatest resource concerns are immigrant inscription sites located in the Park. Protection of these resources is focused on prohibiting any activity that causes damage to the inscriptions or to the other known artifacts. A list of resources to be protected is in Appendix IX.

During a wildland fire incident briefing the incoming Incident Command Team will receive maps of sensitive cultural sites. Restrictions on retardant and foam use in areas likely to be adversely impacted will be identified and a Resource Advisor will be assigned to the fire team. The implementation of MIST suppression strategies will also be implemented further reducing the impacts of suppression.

Natural Resources Needing Protection

There are no threatened or endangered species within the Park. Sensitive species are listed in Appendix III and there is not a concern for air quality as the park will not be using prescribed fire in the park or wildland fire use.

Developments, Infrastructure, and Improvements Needing Protection

As funding allows, defensible space will be maintained around buildings, structures, and other improvements in the Park.

FIRE CRITIQUES AND ANNUAL PLAN REVIEW

The Incident Commander or the Burn Boss will initially critique wildland fires. This critique should take place with those directly involved in the management of the fire.

The Park Fire Management Committee should review wildland fires of significant size, cost, or where minor safety issues or minimal levels of public concern occur. These findings should be forwarded to the Regional Fire Management Officer.

Wildland fires involving an Incident Management Team or significant political, safety, or public issues should be reviewed by the Regional Fire Management Officer. If a fire generates a major political or public concern, involves multiple serious injuries or a fatality, the Regional Fire Management Officer and the NPS Fire Management Program Center should participate in the review.

The Park Fire Coordinator with assistance of the Fire Management Committee will review the Fire Management Plan annually for currency and incorporate changes into an appendix. Changes to the appendices require approval of the Fire Management Committee. The fire management plan is subject to formal review every five years.

CONSULTATION AND COORDINATION

The following people were involved in the formulation and preparation of this fire management plan:

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Nelson Siefkin, Fire Archaeologist, Pacific West Region Office, Oakland, CA. (510) 817-1502

Paul Reeberg, Fire Monitoring Program Specialist, Pacific West Region Office, Oakland, CA (510) 817-1372

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Paul Reeberg, Fire Monitoring Program Specialist, Pacific West Region Office, National Park Service, Oakland, CA (510) 817-1372
MaryBeth Keifer, Fire Ecologist Pacific West Region Office, National Park Service, Oakland, CA. (510) 817-1504

APPENDICES LIST

I. References cited

II. Definitions

III. Species lists

IV. NEPA and NHPA compliance

V. Unit-specific Supplemental Information (require annual revision)

1. **Fire call-up list**
2. **Fire cache**
3. **Key Contacts**
4. **Cooperative Agreements**

VI. Draft Delegation of Authority

VII. Pre-attack Plan

VIII. RM-18, Chapter 9, Wildland Fire Management and Minimum Impact Suppression Tactics Guidelines

IX. Cultural Resources

I. REFERENCES CITED

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II. DEFINITIONS

Appropriate Management Response – Specific actions taken in response to a wildland fire to implement protection and fire use objectives.

Appropriate Management Strategy – A plan or direction selected by an agency administrator to guide wildland fire management actions and meet protection and fire use objectives.

Contain – To surround a fire, and any spot fires therefrom, with control line as needed, which can reasonably be expected to check the fire's spread under prevailing and predicted conditions.

Confine – To limit fire spread within a predetermined area principally by use of natural and pre-constructed barriers or environmental conditions. Suppression action may be minimal and limited to surveillance or monitoring under appropriate conditions.

Control – To complete a control line around a fire, any spot fires therefrom, and any interior islands to be saved and cool down all hot spots that are immediate threats to the control line.

Disputed Fire Management Responsibility – Any wildland fire where responsibility for management is not agreed upon due to lack of agreements or different interpretations, etc.

Disputed fire policy – Differing fire policies between suppression agencies when the fire involves multiple ownerships is an example.

Energy Release Component – A number that expresses the rate of heat release (in BTUs / sec) per unit area (in square feet) within the flaming zone of the fire.

Expected Weather Conditions – Weather conditions indicated as common, likely, or highly probable based on current and expected trends and their comparison to historical weather records. These are the most probable weather conditions for this location and time.

Experienced Severe Weather Conditions Weather conditions that occur infrequently, but have been experienced during the period of weather records. For example, rare weather conditions that significantly influence fires may have occurred only once, but their record can be used to establish a baseline for worst case scenario.

Extended Exposure to Unusually Hazardous Line Conditions – Extended burnout or backfire situations, rock slides, cliffs, extremely steep terrain, abnormal fuel situations such as frost-killed foliage**,** etc.

Fire Frequency – The historic return interval of fire in a defined environment.

Fire Management Area (FMA) – A geographic area within a Fire Management Unit that represents a pre-defined ultimate acceptable management area for a fire managed for resource benefits. This pre-define area can constitute a Maximum Manageable Area (MMA)n and is useful for those units having light fuel types conducive to rapid fire spread rates.

Fire Management Plan (FMP) – A strategic plan that defines a program to manage wildland and prescribed fires and documents the Fire Management Program in the approved land use plan. The plan is supplemented by operational plans such as preparedness plans, preplanned dispatch plans, prescribed fire plans and prevention plans.

Fire Management Unit (FMU) – Any land management area definable by objectives, topographic features, access, values to be protected, political boundaries, fuel types, major fire regimes, etc., that sets it apart from the management characteristics of an adjacent unit. FMU's are delineated in Fire Management Plans.

Holding Actions – Planned actions required to achieve wildland and prescribed fire management objectives.

Initial Attack – An aggressive suppression consistent with firefighter and public safety and values to be protected.

Management Action Points – (also called "Trigger Points")-Either geographic points on the ground or specific points in time where an escalation or alteration of management actions is necessitated. These points are defined and the management actions taken are clearly described in an approved Wildland Fire Plan(WFIP) or Prescribed Fire Plan. Timely implementation of the actions when the fire reached the action point is generally critical to successful accomplishment of the objectives.

Maximum Manageable Area (MMA) – The firm limits of management capability to accommodate the social, political, and resource impacts of a wildland fire. Once established as part of an approved plan, the general impact area is fixed and not subject to change.

Mitigation Actions – On-the-ground activities that will serve to increase the defensibility of the Maximum Manageable Area, check, direct, or delay the spread of fire, and minimize threats to life, property, and resources. They can include mechanical and physical non-fire tasks, specific fire applications and limited suppression actions. These actions will be used to construct firelines, reduce excessive fuel concentrations, reduce vertical fuel continuity, create fuel breaks or barriers around critical or sensitive sites or resources, create "blacklines" through controlled burnouts, and to limit fire spread and behavior.

Potential for Blow-up Conditions – Any combination of fuels, weather and topography excessively endangering personnel.

Preparedness – Activities that lead to a safe, effective, and cost effective fire management program in support of land and resource management objectives through appropriate planning and coordination. This term replaces pre-suppression.

Pre-existing controversies – These may or may not be fire management related. Any controversy drawing public attention to an area may present unusual problems to the fire overhead and local management.

Prescribed Fire – Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition.

Prescribed Fire Plan – A plan required for each fire ignited by managers. It must be prepared by qualified personnel and approved by appropriate Agency Administrator prior to implementation.

Prescription – Measurable criteria which guide the selection of appropriate management responses and actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social or legal considerations.

Smoke Management – Any situation which creates a significant public response, such as smoke in a metropolitan area or visual pollution in high-use scenic areas.

Threatened and Endangered Species – Threat to habitat of such species, or in the case of flora, threat to the species itself.

Wildfire – An unwanted wildland fire.

Wildland Fire – Any non-structure fire, other than prescribed fire, that occurs in the wildland. This term encompasses fires previously called both wildfires and prescribed natural fires.

Wildland Fire Implementation Plan (WFIP) – A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response to a wildland fire. A full WFIP consists of three stages. Different levels of completion may occur for differing management strategies; i.e., fires managed for resource benefits will have two-three stages of the WFIP completed while some fires that receive a suppression response may have only a portion of Stage I completed.

Wildland Fire Management Program – The full range of activities and functions necessary for planning, preparedness, emergency suppression operations, and emergency rehabilitation of wildland fires, and prescribed fire operations including non-activity fuels management to reduce risks to public safety and restore and sustain ecosystem health.

Wildland Fire Situation Analysis (WFSA) – A decision-making process that evaluates alternative management strategies against selected safety, environmental, social, economic, political, and resource management objectives.

Wildland Fire Use – The management of naturally-ignited wildland fires to accomplish specific, pre-stated resource management objectives in pre-defined geographic areas as outlined in the Fire Management Plan.

III. SPECIES LISTS

City of Rocks National Reserve & Castle Rocks State Park Wildlife Checklist

CIRO/CRSP Status
- (P) Present
- (H) Historic
- (PP) Probably Present
- (E) Encroaching
- (U) Unlikely
- (FR) False Report

Species Abundance
- (A) Abundant
- (C) Common
- (U) Uncommon
- (R) Rare
- (O) Occasional
- (UNK) Unknown

Residency
- (B) Breeder
- (R) Resident
- (M) Migratory
- (V) Vagrant
- (UNK) Unknown

Mammals

Bats	S	A	R
Little Brown Myotis *Myotis lucifucus*	P	R	UNK
Fringed Myotis *Myotis thysanodes*	P	R	UNK
Long-eared Myotis *Myotis evotis*	P	C	B
Small-footed Myotis *Myotis subulatus*	P	C	B
Silver-haired Bat *Lasionyeteris noctivagans*	P	UNK	UNK
Western Pipistrelle *Pipistrellus hesperus*	PP		
Big Brown Bat *Eptesicus fuscus*	P	C	B
Hoary Bat *Lasiurus cinereus*	P	UNK	UNK
Spotted Bat *Euderma maculata*	P	UNK	UNK
Townsend's Big-eared Bat *Plecotus townsendi*	PP		
Pallid Bat *Antrozous pallidus*	P	U	B
California Myotis *Myotis californicus*	P	U	UNK
Long-legged Myotis *Myotis volans*	P	U	UNK

Rabbits and Hares	S	A	R
Blacktail Jack Rabbit Lepus californicus	P	A	B
Whitetail Jack Rabbit Lepus townsendi	PP		
Mountain Cottontail Sylvilagus nuttalli	P	A	B
Pygmy Rabbit Brachylagus idahoensis	PP		

Squirrels, Chipmunks & Gophers	S	A	R
Belding Ground Squirrel *Spermophilus beldingi*	P	C	B
Golden-mantled Ground Squirrel *Spermophilus lateralis*	P	C	B
Piute Ground Squirrel *Spermophilus mollis*	P	U	B
Uinta Ground Squirrel *Spermophilus armatus*	PP		
Least Chipmunk *Eutamias minimus*	P	C	B
Northern Pocket Gopher *Thomomys talpoide*s	P	C	B
Cliff Chipmunk *Eutamias dorsalis*	P	U	B

Mice, Rats, Voles & Shrews	S	A	R
Great Basin Pocket Mouse *Perognathus parvus*	P	A	B
Western Harvest Mouse *Reithrodontomys megalotis*	PP		
Canyon Mouse *Peromyscus crinitus*	PP		
Deer Mouse *Peromyscus maniculatus*	P	A	B
Northern Grasshopper Mouse *Onychomys levcogaster*	PP		
Pinyon Mouse *Peromyscus truei*	P	C	B
Western Jumping Mouse *Zapus princeps*	P	U	B
Ord Kangaroo Rat *Dipodomys ordi*	P	U	B
Desert Woodrat *Neotoma lepida*	PP		
Bushytail Woodrat *Neotoma cinerea*	P	A	B
Montane Vole *Microtus montanus*	P	C	B
Long-tailed Vole *Microtus lungicaudus*	P	C	B
Sagebrush Vole *Lagurus curtatus*	PP		
Merriam Shrew *Sorex merriami*	UNK		
Vagrant Shrew *Sorex vagrans*	PP		
Northern Water Shrew *Sorex palustris*	UNK		

Large Rodents

	S	A	R
Beaver *Castor canadensis*	U		
Muskrat *Ondatra zibethica*	P	R	B
Racoon *Procyon lotor*	P	R	B
Ringtail *Bassariscus astutus*	P	UNK	UNK
Yellow-bellied Marmot *Marmota flaviventris*	P	U	B
Porcupine *Erethizon dorsatum*	P	U	B

Weasels, Skunks & Kin	S	A	R
Short-tailed Weasel *Mustela erminea*	U		
Long-tailed Weasel *Mustela frenata*	P	U	B
Mink *Mustela vison*	U		
Badger *Taxidea taxus*	P	U	B
Spotted Skunk *Spilogale putorrus*	P	U	B
Striped Skunk *Mephitis mephitis*	P	U	B

Cats, Coyote & Fox	S	A	R
Bobcat Lynx rufus	P	R	UNK
Mountain Lion Felis concolor	P	R	UNK
Coyote Canis latrans	P	C	B
Red Fox *Vulpes fulva*	PP		

Hoofed Mammals	S	A	R
Mule Deer Odocoileus hemionus	P	C	B
Elk Cervus canadensis	PP		
Pronghorn Antilorpra americana	PP		
Bighorn Sheep Ovis canadensis	U		

Reptiles and Amphibians

Frogs and Toads	S	A	R
Great Basin Spadefoot Toad *Scaphiopus intermontanus*	PP		
Western Toad *Bufo boreas*	PP		
Pacific Tree Frog *Hyla regilla*	PP		
Northern Leopard Frog *Rana piprens*	U		
Boreal Chorus Frog *Pseudacris maculata*	P	R	UNK

Skinks and Lizards	S	A	R
Large-spotted Leopard Lizard *Gambelia wislizenii wislizenii*	PP		
Great Basin Fence Lizard *Sceloporus occidentalis biseriatus*	P	R	UNK
Northern Sagebrush Lizard *Sceloporus graciosus graciosus*	P	C	B
Pigmy Short-horned Lizard *Phrynosoma douglassii*	P	UNK	UNK
Desert Horned Lizard *Phrynosoma platyrhinos*	P	UNK	UNK
Great Basin Western Skink *Eumeces skiltonianus*	P	U	B
Great Basin Whiptail *Cnemidophorus tigris tigris*	PP		

Snakes	S	A	R
Rubber Boa *Cnemidophorus tigris tigris*	P	U	UNK
Striped Whipsnake *Masticophis taeniatus*	P	U	UNK
Western Yellow-bellied Racer *Coluber constrictor mormon*	P	U	UNK
Great Basin Gopher Snake *Pituophis melanoleucus deserticola*	P	C	B
Wandering Garter Snake *Thamnophis elegans vagrans*	P	C	B
Night Snake *Hypsislena torquata*	PP		
Great Basin Rattlesnake *Crotalus viridis lutosus*	P	U	UNK

City of Rocks National Reserve and Castle Rocks State Park Species of Concern

Definitions of ranks below listings

Birds

Scientific Name **Common Name**	**Global Rank**	**State Rank**	**State**	**Federal**	**US Forest Service Region 1**	**Us Forest Service Region 4**	**BLM**
Haliaeetus leucocephalus Bald Eagle	G4	S3B,S4N	T	LT			Type 1
Accipiter gentilis Northern Goshawk	G5	S4	P		S	S	Type 3
Buteo regalis Ferruginous Hawk	G4	S3B	P				Type 3
Falco columbarius Merlin	G5	S1B,S2N	P				
Numenius americanus Long-Billed Sandpiper	G5	S3B	P				Type 5
Larus delawarensis Ring-Billed Gull	G5	S2S3B,S3N	P				
Larus californicus California Gull	G5	S2S3B,S3N	P				
Glaucidium gnoma Northern Pygmy Owl	G5	S4	P				Type 5
Athene cunicularia hypugaea Burrowing Owl	G4TU	S3S4	P				Type 5
Empidonax traillii Willow Flycatcher	G5	S5B	P				Type 3
Lanius ludovicianus Loggerhead Shrike	G4	S3	P				Type 3
Aphelocoma californica Western Scrub-Jay	G5	S2?	P				
Gymnorhinus cyanocephalus Pinyon Jay	G5	S2?	P				
Oreoscoptes montanus Sage Trasher	G5	S5B	P				Type 5
Bombycilla garrulus Bohemian Waxwing	G5	S1B,S3N	P				
Vermivora virginiae Virginia's Warbler	G5	S2B	P				Type 5
Spizella breweri Brewers Sparrow	G5	S4B	P				Type 3
Amphispiza belli Sage Sparrow	G5	S4B	P				Type 3
Icterus parisorum Scotts Oriole	G5	S1?B	P				

http://fishandgame.idaho.gov/tech/CDC/animals/birds.cfm

Mammals

Scientific Name Common Name	Global Rank	State Rank	State	Federal	US Forest Service Region 1	Us Forest Service Region 4	BLM
Sorex merriami Merrimam Shrew	G5	S2?	U				
Myotis thysanodes Fringed Myotis	G4G5	S1?	P				Type 3
Myotis volans Long-Eared Myotis	G5	S3?	P				Type 5
Myotis californicus California Myotis	G5	S1?	P				Type 4
Myotis ciliolabrum Small-footed Myotis	G5	S4?	P				Type 5
Pipistrellus hesperus Western Pipstrelle	G5	S1?	P				Type 5
Euderma maculatum Spotted Bat	G4G5	S2?	P			S	Type 3
Corynorhinus townsendii Townsend's Big-eared Bat	G4G5	S2?	P		S	S	Type 3
Antrozous pallidus Pallid Bat	G5	S1?	P				
Brachylagus idahoensis Pygmy Rabbit	G4G5	S3?	G		S	S	Type 2
Neotamias dorsalis Cliff Chipmunk	G5	S1?	P				Type 4
Peromyscus truei Pinyon Mouse	G5	S2	U				

http://fishandgame.idaho.gov/tech/CDC/animals/mammals.cfm

Amphibians/Reptiles

Scientific Name Common Name	Global Rank	State Rank	State	Federal	US Forest Service Region 1	Us Forest Service Region 4	BLM
Bufo boreas Western Toad	G?	S?	P				Type 2
Rana pipiens Northern Leapord Frog	G5	S3	P		S		Type 2

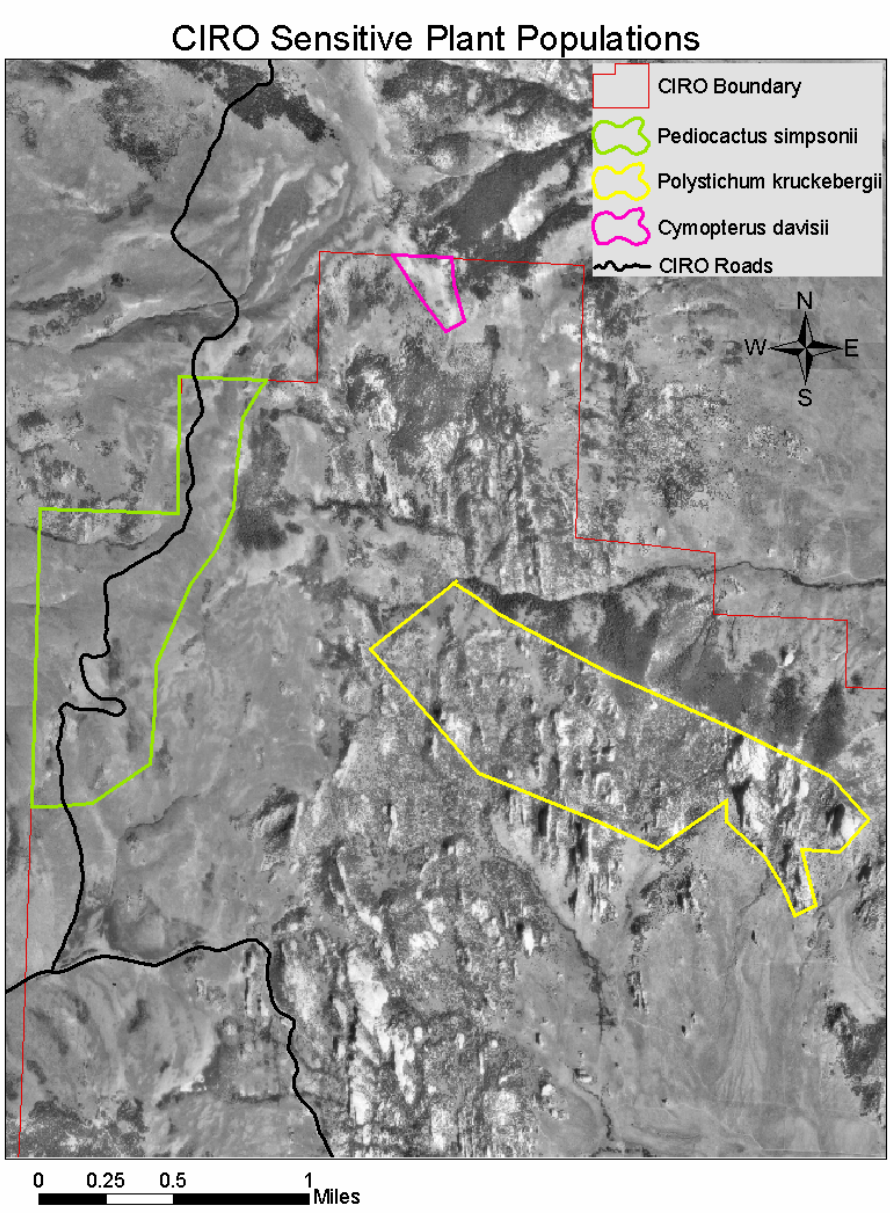
http://fishandgame.idaho.gov/tech/CDC/animals/herps.cfm

Flora

Scientific Name Common Name	Global Rank	State Rank	State	Federal	US Forest Service Region 1	Us Forest Service Region 4	BLM
Cymopterus davisii Davis Wavewing	G3	S3	GP3			S	
Pediocactus simpsonii Simpson's Hedgehog Cactus	G4	S3	M				Type 4
Polystichum kruckebergii Kruckebergs Sword Fern	G4	S2	S				Type 4

http://fishandgame.idaho.gov/tech/CDC/plants/vascular_plants_status_a-d.cfm

Sensitive Plant Species location Information:



a. Cymopterus davisii: Davis Wavewing
Easterly slope just north of Graham Peak. This plant is known only from the Albion Mountains.

b. Pediocactus simpsonii: Simpson Hedgehog Cactus
Locally abundant along the ridgeline west of Indian Grove and upward

c. Polystichum kruckebergii: Kruckebergs Sword Fern
Shaded rock clefts on south slope of the ridge between Circle and Graham Creeks. Also at Castle Rocks and fairly common on the Raft River Mountains.

Global Rank (GRANK) and State Rank (SRANK)

The network of Natural Heritage Programs and Conservation Data Centers--which currently consists of installations in all 50 states, several Canadian provinces, and several Latin American and Caribbean countries--ranks the rangewide (GRANK or global rank) and state (SRANK or state rank) status of plants, animals, and plant communities on a scale of 1 to 5. The rank is primarily based on the number of known occurrences, but other factors such as habitat quality, estimated number of individuals, narrowness of range of habitat, trends in populations and habitat, threats to the element, and other factors are also considered. The ranking system is meant to exist alongside national and state rare species lists because these lists often include additional criteria (e.g., recovery potential, depth of knowledge) that go beyond assessing threats to extinction.

Components of Ranks:

G = Global rank indicator; denotes rank based on rangewide status.
T = Trinomial rank indicator; denotes global status of infraspecific taxa.
S = State rank indicator; denotes rank based on status within Idaho.

1 = Critically imperiled because of extreme rarity or because some factor of its biology makes it especially vulnerable to extinction (typically 5 or fewer occurrences).
2 = Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (typically 6 to 20 occurrences).
3 = Rare or uncommon but not imperiled (typically 21 to 100 occurrences).
4 = Not rare and apparently secure, but with cause for long-term concern (usually more than 100 occurrences).
5 = Demonstrably widespread, abundant, and secure.
U = Unrankable.
H = Historical occurrence (i.e., formerly part of the native biota; implied expectation that it might be rediscovered or possibly extinct).
X = Presumed extinct or extirpated.
Q = Indicates uncertainty about taxonomic status.
? = Uncertainty exists about the stated rank.
NR = Not ranked.
NA = Conservation status rank is not applicable.

Examples of Use:

G4T2 = Species is apparently secure rangewide, but this particular subspecies or variety is imperiled.
S2S3= Uncertainty exists whether the species or subspecies should be ranked S2 or S3.

State Ranks Specific to Long Distance Migrants (Bats and Birds):

A = Accidental (occurring only once or a few times) or casual (occurring more regularly although not every year) in Idaho; a few of these species might have bred on one or more of the occasions when they were recorded.
B = Breeding population.
M = Only applies when migrant occurs in an irregular, transitory, and dispersed manner. Occurrences cannot be defined from year-to-year.
N = Nonbreeding population.

Examples of Use:

S4N = Fairly common winter resident.
S1B,S5N = Rare breeder but a common winter resident.
S2B,SMN = Rare breeder and uncommon spring and fall transient with lesser numbers remaining as local and irregular (in location) winter residents.

Idaho Department of Fish and Game - Classification of Wildlife

The Department of Fish and Game is mandated under Idaho Code Section 36-103 to preserve, protect, perpetuate, and manage all wildlife. All fish and wildlife are considered to be property of the state, and their capture and take are regulated by the Department.

The Department's classification and protection of wildlife includes the following categories: big game animals, upland game animals, game birds, game fish, furbearing animals, Threatened or Endangered species, protected nongame species, predatory wildlife, and unprotected wildlife.

Of particular interest to the Idaho Conservation Data Center are:

Threatened (T) wildlife.
Endangered (E) wildlife.
Protected (P) nongame species.

The Idaho Conservation Data Center is also interested in certain species that fall within other categories:

Unprotected (U) wildlife: certain small mammals.
Game (G) species: gray wolf, pygmy rabbit, mountain quail, sage grouse, Columbian sharp-tailed grouse, game fishes.
Furbearing (F) animals: Canada lynx, fisher.

Threatened or Endangered Species and Protected Nongame Species:

"No person shall take or possess those species of wildlife classified as Protected Nongame or Threatened or Endangered at any time or in any manner, except as provided in Sections 36-106(e) and 36-1107, Idaho Code, by Commission Regulation, or IDAPA 13.01.10.100.06b."

Threatened (T): "Any native species likely to be classified as Endangered within the foreseeable future throughout all or a significant portion of its Idaho range."

Endangered (E): "Any native species in danger of extinction throughout all or a significant portion of its Idaho range."

Protected Nongame Species (P): "Protected Nongame status is not intended to prevent unintentional take of these species, protection of personal health and/or safety, limit property and building management, or prevent management of animals to address public health concerns or agricultural damage."

Unprotected Wildlife:

Unprotected Wildlife (U). "Unprotected wildlife includes all wildlife not classified in the preceding categories. Unprotected wildlife may be taken in any amount, at any time, and in any manner not prohibited by state or federal law, by holders of the appropriate valid Idaho hunting, trapping, or combination hunting and fishing licenses, provided that such taking is not in violation of state, or city laws, ordinances, or regulations."

Endangered Species Act - Categories of Status Administered by the U. S. Fish and Wildlife Service in Idaho

Listed Species
(50 CFR 17.11 and 17.12)

Listed Endangered (LE). Taxa in danger of Extinction throughout all or a significant portion of their range.

Listed Threatened (LT). Taxa likely to be classified as Endangered within the foreseeable future throughout all or a significant portion of their range.

Proposed and Candidate Species
(Federal Register 64(205): 57534-57547, 1999)

Proposed Endangered (PE). Taxa proposed to be listed as Endangered (formal rulemaking in progress).

Proposed Threatened (PT). Taxa proposed to be listed as Threatened (formal rulemaking in progress).

Candidate (C) species. Taxa for which the USFWS has on file sufficient information on biological vulnerability and threats to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.

Experimental, Nonessential Population
(50 CFR 17.11 and 17.12)

> **Experimental, nonessential population (XN).** Currently applied to two reintroduced species: gray wolf (south of Interstate 90) and whooping crane (Grays Lake

U. S. Forest Service Sensitive Species in Idaho

Forest Service Region 1 (northern Idaho) and Region 4 (southern Idaho) manage the bulk of Forest Service lands in Idaho.

The Secretary of Agriculture's Policy on Fish and Wildlife (Department Regulation 9500-4) directs the U. S. Forest Service to manage habitats of all existing plants and animals in order to maintain at least viable populations and to avoid actions which might cause species to become federally listed. The (Forest Service) Chief, through Forest Service Manual 2670, has directed the Regional Foresters to establish programs to identify Threatened, Endangered, and Sensitive Species occurring in the regions and to provide special management emphasis that will ensure their viability. Forest Service policy for Threatened and Endangered species is to manage their habitats to achieve recovery objectives so that special protection measures under the Endangered Species Act are no longer necessary. For Sensitive Species, the Forest Service is directed to develop and implement management practices to ensure that these species do not become Threatened and Endangered.

> **Sensitive Species (S).** Taxa that are identified by the Regional Forester for which viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution (Forest Service Manual 2670).
>
> **Watch (W).** Region 1, headquartered in Missoula, MT, currently utilizes this designation for plant species.

Bureau of Land Management Special Status Species

It is the policy of the Bureau of Land Management (BLM) to conserve Threatened and Endangered species and the ecosystems they depend upon primarily by prescribing management for conservation of lands these species inhabit (BLM Manual Chapter 6840). The primary goals of the Threatened and Endangered Species Program are inventory, monitoring, plan preparation, and plan implementation to ensure the maintenance and recovery of these species.

Similarly, it is BLM policy to manage Candidate species and their habitats to ensure that BLM actions do not contribute to the need to list any Candidate species as Threatened or Endangered. The Idaho BLM Director has the authority to designate Sensitive (or Special Status) Species, which are to be managed under the same policy as Candidate species. It is also BLM policy to carry out management for the conservation of state-listed plants and animals. The State Director is to develop

policies that will assist the state in achieving their management objectives for those species.

Special status species protocols, established by the Idaho Bureau of Land Management in 2003, consist of 5 categories. Category definitions differ slightly between plants and animals and, therefore, are presented separately below.

Plants

Type 1. Threatened, Endangered, Proposed, and Candidate species. These species are listed by the U. S. Fish and Wildlife Service (USFWS) as Threatened or Endangered, or they are Proposed or Candidates for listing under the Endangered Species Act.

Type 2. Rangewide/Globally Imperiled Species - High Endangerment. These are species that have a high likelihood of being listed in the forseeable future due to their global rarity and significant endangerment factors. Species ranked by the network of Conservation Data Centers and Natural Heritage Programs with Global Ranks of G1-G3 or T1-T3 with a threat priority of 1-9 using the USFWS Listing Priority Criteria.

Type 3. Rangewide/Globally Imperiled Species - Moderate Endangerment. These are species that are globally rare with moderate endangerment factors. Their global rarity and inherent risks associated with rarity make them imperiled species. Idaho BLM sensitive species that are ranked by the network of Conservation Data Centers and Natural Heritage Programs with Global Ranks of G1-G3 or T1-T3 with (a) a threat priority of 10-12 using the USFWS Listing Priority Criteria or (b) an Idaho Native Plant Society ranking of Priority 1-2 or Sensitive--i.e., Sensitive with the majority of the population on BLM-administered lands.

Type 4. Species of Concern. These are species that are generally rare in Idaho with small populations or localized distribution and currently have low threat levels. However, due to the small populations and habitat area, certain future land uses in close proximity could significantly jeopardize these sepcies. This includes sensitive species that are not Type 3.

Type 5. Watch List. Watch list species are not considered BLM sensitive species, and associated sensitive species policy guidance does not apply. Watch list species include species that may be added to the sensitive species list depending on new information concerning threats and species biology or statewide trends. This includes (a) Idaho Native Plant Society Monitor and Review species and (b) Idaho Native Plant Society Sensitive species (Types 2, 3, or 4) that are only suspected to occur in a BLM resource area.

Animals

Type 1. Threatened, Endangered, Proposed, and Candidate species. These species are listed by the U. S. Fish and Wildlife Service (USFWS) as Threatened or Endangered, or they are Proposed or Candidates for listing under the Endangered Species Act.

Type 2. Rangewide/Globally Imperiled Species. These are species that are experiencing significant declines throughout their range with a high likelihood of being listed in the foreseeable future due to their rarity and/or significant endangerment factors. This includes species ranked by the network of Conservation Data Centers and Natural Heritage Programs with Global Ranks of G1-G3 or T1-T3 or recent data indicate a significant rangewide risk which is not currently reflected by Global Ranks.

Type 3. Regional/State Imperiled Species. These are species that are experiencing significant declines in population or habitat and are in danger of regional or local extinctions in Idaho in the foreseeable future if factors contributing to their decline continues. This includes Idaho BLM sensitive species (a) that are not in Type 2, (b) that have an Idaho Conservation Data Center State Rank of S1 or S2 (exception being a peripheral or disjunct species), (c) that score high (18 or greater) using the Criteria for Evaluating Animals for Sensitive Species Status, or (d) for which other regional/national status evaluations (e.g., Partners in Flight scores) indicate significant declines.

Type 4. Peripheral Species. These are species that are generally rare in Idaho with the majority of the breeding range largely outside the state. This includes sensitive species that have an Idaho Conservation Data Center State Rank of S1 or S2 but are species peripheral to Idaho.

Type 5. Watch List. Watch List species are not considered BLM sensitive species, and associated sensitive species policy guidance does not apply. Watch List includes species that may be added to the sensitive species list depending on new information concerning threats, species biology, or statewide trends. The Watch List includes species with insufficient data on population or habitat trends or the threats are poorly understood. However, there are indications that these species may warrant special status species designation and appropriate inventory or research efforts should be a management priority.

References

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Tirmenstein, D. 1999. Artemesia tridentata ssp. tridentata. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis [April 12, 2004].

IV. NEPA and NHPA Compliance

Environmental Screening Form

Project Description/Location: This project involves the development of a Fire Management Plan (FMP) for City of Rocks National Reserve. The FMP proposes the suppression of all wildland fires that occur within park boundaries, incorporating the minimum impact suppression tactics policy to the greatest extent feasible for the given situation. It additionally proposes maintenance of existing defensible space around park buildings.

	Yes	No	Data Needed to Determine
Mandatory Criteria (A-N). Would the proposal, if implemented:			
A. Have material adverse effects on public health or safety?		x	
B. Have adverse effects on such unique characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; or ecologically significant or critical areas, including those listed on the National Register of Natural Landmarks?		x	
C. Have highly controversial environmental effects?		x	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		x	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		x	
F. Be directly related to other actions with individually insignificant, but cumulatively significant, environmental effects?		x	
G. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places?		x	
H. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species?		x	
I. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act?		x	

	Yes	No	Data Needed to Determine
J. Threaten to violate a federal, state, local, or tribal law or requirement imposed for the protection of the environment?		x	
K. Involve unresolved conflicts concerning alternative uses of available resources (NEPA sec. 102(2)(E).		x	
L. Have a disproportionate, significant adverse effect on low income or minority populations (EO 12898).		x	
M. Restrict access to and ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)		x	
N. Contribute to the introduction, continued existence, or spread of federally listed noxious weeds (Federal Noxious Weed Control Act).		x	
O. Contribute to the introduction, continued existence, or spread of non-native invasive species or actions that may promote the introduction, growth or expansion of the range on non-native invasive species (EO 13112).		x	
P. Require a permit from a federal, state, or local agency to proceed, unless the agency from which the permit is required agrees that a CE is appropriate?		x	
Q. Have the potential for significant impact as indicated by a federal, state, or local agency or Indian tribe?		x	
R. Have the potential to be controversial because of disagreement over possible environmental effects.		x	
S. Have the potential to violate the NPS Organic Act by impairing park resources or values?		x	
Tailor the following to meet individual park unit/project needs. Are any measurable impacts possible in the following categories relating to physical, natural, or cultural resources?			
A. Geological resources—soils, bedrock, streambeds, etc.		x	
B. From geohazards		x	
C. Air quality, traffic, or from noise		x	
D. Water quality or quantity		x	
E. Streamflow characteristics		x	
F. Marine or estuarine resources		x	

	Yes	No	Data Needed to Determine
G. Floodplains or wetlands		x	
H. Land use, including occupancy, income, values, ownership, type of use		x	
I. Rare or unusual vegetation—old growth timber, riparian, alpine, etc.		x	
J. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat		x	
K. Unique ecosystems, biosphere reserves, World Heritage sites		x	
L. Unique or important wildlife or wildlife habitat		x	
M. Unique or important fish or fish habitat		x	
N. Introduce or promote non-native species (plant or animal)		x	
O. Recreation resources, including supply, demand, visitation, activities, etc.		x	
P. Visitor experience, aesthetic resources		x	
Q. Cultural resources, cultural landscape, sacred sites, etc.		x	
R. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure, etc.		x	
S. Minority and low-income populations, ethnography, size, migration patterns, etc.		x	
T. Energy resources		x	
U. Other agency or tribal land use plans or policies		x	
V. Resource, including energy, conservation potential		x	
W. Urban quality, gateway communities, etc.		x	
X. Long-term management of resources or land/resource productivity		x	
Y. Other important environmental resources		x	

Please answer the following questions.

1. **Are the personnel preparing this form familiar with the site, and/or has a site visit been conducted?**

Yes

2. **Has consultation with all affected agencies or tribes been completed? (Attach additional pages detailing the consultation, including the name, date, and summary of comments from other agency or tribal contacts.)**

Yes

Instructions

When you have completed a site visit (or if staff are familiar with the specifics of the site) and consultation with affected agencies and/or tribes, and if the answers in the checklist above are all "no," you may proceed to the categorical exclusion form (appendix 2) if the action is described in section 3-4 of NPS-12. If any answers in the checklist are "yes" or "data needed to determine," or if the action is not described in section 3-4, prepare an environmental assessment or environmental impact statement.

Attach maps, notes of site visits, agency consultation, relevant data or reports, the categorical exclusion form or other relevant information to this form to begin the statutory/administrative record file.

Signatory

In signing this form, you are saying you have completed a site visit or are familiar with the specifics of the site, that you have consulted with affected agencies and tribes, and that the answers to the questions posed in the checklist are, to the best of your knowledge, correct.

_____ **Superintendent/Interdisciplinary Team Leader**	_____ Date
_____ **Technical Specialist/Field of Expertise**	_____ Date

Name / Resource Manager, **Technical Specialist/Field of Expertise**	Date
Technical Specialist/Field of Expertise	Date
Technical Specialist/Field of Expertise	Date
Technical Specialist/Field of Expertise	Date

Categorical Exclusion Form

Project Fire Management Plan, City of Rocks National Preserve **Date** August 23, 2005

Describe the project, including location (reference the attached Environmental Screening Form (ESF), if appropriate): This project involves the development of a Fire Management Plan (FMP) for City of Rocks National Preserve, located in Almo, Idaho State. The FMP proposes the suppression of all wildfires that occur within park boundaries, incorporating the minimum suppression tactics policy to the greatest extent feasible for the given situation.

Describe the category used to exclude action from further NEPA analysis and indicate the number of the category (see section 3-4 of NPS-12): DO-12, Section 3.3 (day-to-day maintenance, resource management and activities that have no potential for environmental impact).

Describe any public or agency involvement effort conducted (reference the attached ESF):

On the basis of the environmental information in the statutory compliance file, with which I am familiar, I am categorically excluding the described project from further NEPA analysis. No exceptional circumstances (i.e., all boxes on the ESF are marked "no") or conditions in section 3-6 apply, and the action is fully described in section 3-4 of NPS-12.

Park Superintendent or Designee **Name:** Wallace F. Keck **Title:** Superintendent, City of Rocks National Reserve	Date
NPS Contact Person **Name:** Rick Smedley **Title:** Wildland Fire Planner **Address:** National Park Service **Phone:** (360) 696-7545	Date

COPY OF CATX LEGISLATION

33814 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices

DEPARTMENT OF AGRICULTURE
Forest Service
DEPARTMENT OF THE INTERIOR
RIN 0596–AB99
National Environmental Policy Act Documentation Needed for Fire Management Activities; Categorical Exclusions

AGENCY: Forest Service, USDA, and Department of the Interior.

ACTION: Notice of final National Environmental Policy Act implementing procedures.

SUMMARY: The Department of Agriculture, Forest Service and the Department of the Interior give notice of revised procedures for implementing the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations. These final implementing procedures are being issued in Forest Service Handbook 1909.15, Chapter 30, Section 31.2, and Department of the Interior Manual 516 DM, Chapter 2, Appendix 1, which describe categorical exclusions, *i.e.,* categories of actions, which do not individually or cumulatively have a significant effect on the human environment and therefore normally do not require further analysis in either an environmental assessment or an environmental impact statement. The revision adds two such categories of actions to the agencies' NEPA procedures: (1) Hazardous fuels reduction activities; and (2) rehabilitation activities for lands and infrastructure impacted by fires or fire suppression. The Departments reviewed the effects of over 2,500 hazardous fuel reduction and rehabilitation projects and concluded that these are categories of actions which do not individually or cumulatively have a significant effect on the human environment. The agencies have also conducted a review of peer reviewed scientific literature identifying the effects of hazardous fuels reduction activities, which is available at *http://www.fs.fed.us/emc/hfi.* This combination of reviews give the agencies confidence that the categorical exclusions are appropriately defined. These two categorical exclusions will facilitate scientifically sound, efficient, and timely planning and decision making for the treatment of hazardous fuels and rehabilitation of areas so as to reduce risks to communities and the environment caused by severe fires.

The hazardous fuels reduction category will apply only to activities identified through a collaborative framework as described in ''A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan'' (hereafter called 10-Year Comprehensive Strategy Implementation Plan). An example of the framework's structure is available at *http://www.fireplan.gov/reports/mou/fuelstreatment.pdf.* Moreover, these hazardous fuels reduction activities: (1) Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness; (2) will not include the use of herbicides or pesticides; (3) will not involve the construction of new permanent roads or other infrastructure; (4) will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose; (5) will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire; (6) will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface.

Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infrastructure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed 4,200 acres.

Activities conducted under these categorical exclusions must be consistent with agency and Departmental procedures and with applicable land and resource management plans, and must comply with all applicable Federal, State, and Tribal laws for protection of the environment. These categorical exclusions will not apply where there

are extraordinary circumstances, such as adverse effects on the following: threatened and endangered species or their designated critical habitat; wilderness areas; inventoried roadless areas; wetlands; impaired waters; and archaeological, cultural, or historic sites. In response to comments on the proposed categorical exclusions, several revisions were made to the original proposal: (1) Grazing activities for the maintenance of fuel breaks were removed from the hazardous fuels reduction category; (2) the hazardous fuels reduction category was clarified to explicitly state that a proposed action could only include the sale of vegetative material where the primary purpose of hazardous fuels reduction; (3) one of the requirements for hazardous fuels reduction activities was revised to state that such activities must be identified through a collaborative framework as described in the 10-Year Comprehensive Strategy Implementation Plan, rather than be consistent with the framework; (4) the hazardous fuels reduction category was modified to make the list of activities an exhaustive one instead of illustrative; (5)) the hazardous fuels reduction category was modified to limit its use to wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface; (6) hazardous fuels reduction activities using fire are limited to 4,500 acres; (7) mechanical hazardous fuels reduction activities are limited to 1,000 acres; (8) fire rehabilitation activities are limited to 4,200 acres; and (9) the definition of rehabilitation was revised to be consistent with the National Wildland Fire Coordinating Group interagency definition.

EFFECTIVE DATE: The categorical exclusions are effective June 5, 2003.

ADDRESSES: The new Forest Service categorical exclusions are set out in Interim Directive No. 1909.15–2003–1, available electronically via the Internet at *http://www.fs.fed.us/im/directives.* The new Department of the Interior categorical exclusions are set out in 516 DM, Chapter 2, Appendix 1, available electronically via the Internet at *http://elips.doi.gov/table.cfm.* Single paper copies are available by contacting Dave Sire, Forest Service, USDA, Ecosystem Management Coordination Staff (Mail Stop 1104), 1400 Independence Avenue, SW., Washington, DC 20250–1104 or Willie Taylor, Department of the Interior, Office of Environmental Policy and Compliance (Mail Stop 2342), 1849 C Street, NW., Washington, DC 20240. Additional information and analysis can be found at *http://www.fs.fed.us/emc/hfi.*

FOR FURTHER INFORMATION CONTACT: Dave Sire, USDA Forest Service, Ecosystem Management Coordination Staff, (202) 205–2935, or Willie Taylor, Department of the Interior, Office of Environmental Policy and Compliance, (202) 208–3891. Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 4 p.m., Eastern Standard Time, Monday through Friday.

SUPPLEMENTARY INFORMATION: On August 22, 2002, President Bush established the

33815 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices

Healthy Forest Initiative, directing the Department of Agriculture and the Interior and the Council on Environmental Quality to improve regulatory processes to ensure more timely decisions, greater efficiency, and better results in reducing the risk of catastrophic wildfires by restoring forest health.

In response to this direction, the Departments of Agriculture and the Interior proposed two new categorical exclusions on December 16, 2002 (67 FR 77038). The first, addressing hazardous fuels reduction activities, is intended to better protect lives, communities, and ecosystems from the risk of high intensity wildland fire. The second, addressing rehabilitation activities, is intended to better restore natural resources and infrastructure after a fire. The supplementary information section of the notice published in December contains comprehensive background information on the need, development, and rationale for these categorical exclusions. The specific language for the proposed categories of actions are set out for comment in the notice was as follows:

 Hazardous fuels reduction activities (prescribed fire, and mechanical or biological methods such as crushing, piling, thinning, pruning, cutting, chipping, mulching, grazing and mowing) when the activity has been

identified consistent with the framework described in ''A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan.'' Such activities:
 Shall be conducted consistent with agency and Departmental procedures and land and resources management plans; and
 Shall not be conducted in wilderness areas or impair the suitability of wilderness study areas for preservation as wilderness; and
 Shall not include the use of herbicides or pesticides or the construction of new permanent roads or other new permanent infrastructure.
 Activities (such as reseeding or planting, fence construction, culvert repair, installation of erosion control devices, and repair of roads and trails) necessary for the rehabilitation of habitat, watersheds, historical, archeological, and cultural sites and infrastructure impacted by wildfire and/or wildfire suppression. Such activities:
 Shall be conducted consistent with agency and Departmental procedures and land and resource management plans; and
 Shall not include the use of herbicides or pesticides or the construction of new permanent roads or other new permanent infrastructure.

Comments on the Proposal

Almost 39,000 responses in the form of letters, postcards, faxes, and e-mail messages were received during the comment period. These comments came from private citizens, elected officials, and groups and individuals representing businesses, private organizations, and Federal agencies. Responses consisted of nearly 1,900 individual letters and over 37,000 form letters.

Public comment on the proposal addressed a wide range of topics, many of which were directed generally at the President's Healthy Forest Initiative and hazardous fuels reduction. Many people supported the proposal or favored further expansion, while many other opposed the proposal or recommended further restrictions.

Comment: Some respondents voiced general agreement with the proposal. Some indicated that they think current analysis and documentation requirements are too burdensome and that the proposal would provide for more efficient management. Others believed that the proposal had appropriate limitations on the use of the categorical exclusions and that the agencies had done sufficient analysis to include that the categories of hazardous fuels reduction activities and fire rehabilitation activities do not individually or cumulatively have significant effects. Still others agreed that the collaboration requirements ensure that local affected communities will be involved.

Response: These comments were in support of the proposal and need no specific response. A summary of the remainder of public comments and the agencies' responses follows:

Comment: Some respondents stated that the proposal is not needed inasmuch as current laws and policies allow sufficient action to be taken to lower the forest fire risk in urban wildland interface areas. They stated that agency policies already provide sufficient authority of using categorical exclusions.

Response: The Forest Service and the land management agencies within the Department of the Interior have various categorical exclusions for fire management in their NEPA procedures. Consequently, there are inconsistencies among agencies. Some agencies have the ability to categorically exclude some or all hazardous fuels reduction activities and some of or all fire rehabilitative activities while others cannot. For example, the U.S. Fish and Wildlife Service has utilized similar categories for fire management activities since 1997. In contrast, before the issuance of the categories set out in this notice, a jointly proposed Forest Service and Bureau of Land Management (BLM) hazardous fuels reduction activity using prescribed fire would have required BLM to prepare an environmental assessment, while the Forest Service may have categorically excluded such an action. These final categories provide a tool for more efficient planning of hazardous fuels reduction and fire rehabilitation activities. Having the same categories available to all of these land management agencies will facilitate inter-agency coordination and allow for more efficient planning and more timely decisions across agency jurisdictions. It will also provide greater consistency of practice. The addition of these categories, however, does not

represent a substantial change for some agencies nor does it replace or prevent the use of existing categories with similar purposes. *See* ''Comparison of USDA Forest Service and Department of the Interior Agency Categorical Exclusions'' at *http://www.fs.fed.us/emc./hfi.*

Comment: Some respondents stated that the proposal inappropriately adopts a nationwide approach over a site-specific approach and that certain geographical regions or areas with specific ecological characteristics should not be included in the category. They suggested that fire does not play a significant role in some areas due to high precipitation and humidity. Suggestions included taking the Southern Appalachian forests, national monuments, Eastern forests, forests in the Pacific Northwest, old growth, and alpine forests out of these categories of actions.

Response: Data on hazardous fuels reduction and fire rehabilitation activities was collected from field units within the Forest Service, Bureau of Land Management, Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service, across the United States. Based on a review of this data, it is the professional judgment of the Departments that the categories of actions identified in the hazardous fuels reduction and fire rehabilitation categorical exclusions do not individually or cumulatively have significant effects on the human environment. The data represents a broad spectrum of hazardous fuels reduction activities across vegetation types, geographic regions, and agency jurisdictions. Indeed, it is this broad representation of activities that leads the

agencies to conclude that the hazardous fuels reduction and fire rehabilitation categories should not be restricted to any specific geographic area, vegetation type, or jurisdiction. Additional information is available at *http://www.fs.fed.us/emc/hfi.* The categorical exclusion are provided as a tool to improve planning efficiency.

The applicability of hazardous fuels reduction activities and the level of NEPA documentation appropriate to any given area is a matter for informed professional judgment on the part of the local resource manager. The hazardous fuels categorical exclusion has been modified to limit its use to areas in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups, I, II, or III, outside the wildland urban interface. Further, hazardous fuels reduction actions using this category will be identified through a collaborative process as described in ''A Collaborative Approach for Reducing Wildland Fire risks to communities and the Environment 10-Year Comprehensive Strategy Implementation Plan'' (hereafter called the 10-Year comprehensive Strategy implementation Plan). Therefore, if hazardous fuels reduction activities are not needed or appropriate, they are not likely to be identified through this process.

The rehabilitation category is to be used only for rehabilitation of resources and infrastructure after a wildfire, so it is already limited to those areas impacted by wildland fire and wildfire suppression. Further restricting this category to certain geographic areas may exclude areas that, while not typically susceptible to wildland fire, may be subject to wildland fire because of conditions such as extreme drought, blow down, or insect infestation. Moreover, the two categories will not apply where there are extraordinary circumstances, such as adverse effects on the following: threatened and endangered species or their designated critical habitat; wilderness areas; inventoried roadless areas; wetlands; impaired waters; and archaeological, cultural, or historic sites.

Comment: Some respondents stated that the public cannot adequately comment until they have reviewed the results of the required Council on Environmental Quality (CEQ) consultation for the proposed categorical exclusions.

Response: Pursuant to regulations at 40 CFR 1505.1 and 1507.3, the USDA Forest Service and the Department of the Interior consulted with CEQ during the development of the categorical exclusions. Prior to the publication of these final categorical exclusions, CEQ provided written confirmation that amending the Forest Service and Department of the Interior NEPA procedures by adding the new

categorical exclusions was in conformity with NEPA and the CEQ regulations.

Comment: Some respondents stated that the agencies should have provided addresses listing where hard copies of information can be obtained. These respondents said that they do not have access to the Internet and that they have not been able to obtain information.

Response: Two contacts and their phone numbers were provided in the **Federal Register** notice (67 FR 77038) as sources for additional information. Paper copies of the information were available on request from the two contacts.

Comment: Some respondents questioned why the public should have to cite specific laws, regulations, or policies when making comments.

Response: There was no request for the public to cite specific laws, regulations, or policies when making comments.

Comment: Some respondents stated that, according to the **Federal Register** notice, instructions for applying the proposed fire management categorical exclusions will not be issued until after the procedures are finally established; thus neither the agencies nor the public can comment on how, where, and how often these categorical exclusions will be utilized.

Response: The only instructions not yet produced are those providing Department of the Interior agencies guidance for the format and content of memos that will document the agency's use of either of these two categorical exclusions. Historically, requirements for documenting decisions concerning categorically excluded activities have varied across agencies within the Department of the Interior. The new Department of the Interior instructions will be consistent with existing Forest Service requirements and provide for standardized documentation for using the hazardous fuels reduction and fire rehabilitation categorical exclusions among agencies. The Forest Service requirements are available at *http://www.fs.fed.us/im/directives/fsh/1990.15/1909.15,30.txt.* The Department of Interior instruction can be found at *http://www.doi.gov/oepc/esms. html.*

Comment: Some respondents said they believe that the proposal will restrict public involvement and that timber harvest for purposes other than hazardous fuels reduction will be categorically excluded.

Response: The hazardous fuels reduction categorical exclusion explicitly states that it may only be used where the primary purpose of the project is hazardous fuels reduction. Moreover, it is restricted to activities identified through a collaborative framework as described in the 10-Year Comprehensive Strategy Implementation Plan. As stated in the 10-Year Comprehensive Strategy Implementation Plan, ''Local level collaboration should involve participants with direct responsibility for management decisions affecting public and/or private land and resources, fire protection responsibilities, or good working knowledge and interest in local resources. Participants should include Tribal representatives, local representatives, local representatives from Federal and State agencies, local governments, landowners and other stakeholders, and community-based groups with a demonstrated commitment to achieving the four goals described in the Comprehensive Strategy 10-Year Implementation Plan (improve fire prevention and suppression, reduce hazardous fuels, restore fire-adapted ecosystems, and promote community assistance). Existing resource advisory committees, watershed councils, or other collaborative entities may serve to achieve coordination at this level. Local involvement, expected to be broadly representative, is a primary source of planning, project prioritization, and resource allocation and coordination at the local level.''

This requirement supports public involvement and collaboration, and helps ensure a focus on reducing wildland fire risks. Through such collaboration, actions believed necessary to abate the risk of high intensity wildfire will be identified.

This collaboration will, where appropriate, seek to address conflicts concerning alternative uses of resources and be used by the federal agencies to consider, as appropriate, reasonable alternatives to recommend courses of action. 42 U.S.C. 4332(2)(E). The hazardous fuels reduction category will utilize a collaborative framework as described in the 10-Year Comprehensive Strategy Implementation Plan even after

the ten years of the 10-Year Comprehensive Strategy Implementation Plan have passed. In addition, the use of the hazardous fuels reduction category is limited to the reduction of fuels in the wildland-urban interface or in Condition Classes 2 or 3

33817 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices

in Fire Regime Groups I, II, or III, outside the wildland-urban interface.
Comment: Some respondents asked the agencies to clarify the public involvement process for the rehabilitation categorical exclusion.
Response: Responsible officials will consider options for involving potentially interested and affected agencies, organizations, and persons in the analysis process, commensurate with public interest in a proposed action, regardless of how the analysis is documented.
Comment: Various respondents questioned the methodology used to gather and interpret activity information used in the agencies' conclusion that the proposed category of hazardous fuels reduction actions do not individually or cumulatively have a significant environmental effect on the human environment. Some do not believe there is sufficient evidence for this conclusion. Others suggest various biases are reflected in the activities selected. Some respondents suggested that the time period in which the data were collected from field units was too short to gather accurate data.
Response: To identify activities for review, the Forest Service relied on a national database implemented in October 2000. The database includes fuel hazard reduction and rehabilitation and stabilization projects accomplished in fiscal years 2001 and 2002. The Forest Service reviewed 100 percent of the completed projects in the database. The Department of the Interior, having comprehensive fuel hazard reduction and rehabilitation and stabilization project records dating back many years, chose a 100 percent sample of projects accomplished in fiscal year 2002 and a 10 percent random sample of projects accomplished in fiscal years 1998 through 2001. As the request of both the Forest Service and Department of the Interior, field units added additional hazardous fuels reduction and rehabilitation projects that had not been entered in their respective national databases. The information request was distributed to field units to verify and supplement the project information because that is the organizational level where project information would be readily available. Field units responded to questions about projects for which they had already reported accomplishments through their agency reporting systems. Field units responded with over 3,000 hazardous fuels reduction and fire rehabilitation projects. The information supplied included 30 different data items for each activity, including information on activity location and size, vegetation cover type, fuels treatment type, predicted environmental effects, actual environmental effects after activity completion, and mitigation measures. Over 2,400 of the projects reviewed had some form of validation of the environmental effects predicted, in the form of formal monitoring, forest plan monitoring, or personal observation. Some of these included multiple activities. Environmental effects included ecological, aesthetic, historic, cultural, economic, social, or health effects as defined in 40 CFR 1508.8. The agencies identified some inconsistencies and missing information in the data provided by the field units and followed up with specific units for clarification. The agencies relied on the professional judgment of the responsible officials concerning the significance of environmental effects. The agencies believe that resource specialists and stakeholders involved in the design and analysis of each specific on-the-ground project were best qualified to identify resulting environmental effects or whether extraordinary circumstances were present.
Comment: Some respondents questioned the fire statistics presented in the proposal. Some said that the fire statistics fail to provide sufficient information to make any conclusions that justify the proposal.
Response: The fire statistics in the preamble to the proposal where drawn from the Administration's ''Healthy Forests: An Initiative for Wildfire Prevention and Stronger Communities'' and ''A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-

Year Comprehensive Strategy.''
Statistics for past fire seasons are also available from the National Interagency Fire Center at *http://www.nifc.gov/stats.* The statistics were provided to explain why the agencies believed the proposal was necessary and timely. These statistics are not a basis for evaluating the significance of the environmental effects of hazardous fuels reduction or rehabilitation activities.
The proposal is focused on how the attendant environmental analyses will be documented. The CEQ regulations implementing NEPA direct agencies to reduce excessive paperwork by using categorical exclusions to define categories of actions which do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is required. The agencies believe that the projects they reviewed provided ample information to define the two categorical exclusions.
Comment: Some respondents believe that the initiative is contrary to the Roadless Area Conservation Rule which prohibits road construction in roadless areas unless needed to protect public health and safety under an imminent threat of a catastrophic event that would cause the loss of life or property. Others say that roadless areas should be included in the proposed categorical exclusions.
Response: Categorically excluded actions must be consistent with applicable law, regulations and policy. The Roadless Area Conservation Rule (36 CFR 294) prohibits certain activities in inventoried roadless areas. Further, Forest Service NEPA procedures continue to require an environmental impact statement for proposals that would substantially alter the undeveloped character of an inventoried roadless area of 5,000 acres or more (FSH 1909.15, Section 20.6(3)).
Comment: Some respondents state that the agencies should strengthen the proposed fire management categorical exclusions by adding a paragraph that specifies that they also apply in extraordinary circumstances in either Presidential Disaster Declaration areas, or areas where it is demonstrated that a high risk to human life, safety, property, or infrastructure exists.
Response: The categorical exclusions are based on the agencies' conclusion that these are categories of actions, which do not individually or cumulatively have a significant effect on the human environment. The need for emergency action is not justification for a categorical exclusion. CEQ regulations provide for procedures that allow action in emergencies when an environmental impact statement would be required (40 CFR 1506.11).
Comment: Some respondents stated that the agencies should modify the initiative to specify that the proposed fire management categorical exclusions can be used in storm/wind damaged forest areas.
Response: The proposed categorical exclusion for hazardous fuels reduction may be used in storm/wind damaged areas as long as the criteria in the text of the categorical exclusion are met. The agencies do not believe that such additional specificity is necessary.
Comment: Some respondents suggest specific criteria to further define and limit the proposed categories of actions, *e.g.,* project goals, outcomes, acreage limitations, the number of activities within a single watershed, and the types of forests for which methods apply. Some respondents state that the

agencies should limit the size of the proposed fire management categorical exclusions to 40 acres or less and within one-half mile of communities. Some state that the agencies should limit activity size to no more than 250 acres, while others suggest that the agencies should restrict removal for a specific activity to 250,000 board feet.
Response: The categorical exclusions are limited to activities with a specific goal and outcome as suggested by some respondents. Accordingly, activities could include the sale of vegetative material only if hazardous fuels reduction is the primary purpose of the activity. The hazardous fuels categorical exclusion is limited to activities identified through a collaborative process as described in the 10-Year Comprehensive Strategy Implementation Plan. The collaborative process will identify areas that are a priority for treatment using the hazardous fuels reduction categorical

exclusion.
Project data was collected from five land management agencies across the United States. The data represents the spectrum of hazardous fuels reduction and fire rehabilitation projects of different sizes across vegetation types, geographic regions, agency jurisdictions. Not all projects reviewed had post activity validation of the predicted environmental effects. The agencies focused on an analysis of the acreage figures from over 2,500 hazardous fuels reduction and rehabilitation activities where the environmental effects were predicted to not be significant and where those predictions were validated. Hazardous fuels reduction activities using fire, ranged in size from less than one acre to 90,000 acres. Mechanical hazardous fuels reduction activities, ranged in size from less than one acre to 11,690 acres. Fire rehabilitation activities, ranged in size from one acre to 39,000 acres.
In response to requests fromore specificity of limits, the agencies have further constrained the hazardous fuels categorical exclusion ot activities within wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildlandurban interface.
The wildland urban interface is defined in the Forest Service and Department of the Interior **Federal Register** notice ‘‘Urban Wildland Interface Communities Within the Vincinity of Federal Lands That Are at High Risk From Wildfire’’ published January 4, 2001 (66 FR 753), as an ‘‘interface community’’ and an ‘‘intermix community’’. For purposes of defining these communities, a structure is understood to be either a residence or a business facility, including Federal, State, and local government facilities. Structures do not include small improvements such as fences and wildlife watering devices.
The ‘‘interface community’’ exists where structures directly abut wildland fuels. The wildland interface community exists where humans and their development meet or intermix with wildland fuel. There is a clear line of demarcation between residential, business, and public structures and wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire. An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile.
The ‘‘intermix community’’ exists where structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of and within the developed area. The development density in the intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of intermix community emphasizes a population density of between 28–250 people per square mile.
Based on coarse scale national data, Fire Condition Classes measure general wildfire risk as follows:
Condition Class 1. For the most part, fire regimes in this Fire Condition Class are within historical ranges. Vegetation composition and structure are intact. Thus, the risk of losing key ecosystem components from the occurrence of fire remains relatively low.
Condition Class 2. Fire regimes on these lands have been moderately altered from their historical range by either increased or decreased fire frequency. A moderate risk of losing key ecosystem components has been identified on these lands.
Fire Regime Groups are defined in the 10-Year Comprehensive Strategy Implementation Plan, which is available on a number of Web sites including *http://www.fs.fed.us/emc/hfi.* A fire regime is a generalized description of the role fire plays in an ecosystem. It is characterized by fire frequency, predictability, seasonality, intensity, duration, scale (patch size), as well as regularity or variability. Five combinations of fire frequency, expressed as fire return interval in fire severity, are defined as Groups I through V. Groups I and II include fire return intervals in the 0–35 year range. Group I includes ponderosa pine, other long needle pine species, and dry site

Douglas-fir. Group II includes the drier grassland types, tall grass prairie, and some Pacific chaparral ecosystems. Groups III and IV include fire return intervals in the 35–100+ year range. Group III includes interior dry site shrub communities such as sagebrush and chaparral ecosystems. Group IV includes lodgepole pine and jack pine. Group V is the long interval (infrequent), stand replacement fire regime and includes temperate rain forest, boreal forest, and high elevation conifer species.

In response to requests to consider acreage limitations on the categorical exclusions for hazardous fuel reduction and fire rehabilitation activities, the agencies reviewed the data to determine prudential limits on the scope of these categorical exclusions. Although the data did not establish a relationship between acres treated and environmental effects, the agencies have elected to limit the categorical exclusion for hazardous fuels reduction activities using fire to 4,500 acres, hazardous fuels reduction activities using mechanical methods up to 1,000 acres, and fire rehabilitation activities to 4,200 acres. These acreages are well within the range of the data. This responds to public concerns while maintaining the effectiveness of the categorical exclusions as a management tool.

Using timber volume as a limitation, instead of acreage, does not reflect the size of an activity inasmuch as a small project in one part of the country may result in as much timber volume as a much larger project in another part of the country. Moreover, activities in the review that were identified as having significant environmental effects were not those of a particular activity, location, or size but were identified as having extraordinary circumstances, which precluded the use of a categorical exclusion.

These acreage limits for the hazardous fuels reduction and fire rehabilitation categories differ from those in a separate Forest Service proposal for three categorical exclusions for limited timber harvest (68 FR 1026). In conducting the review for its limited timber harvest categories, the Forest Service selected projects that would have qualified

33819 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices

under the agency's former Categorical Exclusion 4, which allowed up to 1 million board feet of salvage and 250,000 board feet of merchantable wood products. As previously discussed, volume per acre can vary considerably from place to place or by treatment method. However, by limiting timber harvests in the Forest Service's review for its limited timber harvest categorical exclusions to actions limited by a specified volume, the projects in the review were still inherently limited in acreage. Conversely, the activities reviewed for the hazardous fuels reduction and fire rehabilitation categorical exclusions were not constrained by a acreage or board feet limitations. Accordingly, the acreage limits proposed for the Forest Service's three limited timber harvest categorical exclusions are smaller than the acreage limits in these hazardous fuels and fire rehabilitation categorical exclusions. Since the Forest Service's limited timber harvest categorical exclusion data is constrained, it is not comparable to the hazardous fuels and fire rehabilitation categorical exclusions data.

Comment: Some respondents stated that the initiative contradicts the original intent of categorical exclusions, which is to expedite minor, routine administrative actions. According to these respondents, there will be more stringent requirements for administrative actions such as moving and trail maintenance than for vegetation management on hundreds of thousands of acres of land, under this initiative.

Response: Categorically excluded actions include those that are minor, routine, and administrative. Forest Service NEPA procedures do apply the term ''routine'' in reference to some of the actions that are currently categorically excluded. In addition, the categorical exclusions are intended to expedite actions that fit within categories of actions that do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an EA nor an EIS is required. In this case, the agencies have analyzed a substantial body of data. As the agencies' experience with environmental analysis for natural resource management activities grows, it

stands to reason that additional categorical exclusions will be defined.
Comment: Some respondent said the application of extraordinary circumstances screens is insufficient and open to abuse. Others stated a belief that hazardous fuels reduction and fire rehabilitation actions automatically trigger the Department of the Interior's exceptions to categorical exclusions, including ''controversy,'' ''uncertainty,'' and ''precedent for future action'' and, as such, cannot be categorically excluded.
Response: When using these two categorical exclusions, the responsible officials will consider, on a project-byproject basis, whether or not any of the Department of the Interior's exceptions and Forest Service extraordinary circumstances apply. The responsible official will prepare a decision memo that will be available for public review.
Comment: Some respondents suggested that the agencies monitor categorically excluded hazardous fuels and rehabilitation activities actions to ensure that they do not have significant environmental effects.
Response: Monitoring would take place after the categories are established and after they are used for a particular action. Monitoring is not relied upon as a basis or rationale for establishing these categorical exclusions. Although the data established that the covered activities do not individually or cumulatively have a significant effect on the human environment, the agencies, nevertheless, recognize the need for a scientifically sound and consistent approach to environmental monitoring for both hazardous fuels reduction and rehabilitation actions and agree that a monitoring program should apply to a representative sampling of those hazardous fuels reduction and rehabilitation projects conducted using these new categorical exclusions. Therefore, guidance for the development of monitoring protocols, one for fuels treatments and one for rehabilitation actions, is being prepared. It will be peer reviewed and is scheduled for completion in May. Monitoring protocols will be prepared shortly thereafter. The agencies will monitor the effects of categorically excluded hazardous fuels reduction and fire rehabilitation activities to assess whether the categorical exclusions are being applied within their prescribed parameters and to confirm the agencies' assessment of their individual and cumulative environmental impacts.
Comments: Some respondents suggested changing the categorical exclusion language to specify that the proposed fire management categorical exclusions will be ''guided by'' rather than ''be consistent with'' the 10-Year Comprehensive Strategy Implementation Plan. They state that failure to implement such changes will result in new causes for appeals and litigation due to ''inconsistency.''
Response: The agencies have modified the proposal to limit it to activities identified through a collaborative framework as described in the 10-Year Comprehensive Strategy Implementation Plan. The change was made to eliminate any confusion concerning consistency.
Comment: Some respondents stated the initiative's list of routine actions (*e.g.*, reseeding and replanting) is misleading inasmuch as the effects from the listed actions are not comparable to the effects that will be created by road construction, skid trail and landing construction, and timber harvest. Some respondents also stated that phrases such as ''small combustibles,'' ''overstocked stands,'' and ''brush thinning'' are inadequate with reference to likely timber harvest activities under the initiative.
Response: Reseeding and replanting are allowed under the fire rehabilitation category, which does not include skid trail and landing construction, or timber harvest. Fuel reduction activities involving the sale of vegetative material are allowed under the hazardous fuels category only where the primary purpose of the activity is hazardous fuels reduction. Thinning brush and overstocked stands characterize common tasks allowed under the hazardous fuels reduction categorical exclusion. The phrase ''small combustibles'' was not used in the proposed or final text. The examples provided in the proposal were intended to illustrate a range of possible activities. The text of the hazardous fuels reduction categorical exclusion defines the specific actions for which each may be applied.
The agencies' review of hazardous fuels reduction and fire rehabilitation projects encompassed the specific activities included in the two

categorical exclusions. Hazardous fuels reduction activities reviewed involved broadcast burning and burning of piles, and mechanical treatments consisting of crushing, piling, thinning, pruning, cutting chipping, mulching, and mowing.
Comment: Some respondents assert that the stated requirements that activities must be consistent with land and resource management plans is misleading since Forest Service plans will be categorically excluded.
Response: Forest Service NEPA procedures do not presently provide a categorical exclusion for amendments to land and resource management plans. The Forest Service may, if it implements its proposed planning rule, identify a category of plan decisions which do not individually or cumulatively have a significant effect on the human environment and may, therefore, be

33820 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices
categorically excluded from NEPA documentation in an environmental assessment or an environmental impact statement. The public would have an opportunity to review and comment on such an amendment to the Forest Service handbook if such a categorical exclusion proposal is made.
It should be noted that under the proposed Forest Service planning regulations, new plans, plan revisions, and amendments continue to require a rigorous public involvement process. Categorical exclusions apply to the level of documentation required under CEQ's regulations implementing NPEA (40 CFR 150.4(p) and 1508.4). Any action that is not consistent with an applicable land and resource management plan's standards, guidelines, goals, and objectives would require a plan amendment. The Forest Service will continue to conduct the appropriate level of environmental analysis and disclosure commensurate with the significance of environmental effects, for both land and resource management plans and project-level planning.
Comment: Some respondents suggested that the agencies should clearly define such terms as ''hazardous fuels,'' ''primary purpose'' ''ecosystem integrity,'' and ''adverse effect'' as they pertain to extraordinary circumstances.
Response: ''Hazardous fuels'' consist of combustible vegetation (live or dead) such as grass, leaves, ground litter, plants, shrubs, and trees, that contribute to the threat or ignition, and high fire intensity and/or high rate of spread. The term ''primary purpose'' is not a term of art and has only the dictionary definition. Synonymous phrasing is that the ''main reason'' for the activity must be hazardous fuels reduction.
''Ecosystem integrity'' is defined in ''A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy'' as the completeness of an ecosystem that at geographic and temporal scales maintains its characteristic diversity of biological and physical components, composition, structure, and function.
The use of the term ''adverse effect'' was used in conjunction with the agencies' descriptions of extraordinary circumstances in their NEPA procedures. Specific agency direction pertinent to identifying extraordinary circumstances may be found in Forest Service Handbook 1909.15, section 303.3 (67 FR 54622), and Department of the Interior Manual 516 DM 2, Appendix 2.
Comment: Some respondents commented that the proposal was misleading because it stated that the proposed hazardous fuels reduction categorical exclusion would not cover timber sales that do not have hazardous fuel reduction as their primary purpose, but then several pages later stated that products would be sold.
Responses: The intent of the statement concerning timber sales was to point out that only timber sales with hazardous fuel reduction as their primary purpose could be categorically excluded under the proposal. The categorical exclusion for hazardous fuels reduction allows for the sale of vegetative material as one method for removal. The sale of vegetative material includes all types of products from plant material, including biomass, posts, poles, and sawlogs. The hazardous fuels reduction categorical exclusion has been edited to add that activities may include the sale of vegetative material if the primary purpose of the activity is hazardous fuels reduction.
Comment: Some respondents suggested that, without NEPA analysis, categorically excluded actions would

not consider the best available science and managers would be unaware of extraordinary circumstances that preclude the use of a categorical exclusion.
Response: The agencies have repeatedly conducted NEPA analyses for hazardous fuels reduction and fire rehabilitation projects using the best available science. Based upon the projects reviewed for these categorical exclusions, the agencies have concluded that these categorical exclusions describe categories of actions which do not individually or cumulatively have a significant effect on the human environment.
Consistent with existing direction, agencies must conduct sufficient review to determine that no extraordinary circumstances exist when using categorical exclusions. This determination includes appropriate surveys and analyses, using the best available science, attendant in appropriate consultation with Tribes and consultation with regulatory agencies, such as those required by the Endangered Species Act, the National Historic Preservation Act, Clean Water Act, and Clear Air Act.
The agencies will take the additional measure of monitoring to determine that these categories are being appropriately used and to further validate the agencies' conclusions regarding environmental significance.
Comment: Some respondents stated that NEPA and other environmental laws have served the country well for years, and the agencies should follow these laws in conducting fuels reduction efforts. Respondents suggest that if rule changes are needed, they should be made through Congress, not through administrative actions.
Response: The agencies are not changing laws or regulations. The CEQ regulations implementing NEPA provide for three levels of environmental documentation: environmental impact statements; environmental assessments; and categorical exclusions. The agencies are following CEQ's regulations, which direct agencies to define categorical exclusions to reduce excessive paperwork. Activities conducted under those categories must be consistent with all applicable Federal, State, local, and Tribal laws and requirements imposed for protection of the environment.
Comment: Some respondents indicated that there should be no restriction on new road construction, while others believe that no roads should be constructed, as the absence of roads indicates an activity is too far from a community. Other respondents suggested that up to one mile of lowstandard road should be allowed, while others believed that roads should only be constructed in rare cases.
Response: Hazardous fuels reduction activities and rehabilitation activities involving new permanent roads are not included in the proposed categorical exclusions. Proposals for activities that involve new permanent road construction would be analyzed and documented in an environmental assessment or an environmental impact statement.
Comment: Some respondents suggested that any road construction should only be carried out following a thorough environmental analysis. Others indicated that culverts should not be replaced or upgraded without a watershed analysis.
Response: The categorical exclusions provide only for construction of temporary roads. Where temporary road construction or culverts are being proposed, agencies must review the proposed action to ensure that no extraordinary circumstances exist.
Comment: Some respondents suggested that the categorical exclusions should specify that temporary roads will be constructed only where the project ensures that they will be reclaimed/ obliterated upon activity completion.
Response: Whether temporary roads are needed and to what extent, along with how they are closed, reclaimed, and/or obliterated are project-specific decisions and therefore appropriately decided at the project level.
Comment: Some respondents asked the agencies to clarify the role of grazing in the proposal. Other respondents suggest that the agencies should not allow grazing to be categorically excluded as a fuels reduction technique because grazing removes grasses, allowing woody vegetation to invade, which contributes to hotter, more intense fires.

Response: The grazing activity included in the proposed hazardous fuels reduction categorical exclusion, as the sole biological method, was intended to be limited to livestock grazing to maintain fuelbreaks. Subsequent review determined that only four of the projects reviewed involved livestock grazing for fuelbreak maintenance. While some agencies have effectively used livestock grazing to maintain fuelbreaks in certain circumstances without significant environmental effects, the agencies believe they have not gathered sufficient data for its inclusion in this categorical exclusion. The agencies will continue to review the effects of this type of activity. Therefore, the hazardous fuels reduction categorical exclusion has been modified to remove ''biological'' and ''grazing'' from the list of included activities.

Comment: Some respondents stated that some prescribed burns have resulted in unanticipated effects such as burns too cool/hot to meet objectives and increases in noxious weeds/nontarget grasses.

Response: The agencies' review of hazardous fuels reduction and fire rehabilitation projects found 11 cases where the actual results were other than what was predicted. These cases reported that prescribed fires burned either cooler or hotter than anticipated. Cooler than expected burns resulted in less fuel being consumed by fire, and, therefore, not completely achieving the project's fuel reduction objective. Hotter than expected burns resulted in increased scorch of tree crowns and more tree mortality than predicted. In some instances undesirable grass species occupied the site after treatment. In each of these cases, however, the unanticipated effects were found not to be significant.

Comment: Some respondents asked that the categorical exclusion for rehabilitation be modified to include, but not be limited to, specific suggested activities such as fire and safety hazard tree removal, natural or mechanical soil rehabilitation, and rehabilitation of recreation sites.

Response: The rehabilitation categorical exclusion does not include removal of fire and safety hazard trees. Removal of fire hazards is addressed in the hazardous fuels reduction categorical exclusion. Safety hazard trees associated with roads, trails, recreation facilities, and administrative sites may be removed as part of routine maintenance of those facilities. Most agencies already categorically exclude these maintenance activities from further analysis and documentation in an environmental assessment or environmental impact statement. Postfire soil rehabilitation, either natural or mechanical, and recreation site rehabilitation are included in the category of actions described in the rehabilitation categorical exclusion. The list of examples is not exhaustive.

Comment: Some respondents indicated a belief that the proposal for rehabilitation is unnecessary as existing legal frameworks provide for emergency fire rehabilitation.

Response: In January 2003, the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy, identified three types of fire recovery activities: Emergency stabilization; rehabilitation; and restoration. Emergency stabilization is defined as planned actions within one year of a wildland fire to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. The rehabilitation categorical exclusion does not cover emergency stabilization. The Wildland Fire Leadership Council defines rehabilitation as ''Post-fire efforts (<3 years) to repair or improve lands unlikely to recover to a management approved condition from wildland fire damage, or to repair or replace minor facilities damaged by fire.'' The Wildland Fire Leadership Council defines restoration as the continuation of rehabilitation beyond three years. The rehabilitation categorical exclusion has been edited to be consistent with the Wildland Fire Leadership Council's definition of rehabilitation. The scope of fire rehabilitation activities allowed under the proposed categorical exclusion has not changed as a result of this new definition. What has changed is the time limit of three years for completion of those activities and a size limit of 4,200

acres.
Comment: Some respondents believe that rehabilitation activities should require an environmental impact statement. Others believe that these activities should not be carried out at all. They say the use of heavy equipment generates noise, air and water pollution, soil compaction, vegetation and habitat changes, and ecosystem modifications greater than those which follow fires. Still others cite research studies (*e.g.,* Beschta, *et al.,* 1995) that report that there is generally no ecological need to act, and that quick actions may create new problems.
Response: The agencies have repeatedly conducted NEPA analyses for fire rehabilitation projects using the best available science. Based upon approximately 300 fire rehabilitation projects reviewed, the agencies have concluded that the category of activities described do not individually or cumulatively have a significant effect on the human environment. When using the rehabilitation categorical exclusion, agencies must review the proposed action to ascertain whether extraordinary circumstances exist. While the Beschta report focused on salvage logging, there are also statements on rehabilitation practices in the report. This report questions, in general, the effectiveness of installation of hard structures and their siting on the landscape. This report also criticizes introduction of non-native species. Situations such as steep slopes, drinking water protection, and threats of invasive species may influence the need to act in local situations. Years of research since the Beschta report have informed current choices of technologies. The utility of fire rehabilitation practices chosen and the need for these practices will be decided on a site-specific basis using current knowledge and technologies. Thus, the projects selected, based on local scientific expertise, will both meet the environmental protection goals for the projects and have no potential to individually or cumulatively have a significant effect on the human environment.
Comment: Some respondents requested that herbicide use be allowed under the fire rehabilitation categorical exclusion, while others oppose herbicide use and even want an explicit prohibition against herbicide use on future activities that follow categorically excluded actions.
Response: the agencies will continue to review and analyze new information on the effects of herbicides used for hazardous fuel reduction. At the present time, the agencies have elected to not include actions involving herbicide use.
Comment: Some respondents are concerned that 30 days was insufficient time to review the proposed categorical exclusions along with the other proposals. Others criticized the release

33822 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices

of the proposal during the Christmas holidays.
Response: The agencies extended the comment period through January 31, 2003.
Comment: Some respondents expressed frustration with e-mail errors near the comment period deadline.
Response: The office receiving e-mail comments notes that many e-mail comments were received during the final days of the comment period. The office receiving the e-mail comments analyzed e-mail server performance. No problems were identified.
Comment: Some respondents said they do not believe that the agencies should block e-mail originating from a third party e-mail generator. These respondents said that such e-mail generators are important to groups interested in the environment and that such blocking prevents voices from being heard.
Response: The Forest Service regrets any difficulty experienced in submitting comments. The Forest Service is committed to electronic government and is a participant in the Regulations.gov project, which will allow third-party email generators to submit electronic comments. In the meantime, the Forest Service has provided maintainers of public comment web pages with a simple procedure that they can use to keep their messages from being blocked by the Forest Service's spam filter. For more information please contact Sandra Watts, (703) 605–4695.
Comment: Some respondents stated that agencies should accept and consider all comments and not just those deemed to be ''original and substantive.''

Response: The agencies agree and accepted and considered all comments. Each comment was considered on its own merits.
Comment: Some respondents said that the 10-Year Comprehensive Strategy Implementation Plan should have been included with the proposal.
Response: The 10-Year Comprehensive Strategy Implementation Plan is available on a number of Web sites including *http://www.fs.fed.us/emc/hfi.* In addition, two contacts were provided in the **Federal Register** notice for additional information. These contacts were available to provide more information on this strategy.
Comment: Some respondents expressed a desire for public hearings to record testimony.
Response: The agencies believe that the public comment opportunity provided was the most efficient means of gathering public input for a proposal of this nature and that public hearings were not necessary.
Comment: Some respondents wanted the agencies to specify which implementation tasks within the 10-Year Comprehensive Strategy Implementation Plan are addressed by the proposed fire management categorical exclusions.
Response: The categorical exclusions contribute to the implementation task, ''Assess state and federal regulatory process governing projects and activities done in conformance with the 10-Year Comprehensive Strategy and Implementation Plan and identify measures to improve timely decisionmaking.'' This task is under ''Goal Two—Reduce Hazardous Fuels.''
Comment: Some respondents suggested that the agencies should provide opportunities for public involvement on the initiative following the release of the report from the General Accounting Office on the relationship between administrative appeals and fuels reduction activities.
Response: Because of controversy over whether appeals and litigation have delayed implementation of Forest Service hazardous fuels reduction activities, the General Accounting Office was requested to provide information to Congress on the number of decisions involving hazardous fuels reduction activities, the number of these decisions appealed or litigated, and the acreages affected. The agencies did not believe that this information would be helpful in defining these categorical exclusions, nor aid the public in commenting on the agencies' proposal.
Comment: Many respondents asked that the agencies adhere to various laws, executive orders, and agency policies such as: the Endangered Species Act, Clean Air Act, Clean Water Act, National Forest Management Act, Migratory Bird Treaty Act, National Historic Preservation Act, Forest Service Transportation System Management Policy, Northwest Forest Plan, the Grizzly Bear Recovery Plan, and executive orders on management of floodplains and wetlands, and Tribal consultation.
Response: The agencies agree. The level of NEPA consideration does not affect agency responsibility to follow applicable laws, regulations, executive orders, and policies. For example, categorically excluded hazardous fuels reduction and fire rehabilitation actions are reviewed for their potential to impact waters listed as impaired by State water quality agencies and for compliance with smoke management plans. When appropriate, the Forest Service and the Department of the Interior agencies conduct appropriate consultation with Federal, State, and Tribal agencies for hazardous fuels and fire rehabilitation actions. For example, agencies must consult with Tribal governments when an action may have Tribal implications, even though it may be categorically excluded from further analysis and documentation in an environmental assessment or environmental impact statement. Agencies must also review the potential effects from these types of actions on threatened and endangered species and designated critical habitat and consult as appropriate with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration (NOAA), Fisheries. Similarly, categorically excluded actions are reviewed for potential effects on properties protected by the National Historic Preservation Act along with appropriate consultation with State and Tribal Historic Preservation Officers. Such consultations help ensure that cumulative effects across jurisdictions will not be significant.
Comment: Some respondents stated that rehabilitation work should only be

carried out in areas already consumed by fires.
Response: The agencies agree. The proposed and final categorical exclusion for rehabilitation activities state that it is for rehabilitation of habitat, watersheds, historical, archaeological, and cultural sites and infrastructure damaged by wildfire and/or wildfire suppression.
Comment: Some respondents said that agencies should follow the 10-Year Comprehensive Strategy Implementation Plan and that additional laws or regulations are not needed.
Response: The categorical exclusions are prepared in conformity with the law (NEPA) and CEQ regulations. They contribute to the implementation task under the 10-Year Comprehensive Strategy Implementation Plan's ''Goal Two—Reduce Hazardous Fuels,'' which says, ''Assess state and federal regulatory process governing projects and activities done in conformance with the 10-Year Comprehensive Strategy and Implementation Plan and identify measures to improve timely decision making.'' In addition, the hazardous fuels reduction categorical exclusion will apply only to activities identified through a collaborative framework as described in the 10-Year Comprehensive Strategy Implementation Plan.
Comment: Some respondents asked that the agencies work collaboratively with Federal and State agencies in developing proposed activities and

33823 Federal Register / Vol. 68, No. 108 / Thursday, June 5, 2003 / Notices

determining effects on wildlife resources prior to approval of specific activities.
Response: Hazardous fuels reduction activities will be identified collaboratively with governments and stakeholders, through a collaborative framework as described in 10-Year Comprehensive Strategy Implementation Plan.
Comment: Many respondents offered suggestions about Forest Service and Department of the Interior management and funding, where and how to focus hazardous fuels reduction efforts, the efficacy of various hazardous fuels treatments and post-fire rehabilitation measures, technologies for utilization of small-diameter trees, alternative fiber sources, fire suppression tactics, land acquisition, multiple-use, the President's Healthy Forests Initiative, and the 10-Year Comprehensive Strategy Implementation Plan.
Response: Respondents offered many creative and original suggestions that addressed issues beyond the proposal. The agencies provided these comments to appropriate personnel for their consideration.
Comment: Some respondents stated that the agencies should comply with Executive Order 12866 by assessing the economic costs and benefits of the initiative. Respondents say that this assessment should include the nonmarket costs of the initiative to landowners, businesses, communities, water quality, recreation, scenery, nontraditional forest products, and game.
Response: In compliance with Executive Order 12866, the agencies have determined that these categorical exclusions will not have an annual effect of $100 million or more on the economy or adversely affect productivity, competition, jobs, the environment, public health or safety, or State, Tribal, or local governments. The economic effect expected to result from this action is a reduction in the administrative burden of preparing unnecessary environmental assessments and findings of no significant impact, and benefits to the environment and nearby communities as a result of expeditious fuel reduction and post-fire rehabilitation activities. These benefits were not quantified due to the level of uncertainty associated with the amount of time saving and the number of projects that would use these categorical exclusions.

Conclusion

The USDA Forest Service and the Department of the Interior find that the categories of action defined in the categorical exclusions presented at the end of this notice do not individually or cumulatively have a significant effect on the human environment. The agencies' findings is first predicated on the reasoned expert judgment of the responsible officials who made the original findings and determinations in the hazardous fuels and fire rehabilitation projects reviewed; the resource specialists who validated the predicted effects of the reviewed activities through monitoring or

personal observation of the actual effects; synthesis of peer-reviewed scientific publications; and finally, the agencies' belief that the profile of the past hazardous fuels reduction and fire rehabilitation activities represents the agencies' past practices and is indicative of the agencies' future activities.

Regulatory Certifications

Environmental Impact

These categorical exclusions add direction to guide field employees in the USDA Forest Service and the Department of the Interior regarding procedural requirements for National Environmental Policy Act (NEPA) documentation for fire management activities. The Council on Environmental Quality does not direct agencies to prepare a NEPA analysis or document before establishing agency procedures that supplement the CEQ regulations for implementing NEPA. Agencies are required to adopt NEPA procedures that establish specific criteria for, and identification of, three classes of actions: Those that require preparation of an environmental impact statement; those that require preparation of an environmental assessment; and those that are categorically excluded from further NEPA review (40 CFR 1507.3(b)). Categorical exclusions are one part of those agency procedures, and therefore establishing categorical exclusions does not require preparation of a NEPA analysis or document. Agency NEPA procedures are internal procedural guidance to assist agencies in the fulfillment of agency responsibilities under NEPA, but are not the agency's final determination of what level of NEPA analysis is required for a particular proposed action. The requirements for establishing agency NEPA procedures are set forth at 40 CFR 1505.1 and 1507.3, and the USDA Forest Service and the Department of the Interior have provided an opportunity for public review and have consulted with the Council on Environmental Quality during the development of these categorical exclusions. The determination that establishing categorical exclusions do not require NEPA analysis and documentation has been upheld in *Heartwood, Inc.* v. *U.S. Forest Service,* 73 F. Supp. 2d 962, 972–73 (S.D. Ill.1999), aff'd, 230 F.3d 947, 954–55 (7th Cir. 2000).

Regulatory Impact

These categorical exclusions have been reviewed under Departmental procedures and Executive Order 12866 on Regulatory Planning and Review. The Office of Management and Budget (OMB) has determined that this is a significant regulatory action as defined by Executive Order 12866. Accordingly, this action is subject to OMB review under Executive Order 12866 and OMB has reviewed these categorical exclusions at both the proposed and final stages.

This action to add two categorical exclusions to the agencies' NEPA procedures will not have an annual effect of $100 million or more on the economy or adversely affect productivity, competition, jobs, the environment, public health or safety, or State, Tribal, or local governments. This action may interfere with an action taken or planned by another agency or raise new legal or policy issues. Finally, this action will not alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients of such programs.

Moreover, this action has been considered in light of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), and it is hereby certified that the categorical exclusions will not have a significant economic impact on a substantial number of small entities as defined by the act because it will not impose record-keeping requirements on them; it will not affect their competitive position in relation to large entities; and it will not affect their cash flow, liquidity, or ability to remain in the market.

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V. Unit-specific Supplemental Information (require annual revision)

1. Fire Call-up List
2. Fire Cache
3. Key Contacts
4. Cooperative Agreements

1. Fire call-up list 911

BLM Fire (dial 911 then…	800-974-2373	
MT. Harrison Lookout	208-731-8627	420-6210
Weather – Pocatello	800-877-1937	
ACE FIRE	**Phone #**	**Pager #**
Mike Santini (Fire Chief)	638-5537	
Dennis James	638-5520	878-1232
Wallace Keck (Commissioner)	824-5745	
Jodi Vincent	824-5556	
Juanita Jones	824-5595	
Tammy Jones	824-5533	
Stan Lloyd (Commissioner)	638-5543	
Randy Farley	645-2577	
Mike Mitten	638-5581	
Sam Adams	638-5559	
Tom Ottley	638-5571	
Garret Dewsnip	824-5595	
Austin Ward	824-5560	

2. Fire Cache Inventory

CIRO Fire Equipment List

Quantity	Item
1	5000 gal Water Tanker
1	250 gal slip tank
1	Fire Pack, Helmet w/ Neck guard, 1 Goggle Lens, 1 CIRO Map, 2 H2O Jug, 1 Fire Shelter
1	Fire Pack, 1 H2O Jug, 1 Fire Shelter
2	Fire Packs with 1 Fire Shelter
5	Fire Packs, Empty/ Shoulder Harness, No Belt
1	Waist Belt
3	Fire Shirt: 1Large, 4Medium, 1Small
4	Fire Shelters
12	Structure Helmet (10 With Face Shield, 2 Without)
7	Wildland Fire Helmet
19	Helmet Pad
11	Aluminum Canteen
7	Fire Pants: 1:size 38, 5:size 30x34, 1:size 30
7	Small hip Packs
4	Suspenders
2	Shovel
1	Combi Tool
3	Fire Rake
2	Wire Broom
1	McLeod
1	Swatter
6	Fire Boots: 4:size 9, 2:size 7
6	Gloves: size: Large
5	Fire Extinguisher
10	Ancient Headlamps
1	Portable water pack
1	Bag of Flags
2	Back brace
1	Roll of Do-Not-Enter Tape
12	Pails
3	Jackets: 2:size 44, 1:size 43
3	Saline Eyewash Solution Bottle
3	Antique Piss Pack (2:Rubber, 1:Metal)
1	Fire Restriction Sign

3. Key NPS Regional Contacts

Sue Husari, Regional Fire Management Officer, Pacific West Region Office, National Park Service, Oakland, CA (510) 817 - 1371

Christie Neill, Deputy Fire Management Officer, Pacific West Region Office, National Park Service, Oakland, CA (530) 621-5263

Richard Smedley, Regional Fire Planner, Pacific West Region Office, National Park Service, Vancouver, WA (360) 696-7545

Bob Appling, WUI Coordinator, Pacific West Region Office, National Park Service, Vancouver, WA (360) 696-7540

Corky Conover, Wildland Fire Specialist, Pacific West Region Office, National Park Service, Three Rivers, CA (559) 565-3129

Robin Wills, Regional Fire Ecologist, Pacific West Region Office, National Park Service, Oakland, CA (510)-817-1432

Nelson Siefkin, Fire Archaeologist, Pacific West Region Office, National Park Service, Oakland, CA. (510) 817-1502

Paul Reeberg, Fire Monitoring Program Specialist, Pacific West Region Office, National Park Service, Oakland, CA (510) 817-1372

MaryBeth Keifer, Fire Ecologist, Pacific West Region Office, National Park Service, Oakland, CA. (510) 817-1504

4. COOPERATIVE AGREEMENTS

- **MOU between CIRO/CRSP and ACE Rural Fire Protection District**
- **SCIIDC Interagency Agreement and 2005 Operations Plan**

MEMORANDUM OF AGREEMENT
AND OPERATIONS PLAN
Between
ACE Rural Fire Protection District
And
City of Rocks National Reserve and Castle Rocks State Park
National Park Service and Idaho Department of Parks and Recreation
Almo, Idaho

I. Background and Objectives

Whereas: ACE Rural Fire Protection District[1] (hereinafter referred to as ACE Fire) is recognized, trained and equipped as the primary (or initial response) fire protection organization for wildland and structural fire in Almo and southern Cassia County, and

Whereas: City of Rocks National Reserve[2] (hereinafter referred to as CIRO) and Castle Rocks State Park[3] (hereinafter referred to as CRSP) are entities located within this fire protection district, and

Whereas: the National Park Service (NPS) and Idaho Department of Parks and Recreation can provide technical expertise and resources to ACE Fire, and ACE Fire can provide wildland fire suppression and structural fire protection to CIRO and CRSP, and

Whereas: it is within the purpose of both entities to protect human life and preserve resources,

Therefore: ACE Fire, CIRO and CRSP do willingly enter into this mutual aid agreement and operating plan.

II. Statement of Work and Responsibilities

To satisfy this agreement:

A. CIRO and CRSP agree to:

1. Notify ACE Fire immediately of all threatening wildfire incidents originating within or adjacent to CIRO and CRSP by contacting the Cassia County Sheriff Department by calling 911.
2. Designate and assign a CIRO or CRSP resource advisor for ACE Fire to communicate fire location, fire behavior, status of visitor protection, and interpretation of department resource policies and procedures.

[1] ACE Rural Fire Protection District Map (Attachment A)
[2] City of Rocks National Reserve Map (Attachment B)
[3] Castle Rocks State Park Map (Attachment C)

3. Assist ACE Fire in developing a fire education and prevention outreach program, and coordinate these efforts with CIRO and CRSP resource protection and interpretation goals.
4. Coordinate National Park Service rural assistance grant applications for ACE Fire.
5. Join the ACE Fire Rural Protection District and pay annual membership dues as established for all members.
6. Provide requested copies of the CIRO Fire Plan, and ensure that ACE Fire possesses any revisions or additions.
7. Contribute to ACE Fire the CIRO water tender if requested, and as available.

B. ACE Fire agrees to:

1. Respond to structural or wildland fire originating in or adjacent to CIRO and CRSP within the ACE Fire District.
2. Notify CIRO Superintendent at 824-5519 x. 101 (office) or 824-5745 (home) of any reported fires or suppression responses made by ACE Fire if CIRO or CRSP did not initiate the request for assistance.
3. Coordinate fire suppression techniques with CIRO or CRSP resource advisor before taking aggressive action.
4. Adhere to the policies, goals and objectives of the CIRO Fire Plan when suppressing fire within City of Rocks National Reserve.
5. Respond at no reimbursement cost for first four hours of response.
6. Yield to the South Central Idaho Interagency Dispatch Center incident commander as soon as he or she requests command, at which point this agreement shall be superseded for the duration of the incident.
7. Take the lead role, and work cooperatively with CIRO and CRSP in developing a fire education and prevention program for the district.

III. Terms of the Agreement:

A. Nothing in this MOA shall be construed as obligating either party to this agreement to expend funds or resources beyond what each are willing and able to contribute.
B. This agreement supersedes all previous agreements between City of Rocks National Reserve and ACE Fire.
C. Either party may terminate this agreement after 30 days written notice to the other party of its intent to terminate.
D. This MOA becomes effective upon the date both parties have signed, and shall transpire September 30, 2010, if not renewed.

IV. Article IV. Key Officials

1. Wallace Keck, Park Superintendent/Manager, CIRO and CRSP
   P.O Box 169
   Almo, ID 83312
   208-824-5519 x. 101

2. Jodi Vincent, Park Ranger/Fire Program Manager, CIRO and CRSP
   P.O. Box 169

Almo, ID 83312
208-824-5519 x. 101

3. Mike Santini, ACE Fire Rural Protection District Fire Board Chair and Fire Chief
Elba, ID 83342
208-638-5537

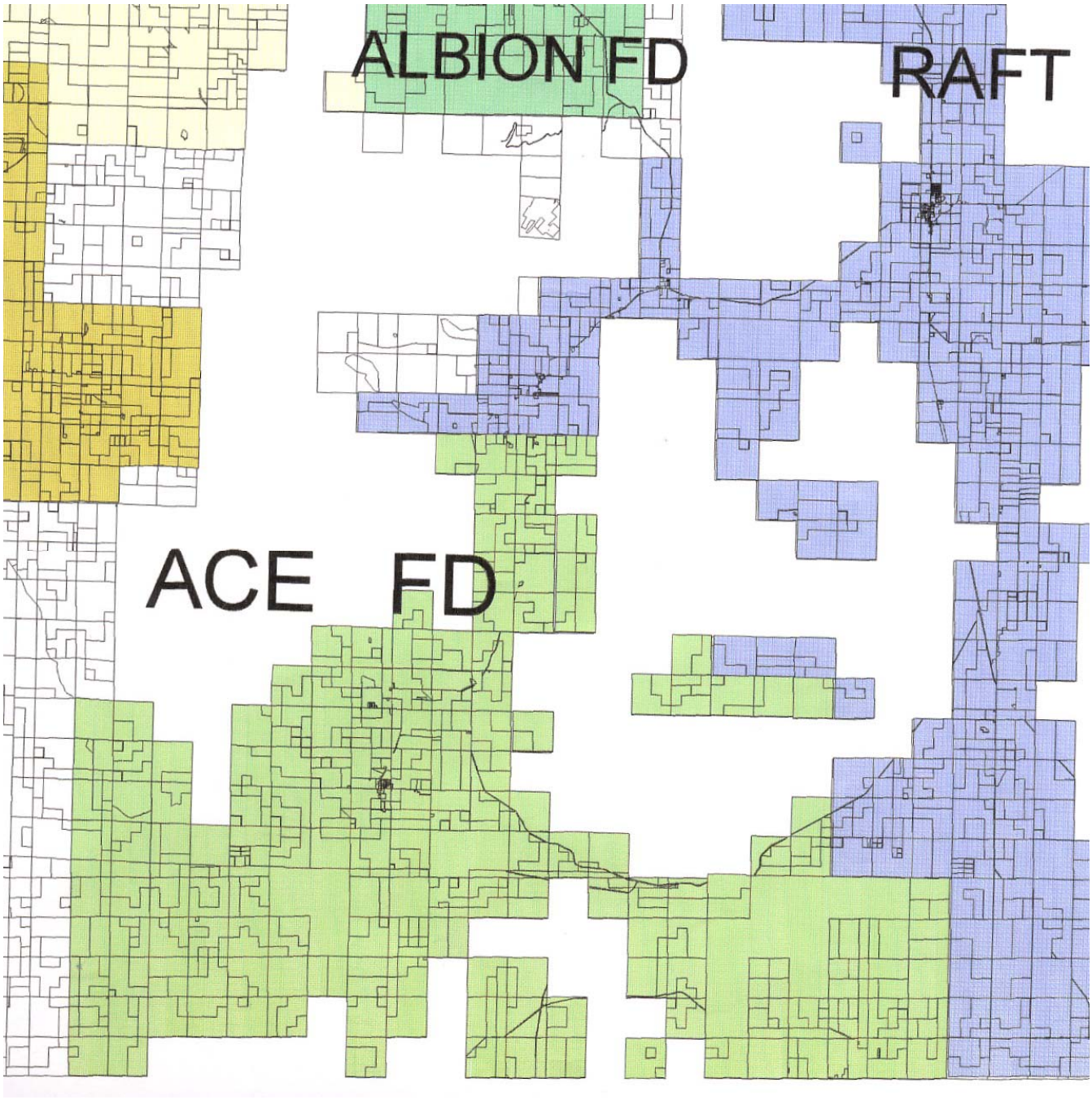
Article V. Authorizing Signatures

1. _____ Date 9/7/05
Wallace Keck, Park Superintendent/Manager
City of Rocks National Reserve and Castle Rocks State Park

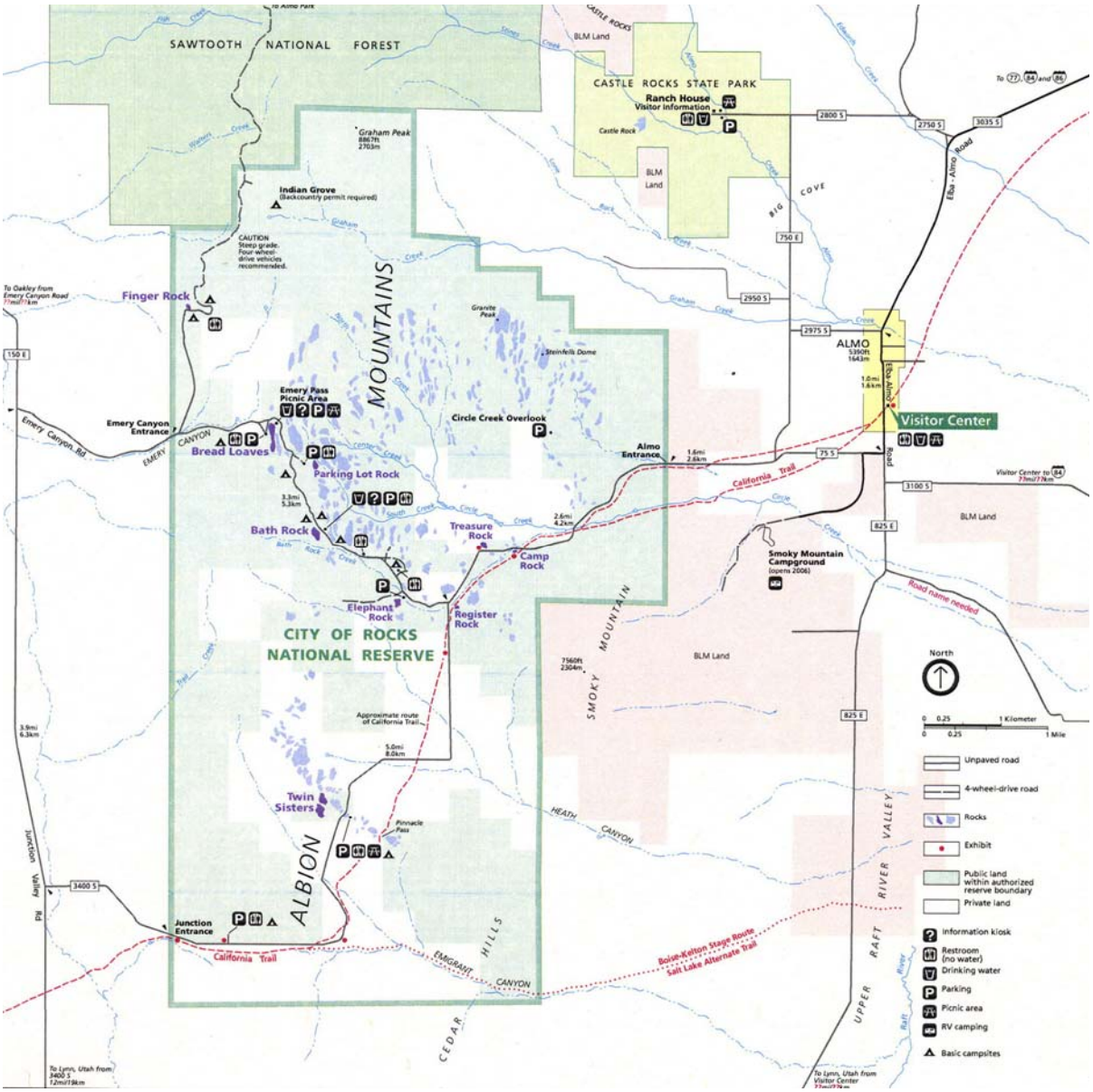
2. _____ Date 9-7-05
Mike Santini, Commissioner and Fire Chief
ACE Rural Fire Protection District

3. _____ Date 9/7/05
Stan Lloyd, Board Commissioner
ACE Rural Fire Protection District

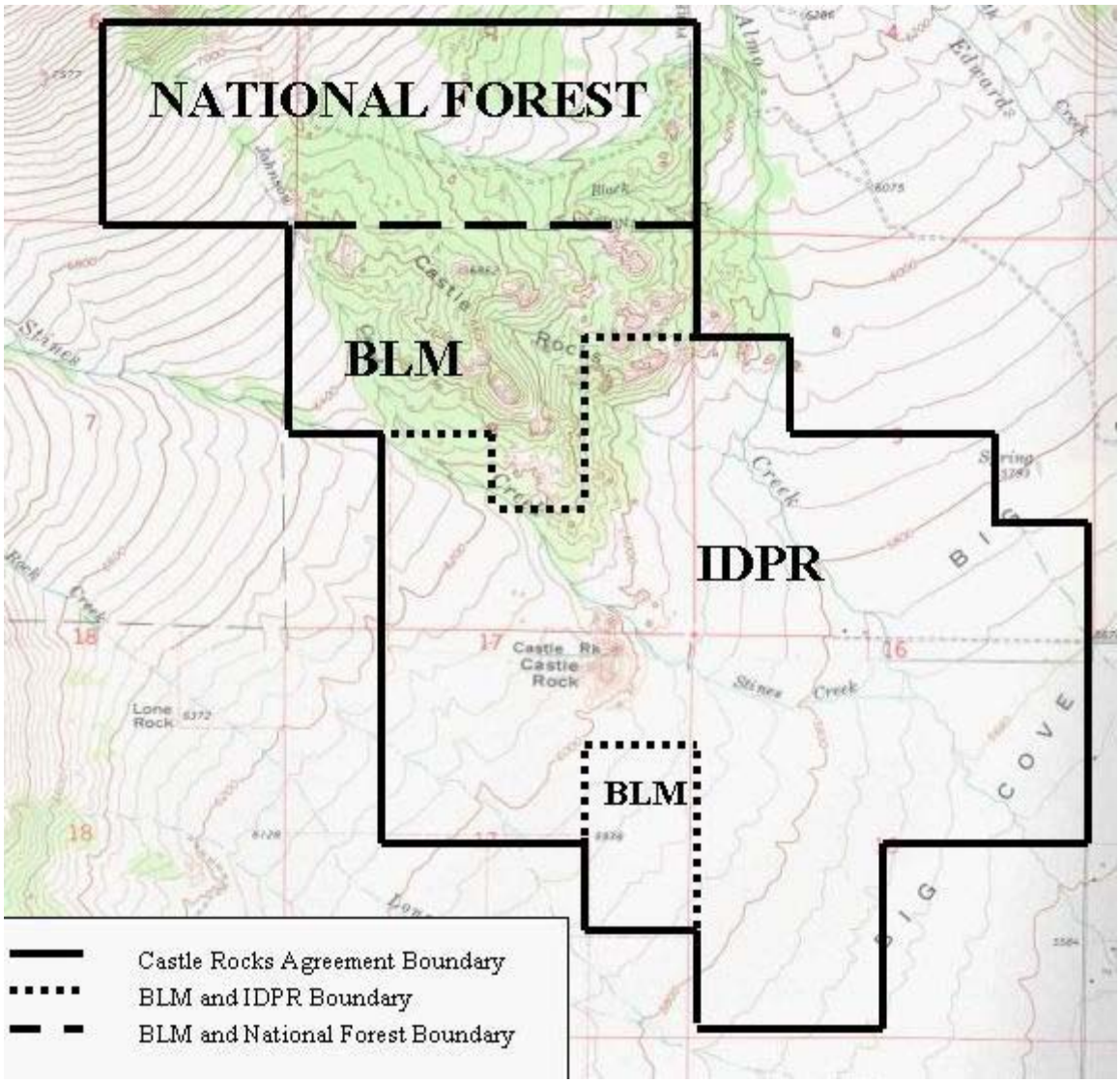
Attachment A: ACE Rural Fire Protection District Map



Attachment B: City of Rocks National Reserve Map



Attachment C: Castle Rocks State Park Map



SOUTH CENTRAL IDAHO INTERAGENCY DISPATCH CENTER
INTERAGENCY AGREEMENT (IA)
BETWEEN
USDI-BUREAU OF LAND MANAGEMENT (BLM)-UPPER SNAKE RIVER DISTRICT, SOUTH CENTRAL IDAHO AREA FIRE PROGRAM
USDI-NATIONAL PARK SERVICE (NPS)-CRATERS OF THE MOON & FOSSIL BEDS/MINIDOKA INTERNMENT NATIONAL MONUMENT
USDI-US FISH AND WILDLIFE SERVICE (FWS)-HAGERMAN NATIONAL FISH HATCHERY, MINIDOKA WILDLIFE REFUGEE
STATE OF IDAHO-IDAHO DEPARTMENT OF LANDS (IDL), IDAHO DEPARTMENT OF PARKS AND RECREATION
AND
USDA-FOREST SERVICE (USFS)
SAWTOOTH NATIONAL FOREST

This Interagency Agreement is entered into by and between the Unites States Department of Agriculture, Forest Service, Sawtooth National Forest, hereinafter referred to as the FS; the United States Department of Interior, Bureau of Land Management, Upper Snake River District, South Central Idaho Fire Program hereinafter referred to as BLM, United States Department of Interior, National Park Service, Craters of the Moon National Monument and the Hagerman Fossil Beds/Minidoka Internment National Monument hereinafter referred to as NPS; the United States Department of Interior, US Fish and Wildlife Service, Hagerman National Fish Hatchery, and the Minidoka National Wildfire Refugee hereinafter referred to as FWS; State of Idaho, Idaho Department of Lands, South Central Area, the Idaho Department of Parks and Recreation, Malad George State Park, City of Rocks National Reserve, Lake Walcott State Park herein after referred to as IDL.

I. PURPOSE

Maintain a method for coordinated dispatch, aviation and fire business management between and among the Forest Service, BLM, NPS, FWS, IDL and IDPR to reduce duplication of effort and cost among and between said agencies by ensuring that a single system exists for establishing, implementing and maintaining these functions. This system provides economic benefits by more effective and efficient fire and aviation management practices. This will help maintain employee safety during wildland fire suppression and related activities.

II. AUTHORITY

This Agreement is entered into under the authorities of:

***1997 Interagency Agreement for Fire Management between the Bureau of Land Management, Bureau of Indian Affairs, National Park Service and US Fish and Wildlife Service of the United States Department of the Interior and the Forest Service, Department of Agriculture.**

***Economy Act of June 30, 1932 as amended (31 U.S.C. 1535)**

***Federal Land Policy and Management Act of 1976 (43 U.S.C. 1737, 90 U.S.C. 2743)**

***Granger Thye Act, April 24, 1950, as amended (16 U.S.C. 572c)**

***Reciprocal Fire Protection Act, May 27, 1955 (41 U.S.C. 1856, 69 U.S.C. 66)**

***Disaster Relief Act, May 22, 1974 (42 U.S.C. 1521, 88 U.S.C. 143).**

III. STATEMENT OF MUTUAL BENEFITS AND INTERESTS:

All federal and state wildland fire management agencies are required to provide for protection of the resources within their jurisdiction from fire. These agencies must be ready to come to the aid of their respective field units during wildfire suppression and other emergencies. It is of mutual benefit to all parties of this agreement to cooperate and share in the coordination of initial attack, mobilization and demobilization of equipment and personnel to aid field units during non-fire emergencies. All agencies party to this agreement will maintain agreements with one another to provide for cooperative support of incident management.

It is mutually beneficial for all parties of this agreement to:

1. Promote interagency activities and fire management practices in protecting natural resource from fire;

2. Participate in interagency fire readiness and suppression efforts;

3. Implement, to the fullest extent possible, terms of existing agreements between cooperators for support or management of incidents and related activities.

IN CONSIDERATION OF THE ABOVE PREMISES, THE PARTIES AGREE AS FOLLOWS:

The coordination system will:

A. Provide uniformity of logistical communication, including intelligence data, and dispatching and coordination procedures among and between the Agencies by:

*Identifying, positioning, and utilizing established incident resources to meet anticipated and existing fire protection and management needs through the use of Closest available resources regardless of location and agency affiliation;

*Gathering, consolidating, and redistributing intelligence for determining interagency severity and priority setting: and

*Establishing resource allocation priorities during periods of competition or depletion of resources through a Multi-Agency Coordination Group (MAC).

B. Provide uniformity of Aviation Management procedures among and between the agencies by:

*Standardizing aviation operations and management procedures, where agency policy allows

*Providing oversight of aviation programs from the dispatch prospective

*Establishing and maintaining a focal point for interagency aviation dispatching

*Establishing an aviation dispatch training and safety program to meet local needs.

C. Provide uniformity of Fire Business Management practices among and between the agencies for dispatch purposes by:

*Maintaining an organization that can support incident dispatch activities in a cost-efficient and timely manner

*Collection of pre-plan contract and service agreements, for goods and services needed during emergency situations that are established by the agencies

*Establishing and maintaining consistency for dispatch use among Interagency Mutual Aid Agreements with cooperators throughout Southern Idaho

*Expediting through dispatch the procurement, payment and documentation of expenditures for goods and services needed during ongoing incidents

D. Provide uniformity of Fire Cache and warehouse practices among and between the agencies for dispatch purposes by:

*Maintaining one centralized warehouse/cache inventory system commonly used and specialist equipment and supplies throughout Southern Idaho.

*Maintaining a current and up-to-date inventory of stored items, utilizing state of the art technology.

*Maintaining a revolving inventory, acting as a receiving and distribution point for equipment and supplies for initial action and other incidents.

E. Provide uniformity of Fire Planning practices among and between the Agencies by:

*Developing the necessary data to perform individual agency Fire Economic Efficiency Analyses.

*Insuring units comply with established agency standards.

*Establish one focal point for fire planning and budget requests.

No single wild land fire management agency in the Southern Idaho Area is capable of economically operating such a system unilaterally and no private source exists for these support services.

AGREEMENT TERMS

All agencies mutually agree to:

1. Share in the cost of the facility utilized as the South Central Idaho Interagency Dispatch Center (SCIIDC) as outlined in the South Central Idaho Interagency Dispatch Center Annual Operating Plan.
2. Maintain the South Central Idaho Interagency Dispatch Center, and serve all parties to this agreement in the Southern Idaho area as defined in the "purpose" section above.
3. Ensure that SCIIDC provides dispatch coordination; daily fire weather information; local, geographic area and national situation information.
4. Financial obligations of the agencies are contingent on the availability of funds.
5. Contracting and disbursement regulations of each agency shall apply.
6. Designated fire management representatives of the agencies shall prepare and obtain approval of the SCIIDC Annual Operating Plan prior to May 15. The Annual Operating Plan shall be attached to, and become part of this agreement.
7. This agreement does not change the terms of practices contained in other fire protection agreements between said agencies or their fire cooperators.
8. The SCIIDC staff, regardless of agency affiliation, shall be supervised by the SCIIDC Manager for all matters related to the day-to-day operation of the SCIIDC. All administrative matters shall remain the responsibility of the sponsoring agency.
9. Establish a Board of Directors composed of the Agency Directors or Designees, and the SCIIDC Center Manager. The board will provide direction and oversight for the SCIIDC and interagency fire management positions. The board will approve the Centers operating plan, mobilization guide, and provide multi-agency coordination when needed.

10. Yearly cost estimates for personnel grade and time will be outlined in the yearly operating plan.

IT IS MUTUALLY AGREED

1. EFFECTIVE DATE AND INITIAL AGREEMENT TERM. This agreement is effective on the date of the last approval signature and shall remain in effect until September 30, 2008.

2. MODIFICATION. Modifications within the scope of Initial Attack shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by both parties, prior to any changes being performed. Neither party is obligated to fund any changes not properly approved in advance.

3. ACCESS TO RECORDS. All parties shall give each other or the Business Specialist, through any authorized representative, access to and the right to examine all records, papers, or documents related to the centers IA activity.

4. TERMINATION. Party(s), in writing, may terminate the IA in whole, or in part in accordance with the terms of the related leases. Any building service, utility or other space related obligation that the terminating party initiated prior to or during the lease must be canceled. Full credit shall be allowed for each partys expenses and all non-canceled obligations properly incurred up to the effective date of termination. Any expenses incurred by the terminating party prior to termination date shall be subtracted from the credit.

5. PRINCIPLE CONTACTS. The principle contacts for this IA are:

Randy Richter, FMO
USDA, Sawtooth National Forest
2647 Kimberly Road East
Twin Falls, ID 83301

Chris Simonson, FMO
USDI, Bureau of Land Management
USDI, National Park Service-CRMO
400 West F Street, P.O. Box 2B
Shoshone, ID. 83352

Lance Roberts, FMO
U.S. Fish and Wildlife Service

4425 Burley Dr. Suite A
Chubbuck, ID. 83202

Neil King
Hagerman Fossil Beds/Minidoka Internment NM
National Park Service
P.O. Box 570
Hagerman, ID. 83332-0570

Kevin Lynott, Park Manager
Malad Gorge State Park
Idaho Dept. of Parks and Rec.
P.O. Box 169

Trapper Richardson
Lake Walcott State Park
Idaho Dept. of Parks and Rec.
P.O. Box 169

Almo, ID. 83312

Wallace Keck, Park Manager
City of Rocks National Reserve
Idaho Dept. of Parks and Recreation
P.O. Box 169
Almo, ID. 83312

Chris Ketchum
Bureau Of Reclamation
Snake River Area Office-East
1359 Hansen Ave.
Burley, ID. 83318

Bryan Kenworthy, Project Leader
Hagerman National Fish Hatchery
U.S. Fish and Wildlife Service
3059 D. National Fish Hatchery Road
Hagerman, ID. 83332

Almo, ID. 83312

Tim Duffner, Area Supervisor
Idaho Department of Lands
329 Washington
Gooding, ID. 83330

Steve Boufard
Minidoka Wildlife Refuge
U.S. Fish and Wildlife Refuge
961 E Minidoka Dam
Rupert, ID. 83330

E. BILLING. Transfer of funds for operations will be in accordance with Geographical Area level agreements held at the Regional, Area and State Office level for the agencies who are members of this agreement.

F. OBLIGATIONS. Nothing herein shall be considered as obligating either party to expend or as involving the United States in any contract or other obligations for the future payment of money in excess of funding approved and made available for payment under this IA and modifications thereto.

G. This agreement in no way restricts any of the agencies from participating in similar activities with other public or private agencies, organizations and individuals.

H. Pursuant to Section 22, Title 41, United States Code, no member of, or Delegate to Congress shall be admitted to any share or part of this instrument, or any benefits that may arise there from.

IN WITNESS WHEREOF, the parties hereto have executed this Interagency Agreement as of the last date written below.

Signature Page by Agency Administrators

Attachment 5

6-10-02 Neil Farmer Date Hagerman Fossil Beds National Monument National Park Service P.O. Box 570 Hagerman, Id. 83332-0570 Telephone: (208)-837-4793 neil_farmer@FWS.gov Fax: 837-4857	04/11/02 Bryan Kenworthy Date Hagerman National Fish Hatchery U.S. Fish and Wildlife Service 3059 D, National Fish Hatchery Road Hagerman, Id. 83332 Telephone: (208)-837-4896 bryan_kenworthy@FWS.gov Fax:(208) 837-6225
4/11/02 ~~Randy Farley~~ ~~Date~~ Wallace Keck City of Rocks National Reserve Idaho Dept. of Parks and Recreation P.O. Box 169 Almo, Id. 83312 Telephone: (208)-824-5519 CIRO_Maintenance_nps.gov Fax: 824-5563	Trapper Richardson Date Lake Walcott State Park Idaho Dept. of Parks and Recreation P.O. Box 169 Almo, Id. 83312 Telephone: (208)-436-1258 wal@idpr.state.id.us Fax: 436-1268
Kevin Lynott Date Malad Gorge State Park Idaho Dept. of Parks and Recreation Rt. 1 P.O. Box 358 Hagerman, Id. 83332 Telephone: (208)-837-4505 mal@idpr.state.id.us Fax: 837-4505	4-11-02 Bryce Taylor Date Idaho Department of Lands 329 Washington Gooding, Id. 83330 Telephone: (208)-934-5606 idlsc@magiclink.com Fax: 934-5362
4/23/02 Chris Ketchum Date Bureau of Reclamation Snake River Area Offfice-East 1359 Hansen Ave. Burley, Id. 83318 Telephone: (208)-678-0461 cketchum@PN.USBR.gov Fax: 678-4321	4-11-02 Steve Bouffard for Date Minidoka Wildlife Refuge U.S. Fish and Wildlife Service 961 E Minidoka Dam Rupert, Id. 83350 Telephone: (208)-436-3589 steve_bouffard@FWS.gov Fax: (208)-436-1570

Jim Morris Date Craters of the Moon National Monument National Park Service P.O. Box 239 Arco, Id. 83213 Telephone: (208)-527-3257 jim_morrison@NPS.gov Fax: (208)-527-3073	Andy Payne Date Bureau of Land Management Upper Snake River District P.O. Box 2 B 400 West F St Shoshone, Id. 83352 andy_payne@BLM.GOV Fax: (208)-886-7327
4-11-02 Lance Roberts Date U.S. Fish and Game South East Idaho Refuge Complex 4425 Burley Dr. Suite A Chubbuck, ID 83202 Telephone: (208) 237-6616 ex.25 Lance D Roberts/SEID/R1/FWS/DOI@FWS	

FS Agreement No. 03-IA-11041430-029
BLM Agreement No. DAA010203
IA# DAI010034

South Central Idaho Interagency Dispatch Center (SCIIDC)

2005 Operating Plan

Prepared by: _____ **Date:** 5/10/05
Center Manager

Reviewed by: _____ **Date:** 4-18-05
Procurement Analyst

Approved by: _____ **Date:** 4/25/05
Contracting Officer

Approved by: *See Signature Page(s)* **Date:** _____
SCIIDC Units

THE AUTHORITY AND FORMAT OF THIS INSTRUMENT HAS BEEN REVIEWED AND APPROVED FOR SIGNATURE.

AGREEMENTS COORDINATOR 4/29/05 DATE

AS BOARD OF DIRECTORS, are in agreement with this **Annual Operating Plan** created by the South Central Idaho Interagency Dispatch Center to be used as a guide for the 2005 fire season:

Fran Gruchy Date 6/3/05 Hagerman Fossil Beds/Minidoka Internment National Monuments National Park Service PO Box 570 Hagerman, ID 83332-0570 Phone: (208) 837-4793 FAX: 837-4857 fran_gruchy@NPS.gov	**Bryan Kenworthy** Date 5/10/05 Hagerman National Fish Hatchery US Fish and Wildlife Service 3059 D National Fish Hatchery Road Hagerman, ID 83332 Phone: (208) 837-4896 FAX: 837-6225 bryan kenworthy@FWS.gov
Wallace Keck Date 5/23/05 City of Rocks National Reserve Idaho Dept. of Parks and Recreation PO Box 169 Almo, ID 83312 Phone: (208) 824-5519 FAX: 824-5563 wallace_keck@partner.NPS.gov	**Trapper Richardson** Date 5/10/05 Lake Walcott State Park Idaho Dept. of Parks and Recreation 959 East Minidoka Dam Rupert, ID 83350 Phone: (208) 436-1258 FAX: 436-1268
Lonnie Johnson 6/3/05 Date Malad Gorge State Park Idaho Dept. of Parks and Recreation 221 North State St., P.O. Box 149 Hagerman, ID 83332 Phone: (208) 837-4505 FAX: 837-4505 mal@idpr.state.id.us Date Bureau of Reclamation	**Tim Duffner** Date 5-10-05 Idaho Department of Lands 329 Washington Gooding, ID 83330 Phone: (208) 934-5606 FAX: 934-5362 ~~idlsc@magiclink.com~~ tduffner@idl.state.id.us
~~Ryan Newman~~ Chris Ketchum Date 6/5/05 Snake River Area Office - East B.O.R. 1359 Hansen Ave. Burley, ID 83318 Phone: (208) 678-0461 FAX: 678-4321 cketchum@PN.USBR.gov	**Steve Boufard** Date 5-10-05 US Fish and Wildlife Service 961 E Minidoka Dam Rupert, ID 83350 Phone: (208) 436-3589 FAX: 436-1570 steve boufard@FWS.gov
for **Jim Morris** Date 5/10/05 Craters of the Moon National Monument National Park Service PO Box 239 Arco, ID 83213 Phone: (208) 527-3257 FAX: 527-3073 jim morrison@NPS.gov	**Chris Simonson** Date 5/10/05 Bureau of Land Management Twin Falls District PO Box 2-B 400 West F Street Shoshone, ID 83352 Phone: (208) 732-7224 FAX: 732-7327 chris_simonson@blm.gov
Lance Roberts Date 5/10/05 U.S. Fish and Wildlife Service S.E. Idaho Refuge Complex 4425 Burley Dr. Suite A Chubbuck, ID. 83202 Telephone: (208)237-6616 ex.25 Lance D Roberts/SEID/R1/FWS/DOI@FWS	**Randy Richter** Date 5/12/05 U.S. Forest Service 2647 Kimberly Road P.O. Box 169 Twin Falls, Idaho 83301 Telephone (208)737-3248 RandyRichter/R4/USDAFS

-10-

SOUTH CENTRAL IDAHO INTERAGENCY DISPATCH CENTER
2005
ANNUAL OPERATING PLAN

Between

U. S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT
Twin Falls District, BLM

NATIONAL PARK SERVICE
Craters of the Moon National Monument and Preserve
Hagerman Fossil Beds National Monument
Minidoka Internment National Monument

U. S. FISH AND WILDLIFE SERVICE
Hagerman National Fish Hatchery
Minidoka National Wildlife Refuge

BUREAU OF RECLAMATION
Snake River Area Office - East

And

U.S. DEPARTMENT OF AGRICULTURE

USDA FOREST SERVICE
Sawtooth National Forest

And

THE STATE OF IDAHO

DEPARTMENT OF LANDS
South-Central Area Office

DEPARTMENT OF PARKS AND RECREATION
City of Rocks National Reserve
Castle Rocks State Park
Lake Walcott State Park
Malad Gorge State Park

I INTRODUCTION

1. Authority

This Annual Operating Plan is authorized by the Reciprocal Fire Protection Act of May 27, 1955 (42 U.S.C. 1856a); the Interagency Agreement for Fire Management between the Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service of the United States Department of the Interior and the Forest Service of the United States Department of Agriculture (Reference Number 97-SIA-004, dated 02/20/1997); the Cooperative Fire Protection Agreement between Bureau of Land Management-Idaho, National Park Service-Pacific West Region, the Bureau of Indian Affairs-Portland Area, U. S. Fish and Wildlife Service-Pacific Region of the United States Department of the Interior and Forest Service-Pacific Northwest-Intermountain and Northern Regions of the United States Department of Agriculture, and the State of Idaho Department of Lands (Reference Number BLM #DAA010203, dated 09/29/01); the Mutual Aid Agreement between the Bureau of Land Management, Upper Snake River District and the City of Rocks National Reserve; the Cooperative Fire Protection Agreement between the Bureau of Land Management and Bureau of Reclamation for cooperative fire protection of reclamation withdrawn and acquired land located outside Bureau of Land Management boundaries but within established fire protection districts (Reference ID # 48, dated 1955); and the Mutual Aid Agreement between the Bureau of Land Management, Upper Snake River District and the Malad Gorge State Park.

2. Purpose and Scope

The purpose of this plan is to coordinate the wildland fire, aviation, and non-fire logistical functions of the State of Idaho, Department of Lands {South-Central Area Office} and Department of Parks & Recreation {City of Rocks National Reserve, Lake Walcott State Park, and Malad Gorge State Park}; the U. S. Department of the Interior, National Park Service {Craters of the Moon National Monument and Preserve, Hagerman Fossil Beds and Minidoka Internment National Monuments}; U. S. Fish & Wildlife Service {Hagerman National Fish Hatchery and Minidoka National Wildlife Refuge}; the Bureau of Reclamation {Snake River East Area} and the Bureau of Land Management {South Central Idaho Fire Operations} and the Sawtooth National Forest, hereafter called Units. The South Central Idaho Interagency Dispatch Center (SCIIDC) is designated to dispatch fire resources and coordinate logistical non-fire activities among the Units to better utilize all resources and implement the closest forces concept.

This plan in no way curtails, supersedes, or diminishes any units responsibility or authority in operating their individual organization. Fire management program activities (i.e. individual agency fire reports, notification to entities, prescribed fires, etc.) will remain in the purview of each Unit.

3. Effective Date, Modifications and Annual Meeting

This Operating Plan becomes effective when signed. This plan will be reviewed annually to assure that all portions of the plan are current and operating as prescribed. Authority for updating and/or making minor changes, as mutually agreed upon by all parties, is delegated to, and the

responsibility of, individual agency fire staff directors. In the event a significant change is necessary, the plan will be distributed to each Units Agency Administrator for approval and signature. Each agency should retain a copy of this plan for subsequent amendments and possible clarification.

II. SCIIDC ORGANIZATIONAL INFORMATION

SCIIDC operates under the direction of an Interagency Center Manager. An organization chart for the Center is attached and is listed in the Appendix of this document (attachment 1). The Center Manager provides general direction and policy to Center personnel and is the primary contact for Center operational issues. He/she reports directly to the Chairman of the Interagency Board of Directors for SCIIDC.

The Board of Directors consists of Agency Administrators that are signatories to this document. A list of the Board of Directors and their contact information is located in the Appendix of this document (attachment 5). The Board of Directors is responsible for setting policy and facilitating major activity at SCIIDC. This document delegates authority from the Board of Directors to the Center Manager for daily operations at SCIIDC. A Multi-Agency Coordination (MAC) group will be formed during periods of increased activity or when competition for resources exists.

The Center will be staffed as needed and appropriate, seven days a week, beginning mid June through mid October. SCIIDC will be staffed 24 hours a day anytime fire personnel are in the field. If the Center is not staffed, a dispatcher will be on call from April 1 through the end of the fire season.

The following documents provide the day-to-day direction of the SCIIDC in all of its operational phases. These documents are on file in the Center and can be reviewed by request.

National, Great Basin, and SCIIDC Mobilization Guides: will serve as guidance for the Center's daily operations.

Interagency Preparedness Plan: will establish levels of preparedness/readiness for the existing and potential situations, dictated by burning conditions, fire activity and resource availability.

WildCAD/Pre-Dispatch Plan: will be utilized to insure proper action is initiated for initial attack response to wildland fires. The Pre-Dispatch Plan consists of two sections. The first portion of the plan consists of the WildCAD Run Cards which are broken down by Dispatch Response Areas in which they list the specific type and amount of resources that will be dispatched to the fire in accordance with the terrain and daily fire danger rating. The second portion of the document consists of the Suppression Guidance/Constraints that will be relayed from the Center to the Incident Commander of the appropriate suppression management actions and limitations on specific properties within the Interagency Response Area. This plan will be revised, updated and approved annually by resource managers and the Board Of Directors.

Service and Supply Plan: will be utilized to insure correct procurement of supplies and rental of equipment for fire support activities occurring at SCIIDC. Respective units agency policies and procedures will be adhered to.

Incident Business Administration Operating Plan: will provide all incident support activities with telephone numbers to ensure 24-hour business management service and work in coordination with all respective agencies. This plan will be revised, updated annually.

Expanded Dispatch Plan: will be utilized during periods of multiple/large fire activity and extended operations.

III. AREAS OF RESPONSIBILITY AND PROCEDURES

1. Coordination/Logistical Support
   The primary function of SCIIDC is to provide cost-effective and timely coordination of emergency response and services to incidents. All incidents threatening or occurring on the lands managed by the aforementioned units will be coordinated through SCIIDC. These lands include public lands under cooperative agreements or contracts and land exchanges, including but not limited to, federal, state, and private ownership.

2. Mobilization of Resources
   Mobilization of Overhead for respective units will be coordinated through SCIIDC. Center Staff will maintain a data base of qualified overhead. The respective units are required to keep SCIIDC advised of the availability of resources and personnel for on/off unit assignments.

3. Fire Suppression Protection Responsibilities
   All the participating Units agree to provide suppression response based on a closest forces concept, which will not diminish their ability to meet their own jurisdictional responsibilities. All cooperating Units agree to respond to fires as their resources allow within at least one mile of their protection boundary. Initial Attack (IA) and Protection areas as outlined in Mutual Aid/Cooperative Agreements are depicted on the attached Map (attachment 2). The BLM agrees to provide supporting suppression resources to any of the participating Units on a reimbursable basis as appropriate.

4. Fire Suppression Procedures
   Prompt and efficient initial attack shall be made on all fires in accordance with this operating plan. The closest available initial attack forces will be dispatched to the incident regardless of jurisdiction.

   Each Unit will provide an Incident Commander, Resource Advisor, AND/OR Point of Contact for any fire which occurs within its jurisdiction.

   During the initial response to a fire, the first qualified fire personnel on scene will serve as the Initial Attack Incident Commander (ICT5 or ICT4). Upon arrival, the IC will contact SCIIDC and describe the situation, providing initial size up information using the "size-up card" (attachment 3). The Incident Commander will remain in charge until relieved of duties.

   Upon notification of incident size-up information, SCIIDC will act as the service center to fill the

needs of the incident. Center personnel will ensure that the appropriate agency personnel are notified of the incident and other notifications necessary are completed.

5. Search & Rescue Procedures

The individual County Sheriffs are responsible for Search and Rescue efforts within their jurisdiction, regardless of land ownership. When requested, SCIIDC will assist in these efforts with approval from the Field Manager, District Manager, or other Agency Administrator, or his/her delegated authorities.

6. Resource Ordering and Status

Daily Resource Availability Reports will be transmitted to SCIIDC by 1000 hours. When a status change occurs with a unit's fire resources that may impact other units, SCIIDC should be notified as soon as possible. If a unit is responding to a fire on or within their response zone, the Center should be notified immediately.

SCIIDC will send a location summary of all units in the area by 1100 hours each day. If significant changes occur the summary will be updated.

All resource orders from EGBCC or other Centers outside of local agreements will be processed through SCIIDC. SCIIDC will notify the affected units of the incoming resource orders to facilitate filling the orders in a timely manner. All resource orders from EGBCC will be distributed as equally as possible. Consultation with each affected unit's Fire Management Staff will determine whether a particular unit can/will contribute to filling a resource order.

Overhead resource orders will be filled based upon the individual unit's ability to fill the order. Overhead resource orders will be filled and processed in the same manner as standard resource orders.

Agency resource or supply orders used for an ongoing fire, and those going directly to a fire, will be ordered through SCIIDC and will be filled by the nearest source of supply. SCIIDC will attempt to fill orders through the local initial attack caches. Type 1 and Type 2 teams will order supplies and equipment direct from the Geographical Area Support Cache in Boise.

All non-fire orders and restocking orders will be processed by the separate units according to their individual policies and the Great Basin Mob Guide. The BLM Fire Cache in Shoshone will have the ability to process and fill orders for other SCIIDC units who maintain satellite caches. The BLM Shoshone Cache will facilitate these orders through the Great Basin Cache in Boise.

7. Incident Situation Reporting/General Fire Intelligence

SCIIDC will transmit a daily cumulative list of available resources from all units to the Eastern Great Basin Coordination Center (EGBCC). Units will send the Daily Situation Report to SCIIDC one-half hour before the report is due into EGBCC. (This will be established on a yearly basis.) If no report is received by SCIIDC by the prescribed time, SCIIDC will report the units previous days

resource status.

All Situation Reports will be processed through SCIIDC unless otherwise directed or negotiated.

SCIIDC will serve as an information service center for field units. Center personnel will keep all Units advised on local weather conditions; local, geographical, and situation information, resources status, and historical incident information.

8. Communications
The IRAC/FCC Regulations and specific agency guidelines dictate a prescribed format be followed to acquire approval for interagency use of allocated radio frequencies. Signature of the Unit Administrator is required authorizing use of the frequencies on initial attack and sustained attack responses. Signature to this annual operating plan serves as this authorization.

9. Aviation Management and Coordination
All Aviation Management functions remain with the individual units. SCIIDC will be responsible for flight following all aircraft in-flight to and from incidents or bases. When an aircraft arrives at the incident, flight following will become the responsibility of the incident until it leaves the incident, whereby SCIIDC will again resume flight following (positive hand-off will be documented by SCIIDC).

All tactical flight requests including scheduling, ordering, and flight following will be coordinated through SCIIDC. All administrative flights will be coordinated through the unit aviation officer. Air tankers, fixed wing, helicopters and other aviation resources will be used in accordance with the jurisdictional unit's policy. If aerial reconnaissance flights are planned by units in the mutual response area, that unit will coordinate the activities through SCIIDC (SEE IDAHO BOUNDARY PLAN).

10. Fire Restrictions/Closure(s) and Smoke Management
Fire restrictions and closures procedures for State and Federal entities are outlined in the *Operating Plan for the Implementation of Fire Restrictions/Closures in Idaho.* All Units are represented by the plan and adhere to the requirements.

The requirements and procedures of State and Federal entities for Smoke Management within Idaho are outlined in the *Montana/Idaho Airshed Plan*. All units will report a proposed prescribed fire to SCIIDC by 1000 hours the day prior to the burn and will notify SCIIDC of any management ignitions, which may impact the Class I Airshed.

IV. FUNDING

Fixed Cost operating expenses for SCIIDC will be shared between the Agencies as follows:

DISPATCH CENTER

BLM Twin Falls District	50%	$ 2,500.00
USFS Sawtooth National Forest	40%	$ *
NPS Craters/Fossil Beds/Internment Camp	.06%	$ 30.00
F&WL Hagerman Fish Hatchery and Minidoka Wildlife Refuge	2%	$ 100.00
BRL Snake River Area Office East	.04%	$ 20.00
State of Idaho Department of Lands Parks and Recreation	7%	$ 350.00
Operations Costs		$ 5,000.00

Building Lease –	TFD	$18,000.00
	SNF	12,000.00

TFD and SNF will pay the full cost of the building lease through the Idaho Department of Lands held lease for the facility, other Agency sharing will be applied to the fixed operating costs of SCIIDC.

*SNF will provide operations supplies directly to SCIIDC

Total SCIIDC Budget (including salaries) **495,853.00**

Detailed Budget Attached

Suppression Fire Numbers will cover all legitimate re-stock expenses incurred by SCIIDC through the Cache, EERA and Supply operations.

The procedures below are for tracking all operational costs;

1. Establish a resource order to track local inventory re-supply, SCIIDC and Cache expenses charged to Government Credit Card and Purchase Orders (PO). Each category will be coded on the resource order or PO for tracking.

2. Maintain a credit card log for all items and purchases.

3. Track each incident and associated costs on a spreadsheet, such as I-Suite, to maintain accountability.

SOUTH CENTRAL IDAHO INTERAGENCY DISPATCH CENTER
FY 2005 BUDGET

DIRECT COSTS BREAKDOWN BY AGENCY	BLM	USFS	STATE	NPS	FWS	BOR
PERSONAL:						
Cntr Mgr, PFT GS-11	70,146					
Asst. Cntr MGR, PFT GS-9	56,558					
Asst. Cntr MGR, PFT GS-9		56,558				
IA/Av. Disp., CS GS-7	45,467					
IA Disp./Cache, CS GS-5	20,100					
IA Lead Disp., CS GS-7	45,457					
IA Disp., CS GS-5		32,000				
IA Disp., Temp. GS-4		10,000				
IA Disp., Temp. GS-3	7,100					
IA Disp. GS-2	6,500					
IA Nite Disp., Temp. GS-4						
Logistics Disp., CS GS-7	45,467					
Intell Disp., PFT GS-7						
Receptionist., STEP GS-3		8,000				
STAFFING Total	296,795	106,558				
LEASE	18,000	12,000				
EQUIPMENT/SUPPLIES						
Telephones & Data Lines	12,500	7,500				
Dispatch Equipment	5,000					
Radios	2,500					
ADP Equipment	3,000					
Office Supplies	2,000					
Vehicle Costs	4,000	4,000				
Equip / Supp Total	29,000	11,500				
Training/	2,500	1,500				
Travel/Per Diem	12,000	6,000				
Total Train / Travel	14,500	7,500				
GRAND TOTAL	358,295	137,558				

-9-

VI. Pre-attack Information

1. Draft Delegation of Authority

City of Rocks National Reserve

LIMITED DELEGATION of AUTHORITY

Date:

To: _____. Incident Commander, _____Fire

From: Superintendent, City of Rocks National Reserve

Subject: Delegation of Authority for Fire Suppression

As Superintendent, I am responsible to protect the site's resources and the lives of its visitors and employees. Your expertise in management of fires will assist me in fulfilling that responsibility during the present emergency situation.

By means of this memorandum I delegate to you the authority to carry out control of the fire or complex of fires named above in accordance with Department of Interior and Park Service policy and guidelines provided in the Agency Administrator's briefing and the wildland fire situation analysis. These documents will provide you with information on the current situation, management objectives and priorities, and constraints necessary to protect the site's resources. You will find additional guidelines, concerns and constraints, if any, attached. A list of personnel assigned to assist you and of facilities available for use is attached.

Upon the arrival of the entire team, I will conduct an onsite briefing for you and your overhead organization. The local fire bosses will also conduct a fire line briefing for you and your staff.

Additional considerations follow.

1. Your first priority at all times is safety of firefighters and the public.

2. My Agency Advisor for you is _____
whose title is _____
He/she has full authority to act for me in my absence.

3. My Resource Advisor for you is_____
whose title is _____

4. Consistent with the suppression strategy, minimize environmental impacts. Use natural barriers and cold trail when possible. Avoid opening corridors along trails. Cut stumps to ground level, and remove trash from firelines daily. If not already addressed, specific needs for rehabilitation will be identified.

5. Emergency funds are available, but you should be prepared to make full explanation and provide accountability for any and all expenditures.

6. Dozers and all-terrain or off-road vehicles shall not be used without specific authorization except for a threat to life and habitable or historic structures. Use of aircraft, power saws and pumps, and generators are authorized as needed.

7. Please try to minimize impacts on site visitors and neighbors.

8. I expect you to assume management of the fire by this time:_____.

9. Office of Aircraft Services certified aircraft may be used within the constraints of Department of Interior policy.

10. All firelines will be rehabilitated, according to NPS policy and plans approved by my Resource Advisor.

11. Manage the fire with minimum disruption to visitor access and site operations, consistent with public safety. You may close areas if necessary for public safety by authority of 36 CFR. You must notify me to implementing any closure.

12. The use of environmentally compatible retardant must be approved by the Superintendent, and may not be where the potential exists for contact with the granite spires and monoliths.

13. Incident base, staging areas, helispots, and camp operations will be confined to:
_____
_____

14. Public information must be closely coordinated with the Unit Manager. The Unit Manager for this Incident is _____, whose telephone number is _____.

15. Notify me of any threats to life or property as soon as possible.

16. Emergency suppression funding is available, and all requests for resources should be forwarded to the Pacific West Regional Office Fire Management Officer, Sue Husari at (510) 817-1371.

17. Provide training opportunities for personnel when possible to strengthen our organizational capabilities.

18. A close-out fire analysis and evaluation will be conducted by me or my representative prior to the Incident team departure. I request a 24 hour advance notice of the meeting.

19. Key resource constraints are:
a. _____
b. _____
c. _____
d. _____

20. Cultural features requiring priority protection are:
a. _____
b. _____
c. _____
d. _____

21. A determination will be made as to the necessity of rehabilitation of burned areas. If it is determined that rehabilitation of burned areas is necessary then a Burned Areas Emergency Rehabilitation report will be prepared for both short and long term rehabilitation requirements. This report will be submitted within 24 hours of control of the fire.

_____ _____
Superintendent Date

_____ _____
Incident Commander Date

2. Pre-attack planning checklist

PRE-ATTACK PLANNING CHECKLIST

COMMAND
Pre-attack WFSA (if appropriate)
Pre-positioning needs
Draft delegation of authority
Management constraints
Interagency agreements
Evacuation procedures
Structural protection needs
Closure procedures

OPERATIONS
Helispot, helibase locations
Flight routes, restrictions
Water sources
Control line locations
Natural barriers
Safety Zones
Staging area locations

LOGISTICS
ICP, base, camp locations
Road, trails (including limitations)
Utilities
Medical facilities
Stores, restaurants, service stations
Transportation resources location
Rental equipment sources (by type)
Construction contractors
Sanitary facilities
Police, fire departments
Communications (radio, telephone)
Sanitary landfills
Portable water sources
Maintenance facilities

PLANNING
Park base map
Topographic maps
Infrared imagery
Vegetation/fuel maps
Hazard locations (ground and aerial)
Archeological/cultural base map
Endangered species critical habitats
Sensitive plant populations
Special visitor use area
Land status

City of Rocks National Reserve

Wildland Fire Pre-Attack Plan

July 2005

Table of Contents

Pre-Attack Plan

Command

Delegation of Authority
The chain of command for City of Rocks National Reserve is as follows:

(1) Wallace Keck, Park Superintendent
(2) Venna Ward, Assistant Park Manager
(3) Randy Farley, Chief of Maintenance
(4) Brad Shilling, Climbing Ranger
(5) Juanita Jones, Chief of Visitor Services
(6) Jodi Vincent, Chief of Natural Resources

If the park superintendent is out-of-park, the on-site decision authority is automatically delegated to the Assistant park Manager, and so forth. In the event of a fire, it is understood that the Chief of Natural Resources is the primary resource advisor to the incident commander after the park superintendent (or whomever is acting superintendent at the moment).

Interagency Agreements
Refer to the Interagency Agreement between CIRO and ACE Fire, September 7, 2005 found on page 100.

Management Constraints
Refer to the Fire Plan for specific management constraints

Evacuation Procedures/Closure Procedures

In the event that City of Rocks National Reserve needs to be evacuated, the following are recommended procedures. Note however that these are only recommendations and that the specifics are flexible based on the situation, and that Incident Command(IC) may well be forced to formulate different, site specific evacuation procedures.

Persons equipped with radios and who are very familiar with the campgrounds, roads and trail network of City of Rocks are dispatched to perform the sweep. These persons may be City of Rocks staff, Cassia County Sheriff deputies, or members of the local Quick Response Units. Another source of personnel may be City of Rocks "regulars" such as climbers known to park staff who have extensive knowledge of the trails of the City. It is important that those who are selected to clear the trails must be physically capable of doing so quickly and safely. Less fit persons should sweep the roads and campsites, or assume roles as guards at the closure points. The location of the start of the sweep is dependent on the specific cause of the evacuation. Closure signs and or guards are established at all entrances, Circle Creek Overlook turnoff, and the intersection of Emery

Canyon road and Twin Sisters road (*See map below of road closure points and trail locations*). The actual "Sweep" procedure includes making contact with evacuees, informing them of the situation, and waiting until they have left. The "Sweeper" does not leave evacuees behind. If there is a substantial delay involved with a particular evacuee or group of evacuees, the "Sweeper" uses their radio to solicit help with that portion of the sweep.

The following sequence is the preferred pattern of evacuation if circumstances allow and sufficient personnel are available (8 to 10 persons).

From the northwest entrance, moving east (downhill):

1. Place closure notice and guard at intersection of Emery Canyon Road and Oakley Road.
2. Place closure notice and guard at intersection of Logger Springs Road.
3. One, two person team proceeds to Graham Peak boundary, being sure to check the upper access point of the Indian Grove area. If vehicles are found at this point one person sweeps Indian Grove, the Sky Line Connection trail and then continues down the Upper North Fork to rendezvous at the Emery Canyon Well. Note that USDA Forest Service land including Almo Park and Cache Peak may need to be evacuated as well as the City of Rocks and that sweep may have to be extended beyond the boundaries. Persons who are missed by sweep coming out of Logger Springs will be directed out of the Reserve by the signs and guards at the Logger Springs/Emery Road intersection.

4. One person sweeps Bread Loaves parking, the adjoining campsites and Teakettle Trail, to be picked up at Tea Kettle Springs or Elephant Rock. Again, the sweep may be extended beyond the boundaries if there is concern about persons (or livestock) to the west in Trail Canyon.

5. From Emery Canyon Well, two people head up the North Fork Circle Creek (NFCC) trail. One of these splits off and begins to sweep the upper South Fork Circle Creek (SFCC) staying west of Window Rock to rendezvous at Parking Lot Rock Parking Area, while the other continues up the NFCC trail. This person will coordinate with the person who came down out of Indian Grove. If deemed necessary by IC, one of these people will sweep Graham Creek Road.

6. Continuing east, sweep the campground and Bread Loaves East Side trails.

7. Three persons check Parking Lot Rock area, two of these sweep Window Rock east, Buzzard Perch, Rabbit Rock east, Parking Lot east. One heads down Creek Side Towers trail, the other continues down the SFCC trail.

8. Bath Rock is a logical place to regroup. Check the Bath Rock Trail, and the surrounding campsites. One person then descends stairways trail and co-ordinates with the person who swept the upper SFCC, meeting at the intersection of stairways and the SFCC. Together they move to Slabbage Patch/Bumblie Wall

area, where they split up, one person heading over the pass by Bumblie Wall to sweep the Center Fork Circle Creek/Lost Arrow/No Start Wall, Mushroom Rock vicinity. This person also checks the Trail to Stripe Rock where they co-ordinate with the person who came down the NFCC at the Stripe Rock/NFCC trails intersection.

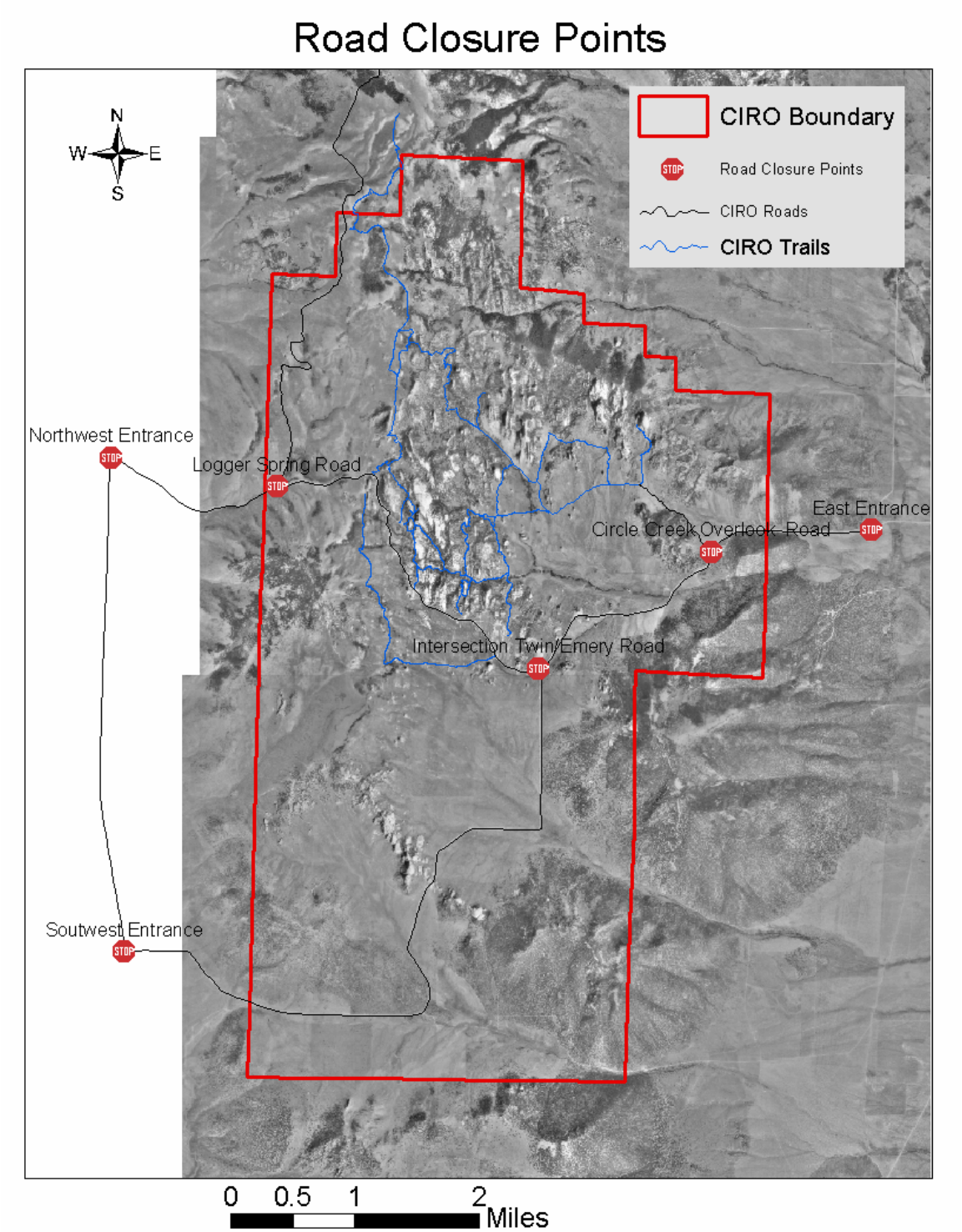
9. These two proceed together to the turn-off to White Wall, Site 18 and Geo-Watt. One person clears these areas and continues to Circle Creek Overlook (CCOL). The other follows the main NFCC roads, clearing Building Blocks in route to CCOL. Note that if the service road to Stripe Rock/Tahitian wall is passable and if sufficient personnel are available, a vehicle could meet this team at Tahitian Wall. If unaccounted vehicles remain at CCOL, Jackson's Thumb/Stienfell's Dome area may require sweep.

10. The SFCC sweeper continues past Bumblie Wall, clears the Transformer Corridor and proceeds to Box top trail intersection. This person then heads north on Box top trail to the intersection with Stripe Rock loop-thus completing the Center Fork sweep. Finally, Box top trail is cleared all the way to the Box top trail head.

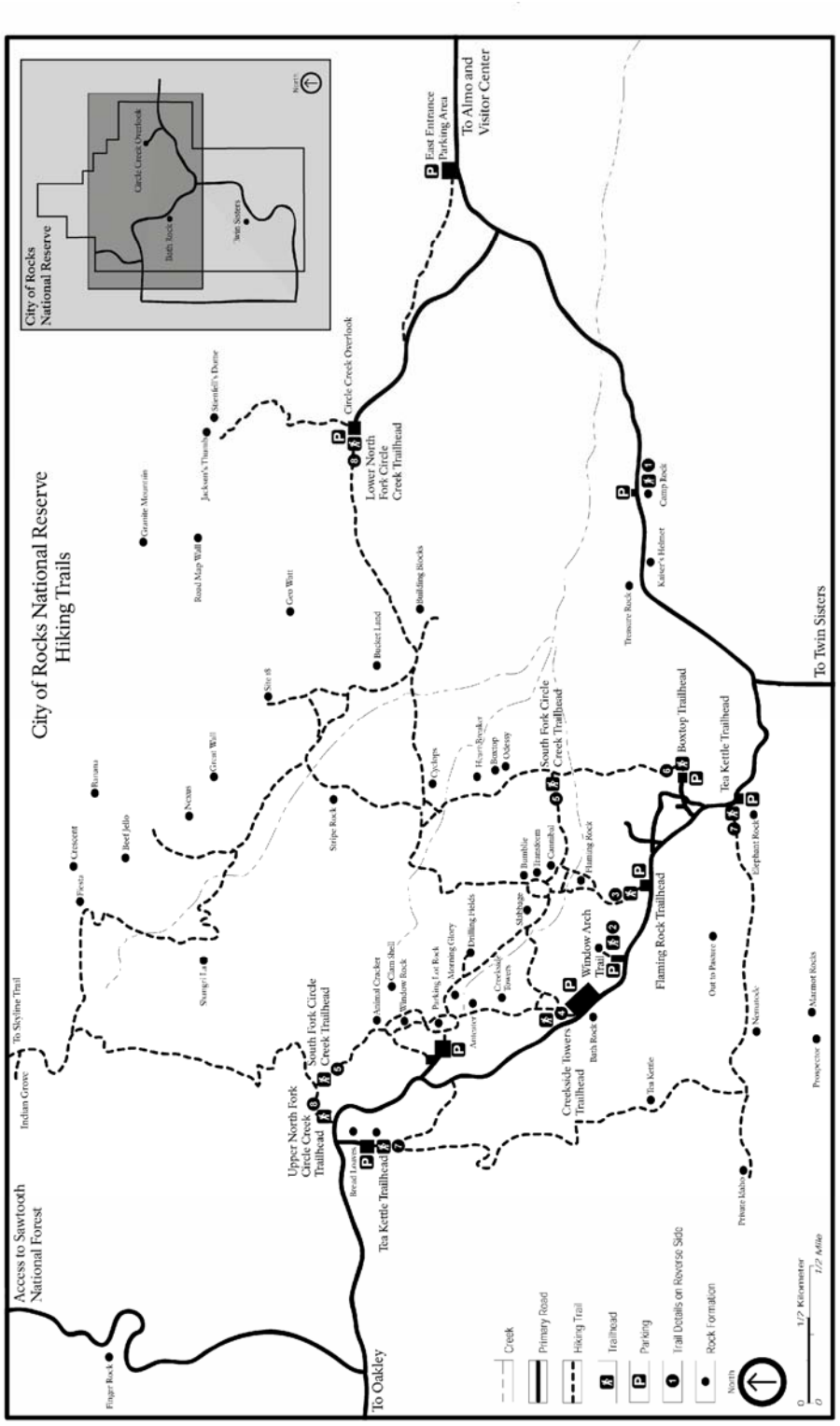
11. From Bath Rock Parking Area, a team of two clears all campsites down to Flaming Rock trail head, at which point one person descends Flaming Rock trail upstream side, traverses under Flaming Rock by City Girls, and climbs back out on Flaming Rock downstream side to the trailhead. Meanwhile, the person on the rim clears campsites 30 through 39, and if time allows, campsites 27 through 29. These two continue down through the campground , picking up the Tea Kettle sweeper at Elephant Rock.

This completes the sweep of the core area of City of Rocks. For a full evacuation, a team will proceed to the south east entrance and check the Twin Sisters and associated campsites. Note that if vehicles remain near the Twin Sisters, persons may be on private land on the west side of the Twin Sisters ridge and a check of the Yellow Wall/Weather Wall area would be indicated. Finally, campsite one is cleared.

Road Closure Points



City of Rocks Hiking Trail Map



Structural Protection Needs

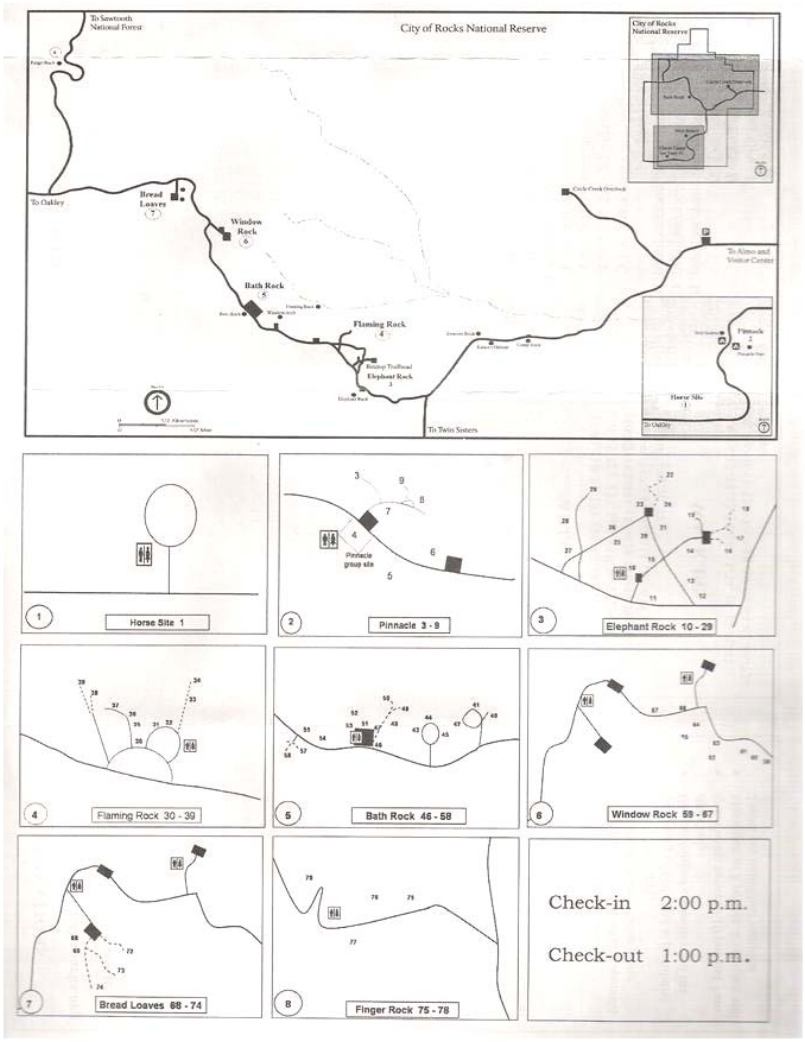
One private residence is located within the park boundary at Twin Sisters. Two cultural structures located within CIRO boundaries need to be protected in the event of a fire; The Stage Station and the Stone house. Refer to the Cultural map in the Planning section of this document.

Logistics

ICP
In an event that a fire is located within CIRO boundaries, ICP can be set up in the maintenance compound located at the south end of Almo.

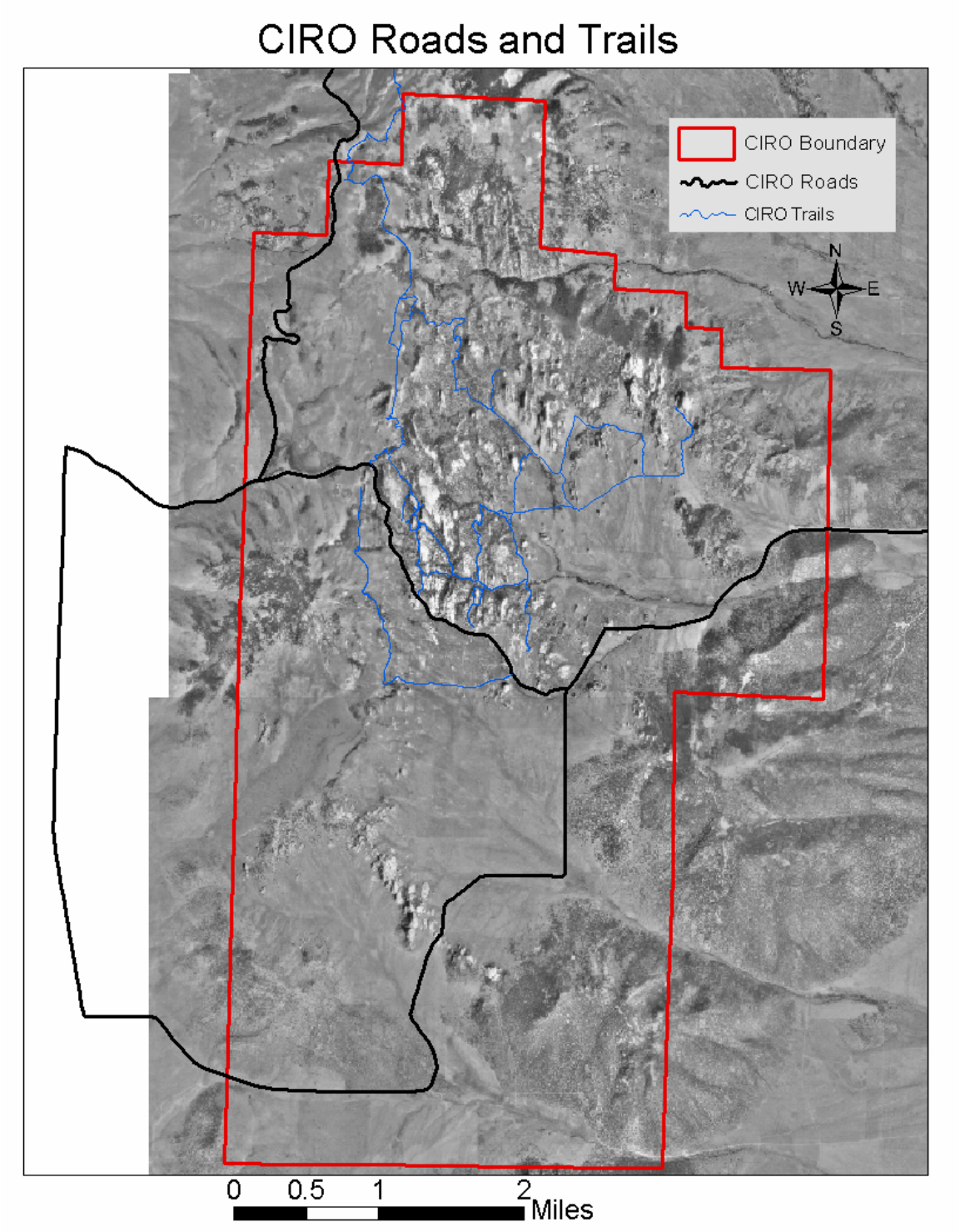
Base
Located at the CIRO headquarter office on the south end of Almo.

Camp Locations
Campsites are located within CIRO. Smoky Mountain Campground will also provide campsites starting in summer 2006. Camping areas depend on fire location. In event that fire is in close proximity to camping locations, arrangements may be made with other land agencies such a BLM or private land owners to provide a more safe location.

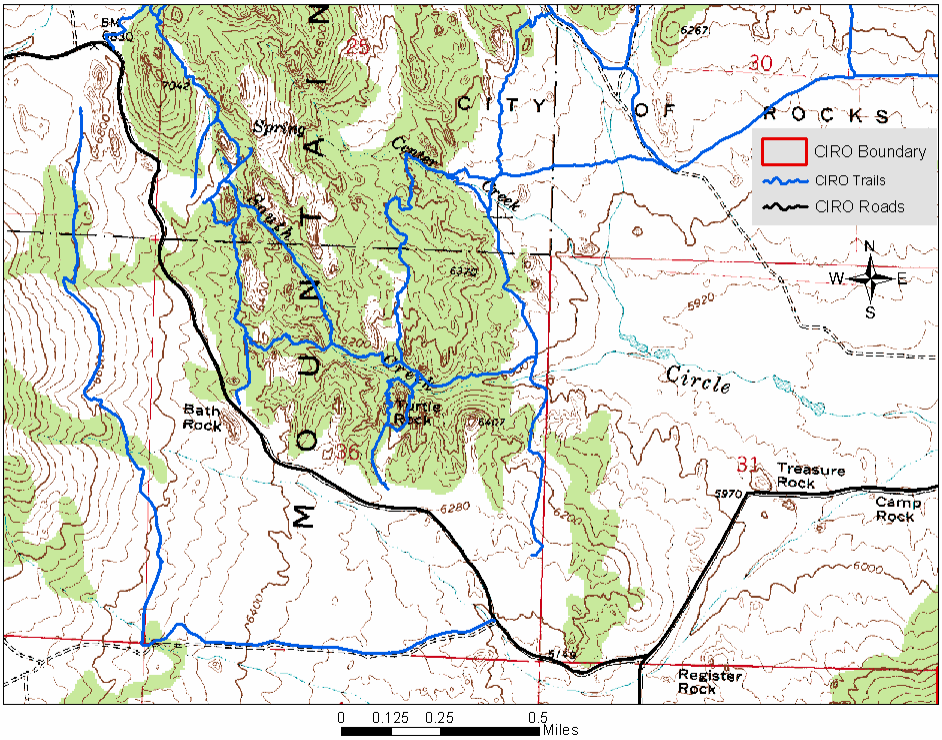


Roads and Trails

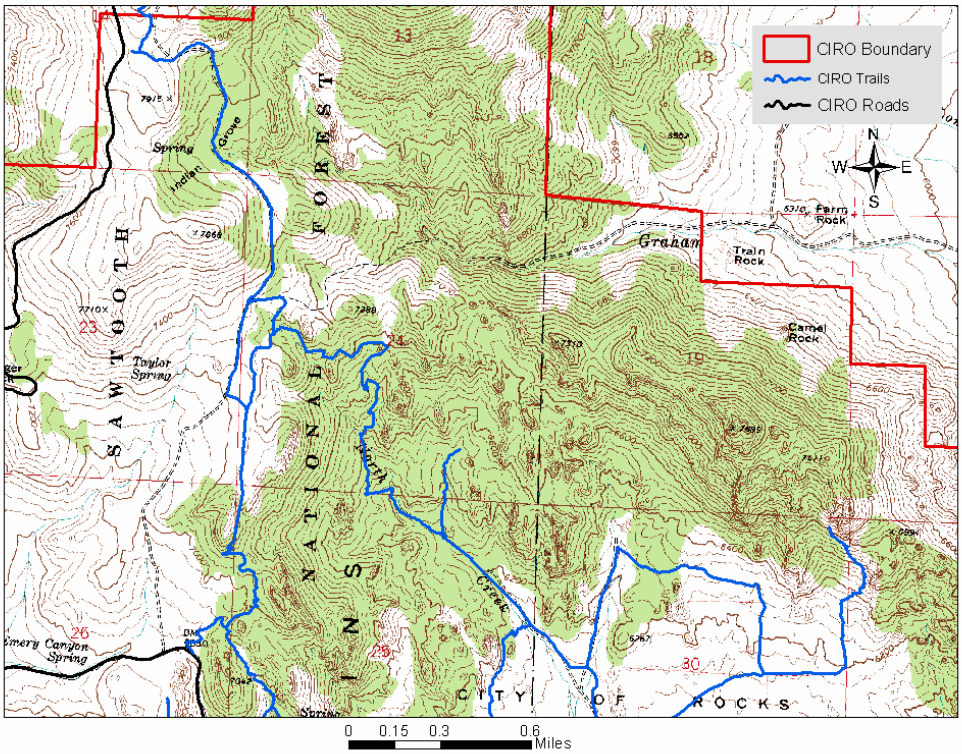
Roads can become impassible when wet. Most trails are steep and forested. See map below.



CIRO Trails 1



CIRO Trails 2



Utilities
In the event of a fire, electricity and water can be utilized in CIRO maintenance compound.

Medical Facilities
A QRU (Quick Response Unit) is housed with ACE Volunteer Fire Department located 2 miles north of Almo on the Elba-Almo road. 13 volunteer EMT's are located throughout the Almo valley. Closest hospital facilities are located in Burley, 50 miles north of Almo on I84.

Stores, Restaurants, Service Stations
Tracy Store, a small corner store with very basic supplies and a post office, is located on the main street in Almo; Summer hours: 8:30 a.m. to 5:30 p.m.
The closest grocery store is located in Burley, 50 miles north of Almo.

Almo Creek Outpost is the only restaurant in town serving burgers and steaks; Summer hours: 11:30 a.m. to 9:00 p.m. Albion; 30 miles, Malta; 25 miles and Burley; 50 miles, all have restaurants.

Gas can be purchased at Tracy Store in Almo however gas stations in Albion or Malta can cater to a greater clientele.

Transportation Resources Location
CIRO vehicle fleet is located in the maintenance compound on the south end of Almo. There is no public transit in the vicinity.

Rental Equipment Sources
K&R Rental; 678-3122, located in Heyburn. Burley-Paul Highway, 1 mile N. off exit 208, 600 W 256A S.

Sanitary Facilities
Showers are located at the Tracy store in Almo. Restrooms are located in the CIRO campground and at headquarters. Smoky Mountain Campground will provide showers, washrooms and a dumping station once constructed.

Police, Fire Departments
Cassia County Dispatch (non-emergency) 878-2251 Cassia County Sheriff; Clark Ward 824-5560
ACE Volunteer Fire Department: 911. Fire Chief: Mike Santini; 638-5537

Communications
Phone
CIRO Base 824-5519

CIRO Radio Frequency
Graham Peak: RX 159.330, TX 151.385, TX TONE 136.5

BLM Radio Frequencies;
Burley Direct: RX 168.56.25, TX 168.5625
Mount Harrison: RX 168.5625, TX 163.0750, TX Tone 107.2

Forest Service Frequencies;
Black Pine: RX 171.50000, TX 162.6125, TX Tone 110.0

Sanitary Landfills
Roll off station located 5 miles north of Almo on Elba-Almo Road.

Portable Water Sources
Drinking water can be obtained at CIRO or Castle Rocks State Park (CRSP). Water spigots are located in various locations at CIRO headquarters and outside of CRSP shop. See map Page 48.

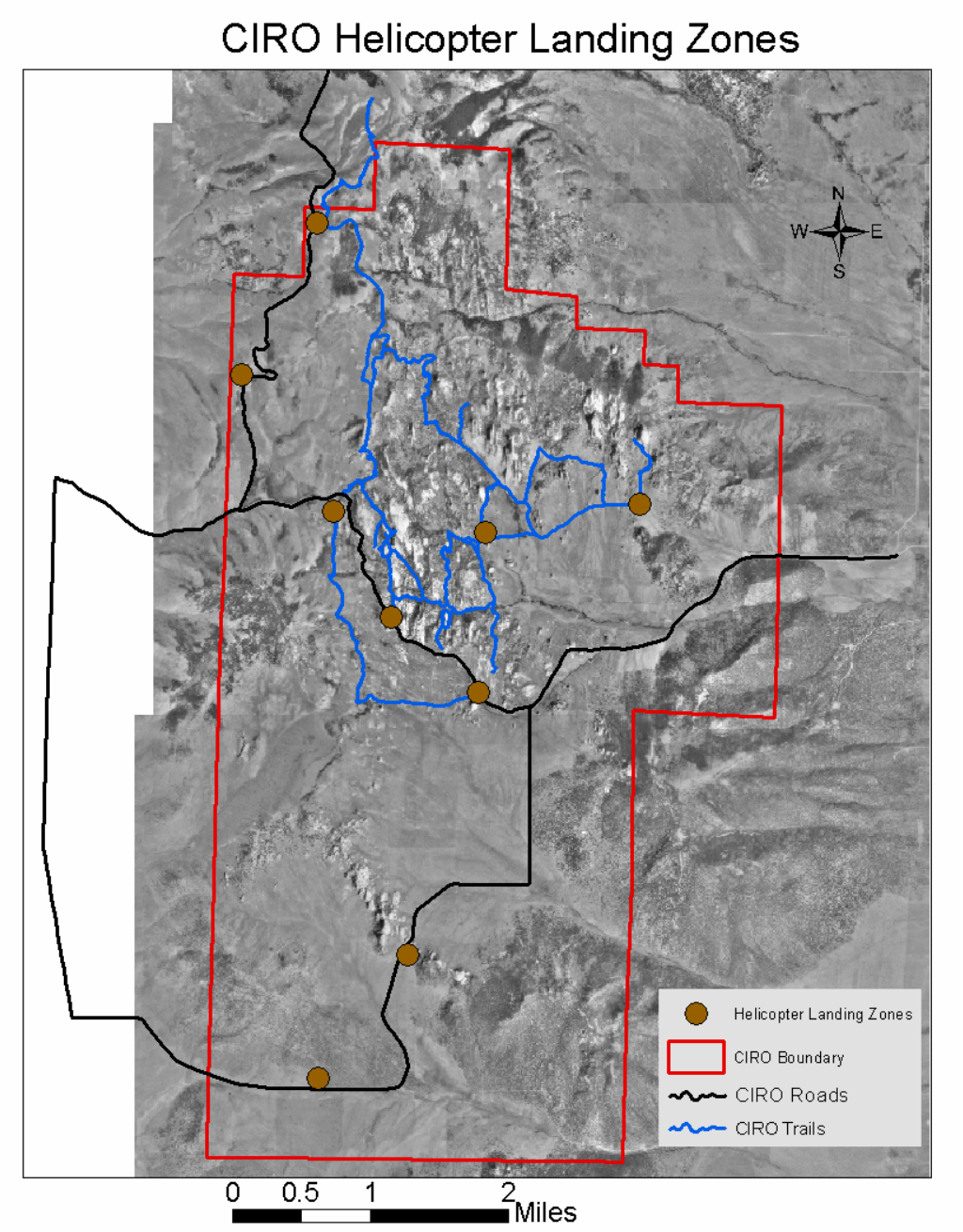
Maintenance Facilities
CIRO maintenance compound located on the south end of Almo

Mechanic shop: Dave Ogren 824-5510

Operations

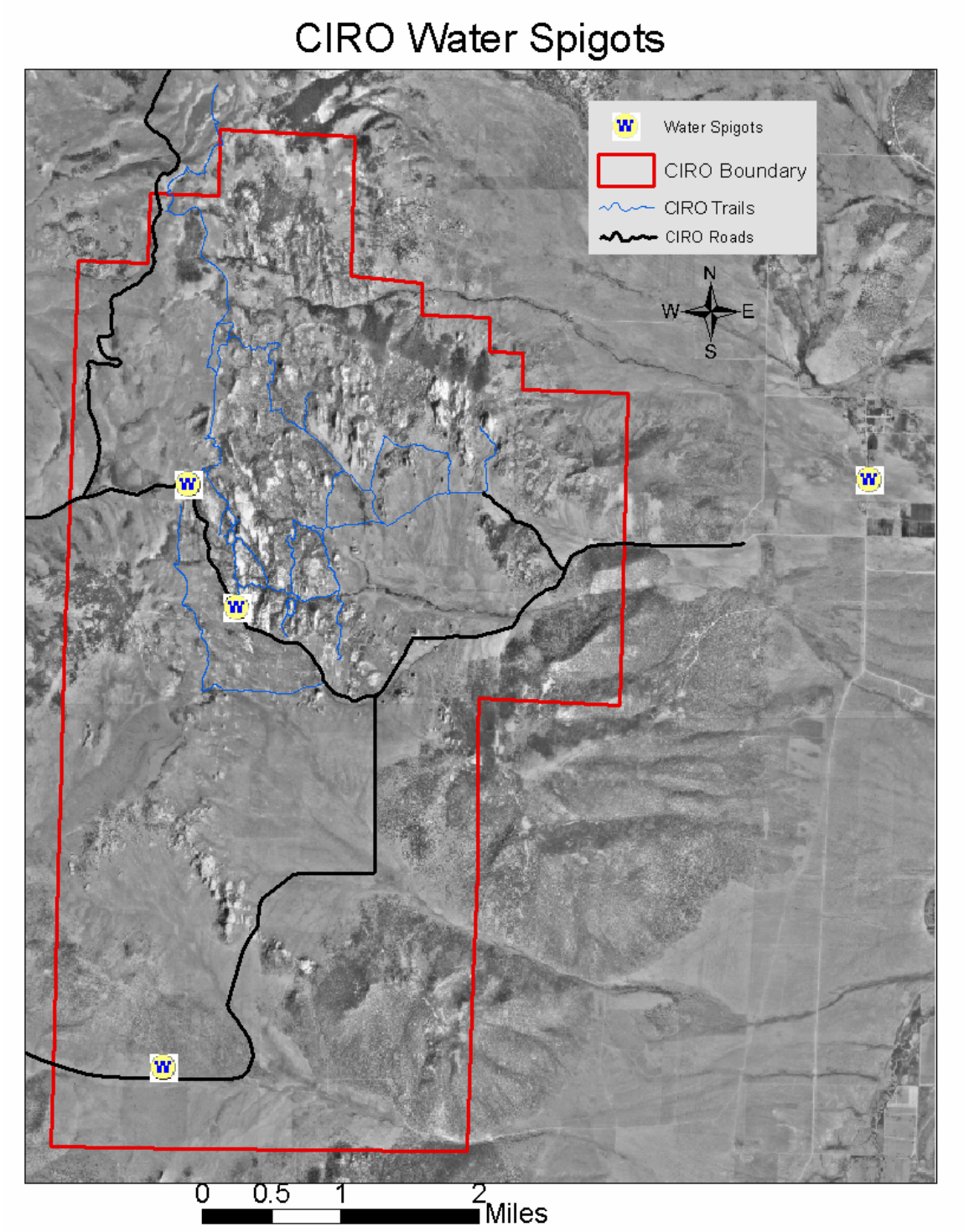
Helibase Locations

A number of sites were selected throughout the park that is clear of impeding vegetation.

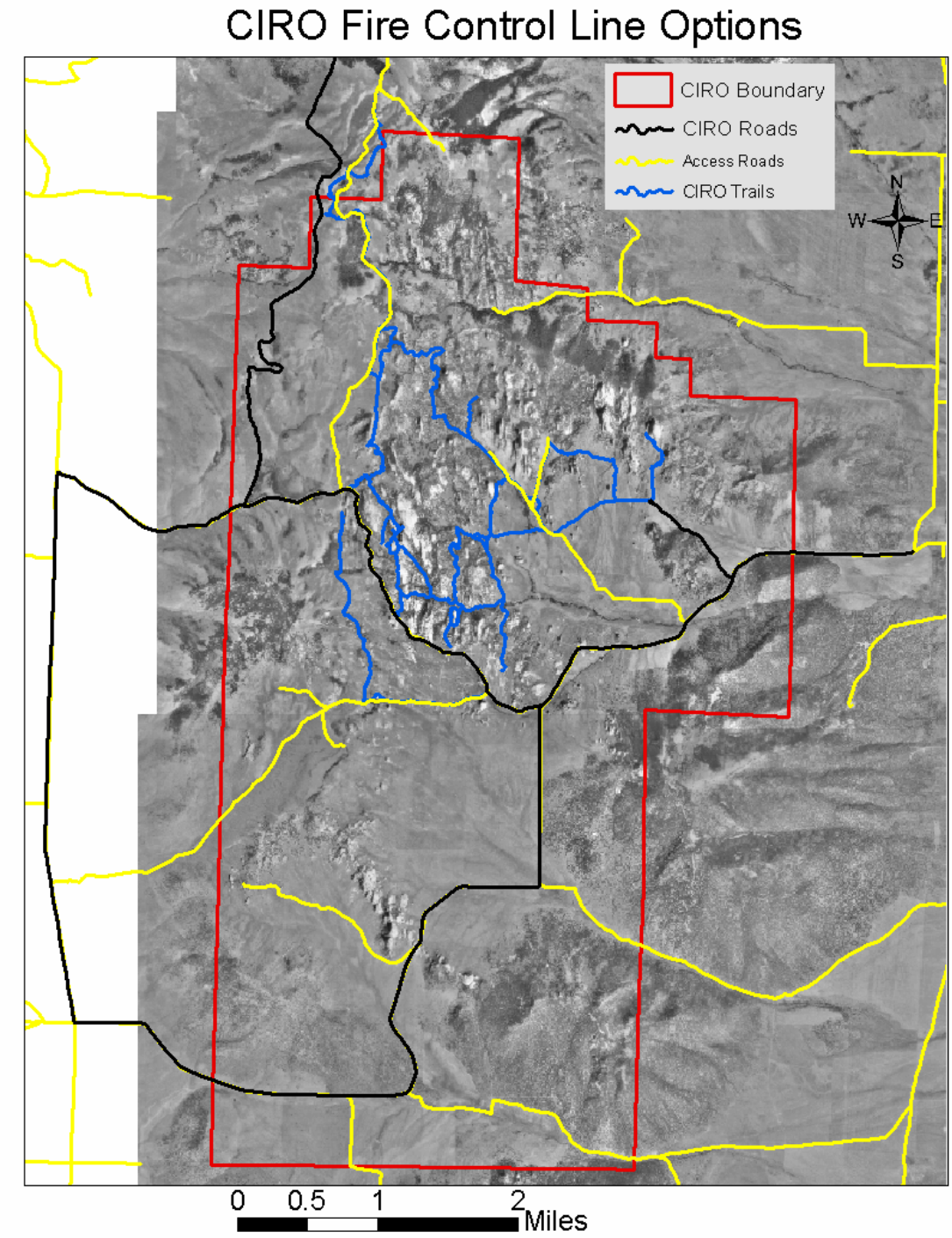


Water Sources

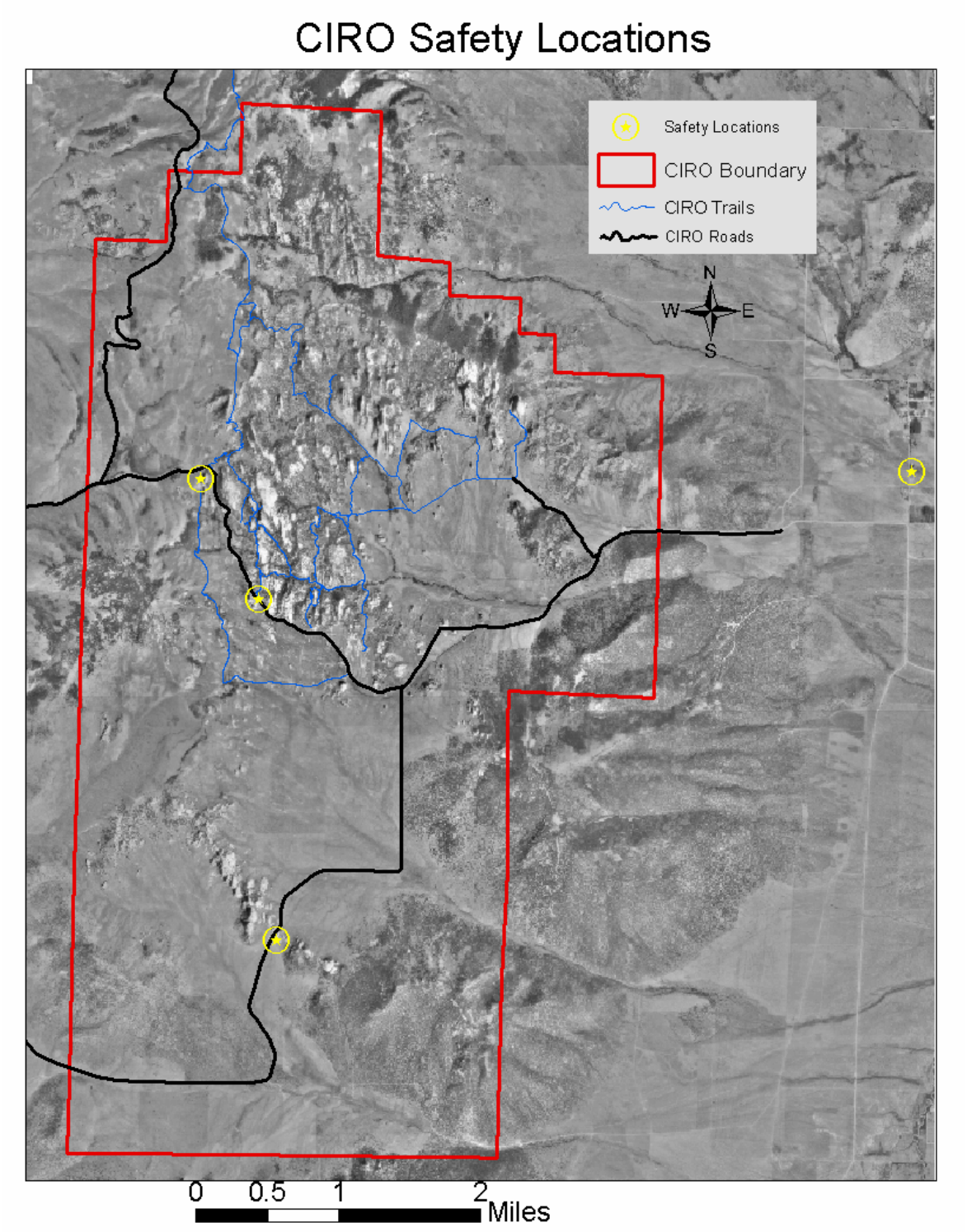
Water can be obtained at CIRO or CRSP. Water spigots are located in various locations at CIRO headquarters and outside of CRSP shop.



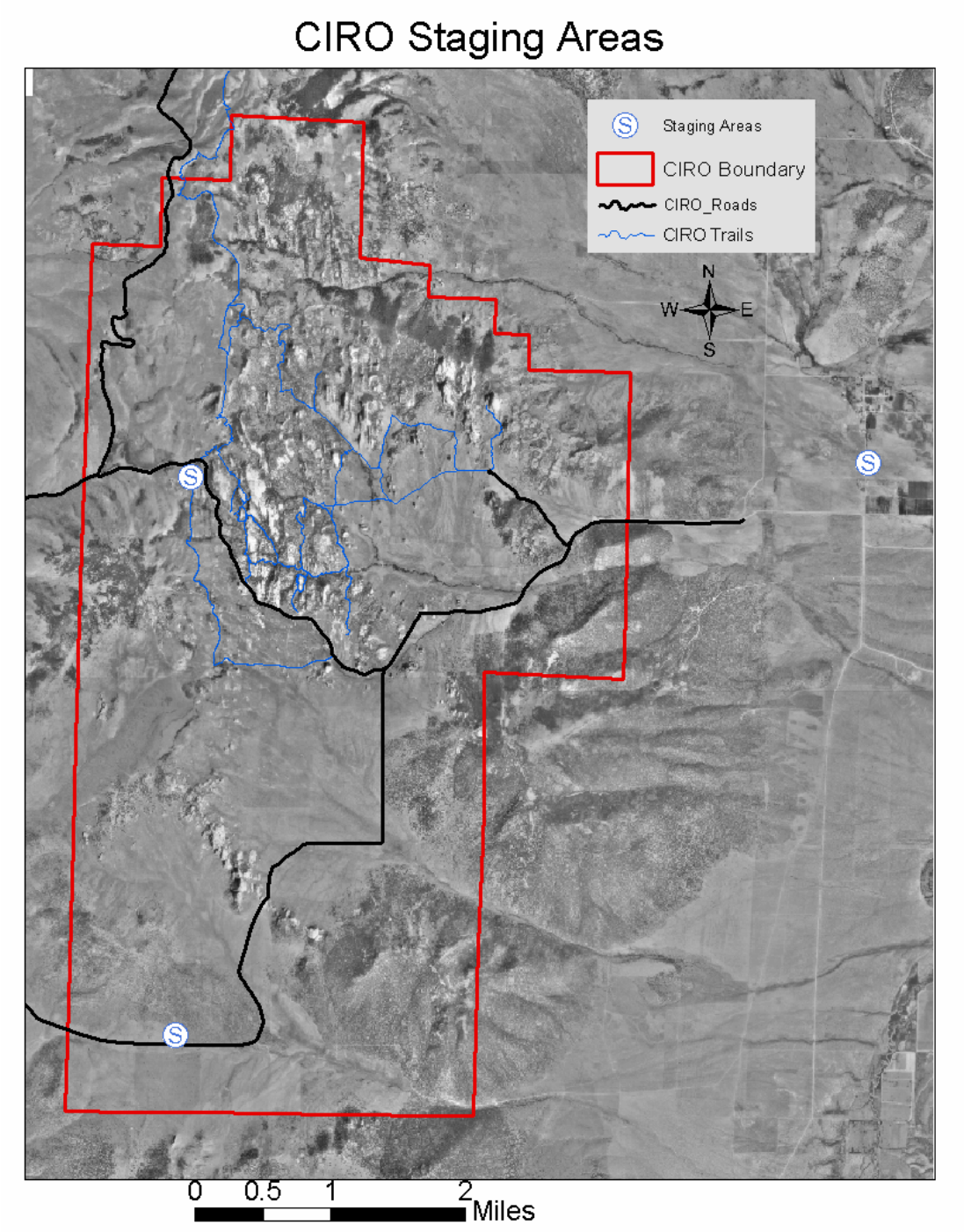
Fire Control Line Options



Safety Zones

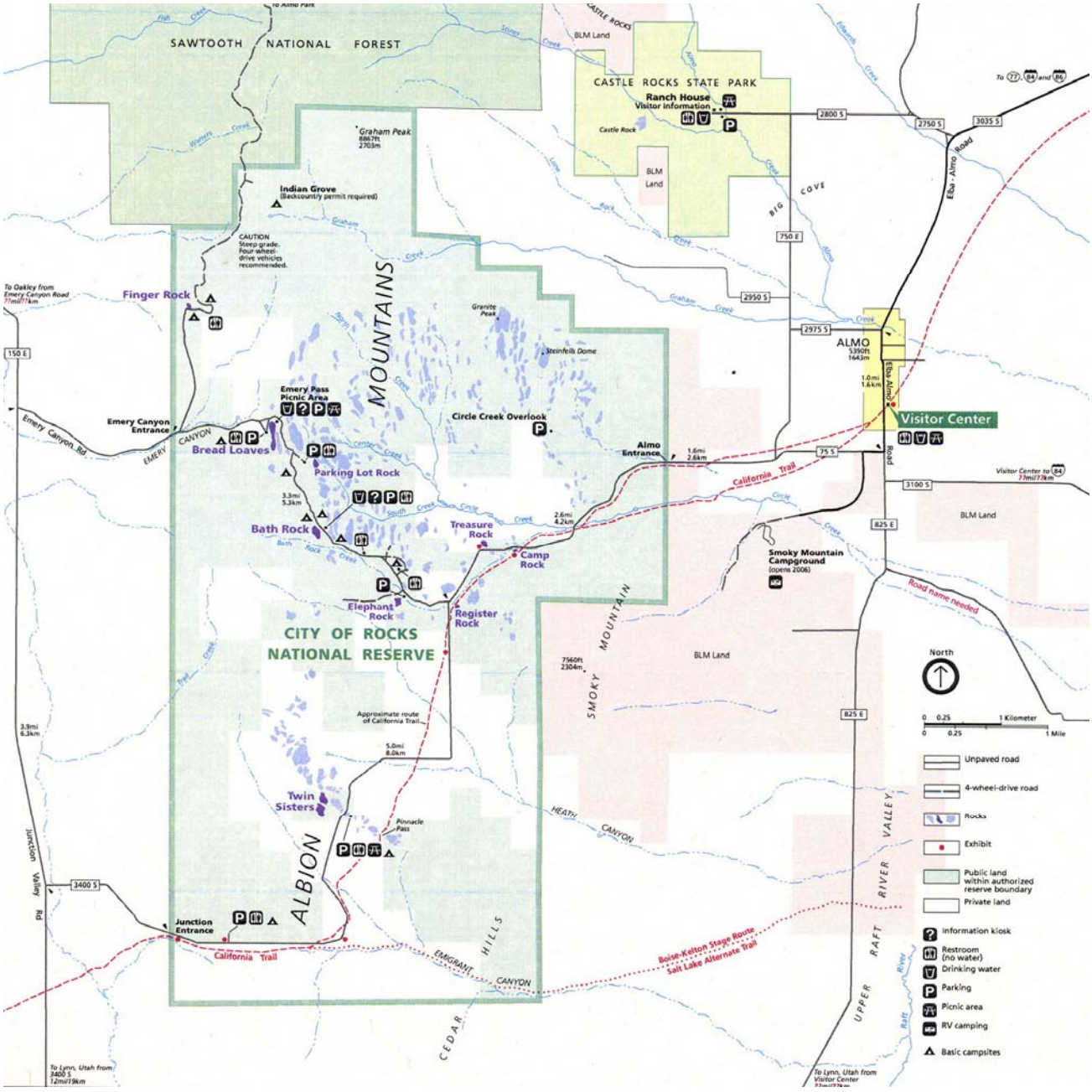


Staging Areas

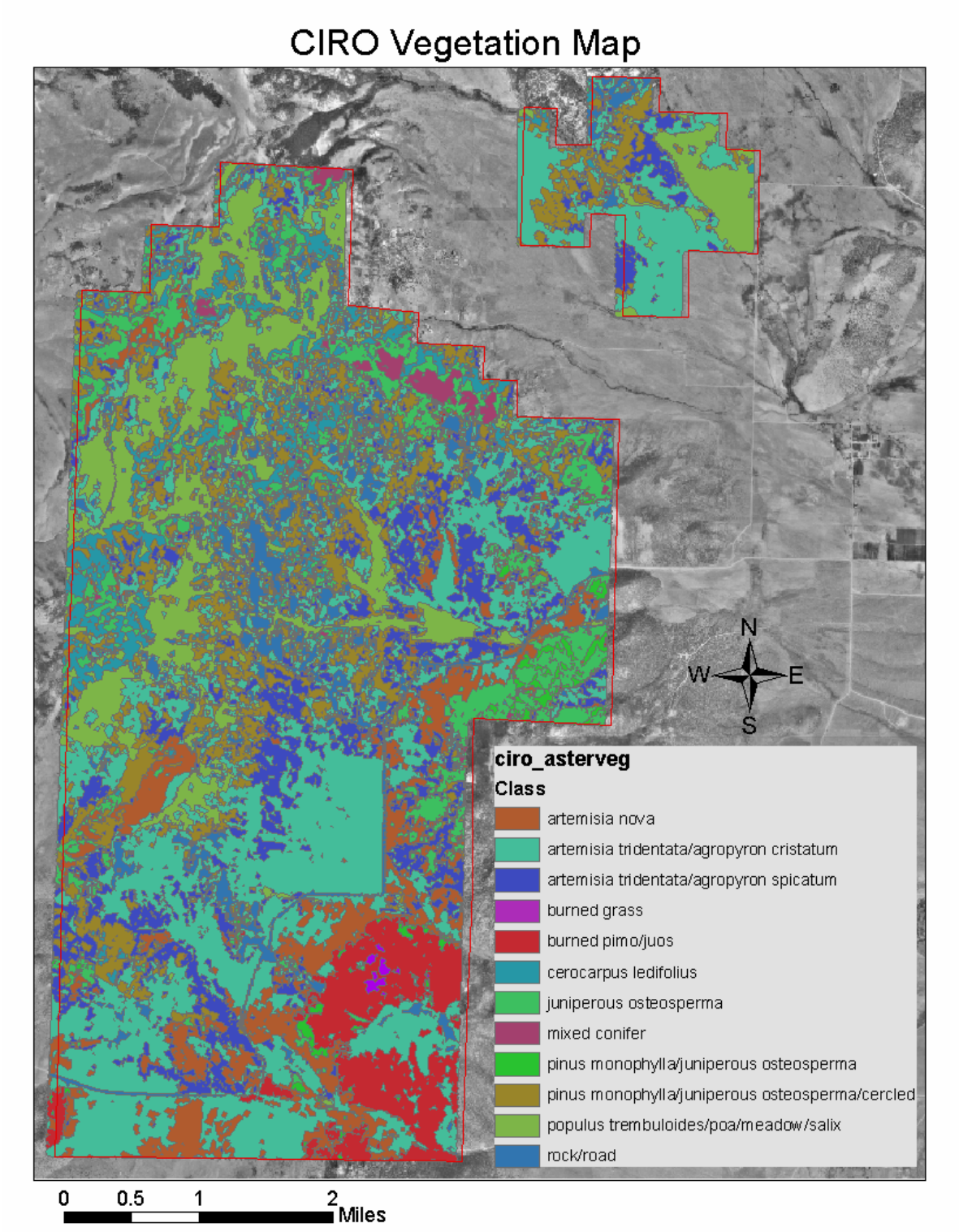


Planning

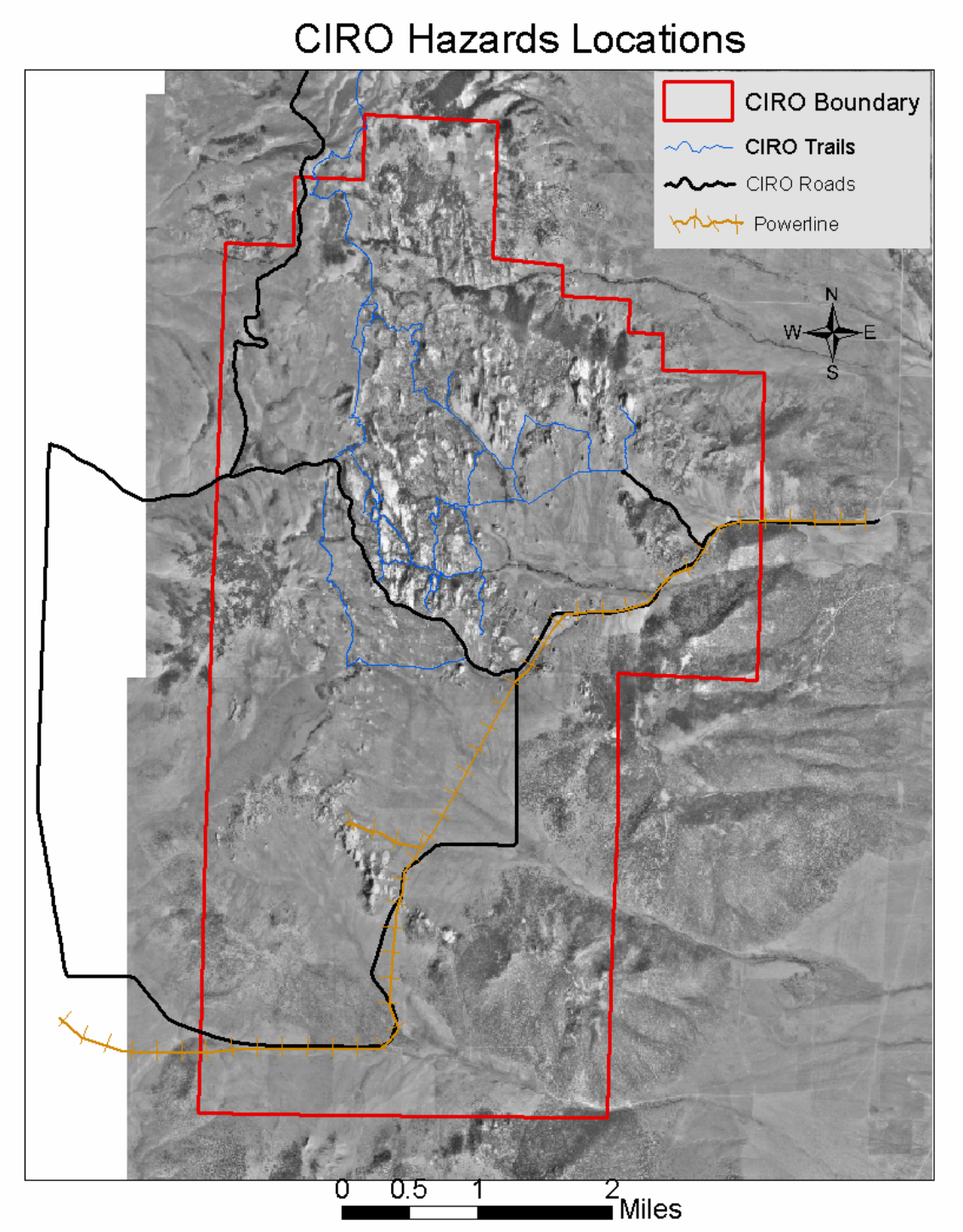
CIRO Base Map



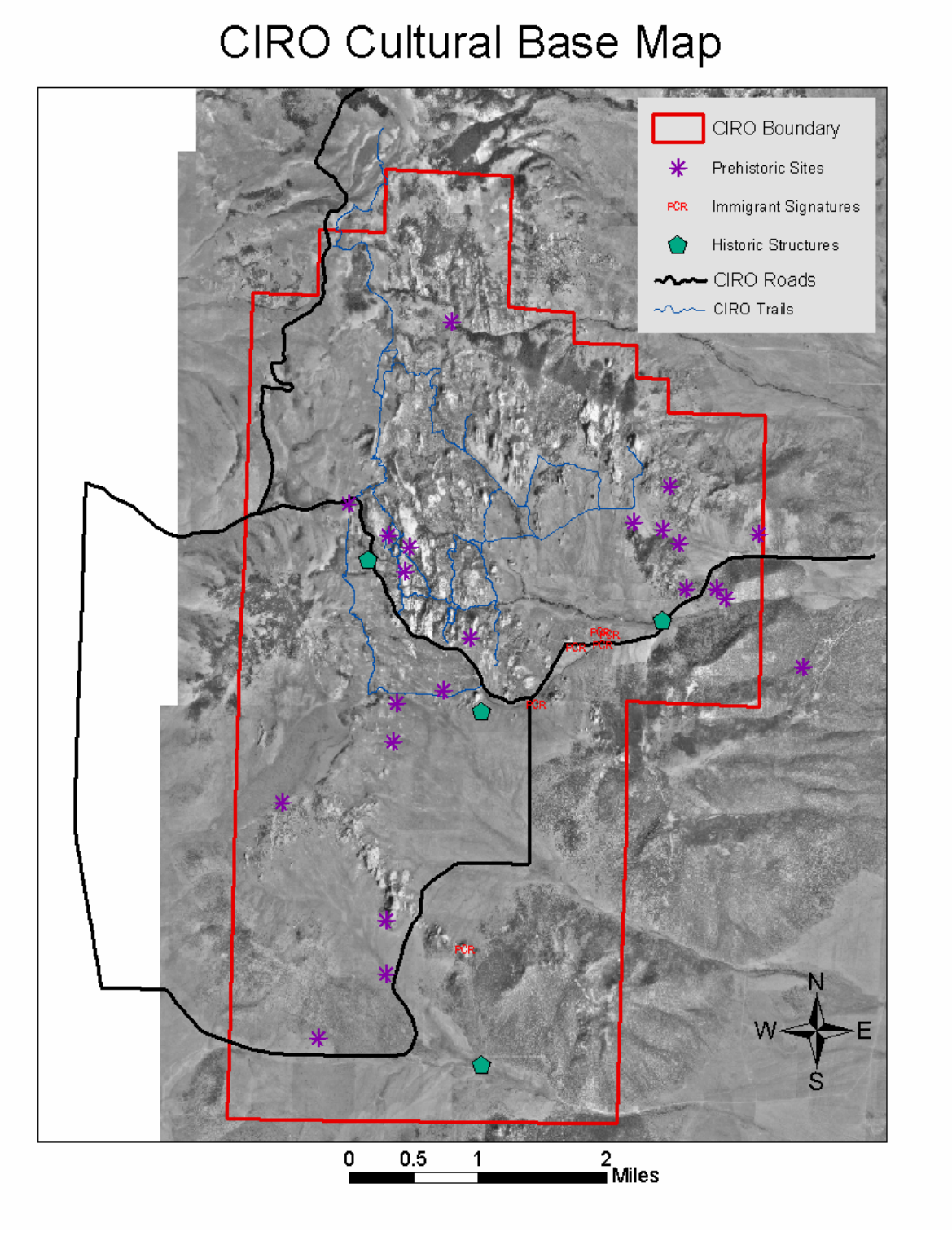
Vegetation Map



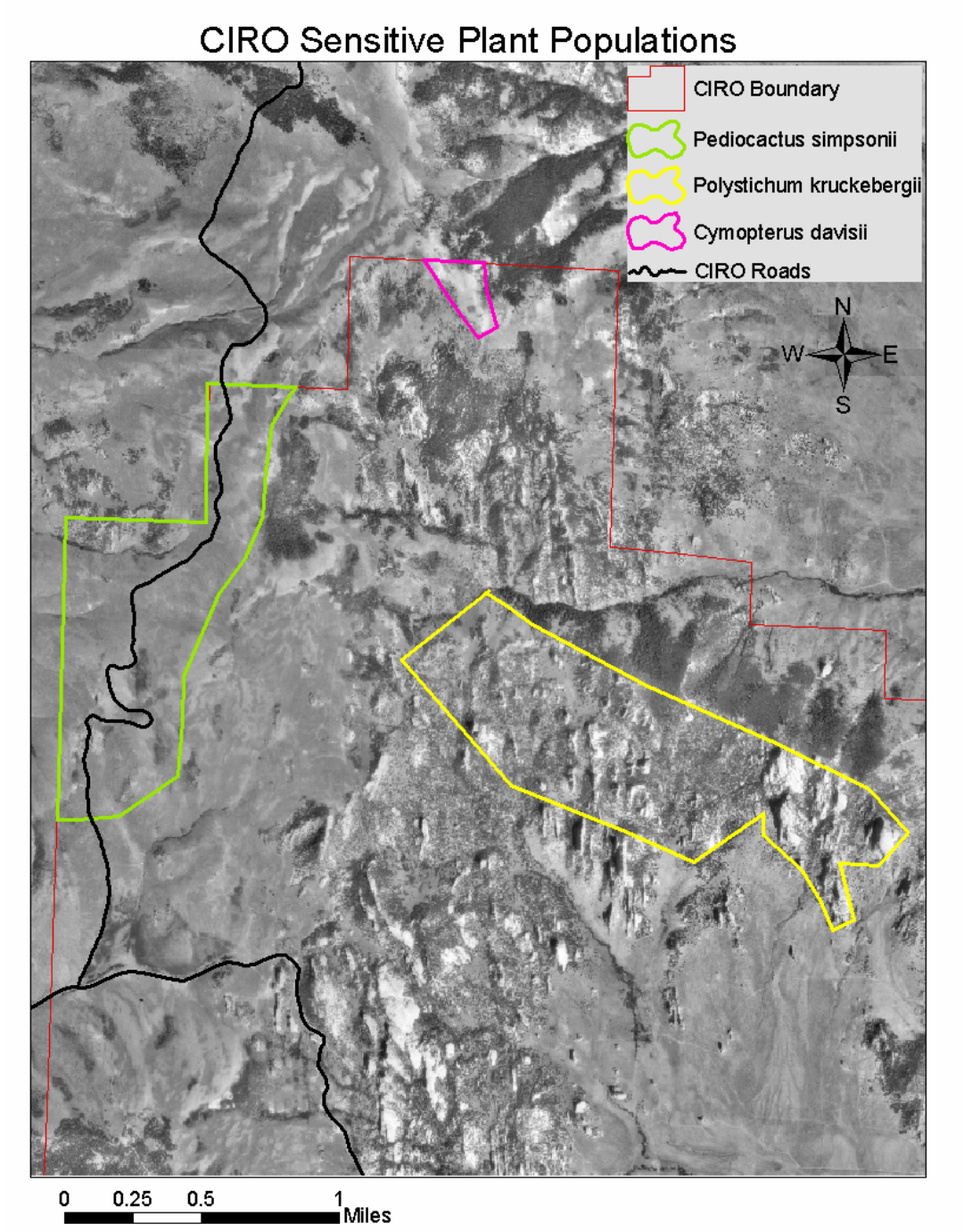
Hazard Locations



Cultural Base Map

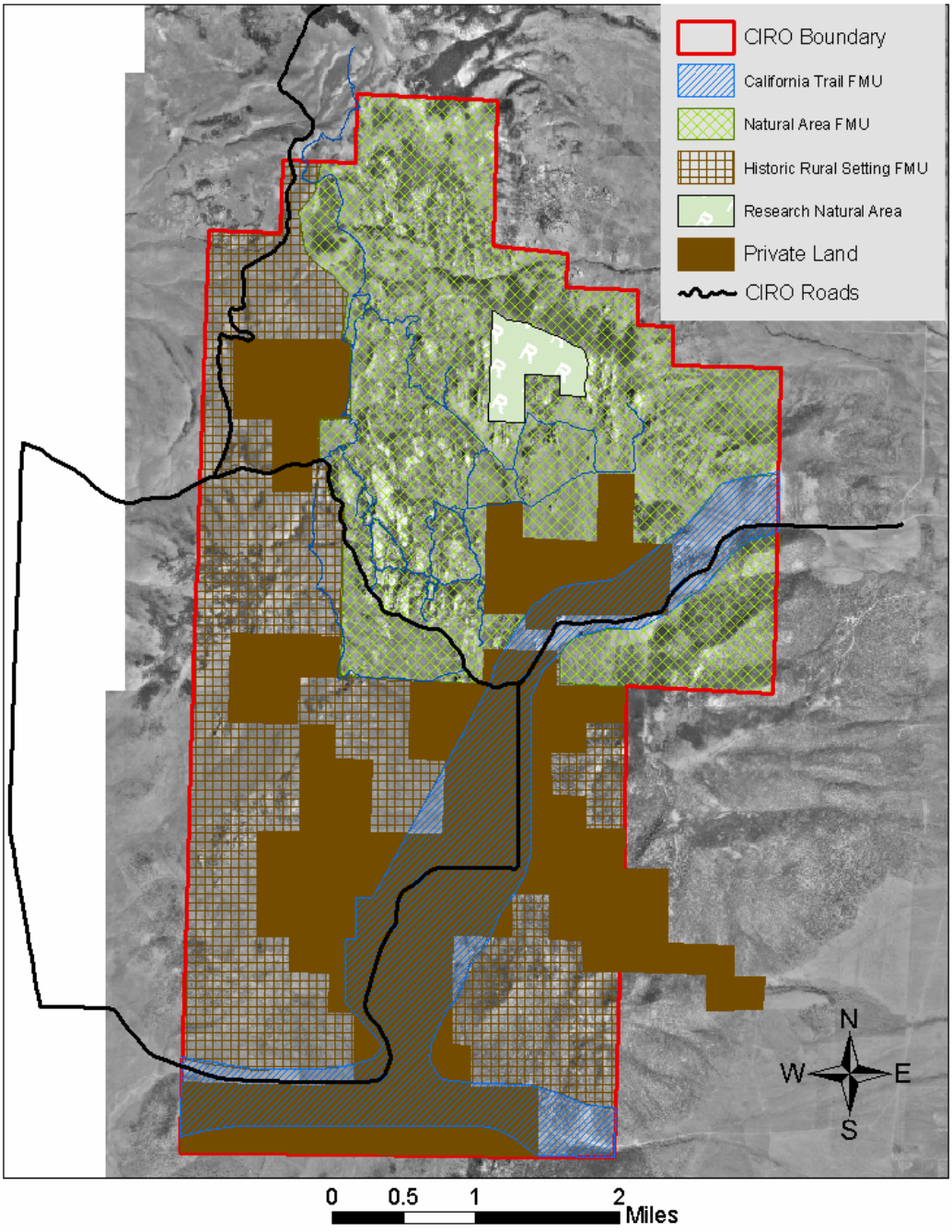


Sensitive Plant Populations

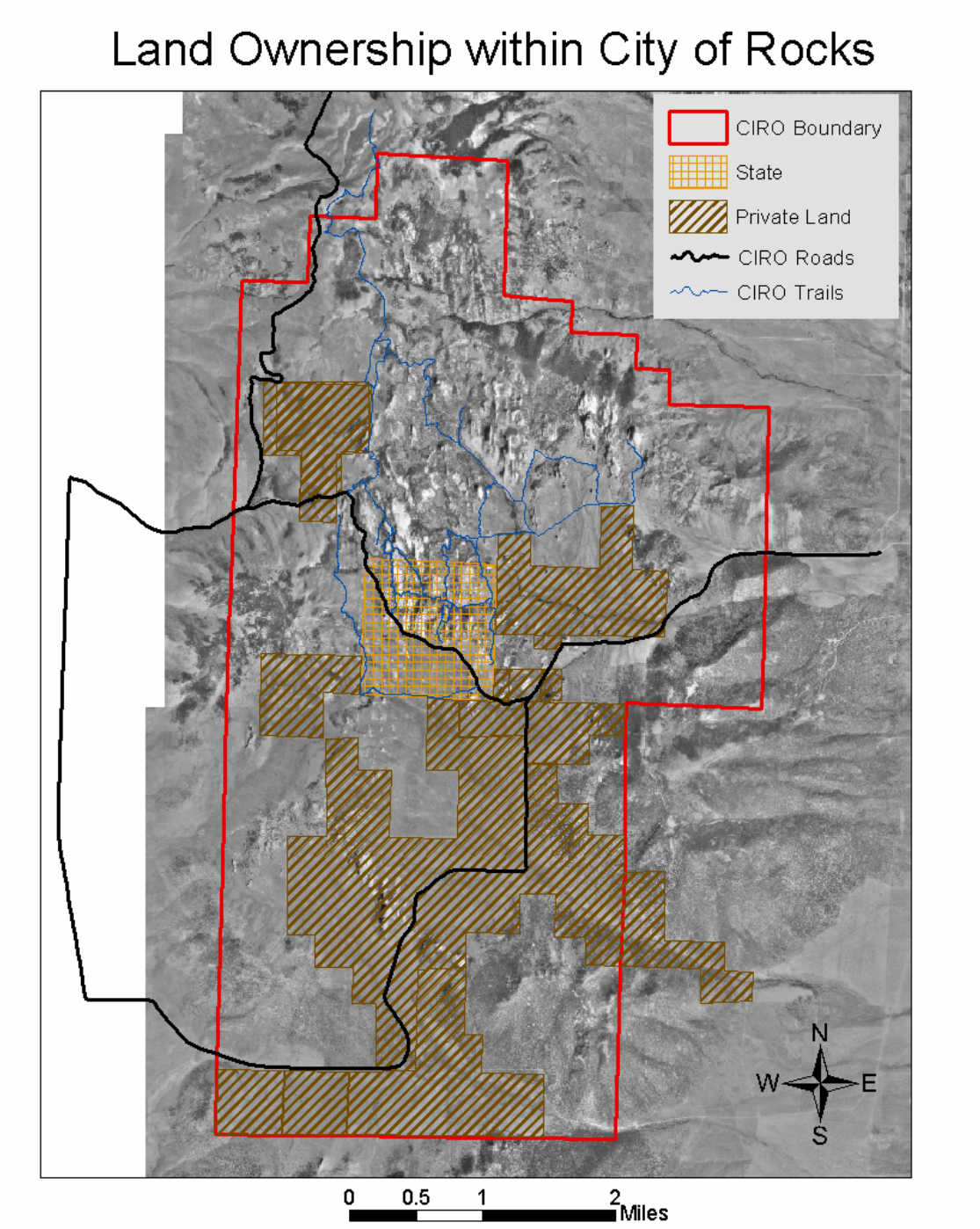


* Note: These locations are only approximate to known historic locations taken from "Vascular Plants of City of Rocks; An Annotated Checklist", Tom John, 1995

Visitor Use Areas



Land Status


Land Ownership within City of Rocks
CIRO Boundary
State
Private Land
CIRO Roads
CIRO Trails
N
W
E
S
0
0.5
1
2
Miles

3. RM-18, Chapter 9, Wildland Fire Management and MIST guidelines

WILDLAND FIRE MANAGEMENT
REFERENCE MANUAL – 18; Chapter 9

WILDLAND FIRE USE AND SUPPRESSION

Management of wildland fires prior to the completion of DO-18 was typified by classification requirements that all fires be either wildfires or prescribed fires. This discrete classification of fires by types precluded maximum effectiveness. Under new guidelines, consistent with the Federal Wildland Fire Management Policy, all fires not ignited by managers for specific purposes are considered as wildland fires. All wildland fires will then have the same classification and receive management actions appropriate to conditions of the fire, fuels, weather, and topography to accomplish specific objectives for the individual fire. These management actions, termed the appropriate management response, may vary from fire to fire and even along the perimeter of an individual fire. Key to this direction is that the full extent of a sliding range of management options is available.

These options range from monitoring with minimal on-the-ground actions to intense suppression actions on all or portions of the fire perimeter. The appropriate management response is developed from analysis of the local situation, values-to-be-protected, management objectives, external concerns, and land use. Appropriate management responses resulting in aggressive suppression actions on unwanted fires represent old policy actions taken to suppress wildfires. Appropriate management responses resulting in management of wildland fires for resource benefits correspond to old policy actions of prescribed natural fire management. Under the new policy, opportunities to combine these strategies on individual fires are unlimited.

This policy provides opportunities to dramatically increase fire use and accomplishment of resource management objectives. The policy advocates increases in fire use accomplishments and creates a foundation for implementing both fire use and suppression commitments concurrently. In addition, the suppression capability and accomplishments during the past decade are advancing. But, the suppression workload continues to increase as wildland vegetation and fuels are undergoing changes that facilitate greater intensities and spread rates for wildland fires. Challenges and risks associated with wildland fire management are expanding in both complexity and extent. Threats from wildland fires grow each year as long-term effects from past land use and fire management actions become visible in natural vegetation communities. In addition, escalating values to be protected associated with current land use practices are compounding protection concerns.

Wildland fire management policy and procedures must change to reflect new considerations, capabilities, and direction, while being responsive to resource management objectives. The following chapter provides reference information to

facilitate wildland fire management. Detailed information is provided in the Wildland and Prescribed Fire Policy, Implementation Procedures Reference Guide.

It is important to note that wildland fire management will now be accomplished through application of the management response appropriate for each individual fire. These appropriate management responses will be developed from a spectrum of possible alternatives and may be comprised of a set of tactics to accomplish multiple objectives. But, to better provide reference information regarding wildland fire management, the following chapter is presented in two sections, representing the extremes of the spectrum of appropriate management response objectives. These are wildland fire use and wildland fire suppression.

WILDLAND FIRE MANAGEMENT PROGRAM REQUIREMENTS

Before implementing a wildland fire management program all NPS units must have:

1. An approved fire management plan, including all required wildland fire use criteria as outlined in do-18 and departmental manual 620 (dm-620), is required for all parks with vegetation capable of sustaining wildland fire. Until a fire management plan is approved, park areas must take an appropriate management response that is suppression-oriented on all wildland fires consistent with firefighter and public safety and resources to be protected. On all wildland fire management actions, use of minimum impact tactics is the policy of the national park service. Minimum impact tactics are defined as the application of those techniques which effectively accomplish wildland fire management objectives with the least cultural and environmental impact, commensurate with public and firefighter safety.

2. Preparedness plans for fire management personnel and equipment.

3. Record keeping capability for:

    a) Daily Cost Accounting. Costs associated with wildland fire use will be relayed to the regional fire management officer on a schedule agreed upon with the park.

    b) Final Wildland Fire Record. All wildland fire incidents must be documented by DI-1202, Individual Fire Report. The completed report must be input to the Shared Applications Computer System's fire reporting program within 10 working days after the fire has been declared out. In addition, the full record retained at the park will include the following:

        - DI-1202, Individual Fire Report Narrative
        - Wildland Fire Implementation Plan

- Daily weather forecasts and spot weather forecasts
- Cumulative fire map showing acreage increase by day
- Total cost summary
- Monitoring data

The park Fire Management Plan will identify where these records will reside and assign responsibility for file maintenance.

Prior to full implementation of Wildland Fire Use, NPS units must meet the following additional criteria:

1. Wildland Fire Use Program Oversight.

a. Regional office fire management officers are responsible for appraising and surveying all wildland fire use activities within their region. The regional office fire staff will review implementation plans for fires with a Complex Rating. Direct contact with parks may be necessary in order to stay apprised of complex situations. On rare occasions, circumstances or situations may exist which require the regional director to intervene in the wildland fire use decision process.

b. Review by the regional fire management officer or acting is mandatory for Wildland Fire Implementation Plans with a projected cost of greater than $500,000. Review by the NPS National Fire Management Officer at NIFC, or Acting, is mandatory for Wildland Fire Implementation Plans with a projected cost of greater than $1,000,000.

2. Wildland Fire Use Planning. An operational implementation management plan (Wildland Fire Implementation Plan [WFIP]) (required content and sample format provided in Implementation Reference Guide, Chapter 4, all of Section C) which outlines the management strategies, which will be used on the fire (approval by the superintendent or acting superintendent).

a. An approved, Go/No-Go Decision Process to validate the use of wildland fire.

b. A Complexity Rating completed for each fire or complex of fires (using the Complexity Rating provided in the Wildland and Prescribed Fire Policy Implementation Reference Guide, Chapter 4, Section C-2).

c. A periodic assessment process to affirm that adequate capability exists to manage each fire (available in Implementation Reference Guide).

3. Situation Reporting. It is important for parks to report situations as they occur to enable regional and the national FMO to represent park needs within the interagency community. Situation reporting on the SACS may be necessary at any time of the calendar year. Parks should enter situation reports whenever:

a. There is fire activity in the park, regardless of kind/type (including prescribed fire activity).

b. Fire potentially threatens the boundary (either internally or from external sources).

c. Are there sensitive issues that the regions and FMPC need to be aware of (concerns or questions by outside parties)?

d. Fire danger in the Very High or Extreme categories, particularly if in long-term drought (threatening weather or fuel situations). Time of report entries should take into consideration the 0730 and 1130 hour NIFC intelligence deadlines, if information is deemed necessary for FMPC staff.

A. WILDLAND FIRE USE

All naturally ignited wildland fires may be managed to accomplish resource management goals once an appropriate fire management plan is approved. Human caused wildland fires will receive a suppression response commensurate with values-to-be-protected, firefighter and public safety, and cost efficiency. Management of wildland fires in the National Park System offers substantial flexibility in how land and resource management objectives can be accomplished.

The random occurrence pattern of wildland fires, combined with the possibility that the fire may last for several weeks or even months, requires more intensive planning and evaluation than for prescribed fires and wildland fire suppression actions, especially at the initial decision point when the fire is detected.

OPERATIONAL REQUIREMENTS

The complete implementation process is described, with example forms provided, in the Wildland and Prescribed Fire Policy Implementation Procedures Reference Guide**.** This process must be followed and all steps completed for a park to implement a wildland fire use program.

There are several aspects of the wildland fire use program, which must be addressed in the Fire Management Plan or in an operational management plan prior to wildland fire use implementation. The importance of these elements warrants discussion here even though they are described in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide. These are:

1. A **decision process** to evaluate new fire starts and assess ongoing wildland fires in the park (WFIP Stage I). This process should consider the following elements:

- Determination of fire origin and cause.
- Determination of affected fire management zone.

- Immediate and projected threats to life and property.
- Smoke and health concerns.
- Necessary qualified personnel and fire management resources availability.
- A qualified manager for the fire is available.
- Immediate and potential impacts to visitors, users, and local communities.
- Projected fire growth under normal and drought conditions.

2. Definition of a **Maximum Manageable Area (MMA)** (part of WFIP Stage III)
All wildland fires reaching Wildland Fire Implementation Plan Stage III will have a defined Maximum Manageable Area (MMA). This is to ensure that there is a clear and common understanding of the authorized size and location of the fire among the various layers of NPS managers and cooperators.

Maximum manageable area is the most suitable term (and accepted on an interagency basis) for designating the ultimate acceptable size for a given wildland fire managed for resource benefits. The MMA term has a strong management connotation, is less apt to foster inconsistent interpretation, and best represents the intent of the application for wildland fire use.

It provides for a closely directed fire management application in a specific area defined by resource objectives, fire and weather prescription elements, social needs, political considerations, and management capability. All wildland fire use actions will:

- Be based on pre-determined MMA's identified in the Fire Management Plan or include the MMA as part of the fire use implementation process,

- Identify all actions to check, direct, or delay fire spread inside the MMA or to confine the fire spread to the MMA boundaries as annotated Holding Lines displayed in the approved planning document,

- Utilize the MMA as a definition of firm limits of management capability to accommodate the social, political, and resource impacts for all unplanned ignition wildland fire managed form environmental benefits.

- Establish a fixed MMA not subject to change once designated through the Interagency Wildland Fire Implementation Plan Stage III and approved by the Superintendent (see following exceptions).

- **Exceptions: The complex nature of fires and land management precludes the ability of managers to write a set of guidelines or directions that cover all potential situations**.

- Management requirements must be flexible enough to permit continued management of fires when unique scenarios are encountered or when common sense dictates some relaxation of standard procedures. However, it is imperative that this flexibility to continue management not be interpreted as a lowering of

standards for MMA determination or as an alternative to sound, thorough, initial planning.

- Specific standards for MMA establishment must remain high to increase probabilities of successful outcomes. The planning process for initial decisions must be sufficiently comprehensive to produce the best alternative and MMA location possible given the current level of knowledge and current situation. If this is done, there should be few reasons to need to relocate the MMA. Past experiences and recognition of future potential situations require the following consideration regarding the rigid nature of drawing lines on a map. Situations will develop where restricting a fire or multiple fires to an established MMA is not reasonable, prudent, or cost-effective. In these cases, a definitive justification for re-locating the MMA is necessary, as is an explanation of why the original decision did not result in the final MMA location. Two situations are discussed in the following section, reducing the size of the MMA, and enlarging the MMA.

- **Reducing MMA Boundaries**: Reductions in the size of the MMA can be considered at any time, based on new information, developments, etc. In reality, it is not necessary to formally alter the MMA, but rather to restrict the fire to new boundary, fuel breaks, natural barrier, etc., at the desired points within the established MMA.

- **Enlarging MMA Boundaries**: Enlarging the MMA can be considered only in rare situations.

1) **At no time can an MMA be enlarged in response to the spread of a single fire closer to the boundary**. Enlarging an MMA to accommodate this situation indicates a weakness in the original planning process and MMA establishment.

2) Consideration of changes in the MMA is closely related to both the current number of fires within the MMA and the number at the time of establishment.

3) There may be isolated cases where formal implementation of the WFSA process because of a single wildland fire exceeding an established MMA is not prudent or logical. In these situations, experiences from past actions and anticipated in the future may indicate that the planned fire size should be exceeded by the specific wildland fire on a very small or non-threatening scale. Management options in this situation include:

- Constraining the fire spread to the small or non-threatening exceedance of the original acceptable area using available holding forces currently in use, and identified in the Wildland Fire Implementation Plan. This constraint of fire spread must be accomplished within a reasonable amount of time (generally considered to be two operational burning periods but may be longer depending upon specific circumstances surrounding the situation).

- In the case of relatively long range spotting, treat an isolated spot generated by this natural process as a separate fire and determine appropriate management action for this new ignition separately from the original wildland fire and based on criteria as they apply to this fire.

4) If multiple fires are threatening to exceed the MMA simultaneously, then the original planning may not adequately address the situation and a WFSA is warranted to select a new strategy.

- **Multiple Wildland Fires Managed Under a Single MMA:** In the case of multiple fires or when a pre-planned MMA is utilized, the MMA may represent a consolidated area. The MMA should adequately address the ultimate acceptable area for the original ignitions. However, if new ignitions occur during the management of the original fires, it may be prudent to re-evaluate the MMA and even re-construct it. This does not necessarily imply that the original MMA was inadequate, but that a larger MMA to accommodate additional fires should be considered. New ignitions that occur near the original MMA boundary need to be accommodated by a different or larger MMA and new analysis should be completed resulting in a new WFIP.

- **Periodic Re-Assessment and Analysis:** In instances where one or more wildland fires being managed for resource benefits are projected to persist for long durations (30 -100+ days), it will be prudent and necessary to periodically re-evaluate the Wildland Fire Implementation Plan and accompanying documentation. Specific needs to be addressed include:

1) Fire Behavior Predictions and Risk assessment (WFIP Stage II)
2) Complexity Rating Worksheet (WFIP Stage II)
3) WFIP Stage III: Long-Term Assessment and Implementation Actions
   - Objectives and Risk Assessment Considerations
   - Natural and Cultural resource objectives and constraints/considerations
   - MMA Definition and Maps
   - Fire Projections and Maps
   - Weather season/drought discussion and prognosis
   - Long-Term Risk Assessment (describe techniques and outputs, include maps as appropriate)
   - Probability of Success
   - Threats
   - Threats to MMA
   - Threats to Public Use and Firefighter Safety
   - Smoke dispersion and effects
   - Other
   - Monitoring Actions (actions, frequency, and duration)
   - Holding Actions (describe holding actions, management action points that initiate these actions, and key to map if necessary)

- Resources needed to manage the fire
- Estimated costs of long-term implementation actions
- Contingency Actions (describe contingency actions, management action points that initiate them, and resources needed)
- Information Plan
- Post-burn evaluation
- Signatures and Date

This re-assessment and analysis will be necessary because over long time periods, fire situations, weather, and other developments can occur and drastically affect the original implementation plan. In many cases, fire growth of multiple fires alone will be sufficient cause to warrant preparation of a new WFIP Stage III. Since the MMA definition is part of the WFIP Stage III, it can be re-assessed along with other components of this Stage. If conditions and developments strongly support re-definition of the MMA**, this is the only other situation where an MMA can be altered or moved.**

A determination of the need to re-assess and analyze documented implementation plans must be completed for all long duration fires no less than every 30 days. Parks can choose to complete this determination more frequently as desired or as needs dictate.

If the fire management officer determines that managing a fire within its original approved boundary is not feasible, a WFSA will be used to select a new strategic alternative and receive the appropriate management action.

3. Documentation of **Fire Use Decision Initial Validation**: For each wildland fire managed for resource benefits, the decision to proceed with implementation must be validated to ensure adequate and timely management. This process will use the decision process and checklist defined in the Fire Management Plan.

The fire management officer will determine that the new start meets criteria for continued management (as opposed to initiating suppression actions), based upon onsite information, fire location, and management objectives. Once the fire use decision has been validated, development of appropriate management response will commence. A Wildland Fire Implementation Plan will be prepared to the extent necessary for each fire or complexes of fires.

Many wildland fires occur in high elevations, remote areas, or areas surrounded by sparse fuels, and have little or no chance of ever requiring any management action other than monitoring. They are often single tree fires, or may be larger but surrounded by strong natural barriers. These fires will require a WFIP Stage I: Initial Fire Assessment and Periodic Fire Assessment.

If the fire management officer or designee determines that this is the case, the decision process, analysis of alternatives, and daily revalidation checklist will be the record of decision. If at a later date it develops that additional management actions will be needed,

such as firing, holding, or trail closures, additional stages of the Wildland Fire Implementation Plan detailing the management strategy and planned implementation actions for the fire will be submitted to the superintendent or acting superintendent for review and approval.

Wildland fires, which begin outside of the park, will receive the same consideration as new starts when they enter the park unless the park and adjacent land owner collaborated on a plan before the fire enters the park. The Superintendent will approve a new Wildland Fire Implementation Plan as directed by the re-validation and consultation with cooperators. It is advisable for NPS units to interact and communicate with their neighbors about all wildland fires that have the potential to leave or enter park lands. Joint decision-making and planning processes should be used involving all affected agencies. **A single interagency wildland Fire Implementation Plan prepared with all agencies' inputs during the initial decision making phase of the fire is strongly recommended.**

Re-Validation: For each wildland fire, the superintendent (or delegated individual) is required to periodically affirm that adequate capability exists to continue management of the fire. This periodic assessment, as described in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide, Chapter 4, Section C-4 satisfies the certification requirement identified in DO-18. A checklist of information must be completed periodically. Frequency of completion of the checklist will be determined in the WFIP process and may be adjusted as the complexity of the fire changes. The checklist will accomplish two purposes. First, it affirms the unit's capability to continue management of the fire for resource benefits. Second, it provides the criteria for the decision concerning the need to develop the Wildland Fire Implementation Plan Stage III. So long as all criteria on this checklist remain negative, WFIP Stage III preparation can continue to be deferred (sample checklist is available in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide).

The Superintendent must validate the decision either directly or through a written delegation of authority to a senior park staff member or Fire Use Manager. When fire conditions or complexity levels escalate, revalidation authority will automatically and immediately revert to the Superintendent originally responsible for approval of the Wildland Fire Implementation Plan.

Changes in an approved Implementation Plan will require the plan to be approved by the superintendent or acting superintendent. If he or she will not do this, then a Wildland Fire Situation Analysis must be completed to select a new strategic alternative.

4. Development of a **Wildland Fire Implementation Plan** (operational management plan). The standard for a Wildland Fire Implementation Plan is identified in Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide, Chapter 4, Section C-4.

The use of the Wildland Fire Implementation Plan (WFIP) involves three specific stages: Stage I, II, and III. The WFIP is constructed to permit progressive development. Not all fires will warrant and receive intensive on-the-ground management actions. Mandatory, immediate complete plan preparation for every ignition is strongly recommended but during periods of multiple ignitions that could present a significant workload. The progressive developmental nature of the WFIP allows prioritization of immediate needs and reduces the workload by minimizing unnecessary planning. As part of the periodic assessment process, plan preparation requirements will be validated by completion of the Periodic Assessment, Part I (see Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide).

All WFIP Stage III efforts will include a thorough risk assessment for the wildland fire. All units using wildland fires for resource benefits will complete an analysis of both documented and/or potential fire behavior and weather scenarios through the best available technology during development of WFIP Stage III. In addition, a quantitative analysis describing the probability of the fire breaching the MMA will also be completed. The Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide, Table 6, Decision Support Tools, provides a list of the best available technology designed to support fire management decisions. As new technology becomes available for application in management situations, it should be used to facilitate management actions to the greatest degree possible. However, newly emerging technology cannot be made mandatory before all potential users have had the opportunity to become fully functional in its use through training and experience.

The Prescribed Fire Behavior Analyst (RXFA) is significantly important in predicting the potential of fire growth, assessing risk, and validating the maximum manageable area (MMA). This position is prerequisite to successful preparation of the Wildland Fire Implementation Plan. Consultation with an RXFA is recommended to provide a complete review of MMAs and Wildland Fire Implementation, provide input regarding the potential of the fire, assess potential risk, and make extended fire behavior predictions for comparisons of documented and/or potential fire behavior.

The Prescribed Fire Behavior Analyst position is a mandatory component of all teams preparing Wildland Fire Implementation Plans. An RXFA does not have to remain continually involved with the wildland fire after completion of the Implementation Plan. The Fire Use Manager (FUMA) will determine the necessary level of involvement of the RXFA during the implementation of the approved plan (see NWCG 310-1 for position description and qualifications).

5. Selection of New Strategies - Wildland Fire Situation Analysis (WFSA)
When any of the following conditions occur, the WFSA process will be completed:

- Fire does not meet every element of the Decision Criteria Checklist, or is exceeding management capability to implement the Wildland Fire Implementation Plan.

- Fire is projected to leave NPS jurisdiction, and the adjoining jurisdiction will not/cannot accept management of the fire.
- The superintendent or acting superintendent will not approve a WFIP for the wildland fire.
- Regional fire management officer, with the concurrence of the responsible superintendent, determines that regional and/or national conditions outweigh potential benefits of the fire and appropriate suppression action is warranted. Those acres burned after the strategic alternative is changed due to use of the WFSA process will be recorded as acreage from a suppression action. Acres burned before the change in strategy will be counted as wildland fire use acreage. If the new alternative involves continued management for resource benefits inside the original MMA while initiating suppression action outside the MMA concurrently, area burned will be documented as: acreage inside MMA - wildland fire use acreage; acreage outside MMA - suppression acreage.

If a change in strategy occurs, fully qualified suppression personnel will be assigned and suppression action initiated, following the selected alternative defined in the Wildland Fire Situation Analysis and within the guidance and restraints contained in the limited delegation of authority issued for that fire.

6. Monitoring.

All wildland fire use actions will be monitored. Qualified Prescribed Fire Monitors (RXFM)
should be used, and ordered to staff fires as needed. Information gathered during fire monitoring is needed to:

- Provide management with information essential for decision making.
- Determine if fire management program objectives are being met.
- Ensure protection of human life, property, and natural/cultural resources.
- Determine the effectiveness of the planned strategy of trigger points, holding actions and MMA.
- Assist with contingency planning by identifying barriers to spread, problem areas, locations for holding actions, and required forces.
- Increase knowledge of fire behavior and effects on park ecosystems. The uncertain location of wildland fires complicates establishment of pre-fire, fire monitoring plot network.
- Provide quality long-term documentation records for actions taken on a fire.
- Monitor smoke emissions to identify health concerns (if necessary, health advisories should be issued). State air quality organizations or the NPS air quality division may serve as sources for technical assistance and monitoring equipment.
- See Chapter 11 (Wildland and Prescribed Fire Monitoring) for more information.

7. Information and Interpretation. Wildland fire use programs should include an information and interpretation program which provides for the timely and accurate communication of:

- The specific fire management objectives of NPS and the park.
- Information on fire location, behavior, growth.
- Information on the effects of fire.
- Fire management actions taken on a fire.
- Fire impacts, on and off the park, on public and private facilities and services.
- Restrictions and closures within the park.
- A "step-up plan" addressing all aspects of a park's fire management program and when contact activities will escalate, including:

1) Minimum public and media contact requirements (park residents, concessionaires, neighbors, cooperators, and inholders).
2) Program management responsibility.

3) Provisions for increased interpretive and information programs commensurate with increased fire activity or fire danger.

4) Pre- and post-season fire management interpretation and information programs.

5) Minimum training requirements identified by individual parks for interpreters and public information specialists assigned park fire information responsibilities (not to be construed as requiring full certification under 310-1 standards).

6) Information on the natural role of fire, the park's efforts to restore natural fire to park ecosystems, or other discussions of the benefits of fire will not be mixed with information on the status of wildland fire suppression.

8. Interagency Agreements and Commitment
Parks with complex wildland fire use programs on lands that abut neighboring lands having similar objectives should develop mutually agreeable fire management plans or interagency agreements to amend existing plans. Common management responses to fire occurrences, clear understanding and implementation of funding procedures, and policies for managing fires that cross agency boundaries must be included.

Where agreement on decision criteria and management actions are not possible or desirable, or where NPS fire management FMUs abut jurisdictions having conflicting fire management objectives, buffer zones must be defined. The buffer zones should be wide enough to provide a defensible space for the adjacent jurisdiction. Insufficient buffer zones and/or indefensible boundaries will cause the appropriate management response to assume a suppression orientation.

9. Fire Management Committee. A committee approach, involving key staff from all divisions, has been found to be an effective method of reviewing and evaluating wildland fires and is a recommended technique to provide review and oversight. A key function of both the initial and subsequent reviews is to ensure that various management considerations are addressed in the Implementation Plan, and to seek consensus on the Maximum Manageable Area and its internal decision points. Since the approval of the

new or modified Implementation Plan by the superintendent is mandatory, he or she is strongly encouraged to participate in the committee meetings. This is particularly true in situations involving road or trail closures, deteriorated visibility, or impact on businesses in or near the park.

10. Postfire Rehabilitation. FIREPRO will not pay for postfire rehabilitation of effects caused by wildland fire use actions. Activities which rehabilitate impacts associated with direct management actions, such as flying out refuse, flush cutting stumps, or obliterating handline is a normal part of wildland fire use, and charged to the fire account. Mitigation of long term impacts, such as replacing burned wooden water bars in trails, bucking fire-killed trees off trails, or repairing burned backcountry bridges cannot be charged to the fire account. Requests for FIREPRO funds to be spent on long-term rehabilitation of effects from wildland fires will be submitted to, and reviewed by the Fire Management Program Center, NIFC (refer to Chapter 12, Burned Area Emergency Rehabilitation for more information).

11. Wildland Fire Use Organizational Management

In addition to planning decisions which specify the size of the wildland fire and its behavior and effects, the workload requirements imposed from the management of the fire must be defined and met. These include all positions (overhead, firing, holding, monitoring, logistics, backup, etc.) which will be required to manage the fire, as specified in the Implementation Plan. Appropriate skill levels are guided by NPS complexity analysis.

As organizational requirements escalate in response to increasing fire complexity and values to be protected, units are expected to staff appropriately. Appropriate organizational levels will be identified through the Wildland Fire Implementation Plan or the Wildland Fire Situation Analysis (WFSA) process or by evaluation of in-park capabilities. Fire Use Management Teams (FUMT) or Incident Management Teams (Type 1 or 2) can augment wildland fire use, when exceeding local capabilities. Both forms of teams can be ordered through the dispatch mobilization system and are described in the National Interagency Mobilization Guide. Fire Use Management Team considerations are summarized in the next section. Complete descriptions of team configuration, capabilities, mission, and responsibilities of the Fire Use Management Teams are described in the Interagency FUMT Operations Guide, available from the National Interagency Fire Center (NIFC) in Boise.

FIRE USE MANAGEMENT TEAM (FUMT) CONSIDERATIONS

The Fire Use Management Teams have been established to provide a specialized management organization to fulfill the need for assigned resource support to fire use actions that exceed local units' management capability at activity levels experienced during long duration situations or when preparedness levels are high and high priority fires with protection objectives are requiring large resource commitments. Fire Use Management Teams are not designed to displace existing Incident Management Teams

(IMTs). Instead, these teams are intended to supplement and support existing IMTs by providing additional resources to facilitate concurrent fire use and wildland fire suppression accomplishments.

The FUMTs bring unique risk assessment and fire growth projection capabilities to support decision-making and improve planning and implementation activities on fire use actions. The teams consist of an overhead configuration based around Incident Command System (ICS) command and staff positions.

The teams have been identified in the National Mobilization Guide (NMG). Currently defined roles and responsibilities of teams include assistance and/or implementation tasks in the following areas:

1. Technical assistance in the planning, implementation, and evaluation of wildland fires managed for resource benefits (wildland fire use actions):
a) direct assistance in long-term programmatic preparation and decision-making for wildland fire use (could include historical weather analysis); input file preparation; fire management plan prescription; Wildland and Prescribed Fire Complexity Analysis; and decision criteria evaluation or formulation; Delegation of Authority preparation, etc.
b) direct assistance or counsel in short-term wildland fire use preparation,
c) direct technical support in decision-making and developing appropriate management responses as part of the preparation of Wildland Fire Implementation Plans (WFIP),
d) complete management, oversight, and implementation of appropriate management responses as directed in Wildland Fire Implementation Plan,
e) assistance in evaluation of effectiveness and efficiency of specific fire implementation (in terms of periodic assessment and final fire assessment), and program implementation,
f) develop recommendations, as requested designed to improve programmatic effectiveness.

2. Technical assistance in the planning, implementation, and evaluation of complex prescribed fire projects, as requested by an ordering unit:
a) direct assistance in planning and preparation, including, but not limited to, prescription development, input to Go/No-Go decision criteria checklist, fire behavior prediction and forecasts, design of fire weather, fire behavior, fire effects, and smoke monitoring schemes, evaluation of objectives, and development of implementation plans,
b) direct assistance or management of complete implementation of a Prescribed Fire Plan for a prescribed fire project. This responsibility could involve management of pre-burn preparation, ignition, holding, monitoring, and post-ignition operations,
c) technical counsel or advisement involving prescribed fire accomplishment. Includes evaluation of objectives and recommendations.

3. Technical assistance and support for implementation of appropriate management responses to accomplish joint wildland fire use and suppression objectives for low-moderate complexity wildland fires (could include design and implementation of monitoring schemes, assistance to local staff or Fire Management Officer (FMO) in monitoring and evaluation of multiple fires, analysis of historical weather, and

completion of situation assessments, probability calculations, fire behavior forecasts, rare event risk assessment, and implementation of limited holding actions).

Characteristics of a fire use/wildland fire where a FUMT represents the desirable management organization include:

- Management objectives of achieving resource benefits,
- Low – moderate complexity wildland fire with a suppression-oriented appropriate
- management response indicating long-duration time frames and limited on-the-ground operational actions,
- A Maximum Manageable Area (MMA) is established to set limits of the ultimate acceptable fire size,
- Long-term risk assessment and other aids to decision-making are necessary/desirable,
- Most or all of the command and general staff positions may be needed,
- The fire extends into multiple operational periods,
- A written operational management plan (Wildland Fire Implementation Plan) is needed and prepared,
- A written daily action plan is needed and prepared,
- Operations personnel do not generally exceed 100 for long time periods,
- Divisions may be established to geographically facilitate making work assignments,
- Role of Superintendent
- Complexity analysis
- Wildland Fire Implementation Plan
- Written Delegation of Authority
- Superintendent briefings

B. WILDLAND FIRE SUPPRESSION
INTRODUCTION

Objective. The objective of wildland fire suppression, as an integral part of wildland fire management in the National Park Service, is to manage wildland fires safely and efficiently to accomplish protection objectives. It will be integrated into land and resource management plans and activities on a landscape scale, across agency boundaries, and will be based on best available science.

Protection priorities are (1) human life and (2) property and natural/cultural resources. If it becomes necessary to prioritize between property and natural/cultural resources, this is to be done based on relative values to be protected, commensurate with fire management costs.

Once people have been committed to an incident they become the highest value to protect. The full spectrum of tactical suppression options is available to the manager of a wildland fire. One or all of the actions may be employed on any given incident.

Any one or a combination of tactical options may be chosen and specified by the manager, depending on the anticipated consequences and management objectives for the area that is likely to burn. This will be done as a part of the operational management plan.

Responsibilities.

Every National Park Service employee has a responsibility to support wildland fire operational activities as the situation demands. All personnel involved in fire management activities shall meet the current National Park Service wildland fire qualification standards, to include accepted interagency competencies (knowledge, skills, and abilities) where appropriate.

INITIAL AND EXTENDED ATTACK

Initial Attack. Wildland fires, which are deemed unacceptable, must receive appropriate initial attack action (IA) as defined in the fire management plan. The goal in all initial attack actions is to limit damage to values to be protected and to prevent the escape of the fire.

Closest Forces. Cooperative agreements or memoranda of understanding with adjacent agencies or fire protection organizations must cover the use of closest forces, i.e., the nearest available appropriate resources to respond to an incident. These agreements will be part of the fire management plan. Orders for additional resources will be placed in accordance with existing agreements including the designated geographical area or zone dispatch.

Extended Attack. Extended attack occurs when a fire has not been contained or controlled by the initial attack forces and continues, either until transition to a higher level incident management team is completed, or until the fire has been contained/controlled. Extended attack action requires a Wildland Fire Situation Analysis to guide the re-evaluation of suppression strategies.

Wildland Fire Situation Analysis (WFSA).

The WFSA is a decision process that employs a systematic and reasonable approach to determine the most appropriate management strategy for a particular situation. Reasonable management alternatives are identified, analyzed and evaluated, and are consistent with the expected probability of success/consequences of failure. The superintendent shall approve the WFSA and any revisions. Evaluation criteria include firefighter safety, anticipated costs, resource impacts, and environmental, social, and political considerations. The evaluation of alternatives must clearly identify the point at which the failure of the alternative is imminent. This becomes the triggering mechanism for re-evaluation of the WFSA.

For situational guidelines for selecting alternatives in the WFSA see Wildland and Prescribed Fire Management Policy Reference Guide.

Pre-Attack Wildland Fire Situation Analysis. The pre-attack WFSA is a WFSA that is completed by the park staff during the pre-attack planning process. It translates park fire management objectives into a concise action document, which determines initial management strategy. To ensure that all important decision criteria are adequately addressed during the initial stages of a wildland fire, selective use of a pre-attack WFSA is recommended. Although this process applies in any park with identified protection zones, it is most useful in those parks, or portions of parks, where fire is unacceptable. The pre-attack WFSA will serve as the framework for a WFSA if the fire exceeds the parameters of the selected management alternative. A sample pre-attack WFSA is contained in Exhibit 1.

Fire Complexity Analysis.

The fire complexity analysis is a checklist intended to guide the superintendent in determining incident organizational needs and when transition from extended attack to a higher qualified incident management team is necessary. Before additional resources are ordered, an analysis must be completed and becomes part of the fire record. A Fire Complexity Analysis Guide is contained in Exhibit 2 (This is not to be confused with the Wildland and Prescribed Fire Complexity Analysis described in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide).

INCIDENT MANAGEMENT TEAM TRANSITION

Limited Delegation of Authority.

The transfer of authority for suppression actions on a fire is done through the execution of a written limited delegation of authority from the superintendent to the incident commander. This procedure facilitates the transition between incident management levels.

An incident management team may assume the authority to manage a fire only after receiving a signed limited delegation of authority from the superintendent. The delegation of authority is a part of the briefing package provided to the incoming incident management team. A sample delegation of authority is contained in Exhibit 3.

Briefing.

The superintendent and local incident commander must brief the incoming incident management team. The briefing guidelines are contained in Exhibit 4.

INCIDENT MANAGEMENT CONSIDERATIONS

Use of minimum impact tactics is the policy of the National Park Service. Minimum impact tactics guidelines are contained in Exhibit 5.

Air Operations.

Air operations during fire incidents will comply with the provisions of DO-60, Aviation Management Guideline. Personnel Work/Rest Guidelines. Management of crew, overhead, and support personnel to assure safe, productive fire suppression activity is a basic responsibility of all supervisory personnel.

Personnel work/rest guidelines are contained in the Interagency Incident Business Management Handbook. Extraordinary Fire Situations. Occasionally, instances of fire behavior, which exceed the fire organization's ability to achieve management objectives, occur. In such instances, neither traditional strategies and tactics nor any amount of additional resources will control the fires.

While these isolated incidents occur infrequently, the conditions resulting from extreme resistance to control must be addressed in fire management planning. Under such circumstances, a variety of situations may arise, including unacceptable threats to firefighter safety, substantial losses of acreage, uncontrollable losses of improvements, consistent failure to meet suppression objectives and overwhelming political involvement.

Fire management during these situations will require extraordinary, nontraditional thinking. The overall management goal to suppress the fire remains constant. In such situations, however, incident commanders must shift their focus from perimeter control to an interim strategy for protecting life and high value park resources while providing for the safety of firefighting resources until conditions are more favorable for suppression. Managers should determine those critical values, protection strategies, and indicators which will assist them in identifying and responding to these extraordinary fire incidents, then document them in park fire management plans.

Incident Status Reporting.

The status of the incident must be reported in accordance with local, geographical area, and national mobilization guide standards. Incident status is reported on the Incident Status Summary (ICS-209).

Rehabilitation.

Fire rehabilitation and fire recovery involve types of actions that must be clearly differentiated. Rehabilitation involves short-term actions (usually 0-6 months) to stabilize a burned area and mitigate the effects of fire suppression activities. Immediate rehabilitation actions to prevent further land degradation or resource loss, or to ensure safety, may be carried out as part of the incident. For more detail on rehabilitation see Chapter 12.

Recovery involves long-term actions to restore an area to its pre-fire appearance and function, including restoration of plant and animal communities and replacement or

enhancement of park infrastructure, including the construction of buildings and facilities. Rehabilitation actions may be funded through the emergency fire operations accounts, whereas recovery actions are part of normal park ONPS operations.

As a general rule, burned areas that are not managed to preserve a cultural or historic scene will be allowed to regenerate naturally. Rehabilitation needs should be considered for each fire, and plans prepared for those fires requiring complex rehabilitation efforts. Each park will identify its rehabilitation techniques and standards in the park's fire management plan.

Release of Incident Management Team.

The release of an incident management team is basically the reverse of the transition to the incident management team from extended attack. The superintendent must approve the date and time. The incoming incident management team should have had 24 hours off prior to assuming control of the incident.

Guidelines for the release of an incident management team are contained in Exhibit 6. Incident Management Team Evaluation. At the time of closeout, the superintendent must complete a written evaluation of the incident management team, appraising them of their compliance to the incident objectives and the delegation of authority. A second more thorough narrative should be completed after sufficient time has elapsed so that incident costs, claims, demobilization, and rehabilitation are essentially complete and can be thoroughly evaluated. This delay in preparing the complete narrative evaluation will also provide the superintendent with the opportunity to evaluate the incident management team's effectiveness with cooperating agencies, the media, and park neighbors. However, the written evaluation should be completed prior to the end of the current calendar year.

The delegation of authority, escaped fire situation analysis, and superintendent's direction shall serve as the primary standards against which the incident management team is evaluated. The superintendent will provide a copy of the evaluation to the incident commander, regional fire management officer, and Fire Management Program Center and retain a copy for the final fire package. Factors to consider in a written evaluation of an incident management team are contained in Exhibit 7.

MINIMUM IMPACT TACTICS GUIDELINES

The change from FIRE CONTROL to FIRE MANAGEMENT has added a new perspective to the role of fire manager and the firefighter. The objective of putting the fire "dead-out" by a certain time has been replaced by the need to make unique decisions with each fire start, to consider the land and resource objectives, and to decide the appropriate management response and tactics which result in minimum costs and resource damage. Traditional thinking, "the only safe fire is a fire without a trace of smoke" is no longer valid. Fire Management now means managing fire "with time" as opposed to "against time." This change in thinking and way of doing business involves not just the firefighter, but all levels of management as well. NPS fire management requires the fire manager and firefighter to select management tactics commensurate with the fire's potential or existing behavior, yet leaves minimal environmental impact.

The intent of this guide is to serve as a checklist for the Incident Command and Planning Section Chief, Operations Section Chief, Logistics Section Chief, Division/Group Supervisors, Strike Team/Task Force Leaders, Single Resource Bosses, and firefighters. Accomplishments of minimum impact fire management techniques originates with instructions that are understandable, stated in measurable terms, and communicated both verbally and in writing.

Evaluation of these tactics both during and after implementation will further the understanding and achievement of good land stewardship ethics during fire management activities.

AGENCY ADMINISTRATOR/INCIDENT MANAGEMENT TEAM/FIREFIGHTER CONSIDERATIONS FOR MINIMUM IMPACT MANAGEMENT

The following guidelines are for park superintendents, incident management teams and firefighters to consider. Some or all of these items may apply, depending upon the situation. Consider:

Command and General Staff.

1. Evaluate each and every suppression tactic during planning and strategy sessions to see that they meet superintendent's objectives and minimum impact management guidelines.
2. Include agency resource advisor and/or local representative in above session.
3. Discuss minimum impact management techniques with overhead during overhead briefings, to gain full understanding of tactics.
4. Ensure minimum impact management techniques are implemented during line construction as well as other resource disturbing activities.

Planning Section.
1. Use resource advisor to evaluate that management tactics are commensurate with land/resource objectives, and incident objectives.

2. Use an assessment team to get a different perspective of the situation.
3. Use additional consultation from "publics" or someone outside the agency, especially if the fire has been or is expected to be burning for an extended period of time.
4. Adjust line production rates to reflect the minimum impact management tactics.
5. Use brush blade for line building--when dozer line is determined necessary tactics.
6. Leave some trees randomly in fireline.
7. Ensure that instructions for minimum impact management techniques are listed in the incident action plan.
8. Detail objectives for extent of mop-up necessary--for instance: "_____ distance within perimeter boundary."
9. If helicopters are involved, use long line remote hook in lieu of helispots to deliver/retrieve gear.
10. Anticipate fire behavior and ensure all instructions can be implemented safely.
11. Consider coyote camps versus fixed campsite in sensitive areas.
12. In extremely sensitive area, consider use of portable facilities (heat/cook units, latrines).

Operations Section.

1. Emphasize minimum impact management techniques during each operational period briefing.
2. Explain expectations for instructions listed in incident action plan.
3. Consider showing minimum impact management slide-tape program or video to the crews upon arrival at airport/incident.
4. Consider judicious use of helicopters--consider long lining instead of helispot construction.
5. Use natural openings so far as practical.
6. Consider use of helibucket and water/foam before call for air tanker/retardant.
7. Monitor suppression tactics/conditions.
8. Distribute field guide to appropriate supervisory operations personnel.

Logistics Section.

Ensure actions performed around areas other than Incident Base, i.e. dump sites, camps, staging areas, helibases, etc., result in minimum impact upon the environment.

Division/Group Supervisor and Strike Team/Task Force Leader.

1. Ensure crew superintendents and single resource bosses understand what is expected.
2. Discuss minimum impact tactics with crew.
3. Ensure dozer and falling bosses understand what is expected.
4. If helicopters are involved, use natural openings as much as possible; minimize cutting only to allow safe operations.
5. Avoid construction of landing areas in high visitor use areas.
6. Monitor suppression tactics/conditions.

Crew Superintendents.

1. Ensure/Monitor results expected.
2. Discuss minimum impact management techniques with crew.
3. Provide feedback on implementation of tactics--were they successful in halting fire spread; what revisions are necessary?
4. Look for opportunities to further minimize impact to land and resources during the suppression and mop-up phase

IMPLEMENTATION GUIDELINES

Minimum impact management is an increased emphasis to do the job of suppressing a wildland fire while maintaining a high standard of caring for the land. Actual fire conditions and your good judgment will dictate the actions you take. Consider what is necessary to halt fire spread and ensure it is contained within the fireline or designated perimeter boundary.

Safety.

1. Safety is of utmost importance.
2. Constantly review and apply the 18 Situations that Shout Watch out and 10 Standard Fire Orders.
3. Be particularly cautious with:
a. Burning snags you allow to burn down.
b. Burning or partially burning live and dead trees.
c. Unburned fuel between you and the fire.
d. Identify hazard trees with either an observer flagging and/or glow-sticks.
4. Be constantly aware of the surroundings, of expected fire behavior, and possible fire perimeter one or two days hence.

Fire Lining Phase.

1. Select procedures, tools, and equipment that least impact the environment.
2. Give serious consideration to use of water as a firelining tactic (fireline constructed with nozzle pressure, wetlining).
3. In light fuels, consider:
a. Cold trail line.
b. Allow fire to burn to natural barrier
c. Consider burn out and use of "gunny" sack or swatter.
d. Constantly re-check cold-trailed fireline.
e. If constructed fireline is necessary, use minimum width and depth to check fire spread.
4. In medium/heavy fuels, consider:
a. Use of natural barriers and cold trailing.
b. Cooling with dirt and water, and cold-trailing.
c. If constructed fireline is necessary, use minimum width and depth to check fire spread.
d. Minimize bucking to establish fireline; preferably build line around logs.

5. Aerial fuels--brush, trees, and snags:
a. Adjacent to fireline; limb only enough to prevent additional fire spread.
b. Inside fireline; remove or limb only those fuels which if ignited would have potential to
spread fire outside the fireline.
c. Brush or small trees that are necessary to cut during fireline construction will be cut flush with the ground.
6. Trees, burned trees, and snags:
a. MINIMIZE cutting of trees, burned trees, and snags.
b. Live trees will not be cut; unless determined they will cause fire spread across the fireline or seriously endangers workers. If tree cutting occurs cut stumps flush with the ground.
c. Scrape around tree bases near fireline if hot and likely to cause fire spread.
d. Identify hazard trees with either an observer, flagging and/or glow sticks.
7. When using indirect attack:
a. Do not fall snags on the intended unburned side of the constructed fireline, unless they are an obvious safety hazard to crews working in the vicinity.
b. On the intended burnout side of the line, fall only those snags that would reach the fireline should they burn and fall over. Consider alternative means to falling, i.e. fireline explosives, bucket drops.

Mop-up Phase.

1. Consider using "hot-spot" detection devices along perimeter (aerial or hand-held).
2. Light fuels:
a. Cold-trail areas adjacent to unburned fuels.
b. Do minimal spading; restrict spading to hot areas near fireline only.
3. Medium and heavy fuels:
a. Cold-trail charred logs near fireline; do minimal scraping or tool scaring.
b. Minimize bucking of logs to check for hot spots or extinguish fire; preferably roll the logs.
c. Return logs to original position after checking or ground is cool.
d. Refrain from making bone-yards; burned/partially burned fuels that were moved would be arranged in natural position as much as possible.
e. Consider allowing larger logs near the fireline to burnout instead of bucking into manageable lengths. Use lever, etc. to move large logs.
4. Aerial fuels--brush, small trees and limbs; remove or limb only those fuels which if ignited have potential to spread fire outside the fireline.
5. Burning trees and snags:
a. First consideration is allow burning tree/snag to burn themselves out or down (Ensure adequate safety measures are communicated).
b. Identify hazard trees with either an observer, flagging, and/or glow-sticks.
c. If burning trees/snag pose serious threat of spreading firebrands, extinguish fire with water or dirt. FELLING by chainsaw will be last means.
d. Consider falling by blasting, if available.

Camp Sites and Personal Conduct.

1. Use existing campsites if available.
2. If existing campsites are not available, select campsites that are unlikely to be observed by visitors/users.
3. Select impact-resistant sites such as rocky or sandy soil, or opening within heavy timber. Avoid camping in meadows, along streams or lakeshores.
4. Change camp location if ground vegetation in and around the camp shows signs of excessive use.
5. Do minimal disturbances to land in preparing bedding and campfire sites. Do not clear vegetation or do trenching to create bedding sites.
6. Toilet sites should be located in minimum of 200n feet from water sources. Holes should be dug 6-8 inches deep.
7. Select alternate travel routes between camp and fire if trail becomes excessive.
8. Evaluate coyote camps versus fixed campsites in sensitive areas.

Restoration of Fire Suppression Activities.

1. Firelines:
a. After fire spread is secured, fill in deep and wide firelines, and cut trenches.
b. Waterbar, as necessary, to prevent erosion, or use wood material to act as sediment dams.
c. Ensure stumps from cut trees/large size brush are cut flush with ground.
d. Camouflage cut stumps, if possible.
e. Any trees or large size brush cut during fireline construction should be scattered to appear natural.

2. Camps:
a. Restore campsite to natural conditions as much as possible.
b. Scatter fireplace rocks, charcoal from fire; cover fire ring with soil; blend area with natural cover.
c. Pack out all garbage and unburnables.
3. General:
a. Remove all signs of human activity (plastic flagging, small pieces of aluminum foil, litter).
b. Restore helicopter-landing sites.
c. Cover, fill in latrine sites.

IX. CULTURAL RESOURCES

In order to protect cultural resources in CIRO during a wildland fire suppression operation, the following actions will occur:

1. During a wildland fire incident briefing the incoming Incident Command Team will receive a map depicting locations of known sensitive cultural sites.
2. A Resource Advisor will be assigned to the Incident Command Team.
3. MIST strategies will be used for the duration of the Incident.
4. Retardant and foam use will be limited in areas of cultural sensitivity and near waterways.
5. Upon findings of new cultural sites during suppression operations these sites will be protected commensurate to the risk to fire personnel. The Resource Advisor will be notified as soon as possible.

All other fire management activities which have the potential to negatively impact cultural resources will have completed Sec 106 requirements prior to implementation of the project.

CIRO FMP Cultural Resources Goals and Objectives

Goal: Minimize direct, operational and indirect impacts to cultural resources as a result of wildfires and wildfire suppression actions

Objective:

- For every wildland fire suppression action, implement, as appropriate, the mitigations identified in the Appendix.
- By 2006, complete GIS database containing location information for all cultural resources in the Reserve (archeological sites, structures, cultural landscapes, etc.) and make available for Fire Management planning purposes;
- During each wildfire, avoid direct, operational and indirect impacts to 90% of previously documented and 75% of previously undocumented cultural resources within the burned area.

CULTURAL RESOURCES

City of Rocks NR contains cultural resources reflecting a diverse array of prehistoric and historic human occupation. This section summarizes cultural resources found in the Reserve proper, BLM land leased by the Reserve and Castle Rock State Park.

The National Park Service recognizes five types of cultural resources: archeological resources, structures, cultural landscapes, ethnographic resources and museum objects (National Park Service 1997).

Archeological resources are the physical evidences of past human activity, including evidences of the effects of that activity on the environment, and are frequently conceptualized and managed as spatially discrete archeological sites.

Structures—constructed works built to serve some human activity—are usually immobile and can be of either prehistoric or historic age. Examples include buildings and monuments, trails, roads, dams, canals, fences and structural ruins. The National Park Service manages structures through the List of Classified Structures (LCS), an inventory of all prehistoric and historic structures with historical, architectural, or engineering significance.

Broadly defined, *cultural landscapes* are a reflection of human adaptation and use of natural resources and often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Ethnographic resources are basic expressions of human culture and the basis for continuity of cultural systems. These encompass both the tangible and the intangible, and include traditional arts and native languages, religious beliefs and subsistence activities. A given cultural resource may qualify as one or more of these types; for example, the California Trail is an archeological feature, structure, and cultural landscape.

Finally, *museum objects* include specimens, objects and manuscript and archival collections. These are frequently kept in a museum or designated curatorial facility.

Background

Prehistory and Ethnography

Plew (2000) summarized the prehistoric chronology for the eastern Snake River Plain area, just north of the Reserve. A *Paleoindian Tradition* (12,000 to 9,000 B.P.) is marked by the presence of Clovis, Folsom and Plano projectile points found cave and open-air contexts, and may represent adaptations focused on the procurement of large game, including extinct megafauna. The *Early Archaic* (7,800 to 5,000 B.P.) is characterized by lanceolate and large corner- and side-notched projectile points, and a subsistence strategy focused on a wider array of resources. The Middle Archaic (5,000 to 2,000 B.P.) exhibited continued use of large corner- and side-notched projectile points, more extensive use of groundstone tools, and increasingly diverse settlement-subsistence patterns. *Late Archaic* (post-1,000 B.P.) occupations are marked by small corner- and side-notched projectile points (signifying introduction of the bow-and-arrow), pottery, and further diversification of subsistence strategies, including intensive salmon utilization. Although elements of the Fremont Culture (e.g., ceramics) are associated with Late Archaic components on the Snake River plain, it is still uncertain whether these reflect the presence of Fremont peoples in the region.

Ethnographic data for City of Rocks NR are summarized from a variety of sources (Thomas et al. 1986; Murphy and Murphy 1986; Chance 1989; Historical Research Associates 1996) and references therein. Other than violent clashes with settlers, little or no specific information is available regarding Native American occupation in the vicinity of City of Rocks NR prior to about 1900. The following summary focuses on the possible role of the Reserve in the subsistence-settlement regimes of local Native American groups during the protohistoric and early historic periods. Whether these patterns can be extrapolated into prehistory is unknown due to factors (e.g., introduction of the horse and firearms) that surely altered regional mobility patterns and inter-group relationships.

At historic contact, the City of Rocks NR area was utilized by groups that spoke languages of the Numic branch of the Uto-Aztecan Family: Northern Shoshone and Bannock, whose core territory included the upper Snake River Plain, and the Western Shoshone, who held much of Nevada and northwestern Utah. Members of both groups may have visited City of Rocks NR for the purpose of gathering piñon pine nuts and other plant foods such as camas, and hunting. It is likely that occupation was seasonal in nature, concentrated during periods when ripening plants and game were most abundant.

Even after being forced to relocate to reservations in the latter half of the Nineteenth Century, Native Americans with ancestral ties to the City of Rocks NR continued to use the area for traditional pursuits. Noteworthy were Charlie and Fanny Red, Shoshone-Bannock from Fort Hall, who camped at Circle Creek annually in the early 1900s to procure piñon pine nuts and hunt small and large mammals. Hunting is and, until very recently, pine nut gathering was still carried out by local Native Americans at City of Rocks NR. Early Euroamerican residents of the area reported that Shoshone-Bannock continued to return to the Twin Sisters and Bathtub Rock areas to perform important ceremonies.

History

This section was summarized from a historic resources study prepared for City of Rocks NR (Historical Research Associates 1996). The earliest non-indigenous visitors to the City of Rocks NR area were fur trappers associated with the Hudson's Bay Company between 1820 and 1830. The focus of these parties was beaver in the nearby Raft River and its tributaries, although none seem to have encountered the City of Rocks NR proper.

Beginning in 1840, a stream of overland migration began that would strongly influence the fate of the region over the next several decades. The California Trail, which linked Missouri to various points on the west coast, was first used by an emigrant party in 1843, and by 1846 groups used the trail as a primary route to Oregon. In 1848, Mormon parties traveling from Salt Lake to California began to utilize an alternative segment. This Salt Lake Alternate, which intersects the California Trail within City of Rocks NR, allowed parties to bypass the inhospitable Bonneville Flats. Beginning in 1848, thousands of 49ers followed the California Trail to the California goldfields. Some 52,000 individuals

are believed to have used the trail in 1852. In addition to emigrant travelers, transcontinental mail was carried over the California Trail sporadically through the 1850s and early 1860s, and a mail station was located in the City of Rocks NR near the future location of the Boise-Kelton Road stage stop.

The City of Rocks NP assumes particular importance with regard to early use of the California Trail and Salt Lake Alternate. Given its name by traveler James F. Wilkins in 1849, City of Rocks soon became a leading attraction along the route, and the diaries of many emigrants express wonderment at the spectacular landscape. A number of the granite monoliths beside the California Trail in City of Rocks NR are locations where early emigrants penned their names in wagon axel grease or other materials, a phenomenon that remained popular for many more decades.

The rapid influx of emigrants into the region had severe ramifications for the Shoshone-Bannock and Western Shoshone. Faced with loss of forage due to overgrazing, depletion of game and displacement from traditional use areas, the Shoshone-Bannock, led by Chief Pocatello, attacked several wagon trains near City of Rocks NR in the early 1860s. These, in turn, led to military retaliations which compelled the Shoshone-Bannock to negotiate a treaty with the United States government in 1863, and eventually relocate to the Fort Hall Reservation.

With the completion of the transcontinental railroad in 1869, a road, which incorporated portions of the Salt Lake Alternate, was developed between Kelton, Utah, and Boise, Idaho to provide postal, express and freight services between the railroad and recently established mining communities in southern Idaho. A stage station was constructed in City of Rocks NR near the junction of the California Trail and Salt Lake Alternate. The Boise-Kelton Road served in its original capacity until 1883.

In response to the developing regional economy, several cattle ranching enterprises were established at City of Rocks NR between the late 1860s and 1880s, and sheep herders also utilized the area as summer range. However, limited tracts of adequate grazing land prompted settlement in surrounding valleys, and a number of Mormon communities were established between 1870 and 1890. Following a severe climate-induced crash in the cattle and sheep industries, increased precipitation and improved agricultural methods allowed for dry farming grain and hay within City of Rocks NR from the mid-1890s to 1920s. This resulted in the creation of homesteads, localized native vegetation removal, irrigation improvements, and road and fence construction. Drought and depressed commodity prices in the 1920s, however, caused a rapid decline in dry farming.

Several ranches were established in the City of Rocks NR area between 1895 and 1920. Some of these continue to be operated by descendants of the founders, and many long-time residents maintain a strong connection to the landscape and its history. A limited number of mica mines lie within City of Rocks NR. These were often worked by local residents in an attempt to supplement income in the early and mid-Twentieth Century.

In addition to private holdings, other lands in the area were managed by the Bureau of Land Management or United States Forest Service. Recognizing the significance of the local history and recreation opportunities, a state park was proposed at the site of City of Rocks NR in 1957. In an effort to preserve the significant natural and cultural resources of the area, City of Rocks NR was established in 1988.

Cultural Resources

National Historic Landmark and National Historic Trail

So significant are certain cultural resources in City of Rocks NR that a portion was designated as a National Historical Landmark (NHL) in 1964 (it was expanded to 12,480 acres in 1987 to include Castle Rock). An NHL is a cultural resource that has been determined by the Secretary of the Interior to be nationally significant in American history and culture. This stands in contrast to most historic properties listed on the National Register of Historic Places (NRHP), which are of local or state significance. The City of Rocks NHL includes trail remnants, landmarks, inscription rocks, and viewsheds from two emigrant trails, and its significance lies under Theme X (Westward Expansion of the British Colonies and the United States, 1763-1898), and Subtheme D (Western Trails and Travelers), Facet 4 (California Trails and Settlement of California) of the National Historic Landmarks Program (National Park Service 1994). The landscape within the City of Rocks NR still looks and feels much the same as it did to emigrants that passed through it during the 19th Century.

The California Trail was designated a National Historic Trail in 1992 (National Park Service 1994). National Historic Trail designations are bestowed to commemorate historic and prehistoric routes of travel that are of significance to the entire Nation. Approximately 10.5 km. of the California Trail lie within City of Rocks NR, including some of the best preserved segments along its entire length.

The City of Rocks NR Comprehensive Management Plan identifies structures, sites and viewsheds from the California Trail as exceptional resource areas (National Park Service 1994). This includes trail remnants, inscription rocks, other historic trail-related features, and the foreground (0.8 km. on either side of trail) and middle ground (0.8 to 4.8 km. on either side of trail) views from the trail. The Comprehensive Management Plan also designates a California Trail Management Subzone intended primarily to preserve the attributes above.

Archeological Resources

A wide variety of archeological resources have been variously documented within City of Rocks NR and Castle Rocks SP. As noted above, the distinction between archeological resources, structures, cultural landscapes, and ethnographic resources is not always clear. It is true, however, that all of the structures and the cultural landscape identified at City of Rocks NR includes an archeological component, and in most cases, have been documented as archeological sites.

Unfortunately, no comprehensive database of archeological site locations or previous archeological survey coverage exists at the Reserve. These data are found in individual survey reports, and documentation varies in quality and clarity. As such, the following summary is not an exact reflection of on-the-ground conditions. However, enough information exists to create a fairly accurate depiction of the archeological site types and conditions, and archeological sensitivity. A comprehensive GIS containing site location information and previous survey coverage is ultimately needed to adequately manage archeological resources in conjunction with Fire Management actions.

Over 100 archeological sites and 50 isolated artifacts have been formally documented on lands considered in this study. Both prehistoric and historical archeological components are present. Prehistoric resources are predominately lithic, ceramic and ground stone scatters, including some with midden soils, and rock shelters. Most remains date to the late and middle Holocene, although dubious examples of late Pleistocene/early Holocene manifestations have been identified. Many of the documented prehistoric archeological sites have been recommended as eligible for listing on the NRHP.

Historical archeological resources in the Reserve include trail remnants, structural ruins, irrigation features, rock cairns, artifact scatters, mines, and inscription rocks. Despite intensive searching, very few components dating to the emigrant period have been identified; most materials relate to later farming and ranching activities. Again, many historical archeological resources in the Reserve are likely eligible for listing on the NRHP.

Following decades of unsystematic relic hunting, the first large-scale methodical archeological inventory was undertaken at City of Rocks NR in the late 1980s (Chance and Chance 1990). This was followed by testing at several prehistoric archaeological sites (Chance and Chance 1992) and the supposed Boise-Kelton Road Stage Station (Chance and Chance 1993). A couple of efforts focused on the California Trail; Sammons (n.d.) conducted archeological survey along the presumed trail route, and Henderson (1998) inventoried emigrant inscriptions on several prominent granite monoliths. More recently, survey and limited testing were conducted in support of proposed development projects (Mead 1999; Wilson 2000, 2002), and Lyon (2001) conducted a comprehensive archeological inventory of Castle Rock SP.

It is important to note that geomorphological process have probably influenced the nature and condition of the archeological record within the Reserve, and due in particular to the highly dynamic landforms (Bedford and Miller 1999). For example, archeological resources on unstable landforms have likely been eroded and redeposited, while those in downslope areas have been buried. As such, traditional surface surveys may not reflect the true distribution of archeological resources in certain areas (e.g., along the California Trail corridor).

Structures

The National Park Service manages structures through the List of Classified Structures (LCS), an inventory of all prehistoric and historic structures with historical, architectural, or engineering significance (National Park Service 1997). The LCS includes structures that are Historic Properties, as well as unevaluated or non-eligible properties that are managed as cultural resources as a result of the planning process.

There are no structures at City of Rocks NR listed on the LCS. Rather than indicating a lack of such resources, the omission likely reflects an absence of documentation. At a minimum, possible structures at City of Rocks NR include:

- California Trail
- Salt Lake Alternate Trail
- Tracy Ranch
- Boise-Kelton Road Stage Stop/Moon Homestead
- Vern White mica mines

The trails consist of general corridors (including viewsheds and inscription boulders) and, in a few locations, physical traces such as wagon ruts. The Tracy Ranch includes the ruins of a residential building cluster, dams and irrigation ditches, and hay fields. The Boise-Kelton Road Stage Stop/Moon Homestead consists of standing and collapsed log structures and other features. Foundations, machinery, and mining debris characterize the remains of the Vern White mica mines.

In addition, a number of more contemporary features such as juniper post fences, corrals and water troughs occur throughout the Reserve. While potentially lacking National Register significance, these contribute to the rural historic character of the Reserve.

Cultural Landscapes

Although inadequately documented, the City of Rocks cultural landscape was determined eligible for listing on the NRHP in 1994. It presumably includes those structures, sites and foreground and middle ground viewsheds from the California Trail described in the Comprehensive Management Plan (National Park Service 1994).

A graduate student in the Department of Forestry, Range and Wildlife Sciences at Utah State University is currently conducting ecological and fire histories for the Reserve, with particular emphasis on reconstructing vegetation in the mid-1800s (Argo 2005). While these studies have not progressed beyond the archival research stage, other areas of the Great Basin exhibit trends that probably also hold true at City of Rocks as a result of fire suppression, cattle grazing and other land-use practices. The most significant of these may be the expansion of piñon-juniper woodland at the expense of sagebrush steppe and perennial grasslands (Miller and Rose 1999; Miller et al. 1999). With regard to the cultural landscape associated with the California Trail, the present foreground and middle ground viewsheds probably contain more woodland than at the time it was utilized by overland emigrants. Likewise, riparian vegetation along Circle Creek and other

waterways has probably been reduced, while annual grasses have increased at the expense of perennial bunchgrasses.

Ethnographic Resources

No formal ethnographic resources have been documented within the Reserve. As noted, however, contemporary Native Americans have and, in some cases, still harvest game and plant foods from the Reserve. It is likely that continued consultation and research, such as an Ethnographic Overview and Traditional Use Study, would provide a wealth of information on past and current use of the Reserve by Native Americans.

Museum Objects

The Reserve administrative facility presently houses very few museum objects.

IMPACTS OF FIRE MANAGEMENT ACTIONS ON CULTURAL RESOURCES

National Park Service guidance for the management of cultural resources is found in the Cultural Resource Management Guideline (National Park Service 1997), 2001 Management Policies (National Park Service 2000) and references therein. With regard to fire management actions, archeological resources, structures, cultural landscapes and ethnographic resources are regulated principally by the National Historic Preservation Act (NHPA, 1966, as amended) and Section 106 in particular under the terms of the 1995 Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation (ACHP), and National Conference of State Historic Preservation Officers. Other major legislation with pertinence includes the Archeological Resources Protection Act (ARPA, 1978, as amended) and Native American Graves Protection and Repatriation Act (NAGPRA, 1990). Proper management of museum objects is dictated through 36 CFR 79.

In regard to cultural resources, direct, operational and indirect impact categories are utilized. Direct impacts are those where the fire itself is the cause of the impacts, operational impacts occur as a result of associated operations like line construction or staging, while indirect impacts are ones where fire and/or associated operations result in changes to local context such that cultural resources will be impacted.

Under the NHPA, historic properties, those listed or determined eligible for listing in the NRHP, are the cultural resources against which assessment of impacts are made. City of Rocks NR will consider all cultural resources lacking formal evaluation for NRHP eligibility to be historic properties. It may also be the case, however, that certain cultural resources which do not qualify as historic properties are desirable to protect from potentially adverse impacts. In the case of the Reserve, ranching features such as fences, corrals and toughs may not constitute historic properties, but signify the area's ranching tradition. As such, the goal is to minimize the effects of Fire Management actions on those resources.

Direct Impacts

Cultural resources vary in terms of their susceptibility to direct fire effects. Predicting whether a particular cultural resource or its attributes will be impacted by a given fire event, however, is difficult. Buenger (2003) suggested the following variables are important in relation to direct effects on cultural resources:

- Fuel model and load
- Fire behavior
- Peak temperature and duration of heating
- Proximity of resources to fuels
- Class of resource

Three principle vegetation communities occur within the Reserve—mixed grass, sagebrush and piñon/juniper woodland. Surface fires are characteristic of grass and sagebrush communities, while crown fires are to be expected in piñon/juniper woodlands. Energy released during surface fires is largely concentrated at the ground surface, whereas during surface and crown fires, a significant amount of energy dissipates into the atmosphere (an exception can occur during windy conditions, when the lower flame angles direct heat towards the ground surface) (Ryan and Noste 1985). Fire temperature and duration data obtained from these or similar fuel models during prescribed fires are summarized in Table 1 (peak temperatures are potentially much higher during wildfires).

Table 1. Summary of Fire Temperature and Dominant Vegetation Communities[1]

Fuel	*Peak Temperature*	*Residence Time*	*Sustained Heating*
Mixed grass	100-300°C	10-20 sec.	>50°C 3-6 min.
Sagebrush	150-500+°C	1-4 min.	>100°C 5-10 min. >200°C 10-15 min.
Pinyon-Juniper	700-800°C	2-4 min.	200-400°C 1+ hr.

[1] Temperatures measured at ground surface; data from Buenger 2003

Generally speaking, the potential for impacts to cultural resources increases with proximity to the heat source. It is well documented, however, that the excellent insulation properties of soil restrict high temperatures to within 10 cm. of the ground surface; deeper pulses occur when duff and heavier ground fuels, such as logs, burn (Ryan n.d.). As such, those cultural resources located on (e.g., surface archeological resources) and above (e.g., wooden structures) the ground surface are most vulnerable to direct fire effects.

The dominant prehistoric archeological resources occurring within the Reserve include flaked stone artifacts of obsidian, cryptocrystalline silicates, and course-grained igneous and metamorphic materials, groundstone tools (also of coarse-grained igneous and metamorphic rock), and ceramics. Obsidian is important because it can be dated through measurement of the hydration rind, and geochemically sourced. Recent field and

laboratory research demonstrated that obsidian hydration rinds can be compromised by heat (Loyd et al. 2002). While results vary somewhat, temperatures in excess of 300-400°C and duration of an hour or less can diffuse or eliminate rinds. Obsidian geochemical sourcing can also be impaired by excessive heat when silica encrustations adhere to artifact surfaces. Cryptocrystalline silicates such as chert are quite vulnerable to direct impacts of fire. Buenger (2003) documented mineral oxidation and thermal cracking and fractures at temperatures above 300-500°C, and spalling, fracturing and oxidation in coarse-grained igneous and metamorphic rocks are expected to occur at temperatures exceeding 300-500°C. Oxidation can be expected in ceramics at temperatures above 600°C, while thermoluminesence (TL) dating could be compromised with high intensity, long duration heating (Buenger 2003). Organic residues on flaked, groundstone and ceramic artifacts can be erased at temperatures ranging from 100-500°C (Deal 2001).

Midden constituents are variably affected by direct fire impacts. At temperatures above 200°C bone and antler combusts while calcination occurs at 700-1,000°C (Buenger 2003). The impacts of fire on archeobotanical remains such as pollen and carbonized seeds are equivocal, while midden soils may undergo some chemical and physical alterations. Theoretically, the ability to age fire hearths with thermoluminesence dating (TL) might be compromised with exposure to high-intensity, long duration heating (Buenger 2003).

Historical materials occurring in the Reserve include primarily metals, glass, ceramics, and wood. Common metals exhibit a wide range of melting points (Table 2), although damage (e.g., hastened oxidation) can occur when a given metal is exposed to temperatures below its melting point.

Table 2. Melting Points of Metal Materials Commonly Found on Historical Archeological Sites

Material	*Temperature (°C)*	*Artifacts*
Aluminum	660	Kitchenwares
Brass (yellow)	932	Cartridge cases, military buttons and insignia
Cast iron	1,350 to 1,400	Kettles, Dutch ovens, wood stoves
Copper	1,082	Kitchenwares, building materials, coins
Gold	1,063	Coins, jewelry
Iron	1,540	Tools, nails, horseshoes, cans, corrugated roofing
Lead	327	Bullets
Nickel	1,455	Plating
Pot metal	300 to 400	Flatware, pots, faucets
Silver	960	Coins, jewelry
Solder (tin)	135 to 177	Patch repair on brass and iron objects
Steel	1,427	Eating utensils, kitchenwares

(stainless)		
Steel (carbon)	1,516	Heavy machinery parts
Tin	232	Kitchenwares, toys, building materials
White pot metal	300 to 400	Kitchenwares
Zinc	375	Plating for iron objects

Data from Haecker (2000).

Soda lime glass, commonly used for containers, windows, pressed and brown-ware and lighting products, has a melting temperature of about 695°C, while lead glasses melt at 380°C (Haecker 2000). Buenger (2003) documented thermal fracturing and spalling in glass exposed to temperatures in excess of 200°C. Potential direct impacts to ceramics are dictated by the characteristics of the paste, glaze, painted decorations, as well as the temperature to which the artifact is exposed (Haecker 2000). Refined (i.e., glazed) earthenwares (e.g., ironstone, hotel wares) will crack and become discolored at even relatively low temperatures. Porcelains have a melting temperature of about 1,550°C, although overglaze paint decorations and makers marks can become discolored and/or eliminated at much lower temperatures. Wood ignites at various temperatures depending on condition; exposed dimensional lumber typically ignites at 350°C, while highly dessicated materials such as old fence posts and timbers can burn at much lower temperatures (Haecker 2000).

As noted above, thirteen granite monoliths within the Reserve bear emigrant inscriptions in varying states of preservation (Henderson 1998). Kelly and McCarthy (2001) summarized data on the effects of fire on rock art produced by native and nonnative peoples. Common impacts resulting from direct or indirect exposure to fire include discoloration, soot smudging, rock face spalling and alteration of organic pigments from heat penetration. The rock material and condition, as well as the nature of adjacent fuels, help determine the potential for impacts. The granite rocks on which the inscriptions are found are vulnerable to spalling when exposed to the combined effects of heat, freeze/thaw and other disturbances. Studies suggest that under severe fire conditions, convection heating can impact resources up to 30 m. from burning fuels (Ryan n.d.). While no systematic assessment of fuels around inscription rocks has been performed, human and animal foot traffic has reduced vegetation immediately surrounding many of the most accessible monoliths, perhaps lending some degree of protection from direct fire impacts.

Based on these data it is suggested that within the same material classes the threat of impacts to cultural resources in grass is limited, moderate in sagebrush and significant in pinyon/juniper woodland. Unfortunately, an analysis of the spatial distribution of cultural resources by fuel type has yet to be performed, although archeological resources have been documented in all three of the dominant vegetation communities.

Finally, in addition to directly impacting cultural resources such as artifacts and structures, wildland fire can also promote major vegetation changes. As noted above, some of these changes, such as conversion of piñon-juniper woodland to sagebrush

steppe and/or grasslands, may ultimately prove desirable in order to restore the viewshed along the California Trail and improve grazing conditions for cattle, whether by wildfire or planned actions such as mechanical thinning or prescribed burning.

Operational Impacts

A variety of ground disturbance occurs during the course of many fire management actions. Firelines are commonly constructed during suppression efforts with implements ranging from hand tools to heavy equipment. Bulldozers are routinely employed by the BLM during initial attack. While heavy equipment is prohibited within the Reserve unless approved by the Superintendent, the likelihood is greater when human safety and property are at risk.

Other instances where ground disturbance may occur include pile construction, vehicle and personnel staging, tree felling, mopping up and rehabilitation. Cultural resource impacts related directly or indirectly to ground disturbance include resource displacement and breakage, vegetation loss and soil compaction.

Andrews (2004) summarized the effects of ground disturbance related to vegetation treatments on archeological resources. In general, impacts such as artifact displacement and breakage are most pronounced when exposed to heavy equipment performing intensive vegetation alterations (e.g., chaining, slash piling), whereas strict surface treatments such as mowing were far less impacting. Wettstaed (1993) described heavy damage to an archeological site resulting from mop-up activities, including extensive subsurface disturbance and artifact breakage resulting from tool blows. Emergency measures are often employed after wildfires to stabilize hillslopes, stream channels and roads, implementation of which can involve significant ground disturbance (Robinchaud et al. 2000).

Archeological resources are particularly prone to the effects of ground disturbance. Structural and cultural landscape elements of the Reserve might also be impacted by heavy equipment during wildfire suppression (e.g., removal of vegetation, damage to small-scale elements). As noted, the landforms of the Reserve are inherently unstable, a factor which could be exacerbated by vegetation removal and soil compaction resulting from the use of heavy equipment or intensive foot traffic.

Cultural resources are frequently protected from directed impacts through the application of fire retardants. Physical agents, such as water and dirt, generally provide short-term protection against combustion. Water is sometimes combined with additives that either reduce surface tension (i.e., wetting agents) that allow treated water to penetrate deeply into combustible material, or increase water viscosity (i.e., thickening agents) so that treated water congeals on the surface of fuels. The latter is considered particularly effective, and is often delivered as a gel or slurry. Chemical agents afford long-term protection, and are also generally applied as slurries. Backpack pumps, fire hoses, and aircraft are typically used to deliver fire retardants.

Recent concerns have surfaced over the effects of these substances on wooden structures, which have been summarized by the United States Forest Service, Wildland Fire Chemical Systems (2002). Fire retardants applied to rocks, particularly those with high porosity, can result in pitting and spalling, and brightly colored retardants can create a visual impact that is very difficult to remove (Corbeil n.d.). As such, the concern is retardants applied on and around inscription rocks and other major outcrops within the California Trail viewsheds.

Looting and vandalism of cultural resources by Fire Management personnel has been documented, mostly commonly during the suppression of wildfires (Traylor 1990). Generally speaking, archeological resources are the most susceptible to such impacts.

Indirect Impacts

Indirect impacts can occur when the context in which a cultural resource is found is altered by fire and/or fire management actions. The impacts can occur immediately following an action or later in time. Those indirect impacts of possible concern at the Reserve include erosion, tree mortality and carbon contamination, and looting.

It is well documented that erosion is a potentially significant consequence of fire and fire management actions (DeBano, et al. 1996), which is a concern in that soils of the Reserve are unstable. First, fire and/or operations can completely remove vegetation from an area, potentially shortening the time for water saturation in exposed mineral soils and increasing the opportunity for erosion. Second, high fire temperatures at the ground surface can create a water-repellent soil layer (hydrophobic) that inhibits infiltration.

Of these, the first is of greatest concern in the Reserve. A significant number of recorded archeological resources reside on dynamic landforms such as stream terraces and side slopes. Resources in these areas are vulnerable to removal through erosion and/or burial via alluvial and colluvial processes.

Tree mortality is common during and following fires in piñon/juniper woodlands, and dead and weakened trees pose threats to above ground and subsurface cultural resources. For example, Hamm and Burge (2003) documented the loss of a historic cabin following a fire that was crushed by a fire-killed snag. Archeological resources can also be dislodged and crushed by falling trees, and burned out stump holes are sources of modern carbon that could yield erroneous radiocarbon determinations and promote destabilization of subsurface remains.

Looting following fire management actions is a concern primarily associated with archeological resources, as ground visibility improves and artifacts are exposed. A number of recorded archeological sites within the Reserve are located in close proximity to roads and recreational trails.

MITIGATION OF IMPACTS

The following section outlines the procedures that will be followed to mitigate potentially adverse impacts to cultural resources from wildfire suppression and rehabilitation actions, as well as planned fuels treatments, such as mechanical thinning projects.

Qualifications

Responsibility for the management of cultural resources at City of Rocks NR presently falls to the Superintendent, in consultation with NPS regional archeologists, historical architects, landscape architects, and anthropologists. Mitigation of impacts to cultural resources from Fire Management actions will be coordinated through the Superintendent and appropriate subject matter experts, each of whom will meet minimum qualifications put forth in the *Secretary of Interior's Guidelines for Historic Preservation Projects, Professional Qualifications Standards* (1983). In addition, all personnel who perform cultural resources mitigation on active incidents will meet the appropriate requirements of the current *Interagency Standard for Fire and Fire Aviation Operations*.

Wildfire Suppression and Rehabilitation

The following measures will be employed to minimize impacts to cultural resources from wildfire suppression and rehabilitation actions:

- A resource advisor, identified in a delegation of authority, will be assigned to all incidents within or adjacent to the Reserve. This individual will be responsible for conveying resource concerns to suppression personnel. The appropriate technical specialists will be ordered to serve as overhead and/or line advisors;
- A GIS database containing cultural resources information (e.g., locations of archeological sites, structures, cultural landscapes) will be compiled and made available to suppression personnel. This database will be updated as needed;
- To the extent possible, steps will be taken to protect cultural resources from direct, operational and indirect impacts. These will be developed by and presented to suppression personnel by the incident resource advisor or designated individual.
  Mitigation measures for *direct impacts* may include:
  1) Exclude fire from resources through the use of fire breaks, wet lines, fire retardant, fire shelters, etc.
  2) Particularly within piñon-juniper woodlands, remove on-site fuels to reduce fire temperature and/or duration
  3) Permanent or temporary removal of vulnerable artifacts;

  Mitigation measures for *operational impacts* may include:
  1) Avoid ground disturbance within or immediately upslope from cultural resources
  2) If ground disturbance will occur on or adjacent to a cultural resource, appropriate tools, equipment and activities will be employed (e.g., hand tools and minimal foot traffic on archeological resources)
  3) Avoid applications of fire retardant on inscription rocks
  4) Suppression personnel will be briefed on cultural resources of the Reserve, historic resources preservation laws, and proper protocol;

Mitigation measures for *indirect impacts* may include:

1) All post-burn assessments, emergency stabilization and rehabilitation activities will conform with current National Park Service policy found in *620 DM 3- Burned Area Emergency Stabilization and Rehabilitation*
2) Soils on and adjacent to cultural resources will be assessed for erosion potential. If recognized, noninvasive protective measures such as scattered vegetation cuttings and geofabrics are preferred, and vulnerable resources will be monitored long-term. Invasive protective measures will be coordinated through consultation with the Idaho SHPO, Pacific West Region Cultural Resources Division, and other interested parties
3) Vulnerable resources will be inspected for the presence of hazard trees. If necessary, these will be removed through consultation with the resource advisor or designated representative
4) All previously recorded and newly recorded archeological resources will be evaluated for vulnerability to looting. If potential is recognized, measures will be taken to mitigate impacts, including artifact removal, camouflaging through burial under soil or vegetation, and monitoring;

- For all incidents exceeding one operational period, the Idaho SHPO (per 36 CFR 800.12), Pacific West Region Cultural Resources Division, and other interested parties will be contacted as needed;
- At the conclusion of each incident, the Chief of Resources Management or designated representative will prepare a report summarizing cultural resource impacts, mitigation and stabilization practices, etc. This report will be submitted to the Idaho SHPO, Pacific West Region Cultural Resource Division, and other interested parties.

Planned Fuel Treatment Projects

While no fuel treatments are currently proposed for the Reserve, the potential use of wildland fire use, prescribed fire and mechanical thinning are being explored. If adopted, appropriate mitigation measures will be developed and implemented through consultation with the Idaho SHPO, Pacific West Region Cultural Resource Division and other interested parties.

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