

**U.S. Department of the Interior
Saguaro National Park
National Park Service
Arizona**

Saguaro National Park Fire Management Plan



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National Park Service
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Saguaro National Park
Arizona

Fire Management Plan

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1 INTRODUCTION, LAND MANAGEMENT PLANNING, and COMMUNICATION

National Park Service (NPS) wildland fire management programs must follow national wildland fire management policy. As noted in *NPS Management Policies*, 2006:

“Park units with vegetation capable of burning will prepare a fire management plan that is consistent with federal law and departmental fire management policies and that include addressing the need for adequate funding and staffing to support the planned fire management program.” (Section 4.5, NPS Management Policies, 2006).

NPS units cover a variety of landscapes. Director’s Order 18 relates wildland fire management delineating which parks need to have a wildland fire management plan.

“Each park unit with burnable vegetation must have an approved Fire Management Plan that will address the need for adequate funding and staffing to support the fire management program.” (Director’s Order #18, Wildland Fire Management, 2008)

Saguaro NP has burnable vegetation and is therefore directed to have an approved wildland fire management plan.

The Saguaro NP Fire Management Plan is a strategic plan that defines a program of work to manage wildland fire (includes prescribed fire and wildfire), and non-fire fuel treatments (mechanical and chemical), and is based on direction contained in existing park unit planning documents. This Saguaro NP Fire Management Plan provides for firefighter and public safety as a first priority, and includes strategies for managing wildland fire. The Saguaro NP Fire Management Plan addresses values to be protected and is consistent with Saguaro NP resource management objectives and environmental laws and regulations such as the National Environmental Policy Act, the National and State Historic Preservation Acts, the Clean Air Act, and other applicable federal and state laws.

1.1 Program Organization

Fire management is a Division (Division of Fire and Aviation) within the park (Figure1). The Division is responsible for management of all wildland and prescribed fire and aviation operations at Saguaro NP. Table 1 lists the roles and responsibilities of the fire management staff in the park.

Figure1. SAGUARO NP APPROVED WILDLAND FIRE ORGANIZATION

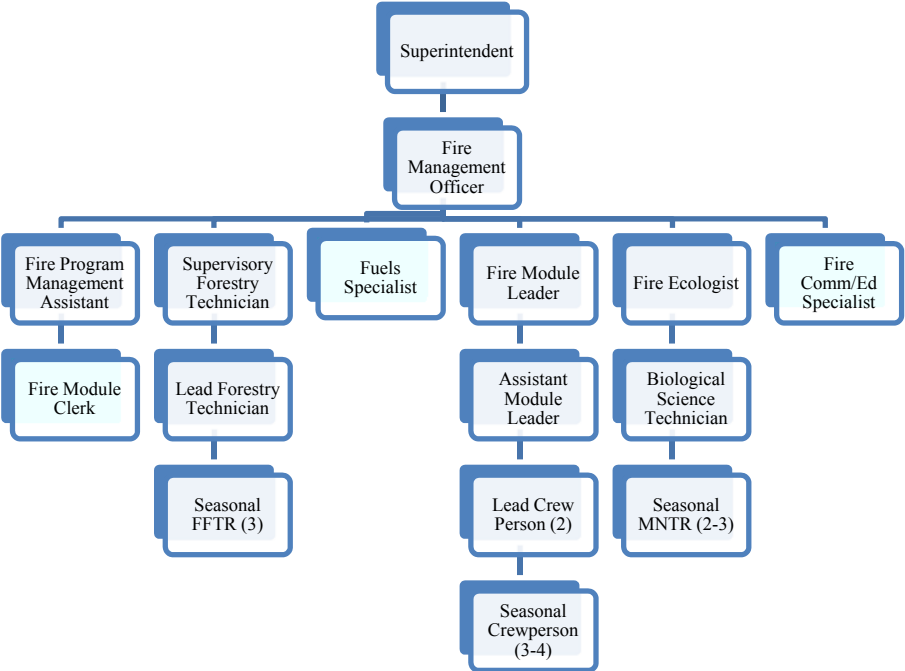


Table 1: Fire Management Roles and Responsibilities

<p>The SUPERINTENDENT has responsibility for wildland fire management within the park. <i>The Superintendent is responsible for signing the periodic assessment to certify that wildland fire use actions are acceptable and may be continued.</i> The Superintendent may, under certain conditions, delegate this responsibility to another organization level.</p>
<p>The FIRE MANAGEMENT OFFICER (FMO), by delegation of authority, is responsible for planning and implementing a safe, effective, and efficient fire management program that meets management objectives. In addition, provides support to Coronado Nat'l Memorial, Chiricahua National Monument, Fort Bowie National Historic Site, Tumacácori Nat'l Historic Park, Organ Pipe Cactus Nat'l Monument, Casa Grande Nat'l Monument, Tonto Nat'l Monument.</p>
<p>The FUELS SPECIALIST is responsible for identifying, planning, implementing, and recording all prescribed fire operations; the position coordinates program components with a variety of staff specialists in the various divisions within the park as well as federal, state, and local cooperators. The Fuels Specialist serves as the Acting Fire Management Officer when the FMO is out of the park.</p>
<p>The FIRE ECOLOGIST is responsible for coordinating the branch's program and project objectives with the Fuels Specialist and staff specialists in the Division of Science and Resources Management. The Fire Ecologist coordinates with federal, state, and local agencies, as well as academic institutions, such as the University of Arizona. The Fire Ecologist is also responsible for the supervision of the Lead Fire Effects Monitor and the fire effects monitoring operations.</p>
<p>The WILDLAND FIRE MODULE (WFM) LEADER is responsible for day- to- day operation of the park's Fire Use Module and the supervision of the Assistant Fire Use Module Leader and Career Seasonal Crewmembers assigned to the Fire Use Module. The Fire Use Module is stationed at Saguaro, but is a national resource available to assist other NPS Units as well as other land management agencies with wildland fire use and prescribed fire.</p>
<p>The SUPERVISORY FORESTRY TECHNICIAN is responsible for management of the park's helibase, fire caches, remote automated weather station, and preparedness equipment. The position also supervises the Lead Forestry Technician in the day- to- day management of the park's Initial Attack Crew during the fire season.</p>
<p>The FIRE PROGRAM MANAGEMENT ASSISTANT is responsible for the administrative operations and fire business management of the Branch of Fire Management. These responsibilities include the supervision of the Packer and Fire Program Clerk (WFM). In addition, provides administrative and fire business support to Coronado Nat'l Memorial, Chiricahua National Monument, Fort Bowie National Historic Site, Tumacácori Nat'l Historic Park, Organ Pipe Cactus Nat'l Monument, Casa Grande Nat'l Monument, Tonto Nat'l Monument.</p>
<p>The CHIEF OF INTERPRETATION AND EDUCATION is responsible for the park's interpretation and education program, and serves as the park's year-round Public Information Officer. Coordinates with the Fire Communication and Education Specialist and/or incident Public Information Officer on public information and supports the fire management program as a member of the park's Leadership Team during fire operations.</p>
<p>The FIRE COMMUNICATION AND EDUCATION SPECIALIST is stationed at Saguaro, but provides fire information, education and prevention support to multiple parks within the NPS Intermountain Region in order to present an integrated interdisciplinary fire program. The position serves as the primary information officer for the park during fire operations.</p>
<p>The CHIEF RANGER is responsible for all law enforcement and emergency services for the park. Coordinates with the FMO /IC on public safety issues during fire operations, and supports the fire management program as a member of the park's Leadership Team during fire operations.</p>
<p>The ADMINISTRATIVE OFFICER is responsible for the administrative activities in the park and supports the fire management program as a member of the park's Leadership Team during fire operations.</p>
<p>The CHIEF OF SCIENCE AND RESOURCE MANAGEMENT is responsible for the management of the park's resource management activities, including vegetation monitoring and rehabilitation, wildlife monitoring, research permits, and compliance. Supports the fire management program as a member of the park's Leadership Team during fire operations.</p>
<p>The CHIEF OF FACILITIES MAINTENANCE is responsible for all maintenance activities in the park</p>

and supports the fire management program as a member of the park’s Leadership Team during fire operations.
The ZONE SAFETY MANAGER serves as the overall Safety Specialist for all parks within the Southern AZ Zone 10, and serves as the oversight safety officer for the park during fire operations, which is supplemented by the collateral duty Safety Officer.
The COMMUNITY ENGAGEMENT SPECIALIST is responsible for community engagement in the Tucson area, and supports internal communications within the park and the park PIO. Supports the fire management program as a member of the park’s Leadership Team during fire operations.

The wildland fire organization manages fire management operations for the following group of NPS units: Tonto National Monument, Casa Grande Ruins National Monument, Saguaro NP, Fort Bowie National Historic Site, Organ Pipe Cactus National Monument, Tumacacori National Historical Park, Coronado National Memorial and Chiricahua National Monument. (See Mapsheet 1. Introduction: Organizational structure) Utilization of agreements between park units and the Fire Management Officer validates management linkages. (See Appendix I: *Cooperative and Interagency Agreements*)

The Saguaro NP fire management program works closely with the Coronado National Forest having a shared NPS/Forest Service District Fire Management Officer.

1.2 Environmental Compliance

Saguaro NP prepared an Environmental Impact Statement (EIS) with the associated Record of Decision signed on April 25, 2007. The Saguaro NP EIS and associated Record of Decision can be found at:

<http://www.nps.gov/sagu/learn/management/firemanagement.htm>

1.3 Park Unit/Resource Management Planning

Saguaro NP’s *Foundation Document, April 2014* influences fire management operations and planning.

Other planning efforts that have influence on Saguaro NP fire management programs are:

Saguaro NP *General Management Plan (GMP) (2008)*: (Found also on Mapsheet 1-Introduction: References)

<http://www.nps.gov/sagu/learn/management/park-planning.htm>

Restoration Plan and Environmental Assessment (2014): (Found also on Mapsheet 1-Introduction: References)

(<http://www.nps.gov/sagu/learn/management/park-planning.htm>)

1.4 Collaborative Planning

Collaborative processes were used to develop the underlying land management plan direction as well as the fire management plan. Saguaro NP is a member of the Southeast

Arizona Interagency Fire Zone in addition to United States Forest Service–Coronado National Forest (USFS), Bureau of Land Management – Safford District (BLM), United States Fish & Wildlife Service– Buenos Aires and San Bernardino National Wildlife Refuges (USFWS), Bureau of Indian Affairs – Tohono O’odham, Pascua Yacqui, and San Carlos tribes, State of Arizona – Tucson Office, and numerous local fire departments.

Saguaro NP works most closely with the Coronado National Forest due to the common boundary on the east side (Rincon District) of the park. Key contacts for the management of the fire programs in both agencies are listed in Appendix F: *Preparedness Planning Documents*, F-3: *Southeast Zone Interagency National Fire Danger Operating Plan*.

Further discussion is found on Mapsheet 1: *Introduction, Section, and Organizational Structure with Service Partners*.

1.5 Communication and Education

Public Information Capabilities

For years the NPS has promoted the prevention of human-caused fires, the interpretation and understanding of the role of lightning-caused fire, and fire as part of the natural ecosystem. As a result of these efforts, the general public and media have acquired a more widespread acceptance of fire management programs. A communication planning process is displayed in Appendix G: *Communications and Education Plan*.

2 WILDLAND FIRE PROGRAM GOALS

2.1 Goals

National fire management goals as listed under the “*Cohesive Strategy*” and Community Wildfire Protection Plan (CWPP) goals are listed on Mapsheet 1: *Introduction*.

Park fire management goals and objectives are listed on Mapsheet 5: *Fuels Management*.

Park resource management goals are listed on Mapsheet 2: *Resource Management*.

2.2 Objectives

Fire management goals with associated objectives are listed on Mapsheet 5: *Fuels Management*.

2.3 Approved Wildland Fire Management Actions

Saguaro NP has all current fire management actions/strategies available for managing wildland fire in the park.

2.3.1 Management of Wildfires

Fire management has available utilization of an *appropriate management response* strategy for wildfires above 4,500 feet elevation. Use of wildfire to obtain resource benefits is also allowed above 4,500 feet in elevation in the Rincon Mountain District, Fire Management (FMU) 1.

Suppression of all wildfires will occur in FMU 2: below 4,500 feet in elevation in the Rincon Mountain District and all of the Tucson Mountain District with the goal of minimizing site disturbance area.

Further discussion of wildfire management occurs on Mapsheet 6: *Operations*.

2.3.2 Management of Fuels Treatments

Fuels management activities include prescribed fire, mechanical fuels reduction and chemical applications to control unwanted vegetation, such as buffelgrass and other invasive species.

Fuels reduction projects are located in wildland urban interface areas, adjacent to park infra-structure and areas of invasive species concentrations.

A list of allowable fuels treatment techniques is found on Mapsheet 5: *Fuels Management*, Section: *Allowable Fuels Treatments*.

A table of the park's multi-year fuels treatment projects in found on Mapsheet 5: *Fuels Management*, Section: *Multi-year Fuels Treatment Plan*.

2.3.3 Defensible Space

The NPS has adopted the International Code Council's (ICC's) International Urban-Wildland Interface Code (2006) that contains descriptions of defensible space and maintenance requirements for urban wildland interface areas. Saguaro NP will follow these recommendations for the development of defensible space around park buildings. A link to the 2015 International Wildland Urban Interface Code follows.

<http://codes.iccsafe.org/app/book/toc/2015/I-Codes/2015%20IWUIC%20HTML/index.html>

3 WILDLAND FIRE OPERATIONAL GUIDANCE

3.1 Response to Wildfire

Saguaro NP fire management response to wildfire is always predicated upon the safety of firefighters, employees and the public. Mapsheet 6: *Operations* covers wildfire response and Appendix F-3: *Fire Southeast Zone Interagency National Fire Danger Operating Plan*.

3.1.1 Wildfire Response Planning

Wildfire response planning is accomplished through interagency cooperation. See Appendix F-3: Fire Southeast Zone Interagency National Fire Danger Operating Plan.

3.1.1.1 *Expected Fire Behavior*

A discussion on park fuels occurs on Mapsheet 4: *Fire Environment Management*, Section: *Fire Behavior Characteristics*.

Mapsheet 4: *Fire Environment Management* also discusses park vegetation and fire under the *Vegetation* section.

3.1.1.2 *Minimum Impact Strategy and Tactics (MIST)*

Utilization of Minimum Impact Strategy and Tactics (MIST) as described in RM 18 Chapter 2 is the policy for all NPS units where feasible. Links to MIST are located in Appendix O *Minimum Strategy and Tactics*.

Further discussion of MIST Guidelines is found on Mapsheet 6: *Operations*, Section: *MIST Guidelines and the park Resource Advisor Guide* (Appendix K: *Standards for BAER, BAR and ES* reference link).

3.1.2 –Wilderness

78% of Saguaro NP has been designated Wilderness. The wilderness area protects a superb example of the Sonoran Desert ecosystem. The five main qualities developed by wilderness management agencies concerning wilderness management that influence fire management activities in wilderness are: 1. natural, 2. undeveloped, 3. untrammeled, 4. solitude or unconfined recreation and 5. other features of value. For a more in-depth discussion on wilderness in Saguaro NP refer to: *Foundation Document, Saguaro National Park, Arizona April 2014*.

Suppression and fuels related operational activities in wilderness areas utilize *MIST* as guidelines including restrictions on mechanized equipment, unless approved by the Superintendent. For more information on Wilderness see: Mapsheet 3: *Resource Management*, Section: *Wilderness* and Appendix P: *Wilderness*.

3.1.3 Wildfire Response Objectives

Incident objectives will be developed by the Incident Commander and approved at the appropriate level for implementation.

A list of fire management objectives for Saguaro NP is found on Mapsheet 6: *Operations*, Section: *Management Requirements*.

3.1.4 Wildfire Response Procedures

3.1.4.1 Decision Support

Current direction on Decision Support information pertaining to the NPS can be found in the Interagency Standards for Fire and Fire Aviation Operations (Red Book) in Chapters 3 and 11.

- Wildland Fire Decision Support System (WFDSS)
Goals and objectives for inclusion into the WFDSS incident management decision process are found in Appendix J: *WFDSS Goals and Objectives* and on Mapsheet 6: *Operations*, Section: *Management Requirements* (includes a link).

3.1.4.2 Initial Response Procedures

Initial response procedures will be consistent with firefighter, employee and public safety, recognizing the values to be managed (protected or enhanced). A comprehensive look at initial response procedures is found in Appendix J *WFDSS Objectives and Requirements*.

Saguaro NP utilizes a cooperatively derived **Fire Southeast Zone Interagency National Fire Danger Operating Plan** which is updated annually. The park also maintains a *Fire Preparedness Plan* located in the fire management office as well as the aviation office. This pre-attack plan complies with requirements listed in RM 18 Chapter 5.

Saguaro NP has a full range of initial response strategies (suppression, modified suppression and use of wildfire for resource benefits) for FMU 1 (Rincon Mountain District above 4,500 feet elevation). FMU 2 (Rincon Mountain District, below 4,500 feet elevation and all of Tucson Mountain District) must have a suppression strategy with the goal of minimizing impacted acreage.

A decision matrix, designed to account for seasonality, risk of failure and protection of values at risk for managing wildfire for Saguaro NP fire managers is found on Mapsheet 6: *Operations*, Section: *Decision Matrix* and Appendix F-2: *Saguaro NP Decision Support Tool for Wildland Fire*.

3.1.4.3 Transition to Extended Response

Extended response occurs when a fire has not been controlled by the initial response forces and continues either until transition to a higher level incident management team is completed or until the fire has been controlled.

The criteria for transitioning from initial response to extended response are as follows:

- the fire cannot be contained with initial response resources within two operational periods (48 hours) of fire detection
- fire behavior exceeds capability of initial response resources to contain the fire
- the fire threatens any sensitive park or non-park natural or cultural resource

When complexity levels exceed initial response capabilities, the appropriate Incident Command System (ICS) positions should be added commensurate with the complexity of the incident. The Incident Complexity Analysis and use of the WFDSS decision process will assist the manager in determining the appropriate management structure to provide for safe and efficient fire suppression operations. When additional positions are required for management of wildland fires, the FMO or Acting will coordinate orders with the Incident Commander (IC) and Southeast Zone Coordination Center or expanded dispatch.

A unified command structure will be a consideration in all multijurisdictional incidents.

The Superintendent will approve WFDSS decision documentation and any revisions.

3.2 Fuels Treatments

3.2.1 Fuels Planning

The fuels management program is designed to achieve park fire management program goals and objectives, as well as help achieve resource management and fire management goals as defined in National Park Service policy.

3.2.1.1 Project Prioritization

Projects at Saguaro NP are prioritized using the following criteria:

- Deviation from fire return interval departure
- Proximity to values at risk
- Coordination with adjacent cooperators
- Potential hazard
- Logical project sequence

3.2.1.2 General Fuels Management Implementation Procedures

The fuels management activities proposed in the fire management plan will be planned and implemented in accordance with *Reference Manual 18, Fuels Management* chapter 7, the *Interagency Prescribed Fire Implementation Guide*, and the *Red Book*.

3.2.1.3 Multi-year Fuels Treatment Plan

The Saguaro NP multi-year fuels treatment plan represents a multi-year moving “window” of current year and out-year fuels projects. This plan is updated annually as part of the annual fire management plan review process. It is important to note that prior to implementation a proposed project will have the appropriate associated National Environmental Policy Act (NEPA) analysis completed.

The current multi-year fuels treatment plan is found on Mapsheet 5: *Fuels Management*, Section: *Multi-year Fuels Treatment Plan* and Appendix D: *Multi-year Fuels Treatment Plan*.

3.2.1.4 Non-Fire Fuel Treatments

Mechanical and manual treatments complement prescribed burning to reduce fuels that might sustain large-scale, high-intensity fires. Such treatment requires compliance with NEPA and National Historical Protection Act (NHPA) and a Superintendent-approved implementation plan.

Non-fire fuels treatment projects are treated similarly to prescribe fire projects and are listed in the multi-year fuel treatment plan. Mechanical fuels treatment strategies are used in structure protection, development of defensible space and reducing concentrations of invasive species that pose substantial fire hazards, such as buffelgrass.

More detailed discussion of non-fire fuels treatments is found on Mapsheet 5: *Fuels Management*, Sections: *WUI* and *Allowable Fuels Treatment*.

3.2.2 Fuels Management Goals and Objectives

Fuels management goals and objectives are formulated through Saguaro NP’s GMP, *Saguaro NP Foundation Document*, Science and Resource Management goals, national, and departmental and agency policies.

A listing of appropriate fuels management goals is found on Mapsheet 5: *Fuels Management*, Section: *Fire Management Goals and Objectives*.

3.2.3 Prescribed Fire Staff Responsibilities

Table 2: Prescribed Fire Staff Responsibilities

Staff Member	Responsibility
<i>Planning</i>	
Fuels Specialist	Obtains funding for burn, writes burn plan, prepares documentation, obtains smoke permit and is RXB2 qualified
Fuels Specialist/Fire Ecologist	Assures NEPA, NHPA, ESA compliance
Fire Management Officer	Reviews burn plan for safety concerns and continuity
Superintendent	Approves Burn Plan
Fire Communication and Education Specialist, Chief of Interpretation and Education/PIO and Community Engagement Specialist	Inform neighbors and other affected local parties of pending action
Fuels Specialist	Initiates burn plan peer review
<i>Execution</i>	
Fuels Specialist	Organizes logistics, orders equipment and resources, acts as/arranges burn boss, tracks costs, oversees monitoring
Fire Ecologist	Serves as resource advisor
Fire Management Officer	Serves as agency liaison
Chief Ranger	Oversees safety and security of public
Zone Safety Officer	Provides guidance for safety and security of staff and public.

3.3 Preparedness

Fire preparedness is the state of being ready to provide an appropriate response to wildland fires based on identified objectives. Preparedness is the result of activities that are planned and implemented prior to fire ignitions. Preparedness requires identifying necessary firefighting capabilities and implementing coordinated programs to develop those capabilities.

Preparedness requires a continuous process of developing and maintaining firefighting infrastructure, predicting fire activity, implementing prevention activities, identifying values to be protected, hiring, training, equipping, pre-positioning, and deploying firefighters and equipment, evaluating performance, correcting deficiencies, and improving operations. Preparedness activities will focus on developing wildland fire operations capabilities and on performing successful wildland fire operations.

3.3.1 Preparedness Activities

3.3.1.1 Coordination and Dispatching

Saguaro NP is a member of the Southeast Zone fire management group. Dispatching within this zone is accomplished through the Tucson Interagency Dispatch Center. Members of this group are signatories to the *SE Zone Interagency National Fire Danger Operating Plan*, updated annually.

A copy of the current 2016 plan is found at:

http://gacc.nifc.gov/swcc/predictive/fuels_fire-danger/nfdrs_ops_plans/SEZ/SEZ_2015_FDOP_FINAL_03042015.pdf

Future Fire Danger Operating Plans for the Southeast Zone will be located at the parent page utilizing the following link:

http://gacc.nifc.gov/swcc/predictive/fuels_fire-danger/fuels_fire-danger.htm

3.3.1.2 Duty Officer

All Fire Management Officers are responsible for providing Duty Officer (DO) coverage during any period of predicted incident activities. DO's responsibilities may be performed by any individual with a signed Delegation of Authority from the local Agency Administrator. The required duties for all DOs are:

- Monitor unit incident activities for compliance with NPS safety policies.
- Coordinate and set priorities for unit suppression actions and resource allocation.
- Keep Agency Administrators, suppression resources and Information Officers informed of the current and expected situation.

- Plan for and implement actions required for future needs.
- Document all decisions and actions.

DOs will provide operational oversight of these requirements as well as any specific duties assigned by fire managers through the fire operating plan. DOs will not fill any ICS incident command functions connected to any incident. In the event that the DO is required to accept an incident assignment, the FMO will ensure that another authorized DO is in place prior to the departure of the outgoing DO.

Further discussion of the DO position occurs in Appendix H: *Duty Officer Manual*, which a hard copy is maintained in the Saguaro NP Emergency Operations Plan, located at both the fire management office and the aviation office.

3.4 Post-Fire Programs and Response

The National Park Service Fire Management Post-Wildfire Program is dedicated to protecting lives, property, and resources while promoting the restoration, maintenance, and integrity of ecosystems. The program determines the need to prescribe and implement emergency treatments to meet the following objectives:

- Minimize threats to life or property.
- Stabilize and prevent further unacceptable degradation to natural and cultural resources resulting from the effects of a fire.
- Repair or improve lands damaged directly by a wildfire.
- Rehabilitate or establish the integrity of stable ecosystems in the burned area.

Natural recovery after a wildfire is preferable if immediate stabilization and rehabilitation needs have been met or are assessed to not be necessary. In situations where a burned area emergency exists and it is possible to restrict access to protect life and safety or where valid uses will significantly interfere with emergency treatment objectives or delay recovery, administrative closures should be the first consideration. Treatments should be disallowed if they are experimental or proven to be ineffective.

Current direction for post-fire programs and response are found in *RM 18: Chapter 19* and the *Red Book*.

Saguaro NP is responsible for taking prompt action after a wildfire to minimize threats to life or property, and to prevent unacceptable degradation to natural and cultural resources.

Management of damages resulting from wildfires is addressed through four activities (see RM 18 and Red Book):

Suppression Repair: the intent is to repair suppression damages and is the responsibility of the Incident Commander. This activity is paid for from wildfire suppression funding.

Emergency Stabilization: the intent is to protect life and property and critical resource values, and is the responsibility of the Superintendent. This activity is paid for from Emergency Stabilization (ES) funding.

Rehabilitation: the intent is to repair wildfire damaged lands that are unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by wildfire. This activity is paid for from Burned Area Rehabilitation (BAR) funds.

Restoration: the intent is to continue the rehabilitation efforts started in the BAR process beyond the time period limitation set by the department. This activity is paid for from regular non-fire program funds.

3.5 Air Quality/Smoke Management

3.5.1 Air Quality Issues

Saguaro NP has the following issues: park designated as a Class I Airshed, two other Class I airsheds are within the park influence area, boundary with City of Tucson – non-attainment for carbon monoxide, and Wildland Urban Interface (WUI) impacts.

A more thorough discussion of air quality issues is found on Mapsheet 7: *Zone Air Quality and Aviation*, Sections: *ADEQ airshed*, *Air Quality* and *Smoke Management*.

3.5.2 Smoke Management Activities

Saguaro NP fire management follows the Arizona State Smoke Implementation Plan. All smoke generating projects are registered with the state, and implementation does not occur without state approval.

A more comprehensive discussion is found on Mapsheet 7: *Zone Air Quality and Aviation*: Section: *Smoke Notification*.

3.6 Data and Records Management

3.6.1 Wildfire Report

Wildland fire reporting follows guidelines established by NPS policy and *Director's Order 18* and the associated reference manual, *RM 18*, Chapter 11: *Wildland Fire Reporting* (NPS 2014). The primary record is a hardcopy wildland fire report, and it is a permanent record of wildland fires on NPS lands and/or fire responses completed by the NPS. The hard copy is maintained at the park unit until transfer to archival storage. The report includes descriptive and statistical information such as fire name, date, location, cause; resources dispatched, fire size, etc.

The initial report is the *NPS Wildland Fire Report Form* which covers the basic fire information needed to size-up a wildfire.

Saguaro NP fire management will utilize the *NPS Wildland Fire Report Form* as an information source for data input into the *Wildland Fire Information System Fire Reporting Module* used for reporting wildland fire information, and the park will follow all required protocols for keeping and maintaining fire records.

3.6.2 Geospatial Data Management for Wildland Fire Projects

Park/Incident Geographic Information System (GIS) coordinator will ensure that GIS Standard Operating Procedures are understood and followed. Reference to: *GIS Standard Operating Procedures on Incidents*, Chapter 2, *File Naming and Directory Structure*. In-depth direction found at the following link: <http://www.nwcg.gov/pms/pubs/GSTOP7.pdf>

3.6.3 Wildland Fire Qualifications Management

Park fire staff will enter all Saguaro employee qualification records that are involved in wildland fires into, and maintain annually on, the DOI Incident Qualification System. Cards will be issued each spring after completion of the annual fireline refresher, physical clearance (annual, periodic, baseline exams), and appropriate physical fitness test (pack, field, or walk test).

Reference to current wildland fire qualified personnel is in Appendix F-5: *List of Current Wildland Fire Qualified Personnel*.

4 PROGRAM MONITORING and EVALUATION

4.1 Monitoring

“All NPS units applying prescribed fire, using wildfire for resource objectives, or altering the arrangement of wildland fuels for the purpose of modifying fire behavior beyond defensible space building codes must prepare a fire monitoring plan”.

Monitoring is the primary means of assessing whether the fire program is meeting management goals and objectives. Park staff utilizes monitoring results in annual assessment of the fire management program. Fire effects data is maintained at the park, and a copy is also available at the NPS Data Store (<https://irma.nps.gov/DataStore/>).

Monitoring is described in *RM 18 - Chapter 8* with specific details in the *NPS Fire Monitoring Handbook*.

For more discussion on monitoring see Mapsheet 3: *Resource Management*, Sections: *Fire Effects* and *Fire Effects Inventory and Monitoring Plots*.

An updated *Fire Monitoring Plan* will be completed in the future and is located in Appendix E: *Fire Monitoring Plan*.

4.2 Science and Climate Change

4.2.1 Science

Fire research has been and continues to occur in the park. Research focused on adjacent but similar lands has generated and will continue to generate results that can be applied to the park fire management program.

For more information on research pertinent to fire management see Mapsheet 1: *Introduction*, Section: *Research* and for a list of pertinent research pertaining to Saguaro NP go to Appendix 1: *References*.

4.2.2 Climate Change

Saguaro NP fire management is aware there may be potential impacts from climate change. At present there is a need to conduct specific research that will project the types of changes of fire regimes and the impacts those changes will have on the overall wildland fire program.

Further discussion on climate change is found on Mapsheet 1: *Introduction*, Section: *Climate Change*.

4.3 Annual Program Evaluation and Fire Management Plan Review Process

This plan will be reviewed annually in accordance with RM 18 - Chapter 4 in order to incorporate new knowledge, program adjustments/refinements and updates as needed. This review/update requires Superintendent's approval and is normally accomplished through a checklist or template provided by the regional office.

All wildland fires and fire-related incidents will be reviewed in accordance with RM 18 - Chapter 17 and the Redbook.

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Appendix A: References

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Appendix B: Definitions

The list of pertinent fire management definitions may change over time as new definitions are added and obsolete definitions are replaced, therefore a list of current definitions are found using the following link:

www.nwcg.gov/pms/pubs/glossary

Appendix C: Compliance for FMP

Saguaro NP prepared an environmental impact statement with the associated Record of Decision signed on April 2, 2008. The Saguaro EIS and associated Record of Decision can be found at: <http://www.nps.gov/sagu/learn/management/firemanagement.htm>

Appendix D: Multi-Year Fuels Treatment Plan

Table Append D-1: Proposed Fuels Projects (2016-2020)

FY	Treatment	Location	Implementation	Projected Acres	Objectives
2016	Mica E Rx	Mica Bowl, east half	Spring-Fall	242	Hazard reduction, forest health, natural fire regime
2016	Mica E Burn Prep	Mica Bowl, east half	Spring-Fall	22	Prepare for prescribed burn
2016	Buffelgrass Herbicide	RMD and TMD	Summer	515	WUI, hazard reduction, natural fire regime
2017	Mica W Rx	Mica Bowl, west half	Spring-Fall	242	Hazard reduction, forest health, natural fire regime
2017	Mica W Burn Prep	Mica Bowl, west half	Spring-Fall	22	Prepare for prescribed burn
2017	Buffelgrass Herbicide	RMD and TMD	Summer	650	WUI, hazard reduction, natural fire regime
2018	Devils Bathtub Rx	Devil's Bathtub unit	Spring-Fall	550	Hazard reduction, natural fire regime
2018	Devils Bathtub Burn Prep	Devil's Bathtub unit	Spring-Fall	20	Prepare for prescribed burn
2018	Buffelgrass Herbicide	RMD and TMD	Summer	750	WUI, hazard reduction, natural fire regime
2019	Chimenea Rx	Chimenea unit	Spring-Fall	550	Hazard reduction, natural fire regime
2019	Chimenea Burn Prep	Chimenea unit	Spring-Fall	25	Prepare for prescribed burn
2019	Buffelgrass Herbicide	RMD and TMD	Summer	850	WUI, hazard reduction, natural fire regime
2020	Rincon Peak RX	Rincon Peak	Spring-Fall	50	Hazard reduction, natural fire regime
2020	Rincon Peak Burn Prep	Rincon Peak	Spring-Fall	7	Prepare for prescribed burn
2020	Buffelgrass Herbicide	RMD and TMD	Summer	800	WUI, hazard reduction, natural fire regime

Table Append D-2: Minimum Required Prescribed Fire Documentation

1. Original signed prescribed fire plan
2. Checklist of pre- burn activities
3. All reviewer comments
4. All maps
5. Notification checklist
6. All permits (burn, smoke, others)
7. Monitoring data
8. Weather forecasts
9. Agency administrator go/no- go approval
10. Operational go/no- go checklist
11. Incident action plan(s)
12. Unit logs, daily validation, other unit leader documentation
13. Press releases, public comments, complaints
14. Smoke dispersal information
15. Post- fire analysis
16. DI- 1202, Photographs

Appendix E: Fire Monitoring Plan

An obsolete wildland fire monitoring plan exists for Saguaro NP; therefore a new monitoring plan is being developed and will be completed by January 2017

Appendix F: Preparedness Planning Documents

- F-1: Annual Delegation of Authority from Park Superintendent
- F-2: Saguaro NP Decision Support Tool for Wildland Fire
- F-3: Southeast Zone Interagency National Fire Danger Operating Plan
- F-4: Job Hazard Analysis for Fire Management Program
- F-5: List of Current Wildland Fire Qualified Personnel
- F-6: Structure Protection Inventory and Needs
- F-7: Transfer of Commend Package
- F-8: Yearly Readiness Checklist

F-1: Annual Delegation of Authority from Park Superintendent

Current signed Annual Delegation of Authority from the Saguaro NP Superintendent and the Forest Service Santa Catalina District Ranger are found in the Fire Management Office.

Copies of the Saguaro NP Annual Delegation of Authority and the Santa Catalina RD Annual Delegation of Authority follow.



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
Saguaro National Park
3693 South Old Spanish Trail
Tucson AZ 85730



March 16, 2016

MEMORANDUM

To: John Thornburg, Rodgers Wright, Jason Thivener, Steve Holley, Stephen Grater, Leo Holley

From: Superintendent, Saguaro National Park *D. D. D.*

Subject: 2016 Saguaro National Park Duty Officer

This memorandum is the delegation of authority for you to act in the capacity of Duty Officer for the Interagency Wildland Fire and Aviation Management Program of Saguaro National Park and the Santa Catalina Ranger District, Coronado National Forest. The Duty Officer is responsible for implementation of all aspects of the Wildland Fire Program.

The Duty Officer:

- Is on call 24 hours a day, until relieved or the duty is accepted by another qualified person that is identified to the Tucson Interagency Dispatch Center (TDC).
- Coordinates daily with TDC and all assigned resources, and is directly available to the dispatch center by radio, cell phone, or other means.
- Is responsible for ensuring adequate initial attack forces are available to meet identified needs based on current and forecasted conditions and sets priorities for wildland fire responses.
- Ensures resource availability and status is updated, known, and passed on to fire dispatch. Compiles information and provides a briefing and documents resource availability and status on the crew work roster.
- Ensures all incidents are managed in a safe and cost-effective manner.
- Documents all decisions and actions in preparation for transitioning to next Duty Officer.
- Assesses current conditions and implements authorized activities outlined in the step-up plan.
- Recommends wildland fire response actions to the Fire Management Officer, District Ranger, and Superintendent.
- Completes reporting requirements to Park Management, IMRO Fire Staffs, and Coronado National Forest Fire Staff.
- Assures that only fully qualified personnel are used in wildland fire operations.
- Ensures that the appropriate agency fire reports are completed and entered into the agency database.
- Monitors fires that are in a transition phase to ensure plans are complete and the incident command system is clear and functioning.
- Monitors incidents to ensure the complexity is within the incident commander's qualifications.



- Coordinates, prepositions, sends, and orders fire and aviation resources in response to current and anticipated fire conditions.
- Reviews and approves requests of overtime, comp. time, hazard pay, and other premium pay for work performed on wildland fires.
- Authorizes the use of management directed time-off to ensure the health and safety of wildland fire personnel, as specified in the Interagency Incident Business Management Handbook and NWCG Work/Rest Guidelines.
- Coordinates and provides all fire and prevention information needs to inform internal and external customers with necessary information.
- Monitors fire behavior conditions, and oversees distribution of severity and step-up funding for wildland fire activities.
- Provides leadership in the development of Wildland Fire Decision Support System (WFDSS) as necessary.
- Authorizes the hiring of emergency firefighters in accordance with the Department of Interior and Department of Agriculture Pay Plans for Emergency Workers.

Scheduling of the Duty Officer will be coordinated by the Interagency FMO or their acting. The Duty Officer will not leave the unit for another assignment or be directly assigned to a going incident without arranging for a replacement.

During the fire season the minimum qualification required for the Duty Officer is ICT3 and Division/Group Supervisor. The following personnel are authorized to fill the Duty Officer role during the primary fire season (April 1 – July 15).

John Thornburg, Interagency Fire Management Officer
Rodger Wright, Interagency Assistant Fire Management Officer

Outside of the primary fire season the minimum qualification for the Duty Officer is TFLD and ICT4. The following personnel are authorized to fill the Duty Officer role outside of the primary fire season.

Jason Thivener, Module Leader, Saguaro Wildland Fire Use Module
Steve Holley, Captain Engine 652
Stephen Grater, Fire Operations Specialist
Leo Holley, Captain 551

Please remember that the key reason for daily designation is to ensure someone who is qualified and capable is available and will recognize changes in fire parameters that could pose a significant hazard to assigned resources. You are the go to person during fire activity to make decisions, set priorities, and relay information.

Thank you for your dedication to the program.





Forest Service

Coronado National Forest
Santa Catalina Ranger District

5700 North Sabino Canyon Road
Tucson, AZ 85750
520-749-8700
FAX: 520-749-7723

File Code: 5100

Date: April 14, 2016

Subject: 2016 Santa Catalina Ranger District Duty Officer

To: John Thornburg, Rodger Wright, Jason Thivener, Steve Holley, Stephen Grater,
Leo Holley

This letter is the delegation of authority for you to act in the capacity of Duty Officer for the Interagency Wildland Fire and Aviation Management Program of Saguaro National Park and the Santa Catalina Ranger District of the Coronado National Forest. The Duty Officer is responsible for implementation of all aspects of the Wildland Fire Program.

The Duty Officer:

- Is on call 24 hours a day, until relieved or the duty is accepted by another qualified person that is identified to the Tucson Interagency Dispatch Center (TDC).
- Coordinates daily with TDC and all assigned resources, and is directly available to the dispatch center by radio, cell phone, or other means.
- Is responsible for ensuring adequate initial attack forces are available to meet identified needs based on current and forecasted conditions and sets priorities for wildland fire responses.
- Ensures resource availability and status is updated, known, and passed on to fire dispatch.
- Compiles information and provides a briefing and documents resource availability and status on the crew work roster.
- Ensures all incidents are managed in a safe and cost-effective manner.
- Documents all decisions and actions in preparation for transitioning to next Duty Officer.
- Assesses current conditions and implements authorized activities outlined in the step-up plan.
- Recommends wildland fire response actions to the Fire Management Officer, District Ranger, and Superintendent.
- Completes reporting requirements to Park Management, IMRO Fire Staffs, and Coronado National Forest Fire Staff.
- Assures that only fully qualified personnel are used in wildland fire operations.
- Ensures that the appropriate agency fire reports are completed and entered into the agency database.
- Monitors fires that are in transition phase to ensure plans are complete and the incident command system is clear and functioning.
- Monitors incidents to ensure the complexity is within the incident commander's qualifications.
- Coordinates, prepositions, sends, and orders fire and aviation resources in response to current and anticipated fire conditions.
- Reviews and approves requests of overtime, comp. time, hazard pay, and other premium pay for work performed on wildland fires.



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- Authorizes the use of management directed time-off to ensure the well being and safety of wildland fire personnel, as specified in the Interagency Incident Business Management Handbook and NWCG Work/Rest Guidelines.
- Coordinates and provides all fire and prevention information needs to inform internal and external customers with necessary information.
- Monitors fire behavior conditions, and oversees distribution of severity and step-up funding for wildland fire activities.
- Provides leadership in the development of Wildland Fire Decision Support System (WFDSS) as necessary.
- Authorizes the hiring of emergency firefighters in accordance with the Department of Interior and Department of Agriculture Pay Plan for Emergency Workers.

Scheduling of the Duty Officer will be coordinated by the Interagency FMO or their acting. The Duty Officer will not leave the unit for another assignment or be directly assigned to a going incident without arranging for a replacement.

During the primary fire season the minimum qualification required for the Duty Officer is DIVS and ICT3. The following personnel are authorized to fill the Duty Officer role during the primary fire season (April 1- July 15). Other qualified personnel may fill this role.

John Thornburg, Interagency Fire Management Officer
Rodgers Wright, Interagency Assistant Fire Management Officer

Outside of the primary fire season the minimum qualification for the Duty Officer is TFLD and ICT4. The following personnel are authorized to fill the Duty Officer role outside of the primary fire season. Other qualified personnel may fill this role.

Jason Thivener, Module Leader, Saguaro Wildland Fire Use Module
Steve Holley, Captain Engine 652
Stephen Grater, Fire Operations Specialist
Leo Holley, Captain Engine 551

Please remember that the key reason for daily designation is to ensure someone who is qualified and capable is available and will recognize changes in fire parameters that could pose a significant hazard to assigned resources. You are the go to person during fire activity to make decisions, set priorities, and relay information.

Thank you for your dedication to the program.



KENNETH BORN
District Ranger

F-2: Saguaro NP Decision Support Tool for Wildland Fire

Saguaro N.P. Wildfire Decision Support Tool - Page 1

Page 1 is a checklist to assess whether or not the situation warrants continuation to Page 2. A "Yes" response to any element on this checklist indicates that the initial response should be to implement a suppression strategy.

Incident Name and Number: _____

Decision Element	Yes	No
Is fire human caused?		
Is the fire located in a predetermined Suppression Zone?		
Will choosing to not fully suppress this wildfire fail to meet fire management plan objectives?		
Will the fire adversely affect a populated area in a manner that can not be mitigated?		
Will the fire likely pose an unacceptably high threat to firefighter or public safety,		

property, or resources that cannot be mitigated to the satisfaction of the Duty Officer, Fire Management Officer, or Line Officer?	
Are there any other management issues (socio-political, resource, management) that preclude the successful management of this wildfire under a strategy other than full suppression?	
Is there other proximate incident activity which limits or precludes the successful management of this wildfire?	
Are processes in place to ensure all internal and external notifications and media releases will be completed?	
Will the fire likely spread onto an adjacent landowner whom is unwilling to accept the fire onto their lands?	

Recommended Action (initial appropriate box)	Implement a suppression strategy
	Continue to Page 2 of this D5/Saguaro N.P. Wildfire Decision Support Tool

Agency Administrator's name: _____ **Title:** _____

Agency Administrator's Signature: _____ **Date:** _____

Note: In the interest of time, suppression actions may be initiated without Agency Administrator signature

Circle Best Response to each category

Current and anticipated location of the fire	Favorable	Unfavorable
D5/Saguaro NP Staffing Level	ERC 0-82 (SL1, 2, 3) Favorable	ERC 83-Max (SL4 & SL5) Unfavorable
Time of year	Anytime other than May, June, Early July Favorable	May, June, Early July Unfavorable
National Preparedness Level	1, 2, 3 Favorable	4, 5 Unfavorable
1000 hour fuel moisture	>10 Favorable	≤10 Unfavorable
Drought intensity http://www.drought.unl.edu/dm/monitor.html	none, abnormally dry, moderate Favorable	severe, extreme, or exceptional Unfavorable

Live fuel moisture	Above average to average	Below average
	Favorable	Unfavorable

Number Of Days Since last Rain Event	Less than 14	More than 14
	Favorable	Unfavorable

Anticipated Incident Complexity Level derived from Relative Risk Assessment	3, 4, and 5	1 and 2
	Favorable	Unfavorable

<p><i>Recommended wildfire response is as follows:</i> Confine, Contain, and /or Control Strategy : ≥ 5 unfavorable conditions Monitoring and/or Point Protection Strategy: 4 or less unfavorable conditions Attach additional documentation if responding in a manner that is inconsistent with this matrix's recommendation. Upload this entire document into WFDSS.</p>	Total # Unfavorable Conditions
---	---------------------------------------

The recommended response for this fire is:

Agency Administrator's Name _____	Title _____
Agency Administrator's Signature _____	Date _____

F-3: Southeast Zone Interagency National Fire Danger Operating Plan

Saguaro NP is a member of the Southeast Arizona Zone Fire Management Cooperative. A Fire Danger Operating Plan for the Zone has been developed and is updated annually. A copy of the current 2016 plan is found at: http://gacc.nifc.gov/swcc/predictive/fuels_fire-danger/nfdrs_ops_plans/SEZ/SEZ_2015_FDOP_FINAL_03042015.pdf

Future Fire Danger Operating Plans for the Southeast Zone will be located at the parent page utilizing the following link:

http://gacc.nifc.gov/swcc/predictive/fuels_fire-danger/fuels_fire-danger.htm

The **Southeast Zone Interagency National Fire Danger Operating Plan** contains a step-up plan, response procedures as well as an analysis of wildland fire fuels and atmospheric conditions relative to wildland fire behavior.

F-4: Job Hazard Analysis for Fire Management Program

Job hazard analyses for the fire management program are located in the fire management officer's office.

F-5: List of Current Wildland Fire Qualified Personnel

Personnel wildland fire qualified personnel listing is maintained and filed in the fire management officer's office.

F-6: Structure Protection Inventory and Needs

Saguaro NP has inventoried all of the park structures in the park and assessed a wildland fire hazard rating to each structure. The completed *SAGU Facility Wildfire Risk Assessment* is on file in the fire management office. The following table summarizes the information for each structure.

Table Append F6-1: SAGU Facility Wildfire Risk Assessment

Facility Name	Facility Importance (API) <i>Note: Higher API/Higher Park Importance</i>	Wildland Fire Risk Rating	Lat/Long
Fire Operations Building	56	Low	Lat (NAD83): 32.17439280 Long(NAD83): -110.73694830
Haz. Mat. Storage-Helibase	30	Low	Lat (NAD83): 32.17438810 Long(NAD83): -110.73700080
Pesticide Storage Building-Helibase	19	Low	Lat (NAD83): 32.17433760 Long(NAD83): -110.73699330
WFM Trailer	N/A	Moderate	Lat (NAD83): 32.17444310 Long(NAD83): -110.73676830
Air Quality Building	31	Moderate	Lat (NAD83): 32.17456020 Long(NAD83): -110.73713730
Resource Management Storage Building-Helibase	7	Moderate	Lat (NAD83): 32.17455380 Long(NAD83): -110.73707320
Fire Storage-Helibase	N/A	Low	Lat (NAD83): 32.17474760 Long(NAD83): -110.73651160
Javelina Comfort Station	20	Moderate	Lat (NAD83): 32.16579650 Long(NAD83): -110.72376750
Maintenance Building	42	High	Lat (NAD83): 32.17953880 Long(NAD83): -110.73767190
RMD Park Storage Building	13	Low	Lat (NAD83): 32.17934290 Long(NAD83): -110.73734220
RMD Corral Storage Building	N/A	Moderate	Lat (NAD83): 32.17728450 Long(NAD83): -110.73618120
RMD Quarters 16	20	Low	Lat (NAD83): 32.17830040 Long(NAD83): -110.73682710
RMD LE and Resources Offices	42	Low	Lat (NAD83): 32.17884750 Long(NAD83): -110.73686370
RMD Resource Management Building	42	Low	Lat (NAD83): 32.17914320 Long(NAD83): -110.73689710

Facility Name	Facility Importance (API) <i>Note: Higher API/Higher Park Importance</i>	Wildland Fire Risk Rating	Lat/Long
RMD Headquarters Building	60	Low	Lat (NAD83): 32.17889980 Long(NAD83): -110.73614970
RMD Headquarters Annex	42	Low	Lat (NAD83): 32.17895360 Long(NAD83): -110.73637320
RMD Entrance Station	55	Low	Lat (NAD83): 32.18003690 Long(NAD83): -110.73582820
RMD Fire Management Building	30	Low	Lat (NAD83): 32.22315200 Long(NAD83): -110.72249170
RMD Fire Management Storage Building	N/A	Low	Lat (NAD83): 32.22327760 Long(NAD83): -110.72260740
RMD SOAR Storage Building	N/A	Moderate	Lat (NAD83): 32.22313020 Long(NAD83): -110.72285490
RMD SOAR Building 2 (Small)	N/A	Low	Lat (NAD83): 32.22270700 Long(NAD83): -110.72262620
RMD SOAR Building 1 (Large)	N/A	Low	Lat (NAD83): 32.22252120 Long(NAD83): -110.72234820
RMD Visitor Center	90	Moderate	Lat (NAD83): 32.18035578 Long(NAD83): -110.73613509
TMD Visitor Center	67	Low	Lat (NAD83): 32.25433220 Long(NAD83): -111.19718060
TMD Air Quality Bldg	19	High	Lat (NAD83): 32.24855670 Long(NAD83): -111.21776000
TMD Water System Pump House	30	High	Lat (NAD83): 32.24854010 Long(NAD83): -111.21784020
TMD Maintenance Bldg	42	Moderate	Lat (NAD83): 32.25457390 Long(NAD83): -111.19472600
TMD Corral Strg Bldg	0	Moderate	Lat (NAD83): 32.25492610 Long(NAD83): -111.19348090
TMD Recycle Strg Bldg	7	Moderate	Lat (NAD83): 32.25468000 Long(NAD83): -111.19409930
TMD Education Center	59	Moderate	Lat (NAD83): 32.25394150 Long(NAD83): -111.19509760
TMD Operations Bldg	42	Low	Lat (NAD83): 32.25336380 Long(NAD83): -111.19605440
TMD Quarters 31 and 32 Duplex	30	Low	Lat (NAD83): 32.25367440 Long(NAD83): -111.19594250
TMD Historic Restroom Cam-Boh	31	Low	Lat (NAD83): 32.31893370 Long(NAD83): -111.16567890

Facility Name	Facility Importance (API) <i>Note: Higher API/Higher Park Importance</i>	Wildland Fire Risk Rating	Lat/Long
TMD ESPERANZA COMFORT STATION	N/A	Moderate	Lat (NAD83): 32.28457220 Long(NAD83): -111.16719130
TMD EZKIMINZIN COMFORT STATION	20	Moderate	Lat (NAD83): 32.28589430 Long(NAD83): -111.16952460
TMD HISTORIC RESTROOM SIGNAL HILL	20	Moderate	Lat (NAD83): 32.28991350 Long(NAD83): -111.20943500
TMD Cam-Boh Comfort Station	20	Low	Lat (NAD83): 32.31936110 Long(NAD83): -111.16623450
TMD Historic Restroom Ez-Kim-In-Zin	20	Low	Lat (NAD83): 32.28591130 Long(NAD83): -111.16861850
TMD Signal Hill Comfort Station	78	Moderate	Lat (NAD83): 32.28988840 Long(NAD83): -111.20850560
RMD Manning Camp Comfort Station	31	High	Lat (NAD83): 32.21027800 Long(NAD83): -110.55916700
RMD Manning Cabin Vault Toilet	N/A	High	Lat (NAD83): 32.20713660 Long(NAD83): -110.55481911
RMD Manning Cabin	44	High	Lat (NAD83): 32.20725915 Long(NAD83): -110.55461928
RMD Manning Pump House	N/A	High	Lat (NAD83): 32.20759390 Long(NAD83): -110.55398092
RMD Manning Water Tank	N/A	High	Lat (NAD83): 32.20754965 Long(NAD83): -110.55572033

F-7: Transfer of Command Package

Agency Administrator's Briefing to Incident Management Team

General Information

Incident Name

Approx. Size @

Date

Time

Location

Date of Start

Overhead and Suppression Resources Currently on Incident And Present IC

General Fire Situation in Area

Resources Ordered

Other Organizations Requiring Coordination (Area Command, Expanded Dispatch, MAC, Buying Team, Payment Team, Tribal Government, Other Agency Jurisdictions)

Law Enforcement/Ongoing Investigations

Financial Considerations/Limitations

Fire Behavior Considerations

Weather Situation

Fuel Types

Topography

Fire Behavior

Appropriate Management Response Considerations Established Through and for the WFSA Development Priorities

Environmental Constraints

Utility Corridors

Air Operations

Effectiveness

Hazards

Air Space Restrictions

Airports, Heliports, Helispots

Suppression Policies

Other

Environmental, Social, Political, Economic, and Cultural Resource Considerations

Environmental

Social

Political

Economic

Cultural Resource

Communications

Radio

Telephone

Electronic (Computers)

Expanded Dispatch

Procurement Arrangements

Agreements

Tribal Government

Infrared Status

Security Considerations

Incident Management Direction and Considerations

Wildland Fire Situation Analysis

Delegation of Authority

Agency Administrator's Representative

Incident Business Advisor

Resource Advisor

Suppression Priorities

Forest Supervisor/Incident Commander Contact

Time

Process

News Media and Incident Information Management

Training Considerations

Interagency/Private Property Considerations (costs, etc.)

Mop Up Standards

Rehabilitation Considerations

Initial Attack Responsibility

Support to Other Incidents

Disposition of Unit Resources on the Incident

Close Out and Debriefing

Human Welfare

Safety

Health

Civil Rights

Distribute Support Documents

WFDSS (Common WFDSS if Unified Command?)

Delegation of Authority Letter

Map & Photos

Fire Management, Pre-Attack, Land Management Plans

Weather Forecast

Special Management Area Documents

Phone Directory, Fax Number

Agreements

Incident Status Summary (ICS - 209)

Business Management Documents

Payments (Vendors and Casuals)

Claims

Injury Compensation

Incident Business Guidelines (ISOPS)

F-8: Yearly Readiness Checklist

Table Append F8-1: Yearly Readiness Checklist

Fire Organization	
	Fire management plan current
	Park fire organization chart completed
	Supervision adequate/qualified
Administration	
	Physicals and physical fitness tests completed
	Fire qualification cards up to date
	Physical fitness program established
	Appropriate training conducted
	Quarters up to safety codes
	Interagency agreements current
	Accident reporting procedures in place
	Preparedness plan current
	Property accountability procedures in place
Facilities/Equipment	
	Weather stations maintained
	Tools maintained
	Saw and pump kits ready to use
	Personal protective equipment ready
	Operators trained in defensive driving
	Hose testing/hose rack in place
	Red tag system established for unsafe equipment
	Engines adequately maintained/equipped

	Preventive maintenance conducted on engines
	Replacement schedule established for equipment
	Roads, trails, signs posted
	Lookouts operational
	Fire caches in order
Fire Operations	
	Pre- season risk analysis conducted
	Communication equipment ready
	Communication plan in place for initial and extended attack
	Fire weather procedures established
	Fire operations plan current
	Dispatch plan current
	Prevention plan current
	Pre-attack plan current
	Structural protection plan current
	Step- up plan current
	Detection procedures current
	Local interagency cooperation arranged
	Fire investigation procedures established
	Wildland fire use/prescribed fire escape; fire transition to wildland fire suppression procedures current
Aircraft Use	
	Facilities adequate and inspected; helispots marked
	Fugitive retardant available
	Helitack training, drills current
	Flight routes established
	Restricted airspace indicated

	Crash/rescue plan updated and practiced
Significant Park Specific Issues	
Notes:	

Appendix G: Fire Prevention Plan (Includes Education Plan)

Wildland Fire Prevention and Community Education

Saguaro National Park is dedicated to providing high-quality fire information and education for as many people as possible while maintaining a level of service that demonstrates the parks' professionalism. Based on the ecological principles and operational procedures outlined in this Wildland Fire Management Plan, the Fire Information and Education (FI&E) Program has three goals:

GOAL #1 – To provide year- round education on fire ecology and fire history of southern Arizona. Communicate how fire and fuels management practices meet natural resource management goals and thus the mission of the NPS.

GOAL #2 – To provide accurate and timely incident information for local, regional, and national fire operations as needed.

GOAL #3 – To provide local communities, park residents, and park permittees with information on fire safety, fire prevention, defensible space, and fuels management.

The FI&E Program will emphasize the major goals of the FMP to increase public awareness and support. While there are a variety of fire strategies and tactics used in the park, the fire program's overarching goal is to reduce hazardous fuels and restore natural resource conditions. The park will not interpret the concepts of prescribed fire separate from wildland fire use, suppression, or mechanical treatment since it is the combination of all four strategies that supports the parks' program.

Similarly, the FI&E Program will provide the public with unique fire information based on data specific to this park. Saguaro visitors want to connect with the park and the fire story here, not with generic messages about fire ecology nationwide. The park will generate interpretive stories for the public while maintaining a level of sophistication appropriate to the topics of fire ecology, fire history, research, monitoring, operations, safety, and fire prevention.

The parks have identified five target audiences for fire information and education messages:

1. Park Visitors (including in- park visitors, internet visitors, and special groups)
2. Park Employees (including NPS and volunteers)
3. Local Communities (including residents, businesses near the park, civic groups, and clubs)
4. Students/Teachers (including K- 12 students, college students, elder hostel groups, and teachers)
5. Scientific/Professional Peers (including other federal, state, and county agencies, and professional associations)

Communication Methods

The following methods will be used to communicate with the five target audiences listed above. There are both personal (face to face) and non- personal methods which will facilitate reaching the greatest number of people.

Personal

1. Interpretive Programs – Park staff will integrate fire messages into hikes, walks, campfire programs, and special off- site presentations. The FIO will audit these programs to ensure content quality.
2. Education Programs – Park staff will incorporate fire ecology concepts into curriculum based education programs, student field research experiences, after- school programs, and teacher workshops.
3. Employee Training – The FIO will coordinate park- wide employee training sessions to improve staff understanding of the fire and fuels management program. These sessions will be open to NPS and volunteers.
4. Roving – During fire operations, park employees will be stationed in high- use visitor areas, including trails, to answer questions about the current activity and/or explain the fire and fuels management program. Backcountry rangers will also provide information to backpackers about fire operations in their area.
5. Conference Presentations – Park staff will give peer presentations at conferences about current fire research, planning, or operations. These presentations will share information, generate feedback, and ultimately improve Saguaro NP’s fire and fuels management program.
6. Special Events – The park will, when possible, participate in local events to promote the fire and fuels program. For example, park employees can staff booths at local fairs or host community meetings.

Non- Personal

1. Media Stories – The FIO will communicate with print, radio, and television outlets through press releases and interviews. When necessary, the FIO will facilitate special media projects (books, documentaries, etc.) by guiding research, scheduling interviews with park staff, and coordinating filming schedules.
2. Printed Handouts – The park will include fire information in regular park publications (like the park newspaper). The FIO will research, write, and design, additional handouts specifically about fire management such as newsletters, student materials, and brochures.
3. Visitor Center Exhibits, Waysides, and Bulletin Boards – The park will maintain and update the interpretive information in visitor centers and wayside exhibits on fire and fuels management. The FIO will maintain permanent and non- permanent bulletin boards both inside and outside the park.
4. Webpage – The parks will maintain a fire and fuels management webpage, that is linked to the main park webpage, with fire planning documents, research papers, GIS maps, interpretive information, and photos.
5. Scientific Papers – Park researchers will publish papers in scientific journals and/or periodicals regarding new information from Saguaro NP’s fire and fuels management program.
6. Updates – The FIO will use email, fax, and bulletin boards to provide specific fire updates. In general, updates will appear as needed (perhaps bi- weekly during fire season) but during fire operations they will be released daily.

Evaluation

To maintain a successful FI&E Program, the parks will seek evaluation opportunities such as visitor/resident surveys.

The FIO will also evaluate the FI&E Program by preparing an annual report each year that documents the accomplishments by target audience. The park will forward this annual report to the IMR- Fire Management Officer and Communications/Education Specialist, and a copy to the NPS Fire Management Program Office in Boise, Idaho.

Appendix H: Duty Officer Manual

Note: Duty Officer Manual is **WORK IN PROGRESS** and will be included at a future date.

Appendix I: Cooperative and Interagency Agreements

Saguaros NP has entered into the following agreements in order to more effectively and efficiently manage the park's wildland fire program:

1. INTERAGENCY AGREEMENT BETWEEN NATIONAL PARK SERVICE SAGUARO NATIONAL PARK, CHIRICAHUA NATIONAL MONUMENT FORT BOWIE NATIONAL HISTORIC SITE, CORONADO NATIONAL MONUMENT TUMACACORI NATIONAL HISTORIC PARK AND ORGAN PIPE CACTUS NATIONAL MONUMENT AND UNITED STATES FOREST SERVICE CORONADO NATIONAL FOREST
2. INTERPARK AGREEMENT between Saguaro National Park and Casa Grande Ruins National Monument, Coronado National Memorial, Montezuma Castle National Monument, Organ Pipe Cactus National Monument, Tonto National Monument, Tumacacori National Historical Park, and Tuzigoot National Monument
3. Southeast Arizona Zone Charter (MOU)
4. INTERAGENCY AGREEMENT For the Air Resource and Interagency Smoke Management Program of the State of Arizona

Appendix J: WFDSS Objectives and Requirements

1. 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 done based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected (Guidance for Implementation of Federal Wildland Fire Management Policy, February 2009, pg. 11).
2. Minimize risk to firefighters and public through application of the risk management process. Reduce the risk of the fire negatively impacting communities, residences, businesses and other infrastructure located within the planning area through strategic planning and effective tactical response. Document measures used to mitigate those risks. Actively brief on known and emerging risks and hazards. Where you commit people, you must provide for their reasonable protection and follow all guidance including that related to the Dutch Creek mitigation measures (NWCG Memo: NWCG#025-2010).
3. Suppress the fire using direct and indirect strategies to confine the fire within the following boundaries:
4. Identify, develop, disseminate and coordinate timely & accurate information with any directly- affected state or federal agencies, jurisdictional agencies, local cooperators, residents, park visitors, media, elected officials, evacuees, incident personnel, or any other identified stakeholders.
5. The Incident Management Team along with personnel assigned to the incident will be accountable for effective cost management.
6. Maintain the highest degree of personal and ethical conduct as guests of the communities of: Tucson area and Saguaro National Park.
7. Saguaro NP is 78% Wilderness. In Wilderness, Minimum Impact Strategy and Tactics will be utilized. Minimum impact strategy and 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 (RM-18, February 2014, Chapter 2 pg. 2). Coordinate suppression planning and actions with resource advisors to identify and protect natural and cultural resources.
8. Educate employees and the public about the scope and effect of wildland fire management, including fuels management, resource protection, fire prevention, hazard/risk assessment, mitigation and rehabilitation, and fire's role in ecosystem management.

9. Attempt to minimize watershed damage by restricting the area burned in any major watershed to less than 25% below 6,000', and restrict the use of retardant in major drainages with lowland leopard frog populations.
10. Initial action on trespass and human-caused wildfires will be to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety. If the initial action is not successful and an updated decision is made to manage the fire, that decision will be documented as part of the official record. The updated strategy will be commensurate with firefighter and public safety, risk management, and values to be protected, with consideration for cost efficiency (RM-18, February 2014, Chapter 2 pg. 9)
11. Sonoran Desert - Appropriate management responses for all wildland fires (regardless of ignition source) will be rapid containment and suppression to protect the public, check fire spread onto private property, and protect the natural, cultural and historic resources of the park.
12. Initiate fire management operations only after all personnel involved receive a safety briefing describing known hazards and mitigating actions (LCES), current fire season conditions and current and predicted fire weather and behavior.
13. Evacuate visitors from incident and potentially affected areas. Prevent visitors from entering the affected area (close access, terminate existing campground reservations, close AZ Trail / communicate with partners, sign / barricade Trail Head Access points).
14. Follow Border Fire Response Protocol for fires reported in the "Elevated Risk Area" as indicated on the Zone International Border Watchouts pocket card (Available upon request). However, discretion in their application may be exercised by any member of the Zone's fire management programs or Line Officers.
15. Assign, for the duration of the incident, a qualified Information Officer if the incident is projected to last longer than one operational period.
16. During suppression actions a qualified Resource Advisor(s) (READ) will be assigned to all incidents projected to last longer than one operational period. READ will coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the park Superintendent and the Incident Commander (IC)/Incident Management Team (IMT). They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations.
17. The use of natural water sources is not permitted due to the potential to spread disease and exotic species. There is no use of natural water sources within the park or livestock

water tanks outside of the parks boundary.

18. Follow Mexican Spotted Owl conservation measures; Manage fire for low to moderate intensity in ponderosa pine, pine/mixed conifer/hardwood, and mixed oak; Limit ac burned/ day and burn duration. Move smoke away from the PACs; Minimize effects on owl reproduction (flushing of adults from a nest, etc.); Minimize cutting trees and snags over 18 in.; Avoid cutting trees or snags over 24 in.; To the extent possible, locate staging areas and other fire activity centers outside of owl habitat; To the extent possible, avoid aircraft flight closer than 1,000 feet to PAC boundaries Mar-Aug.; Limit retardant drops in PACs.; Do not drop retardant or water on known or suspected nests; If MSO are located during operations: request advice from park READ and biologist, adjust activities, do not approach or haze. Minimize suppression activities within 100 feet of any known MSO nest site(s). Minimize cutting of trees, snags or logs greater than 9 inches DBH and retain all snags over 18 inches DBH whenever possible.
19. Use best management practices to minimize smoke impacts to Class I airsheds (Saguaro and Galiuro Wildernesses) and to the public.
20. Smoke Management Protocols
 - Throughout the management of a wildfire, fire managers will document smoke impacts on sensitive receptor sites.
 - Coordinate appropriate and timely smoke monitoring. Smoke monitoring may include; plume observation, digital photographs, and/or particulate monitoring.
 - Public information should be provided regarding potential smoke impacts and any concurrent preventive measures available to reduce smoke impacts on sensitive receptors.
 - Wildfire management opportunities to reduce smoke impacts will be considered and documented in the course of action.
 - Establish and maintain communications with ADEQ (and NM Air Quality as appropriate).
21. Implement Best Management Practices for invasive weed prevention.
22. Maximize use of long line sling operations to mitigate safety concerns and to reduce damage to vegetation by construction of helispots.
23. Park closures or restrictions will be at the discretion of the Superintendent.
24. Superintendent approval required for equipment use (chainsaws, helicopter) in Wilderness.
25. Superintendent approval required for retardant use on NPS lands.
26. Use fugitive retardant and water when deploying aerial firefighting resources (air tankers and helicopters).

27. No off road vehicle traffic is permitted without approval of the Superintendent.
28. Use the least intrusive BAER actions to mitigate actual or potential damage caused by wildland fire.
29. Sonoran Desert - Protect Values and Special Concerns: Wilderness values; Bat caves and crevices; Administrative structures (visitor centers, maintenance facilities, and administrative offices); Leopard Frog habitat Upland Sonoran vegetation (Saguaro cactus and Palo Verde); Ferruginous Pygmy Owl habitat.
30. Rincon Mountains - Protect Values and Special Concerns: Cultural sites, Mexican Spotted Owl Protected Activity Centers (PACs, Helen's Dome, Spud Rock, Italian Springs, Reef Rock, Rincon Peak), Wilderness values, Peregrine Falcon Habitat, Northern Goshawk Habitat, Campgrounds, Historic Manning Cabin (National Register Site), and Radio infrastructure.

Appendix K: BAER, BAR and ES

Standards for BAER, BAR and ES are found in the READ Guide for the park located in the Fire Management Office.

Appendix L: Serious Injury or Death Procedure

Serious Injury or Death Procedure

Wildland fire management programs routinely expose firefighters to risks. Risks are minimized through effective safety programs integrated into standard operating procedures for all wildland fire management operations. In spite of these efforts serious injuries and sometimes fatalities occur. At these times it is important that managers follow the procedures outlined in PMS 926 “Agencies Administrator’s Guide to Critical Incident Management”.

Agency administrators should review this guide with their fire management staff annually, insuring that pre-work is accomplished and standard operating procedures are known prior to the field season.

A current copy of the guide and procedures is found at:

<http://www.nwccg.gov/pms/pubs/pubs.htm>

It is important that administrators use the current version of the guide.

CRITICAL INCIDENT STRESS MANAGEMENT

Introduction

Critical Incident Stress Management (CISM) provides an organized approach to the management of stress responses for personnel having been exposed to a traumatic event in the line of duty. The use of CISM may decrease post-traumatic stress disorder, acute stress disorder, workman’s compensation claims, fatalities, injuries, and suicide. The use of CISM does not prevent an employee from seeking individual consultation through the Employee Assistance Program or a trained Peer Supporter.

Agency Administrator Responsibilities

- **Identification of Event**

The agency administrator of the unit where the incident occurred is responsible for identifying an event as a critical incident. The agency administrator is the highest ranking line officer, regardless of agency, with direct responsibility for the personnel involved in the incident.

- **Request CISM**

The agency administrator or designee is responsible for requesting CISM services from the CISM Coordinator as soon as possible after the event.

The general accepted method for contacting a CISM Coordinator is through the local dispatch office or appropriate Coordination Center.

- **Provide Information/Pay Codes**

The agency administrator or designee is responsible for providing the CISM Coordinator with information about the incident (See Supplement 2 in the Great Basin Mobilization Guide). The agency administrator is responsible for providing the CISM Coordinator with a budget code for expenses associated with CISM response.

Local Dispatch Responsibilities

- **Request CISM**

When the agency administrator has deemed an incident as a Critical Incident, attempt to fill CISM Response resources locally before placing the order at the appropriate Coordination Center.

In the event the local dispatch center does not have local resources available, an order for a CISM Coordinator (THSP) will be placed with the local GACC within one hour of receiving an order from the agency administrator.

- **Identify a Logistic Support for CISM**

The local dispatch center will identify a person to work with the CISM Coordinator to provide logistical support such as rooms, office space, etc.

Coordination Center Responsibilities

- **Request CISM**

Coordination Centers are responsible for contacting the CISM Coordinator and requesting CISM services within 1 hour of receiving the local Dispatch Center order. In the event the CISM Coordinator or qualified CISM Leader from that area is unavailable, the Coordination Center will pass the request on to another center or the National Interagency Coordination Center (NICC).

CISM Coordinator Responsibilities

- Decides on the size and makeup of the group.
- Sets time frames for CISM activities with the CISM Leader.
- Provides follow up to the CISM Leader throughout the CISM Group's activities.
- Does an AAR with the CISM Leader at the close of CISM activities.

Definitions

Critical Incident: Any event which has a stressful impact sufficient enough to overwhelm the usually effective coping skills of either an individual or group. Critical incidents are typically sudden, powerful events which are outside the range of ordinary human experiences.

Critical Incident Stress Debriefing (CISD): A structured group meeting that emphasizes venting or show of emotions and other reactions to a critical incident. It also emphasizes educational and informational elements which are of assistance to employees in understanding and dealing with the stress generated by the event. Debriefings generally occur within 24 – 72 hours of the critical incident.

Critical Incident Stress Management (CISM): A wide range of programs and services designed to prevent and mitigate the effects of traumatic stress.

Initial Incident Stress Defusing: This is a shorter and less structured version of a Critical Incident Stress Debriefing (CISD) that usually occurs within a few hours of a critical incident. The main purpose of a Defusing is to stabilize the affected personnel so that they can return to work if necessary or go home without unusual stress. Defusing's allow for initial venting of reactions to the incident and provides stress related information to affected personnel. A Defusing may eliminate the need for a formal CISD or enhance a subsequent CISD.

Individual Crisis Debriefing: One-on-one confidential assistance with any issue by trained peer supporter or mental health professional.

Peer Support: Personnel trained to assist their fellow employees by listening without judgment and maintaining confidentiality. They are also trained in positive coping strategies for stress, and to help others validate their thoughts and emotions about an overwhelming trauma or loss.

Appendix M: Safety Program

Safety Program/Plan utilized by the fire management program is the Saguaro NP safety plan, a copy of which is located in the fire management office.

Appendix N: Smoke Management Plan

The smoke management program at Saguaro NP is discussed on Mapsheet 6 Zone Air Quality and Aviation

Saguaro NP incorporates mitigation measures to minimize smoke impacts. The following is a list of common smoke mitigation measure used by fire management.

Smoke mitigation measures include:

1. Burn Concentrations – sometimes concentrations of fuels can be burned rather than using fire on 100 percent of an area requiring treatment. The fuel loading of the areas burned using this technique tends to be high. This can also apply to areas that have “jackpots” of fuels or broadcast slash burns (slash that has not been piled).
2. Isolate fuels – large logs, snags, deep pockets of duff, sawdust piles, squirrel middens, or other fuel concentrations that have the potential to smolder for long periods of time can be isolated from burning (reducing the area burned). This can be accomplished by several techniques including: 1) constructing a fireline around fuels of concern, 2) not lighting individual or concentrated fuels, 3) using natural barriers or snow, 4) scattering the fuels, and 5) spraying with foam or other fire retardant material. Eliminating these fuels from burning is often faster, safer, and less costly than mop- up, and allows targeted fuels to remain following the prescribed burn.
3. Mosaic burning – landscapes often contain a variety of fuel types that are noncontiguous and vary in fuel moisture content. Prescribed fire prescriptions and lighting patterns can be assigned to use this fuel and fuel moisture non- homogeneity to mimic natural wildfire and create patches of burned and non- burned areas, or burn only selected fuels. Areas or fuels that do not burn do not contribute to emissions.
4. Site Conversion – natural site productivity can be decreased by changing the vegetation composition lessening the need to burn as often.
5. Having high moisture content in non- target fuels – this can result in only the fuels targeted being dry enough to burn. High moisture in large woody fuels – burning when large- diameter woody fuels (three plus inch diameter or greater) are wet can result in lower fuel consumption and less smoldering.
6. Mass ignition/shortened fire duration/aerial ignition – “mass” ignition can occur through a combination of dry fine- fuels and rapid ignition, which can be achieved through the use of a helitorch. The conditions necessary to create a true mass ignition situation include rapid ignition of a large open area with continuous dry fuels.
7. Rapid mop up – rapidly extinguishing a fire can reduce fuel consumption and smoldering emissions somewhat, although this technique is not particularly effective at reducing total emissions and can be expensive.

Smoke management mitigation (continued)

8. Burn before precipitation – scheduling a prescribed fire before a precipitation event will often limit the consumption of large woody material, snags, stumps, and organic ground matter, thus reducing the potential for a long smoldering period and reducing the average emission factor.

9. Burn before green up – burning in cover types with a grass and/or herbaceous fuel bed component can produce fewer emissions if burning takes place before these fuels green-up for the year.

10. Burn before litter fall– underburning before deciduous trees and shrubs drop their leaves reducing ground litter that contributes extra volume to the fuel bed.

11. Backing fire – flaming combustion is cleaner than smoldering combustion. A backing fire takes advantage of this relationship by causing more fuel consumption to take place in the flaming phase than would occur if a heading fire were used. Backing fires do burn with more heat intensity, and resource objectives must be balanced with smoke concerns.

12. Dry conditions – burning under dry conditions increases combustion efficiency and fewer emissions may be produced.

Appendix O: Minimum Impact Strategy and Tactics

Minimum Impact Strategy and Tactics are discussed on Mapsheet 6 Operations – MIST Guidelines section

A more in-depth discussion of Minimum Impact Strategy and Tactics is found in NPS Reference Manual 18 Chapter 2 *Managing Wildland Fire*, Exhibit 2: *Minimum Impact Strategy and Tactics*

A link to the NPS fire management website and NPS Reference Manual 18 follows:
<https://www.nps.gov/fire/wildland-fire/about/nps-reference-manual-18.cfm>

Appendix P: Wilderness

Wilderness comprises 78% of Saguaro NP's land base. Fire management activities are influenced by a wilderness designation. The goal is to effectively integrate the preservation of Wilderness including the application of "minimum requirement" management techniques into all activities impacting this resource. Restrictions on mechanized equipment are in place as well as strict adherence to MIST operational guidance, unless approved by the Superintendent. A more detailed description can be found on Mapsheet 3: *Resource Management*, Section: *Wilderness* and MIST guidelines can be found at:

Mapsheet 6 *Operations* – Section: *MIST Guidelines*

A more in-depth discussion of Minimum Impact Strategy and Tactics is found in NPS Reference Manual 18 Chapter 2 *Managing Wildland Fire*, Exhibit 2: *Minimum Impact Strategy and Tactics*

National Park Service policy concerning Wilderness is found at:
4.3.3 Wilderness Areas: Chapter 6: Wilderness Preservation and Management
<https://www.nps.gov/policy/mp/policies.html>

National Park Service wilderness policy implementation is found in:
NPS DO #41: *Wilderness Preservation and Management* and Reference Manual 41

A discussion of Wilderness specific to Saguaro NP is located in: *Foundation Document, Saguaro National Park, Arizona: Appendix C: Basics for Wilderness Stewardship*

Saguaro NP has completed a Wilderness Minimum Requirements Analysis (MRA) for fuels operations in wilderness areas of the park. A Wilderness MRA for suppression will be completed by April 2017

Signatures

Project Lead

3-19-2008
Date

Review (Chief Ranger Services)

3-19-08
Date

Review (Administrative Officer)

3/19/08
Date

Review (Chief Science & Resource Management)

3/19/08
Date

Review (Chief of Facilities Management)

3.19.08
Date

Review (Fire Management Officer)

3/19/08
Date

Review (Safety Officer)

3/19/08
Date

Approved (Superintendent)

3/19/08
Date

Guidance for when mechanized equipment and spike camps should be considered

This guidance will be used by fire staff in completing a "MRA Screening Form" prior to every prescribed fire activity to assure that wilderness character is maintained whenever possible, and that potential impacts are properly mitigated. The completed forms will be filed in the prescribed fire project folders at the Fire Mgt. Office.

LOGISTICS	
Support via mule train:	<u>6 firefighters or less:</u> Mule trains usually consist of 5-6 mules, each of which can carry 100-125 lbs. (500-725 lbs. per train); 1 train can supply 1 crew of up to 6 firefighters with gear and food (approx. 75 lbs. total per person, including tack) for 1 week at a single campsite and can re-supply with food as necessary. 6 firefighters is the preferred maximum crew size, as only 5 mules are used, allowing for rotation of stock to avoid stress injury and fatigue.
Support via mule train OR Consider supplemental logistical support via helicopter:	<u>7-9 firefighters:</u> Depending on supplies and equipment needed, mule train support may be sufficient, using max. # of stock at max. weight, or may exceed weight limits and supplemental logistical support via helicopter should be considered.
Consider supplemental logistical support via helicopter:	<u>10 or more firefighters:</u> Logistical needs of 10 or more firefighters (~ 750 lbs.) begin to exceed the capacity of a mule train and supplemental logistical support via helicopter should be considered.
Consider supplemental logistical support via helicopter:	<u>Multiple camps:</u> With multiple camp locations (Manning Camp, plus campgrounds or spike camps) logistical needs for firefighters may also exceed the capacity of a mule train and supplemental logistical support via helicopter should be considered.
Base camp at Manning	<u>40 firefighters or less:</u> 40 firefighters are considered the maximum to camp at Manning Camp without causing adverse impacts or needing additional support. <u>More than 40 firefighters:</u> Additional camp support and equipment may be needed, such as river toilets, Base Camp Manager assigned, Camp Cook assigned.
Base camp at Manning	<u>Worksite within 1.5-2.0 miles of Manning Camp:</u> A 3-4 mile roundtrip hike to the worksite should enable crews to hike safely to and from the worksite without undue fatigue, and still accomplish 8-10 hrs. arduous work.
Consider using spike camps	<u>Worksite > 1.5-2.0 miles of Manning Camp:</u> Greater travel time begins to decrease amount of work that

	can be conducted at the site, and begins to increase probability of injury due to fatigue.
--	--

OPERATIONS	
Hand tool use only:	Light brushing and cutting of small diameter (< 4") woody material < ¼ mile Bucking of dead/down material up to 12" dia.
Consider using mechanized equipment (chainsaws*, portable pumps):	Heavy brushing and cutting of moderate diameter (> 4") woody material for < ¼ mile Construction of fireline in brush and timber fuel types Falling operations. Bucking of dead/down material over 12" dia. Protection of structures or other resources at risk (e.g. MSO nest trees) that require high water volume/pressure.

Note: *As of March, 2008, there are no qualified crosscut sawyers available on local fire crews. We expect to have the Saguaro Fire Use Module members get basic crosscut training during the 2008 fire season, with others to follow as they gain experience. As crosscut sawyers are trained, we will establish local guidelines as to best use of crosscut saws to reduce use of mechanized equipment for prescribed fire prep in Wilderness.

**Process for Determining Minimum Requirement
(Wilderness MRA)
Saguaro National Park**

1. Describe proposed action and identify project lead:

Lead: Kevin Parrish, Fuels Management Specialist

To prepare burn units and conduct prescribed fires in the designated Wilderness of Saguaro National Park. Four alternatives are presented, involving two types of activities: use of mechanized equipment (chain saws, portable pumps and helicopters) and use of spike camps.

**2. Does the action conflict with approved Wilderness Management Plan?
[If no, explain how action does not conflict]**

>No. Fire helps preserve wilderness character, and prescribed burning helps bring fuel loads closer to natural levels. Improving fuel breaks helps meet objectives and keeps burns within predetermined boundaries, avoiding undesirable impacts.

3. Can less intrusive actions be tried first?

[If no, explain why not]

>No. Burning without improving fuel breaks increases likelihood of the prescribed fire escaping control. Burning with unimproved lines under mild conditions will not meet management objectives. Not burning increases the risk of undesired effects from severe fires caused by fuel buildup created by past fire suppression.

4. Can the action be successfully conducted outside of Wilderness?

[If no, explain why not]

>No. Most of the Rincon Mountain District is designated Wilderness. Under the Fire Management Plan, proposed burns will be in vegetation types that lie within designated Wilderness.

If you answered 'NO' to all questions 2-4, then continue below. If you answered 'YES' to any question, re-consider your actions.

5. Describe in detail alternatives to the proposed action:

[Include action, location, date and duration, standards, methods, and specific mitigations]

>

Example for prepping a unit, assuming 4 miles of prep, one crew of 20 persons.

	No Mechanized	Yes Mechanized
No Spike Camps	Alternative 1 0.03 mi/day/crew 134 days for prep	Alternative 2 0.1 Mi/day/crew 40 days for prep
Yes Spike Camps	Alternative 3 0.1 miles/day/crew 40 days for prep	Alternative 4 0.3 mi/day/crew 13 days for prep

Alternative 1. Mechanized Equipment Not Allowed and Spike Camps Not Allowed

A. What is proposed? Park employees and other federal, state, and local firefighters may camp in campgrounds during line preparation and burn implementation but will not use spike camps. Firefighters will use hand tools only to improve fuel breaks to help contain the prescribed burn. Resupply with mule pack train. Assuming 4 miles of prep needed, with one 20-person crew prepping 0.03 miles/day/crew. Hand ignition of the unit.

B. When will action take place? Year-round, but mainly March to October when fire crews are available.

C. What designs and standards will apply? SOP's: stock use, physical conditioning, weight, PPE, appropriate and essential items, human waste removal; FMP; Mountain Lion and Black Bear Management Guidelines.

D. What methods/techniques will be used?

Supplement campground outhouse with "river toilets."

Pack out human waste and solid waste.

Provision of water from Manning Camp water system and/or from Tucson as needed.

Pulaskis, axes, shovels, mcleods, brush hooks, combi-tools, loppers, etc.

E. How long will it take to complete? Preparation 27 weeks, burn 2-3 weeks, hold/monitor 1 week

F. What mitigation will take place to minimize action impacts? Create SOP's for Health and Safety, visitor contact. Standard mitigation measures for Mexican Spotted Owl, other sensitive species, and cultural resources.

Alternative 2. Mechanized Equipment Allowed; Spike Camps Not Allowed

A. What is proposed? Park employees and other federal, state, and local firefighters will use hand tools and chainsaws to improve fuel breaks to help contain prescribed burns. Resupply and backhaul by mule pack train and helicopter. Firefighters will camp in campgrounds during line preparation and burn implementation but will not use spike

camps. Assuming 4 miles of prep needed, with one 20-person crew prepping 0.2 miles/day/crew with mechanized equipment.

B. When will action take place? Year-round, but mainly March to October when fire crews are available.

C. What designs and standards will apply? SOP's: stock use, physical conditioning, weight, PPE, appropriate and essential items, human waste removal, helicopter use; FMP; Mountain Lion and Black Bear Management Guidelines.

D. What methods/techniques will be used?

Supplement campground outhouse with "river toilets".

Pack out human waste and solid waste.

Provision of water from Manning Camp water system and/or from Tucson as needed.

Resupply and shuttling personnel and equipment by mule pack train and helicopter.

Chain saws, portable pumps, pulaskis, axes, shovels, mcleods, brush hooks, combi-tools, loppers, etc.

E. How long will it take to complete? Preparation 8 weeks, burn 1 week, hold/monitor 1 week.

F. What mitigation will take place to minimize action impacts? Create SOP's for Health and Safety, visitor contact. Minimize helicopter use, use type 2 or 3 helicopters instead of type 1 when possible. Use mechanized equipment in periods of low visitor use as much as possible. Use mechanized equipment only when necessary--smaller projects may be accomplished without chain saws. Standard mitigation measures for Mexican Spotted Owl, other sensitive species, and cultural resources.

Alternative 3. Mechanized Equipment Not Allowed; Spike Camps Allowed

A. What is proposed? Park employees and other federal, state, and local firefighters will use hand tools only to improve fuel breaks to help contain the prescribed burn.

Firefighters will camp in spike camps and campgrounds during line preparation and burn implementation. Resupply and backhaul will be with mule pack train; helicopters will not be allowed. Spike camps will be supplied by mule train or by firefighters carrying their own supplies and equipment, which would lessen the effectiveness and value of spike camps. Assuming 4 miles of prep needed, with one 20-person crews prepping 0.2 miles/day/crew. Hand ignition of burn unit.

B. When will action take place? Year-round, but mainly march to October when fire crews are available.

C. What designs and standards will apply? SOP's: stock use, physical conditioning, weight, PPE, appropriate and essential items, human waste removal; FMP; Mountain Lion and Black Bear Management Guidelines.

D. What methods/techniques will be used?

Use of "river toilets" in spike camps, and possibly to supplement campground facilities.
Pack out human waste and solid waste.
Provision of water from Manning Camp water system and/or from Tucson as needed.
Pulaskis, axes, shovels, mcleods, brush hooks, combi-tools, loppers, etc.
Back pack tents and camp stoves in spike camps.

E. How long will it take to complete? Preparation 8 weeks, burn 2 weeks, hold/monitor 1 week.

F. What mitigation will take place to minimize action impacts? Create SOP's for Health and Safety, visitor contact. Leave-no-trace camping in spike camps; wildlife-proof camps. Standard mitigation measures for Mexican Spotted Owl, other sensitive species, and cultural resources.

Alternative 4. Mechanized Equipment Allowed; Spike Camps Allowed

A. What is proposed? Park employees and other federal, state, and local firefighters will use hand tools and chain saws to improve fuel breaks to help contain prescribed burns. Fireline preparation is assuming one 20-person crew at 0.3 miles per day per crew. Resupply and shuttling equipment, supplies, and personnel by mule pack train and helicopter. Firefighters will camp in spike camps and campgrounds during line preparation and burn implementation.

B. When will action take place? Year-round, but mainly March to October when fire crews are available.

C. What designs and standards will apply? SOP's: stock use, physical conditioning, weight, PPE, appropriate and essential items, human waste removal; FMP; Mountain Lion and Black Bear Management Guidelines.

D. What methods/techniques will be used?

Use of "river toilets" in spike camps and to supplement campground facilities.
Pack and/or fly out human waste and solid waste.
Provision of water from Manning Camp water system and/or from Tucson as needed.
Resupply and shuttling equipment and supplies by mule pack train and helicopter.
Back pack tents and camp stoves in spike camps.
Chain saws, portable pumps, pulaskis, axes, shovels, mcleods, brush hooks, combi-tools, loppers etc.

E. How long will it take to complete? Preparation 2.5 weeks, burn 1 week, hold/monitor 1 week.

F. What mitigation will take place to minimize action impacts? Create SOP's for Health and Safety, visitor contact; minimize helicopter use, use type 2 or 3 helicopters instead of type 1 when possible. Use mechanized equipment only when necessary--smaller projects may be accomplished without chain saws. Leave-no-trace camping in spike camps; wildlife-proof camps. Standard mitigation measures for Mexican Spotted Owl, other sensitive species, and cultural resources.

6. For alternatives above, determine which would have the least impact on Wilderness character and visitor experience, and still meet your objectives: [Include Wilderness, environment and social effects, safety, financial considerations, etc.]
>

Alternative 1. Mechanized Equipment Not Allowed and Spike Camps Not Allowed

1. Biophysical Effects: Extended use of trail system by fire crews during prep work and by mule pack trains, resulting in heavy impact on trails. Heavy impact to public campgrounds from extended period of occupation.

2. Social/Recreational/Experiential Effects: Firefighter and pack train presence could impact visitors' solitude. Crews would spend more time on trails than any other alternative by about 3.5-10 times, and could occupy more campsites for a longer period.

3. Social/Political Effect: Could generate political difficulties because of excluding campers from campgrounds and presence of firefighters on trails for an extended period.

4. Health/Safety Concern: Helicopter and chain saw safety issues are precluded. Normal standard safety concerns from hand tool use, except relying on cross-cut saws increases exposure time during cutting. Few employees available trained in their use. Large amount of human and solid waste generated because of length of time commitment. Standard concerns of hiking in rough terrain, and tool use magnified by duration of project. Standard mule packing concerns, with elevated risk due to extensive time commitment. Firefighter fatigue would likely be more of a factor because of project duration, increasing accident rate. Amount of time exposed to potential injury would be significantly longer than any other alternative. Long-term campground use and presence on trail increase chances of encounters with bears and mountain lions. Threat from lightning greatly increased because of longer time spent in preparation phase. Igniting the main unit on foot would complicate the burn, reduce flexibility, and create a significant safety concern.

5. Economical/Timing Consideration: Approved funding not sufficient, nor is it ever expected to be sufficient for this alternative. Least economical of the four alternatives. Would take place during most or all of the high visitor use periods. Burn during low use periods. Additional mules would be needed.

6. Wilderness character/resource effects: Some wildlife disturbance from firefighter presence for an extended period. Cut stumps and branches along trails, but not machine-

cuts. Longest duration of the four alternatives. No mechanized equipment intrusion, but firefighters present for 7-8 months/year, impacting area's solitude.

Alternative 2. Mechanized Equipment Allowed; Spike Camps Not Allowed

1. Biophysical Effects: Periodic, short-term intrusion by noise including over-flights, landings, and delivery of sling-loads from near visitor center and over front- and back-country trails. Chain saw noise in backcountry during prep work. Presence of crews on trail would have minor to moderate physical impacts. Moderate impact in and around public campgrounds.

2. Social/Recreational/Experiential Effects: Chain saw noise, and helicopter overflights could have negative effect on visitors' solitude for about 8 weeks. Chain saw impacts are generally geographically limited, but of longer duration. Helicopter use has broader impacts but for a much shorter period of time. Crews would spend a moderate amount of time on trails. Firefighter presence could impact visitors' solitude on trails and in campgrounds. Crews would spend more time on trails than Alternative 4 (about 3 times as much), and would occupy more campsites.

3. Social/Political Effect: Could generate political difficulties because of mechanized equipment, exclusion of campers from campgrounds, and presence of firefighters on trails.

4. Health/Safety Concern: Standard concerns of helicopter and chain saw use, which do not apply to Alternatives 1 and 3. Hand tool use safety considerations exist, except cross-cut saw will receive little or no use. Mule packing safety concerns apply. Although extremely unlikely, lost sling-loads would create potential danger to public/staff safety by debris and hazardous materials. Handling waste from river toilets has inherent risks and hazards. Moderate amount of human and solid waste generated because of length of time commitment. Concerns from hiking in rough terrain elevated more than Alternatives 3 and 4 because of more hiking. Threat from lightning moderately increased because of longer time spent in preparation phase.

5. Economical/Timing Consideration: Approved funding not sufficient. More economical than Alternative 1. Equally economical as Alternative 3. Less economical than Alternative 4. Would take place partially during high visitor use periods. Burn during low use periods. Additional mules may be needed.

6. Wilderness character/resource effects: Some potential for wildlife disturbance because of aircraft and chain saw use and fairly extensive period of firefighter presence. Some impact on area's solitude during 10 weeks of firefighters' presence. Cut stumps and branches along trails. Minor to moderate resource impacts in and around public campgrounds.

Alternative 3. Mechanized Equipment Not Allowed; Spike Camps Allowed

1. Biophysical Effects: Moderate to heavy impact on trails from mule pack trains and fire crews. Minor to moderate impacts around public campgrounds, partially mitigated by spreading firefighters out to spike camps. Moderate impacts in and around spike camps because of length of project.

2. Social/Recreational/Experiential Effects: Fire crew presence could have negative effect on visitors' solitude. Crews would spend about 8 weeks on trails and in campgrounds doing prep work. Use of spike camps would allow crews to spend less time each day on trails. Some campsites may be unavailable for public use, mitigated by use of spike camps.

3. Social/Political Effect: Could generate political difficulties because of excluding campers from campgrounds and presence of firefighters on trails for moderate period of time.

4. Health/Safety Concern: Concerns about helicopter and chain saw use are precluded, which do exist under Alternatives 2 and 4. Normal standard safety concerns from hand tool use, except relying on cross-cut saws increases exposure time during cutting. Few employees available trained in cross-cut saw use. Mule packing safety concerns apply. Moderate amount of human and solid waste generated because of length of time commitment. All human and solid waste must be hauled out by mules. Handling waste from river toilets has inherent risks and hazards. Concerns from hiking in rough terrain elevated more than Alternative 4 because of more hiking, but less than Alternative 1. Threat from lightning moderately increased because of longer time spent in preparation phase. Firefighter fatigue risk moderate. Duration of campground use and presence on trail has moderate increase in chance of encounters with bears and mountain lions. Use of spike camps creates potential for encounters that use of campgrounds does not have. Igniting the main unit on foot would complicate the burn, reduce flexibility, and create a significant safety concern.

5. Economical/Timing Consideration: Approved funding not sufficient. More economical than Alternative 1. Equally economical as Alternative 2. Less economical than Alternative 4. Would take place partially during high visitor use periods. Burn during low use periods. Additional mules would be needed.

6. Wilderness character/resource effects: Some potential for wildlife disturbance from firefighter presence. Cut stumps and branches along trails, but not machine-cuts. Some impact on area's solitude during 11 weeks of firefighters' presence. Minor to moderate resource impacts in and around spike camp sites and public campgrounds.

Alternative 4. Mechanized Equipment Allowed; Spike Camps Allowed

1. Biophysical Effects: Periodic, short-term intrusion by noise including over-flights, landings, and delivery of sling-loads from near visitor center and over front- and back-country trails. Chain saw noise in backcountry during prep work. Presence of crews on

Alternative 1 (no mechanized equipment and no spike camps) would require the greatest firefighter presence to achieve preparation and ignition. A unit with four miles of line to prepare similar to the Saddle Burn Unit would require about 30-31 weeks for one hand crew to accomplish (preparation, 27 weeks; burn, 2-3 weeks; hold/monitor 1 week). Activities with potential impacts would exist for a time period much longer than any other alternative (3 times as long as Alternatives 2 and 3, and 10 times as long as Alternative 4). Extended, heavy use of mule pack trains would be required. This heavy use has a significant impact upon the trail system that may affect hiking safety. Standard safety issues would be present for the longest duration, increasing exposure to risk and potential for incidents. Avoidance of mechanized equipment would benefit solitude and wilderness character, but duration of work and firefighter presence would probably offset or exceed that value. Igniting the main unit on foot would complicate the burn, reduce flexibility, and create a significant safety concern. Potential for the burn escaping or not meeting objectives would be relatively high because of the lack of helicopter to ignite the main unit, and lack of chain saws to control slop-overs. This alternative is the least economical and least safe.

Alternative 2 (mechanized equipment allowed, no spike camps) would introduce mechanized equipment intrusion in the form of helicopter flights and chain saw operation. It would not have the safety and operational success concerns caused by lighting the unit on foot. Time spent in the Wilderness would be significantly shorter than Alternative 1 (about 1/3 as long), reducing the duration of its impacts. This and Alternative 3 are moderately economical.

Alternative 3 (mechanized equipment not allowed, spike camps allowed) would have the same safety concerns generated by igniting the main unit on foot as Alternative 1. It would also have the same potential for the burn escaping or not meeting objectives for the same reasons. This alternative would have about the same duration as Alternative 2, without the intrusion of mechanized equipment. Alternative 3, however, would introduce the potential impacts related to use of spike camps (resource impacts at-site, and potential for lion and bear encounters in a remote camp). Commitment of mule pack trains similar to alternative 2. This heavy use has a significant impact upon the trail system that may affect hiking safety. This and Alternative 2 are moderately economical.

Alternative 4 (mechanized equipment allowed, spike camps allowed) would have the shortest duration by far (about 1/3 the time as Alternatives 2 and 3, and 1/10 the time as Alternative 1). This short duration mitigates the use of chain saws and helicopters. Safety issues relating to hand ignition of the burn unit would not exist. This alternative would have the least firefighter presence along trails and in campgrounds, therefore having comparatively low potential impact to visitors. Human and solid waste volume would be the least of the alternatives because of the short duration. Safety issues regarding helicopter use and chain saw use apply to this alternative (and Alternative 3), but again, the short duration of the project mitigates other hazards relating to handling of waste, hiking, hand tool use, mule packing, and lightning. This alternative is the most economical.

Fire is a critical natural process that helps preserve wilderness character. Prescribed burning helps reduce fuel loads, bringing them closer to natural levels. Use of hand crews to improve fuel breaks will greatly increase the probability that the prescribed burn can be burned under conditions that will meet objectives and at the same time kept within predetermined boundaries. All alternatives have some potential impact on Wilderness character and visitor experience. Alternative 4 has more magnitude but for a much shorter time.

For all alternatives, the Fire Management Plan contains guidance from the Mexican Spotted Owl (MSO) Recovery Plan (U. S. Fish and Wildlife Service 1995) to prevent or minimize impacts:

- (a) minimize cutting of trees and snags larger than 18 inches dbh, and avoid cutting trees or snags larger than 24 inches DBH;
- (b) to the extent possible, locate fire management staging areas and other fire "activity centers" outside of designated MSO Protected Activity Centers (PACs);
- (c) to the extent possible, avoid aircraft flight closer than 1,000 feet over MSO PAC boundaries;
- (d) if a spotted owl is located during fire operations: 1) request advice from the park biologist, 2) adjust fire management activities, if necessary and if possible, to minimize impacting owl reproduction, 3) instruct fire crew members to neither approach nor haze any owls they find.

The Fire Management Plan also contains guidance to mitigate other impacts:

- (a) instruct personnel implementing prescribed fires in the identification and importance of protecting agave plants for bats;
- (b) cut stumps cut flush with the ground;
- (c) slash and debris should be scattered to reduce visual effects.

MRA Screening Form to be used in conjunction with the Programmatic MRA for Fire Operations

What is the project name? _____

1) Will a Helicopter be used?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

2) Will a Mule Train be used?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

3) Will other mechanized equipment be used (exa: chainsaws)?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

4) Will Spike Camps be used?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

5) Are there any other pertinent items?

Yes No If yes, list here and continue, if no you may stop.

Are these items specific to the Fire MRA?

Yes No

Do you feel these items are covered, either specifically or implied in the Fire MRA?

Yes No If no, consider alternatives and advise the FMO BEFORE continuing with this operation.

Please explain your rationale:

Name: _____ Date: _____
(Person who filled out this report)

FMO Name: _____ Date: _____

This Form Should Be Filed in the Project File Folder

MRA Screening Form to be used in conjunction with the Programmatic MRA for Fire Operations

What is the project name? North Slope Prep

1) Will a Helicopter be used?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

2) Will a Mule Train be used?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

Mule train needed to move supplies, equipment and food from Madrona Ranger Station to Manning cabin in support of 5-7 firefighters. Use of a mule train is desired as it is more in alignment with the wilderness character, the amount of supplies being moved can be performed using the mule train but is more than can be performed using backpacks and the risk associated with using the mule train is considered less than the risk associated with using a helicopter.

3) Will other mechanized equipment be used (exa: chainsaws)?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

Chainsaws (1 or 2) will be used on this project, for a total of approx. 18 hours each. This need is mitigated by the relatively short time the saws will be operated (3-4 days) as compared with 2-3 weeks if loppers and hand saws are used. This correlates to approx. 240 man hours using chainsaws compared to 900+ man hours by not using chainsaws. Also, there are no qualified crosscut saw operators on or near the park at this time. The impact to the wilderness is less due to the much reduced wear and tear on the trail systems and there are VERY few visitors in the wilderness during this time of year.

4) Will Spike Camps be used?

Yes No

If "Yes" please explain rationale and any mitigation to minimize impact to the wilderness character:

Camping at Manning Cabin

5) Are there any other pertinent items?

Yes No If yes, list here and continue, if no you may stop.

Are these items specific to the Fire MRA?

Yes No

Do you feel these items are covered, either specifically or implied in the Fire MRA?

Yes No If no, consider alternatives and advise the FMO BEFORE

continuing with this operation.

Please explain your rationale:

Name: Kevin Parrish Date: 10 March 2008
(Person who filled out this report)

FMO Name: _____ Date: _____

This Form Should Be Filed in the Project File Folder

Appendix Q: FMP Framework Section Crosswalk Tracking Form

Table Append Q-1: FMP Framework Tracking Form

Saguaro National Park	New Location of NPS Framework (2015 version) Information Utilizing Spatial FMP Format									
	Map and Mapsheet Name	Text on Mapsheet	Table on Mapsheet	Chart or Graph on Mapsheet	Text in DOC	Table/Figure in DOC	Appendix to DOC	EA/EIS	Link	
2015 NPS FMP Framework Section										
1. Introduction, Land Management Planning, and Communication					X					
1.1 Program Organization	Mapsheet 1 Introduction	X			X	X				
1.2 Environmental Compliance					X			X		X
1.3 Park Unit/Resource Management Planning	Mapsheet 1 Introduction	X			X					X
1.4 Collaborative Planning	Mapsheet 1 Introduction	X			X					
1.5 Communication and Education					X			X		
2. Wildland Fire Program Goals					X					
2.1 Goals	Mapsheet 1 Introduction Mapsheet 5 Fuels Mapsheet 2 Resource Management	X X	X		X					X
2.2 Objectives	Mapsheet 5	X	X		X					

Saguaro National Park		New Location of NPS Framework (2015 version) Information Utilizing Spatial FMP Format									
2015 NPS FMP Framework Section	Map and Mapsheet Name	Text on Mapsheet	Table on Mapsheet	Chart or Graph on Mapsheet	Text in DOC	Table/Figure in DOC	Appendix to DOC	EA/EIS	Link		
	<i>Fuels</i>										
2.3 Approved Fire Management Actions					X						
2.3.1 Management of Wildfires	Mapsheet 6 <i>Operations</i>	X			X						
2.3.2 Management of Fuels Treatments	Mapsheet 5 <i>Fuels Management</i>	X	X		X						
2.3.3 Defensible Space					X				X		
3. Wildland Fire Operational Guidance					X						
3.1 Response to Wildfire	Mapsheet 6 <i>Operations</i>		X	X	X		X		X		
3.1.1 Wildfire Response Planning					X		X		X		
3.1.1.1 Expected Fire Behavior	Mapsheet 4 <i>Fire Environment Management</i>	X	X		X						
3.1.1.2 MIST	Mapsheet 6 <i>Operations</i>			X	X		X		X		
3.1.2 Wilderness	Mapsheet 3 <i>Resource Management</i>	X		X	X		X		X		
3.1.3 Wildfire Response Objectives	Mapsheet 6 <i>Operations</i>	X			X						
3.1.4 Wildfire Response Procedures					X						

Saguaro National Park	New Location of NPS Framework (2015 version) Information Utilizing Spatial FMP Format								
2015 NPS FMP Framework Section	Map and Mapsheet Name	Text on Mapsheet	Table on Mapsheet	Chart or Graph on Mapsheet	Text in DOC	Table/Figure in DOC	Appendix to DOC	EA/EIS	Link
3.1.4.1 Decision Support	Mapsheet 6 <i>Operations</i>	X			X		X		X
3.1.4.2 Initial Response Procedures	Mapsheet 6 <i>Operations</i>		X	X	X		X		
3.1.4.3 Transition to Extended Response					X				
3.2 Fuels Treatments					X				
3.2.1 Fuels Planning					X				
3.2.1.1 Project Prioritization					X				
3.2.1.2 General Fuels Planning Implementation Procedures					X				
3.2.1.3 Multi-year Fuels Treatment Plan	Mapsheet 5 <i>Fuels Management</i>		X		X		X		
3.2.1.4 Non-Fire Fuels Treatments	Mapsheet 5 <i>Fuels Management</i>		X	X	X				
3.2.2 Fuels Management Goals and Objectives	Mapsheet 5 <i>Fuels Management</i>	X	X		X				
3.2.3 Prescribed Fire Staff Responsibilities					X	X			
3.3 Preparedness					X				
3.3.1 Preparedness Activities					X				
3.3.1.1 Coordination					X				X

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2015 NPS FMP Framework Section	and Dispatching	Map and Mapsheet Name	Text on Mapsheet	Table on Mapsheet	Chart or Graph on Mapsheet	Text in DOC	Table/Figure in DOC	Appendix to DOC	EA/EIS	Link	
3.3.1.2 Duty Officer						X		X			
3.4 Post Fire Programs and Response						X					
3.5 Air Quality/Smoke Management		Mapsheet 7 <i>Zone Air Quality and Aviation</i>	X	X	X	X		X		X	
3.5.1 Air Quality Issues		Mapsheet 7 <i>Zone Air Quality and Aviation</i>	X	X	X	X		X		X	
3.5.2 Smoke Management Activities		Mapsheet 7 <i>Zone Air Quality and Aviation</i>	X	X		X		X		X	
3.6 Data and Records Management						X					
3.6.1 Wildfire Report						X					
3.6.2 Geospatial Data Management for Wildland Fire Projects						X				X	
3.6.3 Wildland Fire Qualifications Management						X		X			
4. Program Monitoring and Evaluation						X					
4.1 Monitoring		Mapsheet 3		X	X	X		X		X	

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2015 NPS FMP Framework Section	Map and Mapsheet Name	Text on Mapsheet	Table on Mapsheet	Chart or Graph on Mapsheet	Text in DOC	Table/Figure in DOC	Appendix to DOC	EA/EIS	Link		
	<i>Resource Management</i>										
4.2 Science and Climate Change					X						
4.2.1 Science	Mapsheet 1 <i>Introduction</i>	X	X		X		X				
4.2.2 Climate Change	Mapsheet 1 <i>Introduction</i>	X			X						
4.3 Annual Program Evaluation and Fire Management Review Process					X						

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