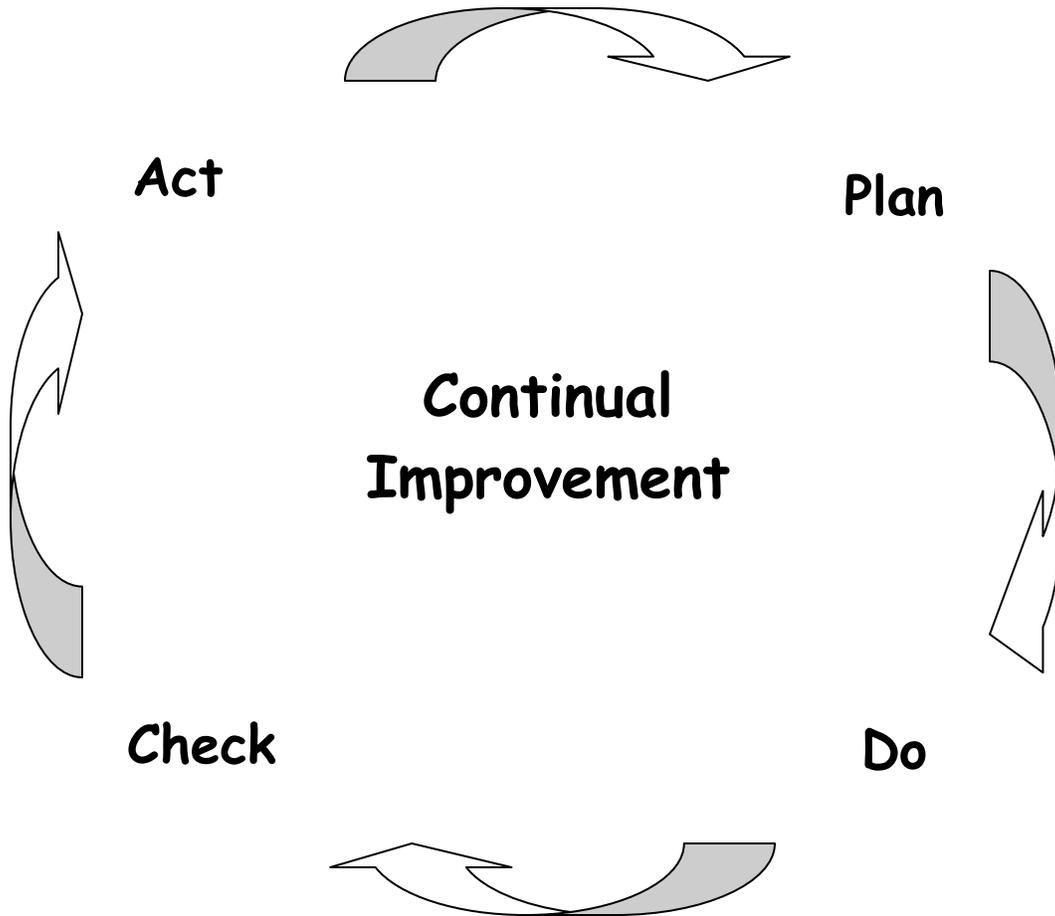


Work in Progress (Put cursor on Work in Progress, Press Control – Left Click Mouse)

# ABC National Forest Environmental Management System

Draft Version 1.0  
July 27, 2004



## Foreword

This document is an example of an Environmental Management System (EMS) based upon the requirements of ISO 14001. It was developed as a prototype for the resource management actions of land management agencies, and in particular the U.S.D.A. Forest Service (Forest Service).

EMS documents have been developed for other public agencies, including the Forest Service and National Park Service; however, very few have been developed for land and resource management rather than specific functions or building facilities. The dual purpose of this prototype development effort was to determine whether or not developing an EMS for land and resource management would be feasible and to identify ways that the Forest Service could approach developing such an EMS.

For this purpose, several constraints were imposed that need to be acknowledged. First, the prototype EMS development team, comprising Forest, Regional Office and Washington Office personnel, was limited in its range of expertise and met for less than two weeks, including training and write-up. For a “real” EMS, this development team would probably be a complete interdisciplinary team of a National Forest System (NFS) Unit, i.e. Forest, Grassland, Prairie, or other comparable unit. More complete training for the NFS Unit is expected and the amount of time to develop the EMS would depend upon each NFS Unit’s circumstances. Second, the scope of  EMS was constrained and areas for focus pre-selected, one relating to the Clean Water Act and the other to the Endangered Species Act. For a “real” EMS, areas for consideration would be all activities of a NFS Unit, and determining focus would be expected to involve an interdisciplinary team and the NFS Unit’s leadership team. Third, relatively few real documents were used. The prototype EMS development team used only a forest plan to frame the prototype’s context. They also drew from field experience (including one member with EMS field experience) as specialists in the Forest Service to provide as much of a field perspective as possible. However, a “real” EMS would be developed based on and with reference to the NFS Unit’s records, manuals, staff expertise and experience, and other reference materials.

Although the prototype was somewhat “reality-limited,” the team felt that development of a “real” EMS for land and resource management by a NFS Unit would be possible although more involved than what it experienced during the two-week period. While working on the prototype, the team took notes about challenges and recommendations based upon their experience. This document includes links to those notes, which the team hopes will help in the development of a “real” EMS.

The prototype EMS that follows refers to the fictitious ABC National Forest. The format and information contained in the ABC National Forest EMS are examples of how an EMS can be structured and what they may include. The development of a “real” EMS is flexible to best serve the needs and desires of the preparing unit. This prototype and subsequent revisions are distributed by and available through the Forest Service EMS Coordinator to all employees Forest Service and related agencies.

An EMS is only a tool to provide structure for a continual environmental improvement program. It will work only if it is used and if the Forest Service and the NFS Unit for which the EMS is developed commit to a continual environmental improvement program. Success will occur only if the Forest Service and the NFS Unit embody and embrace continual environmental improvement through its operations and land and resource management. For more information on EMS and the Forest Service, go to the WO website (<http://www.fs.fed.us/emc/nepa/ems/index.htm>).

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# **Chapter 1**

## **Introduction**

# Introduction

## ABC NATIONAL FOREST ENVIRONMENTAL MANAGEMENT SYSTEM

The ABC National Forest is part of the U.S.D.A. Forest Service and manages 1.1 million acres of land and resources in California. The following sets forth the ABC National Forest Environmental Management System (EMS), a systematic approach to management that focuses on management, evaluation, feedback and change for continual environmental improvement.

### Background

In April 2000, the President signed Executive Order 13148, “Greening the Government through Leadership in Environmental Management,” requiring all government agencies to prepare an EMS for their facilities, which the ABC National Forest is interpreting as all management actions under its authority. This EMS is prepared and implemented according to International Standard, ISO 14001 – Specifications published in 1996. The international standard is applicable to any organization that wishes to

- a) Implement, maintain and improve environmental management system;
- b) Assure itself of conformance with its stated environmental policy;
- c) Demonstrate such conformance to others;
- d) Seek certification/registration of its environmental management system by an external organization; or
- e) Make a self-determination and self-declaration of conformance with this International Standard.

In response to EO13148, each administrative unit of the USDA Forest Service is required to prepare and implement an EMS.

Developing and Implementing an EMS will ensure concrete and documented accomplishment environmental protection (human, biological and physical) for activities conducted on National Forest System lands for this generation and generations of the future.

### Purpose

The purpose of the ABC National Forest EMS is to provide direction and guidance to comply with Executive Order 13148 by conforming to the requirements and specifications described in ISO 14001.

### Objectives

The objective is to document an approved EMS for the ABC National Forest.

### Format

The ABC National Forest EMS is patterned after the 17 “core elements” for an EMS and their organization divided into 5 sections as described in ISO 14001.

The following documentation of the ABC National Forest EMS is divided into two parts. The first part contains “Procedures,” which identify the required ABC National Forest actions needed to conform to the 17 core elements of ISO 14001. The second part contains “Outputs,” as needed or required, which are relevant documents or describe operational information essential to the effective functioning of the EMS. These listed Procedures and Outputs form the essential structure of the EMS. Additional records demonstrating implementation of the EMS are kept as “Environmental Records.” Detailed descriptions of the EMS documentation and record requirements are the EMS core elements. The procedures and outputs, as needed, are described within this documentation.

## **Chapter 2**

### **Environmental Policy**

The Environmental Policy is the ABC National Forest's statement of intentions and principles in relation to its overall environmental performance. It is the driver for implementing and improving the ABC National Forest Environmental Management System so that it can maintain and potentially improve its environmental performance.

EMS Element		Environmental Policy
Document Type and Control No.		Procedure (EMS-4.2.0-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

The ABC National Forest will have an Environmental Policy statement approved by the Forest Supervisor, and as described in ISO 14001:1996(E), section 4.4.2. The Environmental Policy statement will be a controlled document.

This Environmental Policy will be provided to all ABC National Forest employees and all permittees, contractors, concessionaires, and volunteers who conduct activities under ABC National Forest authority. Documentation for this will be in the environmental records.



**ABC National Forest  
Environmental Policy**

The management and staff of **ABC National Forest (ABCNF)** are committed to **providing a balanced and sustainable flow of goods and services for a growing and diverse population while ensuring long term ecosystem health, biological diversity and species recovery.**

Forest watershed management is balanced between water users and water-related resource needs. Urban wildland interface areas are strategically treated to minimize wildfire size as well as to address other resource objectives, i.e. habitat modification. The Forest manages open space to enhance scenic backdrops and solitude.

The Forest is using an International Organization for Standardization (ISO) 14001-based environmental management system (**EMS**). **The EMS provides the framework for setting and reviewing environmental objectives and targets.** It also institutionalizes our approach to resource management and environmental protection.

People are a key element of ecosystems. We are dedicated to protecting the health and safety of our employees and the users of the Forest's resources.

The ABC National Forest is committed to achieving **full compliance with applicable environmental laws, regulations, requirements and other relevant standards** in our operations and to minimizing the adverse environmental impacts of our activities. We will verify our level of compliance through periodic audits and management reviews, both informal and formal. It is our intent to focus equally on results and process. We will take timely action to resolve any conformance issues. **We will minimize negative environmental impacts by using the principles of pollution prevention.**

The Forest Supervisor will provide leadership for the EMS. All employees will be responsible directly or indirectly for implementing the EMS. **We are committed to continual improvement in minimizing environmental impacts** while we achieve the goals of sustainable multiple use management.

The ABC National Forest welcomes input from the members of the public, State, local and Tribal governments. Forest **policy is documented, implemented, maintained and communicated to employees, contractors, permittees, suppliers, volunteers, and stakeholders.**

We will use the EMS to provide successful environmental leadership in the Forest Service. The EMS, with its focus on continual improvement, will become a part of the ABC National Forest culture.

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Snidely J. Whiplash, Forest Supervisor

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Date

## **Chapter 3**

### **Planning**

#### **Environmental Aspects Legal and Other Requirements Objectives and Targets Environmental Management Program**

The Planning elements provide the environmental basis for the ABC National Forest EMS. This section includes procedures for identifying the role and responsibilities of ABC National Forest management relative to its interaction with the environment. It also identifies approaches to improve its environmental performance.

EMS Element		Environmental Aspects
Document Type and Control No.		Procedure (EMS-4.3.1-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Aspects are groups of one or more activities. An activity is an action or series of actions that can impact the environment. As defined in the Glossary, the environment is an all-encompassing concept. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.3.1.

**Aspect List Development:**

The ABC National Forest will assemble an interdisciplinary team (IDT) to identify activities and/or environmental aspects that the ABC National Forest can control. This includes environmental aspects permittees, contractors, concessionaires, and volunteers conducting activities under ABC National Forest authority.

The IDT will develop a ranking system based on duration, spatial extent, and frequency of aspect occurrence.

The IDT will use the ranking system to determine which aspects have or can have significant impacts on the environment. These will be referred to as “significant environmental aspects.”

**Aspect List Maintenance:**

The identified aspects will be entered into an electronic database housed on the ABC National Forest server.

The database record will include the rank score for the aspect and whether or not it is considered a significant environmental aspect.

The database records may or may not include additional information.

**Aspect and Significance Update:**

At least annually, the ABC National Forest will assemble an IDT to review the database, adding records if new activities and/or environmental aspects have been identified during

Management Review or deleting records if the environmental aspect is no longer under ABC National Forest control.

The following will trigger a review of the Aspect Database for completeness, with new records entered as needed:

**Issuance of a Record of Decision (ROD)**

Review FEIS to identify potential significant environmental effects for the selected alternative to determine if associated environmental aspect is in the database

**Completion of a BAER report**

Review report to identify potential negative environmental effects to determine if associated environmental aspect is in the database

In either case, if a new environmental aspect is identified, the aspect will be added to the Aspect Database with its significance ranked per the most recent ranking system on record.

Additional sources of information  may be used.

EMS Element		Legal and Other Requirements
Document Type and Control No.		Procedure (EMS-4.3.2-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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As part of the ABC National Forest EMS, all “requirements” associated with identified aspects shall be identified. The procedure addresses the requirements stated in ISO 14001:1996(E), section 4.3.2. “Requirements” include Federal and state environmental regulations, Presidential Executive Orders, fire protection codes, USDA and Forest Service directives, voluntary community agreements, operating permits and licenses, and ABC National Forest environmental and human health plans.

1. The EMS Management Representative will identify all legal and other requirements to which the organization subscribes applicable to the environmental aspects of the organization’s activities, products or services.
2. The EMS Management Representative shall use in-house resources or independent entities to identify applicable legal and other requirements.
3. All identified “requirements” shall be documented as an EMS environmental record.
4. The identified legal and other requirements will be accessible to the organization in a timely manner.
5. Legal and other requirements may be accessed via the Internet if the organization can verify that requirements so accessed are the most current and applicable.
6. The organization shall recognize that laws and regulations change frequently and ensure that any identified requirements are the most current and applicable.
7. The list of documented “requirements” will be reviewed at least annually, but should be amended if activities, aspects and impacts are modified more often.

EMS Element		Objectives and Targets
Document Type and Control No.		Procedure (EMS-4.3.3-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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The EMS Team shall develop and document environmental objectives and targets for each relevant function and level of the Forest after it has identified aspects and impacts, significant aspects, and legal and other requirements. An objective is an overall environmental goal that arises from the environmental policy that the organization sets for it to achieve. A target is a detailed performance requirement that shall be met to achieve the objective. This guidance addresses the stated requirement in ISO 14001:1996(E), section 4.3.3.

1. The EMS Team shall consider legal and other requirements; significant environmental aspects and impacts; technological operations; financial, business and operational requirements; and the views of interested parties when setting and reviewing objectives.
2. Objectives and targets shall be consistent with the environmental policy, including the commitment to prevention of pollution.
3. Objectives will be specific and targets are measurable whenever practicable.  
Note: overly broad or grandiose objectives can make EMS implementation and success difficult.
4. Objectives and targets will consider preventive measures that can be taken to minimize or eliminate environmental impacts.
5. Objectives and targets shall be documented as an environmental record.
6. Objectives and targets will be revised as needed to reflect changing conditions or knowledge with updated environmental records.
7. Objectives and targets will be established as often as needed to accomplish the environmental policy and be kept to a manageable and achievable number in order to ensure successful implementation of the EMS.

EMS Element		Environmental Management Program
Document Type and Control No.		Procedure (EMS-4.3.4-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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In order to achieve the organization’s objectives and targets, specific programs within the EMS need to be developed and implemented at the relevant level of the organization. For every prioritized significant aspect, the EMS Team shall develop an environmental management program (EMP). This guidance addresses the requirements stated in ISO 14001:1996(E), section 4.3.4.

1. The EMS Team is responsible for developing all EMPs.
2. An EMP will be developed for each objective and target prioritized by the EMS Team. Not all aspects with significant aspects need to be managed through an EMP at the same time, but every significant aspect will be addressed at some point.
3. Each EMP will have a realistic statement of its objective supported with one or more identified targets or interim milestones that, when accomplished, will ensure that the objective is accomplished. The objective and targets shall have scheduled completion dates or intervals. The EMP objective and supporting target(s) should be quantifiable and measurable.
4. Each EMP will identify the responsible personnel tasked with implementing the EMP, and will estimate the resources necessary to accomplish the objectives and targets.
5. Each EMP will be approved for implementation by the EMS Management Representative and EMS Team Leader, if designated, through their signatures. 
6. An approved EMP becomes the beginning of an environmental record.

7. When the EMP objective has been met, the EMP will be closed. Multiple EMPs may exist and can begin and end at any time.
8. The successful completion of all EMPs should ensure that the overall EMS objectives and targets are achieved in accordance with the environmental policy and designated aspect and impacts.

## **Chapter 4**

### **Implementation and Operation**

#### **Structure and Responsibility**

#### **Training, Awareness and Competence**

#### **Communication**

#### **EMS Documentation**

#### **Document Control**

#### **Operation Control**

#### **Emergency Preparedness and Response**

The Implementation and Operation elements provide the operational infrastructure needed for the ABC National Forest EMS. This includes the organizational structure, human resource requirements, internal controls, and response to the unexpected necessary to improve its environmental performance.

EMS Element		Structure and Responsibility
Document Type and Control No.		Procedure (EMS-4.4.1-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Authorities, roles, and responsibilities are required to be defined, documented, and communicated for the EMS program.

This document defines roles and responsibilities for a minimum organization and recommends additional positions. The positions on the ABC National Forest that will fill these roles will be in a Level 2 controlled document (output). The names of persons in these positions will be documented in correspondence that will become an Environmental Record and be distributed to all ABC National Forest employees.

**Required positions (minimum organization)**

Responsible Official:

Top management will be responsible for formulating the environmental policy; appointing a management representative; providing adequate resources to establish, implementation imple[ ] and operate the system; and periodically reviewing the suitability and effectiveness of the ABC National Forest EMS.

Management Representative:

Management Representatives are appointed by the Responsible Official with delegated authority for:

- Establishing, monitoring, revising, and implementing the EMS, including necessary approvals, workload assignments, and budget establishment
- Reviewing and approving, as appropriate, responses to non-conformance
- Leading Management Reviews
- Arranging for or conducting EMS Audits
- Arranging for Formal Audits (i.e. ISO Certification), if needed
- Appointing the EMS Technical Support Team and EMS Implementation Team, as needed

### Records Custodian:

Designation of a Records Custodian is essential to the success of the EMS. The responsibility of this position includes:

- Filing, managing, and archiving all controlled documents and EMS records
- Making all EMS documents and environmental records available upon request, unless otherwise restricted
- Participating in annual EMS management reviews
- Attending EMS-specific meetings

### **Optional Recommended Positions**

#### EMS Team Leader

Consideration needs to be given to assigning team leader. In absence of this position, the Management Representative will assume these duties. Responsibilities include:

- Conducting meetings for EMS team, if there is one
- Providing EMS assistance to Management Representative, as needed
- Arranging for appropriate review of corrective action requests
- Coordinating selection of all aspects and activities, defining potential impacts, and identifying any legal requirements
- Coordinating selection of significant aspects and developing environmental management programs for each
- Arranging for periodic review of EMPs

#### Forest-Wide EMS Technical Support Team:

The Forest-Wide EMS Technical Support Team (EMS Team) would provide guidance to Forest personnel for conducting the tasks and procedures identified in the EMS. The EMS Team would also provide guidance on the completeness of the EMS. The responsibilities of the EMS Team will be identified by the Management Representative and may include, but are not limited to, the following:

- Participating in identification of aspects and activities
- Participating in identification of significant aspects and in development of EMPs
- Participating in team meetings
- Meeting at least once during spring and once during fall and as requested by the Responsible Official or Forest-Wide Implementation Support Team
- Providing minutes of team meetings to the Management Representative
- Providing guidance to others if requested.
- Monitoring implementation of EMPs
- Participating in EMS reviews

Forest-wide EMS Implementation Team:

The Forest-Wide EMS Implementation Team would provide guidance to Forest personnel on infrastructure support for the EMS. Its responsibilities would be as follows:

- To provide guidance in the development of annual work plans, annual and out-year budget guidance, and Forest organizational needs to implement the EMS
- To provide information to the EMS Responsible Official to facilitate pursuit of EMS support, if needed, beyond the Responsible Official's level of authority.

EMS Element		Training, Awareness, and Competence
Document Type and Control No.		Procedure (EMS-4.4.2-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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To effectively implement the EMS, all affected personnel must be made aware of the intent and scope of the EMS as well as their role in its implementation. The procedure addresses the requirements stated in ISO 14001:1996(E), section 4.4.2

1. During the first year of implementing this EMS, all employees of the ABC National Forest will be required to attend EMS awareness training.
2. All new employees to ABC National Forest will be required to attend EMS awareness training.
3. EMPs shall be reviewed annually to identify all individuals who have roles or responsibilities identified.
4. All non-ABC National Forest personnel that have responsibilities under tasks identified in EMPs shall be required to attend EMS awareness training.
5. EMPs shall be reviewed to identify training needs for implementing tasks identified in EMPs. This includes training on updated information, if needed.
6. All individuals identified that have responsibilities under tasks identified in EMPs shall be required to attend appropriate training to implement the tasks, unless the individuals have documented attendance of such training.
7. All employees and others who implement ABC NF management activities shall be made aware of the potential consequences of departure from specified operating procedures.
8. The Management Representative shall ensure availability of training programs for awareness and for implementation of the tasks. Identification of training needs

shall be made within one month of the Management Review (Training needs will include training topics, training dates, training agenda, and persons who need it..

EMS Element		Communication
Document Type and Control No.		Procedure (EMS-4.4.3-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Communications regarding environmental aspects and the Environmental Management System within the ABC National Forest and its sub-units and with the general public are an important part of the EMS. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.4.3.

1. The EMS team shall ensure internal communications regarding environmental aspects and the EMS are conducted among the various levels and functions of the ABC National Forest.
  - a. The environmental aspects will be communicated through staff meetings, tail gate sessions, newsletter, internal web site – fsweb, email postings, or other means to ensure employees and others affected by the EMS are effectively involved.
  - b. The methods demonstrating internal communications are EMS environmental records. [See Action Plan in EMS Communications Strategy.](#)
2. The EMS Team shall document how the ABC National Forest receives, documents and responds to relevant external communications from interested parties.
  - a. An external contact log will be maintained indefinitely for external communications unless specifically defined otherwise by the Forest.
  - b. The Forest Environmental Coordinator will be responsible for maintaining the log and referring requests for information to the appropriate specialist for action. This will result in written correspondence signed by Forest Supervisor or District Ranger.
  - c. At a minimum, all contact logs must be retained for 3 years as EMS environmental records.
3. The EMS Team will establish effective processes for external communication of its significant aspects.

- a. That information will be shared with the public through a news release after the EMS has been approved.
- b. News releases will be distributed to an established media list.
- c. Results of management review will also be shared through the same method.

**Outputs:** Documentation of internal communications (records), documentation regarding handling of external communications on significant environmental aspects and management review (records), and external communications log (record).

EMS Element		EMS Documentation
Document Type and Control No.		Procedure (EMS-4.4.4-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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EMS documentation is required to have defined core elements and establishes how other documents interrelated.

The EMS manual will serve to provide the documentation of the document relationships.



EMS Element		Document Control
Document Type and Control No.		Procedure (EMS-4.4.5-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Core elements of the EMS and their interrelation are required to be documented by ISO 14001 specifications (ISO 14001:1996(E), section 4.4.5).

EMS documents will have two classifications:

Level 1: Controlled documents that are core to the EMS. These documents include but are not limited to procedures documents. The EMS Records Custodian maintains Level 1 documents. Level 1 documents include the environmental policy, significant aspects and impacts, objectives and targets, and the environmental management program.

Level 2: Controlled documents that are developed and maintained to describe and control a specific EMS implementation. Examples of Level 2 documents include the roles and responsibilities; operational procedures; process information; training programs, environmental performance specifications; applicable legislation and regulations; and emergency response plans.

Any document that contains instructions, specifications or data pertaining to products, processes or activities that are affected by the environmental management system shall be controlled. The control requirement applies equally to documents and data stored electronically. Level 1 and Level 2 documents will be considered controlled unless otherwise noted.

The EMS Responsible Official, EMS Management Representative, EMS Records Custodian EMS Team Leader (optional position), , and EMS Technical Support Team (optional positions) will ensure that all controlled documents are periodically reviewed and revised as necessary.

Commercial equipment publications used in operations and maintenance are considered uncontrolled documents unless they are specifically required by a significant aspect.

The EMS Records Custodian will ensure that versions of relevant documents are available at all locations where operations essential to the effective functioning of the EMS are performed.

EMS Element		Operational Control
Document Type and Control No.		Procedure (EMS-4.4.6-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor	<b>Date approved:</b>
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Operational control of significant aspects is critical to ensuring that any environmental impacts are minimized and mitigated. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.4.6.

1. The EMS Team shall plan all activities associated with significant environmental aspects, including maintenance activities, so that they are carried out under specified operating conditions.
2. Specific operating procedures shall be used to cover situations where their absence could lead to deviations from the environmental policy and objectives and targets relevant to significant environmental aspects. These operating procedures are EMS Level 2 controlled documents.
3. The EMS Team will stipulate operating criteria in the procedures.
4. The EMS Team will develop and maintain procedures related to significant environmental aspects managed by the organization. These procedures will be communicated these procedures to suppliers and contractors. These procedures are EMS Level 2 controlled documents.



EMS Element		Emergency Preparedness and Response
Document Type and Control No.		Procedure (EMS-4.4.7-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Emergency preparedness is an important part of avoiding environmental impacts and regulatory complications. Being prepared and responding properly is an integral part of the EMS. Emergency preparedness includes interagency and community mutual aid agreements. Emergency preparedness could also include plans for Spill Prevention, Control, and Countermeasures (SPCC), Emergency Actions, and Emergency Response. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.4.7.

For more information Control-Click [ISO](#)

1. The EMS Management Representative shall identify the potential for emergency situations that have environmental impacts in operations of the ABC National Forest.
2. The ABC National Forest shall properly respond to emergency situations and mitigate environmental impacts associated with those emergencies. All documented emergency response actions are EMS environmental records.
3. The ABC National Forest shall ensure that training, pre-positioning of response equipment and materials, and specific emergency response procedural requirements are implemented. Training and review of procedures to ensure their implementation are EMS environmental records.
4. Wherever practicable, the ABC National Forest shall periodically test their emergency response procedures. Post-exercise reports are EMS environmental records.
5. Whenever emergency situations occur, the emergency preparedness procedures and response actions shall be reviewed for adequacy and revised as required. "Lessons learned" analyses resulting from emergencies are EMS environmental records.

## **Chapter 5**

### **Checking and Corrective Action**

#### **Monitoring and Measurement Nonconformance/Corrective Preventative Action Records EMS Audit**

The Checking and Corrective Action elements provide the continual improvement mechanisms for the ABC National Forest EMS. This includes procedures for monitoring, feedback, quality control, and quality assurance to provide information for the ABC National Forest to identify ways to improve its environmental performance.

EMS Element		Monitoring and Measurement
Document Type and Control No.		Procedure (EMS-4.5.1-001-N0)
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<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
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The EMS will ensure that all operations that could significantly impact the environment are routinely monitored. Based on findings during these monitoring periods, specific actions will be taken to correct deficiencies and increase performance. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.5.1.

1. The EMS Team will ensure that key characteristics of operations and activities that have significant environmental impacts are routinely monitored and measured.
2. The EMS Team will identify, specifically on  reference, all monitoring efforts and procedures necessary to ensure compliance with all legal requirements pertaining to significant aspects.
3. The ABC National Forest will ensure that all monitoring and measurement equipment and instrumentation is suited for the task. This equipment will also be properly calibrated and maintained according to the manufacturer's recommendations.
4. Lists of specific equipment and instrumentation used and respective calibrations and maintenance records will be retained as EMS environmental records.
5. Copies of data measurements and reports from outside organizations, including reports from laboratories, will be retained as EMS environmental records.
6. The EMS Team will routinely review data gathered to ensure its accuracy and fitness for use.
7. The EMS Team will ensure that the quality control and quality assurance mechanisms are in place and followed to reduce the risk of erroneous data results.

Should unreliable data be collected, the EMS Team will determine the cause and take corrective actions where possible to avoid repeated occurrences. All data will be documented and retained as EMS records.

EMS Element		Nonconformance/Corrective, Preventive Action
Document Type and Control No.		Procedure (EMS-4.5.2-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

**Procedure**

Using the attached form, all non-conformances with legal requirements and procedures will be documented and acted upon in accordance with the schedules identified in the ABC National Forest EMS. The responsibilities for identification, documentation and corrective actions are defined in section 4.4.1 Structure and Responsibility. The form will identify:

- The important steps necessary to track the non-conformance,
- The corrective actions needed, and
- Assign a level of concern commensurate with the seriousness of the non-conformance.

Each non-conformance identified will be assigned a priority for action.

Priority I - a serious breach of an adopted procedure, resulting in a recognized environmental consequence. Corrective actions will be addressed within 30 days.

Priority II - consequences of non-conformance may not be an issue of compliance with legal requirements, but may trigger a modification of the EMS. Corrective action will be addressed within 90 days.

Priority III - environmental consequence may be non-existent or minimal, but suggests additional preventive actions are necessary. Corrective action will be taken within 180 days.

**Examples of Non-Conformance Criteria**

For more information Control-Click [Hints](#)

1. Do these procedures identify responsibility and authority for handling and investigating non-conformances?
2. Do they define responsibility and authority for taking action to mitigate or address the cause of impacts?
3. Do they define responsibility and authority for initiating and completing corrective and preventive action?
4. Have the corrective and preventive actions been appropriated to the magnitude of the problems and impacts?
5. Following corrective and preventive actions, have any procedures that were affected by these actions been changed accordingly?
6. Is the information on corrective and preventive actions being recorded and provided to senior management for management review?

#### **Examples of Non-conformances That Might be Identified**

For more information Control-Click [Hints](#)

1. Activities or operation do not support the environmental policy
2. Employees whose job functions could affect legal requirements do not have access to these requirements
3. Significant environmental impacts/aspects have not been identified
4. Views of interested parties were not considered when setting objectives and targets
5. Environmental management program does not specify the correct responsible party
6. Defined roles, responsibilities, and authorities have not been communicated to relevant employees
7. Training plan is not being followed
8. Relevant external communications are not documented
9. Contractors and permittees were not aware of organization's procedures that related to the EMS
10. Critical tasks necessary to achieve a significant aspect's objectives were not accomplished or documented

11. Equipment calibration schedule was not followed, or established task procedures were not followed
12. The EMS audit schedule was not defined
13. The management review was not documented

EMS Element		Records
Document Type and Control No.		Procedure (EMS-4.5.3-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

Environmental records document the performance of the EMS and are evidence of conformance to ISO 14001 requirements. The Records Custodian serves a critical function in this EMS process. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.5.3

1. The EMS Records Custodian will ensure that environmental records are properly identified, maintained and disposed. Records will include training records and results of conformance and compliance audits.
2. The Records Custodian will ensure that environmental records are legible, identifiable and traceable of the activity, product or service provided.
3. The Records Custodian will ensure that environmental records are stored and maintained in such a way that they are readily retrievable and protected from damage, deterioration or loss.
4. The Records Custodian will ensure that environmental record retention times are established and recorded.
5. The results of environmental records will be located in Appendix A of this EMS.



EMS Element		EMS Audit
Document Type and Control No.		Procedure (EMS-4.5.4-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

To ensure that the ABC National Forest EMS conforms to the requirements of ISO 14001, an audit will be scheduled and performed. This procedure addresses the requirements stated in ISO 14001:1996(E), section 4.5.4.

1. The EMS Management Representative will ensure that the EMS is audited as scheduled:
  - a. Prior to first Management Review
  - b. Every 3 years after the first Management Review
  - c. As requested per Management Review
2. The conformance audits will determine whether the EMS conforms to the requirements of ISO 14001 and any other planned arrangements for environmental management. It will also determine whether the EMS has been properly implemented and maintained. Results of these annual audits are EMS environmental records.
3. If appropriate, the unit may employ a consultant, or other knowledgeable person or team, to conduct the internal conformance audit. Evidence of “competency” shall be provided for the conformance auditor(s), which will become an EMS environmental record.
4. The results of the conformance audit will identify changes necessary to ensure continued conformance with the requirements of ISO 14001. The EMS Management Representative will, directly or through delegated assistance, prepare all appropriate corrective action requests.
5. The conformance audit rt will be reviewed during the Management Review.

6. The internal Audit Team will consist of EMS trainee personnel not directly associated with the ABC National Forest or the EMS being audited.

7. For each audit, an Audit Team leader will be identified and shall be responsible for the following:
  - a. Assigning audit responsibilities to the team members;
  - b. Developing the audit plan;
  - c. Conducting opening and closing meetings with the auditee(s);
  - d. Preparing the final audit report; and
  - e. Communicating the findings of the audit to top management in association with the Management Review process
  
8. The audit plan shall consist of requirements for the following elements:
  - a. Audit Team identification;
  - b. Pre-audit review;
  - c. Opening meeting;
  - d. Data collection;
  - e. Data review and analysis;
  - f. Closing meeting;
  - g. Reporting; and
  - h. Audit program evaluation
  
9. The internal audit team shall issue completed audit documents to the Audit Team leader, who will prepare the audit report. The audit report will include:
  - a. Introduction – what was covered (reference Audit Plan);
  - b. Description of areas reviewed and related activities;
  - c. Assessment date(s);
  - d. Audit Team and areas of responsibility;
  - e. Individuals interviewed and their respective areas of responsibility; and
  - f. Audit findings

## **Chapter 6**

### **Management Review**

The Management Review is the essential step of the ABC National Forest EMS where the information on performance and the environment is cycled through to amending the ABC National Forest EMS as needed for the purpose of improving its environmental performance.

**Need to insert Mgt. Review Procedures here.**

## **Part B**

### **Procedural Results**

EMS Element		Environmental Aspects
Document Type and Control No.		Outputs (EMS-4.3.1-001-N0)
Approved by:	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	Date approved:
Modification No:	Modified By:	Modification Date:
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

(Step 2) Environmental Aspects – ISO 3.2 Element of an organization’s activities, products, or services that can interact with the environment.

Process for surfacing a list of aspects from which we will determine significant aspects:

1. This task was assigned to the planners on the prototype team. (Ideally, this would be a facilitated interdisciplinary team setting so ALL aspects would be listed.) We started with issues that characterized the impacts and worked back to activities and aspects that created the impacts.
2. We narrowed our scope to the Forest Plan for this exercise, but it could be expanded to include non-forest plan activities. We reviewed challenges stated in Part 1 of the Forest Plan to determine specific areas of concern or need for change that drove Plan development.
3. Then, we reviewed Chapter 3 EIS for the affected environment and effects analysis to surface activities and impacts. If the analysis section did not clearly point out activity, aspect and then impact, we highlighted the impacts and backed up to fill in the aspect that created the impact.

#### Environmental Aspects

Activity	Aspect	Impacts
Tunnels	Groundwater flow alteration	Water quantity fluctuations among aquifers
Wildfires – Fire suppression	Large, hot fires	Habitat Alterations
Prescribed burning	Soil chemistry adjustment Air Emissions - smoke	Reduced soil productivity Reduced Air Quality
Water Play	Altered water flow	Reduced habitat for caddisfly

Target shooting	Potential for human caused fires	Fires
Motorized use on forest roads	Air Emissions – Dust	Reduced visibility and reduced air quality
Etc. This list should be several pages long. And there are possibly other aspects and impacts related to the above activities that were not teased out of the Plan yet.		

PROTOTYPE ENVIRONMENTAL ASPECT MEETING NOTES

JULY -7, 2004

The team developed environmental aspects using the ABC NF’s Final Environmental Impact Statement from the forest’s plan revision process. A full listing of these is contained in the attached spreadsheet.

The planners took a sampling of issues in the FEIS, identifying activities and associated impacts to provide a general overview of potential aspects.

The team’s biologists and hydrologists looked at species- and water-related issues to determine potential environmental aspects for those topics. The biologists reviewed the LMP EIS Summary to look at Issue 2 (Ecosystem Elements and Function, page 2-4). They obtained a list of all species/communities (i.e., game species, at-risk species, MIS, NNIS, Vegetation Community Habitats). They identified interrelated activities that relate to Issue 2. They looked at the Environmental Consequences section of the EIS as a source for identified effects to these species/communities. They also used the EIS’s tables to identify the ESA listed and sensitive species. The Viability appendix highlighted the species with the highest viability concerns in the planning area. Recovery Plans associated with the forest were also consulted to determine those species with a high interest. The attached table below summarizes aspects for three species of highest concern. The fence line is National Forest System land where the species are present. The bird is FW below 4,000 feet elevation; the fish and snail are found in two watersheds. Management concerns apply to Forest Service employees, recreational outfitters and guides, concessionaires, and contractors.

A team of hydrologists looked at issues related to water quality to determine potential environmental aspects. The hydrologists reviewed the LMP EIS Summary to look at Issue 2 (Ecosystem Elements and Function, page 2-5). This described the importance of water to the national forest. The hydrologists identified several interactions or modifications to water quality associated with prescribed fire. They determined that this activity has a significant interaction with the environment. They looked at the Regional Best Management Practice and Stream Condition Inventory protocols (as referenced in the Forest Plan) to assess the effects to water quality. The effects of concern are discussed at the end of this document. The fenceline is National Forest System land where

prescribed fire activities occur. Management concerns apply to Forest Service employees and contractors.

## Significant Aspects

The team initially developed four evaluation criteria, with their associated qualifiers, to determine which aspects are significant. These four criteria are common examples as suggested by Ed Pinero.

- Impact Severity
  - Time (short-term, score = 1; long-term, score = 2)
  - Space (limited, score = 1; extensive, score = 2)
  - Consequence (small, large – as determined by a sum of Time and Space ratings)
- Frequency of Activity
  - Rare (score = 1)
  - Periodic (score = 2)
  - Constant (score = 3)
- Regulated?
  - Yes (score = 1)
  - No (score = 2)
- Concern to Stakeholders/Public
  - Use only as a tiebreaker. Do not use “yes/no”, explain the rationale

Initially, these criteria were assigned scores of “1”, “2”, or “3”. After some rating test runs, these criteria were adjusted to provide a more robust distinction between all the possible aspects. The following discussion explains the evaluation criteria rating system for evaluating aspects.

- Duration
  - Scores of 1 to 10
  - Use 1-year duration as the midpoint score (5). Any duration less than 1 year is rated between 1 and 5; any duration more than 1 year is rated between 6 and 10
- Spatial
  - Scores of 1 to 10
  - Relate the area affected to the entire forest size, reflect this relation in the score (1 = very little of the forest area, 10 = entire forest area)
- Consequence
  - Scores of 1 to 20

- This is a sum of “duration” and “spatial”
- Frequency
  - Scores of 1 to 10
  - Use Rare (score of 1), Periodic (score of 5), and Constant (score of 10) as reference points. Constant is defined as day-to-day or week-to-week.
- Total Score
  - Scores of 1 to 30
  - This is sum of “consequence” and “frequency”. Use a threshold score of 15-20 to highlight possible significant aspects
- Concern to Stakeholders/Public
  - Use only as a tiebreaker. Do not use “yes/no”, explain the rationale

The original “Regulated?” criterion proved to not be useful during the test runs. Every Forest Service activity is regulated to some degree, whether by laws, regulation, policy, or forest plan. As such, it does not help make a distinction on which aspects are potentially significant.

The attached spreadsheet contains the rating scores for the aspects.

This team had its significant aspects limited to water- and threatened and endangered species- related impacts for the purpose of developing an EMS prototype.

For more information Control-Click [Aspects and Scores](#)

EMS Element		Legal and Other Requirements
Document Type and Control No.		Output (EMS-4.3.2-001-N0)
Approved by:	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	Date approved:
Modification No:	Modified By:	Modification Date:
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

This document contains a listing of relevant statutes, regulations, policies, directives and agreements applicable to the ABC National Forest Environment Management System. Web site locations where the text of the documents can be obtained are provided where available.

### Federal Statutes

Abandoned Shipwreck Act of 1987

<http://www4.law.cornell.edu/uscode/43/ch39.html>

American Indian Religious Freedom Act of August 11, 1978

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=42&sec=1996](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=42&sec=1996)

Americans with Disabilities Act of 1990

<http://www.usdoj.gov/crt/ada/statute.html>

Anderson-Mansfield Reforestation and Revegetation Act of October 11, 1949

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=581j](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=581j)

Antiquities Act of June 8, 1906

<http://www.cr.nps.gov/local-law/anti1906.htm>

Archaeological Resources Protection Act of October 31, 1979, as amended 1988

<http://www2.cr.nps.gov/laws/archprotect.htm>

Architectural Barriers Act of 1968

<http://www4.law.cornell.edu/uscode/42/4151.html>

Bankhead-Jones Farm Tenant Act of July 22, 1937

<http://laws.fws.gov/lawsdigest/bankjon.html>

Clarke-McNary Act of June 7, 1924

<http://agriculture.senate.gov/Legislation/Compilations/Forests/cma.pdf>

Clean Air Act of August 7, 1977, as amended (1977 and 1990)

<http://www4.law.cornell.edu/uscode/unframed/42/ch85.html>

Common Varieties of Mineral Materials Act of July 31, 1947

<http://www4.law.cornell.edu/uscode/30/601.html>

Disaster Relief Act of May 22, 1974

<http://www4.law.cornell.edu/uscode/42/ch68.html>

Emergency Flood Prevention (Agricultural Credit Act) Act of August 4, 1978

<http://www4.law.cornell.edu/uscode/16/2201.html>

Endangered Species Act of December 28, 1973

<http://laws.fws.gov/lawsdigest/esact.html>

<http://www4.law.cornell.edu/uscode/16/ch35.html>

Energy Security Act of June 30, 1980

<http://thomas.loc.gov/cgi-bin/bdquery/z?d096:SN00932:@@L|TOM:/bss/d096query.html>

Federal Cave Resources Protection Act of November 18, 1988

<http://laws.fws.gov/lawsdigest/caveres.html>

Federal Insecticide, Rodenticide, and Fungicide Act of October 21, 1972

<http://www4.law.cornell.edu/uscode/unframed/7/ch6.html>

Federal Land Policy and Management Act of October 21, 1976

<http://www4.law.cornell.edu/uscode/unframed/43/ch35.html>

Federal Noxious Weed Act of January 3, 1975

<http://laws.fws.gov/lawsdigest/fednox.html>

Federal Power Act of June 10, 1920

<http://laws.fws.gov/lawsdigest/fedpowr.html>

Federal-State Cooperation for Soil Conservation Act of December 22, 1944

<http://www4.law.cornell.edu/uscode/33/701-1.html>

Federal Water Pollution Control Act and Amendments of 1972 (Clean Water Act)

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=33&sec=1251](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=33&sec=1251)

Federal Water Project Recreation Act of July 9, 1965

<http://laws.fws.gov/lawsdigest/fwatrre.html>

<http://www4.law.cornell.edu/uscode/unframed/16/4601-12.html>

Fish and Wildlife Conservation Act of September 15, 1960

<http://www4.law.cornell.edu/uscode/unframed/16/670a.html>

Fish and Wildlife Coordination Act of March 10, 1934

<http://laws.fws.gov/lawsdigest/fwcoord.html>

Forest and Rangeland Renewable Resources Planning Act of August 17, 1974

<http://www4.law.cornell.edu/uscode/16/ch36.html>

Geothermal Steam Act of December 24, 1970

<http://www4.law.cornell.edu/uscode/30/1001.html>

Granger-Thye Act of April 24, 1950

<http://www4.law.cornell.edu/uscode/16/581i-1.html>

Historic Sites Act of 1935

<http://www4.law.cornell.edu/uscode/16/461.html>

Historic Preservation Act of October 15, 1966

<http://www.cr.nps.gov/local-law/nhpa1966.htm>

Joint Surveys of Watershed Areas Act of September 5, 1962

<http://www4.law.cornell.edu/uscode/16/1009.html>

Knutson-Vandenberg Act of June 9, 1930

<http://www4.law.cornell.edu/uscode/16/576.html>

Land Acquisition Act of March 3, 1925

<http://www.wildrockies.org/appeals/68-575.htm>

<http://www4.law.cornell.edu/uscode/16/ch3.html>

Land Acquisition-Declaration of Taking Act of February 26, 1931

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=40&sec=258a](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=40&sec=258a)

Land Acquisition – Title Adjustment Act of July 8, 1943

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=7&sec=2253](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=7&sec=2253)

Land and Water Conservation Fund Act of September 3, 1964

<http://www4.law.cornell.edu/uscode/16/460l-4.html>

<http://classweb.gmu.edu/jkzlow/lwcfregs.htm>

Law Enforcement Authority Act of March 3, 1905

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=559](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=559)

Mineral Resources on Weeks Law Lands Act of March 4, 1917

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=520](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=520)

Mineral Springs Leasing Act of February 28, 1899

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=495](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=495)  
Mining Claims Rights Restoration Act of August 11, 1955  
<http://www4.law.cornell.edu/uscode/30/621.html>  
Mining and Minerals Policy Act of December 31, 1970  
<http://www4.law.cornell.edu/uscode/30/21a.html>  
Multiple-Use Sustained-Yield Act of June 12, 1960  
<http://ipl.unm.edu/cwl/fedbook/multiu.html>  
National Environmental Education Act of November 16, 1970  
<http://ipl.unm.edu/cwl/fedbook/natened.html>  
National Environmental Policy Act of January 1, 1970  
<http://es.epa.gov/oeca/ofa/nepa.html>  
National 1990 Farm Bill (title XII – Forest Stewardship Act) Act of November 28, 1990  
[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=582a](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=582a)  
National Forest Management Act of October 22, 1976  
<http://ipl.unm.edu/cwl/fedbook/nfma.html>  
National Forest Roads and Trails Act of October 13, 1964  
[http://www.house.gov/resources/105cong/reports/105\\_a/roads\\_.pdf](http://www.house.gov/resources/105cong/reports/105_a/roads_.pdf)  
National Historic Preservation Act of December 12, 1980 as amended (1980 and 1992)  
<http://www4.law.cornell.edu/uscode/16/470.html>  
National Trails System Act of October 2, 1968  
<http://ipl.unm.edu/cwl/fedbook/nattrail.html>  
Occupancy Permits Act of March 4, 1915  
[http://www.wy.blm.gov/Information/fai/wynf.0001\(99\).pdf](http://www.wy.blm.gov/Information/fai/wynf.0001(99).pdf)  
<http://www.wildrockies.org/appeals/63-293.htm>  
Oil and Gas Leasing Reform Act of 1987  
<http://thomas.loc.gov/cgi-bin/bdquery/z?d100:HR03545:@@D|TOM:/bss/d100query.html>  
Organic Administration Act of June 4, 1897  
[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=473](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=473)  
Preservation of Historical and Archaeological Data Act of May 24, 1974  
<http://www2.cr.nps.gov/laws/archpreserv.htm>  
Public Rangelands Improvement Act of October 25, 1978

[http://caselaw.lp.findlaw.com/cascode/uscodes/43/chapters/37/sections/section\\_1901.html](http://caselaw.lp.findlaw.com/cascode/uscodes/43/chapters/37/sections/section_1901.html)

Safe Drinking Water Amendments of November 18, 1977

<http://thomas.loc.gov/cgi-bin/bdquery/z?d095:SN01528:TOM:/bss/d095query.html>

Sikes Act of October 18, 1974

<http://laws.fws.gov/lawsdigest/sikes.html>

<http://www4.law.cornell.edu/uscode/16/670a.html>

Soil and Water Resources Conservation Act of November 18, 1977

<http://ipl.unm.edu/cwl/fedbook/soilwate.html>

Solid Waste Disposal (Resource Conservation & Recovery Act) Act of October 21, 1976

<http://www4.law.cornell.edu/uscode/42/6901.html>

Supplemental National Forest Reforestation Fund Act of September 18, 1972

<http://www4.law.cornell.edu/uscode/16/576c.html>

Surface Mining Control and Reclamation Act of August 3, 1977

[http://caselaw.lp.findlaw.com/cascode/uscodes/30/chapters/25/subchapters/i/sections/section\\_1201.html](http://caselaw.lp.findlaw.com/cascode/uscodes/30/chapters/25/subchapters/i/sections/section_1201.html)

Sustained Yield Forest Management Act of March 29, 1944

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=583](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=583)

Timber Export Act of March 4, 1917

[http://www.fs.fed.us/r10/chugach/revision/pdfs/timber\\_export\\_act.pdf](http://www.fs.fed.us/r10/chugach/revision/pdfs/timber_export_act.pdf)

Timber Exportation Act of April 12, 1926

<http://www4.law.cornell.edu/uscode/16/617.html>

Toxic Substances Control Act of October 11, 1976

[http://caselaw.lp.findlaw.com/cascode/uscodes/15/chapters/53/subchapters/i/sections/section\\_2601.html](http://caselaw.lp.findlaw.com/cascode/uscodes/15/chapters/53/subchapters/i/sections/section_2601.html)

Uniform Federal Accessibility Standards U. S. Criminal Code (Title 18 USC Chapter 91 – Public Lands) Act of June 25, 1948

<http://www.wildrockies.org/appeals/80-772.htm>

<http://caselaw.lp.findlaw.com/cascode/uscodes/18/parts/i/chapters/91/toc.html>

U. S. Mining Laws (Public Domain Lands) Act of May 10, 1872

<http://www4.law.cornell.edu/uscode/30/22.html>

Water Quality Improvement Act of April 3, 1970

<http://laws.fws.gov/lawsdigest/fwatrho.html>

Water Resources Planning Act of July 22, 1965

<http://www4.law.cornell.edu/uscode/42/1962.html>

Watershed Protection and Flood Prevention Act of August 4, 1954

<http://www4.law.cornell.edu/uscode/16/1001.html>

Weeks Act Status for Certain Lands Act of September 2, 1958

<http://www4.law.cornell.edu/uscode/16/521a.html>

Weeks Act of March 1, 1911

[http://www.house.gov/resources/105cong/reports/105\\_a/weeks\\_.pdf](http://www.house.gov/resources/105cong/reports/105_a/weeks_.pdf)

Wild Horse Protection Act of September 8, 1959

<http://www4.law.cornell.edu/uscode/18/47.html>

Wild Horses and Burros Act of December 15, 1971

<http://www4.law.cornell.edu/uscode/16/1331.html>

Wild and Scenic Rivers Act of October 2, 1968

<http://www4.law.cornell.edu/uscode/16/1271.html>

Wilderness Act of September 3, 1964

<http://www4.law.cornell.edu/uscode/16/1131.html>

Wildlife Game Refuges Act of August 11, 1916

[http://caselaw.lp.findlaw.com/scripts/ts\\_search.pl?title=16&sec=683](http://caselaw.lp.findlaw.com/scripts/ts_search.pl?title=16&sec=683)

### **Federal Regulations pertinent to the ABC National Forest EMS**

33 CFR 323 Permits for Discharges of Dredged or Fill Material into Waters of the United States

<http://www4.law.cornell.edu/cfr/33p323.htm#33p323s>

36 CFR 212 Forest Development Transportation System

<http://www4.law.cornell.edu/cfr/36p212.htm#start>

36 CFR 213 Administration Under Bank-Jones Act

<http://www4.law.cornell.edu/cfr/36p213.htm#start>

36 CFR 219 Planning

<http://www4.law.cornell.edu/cfr/36p219.htm#start>

36 CFR 221 Timber Management Planning

<http://www4.law.cornell.edu/cfr/36p221.htm#start>

36 CFR 222 Range Management

<http://www4.law.cornell.edu/cfr/36p222.htm#start>

36 CFR 223 Sale and Disposal of National Forest System Timber

<http://www4.law.cornell.edu/cfr/36p223.htm#start>

36 CFR 228 Minerals

<http://www4.law.cornell.edu/cfr/36p228.htm#start>

36 CFR 241 Fish and Wildlife

<http://www4.law.cornell.edu/cfr/36p241.htm#start>

36 CFR 251 Land Uses

<http://www4.law.cornell.edu/cfr/36p251.htm#start>

36 CFR 254 Landownership Adjustments

<http://www4.law.cornell.edu/cfr/36p254.htm#start>

36 CFR 261 Prohibitions

<http://www4.law.cornell.edu/cfr/36p261.htm#start>

36 CFR 292 National Recreation Areas

<http://www4.law.cornell.edu/cfr/36p292.htm#start>

36 CFR 293 Wilderness-Primitive Areas

<http://www4.law.cornell.edu/cfr/36p293.htm#start>

36 CFR 294 Special Areas

<http://www4.law.cornell.edu/cfr/36p294.htm#start>

36 CFR 295 Use of Motor Vehicles Off Forest Development Road

<http://www4.law.cornell.edu/cfr/36p295.htm#start>

36 CFR 296 Protection of Archaeological Resources

<http://www4.law.cornell.edu/cfr/36p296.htm#start>

36 CFR 297 Wild and Scenic Rivers

<http://www4.law.cornell.edu/cfr/36p297.htm#start>

36 CFR 800 Protection of Historic Properties

<http://www4.law.cornell.edu/cfr/36p800.htm#start>

40 CFR 121-135 Water Programs

<http://www4.law.cornell.edu/cfr/40p121.htm#40p121s>

40 CFR 1500 Council on Environmental Quality

<http://www4.law.cornell.edu/cfr/40p1500.htm#start>

43 CFR 10 Native American Graves Protection and Repatriation Act Regulations

<http://www4.law.cornell.edu/cfr/43p10.htm#43p10s>

## **Executive Orders**

EO 11593 Protection and Enhancement of Cultural Environment

<http://archnet.asu.edu/archnet/topical/crm/usdocs/execord.htm>

EO 11990 Protection of Wetlands

<http://hydra.gsa.gov/pbs/pt/call-in/eo11990.htm>

EO 11644 (amended by EO 11989) Use of Off-Road Vehicles

<http://www.nara.gov/fedreg/codific/eos/e11644.html>

EO 11988 Floodplain Management

<http://hydra.gsa.gov/pbs/pt/call-in/eo11988.htm>

EO 12088 Federal Compliance with Pollution Control Standards (Amended by E. O. 12580, January 23, 1987)

<http://hydra.gsa.gov/pbs/pt/call-in/eo12088.htm>

EO 13007 Indian Sacred Sites

<http://hydra.gsa.gov/pbs/pt/call-in/eo13007.htm>

EO 13148 Greening the Government through Leadership in Environmental Management (2000)

## **State and Local Laws and Regulations**

California Wilderness Act of 1984.

Available at ABC National Forest Supervisor's Office

California Clean Air Act of 1998

Available at ABC National Forest Supervisor's Office

California's Agricultural Burning Guidelines in Title 17 of the California Code of Regulations

Available at ABC National Forest Supervisor's Office

WUI County Fuels Management Act of 2004

Available at ABC National Forest Supervisor's Office

## **Agreements and Memorandums of Understanding**

Comprehensive Plan for the Pacific Crest National Scenic Trail, January 1982.

Available at ABC National Forest Supervisor's Office

Bald Eagle MOU, April 1974.

[http://www.fs.fed.us/r5/abc/revision/pdfs/bald\\_eagle\\_mou.pdf](http://www.fs.fed.us/r5/abc/revision/pdfs/bald_eagle_mou.pdf)

Dry Gulch Scenic Area Access Road MOU, March 1996

Available at ABC National Forest Supervisor's Office

Interagency Emergency Preparedness MOU, April 1998

Available at ABC National Forest Supervisor's Office

Dry Gulch Towhee Consortium MOU, September 1995

Available at ABC National Forest Supervisor's Office

Alpha Omega Area Fire Control and Prevention MOU, March 2002

Available at ABC National Forest Supervisor's Office

## **Forest Service Directives System**

The following is a partial listing of national and regional Forest Service policies relevant to this Land and Resource Management Plan. A complete listing can be found in Forest Service Manuals and Forest Service Handbooks. Together, these are known as the Forest Service Directives System and can be found at the following website:

<http://www.fs.fed.us/ime/directives/>

The Directives System is the primary basis for the management and control of all internal programs and serves as the primary source of administrative direction for Forest Service employees. The system sets forth legal authorities, management objectives, policies, responsibilities, delegations, standards, procedures, and other instructions.

The Forest Service Manual (FSM) contains legal authorities, goals, objectives, policies, responsibilities, instructions, and the necessary guidance to plan and execute assigned programs and activities.

Forest Service Handbooks (FSH) are directives that provide instructions and guidance on how to proceed with a specialized phase of a program or activity. Handbooks either are based on a part of the Manual or they incorporate external directives.

The following is a listing of the Forest Service Manual system and referenced Handbooks that are relevant to the ABC National Forest EMS:

***Forest Service Manuals***

1010 Laws, Regulations, and Orders

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_1000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html)

1020 Forest Service Mission

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_1000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html)

1500 External Relations

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_1000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html)

1600 Information Resources

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_1000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html)

1900 Planning

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_1000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_1000.html)

2060 Eco-system Classification, Interpretation, and Application

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2070 Biological Diversity (Reserved)

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2200 Range Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2300 Recreation, Wilderness, and Related Resource Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2400 Timber Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2500 Watershed and Air Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2600 Wildlife, Fish, and Sensitive Plant Habitat Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2700 Special Uses Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

2800 Minerals and Geology

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_2000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_2000.html)

3400 Forest Pest Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_3000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_3000.html)

5100 Fire Management

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_5000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_5000.html)

5400 Land Ownership

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_5000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_5000.html)

7400 Public Health and Pollution Control Facilities

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_7000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_7000.html)

7500 Water Storage and Transportation

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_7000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_7000.html)

7700 Transportation System

[http://www.fs.fed.us/im/directives/dughtml/fsm\\_7000.html](http://www.fs.fed.us/im/directives/dughtml/fsm_7000.html)

### ***Forest Service Handbooks***

2000-95-5 Region 5 Supplement: Noxious Weed Management Handbook

[http://www.fs.fed.us/cgi-bin/directives/get\\_dir/fsh?2000.95.05!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dir/fsh?2000.95.05!r5_all)

2500-92-2 Region 5 Supplement: Watershed and Air Management

[http://www.fs.fed.us/cgi-bin/directives/get\\_dir/fsh?2500.92.02!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dir/fsh?2500.92.02!r5_all)

2500-92-4 Region 5 Supplement: Watershed and Air Management

[http://www.fs.fed.us/cgi-bin/directives/get\\_dir/fsh?2500.92.04!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dir/fsh?2500.92.04!r5_all)

2509.18 Soil Management Handbook

[http://www.fs.fed.us/cgi-bin/directives/get\\_dirs/fsh?2509.18!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dirs/fsh?2509.18!r5_all)

2509.22 Soil and Water Conservation Handbook

[http://www.fs.fed.us/cgi-bin/directives/get\\_dirs/fsh?2509.22!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dirs/fsh?2509.22!r5_all)

2509.25 Watershed Conservation Practices Handbook

[http://www.fs.fed.us/cgi-bin/directives/get\\_dirs/fsh?2509.25!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dirs/fsh?2509.25!r5_all)

2600-97-1 Region 5 Supplement: Threatened, Endangered and Sensitive Plants and Animals.

[http://www.fs.fed.us/cgi-bin/directives/get\\_dir/fsh?2600.97.01!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dir/fsh?2600.97.01!r5_all)

3409.11 Forest Pest Management and handbook

[http://www.fs.fed.us/cgi-bin/directives/get\\_dir/fsh?3409.11!r5\\_all](http://www.fs.fed.us/cgi-bin/directives/get_dir/fsh?3409.11!r5_all)

**Other relevant documents for ABC EMS:**

ABC National Forest, Land and Resource Management Plan, Revised 2004

<http://www.fs.fed.us/r5/abc/planning/2004revision.pdf>

Water Quality Management for Forest System Lands in California - Best Management Practices Handbook (USDA Forest Service, Pacific Southwest Region, September 2000)

Available at ABC National Forest Supervisor's Office

Dry Gulch Towhee Recovery Plan (USDI Fish and Wildlife Service, Region 1, April 1994).

Available at ABC National Forest Supervisor's Office

EMS Element		Environmental Management Program
Document Type and Control No.		Procedure (EMS-4.3.4-001-N0)
Approved by:	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	Date approved:
Modification No:	Modified By:	Modification Date:
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

Environmental Management Programs (EMPs) for identified significant aspects are attached.



## Environmental Management Program-ESA

Document Control No. \_\_\_\_\_

Unit:

ABC National Forest  
1313 Mockingbird Lane  
Hollywood, CA 90132

Responsible Manager:

\_\_\_\_\_  
Snidely J. Whiplash, Forest Supervisor

Original EMP Date of Approval:

Modification No:

Modified By:

Modification Date:

Activity: Prescribed Fire

Significant Aspect: Removal of Herbaceous Understory Vegetation

**Objective 1:** Prescribed fire characteristics do not impair or reduce suitability of habitat occupied by the Dry Gulch Towhee. Suitable habitat is defined as herbaceous vegetation that provides structure for nesting and concealment from predators, as described in the 1994 Dry Gulch Towhee Recovery Plan.

**Target 1:** No high intensity prescribed fires occur in Dry Gulch Towhee occupied habitat.

**Target 2:** In occupied areas, no prescribed fires occur during the Dry Gulch Towhee breeding season (April 1<sup>st</sup> – May 30<sup>th</sup>).

**Target 3:** No more than 10% of occupied Dry Gulch Towhee occupied habitat is treated per decade.

**Target 4:** Within 3 years post-burn, 80% of the herbaceous understory vegetation within the burn area possesses structural characteristics required by the Dry Gulch Towhee.

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## Environmental Management Program-ESA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Operational Control (Procedure)	Schedule	Notes	Target Reference
Pre-Fire Planning						
1	Individuals involved in prescribed fire projects within Dry Gulch Towhee habitat participate in reviews of prescribed fire direction in the ABC Forest Plan.	Smokey Ember, Fire Management Officer	EMS 4.4.2	Annual prescribed fire refresher course held prior to burning season		1, 2, 3
2	Ensure the burn plan includes timing, intensity, and area restrictions applicable to prescribed fires in Dry Gulch Towhee habitat occupied habitat.	Smokey Ember, Fire Management Officer	Check the ABC Forest Plan for standards relating to Dry Gulch Towhee habitat management.	Prior to burn plan approval		1, 2, 3
3	Verify that burn plan has used most up-to-date information for the Dry Gulch Towhee occupied habitat.	Bob Bear, District Wildlife Technician	Use previous forest plan monitoring reports and NRIS Fauna module	Prior to burn plan approval	Data on species distributions stored in NRIS Fauna module	1, 2, 3

## Environmental Management Program-ESA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Operational Control (Procedure)	Schedule	Notes	Target Reference
4	Approve burn plan with appropriate restrictions to reduce adverse effects of fire on Dry Gulch towhee.	Dudley Dooright, District Ranger	FMO and wildlife technician identify where the restrictions show up in the burn plan.	Prior to burn		1, 2, 3
Prescribed Fire Implementation						
5	Review burn plan objectives and restrictions with prescribed fire crew.	Steve Sparks, Burn Boss	Burn Boss conducts tailgate session that reviews the burn plan	1 hour prior to ignition		1, 2, 3
6	Implement Burn Plan as approved.	Steve Sparks, Burn Boss	Implement Burn Plan	Always		1, 2, 3, 4
Post-Fire Monitoring						
7	Implement the post-fire occupied habitat vegetation survey.	Bob Bear, District Wildlife Technician and Mark Stubble, District Range Conservationist	Follow protocol in 1994 Dry Gulch Towhee Recovery Plan, Appendix C (Habitat and Breeding Survey Protocols)	One time survey 3 years after prescribed burn event	The report provides data on herbaceous understory vegetation structure.	4

## Environmental Management Program-ESA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Operational Control (Procedure)	Schedule	Notes	Target Reference
8	Update Dry Gulch Towhee occupied habitat maps to reflect acres of prescribed burn in habitat area.  Gauge acres planned against 10% of habitat impacted	Bob Bear, District Wildlife Technician	1994 Dry Gulch Towhee Recovery Plan, Appendix C (Habitat and Breeding Survey Protocols)	Maps updated annually by September 30 <sup>th</sup> .	Data stored in NRIS Terra module	3
9	Complete post-fire burn intensity survey in occupied habitat area	Steve Sparks, Burn Boss	Fire Behavior Assessment Handbook  Use BAER Handbook to identify resulting burn intensities  Complete prescribed fire behavior accomplishment report	Completed within 1 week of prescribed fire.	The report will show results of fire intensity, including flame height, dates of the fire, and acreage burned.	1

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Environmental Management Program-CWA

Document Control No. \_\_\_\_\_

Unit:

ABC National Forest  
1313 Mockingbird Lane  
Hollywood, CA 90132

Responsible Manager:

\_\_\_\_\_  
Snidely J. Whiplash, Forest Supervisor

Original EMP Date of Approval:

\_\_\_\_\_

Modification No:

Modified By:

Modification Date:

Activity: Prescribed Fire

**S**ignificant Aspect: Consuming ground cover, thus increasing water surface flow, resulting in excess sediment and nutrients moving to water bodies

## Environmental Management Program-CWA

Document Control No. \_\_\_\_\_

Objective 1: Sediment and nutrient contributions from prescribed fire activity on soil types of moderate-high hazard ratings do not contribute to the chemical or physical degradation of streams, lakes, or wetlands.

Target 1: No violations of state water quality standards related to sediment and nutrient concentrations.

Target 2: No departure of sediment metrics from baseline inventory or reference site persistent beyond 2 years.

Target 3: 95% compliance with implementation of Best Management Practices, (BMPs), by 2007.

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[Hints](#)

## Environmental Management Program-CWA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Procedure	Schedule	Notes	Target Reference
Pre-Fire Planning and Training						
1	Educate and train fire management personnel on potential effects of prescribe fire and how to minimize impacts to soil and water resources through proper application of BMPs.	Muddy Watters, Forest Hydrologist and Sandy Loam, Forest Soils Scientist	Use BMP handbook and Best Management Practices Evaluation Procedure (BMPEP) protocols to provide training. (Ref FSM 2532-02)	Annually, before burning season.		3
2	Identify geomorphic features such as; landslide prone areas, steep slopes with hydrologic connectivity to the waterbody, ephemeral channels, etc. that could contribute excess sediment and /or nutrients to hydrologic system.	Rob Granite, Forest Geologist and Muddy Watters, Forest Hydrologist	Forest Plan, USGS Maps, Standard and Guidelines, applicable State and Federal regulations, FS Manuals and FS Handbooks	During project planning period	Intermediate step to ensure information is captured and acted upon	NA
3	Identify soil limitations and provide interpretation.	Sandy Loam, Forest Soils Scientist	Soil Quality Standards, Forest Plan, Soil Surveys, FSH 2509.18	During project planning period	Intermediate step to ensure information is captured and acted upon	NA

Environmental Management Program-CWA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Procedure	Schedule	Notes	Target Reference
4	Incorporate resource standards and objectives from decision into burn plan	Smokey Ember, Fire Management Officer	Use Forest Standards and Guidelines and any applicable laws and regulations (See Forest Plan appendix xxx)	During project planning period	Intermediate step to ensure information is included in burn plan	NA
5	Identification of appropriate suite of BMPs applicable to reducing sediment and nutrient delivery from prescribe fire activities to affected waterbodies.	Muddy Watters, Forest Hydrologist and Sandy Loam, Forest Soils Scientist	Water Quality Management for Forest System Lands in California - Best Management Practices Handbook (USDA Forest Service, Pacific Southwest Region, September 2000)	During project planning period	Intermediate step to ensure information is included in burn plan	NA
6	Approve burn plan with appropriate suite of BMPs for reducing sediment or nutrient movement	Dudley Dooright, District Ranger	Refer to FSH 2509.22, Forest Supplement 2532-02	During project planning period		

**Environmental Management Program-CWA**

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Procedure	Schedule	Notes	Target Reference
<b>Prescribed Fire Implementation</b>						
7	Review burn plan before implementation	Steve Sparks, Burn Boss	Follow burn plan developed for project.	1 hour prior to implementation with burn crew	Intermediate step to ensure information is included in burn plan	NA
8	Implement burn plan	Steve Sparks, Burn Boss	Follow burn plan developed for project.	Prior to and during burn		1,2,3
<b>Post-Fire Monitoring</b>						
9	Develop and implement Water Quality Monitoring Plan	Muddy Watters, Forest Hydrologist Alice Lake, District Hydro Technician	FSM-2530 Forest supplement 2511.22  (Guidelines for Water Quality Monitoring on the ABC National Forest)	Quarterly for 3 years		1, 2

## Environmental Management Program-CWA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Procedure	Schedule	Notes	Target Reference
10	Monitor implementation and effectiveness of BMPs	Designated Forest or District personnel trained and supervised by Muddy Watters, Forest Hydrologist	Follow Best Management Practices Evaluation Procedure (BMPEP) direction. FSM 2532-02 and BMPEP Guide	Annually for two consecutive years	Monitor implementation and effectiveness after project has gone through one winter or season.	3
11	Implement Stream Condition Inventory	Muddy Watters, Forest Hydrologist and Catch N. Release Aquatic Ecologist	Stream Condition Inventory Regional procedure	Before project implementation and 3-5 years after project completion	Establish baseline then return to project area to see if change has occurred	1,2
12	Compile data obtained from monitoring protocols implemented during project and develop monitoring report.	Muddy Watters, Forest Hydrologist and Sandy Loam, Forest Soils Scientist	Compile collected data and write report	Annually for two consecutive years	Intermediate step to ensure information is captured and acted upon	NA

## Environmental Management Program-CWA

Document Control No. \_\_\_\_\_

No.	Task	Responsible Person	Procedure	Schedule	Notes	Target Reference
13	Provide a monitoring report to Forest Leadership Team	Muddy Watters, Forest Hydrologist and Sandy Loam, Forest Soils Scientist	Use established Forest Protocols for meeting with Forest Leadership team to discuss report. Provide a copy of report to all members of FLT.	Annually for 2 years for BMP and final report if additional monitoring was implemented (i.e., SCI after 3 to 5 years)		1, 2, 3

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[Team Experience](#)



EMS Element		Structure and Responsibility
Document Type and Control No.		Output (EMS-4.4.1-001-N0)
Approved by:	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	Date approved:
Modification No:	Modified By:	Modification Date:
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

This document defines the ABC National Forest structural organization to conform with ABC National Forest EMS Element 4.4.1-001-N0. The individuals who will be assigned to these roles will be documented in a Memorandum from the Forest Supervisor or Deputy Forest Supervisor, directed to all employees of the ABC National Forest.

**Minimum positions**

Responsible Official: Forest Supervisor.

This responsibility may only be delegated to the Deputy Forest Supervisor

Management Representative: Deputy Forest Supervisor

Records Custodian: Senior Administrative Assistant, Supervisor’s Office

**Optional Recommended Positions**

EMS Team Leader: May be selected from the following: Forest Engineer, Forest Wildlife Biologist, Forest NEPA Coordinator, Forest Planner, Forest Ecologist, Forest Hydrologist, Forest Soils Scientist, Forest Recreation and Heritage Specialist

Forest-Wide EMS Technical Support Team: Team composition may include, but is not limited to, ABC National Forest resource specialists, operations specialists, communications specialists, at least one District Ranger, with representation from each of the ABC National Forest’s Ranger Districts.

Forest-wide EMS Implementation Team: Team composition may include, but is not limited to, representatives from the Forest Leadership Team.

EMS Element		Training, Awareness, and Competence
Document Type and Control No.		Output (EMS-4.4.2-001-N0)
Approved by:	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	Date approved:
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There is no Level 2 control document for this element.

EMS Element		Communication
Document Type and Control No.		Output (EMS-4.4.3-001-N0)
Approved by:	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	Date approved:
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See attached sheet.

# **Environmental Management System On the ABC National Forest**

**COMMUNICATION STRATEGY**

July 2004

## SUMMARY

This communication strategy describes actions that will be taken to inform the public (internal and external) about the Forest's new Environmental Management System (EMS), a systematic approach to management that focuses on measurement, evaluation, feedback and change to continually improve environmental performance. This Strategy contains actions associated with long-term communications among levels of the organization. It also contains actions associated with establishing protocols for responding to external interest of our significant environmental aspects. (This communications strategy documents our responsibilities of ISO 14001 4.4.3, Communication.)

## BACKGROUND

In April 2000, the President signed an executive order requiring all government agencies to prepare an Environmental Management System for their unit. An EMS is prepared and implemented according to International Organization for Standardization, ISO 14001 – Specifications published in 1996. The international standard is applicable to any organization that wishes to

- a) Implement, maintain and improve environmental management system;
- b) Assure itself of conformance with its stated environmental policy;
- c) Demonstrate such conformance to others;
- d) Seek certification/registration of its environmental management system by an external organization; or
- e) Make a self-determination and self-declaration of conformance with this International Standard.

Each administrative unit of the NFS is required to prepare an EMS. This Plan describes the actions and documentation necessary to successfully fulfill responsibilities of Procedure 6 – Communications of the international standard.

**Requirement:** (ISO 14001 – Section 4.4.3). The organization shall establish and maintain procedures for a) internal communication between the various levels of the organization; b) receiving, documenting and responding to relevant communication from external interested parties.

## OPPORTUNITY STATEMENT

Developing and implementing an EMS will ensure concrete and documented accomplishment of environmental protection (human, biological and physical) for activities conducted on NFS lands for this generation and generations of the future.

## GOALS

The internal public will:

- Recognize and understand issues important to all entities within the organization (Environmental Policy, improved health and safety, improved efficiency, improved environmental compliance)
- Contribute to preparation and implementation of the EMS.
- Learn new terms and definitions that will initially be confusing with already existing terms and definitions used in Forest Service planning and operations.

*\*\*\* This communication strategy will be successful when there is upper management support and employee buy-in for preparing and implementing an EMS.*

The external public will:

- Recognize and understand significant environmental aspects, be informed about how we are addressing them, and how well we are accomplishing those significant aspects' objectives and targets.

## OBJECTIVES

As a result of this Plan we will:

- Give focus and direction to communication about the EMS
- Provide guidance to those charged with explaining and implementing EMS
- Describe the roles and responsibilities of all employees
- Incorporate a time schedule by which actions should be completed
- Initiate long term internal communication procedures
- Initiate long term external communication procedures

## AUDIENCES

The principal audience is the ABC National Forest employees. The secondary audiences are our contractors, permittees, and others who may be required to attend training or required to conduct activities on our unit. The tertiary audience includes those people interested in how we conduct business and in particular those people who participate in public involvement processes on our forest. Specifically, our audience includes:

- Forest Leadership Team
- Those employees responsible for developing and completing the EMS
- All other employees and volunteers
- Permittees
- Contractors
- Indian Tribes
- Environmental analysis commenter and appellants
- State Government
- County Governments
- Local Governments

## KEY MESSAGES

- *An EMS is a new way of doing business, not a new business.*
- *An EMS permits us to emphasize and address those issues that are important to us.*
- *Implementing an EMS results in efficiencies and repeatability*
- *An EMS is a long-term commitment to bridging any changes in incoming and outgoing employees.*
- *Every employee plays a role in a successful EMS*
- *An EMS terms and definitions are different than similar terms currently used by the FS.*

## COMMUNICATION STRATEGY

The best course for achieving the desired results is to  clear, consistent messages using a variety of tactics tailored to the identified audiences.

- Awareness training and protocol training
- Subunit family meetings
- Safety meetings
- Posters
- Summaries posted in lunchrooms
- News releases about significant aspects (external public)
- Informational meetings as needed (internal and external publics)
- Established periodic meetings
- Websites (FSWEB, WWW)

## ACTION PLAN

The following action plan details communication activities and products to meet the communication strategy's goals and objectives.

Due Date	Activity	Purpose	Who's Responsible
Week 1	EMS Project Initiation Letter	Assign Project Leader and team.	Forest Supervisor
Week 1	Conduct EMS Training for Forest Leadership Team	Inform leadership and answer questions. Establish fenceline and confirm Forest EMS team.	Project Leader
Week 1	Conduct EMS training for EMS team.	Kick off project and develop environmental policy.	Project Leader
Month 1	Conduct all employee awareness meetings (after environmental policy has been approved)	Inform employees about initiation of project, timeframe and expectations. Use FSWEB to maintain communication during development of EMS. See  endix A-Q and A.	Forest Public Affairs Officer, EMS Team.
Month 1-3	Prepare EMS according to ISO 14001.		Project Leader and EMS team (Involve

<b>Due Date</b>	<b>Activity</b>	<b>Purpose</b>	<b>Who's Responsible</b>
			contractors and permittees as needed.)
Month 4-5	Present EMS to FLT and EMS team.	Take input and make adjustments, if necessary.	Project Leader
Month 5	Approve EMS		Forest Supervisor
Month 5	Present EMS summary	Identify information required by all employees and invite all employees to read and understand the entire program	Forest Public Affairs officer
Month 5	Share report with interested publics – news release and informational meetings	Identify significant aspects.	Line officers
Post EMS approval	Internal communication – EMS updates, audit results, and management reviews will be posted to the FSWEB and shared with employees at family meetings.	Ongoing	Public Affairs Officer, Line officers, Documents Manager, web manager.
Post EMS approval	a). External communications will occur by mail, phone, and e-mail. b). Share Significant Aspects and Management Review results in news releases and on WWW.	Use procedures similar to current ones used for controlled correspondence with congressional staff only file designation is 2100. See Appendix B	Forest Environmental Coordinator

## Appendix A

### Q&A for EMS Awareness

#### **Q1. What is an Environmental Management System?**

**A.** An Environmental Management System (EMS) is a systematic approach to work that protects the environment and complies with environmental requirements. The ABC National Forest EMS is based on the International Standard 14001 and revolves around five core functions: Those five core functions are:

- Environmental Policy
- Planning (*Plan*)
- Implementation and Operation (*Do*)
- Checking and Corrective Action (*Check*)
- Management Review (*Act*)

#### **Q2. What does ISO 14001 require?**

**A.** ISO 14001 requires that we a) Establish and maintain an environmental policy, b) Establish and maintain a structured management system that implements the environmental policy, and c) Address the elements of the ISO standard 14001.

#### **Q3. What is an environmental policy and why is it important?**

**A.** An environmental policy is the foundation for our EMS. It conveys our values and commitment to environmental protection, environmental compliance and continual improvement. Conformance with our environmental policy and our EMS requirements means carrying out our work activities in a manner that protects human health and the environment, meets objectives and targets that will be established through the EMS and that we are continually striving to improve.

#### **Q4. How do you integrate the Environmental Policy into your work activities?**

**A.** We integrate our Policy by implementing EMS requirements into our work planning and by following work control processes and procedures.

#### **Q5. What is our role and responsibility in implementing our policy?**

**A.** Our role and responsibility is to understand that we have a policy, realize the importance of conforming with it and know where it is filed.

#### **Q6. How is environmentally related information communicated on our unit?**

**A.** Environmental information is communicated through staff meetings, e-mails, safety meetings, tailgate sessions, family meetings and on the intranet and internet.



## **Appendix B**

### Controlled Correspondence – Environmental Management (External requests)

The EMS Record Keeper is responsible for handling external requests for information.

Step 1. Date stamp written request and assign a number to be included on correspondence.

Step 2. Log into logbook with expected 20-day (calendar) turn around from receipt to response.

Step 3. Distribute to appropriate individual for review and written response.

Step 4. Prepare draft response in correspondence database.

Step 5. Forward draft to line officer for finalization and signature.

Step 6. Print, mail and file.

\* Maintain log and associated correspondence on unit for 3 years. After 3 years, archive for five years.

<b>EMS Element</b>		EMS Documentation
<b>Document Type and Control No.</b>		Output (EMS-4.4.4-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
For more information Control-Click <a href="#">ISO</a> <a href="#">Team Experience</a> <a href="#">Hints</a>		

The following describes the hierarchy of documents in the EMS manual.

### Part I. Documents

Identification of the EMS core element (i.e., Level 1 documents) is as follows:

- Environmental policy
- Significant environmental aspects
- Objectives and targets
- Environmental Management Program

Other documents that interact with core elements are:

- Procedures to align EMS with ISO 14001
- Structure and responsibility
- Training plans
- EMS audit program
- Management review program

### Part II. Procedures

- Procedure 4.3.1 - Environmental Aspects
- Procedure 4.3.4 - Environmental Management Program
- Procedure 4.4.2 - Training, Awareness, and Competence
- Procedure 4.4.3 - Communications
- Procedure 4.4.5 - Document Control
- Procedure 4.4.6 - Operational Control
- Procedure 4.5.1 - Monitoring and Measurement
- Procedure 4.5.3 - Records
- Procedure 4.5.4 - EMS audit

### Part III. Records

The following are examples of an EMS records list.



## RECORDS MATRIX

(For Typical EMS records)

EMS Document	RECORDS	Location	R Time
Policy	<ul style="list-style-type: none"> <li>• Policy</li> </ul>		
Aspects	<ul style="list-style-type: none"> <li>• Aspects List</li> <li>• Significant Aspects list</li> </ul>		
Legal and Other Requirements	<ul style="list-style-type: none"> <li>• List of legal and Other Requirements</li> </ul>		
Objectives and Targets	<ul style="list-style-type: none"> <li>• Minutes of meetings where objectives and targets were developed</li> </ul>		
Environmental Management Programs	<ul style="list-style-type: none"> <li>• Past versions of programs</li> <li>• Records of program changes due to site changes</li> </ul>		
Structure and Responsibilities	<ul style="list-style-type: none"> <li>• Memos identifying assigned responsibilities</li> </ul>		
Training, Awareness and Competence	<ul style="list-style-type: none"> <li>• Past versions of training needs matrices</li> <li>• Training records (sign in sheets, certificates, etc.)</li> </ul>		
Communications	<ul style="list-style-type: none"> <li>• Policy awareness and distribution</li> <li>• Copies of internal communications</li> </ul>		
EMS Documentation	<ul style="list-style-type: none"> <li>• Manual and related procedures</li> </ul>		
Document Control	<ul style="list-style-type: none"> <li>• (as per site procedures)</li> </ul>		
Operational Control	<ul style="list-style-type: none"> <li>• Sign-offs by suppliers and contractors</li> </ul>		
Emergency Planning and Response	<ul style="list-style-type: none"> <li>• Record of drills</li> </ul>		
Monitoring and Measurement	<ul style="list-style-type: none"> <li>• Key characteristic measurement records</li> <li>• Record of progress towards objectives and targets</li> </ul>		
Calibration	<ul style="list-style-type: none"> <li>• Calibration Records</li> </ul>		
Regulatory Compliance Assessments	<ul style="list-style-type: none"> <li>• Compliance Assessment reports</li> </ul>		
Corrective and Preventive Action	<ul style="list-style-type: none"> <li>• Completed CARs</li> </ul>		
Records Management	<ul style="list-style-type: none"> <li>• Properly maintained EMS records</li> </ul>		

EMS Document	RECORDS	Location	Ret. Time
EMS Audits	<ul style="list-style-type: none"> <li>• Audit reports</li> <li>• Audit Schedules for those completed</li> <li>• Other audit notes as per site procedures</li> </ul>		
Management Review	<ul style="list-style-type: none"> <li>• Sign in sheets</li> <li>• Minutes</li> <li>• Agendas</li> <li>• Action Item lists</li> </ul>		

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<b>EMS Element</b>		Document Control
<b>Document Type and Control No.</b>		Output (EMS-4.4.5-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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The Document Control for the ABC National Forest EMS comprises a documentation log system that includes document identification, tracking system of approval and revision approval signatures and dates, and document management procedures. This applies to all documents of the EMS that are required to meet ISO 14001.

The Document Control system shall be the responsibility of the EMS Records Custodian.

### Document Identification

All documents shall be assigned a Document Control number in the following format:

EMS - #.#.# - ### - X#

First 3 digits are the ISO element to which the document pertains.

Next 3 digits are assigned consecutively, starting at 001, if documents require supporting documents.

The last part of the document control number is either N0 or R for new or revised, respectively. Initial development of the document receives an N0. Subsequent revisions receive the same number, but the N is changed to an R with the number starting at 1 and changing consecutively as revisions are made.

### Approval Tracking System

All controlled documents will have a layout that includes a header with the following information:

- EMS Element
- Document Type and Control Number
- Identification of Approving Official and Date
- Identification of Modifications (including person modifying document and date)

### **Modifications to Documents**

All modifications to documents will be recorded in the header block. These modifications will be documented in the record log maintained by the Records Custodian.

The EMS Records Custodian shall also identify by document number any document that should be removed because it is obsolete. The EMS Records Custodian shall maintain a separate file of removed documents for at least 3 years. Documents that need to be retained for longer than 3 years to meet other requirements (e.g. legal documents) shall be kept in a separate file with an attached page indicating the reason for its retention.

### **Document Availability<sup>i</sup>**

Paper copies of the documents will be available on each administrative unit, located in the following offices:

Supervisor's Office  
MNO Ranger District  
PDQ Ranger District  
RST Ranger District  
Smokey Fire Station  
Wonderful View Visitor Center



The EMS Records Custodian has the responsibility to ensure the copies are available as above. Supervisors shall ensure employees of the ABC National Forest are informed on the availability of revised documents in accordance with the EMS Communications Plan.<sup>ii</sup>

<b>EMS Element</b>		Operational Control
<b>Document Type and Control No.</b>		Output (EMS-4.4.6-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor	<b>Date approved:</b>
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List of Operational Controls specific to Environmental Management Plans:

Please refer back to the “Sediment movement as a result of Prescribe fire aspect EMP” (Sec. XXX) for a list of procedures and requirements that will provide operational controls necessary to minimize impact.<sup>iii</sup>

Operational Control for EMP-ESA				
Operational Controls for significant aspect with EMP but not identified in EMPs.				
Aspect	Control	Procedure	Schedule	Responsible Person
Effects On Towhee From Loss of Herbaceous Understory from use of Prescribe Fire	Notify the U. S. Fish and Wildlife Service of prescribed fire plans.	Notification procedures identified in the 1999 Biological Opinion for the ABC National Forest Land and Resource Management Plan.	Before and after implementation of the burn	Karen Kondor, Forest Wildlife Biologist
		Notification procedures identified for the project.	Before and after implementation of the burn	Sherman Snakehead, District Biologist

<b>EMS Element</b>		Emergency Preparedness and Response
<b>Document Type and Control No.</b>		Output (EMS-4.4.7-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Emergency preparedness and response for the EMS shall follow those identified in Forest Service policy and direction, for example, the following:

Toxic spills:	FSM 2100 – Environmental Management
Wildfire:	FSM 5100– Fire Management
Human interaction:	FSM 5300 – Law Enforcement
Safety and Health:	FSM 6700 – Safety and Health

ABC National Forest specialists for these areas are as follows:

Toxic spills:	Forest Hazardous Materials Coordinator
Wildfire:	Forest Fire Management Officer
Human Interaction:	Forest Law Enforcement Officer
Safety and Health:	Forest Health and Safety Officer

<b>EMS Element</b>		Monitoring and Measurement
<b>Document Type and Control No.</b>		Output (EMS-4.5.1-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
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Monitoring and measurement parameters for significant aspects are identified in the attached tables.

Monitoring and Measurement Parameters Related to EMP-ESA Tasks						
EMP Task No.	Monitoring Question	Monitoring Indicator	Documentation	Responsible Person	EMP Task Implemented?	
					Yes	No
1	Was the training session conducted?	Proof of training	Training agenda with date and list of attendees	Smokey Ember, FMO		
2	Does the burn plan have the timing, intensity, and area restrictions applicable to prescribed fires in Dry Gulch Towhee habitat occupied habitat?	Applicable wording can be identified in burn plan	Copy of burn plan with applicable wording highlighted.	Bob Bear, District Wildlife Technician		
3	Has the burn plan used most up-to-date information for the Dry Gulch Towhee occupied habitat?	Date of data used	Specialist report includes statement that Dry Gulch towhee information coincides with most recent dates in NRIS Fauna and forest plan monitoring report	Karen Kondor, Forest Wildlife Biologist		
	Did approved burn plan have the appropriate restrictions to reduce adverse effects of fire on Dry Gulch towhee?	Applicable wording can be identified in approved burn plan	Written statement by Forest Wildlife Biologist that approved burn plan has the appropriate restrictions to reduce adverse effects of fire on Dry Gulch towhee.	Karen Kondor, Forest Wildlife Biologist		

<b>Monitoring and Measurement Parameters Related to EMP-ESA Tasks</b>						
<b>EMP Task No.</b>	<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>	<b>EMP Task Implemented?</b>	
					<b>Yes</b>	<b>No</b>
5	Were burn plan objectives and restrictions reviewed with prescribed fire crew?	Proof of review	Tailgate topic and attendee list	Steve Sparks, Burn Boss		
6	Was Burn Plan implemented as approved?	Deviations from burn plan	Post-burn review report	Steve Sparks, Burn Boss		
7	Was the post-fire occupied habitat vegetation survey conducted during the 3 <sup>rd</sup> year after burn?	Completed surveys of burn areas from 3 years prior.	Forest plan monitoring report.	Bob Bear, District Wildlife Technician		
8	Were maps for Dry Gulch Towhee occupied habitat updated to reflect acres of prescribed burn in habitat area?	Maps updated by September 30th	Specialist report includes verification that NRIS Terra was updated	Karen Kondor, Forest Wildlife Biologist		
9	Was post-fire burn intensity survey conducted in occupied habitat area?	Surveys of burn areas completed within 1 week of the burn.	Survey report	Steve Sparks, Burn Boss; Sandy Loam, Soil Scientist; Bob Bear, District Wildlife Technician		

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## Monitoring and Measurement Parameters Related to EMP-ESA Targets

EMP Target No.	Monitoring Question	Monitoring Indicator	Documentation	Responsible Person
1	Did any high intensity prescribed fires occur in Dry Gulch Towhee occupied habitat?	Acres of high intensity prescribed fire from project in Dry Gulch Towhee occupied habitat as identified in prescribed fire behavior accomplishment report	Written statement on number of acres of high intensity prescribed fire from project in Dry Gulch towhee occupied habitat.	Bob Bear, District Wildlife Technician; Karen Kondor, Forest Wildlife Biologist
2	Did any prescribed fires occur in occupied areas during the Dry Gulch Towhee breeding season (April 1 <sup>st</sup> – May 30 <sup>th</sup> ).	Acres of prescribed fire in Dry Gulch Towhee occupied habitat burned between April 1 <sup>st</sup> and May 30 <sup>th</sup> as identified in annual report to US Fish and Wildlife Service per terms and conditions of Biological Opinion. If no term and condition for this exists, specialist includes this information in forest monitoring report.	Written statement on number of acres of prescribed fire between April 1 <sup>st</sup> and May 30 <sup>th</sup> in Dry Gulch towhee occupied habitat	Bob Bear, District Wildlife Technician; Karen Kondor, Forest Wildlife Biologist

<b>Monitoring and Measurement Parameters Related to EMP-ESA Targets</b>				
<b>EMP Target No.</b>	<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>
3	Was more than 10% of occupied Dry Gulch Towhee occupied habitat treated per decade?	10 year rolling total acres of prescribed fire in Dry Gulch Towhee occupied habitat as identified in annual report to US Fish and Wildlife Service per terms and conditions of Biological Opinion. If no term and condition for this exists, specialist includes this information in forest monitoring report.	Written statement on 10-year rolling total acres of prescribed fire in Dry Gulch towhee occupied habitat	Karen Kondor, Forest Wildlife Biologist
4	Within 3 years post-burn, what percentage of the herbaceous understory vegetation within the burn area possesses structural characteristics required by the Dry Gulch Towhee?	Use Dry Gulch towhee recovery plan for herbaceous understory structural characteristics required by the Dry Gulch towhee. 3-years post-burn, in the burn area, conduct habitat survey protocol from Dry Gulch Towhee Recovery Plan.	Written statement on percentage of prescribed fire in Dry Gulch towhee occupied habitat. Report percentage by burn area.	Karen Kondor, Forest Wildlife Biologist

<b>Monitoring and Measurement Parameters Related to EMP-ESA Objectives</b>				
<b>EMP Objective No.</b>	<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>
1	Is prescribed fire impairing or reducing suitability of habitat occupied by the Dry Gulch Towhee?	<p>Herbaceous vegetation that provides structure for nesting and concealment from predators, as described in the 1994 Dry Gulch Towhee Recovery Plan (60% of the occupied habitat area has open canopy with an understory of the following:</p> <ul style="list-style-type: none"> <li>• Stem height between 24 and 36 inches</li> <li>• 75% of vegetation is grass and forbs; 25% is chaparral shrubs or coastal sage scrub species)</li> </ul>	Specialist report to file. Written every five years to evaluate progress.	Karen Kondor, Forest Wildlife Biologist

<b>Monitoring and Measurement Parameters Related to EMP-ESA Operational Controls</b>			
<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>
Has the United States Fish and Wildlife Service been notified on projects that may affect Dry Gulch Towhee?		A record in the files that notification has occurred	Karen Kondor, Forest Wildlife Biologist

## Monitoring and Measurement Parameters Related to EMP-CWA Tasks

EMP Task No.	Monitoring Question	Monitoring Indicator	Documentation	Responsible Person	EMP Task Implemented?	
					Yes	No
1	Were the fire management and field crews trained on how to minimize impacts to soil and water resources and implement and monitor Best Management Practices?	Number of fire management and field crews trained annually.	Training Improvement Program System (TIPS)	Employee Supervisor and technical resource specialist.		
2	Were high-risk geomorphic features, such as landslide prone areas that could contribute excess sediment and /or nutrients to hydrologic system, identified?	Accomplished/Not Accomplished	Specialist Report	Forest Geologist: Rob Granite; and Forest Hydrologist :Muddy Watters		
3	Were soil types of moderate-high hazard ratings identified and interpretation incorporated in burn plan?	Accomplished/Not Accomplished	Specialist Report	Forest Soils Scientist: Sandy Loam		
4	Were resource standards and objectives from decision incorporated into burn plan?	Accomplished/Not Accomplished	Completed burn plan with resource objectives	Fire Management Officer: Smokey Ember		
5	Were an appropriate suite of BMPs applicable to reducing sediment and nutrient delivery from prescribe fire activities identified for prescribed fire project?	Accomplished/Not Accomplished	Specialist Report	Forest Hydrologist: Muddy Watters and Forest Soils Scientist: Sandy Loam		

<b>Monitoring and Measurement Parameters Related to EMP-CWA Tasks</b>						
<b>EMP Task No.</b>	<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>	<b>EMP Task Implemented?</b>	
					<b>Yes</b>	<b>No</b>
6	Was the burn plan with appropriate suite of BMPs for reducing sediment or nutrient movement approved?	Approved/Not Approved	Signed burned plan	District Ranger: Dudley Dooright		
7	Was burn plan reviewed in the field one hour prior to implementation?	Accomplished/Not Accomplished	Post Burn Evaluation required. FSM 5140	Burn Boss: Steve Sparks		
8	Was the Burn Plan implemented?	Accomplished/Not Accomplished	Project completed	Burn Boss: Steve Sparks		
9	Was a Water Quality Monitoring Plan developed and implemented?	Accomplished/Not Accomplished	Monitoring plan and implementation report on file	Forest Hydrologist: Muddy Watters; District Hydro Technician: Alice Lake		
10	Were BMPs implemented and effective?	Best Management Practices Evaluation Procedure (BMPEP) direction. FSM 2532-02	Best Management Practices Evaluation Report and Database input	Designated Forest or District personnel trained and supervised by Forest Hydrologist: Muddy Watters		

**Monitoring and Measurement Parameters Related to EMP-CWA Tasks**

EMP Task No.	Monitoring Question	Monitoring Indicator	Documentation	Responsible Person	EMP Task Implemented?	
					Yes	No
11	Has watershed condition been maintained or improved?	Departure from range of natural variability using reference or baseline condition	Regional Stream Survey/Inventory protocols. (metrics keyed to sediment, i.e. pool tail fines, residual pool volume, pebble count or macro invertebrate assessments)	Forest Aquatic Specialist: Marco Invertebrate; Forest Hydrologist: Muddy Watters		
12	Was data obtained from monitoring protocols implemented during project developed into a monitoring report?	Accomplished/Not Accomplished	Monitoring Report in project file	Forest Hydrologist: Muddy Watters and Forest Soils Scientist: Sandy Loam		
13	Was a monitoring report provided to Forest Leadership Team?	Accomplished/Not Accomplished	Documented FLT meeting notes	Forest Hydrologist: Muddy Watters and Forest Soils Scientist: Sandy Loam		

**Monitoring and Measurement Parameters Related to EMP-CWA Targets**

<b>EMP Target No.</b>	<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>
1	Did we violate State sediment or nutrient standards?	Exceedance of State table values by more than 5% of samples collected.	State xxx guidelines and protocols for determining compliance with State Water Quality Standards.	Forest Hydrologist: Muddy Watters
2	Was there a departure of sediment metrics two years after prescribed fire activity?	Change in baseline condition. Based on SCI protocols.	Specialist Report for prescribed fire activity. Done Bi-Annually	Forest Hydrologist: Muddy Watters
3	Were BMPs implemented for project?	Percent of BMPs implemented	BMPEP Database	Regional Hydrologist: Rip Tide

<b>Monitoring and Measurement Parameters Related to EMP-CWA Objectives</b>				
<b>EMP Objective No.</b>	<b>Monitoring Question</b>	<b>Monitoring Indicator</b>	<b>Documentation</b>	<b>Responsible Person</b>

1	Did the implementation of BMPs for the prescribed fire activity prevent degradation to the hydrologic system?	Completion of BMP implementation and effectiveness evaluations may identify validation monitoring and evaluation needs that would be accomplished through subsequent administrative studies or research. On the ABC Forest an additional in-channel evaluation per Regional direction (BMPEP Handbook) will be conducted in a watershed that has prescribed fire activities. Evaluations will be done yearly for a five year period.	A yearly report will be completed as per direction on Best Management Practices Evaluation Program Handbook	Forest Hydrologist: Muddy Watters
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<b>EMS Element</b>		Nonconformance/Corrective, Preventive Action
<b>Document Type and Control No.</b>		Output (EMS-4.5.2-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
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CORRECTIVE & PREVENTIVE ACTION REQUEST FORM	
<b>Criteria in Nonconformance (i.e. it may be a procedure, a schedule, etc)</b>	
<b>Mechanism for Determination on Nonconformance (How was nonconformance discovered?)</b>	
<b>Root Cause(s) of nonconformance</b>	

**CORRECTIVE & PREVENTIVE ACTION REQUEST FORM**

**Identifier of nonconformance and Date**

**Action needed to mitigate nonconformance (if necessary)**

**Recommended Corrective or Preventive Action (Address if, and how, EMS needs to be modified)**

Person assigned to take action:	Priority	Date assigned:	Date completed	Initials
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<b>EMS Element</b>		Records
<b>Document Type and Control No.</b>		Output (EMS-4.5.3-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
<b>Modification No:</b>	<b>Modified By:</b>	<b>Modification Date:</b>
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Minimum Retention schedule:

- Training records: 5 years
- Audit records: indefinite
- Management reviews: indefinite
- Operational data, including monitoring and measurement data: 5 years
- Equipment calibration, maintenance records: 5 years
- Inspection records: 3 years
- Environmental questionnaires: 5 years
- All other records: 1 year

Retention time is recorded on the document.

EMS Records are maintained in ABC National Forest Central Filing System.

EMS Records that are in electronic format will be maintained on the ABC National Forest server.



<b>EMS Element</b>		EMS Audit
<b>Document Type and Control No.</b>		Output (EMS-4.5.4-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Audit records for independent auditors, conformance audit reports, and results.

<b>EMS Element</b>		Management Review
<b>Document Type and Control No.</b>		Output (EMS-4.6-001-N0)
<b>Approved by:</b>	<hr/> Snidely J. Whiplash Forest Supervisor, ABC National Forest	<b>Date approved:</b>
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Minutes of Management Review meeting.

Agenda of Management Review meeting.

List of attendees of Management Review meeting.

Forest Supervisor signed statement as to continuing suitability, adequacy, and effectiveness of the ABC EMS.

# Glossary

# End Notes

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<sup>i</sup> *Note: It is not required that copies of all documents be available at each site. This is a decision that is made within the EMS. Documents that you do not create but are integral to the EMS; and would be equivalent to the Level 1 or Level 2, do not need to be copied and numbered and put into the EMS. They can simply be identified as a third kind of document known as an “externally controlled document”, which can be incorporated by reference. As long as you explain how you make sure you have current ones. This typically applies to operator manuals, etc.*

<sup>ii</sup> *Note: ‘documents’ are different than “records” as defined by ISO 14001. A document is something that is a “living” document and needs to be kept controlled so it is current. The record is a once and done piece of evidence used to verify that something was done. For example, a training procedure is a document to be controlled, but the sign-in sheet for a specific class is a “record” that needs only be stored as per section 4.5.3 and not identified in the EMS Documentation section.*

<sup>iii</sup> *Note: those tasks that are associated with significant aspects and will always be a procedural requirement can be identified as operation controls in this section or left as tasks and referenced as was done in this example.*