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# **Chapter 1—Purpose of and Need for Action**



The United States Department of Agriculture, Forest Service, Sequoia National Forest, prepared this final environmental impact statement (FEIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This FEIS discloses the ongoing, indirect, and cumulative environmental effects that would be expected as a result of carrying out the proposed action or other alternatives. The alternatives in this FEIS do not propose any specific projects or activities. Instead, the management direction (strategies, objectives, and standards and guidelines) employed for each alternative is modeled and analyzed. Project-specific decisions will be made later, after more detailed analysis and additional public involvement occurs.

Volume 1 of this FEIS is organized into six chapters:

**Chapter 1. Purpose of and Need for Action:**

This chapter briefly describes the uniqueness of the Monument and the elements that make it a special area that needs careful management. It also describes the purpose of and need for this plan amendment, the decision to be made, and the proposed action developed to address the purpose and need. Chapter 1 also describes the public involvement process, including the iterative, collaborative discussions, which led to the identification of issues and the alternative approaches to resolving those issues.

**Chapter 2. Alternatives, including the Proposed Action:**

This chapter includes a detailed description of the alternatives (including the no action, proposed action, and the other action alternatives) that were developed in response to comments received from the public during scoping. It also includes comparisons of the alternatives and how they respond to the issues, as well as a discussion of other alternatives that were considered but eliminated from detailed study.

**Chapter 3. Affected Environment:** This chapter describes the current condition of Monument resources that may be affected by the alternatives.

**Chapter 4. Environmental Consequences:**

This chapter describes the environmental consequences that are expected if any of the alternatives is carried out.

**Chapter 5. List of Preparers and Technical**

**Consultants:** This chapter includes a list of the preparers and the agencies consulted during the development of this FEIS.

**Chapter 6. Distribution List:** This chapter lists the agencies, organizations, and individuals to whom this FEIS is sent.

Volume 2 of this FEIS contains the appendices, which include more detailed information to support the analysis presented in this FEIS.

Additional documentation, including more detailed analysis of Monument resources, is located in the administrative record on file at the Sequoia National Forest Supervisor's Office in Porterville, California.

## Background

On April 15, 2000, President William J. Clinton signed the presidential proclamation (Clinton proclamation) that established the Giant Sequoia National Monument (Monument). The Monument is located in south-central California and is administered by the Forest Service through the Sequoia National Forest (shown in the following map).

The Monument originally encompassed 327,769 acres, but additional acreage has been acquired so that the acreage in the Monument is now 328,315 acres.<sup>1</sup>

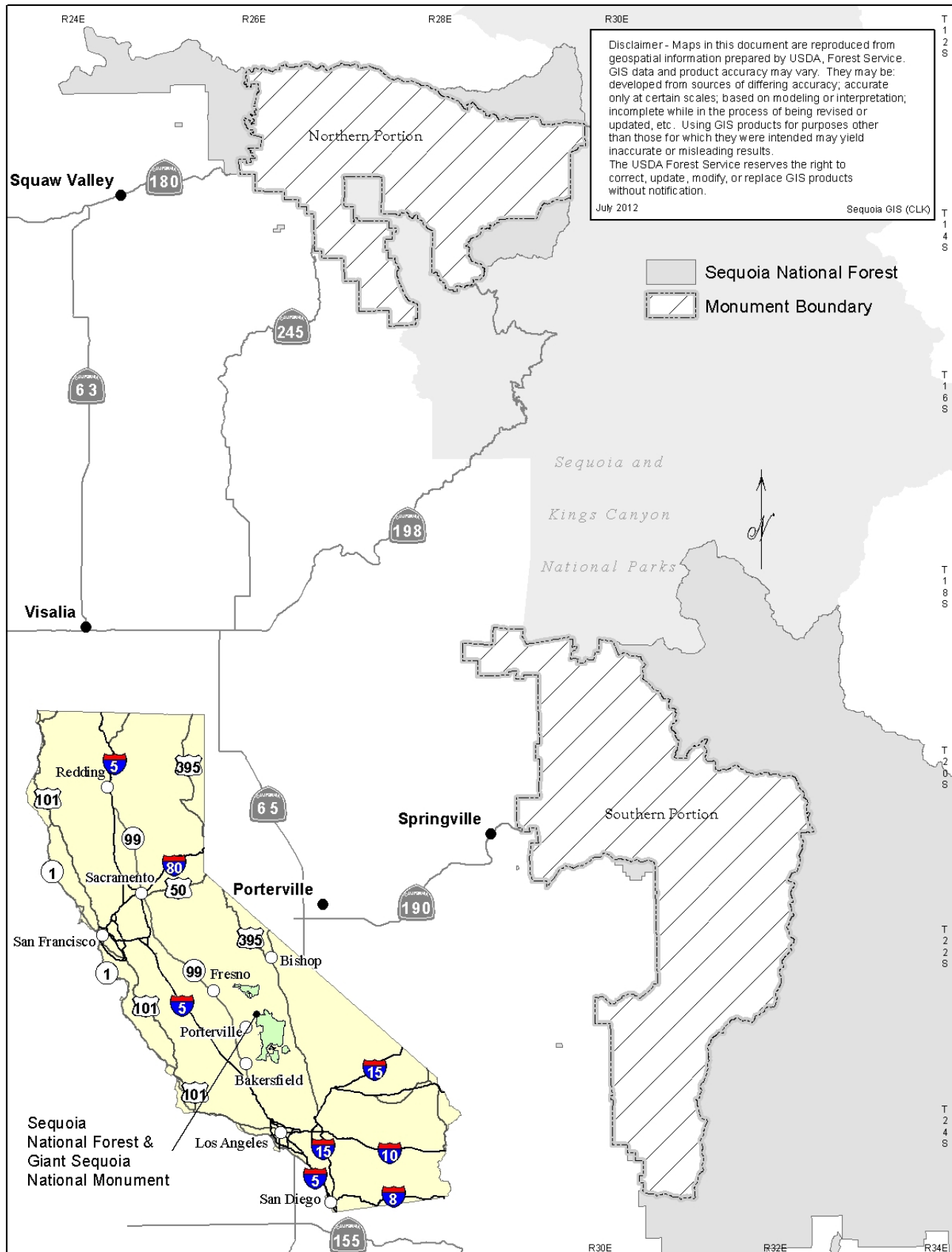
The Sequoia National Forest, named for the world's largest trees, contains the greatest concentration of giant sequoia groves in the world. Special areas are often designated through laws passed by Congress (for example, the Kings River Special Management Area). Less often special areas are designated by the president. In the case of giant sequoias, several presidents have made proclamations (in the form of executive orders) requiring their protection. Instead of the often lengthy process of passing a law, President William J. Clinton used his authority under the Antiquities Act to establish the Giant Sequoia National Monument:

The President of the United States is authorized, in his discretion, to declare by public proclamation

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1. This does not include state and private land that lies within the Monument boundary.

Map 1 Vicinity Map



historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with proper care and management of the objects to be protected. When such objects are situated upon a tract covered by a bona fide unperfected claim or held in private ownership, the tract, or so much thereof as may be necessary for the proper care and management of the object, may be relinquished to the Government, and the Secretary of the Interior is hereby authorized to accept the relinquishment of such tracts in [sic] behalf of the Government of the United States.<sup>(2)</sup>

The April 2000 Presidential Proclamation (Clinton proclamation) designated the Monument because:

The rich and varied landscape of the monument holds a diverse array of scientific and historic resources. Magnificent groves of towering giant sequoias, the world's largest trees, are interspersed within a great belt of coniferous forest, jeweled with mountain meadows. Bold granitic domes, spires, and plunging gorges texture the landscape (Clinton 2000, p. 24094).

In his proclamation, President Clinton also speaks to other factors that make the Monument a truly unique and special area: the extraordinary diversity of plant species and communities, the interconnected vegetation types that provide essential habitat for wildlife, and the rich history of human occupation and use over the last 8,000 years. The Proclamation recognizes as well the need for ecological restoration and the outstanding opportunities that exist to study the consequences of different approaches to restore landscapes and forest resilience (Clinton 2000, p. 24097).

The unique and special features of the Monument—the giant sequoia groves, the ecosystems that support them, and the other objects of interest—are what make the Monument what it is: a special area

that merits careful management, protection, and preservation.

The Clinton proclamation required establishment of a Monument management plan within three years. A Giant Sequoia National Monument FEIS Record of Decision was signed into effect on January 12, 2004. The 2004 management plan was challenged and lawsuits were filed in the United States District Court for the Northern District of California on January 27, 2005.<sup>(3)</sup>

In October 2006, Federal District Court Judge Charles Breyer permanently enjoined implementation of the 2004 decision and remanded the plan to the Forest Service “...so that a proper Monument Plan can be developed in accordance with the Presidential Proclamation...and in compliance with the National Environmental Policy Act (NEPA)...”<sup>(4)</sup>

This final environmental impact statement (FEIS) has been prepared in compliance with the court order, and to conduct the environmental analysis necessary to establish a Monument management plan. Three documents have been produced: an FEIS (in two volumes) that contains the environmental analysis of the various alternatives, a Monument Plan that includes the strategic direction for the Monument, and a record of decision (ROD) that explains the decision and the rationale behind the decision. This FEIS focuses on the potential environmental effects of alternatives that were designed to amend existing management direction and comply with the Clinton proclamation.

## Planning Rule

The 2012 Planning Rule, released January 26, 2012, is the current planning rule (36 CFR Part 219). At Section 219.17(b)(3), the rule states:

For plan development, plan amendments, or plan revisions that were initiated before [insert date of publication in the Federal Register], the responsible official may complete and approve the plan, plan amendment or plan revision in conformance with

2. Antiquities Act, June 8, 1906, as amended (34 Stat. 225, 16 U.S.C. 431-433, Proclamation of national monuments, reservation of lands, etc.).

3. (*Sierra Club, et al., v. Bosworth, et al., No. C-05-00397 CRB and March 3, 2005 (People of the State of California, ex rel.*

*Lockyer v. United States Department of Agriculture, et al., No. C-05-00898 CRB).*

4. (*Calif. Ex rel. Lockyer v. USDA, No. C-05-00898 (N.D. Cal., Oct. 11, 2006).*)

the provisions of the prior planning regulation, including its transition provisions (74 FR 67062, December 18, 2009), or may conform the plan, plan amendment, or plan revision to the requirements of this part...

The Notice of Intent for this amendment to the 1988 Sequoia National Forest Land and Resource Management Plan (Forest Plan) for the Monument was published in the *Federal Register* on January 25, 2008. The responsible official for this plan amendment is the Regional Forester.

The Regional Forester has decided to use the provisions of the prior 1982 planning regulation, as provided for in the transition provisions of the 2000 Planning Rule (36 CFR 219.35(a) and (b)). This amendment has been prepared using the process outlined in the 1982 planning regulations, while considering the best available science as required by the 2000 rule transition provisions (36 CFR 219.35(a) [2010]). While the Forest Service will explicitly approve this project under the 1982 rule, it has also implicitly evaluated the project under the 2000 transitional, best available science rules.

The 2000 rule, which was never invalidated by a court, is the rule that is currently in effect. The Forest Service is utilizing the transition provisions from the 2000 rule for plan revisions and amendments pending finalization of a new rule. These transition provisions allow for the use of the procedures from the 1982 rule.

## Current Management Direction

Current management direction consists of a complex mix of overlapping direction from several sources, including the 1988 Sequoia National Forest Land and Resource Management Plan (Forest Plan) (USDA Forest Service 1988a) and the 1990 Sequoia National Forest Land Management Plan Mediated Settlement Agreement (MSA), as amended by the 1994 Kings River Wild and Scenic River and Special Management Area Implementation Plan (KRSMA), the 2001 Sierra Nevada Forest Plan Amendment (2001 SNFPA) (USDA Forest Service 2001c), and the 2007 Sierra Nevada Forest Management Indicator Species Amendment (2007 SNF MIS) (USDA

Forest Service 2007a). The Sequoia National Forest is subdivided into land allocations (management areas with associated management emphasis) with established management direction (standards and guidelines). Current Forest Plan management areas and management direction are described in detail in the description of Alternative A, the no action alternative, in Chapter 2 of this FEIS.

The Judgment for Case 3:05-cv-00898-CRB, Document 76, Filed 10/11/2006, Page 1 of 3, United States District Court for the Northern District of California, Judge Charles R. Breyer, ruled that the Monument area would be managed as follows:

In the interim, and until the Forest Service issues a new Management Plan, the Monument shall be managed consistent with the Monument [Clinton] Proclamation of April 15, 2000, and in accordance with direction from the 1988 Sequoia National Forest Land and Resource Management Plan, as amended by the 1990 Mediated Settlement Agreement and the 2001 Sierra Nevada Forest Plan Amendment.

Subsequent to this judgment, the Record of Decision, June 2007, for the Sierra Nevada Forests Management Indicator Species Amendment further amended the Sequoia Forest Plan, and this direction has been incorporated into the current management of the Monument.

Other sources of management guidance pertaining to the Monument are as follows.

## Mediated Settlement Agreement (MSA)

The Forest Plan Record of Decision was appealed by several individuals and organizations. A mediator was brought in to work with the various appellants to resolve the many issues raised. The result was the 1990 Sequoia National Forest Land Management Plan Mediated Settlement Agreement (MSA) (USDA Forest Service 1990b). The MSA states, “In the interim period between signing this Agreement and finalizing an amendment incorporating this Agreement into the Plan, the Parties agree that the provisions of this Agreement shall be implemented according to the schedules indicated throughout this document” (USDA Forest Service 1990b, p. 4).

## President Bush Proclamation (Bush proclamation)

In 1992, President George H.W. Bush issued a proclamation for Giant Sequoia in National Forests (Bush 1992 [July 14]).<sup>5</sup> The Bush proclamation was specific to naturally-occurring old-growth sequoia groves located in the Sequoia, Sierra, and Tahoe National Forests in California. The Bush proclamation noted that the groves are being managed for biodiversity; perpetuation of the species; public inspiration; and spiritual, aesthetic, recreational, ecological, and scientific values. The Bush proclamation contained several goals, including that the Forest Service delineate the location of such giant sequoia groves, as set forth in the MSA; withdraw the groves from mineral and geothermal leasing laws; and subsequently provide the Secretary of the Interior with a list of the designated groves and with a description of the boundaries of each of the groves.

## President Clinton Proclamation (Clinton proclamation)

The Clinton proclamation (Clinton 2000) establishing the Monument provided direction that is clear for some management direction, while open to interpretation for other management direction. The substantive direction provided by the Clinton proclamation will be addressed throughout the alternatives in this FEIS. In terms of Monument management, the Clinton proclamation stated, “The final decision to issue any management plans and any management rules and regulations rests with the Secretary of Agriculture. Management plans or rules and regulations developed by the Secretary of the Interior governing uses within national parks or other national monuments administered by the Secretary of the Interior shall not apply within the Giant Sequoia National Monument” (Clinton 2000, p. 24098).

5. Proclamation 6457, Giant Sequoia in National Forests by the President of the United States of America. Federal Register. 57: 31627. <http://www.presidency.ucsb.edu/ws/index.php?pid=47384> (Accessed 29 October 2009).

## Purpose and Need

The purpose of this FEIS is to analyze alternative management strategies in order to clarify management direction for the land and resources within the Giant Sequoia National Monument (Monument).

The Court found that: “...the convoluted ‘overlay’ of previous Forest Service analyses with the intent and strategy of the Proclamation is incomprehensible and not readily understandable.” (*Calif. Ex rel. Lockyer v. USDA*, No. C-05-00898 (N.D. Cal., Oct. 11, 2006)). The current management direction (No Action, Alternative A) is a complicated mess of confusing direction that is difficult to follow and even more difficult to understand.

A single comprehensive management plan is needed that will protect and preserve the unique features of the Monument. This plan is expected to protect the giant sequoia groves and the other objects of interest, and encourage continued public and recreational access and use. Although many valuable objects of interest are identified and must be protected, the major purpose of the Monument is to protect and maintain the giant sequoia groves and the rare giants within their unique and natural habitat.

The Monument management plan describes the long-term vision and the strategic direction that is consistent with the Clinton proclamation and will guide management over the next 10 to 15 years. Moreover, the Monument Plan will establish a transportation plan that provides for visitor enjoyment, and understanding about the scientific and historical objects consistent with their protection.

For the purposes of managing the Monument, and based on public and Forest Service interpretation of the Clinton proclamation, the objects of interest include:

- The naturally-occurring giant sequoia groves and their associated ecosystems, individual giant trees, rare and endemic plant species such as the *Springville clarkia*, and other species listed as threatened or endangered by the Endangered Species Act (ESA), or sensitive by the Forest Service.
- The ecosystems and outstanding landscapes that surround the giant sequoia groves.

- The diverse array of rare animal species, including the Pacific fisher, the great gray owl, the American marten, the northern goshawk, the peregrine falcon, the California spotted owl, the California condor, several rare amphibians, the western pond turtle, and other species listed as threatened or endangered by the ESA, or sensitive by the Forest Service.
- The paleontological resources in meadow sediments and other sources that have recorded ecological changes in such markers as fire regimes, volcanism, vegetation, and climate.
- The limestone caverns and other geological features, including granite domes, spires, geothermally-produced hot springs and soda springs, and glacial and river-carved gorges.
- Cultural resources, both historic and prehistoric, which provide a record of human adaptation to the landscape and land use patterns that have shaped ecosystems.

## Decision to be Made

The fundamental decision to be made is the selection of an alternative or combination of alternatives that will be the basis for the management plan for the Giant Sequoia National Monument. Within the framework of that decision, the Forest Service will:

1. Identify the goals for the Monument (Desired Conditions) (36 CFR 219.11(b)).
2. Identify suitable uses for each land allocation or management area in the Monument (36 CFR 219.11(c)).
3. Establish the Strategies, Objectives, and Standards and Guidelines for management of the Monument (36 CFR 219.11(c), 219.13 to 219.27).
4. Evaluate and recommend Special Area designations (36 CFR 219.17(a), 36 CFR 297).
5. Identify the Monitoring and Evaluation requirements for the Monument (36 CFR 219.11(d)).
6. Establish a Transportation Plan for the Monument (Clinton 2000, p. 24098).

## Proposed Action

The proposed action, sent out during the scoping period, was a general description of the desired conditions that articulate the long-term vision or goals for the Monument, the strategies and objectives that define the strategic direction for management, and the standards and guidelines that will be used for future site-specific projects. The proposed action was designed to meet the purpose and need by consolidating the existing array of management direction into a single comprehensive plan that describes the management direction for the restoration, maintenance, or protection of the land and resources within the Monument. Although many objects of interest are identified, the Clinton proclamation is very clear that the purpose of the Monument is the protection of the giant sequoia groves, the objects of interest, and the ecological processes that support them.

## Public Involvement

In order to fully involve people in the process of developing a management plan for the Monument, the Sequoia National Forest offered opportunities for interested people to engage in a collaborative process intended to help facilitate its development and to analyze an appropriate range of alternatives. Traditional and non-traditional approaches have been used that encourage iterative discussion, ensure that the planning process is transparent, and make certain that ideas presented for consideration are legal, fair, and practical. The collaborative process places an emphasis on understanding the complexity of the issues and the strategies that may be employed to resolve them, rather than on total agreement on the resolution of individual issues.

## Initial Plan Development

The original notice of intent was published in the *Federal Register* on June 8, 2001. A scoping letter and proposed action were mailed to interested people on the same date. Both the Notice of Intent and the scoping letter asked for public comment on the proposal during the comment period that extended from June 8, 2001 to July 24, 2001. The public involvement/collaborative process included:



- Public meetings on the proposed action held in Sacramento, Los Angeles, Clovis, Bakersfield, and Porterville, California between July 10 and July 16, 2001. During these meetings, the Monument planning team presented an overview of the proposed action, engaged people in conversations, answered questions, discussed the timeline, and encouraged public comment.

Over 2,500 comments were received during the scoping period. Using comments from the public, tribal consultations, the Scientific Advisory Board, and other agencies or organizations, the interdisciplinary team developed a list of potential issues related to the management of the Monument.

- In January 2002, a letter was mailed to interested people requesting participation in and information for the Roads Analysis Process that is a part of the Monument planning process (see Appendix E in the 2004 Giant Sequoia National Monument FEIS). Opportunities to meet with the planning staff were offered. Meetings with two groups were scheduled and held in February 2002.
- Public meetings were held in Porterville on March 11, 2002 and in Bakersfield on March 12, 2002 to discuss the development of alternatives. At these meetings, the Monument planning team provided information on the alternatives being developed for managing the Monument, answered questions, and encouraged public involvement.
- The initial draft environmental impact statement (DEIS) was released for public comment on December 2, 2002. The full DEIS was available for review in a variety of formats. Forest staff requested that comments be submitted in written form or by e-mail.
- Finally, public meetings were held to discuss the DEIS in Porterville, Bakersfield, Los Angeles, and Fresno, California between February 10 and February 20, 2003. The purpose of these meetings was to review and discuss the DEIS.

The public comment period for the DEIS ended March 17, 2003. A total of 16,122 letters, postcards, public meeting forms, e-mails, and faxes containing comments were received from individuals; tribes, groups, and organizations; environmental groups;

businesses; grazing permittees; and county, state, and federal government entities.

In January 2004, the Final Environmental Impact Statement (FEIS) and Record of Decision were published and signed into effect. Two lawsuits were filed challenging the decision. In October 2006, Federal District Court Judge Charles Breyer permanently enjoined implementation of the 2004 decision and remanded the plan to the Forest Service (see discussion in the Background section of this chapter).

After the plan was remanded to the Forest Service, the Sequoia National Forest's forest supervisor restarted the planning process. As part of the current public involvement process, the Forest Service engaged a variety of stakeholders in a collaborative process designed to help develop the Monument Plan and EIS as required by NEPA. The intent of this collaborative approach to planning is to involve people throughout the planning process and to ensure that this process is transparent to all. In addition, public involvement focuses on iterative conversations with stakeholders and the general public, and on being open to possibilities that are legal, fair, and practical.

### **Current Plan Development**

On January 25, 2008, a notice of intent was published in the Federal Register to renew the planning effort for the Monument and to establish that the management plan would be created using the 1982 planning rule procedures. The initial scoping period was for a full year.

A third-party facilitator was hired through the U.S. Institute for Environmental Conflict Resolution to lead a collaborative effort among Forest Service employees and interested people, including environmental groups, community leaders, recreation groups, forest products industry representatives, homeowner associations, and others. These people were offered the opportunity to collaboratively discuss the development of a strategic management plan for the Monument.

Facilitated meetings were held in December 2007; January, February, May, June, August, October, November, and December 2008; and January,

February, March, April, May, and June 2009. These meetings focused on recreation management and resulted in the formation of a working group that developed ideas for the Forest Service to consider in the management plan. Members of this group continued to meet after these meetings and have formed the Giant Sequoia National Monument Association.

Other public meetings were held in May, July, September (field trip), October, and November 2008, focusing on ecological restoration and the fuels and vegetation management strategies that may be used. These meetings included a field trip in September, a demonstration of an environmental modeling tool, and discussions of the Stewardship Fireshed Assessment developed by the Forest Service.

During 2008 and 2009, the Sequoia National Forest and a number of interested people evaluated several decision support tools, including the Strategic Decision Support (SDS) model (which includes the Stewardship Fireshed Assessment tool) and the Multi-Criteria Decision Support (MCDS) model. As a result of public and agency meetings, the SDS was selected as the assessment tool to predict effects to vegetation, fuels, and habitat conditions, and the MCDS decision framework tool was selected to use during scoping as described in the following paragraphs (for more information, see Appendix J of this FEIS).

A website was developed to collect public comments on the Clinton proclamation and the Science Advisories from the Scientific Advisory Board from July through August 2008. A number of public comments were received on the interpretation of terms used in the Clinton proclamation and on whether the scientific advisories used to develop the 2004 Giant Sequoia National Monument EIS are still relevant for this planning effort. These comments were summarized, used to prepare an interpretation of the key principles of the Clinton proclamation by the Forest Supervisor (Terrell 2009), and have been considered in developing this EIS.

On March 18, 2009, a new notice of intent and scoping letter were issued with a more detailed purpose and need statement and a proposed action for public comment. This 45-day scoping and comment period included a new web-based opportunity for

people to make comments. The Monument Public Comment Portal was developed so that people were able to read the scoping letter and related documents on-line, and comment on the proposed action using the web site.<sup>6</sup> The scoping period resulted in 552 comments from 126 respondents. These comments were received on the public comment portal, at the public workshops, and by e-mail, mail, and FAX. Using these comments, the interdisciplinary team developed a list of issues to address (see the issues section in this chapter).

Four public workshops were held in April 2009 so that people had the opportunity to comment on giant sequoia grove management. These workshops were held in the cities of Visalia, Lake Isabella, Porterville, and Dunlap, California.

Running concurrently with the scoping period was a public opportunity to use a multiple criteria decision support (MCDS) model, the Values and Interest-Based Explorer (VIBE). This web-based tool helped users to see how the values they placed on different criteria could affect a decision among several pseudo alternatives, and gave them an idea of how the decision process works. At the general scoping stage, the MCDS consisted of a “decision framework.” The decision framework was developed collaboratively through interviews, work with the Forest Service, and 12 public meetings held prior to general scoping. During public meetings, as well as on-line, the decision framework was refined to help the interdisciplinary team understand how values and interests were compared and weighed by the public (Von Winterfelt and Edwards 1986, Saaty 1992a).

After the scoping period, MCDS was used again in public meetings to adjust the decision framework based on scoping comments, and to refine the alternatives considered in detail (see Chapter 2). Two public workshops were held to discuss the draft alternatives developed in response to public comment and revisit the MCDS tool. An evening workshop was held at the Visalia Convention Center on June 18, 2009, and an all day workshop was held at the Sequoia National Forest Supervisor’s Office in Porterville on June 19, 2009.

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6. This virtual tool will be used throughout the planning process for public consultation and comment.

The Forest Service and U.S. Institute for Environmental Conflict Resolution used MCDS on-line during the DEIS comment period. The decision framework contains the amended criteria and subcriteria, the alternatives, and the ratings for each alternative. The ratings are based on the analysis that is presented in Chapter 4 of this FEIS.

To gain input from the Tule River Indian Reservation (TRIR) tribe and landowners adjacent to the Monument, Forest Service employees met with different members of the tribe and resources staff. Two formal tribal consultation meetings were held with the TRIR Tribal Council, on April 14 and July 20, 2009. In addition, three informal meetings were held with TRIR tribal forestry and environmental staff members on February 23, August 14, and August 31, 2009, to discuss the Monument planning process and the MSA. Forest Service employees met with the Elders Council on October 14, 2009, and attended four quarterly Forest Tribal Forum meetings on January 14, April 30, August 19, and December 17, 2009.

From November 2008 through May 2009, the Sequoia National Forest conducted a comprehensive review to determine which of the provisions of the MSA have already been addressed in the Forest Plan as amended. This review concluded that a number of provisions were never fully incorporated into the Forest Plan. On April 13 and May 19, 2009, meetings were held with the appellants who were parties to the MSA to discuss which provisions may be applicable to the Monument. No formal conclusions were reached in these meetings. Applicable provisions of the MSA are addressed in this FEIS, and the results of this review are included in Appendix E of this FEIS. The MSA review documents are on file at the Sequoia National Forest Supervisor's Office in Porterville, California.

The draft environmental impact statement (DEIS) and draft Monument Plan were released for public comment on August 6, 2010. Both volumes of the DEIS and the Monument Plan were available for review in hard copy, on compact disc (CD), and on the Sequoia National Forest website: [http://www.fs.fed.us/r5/sequoia/gsnm\\_planning.html](http://www.fs.fed.us/r5/sequoia/gsnm_planning.html). Comments were requested using the Public Commenting portal (<http://epubplus.limehouse.com/portal/>) and in a transmittal letter. A correspondence database for e-mails was also made available.

Public meetings were held as follows:

- Wednesday, September 15, 2010, from 6:00 to 9:00 p.m., at the Elks Lodge in Porterville.
- Saturday, September 18, 2010, from 1:00 to 4:00 p.m., at the Doubletree Hotel in Bakersfield.
- Tuesday, September 21, 2010, from 6:00 to 9:00 p.m., at the Hilton Garden Inn in Clovis.
- Wednesday, September 22, 2010, from 6:00 to 9:00 p.m., at the Hyatt Regency in San Francisco.
- Wednesday, October 6, 2010, from 6:00 to 9:00 p.m., at the Hyatt Regency in Valencia.
- Thursday, October 7, 2010, from 6:00 to 9:00 p.m., at the Hilton in Pasadena.

The meetings were designed to: (1) offer a brief presentation of the information in, and the layout of, the DEIS and draft management plan; (2) help people understand the NEPA process and identify the information most important to them, so that they could make informed comments on the documents; and

(3) allow the public ample time to speak individually or in small groups with specialists to answer specific questions and concerns. Forms were available at each of these meetings for submitting written comments on the DEIS.

The public comment period for the DEIS and draft management plan ended December 3, 2010. A total of 79,088 letters, postcards, public meeting forms, e-mails, and faxes containing comments were received from individuals; preservation and environmental groups; businesses; county, state, and federal government entities; tribal governments; place-based groups; special use permittees; wood products associations; and motorized and non-motorized recreation groups.

### **Integrating Science**

A Scientific Advisory Board (Board) was created with the purpose of providing scientific guidance during the development of the initial Monument management plan. The Board operated under a Department of Agriculture charter, which was signed August 31, 2000. It consisted of eight members, representing a range of scientific disciplines including the physical, biological, and social sciences. Members included:

- **Chairperson, Dr. Paul Waggoner**, Department of Forestry and Horticulture, Connecticut Agricultural Experiment Station
- **Vice Chairperson, Professor Jeanne Clarke**, University of Arizona
- **Dr. Douglas Piirto**, Professor, California Polytechnic University
- **Dr. David M. Graber**, Senior Science Advisor, National Park Service
- **Dr. Karen Nissen**, Anthropologist/Archaeologist
- **Dr. Daniel Tormey**, Principal, Environmental Consultant, Entrix, Inc.
- **Dr. Nate Stephenson**, Research Ecologist, U.S. Geological Survey
- **Dr. George Woodwell**, Woods Hole Research Center

The Board offered assistance to the Forest Service in the form of advisories. The advisories were based on only those decisions arrived at by a full consensus of the board members present who had participated in the advisory's full deliberation. The Board met six times and developed 27 advisories by unanimous consent. Board meetings were open to public attendance and were also open to public comment during the first 30 minutes of each meeting.

Since the Sequoia National Forest initiated the collaborative planning process in October 2007, a number of tasks were completed that link science to management, in particular for the development of the Monument Plan. These included:

- Reconvening a portion of the Scientific Advisory Board (SAB) formed in 2001 (which functioned through 2003). In May 2008, the Forest Service met with former members of the SAB to review the science advisories that were developed between 2001 and 2003. The group discussed whether the science advisories are still relevant, how they are being implemented, and how they may be used in developing a new EIS and Monument Plan. In July 2008, the Forest Service provided a public comment period for reviewing the advisories and determining their relevance to the present planning process. A number of public comments were received on the interpretation of terms used in the Clinton proclamation.
- These comments were summarized in a report and then used to prepare an interpretation of the key principles of the Clinton proclamation by the Forest Supervisor (Terrell 2009). These interpretations of the Monument Proclamation were considered in developing this FEIS.
- In September 2008, the Forest Service held a Southern Sierra Science Symposium to share current scientific information with the interested public, academia, and research scientists. The symposium focused on five agents of change affecting the southern Sierra region: climate change, fire, forest management, pollutants (air), and invasive species. The goal of the symposium was to develop a program of research, resource management, and public education to help mitigate the impacts of agents of change (including climate change) on ecosystems of the southern Sierra Nevada.

As a result of the symposium, personnel from the host agencies--including the National Park Service, the Forest Service Pacific Southwest Research Station, and the U.S. Geological Survey—developed an adaptive management strategy to address climate change in the southern Sierra Nevada. In June 2009, this group produced “A Strategic Framework for Science in Support of Management in the Southern Sierra Nevada Ecoregion” (Nydic et al. 2011a).

- In October 2009, a Science Review Panel was convened to formalize a process for reviewing how the interdisciplinary team integrated current science into the development of the DEIS and Monument Plan. A science review determines whether an analysis or decision document is consistent with the best available science. The review is accomplished by judging whether scientific information of appropriate content, rigor, and applicability has been considered, evaluated, and synthesized in the documents that underlie and record land management decisions.
- On November 10, 2009, a public meeting was held in Visalia to introduce the Science Review Panel process and the scientists who reviewed the EIS and Monument Plan. At that meeting, the public was asked to submit scientific resources for the panel to consider as they review the Forest Service documents.

- In April 2010, the Science Review Panel conducted a science consistency review of the draft EIS and Monument Plan. The panel of scientists prepared a report of its review of the draft documents, which was published in Appendix F of the DEIS.
- Another meeting of the Science Review Panel was held on October 12, 2010 from 5:00 to 8:00 p.m., at the Visalia Convention Center, to discuss the science consistency review of the DEIS and draft management plan.
- In December 2011 and January 2012, a Science Review Panel was convened again to review the FEIS. Their report on their science consistency review, an addendum to their report, and the Forest Service response to their report are included in Appendix F of this FEIS.

## Issues

Issues are statements of cause and effect, linking environmental effects to actions. Comments from the public, other agencies, the Tule River Indian Tribe, and other Native American groups were used to formulate issues concerning the proposed action. All comments received were reviewed and analyzed by the interdisciplinary team to “...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review...” (Council on Environmental Quality, Sec. 1506.3; 40 CFR 1501.7(a)(3)).

The public comments received during the scoping period from March 18 to May 4, 2009 presented twelve issues. Many of the comments expressed a general lack of trust in Forest Service management or reiterated the values, interests, and beliefs shared in the third-party facilitation.<sup>(7)</sup>

All the public comments received during scoping are in the project record on file at the Sequoia National Forest Supervisor’s Office in Porterville, California.

The following issues were identified for the Monument.

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7. See the public involvement section of this chapter for further information.

## Issue 1—Recreation and Public Use

*Recreation use and enjoyment of the Monument is increasing, resulting in competition between different types of public use and a greater need to protect the objects of interest [listed in Chapter 2, Alternative A].*

The Clinton proclamation states, “The plan will provide for and encourage continued public and recreational access and use consistent with the purposes of the monument” (Clinton 2000, p. 24097).

As part of scoping, the public identified that there is a need to provide for a wide variety of sustainable recreation opportunities, while protecting the objects of interest. Public use consists of more than the current and projected uses of the land. It also includes the historical and prehistoric human uses that must be protected, researched, and interpreted to show the connection of people to place and people to people.

**How Issue 1 is addressed:** The management strategies for human use or recreation management proposed to address this issue vary by alternative, based on the intent of each alternative.

Unit of Measure: recreation demand analysis (qualitative data). See Appendix D of this FEIS for the complete Recreation Demand Analysis.

## Issue 2—Road and Trail Access

*Maintain a road and trail system that provides safe access for a diversity of uses, while reducing impacts to sensitive resources and the objects of interest, and reducing conflict between different types of use (motorized/non-motorized).*

The Clinton proclamation states:

The management plan shall contain a transportation plan for the monument that provides for visitor enjoyment and understanding about the scientific and historic objects in the monument, consistent with their protection. For the purposes of protecting the objects included in the monument, motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized

administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the monument except to further the purposes of the monument. Prior to the issuance of the management plan, existing roads and trails may be closed or altered to protect the objects of interest in the monument, and motorized vehicle use will be permitted on trails until but not after December 31, 2000 (Clinton 2000, p. 24098).

In 2001, a road system was designated to comply with the Clinton proclamation. A number of roads and trails have become impassable since that time, due to lack of use and/or maintenance. The public concern is that roads and trails will be closed, especially those that lead to favorite locations in the Monument.

**How Issue 2 is addressed:** The Clinton proclamation directs the Forest Service to prepare a transportation plan as part of the Monument Plan. The Clinton proclamation states clearly what types of use are allowed on designated roads and trails. Access via roads and trails varies by alternative, based on the intent of each alternative. Individual roads are not identified for construction or decommissioning in this FEIS, nor will they be part of this decision. Any such proposal will be made in site-specific project analysis.

Units of Measure: roads open to the public (miles of open roads [percent of total], and potential to change roads), and potential to change the trail system.

### Issue 3—Diverse Array of Wildlife and Their Habitats

*Proposed fuel reduction and ecological restoration treatments may adversely affect the amount and distribution of wildlife species and their habitat, especially the Pacific fisher.*

The Clinton proclamation states:

The great elevational range of the monument embraces a number of climatic zones, providing habitats for an extraordinary diversity of plant species and communities. The monument is rich in rare plants and is home to more than 200 plant species endemic to the southern Sierra Nevada mountain range... This spectrum of

interconnected vegetation types provides essential habitat for wildlife... The mid-elevation forests are dominated by massive conifers arrayed in a complex landscape mosaic, providing one of the last refugia for the Pacific fisher in California. The forests of the Monument are also home to the great gray owl, American marten, northern goshawk, peregrine falcon, spotted owl, and a number of rare amphibians (Clinton 2000, p. 24096).

The objects of interest in the Monument (detailed in Chapter 2, Alternative A) include a diverse array of animal species such as the Pacific fisher, the great gray owl, the American marten, the northern goshawk, the peregrine falcon, the California spotted owl, the California condor, the western pond turtle, and several rare amphibians. A more refined list of the objects of interest can be found in Chapter 2 of this document. The best available science needs to be used to protect wildlife and the wide array of habitats in the Monument. This science needs to be relevant and timely in terms of managing Monument resources. The Monument should continue to contribute substantially to the long-term viability of habitat and populations that depend upon different stages of forest succession, in particular the mature forest.

**How Issue 3 is addressed:** The potential effects on wildlife and their habitat vary by alternative based on the intent of each alternative.

Units of Measure: acres of protected habitat (such as protected activity centers, carnivore den site buffers, etc.); acres of wildland urban intermix (WUI); miles of road; and number of developed and dispersed recreation sites.

### Issue 4—Fuels Management/Community Protection

*Fuels reduction as proposed, to protect communities and the objects of interest in the Monument, may not be effective in terms of how much is treated and the kinds of treatments used.*

The Clinton proclamation states:

Fire suppression has caused forests to become denser in many areas, with increased dominance of shade-tolerant species... One of the most

immediate consequences of these changes is an increased hazard of wildfires of a severity that was rarely encountered in pre-Euroamerican times. Outstanding opportunities exist for studying the consequences of different approaches to mitigating these conditions and restoring natural forest resilience... Fire suppression has caused forests to become denser in many areas, with increased dominance of shade-tolerant species. Woody debris has accumulated, causing an unprecedented buildup of surface fuels (Clinton 2000, p. 24095).

Management of fuels in dense forest is not only important for forest health, but also for communities within and adjacent to national forest boundaries such as the Tule River Indian Reservation. Severe wildfires not only threaten structures, but also threaten sensitive resources, wildlife, and watersheds that provide drinking water.

There is considerable debate about the different ways to respond to the increasing threat of fire and what types of treatments are the most effective for fuels reduction and fire protection. Different methods of reducing fuels should be evaluated. Proposed treatments follow existing direction and locate fuel treatments across broad landscapes, using a combination of prescribed fire, managed wildfire, and mechanical treatments.

There are two types of wildland fires: wildfires and prescribed fires. Prescribed fires are planned and used for ecological restoration following site-specific project analysis. Wildfires are caused by natural ignitions, such as lightning, or some type of human interaction. The term “managed wildfire” refers to the use of wildfires started by natural ignitions to protect, maintain, and enhance resources, and, whenever possible, allow fire to function in its natural ecological role. This is one tool used to restore and maintain the natural fire regime. Human-caused wildfires will continue to be suppressed, and not managed for resource benefits.

Some of the public agrees with a recent study that mechanical treatments are only needed in the 200 to 300 feet immediately adjacent to structures. Others are concerned that the Forest Service will cut more and larger diameter trees than are absolutely necessary for fuels reduction. The need to address the buildup

of surface and ladder fuels in the Monument must be reconciled with the prohibition of removing trees except for ecological restoration and maintenance or public safety.

**How Issue 4 is addressed:** The management strategies for fire and fuels proposed to address this issue vary by alternative, based on the intent of each alternative.

Units of Measure: size of the wildland urban intermix (WUI) zones; percentage of the Monument treated by prescribed fire, mechanical means, and managed wildfire using the SPECTRUM Model;<sup>(8)</sup> and estimated future acres of moderate and high fire susceptibility.

### Issue 5—Tree Removal

*There is considerable and meaningful debate about the conditions under which trees need to be cut, and about when and in what form a tree should be removed from the Monument, for ecological restoration.*

The Clinton proclamation states:

No portion of the monument shall be considered to be suited for timber production, and no part of the monument shall be used in a calculation or provision of a sustained yield of timber from the Sequoia National Forest. Removal of trees, except for personal use fuel wood, from within the monument area may take place only if clearly needed for ecological restoration and maintenance or public safety (Clinton 2000, p. 24097).

The public is concerned that the Forest Service will cut and remove more and larger diameter trees than are absolutely necessary for ecological restoration and maintenance or public safety purposes. Some also recognize that fire alone may not achieve the desired forest conditions within necessary timeframes to protect the objects of interest and nearby communities from large, stand-replacing wildfires. Others expressed a desire for balanced and sustainable forest management that includes neither clearcutting nor leave-it-alone policies. The assumption in this FEIS and the Monument Plan is that a clearly needed

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8. Information on the SPECTRUM Model can be found in Appendix B of this FEIS.

evaluation is required and will be completed before any site-specific projects that propose tree removal take place in the Monument.

**How Issue 5 is addressed:** The strategies and the priority of tools used to accomplish ecological restoration vary by alternative, based on the intent of each alternative.

Unit of Measure: percentage of the Monument treated by prescribed fire and mechanical means using the SPECTRUM Model.

### Issue 6—Methods for Sequoia Regeneration

*There is ongoing debate about the methods that would successfully promote the regeneration, establishment, and growth of giant sequoias.*

The Clinton proclamation states:

Sequoias and their surrounding ecosystems provide a context for understanding ongoing environmental changes. For example, a century of fire suppression has led to an unprecedented failure in sequoia reproduction in otherwise undisturbed groves. Climatic change also has influenced the sequoia groves... These giant sequoia groves and the surrounding forest provide an excellent opportunity to understand the consequences of different approaches to forest restoration. These forests need restoration to counteract the effects of a century of fire suppression and logging (Clinton 2000, p. 24095).

There are differences in opinion as to what balance of forest disturbances and what combination of fire and mechanical treatments would help promote and establish giant sequoia regeneration. There is even some disagreement as to whether openings in the canopy are necessary. Fires could be allowed to burn hot enough to create openings if relatively high mortality is acceptable. Regeneration plans should include planting and natural seeding.

A variety of scientifically based treatment methods is necessary to determine the most successful means of regenerating sequoias. Active on-site monitoring and research, in close cooperation with other agencies and the public, should be reflected in management of the Monument.

**How Issue 6 is addressed:** Methods for giant sequoia regeneration vary by alternative, based on the intent of each alternative.

Unit of Measure: estimated acres of giant sequoia regeneration.

### Issue 7—Fires Spreading to Tribal Lands

*A large wildfire spreading to the Tule River Indian Reservation from the Monument could result in irreversible damage to the tribe's watershed resources and community.*

Because more than half of the Tule River Indian Reservation borders the Monument, the Tule River Indian Tribe expressed concerns about the effects that large wildfires could have on cultural and sacred sites in the Monument and on the reservation. They are concerned that the existing fuels conditions (high fuel loads) on Monument land adjacent to their property present a significant wildfire hazard to the tribal community, resources, and the South Fork Tule River watershed, the primary source of water for the reservation.

**How Issue 7 is addressed:** A tribal fuels emphasis treatment area (TFETA) was created in collaboration with the tribe and appears in some alternatives. This land allocation was designed along the boundary with the Tule River Indian Reservation to not only protect the reservation and its watersheds, but also the objects of interest and watersheds in the Monument, from fires spreading from one to the other.

Unit of Measure: Acres of tribal fuels emphasis treatment area (TFETA<sup>9</sup>), if present.

### Issue 8—Obligation to Analyze MSA under NEPA

*Bring forward and implement the agreements set forth by the MSA, analyzing the effects in the NEPA process.*

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9. See Chapter 2, Alternative B for a map of this area.

10. *People of the State of California, ex rel. Lockyer v. United States Department of Agriculture, et al.*, No. C-05-00898 CRB.



The Forest Service agreed to apply the provisions in the MSA until they are incorporated into an amendment to the 1988 Forest Plan. In the Memorandum and Order for the People of the State of California v. United States Forest Service 8/22/2006, the judge states that the MSA “remains in effect to the extent it has not been amended by other NEPA-compliant amendments.”<sup>(10)</sup> Through this order, the Forest Service is instructed to consider the remaining applicable provisions of the MSA in the new Monument Plan. Comments expressed concern that the proposed action understates the importance of the MSA and that the MSA continues to apply to the Monument to the extent it is consistent with the Clinton proclamation. Some of the signatories to the MSA suggested an alternative to manage the Monument as guided by the MSA.

**How Issue 8 is addressed:** Alternative E was developed to address this issue and incorporate the MSA provisions, as appropriate. Alternatives A, B, C, D, and F also include applicable provisions of the MSA.

### **Issue 9—Manage the Monument Like Sequoia and Kings Canyon National Parks**

*Since this federal land is now a national monument, it should be managed like a national park, in particular like Sequoia and Kings Canyon National Parks.*

The Clinton proclamation states, “The Secretary of Agriculture shall manage the monument, along with the underlying Forest, through the Forest Service, pursuant to applicable legal authorities, to implement the purposes and provisions of this proclamation” (Clinton 2000, p. 24097).

Many comments from the public expressed the desire to manage the Monument in the same way and using the same methods as the adjacent national parks, Sequoia and Kings Canyon National Parks (SEKI). There is a perception that SEKI’s management practices, especially in the groves, result in less tree cutting and tree removal.

**How Issue 9 is addressed:** Alternative C was designed to mimic SEKI management practices

and was developed in collaboration with personnel from SEKI. This alternative is not an exact replica of SEKI management because some national park management policies or direction could not be applied to the Monument. The two federal agencies, the Forest Service and the National Park Service, and their respective departments, the Department of Agriculture and the Department of the Interior, have different laws, regulations, and policies governing their management direction.

### **Issue 10—Convene a New Scientific Advisory Board**

*A new Scientific Advisory Board should be convened for the current planning process as stipulated by the President Clinton proclamation.*

The Clinton proclamation states:

The Secretary, in consultation with the National Academy of Sciences, shall appoint a Scientific Advisory Board to provide scientific guidance during the development of the initial management plan. Board membership shall represent a range of scientific disciplines pertaining to the objects to be protected, including, but not necessarily limited to, the physical, biological, and social sciences (Clinton 2000, p. 24098).

A Scientific Advisory Board (SAB) was appointed in 2001 as mandated, and operated under a Department of Agriculture charter. It consisted of eight members, representing a range of scientific disciplines including the physical, biological, and social sciences. The SAB provided scientific guidance in the form of advisories during the development of the 2004 Giant Sequoia National Monument Management Plan Draft and Final Environmental Impact Statements and Record of Decision. The board met six times between June 2001 and March 2003 and provided 27 advisories to the Forest Service.

Soon after the Sequoia National Forest initiated the collaborative planning process, most of the Scientific Advisory Board was reconvened in May 2008. The Forest Service met with former members of the SAB to review the science advisories that were developed between 2001 and 2003. The group discussed whether the science advisories are still relevant, how they are being implemented, and how they could be

used in developing a new EIS and Monument Plan. In July 2008, the Forest Service provided a public comment period for reviewing the advisories and determining their relevance to the present planning process. A number of public comments were received on the interpretation of terms used in the Clinton proclamation. The comments were summarized in a report and then used to prepare an interpretation of the key principles of the Clinton proclamation by the Forest Supervisor (Terrell 2009). These interpretations of the Monument Proclamation were considered in developing this FEIS.

In September 2008, the Forest Service sponsored a Southern Sierra Science Symposium. In October 2009, a Science Review Panel was convened to formalize a process for reviewing how the interdisciplinary team integrates current science into the development of the FEIS and Monument Plan. On November 10, 2009, a public meeting was held in Visalia to introduce the Science Review Panel process and the scientists who reviewed the FEIS and Monument Plan.

Concerns were raised in public comments that a new and independent SAB needed to be empaneled for the current planning process. Comments indicated that many scientific questions remain to be addressed, in particular regarding methods for giant sequoia regeneration (see Issue 6) and the relationships between Pacific fishers, spotted owls, and wildfire. Some feel that the Clinton proclamation's mandate for a Scientific Advisory Board remains in effect because the initial Monument management plan was not implemented but remanded by the courts.

**How Issue 10 is addressed:** This issue of convening a new SAB will be responded to in the same way in each of the alternatives. In May 2009, the Forest Supervisor determined that most of the existing scientific advisories are still relevant for the new Monument Plan. How those advisories are used and responded to in this FEIS is discussed in the Assumptions and Methodology sections for the resource areas, and throughout the analyses.

In the past few years, the Forest Service developed direction regarding scientific review procedures. Science review guidelines were developed and standardized, and they were codified in the

Forest Service Handbook in 2006 (Forest Service Handbook 1909.12-2006-5, Chapter 40 – Science and Sustainability). This scientific review process is being used for this environmental analysis. A science review panel will review the FEIS and submit a report of their findings to the Forest Service, which will be available to the public.

## Issue 11—Tribal Access to and Protection of Cultural Sites

*Resource management activities and increased public use could negatively affect tribal member access to traditional sites and the cultural resources in the Monument.*

The Clinton proclamation states:

During the past 8,000 years, Native American peoples of the Sierra Nevada have lived by hunting and fishing, gathering, and trading with other people throughout the region. Archaeological sites such as lithic scatters, food processing sites, rock shelters, village sites, petroglyphs, and pictographs are found in the monument (Clinton 2000, p. 24096).

The Tule River Indian Tribe expressed concern about the effects of management activities on traditional use and sacred sites within the Monument. In particular, the tribe is concerned that increased public enjoyment of the Monument and scientific research of cultural resources could disturb those sites and hamper their access to them.

**How Issue 11 is addressed:** Since current management direction for cultural resources applies to all of the alternatives, this issue of tribal access to and protection of cultural sites will be responded to in the same way in each of the alternatives. Stewardship of cultural resources and tribal access to those resources are required by federal law and regulation, and all alternatives will meet these requirements. The Forest Service will continue to consult with the Tule River Tribe in identifying and protecting cultural resource sites. The analysis of environmental consequences for cultural resources in Chapter 4 discusses the effects on cultural resources by alternative.

## Issue 12—Livestock Grazing

*Grazing by livestock can be harmful to monument ecosystems and, in particular, to meadow and riparian ecosystems.*

The Clinton proclamation states:

Laws, regulations, and policies pertaining to administration by the Department of Agriculture of grazing permits...on National Forest System lands within the boundaries of the monument shall continue to apply to lands within the monument (Clinton 2000, p. 24098).

**How Issue 12 is addressed:** This issue of livestock grazing will be responded to in the same way in each of the alternatives. The Clinton proclamation is clear that the current policy for livestock grazing can continue in the Monument, including providing forage in areas suitable for grazing to qualified livestock operators. Assessment of the management situation did not indicate any need to change grazing in the Monument and the alternatives do not include any recommendations for change. The analysis of environmental consequences in Chapter 4 discusses the effects of livestock grazing on Monument resources.

