

**Herger-Feinstein
Quincy Library Group
Forest Recovery Act**

**Final Supplemental
Environmental Impact Statement**

Record of Decision

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Forest Recovery Act
Final Supplemental Environmental Impact Statement



USDA Forest Service
Pacific Southwest Region

July 2003

To obtain a complete copy of the Final Supplemental Environmental Impact Statement, please contact:

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**Final Supplemental Environmental Impact Statement
Summary
Herger-Feinstein Quincy Library Group Forest Recovery Act**

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| Proposed Action: | The Forest Service proposes to amend the <i>Land and Resource Management Plans for the Lassen, Plumas, and Tahoe National Forests</i> to include maintenance of the Defensible Fuel Profile Zones authorized under that decision, by amending management direction in the <i>Land and Resource Management Plans for the Lassen, Plumas, and Tahoe National Forests</i> . In this Final Supplement, Alternative E is the proposed action for DFPZ maintenance. It was also the preferred alternative identified in the Draft Supplement. |
| Type of Statement: | Final supplemental environmental impact statement |
| Date: | July 24, 2003 |
| Lead Agency and Responsible Officials: | USDA Forest Service Pacific Southwest Region Edward C. Cole, Forest Supervisor, Lassen National Forest James M. Peña, Forest Supervisor, Plumas National Forest Steven T. Eubanks, Forest Supervisor, Tahoe National Forest |
| For Further Information: | Dave Peters, Project Manager Herger-Feinstein Quincy Library Group Pilot Project Post Office Box 11500 Quincy, CA 95971 (530) 283-7821 |
| Abstract: | This document, <i>the Herger-Feinstein Quincy Library Group Forest Recovery Act Final Supplemental Environmental Impact Statement</i> (Final Supplement) describes in detail a proposed action and one other action alternative for maintenance of DFPZs mandated under the Herger-Feinstein Quincy Library Group Forest Recovery Act of October 12, 1998 (Act). It also describes the no-action alternative. The Final Supplement discloses expected environmental consequences of implementing four methods of maintaining DFPZs and controlling invasive or noxious weeds that may invade DFPZs: hand treatment, herbicide treatment, mechanical treatment, and prescribed-fire treatment. <i>Alternative A</i> , the no-action alternative, allows continued implementation of the Act, without any future maintenance. <i>Alternative E</i> (preferred alternative) allows for a combination of the four treatment methods, including the use of herbicides. <i>Alternative F</i> (environmentally preferable alternative) allows for a combination of three of the treatment methods, excluding the use of herbicides. |

Record of Decision

Introduction

The *Herger-Feinstein Quincy Library Group (HFQLG) Forest Recovery Act Final Supplemental Environmental Impact Statement (Final Supplement)* documents the results of an environmental analysis of effects of alternative management strategies for maintenance of defensible fuel profile zones (DFPZs) within the HFQLG Pilot Project Area. The Pilot Project Area is located in northeastern California and encompasses most National Forest System lands within the Lassen National Forest, Plumas National Forest, and the Sierraville Ranger District of the Tahoe National Forest. DFPZs were authorized by the *HFQLG Forest Recovery Act of October 21, 1998 (HFQLG Act)*. We have studied and are tiering to the HFQLG Act Final Environmental Impact Statement (HFQLG Act FEIS); the resulting October 20, 1999, Record of Decision (HFQLG ROD); and the October 5, 2001, HFQLG Supplemental Draft Environmental Impact Statement (Draft Supplement). In addition, we have reviewed related materials in the Final Supplement project file, including public comments and concerns regarding maintenance of DFPZs. Our decision is based on all of this information, which is hereby incorporated by reference.

Decision and Reasons for the Decision

Decision

We have decided to revise the HFQLG ROD regarding DFPZ maintenance. This revised ROD amends management direction for the Lassen, Plumas, and Tahoe National Forests to guide DFPZ maintenance within the Pilot Project Area. We have selected Alternative E, as presented in Chapter 2 of the Final Supplement, as the program-level DFPZ maintenance strategy that will be applied at the time maintenance is proposed at the site-specific project level. Alternative E calls for consideration of all practicable methods of vegetation control for site-specific projects, including the use of herbicides. Alternatives considered in detail but not selected included a no-DFPZ-maintenance alternative and an alternative similar to Alternative E that excludes the use of herbicides (Alternative F). We have made this decision after careful consideration of the public comments on the Draft Supplement, peer-review comments on a preliminary version of the Final Supplement, and the detailed disclosure of environmental effects of the alternatives that is included in the Final Supplement.

This amendment applies only to site-specific DFPZ projects that are needed to maintain DFPZs constructed as a part of implementing the HFQLG Act ROD. The amendment does not apply to the Pilot Project Area as a whole nor to National Forest System lands outside of the Pilot Project area.

Design Features for Alternative E

The following paragraphs summarize various design features of Alternative E whose purpose is to minimize the potential adverse environmental effects of using herbicides. These design features are part of Alternative E and the need for them is explained at greater length in the Final Supplement risk assessment. The risk assessment did not indicate that any measures in addition to label directions and best management practices are needed to protect human health (either applicators or the general public) or other ecological resources. They are summarized here in order to highlight them for the public as well as those implementing this decision in the Forest Service.

Based on the results of the risk assessment conducted for this Final Supplement (Chapter 3), the following design features would be implemented to assure protection of certain biological resources when herbicide applications are under consideration.

Under Alternative E, existing management direction, standards, and guidelines outlined in the Lassen, Plumas, or Tahoe Land and Resource Management Plans, as amended by the HFQLG Act ROD and the

SNFPA ROD, would be implemented for all DFPZ maintenance. This would comprise implementation of best management practices for all resources including the use herbicides. All herbicide label directions as registered by the State of California would be adhered to.

Avian

At the site-specific project level evaluate and implement the following design features, to the extent reasonably practicable, to reduce indirect and cumulative effects on blue grouse from the following herbicides: hexazinone, sulfometuron methyl, picloram, triclopyr, or the NPE-based surfactant.

- Within suitable blue grouse habitat, conduct blue grouse surveys if hexazinone, sulfometuron methyl, picloram, triclopyr, or the NPE-based surfactant are proposed for DFPZ maintenance or control of invasive and noxious weeds.
- If surveys are conducted and if “brooding” or “booming” sites or heavily used foraging areas are identified, consider (1) alternative herbicides or formulations; (2) alternative methods or timing of application, or (3) limited operating periods for application of hexazinone, picloram, sulfometuron methyl, triclopyr or the NPE-based surfactant, to shrubs, scrub oak, or Douglas fir. For hexazinone, consider a pelletized formulation, instead of a liquid formulation, or application by spot gun, to reduce exposures of avian species.

Mammals

At the site-specific project level evaluate and implement the following design features, to the extent reasonably practicable, to reduce indirect and cumulative effects to the Western red bat, Townsend’s big-eared bat, and pallid bats from the following herbicides: hexazinone, sulfometuron methyl, picloram, or the NPE-based surfactant.

- Within suitable habitat, conduct acoustical, mist-net, and roost surveys for Western red bat, Townsend’s big-eared bat, and pallid bats when hexazinone, sulfometuron methyl, picloram, or the NPE-based surfactants are proposed for DFPZ maintenance or control of invasive and noxious weeds.
- If these bat species are located, consider: (1) alternative herbicides near roosts or within foraging areas; (2) no-herbicide buffers around bat roosts; (3) alternative forms of herbicides such as the pellet form of hexazinone; (4) alternative methods of herbicide application, such as “cut and dab”, “hack and squirt”, “spot-gun”, or “basal spray”; (5) limited operating periods (i.e. winter months when bats would be hibernating); and (6) reduced application rates.

Plants

At the site-specific project level evaluate and implement the following design features, to the extent reasonably practicable, to reduce indirect and cumulative effects to the clustered lady-slipper and mountain lady slipper from the following herbicides: glyphosate, hexazinone, and triclopyr.

- Within suitable habitat where the clustered lady-slipper and mountain lady slipper plant species are located and glyphosate, hexazinone, and triclopyr are proposed for DFPZ maintenance or control of invasive and noxious weeds. Along with no-herbicide buffers around known clustered lady-slipper and mountain lady slipper plant populations consider (1) limited operating periods for glyphosate, hexazinone, and triclopyr so that application is prior to flower emergence or after completion of flowering, and (2) appropriate application methods to reduce exposure to pollinators.
- If other special-status plant species with specialized pollination systems like clustered lady-slipper and mountain lady slipper are found where glyphosate, hexazinone, and triclopyr are proposed for DFPZ maintenance or control of invasive and noxious weeds, then in addition to no-herbicide buffers around known special-status plant species populations, consider (1) limited operating periods for glyphosate, hexazinone, and triclopyr so that application is prior to flower emergence or after completion of flowering for plant species with specialized pollination systems, and (2) appropriate application methods to reduce exposure to pollinators.

DFPZ Construction and Maintenance Planning Process

The Final Supplement and this Record of Decision, in combination with the original HFQLG Act FEIS and ROD, provide the programmatic guidance for DFPZ construction and maintenance in the HFQLG Pilot Project Area. These documents do not, however, make any firm decisions about how or where DFPZs will be constructed or maintained. Rather, such decisions are made at the site-specific project level, where the Forest Service and the public can best evaluate the details of land management decisions.

Before any particular DFPZ is constructed, the Forest Service will engage in an interdisciplinary NEPA process, including public involvement, to analyze the environmental effects of constructing that DFPZ. As part of the NEPA analysis, the Forest Service will provide a brief analysis of possible maintenance strategies for that DFPZ. That analysis will likely tier to the Final Supplement, using it as a source of guidance and useful information. However, no firm decisions as to DFPZ maintenance will generally be made during the NEPA process for DFPZ construction. Rather, specific decisions about maintenance for a particular DFPZ will only be made at the time DFPZ maintenance is actually necessary, which is generally some years after a DFPZ is constructed.

If and when the Forest Service proposes a particular DFPZ maintenance project, the Forest Service will proceed through the NEPA process and involve the public in the decision making process. At that stage, the Forest Service and public will be able to draw from the general guidance and analysis in the Final Supplement, and make firm decisions about which DFPZ maintenance methods should be used in which areas and under which conditions.

The decisions as to maintenance of a particular DFPZ may differ from the projections contained in the Final Supplement, as the Supplement is only an educated guess based on programmatic information available today. There will likely be more specific and refined information available at the project level, which may lead to different choices regarding the appropriate maintenance method for a given area. The Final Supplement is not meant to choose which methods will be used where, but rather is meant to provide information to understand the likely environmental effects of DFPZ maintenance in the HFQLG Pilot Project Area, and also to provide a tool that can be used during site-specific NEPA planning for both DFPZ construction and maintenance.

Existing Site-Specific Projects

As expeditiously as possible, the responsible officials for DFPZ construction projects with NEPA decisions made between October 1999 and the present will complete reviews of those project decisions to determine if the information presented in the Final Supplement and this ROD significantly changes the potential environmental effects of those projects. This review process will be conducted pursuant to standard Forest Service policies dealing with the consideration of new information or changed circumstances.

Monitoring Requirements

Pages 13-14 of the HFQLG ROD outline the monitoring strategy for the Pilot Project. This strategy will also be applied to DFPZ maintenance projects and no additional monitoring will be required as a result of this ROD. As part of the existing monitoring strategy, *maintenance* will be listed as a project activity in the Annual Status Report (Part I), will be assessed as part of implementation monitoring (Part II) to determine if actions were implemented according to management direction, and will be part of the effectiveness monitoring (Part III) to determine if resource goals have been met.

To gauge the effects of DFPZ maintenance, economic benefits to local communities will be assessed; any adverse environmental impact will be documented; watershed monitoring data including water quality monitoring will be initiated; and noxious weeds, sensitive plants, and threatened, endangered, and sensitive wildlife species will all be monitored.

Reasons for the Decision

All practicable means of avoiding and minimizing environmental harm were adopted in crafting Alternative E. Site-specific projects that adhere to the programmatic guidance established by Alternative E would not be expected to result in significant adverse effects to human health, ecosystem health, or any other environmental resource.

Alternative E reflects six land allocations established in the Record of Decision for the Sierra Nevada Forest Plan Amendment (SNFPA ROD). Each type of land allocation is to be managed in accordance with standards and guidelines and desired conditions described in the SNFPA ROD for the particular type of land allocation. These land allocations and the management direction in the SNFPA ROD were used to develop possible methods for maintaining each DFPZ. As is shown in Table 2-5 of the Final Supplement, within the Amphibian Buffers, Scientific Analysis Team (SAT) Perennial Streams, Owl/Goshawk Nest Stands, and Wild and Scenic Rivers land allocations, only hand and prescribed fire treatments are proposed in these sensitive areas. Mechanical, prescribed fire, and herbicide treatments are proposed within Old Forest Emphasis Areas and Critical Aquatic Refuge watersheds. The Other Land Allocations category also identifies mechanical, prescribed fire, and herbicide treatments. However, herbicides are specific to the oak and red fir vegetation types. These particular vegetation types were identified because hardwoods, in particular tanoak, and sprouting shrubs are easily eradicated with herbicides, and show little or no re-growth after application, but are difficult or expensive to control with mechanical or hand methods.

Our analysis of environmental effects of the alternatives was based on assumed scenarios for DFPZ maintenance. For both action alternatives considered in detail, the most suitable method of maintenance for each DFPZ was determined, based on SNFPA land allocation, vegetation type, and slope condition. A schedule of maintenance actions for each DFPZ for both management scenarios was similarly developed, based primarily on anticipated maintenance method and vegetation type. These scenarios are program-level impact-assessment scenarios, and project-level planning may lead to a different choice of maintenance method for particular DFPZs. Nonetheless, this method of characterizing the action alternatives gives assurance that both action alternatives focus initial consideration of DFPZ maintenance at each site on methods that are technically appropriate and non-damaging to forest ecosystems. It also gives assurance that herbicide would only be used in limited situations where site-specific conditions clearly warrant their use.

Factors Other than Environmental in Making the Decision

We are selecting Alternative E over Alternative F to provide flexibility in managing maintenance of DFPZs and, in particular, control of noxious weeds. The particular vegetation types were identified because different maintenance methods affect them in different ways. Relatively young conifer tree plantations, for example, have a high risk of damage from prescribed fire because seedlings and saplings burn easily. Areas with these vegetative conditions are also prone to carry escaped fire. Their low height-to-live-crown distance makes them more susceptible to crown damage from fire. Under certain conditions, plantations are also susceptible to damage from mechanical maintenance methods, because of the difficulty of maneuvering around seedlings and saplings. Hardwoods, in particular tanoak, and sprouting shrubs are easily eradicated with herbicides, and show little or no re-growth after application, but are difficult or expensive to control with mechanical or hand methods. DFPZs in non-forest vegetation types typically do not need any maintenance due to their relative lack of vegetation and discontinuity of surface fuels.

In addition, Alternative E is less expensive to implement. Total cost predicted to implement Alternative E is \$8.4 million per year whereas Alternative F is \$10.9 million. The average annual cost of DFPZ maintenance was estimated using the acreages noted in Table 2-5 of the Final Supplement. The estimate was based on the average cost per acre of each kind of treatment and the average acreage treated annually.

Herbicide use in Alternative E would be relatively small and limited to situations where terrain and ecosystem conditions favor it. Although it is not the environmentally preferable alternative and some risk is associated with the use of herbicides, adherence to all design features, forest plan standards and guidelines, and best management practices is expected to reduce any potential environmental effects that Alternative E could cause.

Public Involvement

On August 14, 2001, the Forest Service published a Notice of Intent (NOI) in the Federal Register¹ to prepare a supplemental environmental impact statement to disclose the anticipated effects of maintaining DFPZs established under the five-year HFQLG Act. The public was not asked to provide additional comments at that time, because between December 1998 and January 1999 the Forest Service had already solicited and received comments from individuals, organizations, companies, interest groups, and Federal, State, and local governments. The purpose of the NOI was to state that the Draft Supplement would be circulated for public review and comment, consistent with Regulation 1502.9(c)(4) of the Council on Environmental Quality.

Out of the 8,300 letters sent to the above entities that had commented on the HFQLG Act EIS, 523 requested copies of the Draft Supplement. Of those 523 (and after the October 5, 2001, posting of the Notice of Availability in the *Federal Register*² for the Draft Supplement) 24 interested parties submitted letters commenting on the Draft Supplement. Chapter 7 of the Final Supplement displays those comments and the ID Team's responses to them. Based on these comments, several changes were made to the Draft to produce the Final Supplement. Two key changes were a more in-depth analysis of the significant issues and preparation of a risk assessment for nonylphenol polyethoxylate (NPE)-based surfactants.

Consultations between the ID Team and the USDI Fish and Wildlife Service, USDC National Marine Fisheries Service, and Central Valley and Lahontan Water Quality Control Boards were held throughout the period leading up to the issuance of the Final Supplement. Several attempts were made to consult with Native American tribes, but none were successful. Information and guidance meetings were also held during this period with the HFQLG Steering Committee, consisting of Forest Service representatives from the Pacific Southwest Research Station, the Pacific Southwest Regional Office, and the Forest Supervisors of the Lassen, Plumas, and Tahoe National Forests.

In addition, this document was peer reviewed by Dr. Patrick Durkin, Syracuse Environmental Research Associates, Inc.; Thomas Beck, Biological Consultant; Kathy Brown, USDI Fish and Wildlife Service; Kelly Finn, USDC National Marine Fisheries Service; John Robinson, USDA Forest Service Pacific Southwest Regional Office; Duane Nelson, USDA Forest Service Pacific Southwest Regional Office, Craig Snider, USDA Forest Service Pacific Southwest Regional Office; and Brian Staab, USDA Forest Service Pacific Southwest Regional Office.

Significant Issues

The four significant issues identified in the HFQLG Act FEIS relating to DFPZ maintenance were brought forward to this Final Supplement, as they were to the Draft Supplement. The issue topics are: 1) protection of old-forest values and old-forest-dependent species; 2) watershed effects and aquatic/riparian ecosystem protection; 3) socio-economic well being; and 4) wildfire hazard reduction and fuel management.

The court order in Californians for Alternatives to Toxics v. Dombeck, which precipitated the preparation of the SEIS in the first place, identified three additional concerns: 1) potential effects of herbicide use on drinking water, surface water, and riparian species; 2) adverse effects on ambient air quality from prescribed burning for DFPZ maintenance, and 3) invasive and noxious weed proliferation from DFPZ

¹ Federal Register, Volume 66, Number 157, pages 42625 – 42626.

² Federal Register, Volume 66, Number 194, page 51036.

maintenance. These three concerns were integrated into the four significant issues that are addressed in this document.

“Issue measures” – ways to quantitatively or qualitatively gauge the effects of the alternatives in relation to each issue – were also identified as noted in the following section.

Issue 1: Old Forest Values and Old Forest-Dependent Species

HFQLG Act FEIS: The proposed action might not provide adequate protection of old forests, and plant and wildlife species associated with old forest ecosystems.

Supplement: The proposed action is now considered to include maintenance of DFPZs.

Issue 1 Measure: Risk of adverse effects on old-forest-associated wildlife and plant species due to DFPZ maintenance.

Issue 2: Watershed Effects and Aquatic/Riparian Protection

HFQLG Act FEIS: Aquatic and riparian habitats are known to be affected by the consequences of past and current management. Aquatic and riparian areas could be negatively affected by sedimentation, ground-disturbing activities, and other forms of degradation resulting from implementation of resource management activities described in the Act.

Court Concern: Plaintiffs in the lawsuit were concerned about potential effects of herbicide use on their drinking water supplies, surface water, and riparian species.

Supplement: “Implementation”, as the term is used above, is now considered to include maintenance of DFPZs. Note that no additional roads would be constructed for DFPZ maintenance.

Issue 2 Measures: Changes in water quality, watershed conditions, and riparian habitat due to DFPZ maintenance, as measured by:

- levels of herbicides that may be detected in surface and ground water, as compared to applicable water quality standards and drinking water standards;
- estimated increases in erosion rates (tons/acre treated) resulting from altered soil properties and ground cover;
- changes in ratios of watersheds’ *equivalent roaded acres to threshold of concern* attributable to DFPZ maintenance (cumulative watershed effects); and
- risk of adverse effects to aquatic and riparian-associated species.

Issue 3: Socio-Economic Well-being

Court Concern and Supplement: Plaintiffs in the lawsuit were concerned that DFPZ maintenance would foster proliferation of invasive and noxious weeds. They were also concerned about effects of herbicides used for DFPZ maintenance on human health and safety.

Issue 3 Measures:

- Risk of invasive or noxious weed infestation following DFPZ maintenance.
- Risk of negative impacts to human health and safety associated with DFPZ maintenance.

Issue 4: Wildfire Hazard Reduction and Fuel Management

HFQLG Act FEIS: The construction of defensible fuel profile zones would open the forest canopy, bring more light to the forest floor, resulting in more understory vegetation brush in the understory of DFPZ areas. This would increase the risk and intensity of wildfire. DFPZs would be ineffective in reducing

wildfire hazard without ongoing maintenance. The proposed action would not provide funding for maintenance.

Court Concern and Supplement: An emphasis on prescribed burning for DFPZ maintenance could adversely affect ambient air quality.

Issue 4 Measures:

- Changes in ambient air quality due to DFPZ maintenance, measured by change in the concentration of PM₁₀ and visibility impairment of Class I areas, measured at Thousand Lakes Wilderness, Caribou Wilderness, and Lassen Volcanic National Park
- Change in fire behavior due to DFPZ maintenance, measured by fire intensity (flame length) and rate of spread, using the 90th percentile weather condition and assuming resistance to control.

Alternatives Considered

This section describes the range of alternatives that were developed to meet the project purpose and need and to resolve the four issues identified in above. Six alternatives were considered in this analysis. Three alternatives were evaluated in detail, including the *No-Action Alternative*. Three other alternatives were initially considered but then eliminated from detailed study.

Both action alternatives considered in detail – Alternatives E and F – represent possible management scenarios for DFPZ maintenance. They both allow the use of broad categories of treatments without excluding any particular treatment at the site-specific level, except that Alternative F does not allow the use of herbicides. Under either action alternative, proposed DFPZ maintenance projects would be subject to site-specific analyses to determine actual maintenance treatments.

Alternatives Considered in Detail

Alternative A (No Action)

Under Alternative A, DFPZs constructed under the HFQLG Act ROD, as modified by SNFPA, would not be maintained.

Alternative E (Preferred Alternative)

Alternative E includes a combination of four methods that could be used for DFPZ maintenance (on 280,288 acres) and invasive and noxious weed control (on 10,000 acres). Based on 14 local vegetation conditions and growth patterns, terrain analysis, and management direction, the 6 specific and 1 more general, land allocations prescribed in the SNFPA ROD, we estimated that on an annual basis the various methods would likely be used as follows:

- Prescribed-fire – 134,396 acres,
- Mechanical treatment – 110,857 acres,
- Hand treatment – 10,833 DFPZ acres plus 30 weed acres, and
- Herbicide treatment – 19,992 DFPZ acres plus 170 weed acres.

An estimated 4,210 acres of DFPZs would not be treated. To project likely DFPZ maintenance treatments in the Pilot Project Area for Alternative E, the ID Team used 14 local vegetation conditions, growth patterns, and management direction for the various land allocations prescribed in the SNFPA ROD. Chapter 2 of the Final Supplement displays this information in detail, including the previously stated design features.

The active ingredients for the herbicides proposed for use under this alternative and their trade names are clopyralid (Transline), glyphosate (Accord, Roundup, Rodeo), hexazinone (Velpar, Pronone), imazapic (Plateau), imazapyr (Arsenal, Chopper), metsulfuron methyl (Escort), sulfometuron methyl (Oust),

triclopyr (Garlon), picloram (Tordon), and nonylphenol polyethoxylate (NP9E) a surfactant, which increases herbicide effectiveness.

Alternative F (Environmentally Preferable Alternative)

Alternative F differs from Alternative E by excluding the use of herbicides. It is similar to Alternative E in that it involves a combination of methods and the same total treatment acreages. Using a parallel methodology to that used for Alternative E, we estimate that the various methods would likely be used as follows:

- Prescribed fire – 146,245 acres,
- Mechanical treatment – 110,857 acres, and
- Hand treatment – 18,976 DFPZ acres plus 200 weed acres.
- An estimated 4,210 acres of DFPZs would not be treated.

The average annual cost of DFPZ maintenance was estimated using the acreages above. The estimate is *\$10.9 million per year*, based on the average cost per acre of each kind of treatment and the average acreage treated annually.

Although this alternative costs \$2.5 million more per year to implement, it is considered the environmentally preferable alternative due to the lower risk that it presents to terrestrial and aquatic wildlife and plant species. Because herbicides are not proposed for use in this alternative, the risks associated with using some of them, as described under Alternative E in the Final Supplement, do not exist under this alternative. As noted in the *Decision* section above, however, design features incorporated as part of Alternative E are expected to reduce these risks to less-than-significant levels.

Alternatives Considered and Eliminated from Detailed Analysis

The following three alternatives were considered in the Draft Supplement but were subsequently eliminated from detailed analysis. The rationale for their dismissal is also described.

Alternative B

Alternative B emphasizes use of herbicides for DFPZ maintenance. This benchmark alternative reveals the probable maximum amount of herbicides that could be applied. The alternative was included in the range of alternatives for comparison purposes (page 2-36 of the Draft Supplement). Upon review of the analysis in the Draft Supplement, the three Forest Supervisors determined that this alternative could not realistically be implemented and would not meet the project purpose and need. A major project purpose is to test and demonstrate the effectiveness of DFPZs, but because it would be impossible to treat all DFPZ vegetation with herbicides alone, DFPZ effectiveness could not be tested or demonstrated under this alternative. Site-specific project decisions would likely be delayed because of public concerns over extensive herbicide application, not allowing DFPZ maintenance to proceed when needed.

Alternative C

Alternative C emphasizes use of mechanical and hand treatments for DFPZ maintenance. It allows use of other treatment methods, but an estimated 97 % of the DFPZs would be maintained by hand or mechanical treatments. The remaining DFPZs would most likely be maintained with herbicides (page 2-38 of the Draft Supplement). The three Forest Supervisors determined that this alternative could not realistically be implemented and would not meet the project purpose and need. A major project purpose is to test and demonstrate the effectiveness of DFPZs, but because it would be impossible to treat a substantial portion of DFPZ vegetation mechanically because of presence of steep slopes, and the resulting reliance on hand treatment would be very costly, DFPZ effectiveness could not be tested or demonstrated under this alternative. Delays in or inability to secure funding for implementation would not

allow DFPZ maintenance to proceed when needed. Because of these reasons, this alternative did not warrant further analysis.

Alternative D

Alternative D emphasizes use of prescribed fire for DFPZ maintenance, but allows use of other treatment methods. An estimated 75% of the DFPZs would be maintained with prescribed fire. The remaining DFPZs would most likely be maintained with hand or mechanical treatments (page 2-40 of the Draft Supplement). Upon review of the information in the Draft Supplement, the three Forest Supervisors concluded that this alternative could not be implemented. This alternative would require extensive prescribed burning on steeper slopes where fire is hard to control (especially where those DFPZs are located at mid slope). Employing prescribed burning in these areas would be very costly, because of the level of hand treatment that would be necessary before burning. Delays in or inability to secure funding for implementation would not allow DFPZ maintenance to proceed when needed. This alternative would therefore not meet the project purpose and need. Because of these reasons, this alternative did not warrant further analysis.

Methods Not Recommended for DFPZ Maintenance

The following methods of DFPZ maintenance have been used to control target vegetation, including invasive and noxious weeds, in California forest environments. However, in this analysis these methods are considered impractical or ineffective for controlling understory vegetation in DFPZs in the Pilot Project Area. Although these methods are not considered viable treatment methods for this analysis, they could still be considered for individual DFPZ maintenance projects. If so, they would be subjected to site-specific analysis.

Steam or Hot Water

Hot steam can be sprayed on target plants from a nozzle hooked to a steam-generating machine. This method of vegetation control is sometimes used to reduce vegetation along railroad tracks, but it would be impractical or impossible to use away from roads, which are capable of supporting the necessary heavy equipment. Steam spray for target vegetation eradication is therefore deemed impractical in this analysis for DFPZ maintenance. Spraying near-boiling water on plants has also been used to control vegetation, by dissolving the waxy cuticle on the leaf surfaces and causing the plant to desiccate. However, this method is impractical or impossible to use for the same reasons as the steam spray method. Boiling water is also ineffective for the control of sprouting woody plants.

Stump Burning

Burning tanoak stumps has been tried experimentally as a way to stop re-sprouting, but to date this method has been unsuccessful. Despite apparent complete incineration of the stumps, new sprouts develop from the partially burned tanoak burl. Therefore, stump burning is impractical for DFPZ maintenance.

Aerial Application of Herbicides

Aerial application of herbicides is not considered a viable method of DFPZ maintenance, because overstory trees need to be retained on much of the DFPZ network and they would prevent the effective use of this method. The shape, size, and distribution of the DFPZ areas that require treatment also make aerial herbicide application impractical.

Findings Required by Other Laws

All resource management activities described and proposed in this document would be implemented to the extent that they are consistent with applicable Federal law, United States Department of Agriculture (USDA) regulations, and Forest Service policies. The major laws and their applicability to the proposed action are as follows:

Civil Rights Impact Analysis (USDA Regulation 4300-4)

A Civil Rights Impact Analysis was completed for the HFQLG Act FEIS (Appendix O). Three categories were analyzed: (1) work force characteristics, (2) attitudes/beliefs/values, and (3) civil rights. Favorable impacts, unfavorable impacts, and mitigations were identified for each of the three categories.

Clean Water Act (Public Law 92-500)

All Federal agencies must comply with the provisions of the Clean Water Act. The Clean Water Act regulates forest management activities near federal waters and riparian areas. This Final Supplement meets the terms of the Clean Water Act for non-point sources of pollution, primarily pollution caused by erosion and sedimentation. As described in the HFQLG Act FEIS, compliance with the Clean Water Act is accomplished through implementation of *Best Management Practices (BMPs) for National Forests in California* (USDA Forest Service 1979). Consultation was completed with both the Central Valley and Lahontan Water Quality Control Boards regarding how DFPZ maintenance within the Pilot Project Area could be conducted to meet water quality standards. Details of this consultation can be found in the planning record.

Clean Air Act (Public Law 84-159)

Forest Service managers will follow specified provisions for smoke management whenever fire is prescribed for DFPZ maintenance. The following documents provide Forest Service managers with the guidance and direction for smoke management to protect air quality: (1) *Interim Air Quality Policy on Wildland and Prescribed Fires*, issued by the Environmental Protection Agency in 1998; (2) *Memorandum of Understanding between the California Air Resources Board (CARB) and the USDA Forest Service*, signed on July 13, 1999; and (3) *Smoke Management Guidelines* in Title 17 of the Code of Federal Regulations, currently under revision by CARB.

Environmental Justice (Executive Order 1289)

The proposed actions were analyzed in the HFQLG Act FEIS in relation to potentially adverse environmental, health, social, or economic effects on low-income or minority populations. Potentially adverse social (human health and safety) and economic effects are discussed in Chapter 3 of the Final Supplement.

Endangered Species Act OF 1973 (Public Law 93-205)

Section VII of the *Endangered Species Act* requires Federal agencies to consult with the United States Department of the Interior Fish and Wildlife Service (Service) and/or the United States Department of Commerce National Marine Fisheries Service (NMFS), whichever is appropriate, during project planning and for amendments of forest plans. Consultation was completed with both agencies regarding potential effects of DFPZ maintenance within the Pilot Project on federally proposed, threatened, or endangered species. Details of this consultation with the Service are included in the Biological Assessments for the proposed action, hereby incorporated by reference, which can be found in the planning record. Details of this consultation with NMFS can be found in a letter dated May 13, 2003 from that agency, hereby incorporated by reference, which can be found in the planning record.

Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 as amended)

The Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 U.S.C. 136), is the authority for the registration, distribution, sale, shipment, receipt, and use of pesticides. The Forest Service may use only pesticides registered or otherwise permitted in accordance with this act.

Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998 (Title IV, Section 401)

Forest Supervisors for the Plumas, Lassen, and Tahoe National Forests signed a ROD for the HFQLG Act in August 1999. The ROD amended the three Forest Plans to establish a pilot project to demonstrate and test the effectiveness of management activities described in the *HFQLG Act of October 21, 1998*. The Final Supplement incorporates all of the elements of that decision, including the forest plan amendments and the approximate location of the DFPZs. The Final Supplement complements the HFQLG Act FEIS by adding information related to DFPZ maintenance.

On Feb 24, 2003, when the *2003 Omnibus Budget Reconciliation Act* was signed, the HFQLG Act was extended for another five years. Assumptions used in the Final Supplement are based on an expiration date of Sept. 8, 2009.

Migratory Bird Treaty Act of 1918 as amended (16 USC 703-712)

The original 1918 statute implemented the 1916 Convention between the United States and Great Britain (for Canada) for the protection of migratory birds. Later amendments implemented treaties between the United States and Mexico, Japan, and the Soviet Union (now Russia). Specific provisions in the statute include the establishment of a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird."

National Forest Management Act OF 1976 (NFMA; Public Law 94-588)

The National Forest System lands affected by the Final Supplement are subject to management direction in the Lassen, Plumas, and Tahoe National Forests Land and Resource Management Plans as amended by the HFQLG Forest Recovery Act ROD (1999) and the Sierra Nevada Forest Plan Amendment ROD (2001) (Forest Plans). These three Forest Plans guide management of all National Forest lands and resources within the Pilot Project Area. They include direction for forest management, goals and objectives, standards and guidelines, area management direction, and the anticipated outputs of forest products.

To avoid the redundancy of disclosing the effects and management direction already disclosed in the HFQLG Act FEIS, the Final Supplement complements the existing analyses in EISs for the current amended Forest Plans. Use of all treatment methods proposed for DFPZ maintenance would be consistent with the existing Forest Plans.

Sierra Nevada Forest Plan Amendment (January 2001)

The Pacific Southwest and Intermountain Regions of the Forest Service in January 2001 issued a record of decision (SNFPA ROD) amending the Forest Plans for the eleven National Forests encompassing the

Sierra Nevada and Modoc Plateau, including the Lassen, Plumas, and Tahoe National Forests (USDA Forest Service 2000c). The Final Supplement incorporates by reference these Forest Plan amendments and the SNFPA Final EIS.

In June 2003, a draft supplemental EIS for SNFPA (USDA Forest Service 2003a) was released that responds to new information regarding several problem areas addressed in the SNFPA FEIS (January 2001). In the preferred alternative, S2, the SNFPA Draft Supplement:

...proposes to provide for implementation of the HFQLG Forest Recovery Act Pilot Project, consistent with the August 1999 HFQLG Act Record of Decision (HFQLG Act ROD) with the following exceptions: (1) The mitigation measure to avoid resource management activities, as defined in the HFQLG Act, in suitable owl habitat would be dropped; and (2) DFPZ completion would be allowed in Late Seral Old Growth (LSOG) ranked 4 and 5 with direction to avoid altering old forest patches within this land allocation. Upon completion of the Pilot Project, management activities on the Plumas and Lassen National Forests and the Sierraville Ranger District of the Tahoe National Forest would be guided by the direction under Alternative S2 for the Sierra Nevada National Forests.

The analysis in the Final Supplement does not reflect these changes proposed in the SNFPA Draft Supplement, due to its draft nature. Since no decision has been made to actually change management direction for the Pilot Project, the current SNFPA management direction, standards, and guidelines are analyzed here.

National Historic Preservation Act (Public Law 89-665)

Forest managers are not currently required to consult with the State Historic Preservation Office while conducting forest planning. However the Forest Service must comply with Section 106 of the National Historic Preservation Act, as stipulated in the agreement entitled, *Programmatic Agreement between the USDA Forest Service - Pacific Southwest Region, California State Historic Preservation Officer, and the Advisory Council on Historic Preservation*. If effects on cultural heritage resources are identified during site-specific DFPZ planning, consultation will be conducted.

Wild and Scenic Rivers Act (Public Law 90-542, as amended)

The proposed action is consistent with provisions of the Wild and Scenic Rivers Act, which regulates forest management activities within the National Wild and Scenic Rivers System. Specifically, these lands are to be administered in such a manner as to protect and enhance the values that caused them to be included in the system, without limiting other uses that do not substantially interfere with public use and enjoyment of these values. The primary emphasis is given to protecting these lands' aesthetic, scenic, historic, archaeological, and scientific features and to maintaining the free-flowing character of the system river. The Secretary of Agriculture may utilize the general statutory authorities relating to the National Forests to carry out the purposes of this Act.

Permits and Coordination

As described in the HFQLG Act FEIS (pages 1-9) and the HFQLG ROD (page 14), the Forest Service coordinates its activities with Federal and State of California regulatory agencies, including air quality management districts and water quality control boards. During subsequent site-specific analysis for maintenance of particular DFPZs, additional coordination requirements may be identified. These requirements could include, but are not limited to, (1) county agricultural permits and (2) application of an existing memorandum of understanding with the California Department of Fish and Game for management of National Forest System lands, which includes directives for wildlife, fisheries, and plant resources.

Implementation Date

Pursuant to 36 Code of Federal Regulations (CFR) 217.10(a), this decision will be implemented 7 calendar days following publication of the legal notice of the decision, unless a stay request is granted.

Administrative Appeal

This decision does not change any of the findings for the National Forest Management Act significance criteria described in the 1999 HFQLG Forest Recovery Act ROD. Therefore, this revised decision remains a non-significant amendment to the Forests' plans, and is subject to appeal pursuant to 36 CFR 217 by filing a written notice of appeal within 45 days of the date of the latest of the three published legal notices of this decision, as provided in 36 CFR 217.5(b) and 36 CFR 217.8(a)(2). This notice is being published in the Lassen County Times, the Feather River Bulletin, and The Union. This appeal must be filed with the Reviewing Officer in duplicate at:

Regional Forester
USDA Forest Service
Pacific Southwest Region
1323 Club Drive
Vallejo, CA 94592

The notice of appeal must include sufficient narrative evidence and argument to show why this decision should be changed or reversed, as specified in 36 CFR 217.9. For a period not to exceed 20 days following the filing of a notice of appeal, the Reviewing Officer shall accept requests to intervene in the appeal from any interested or potentially affected person or organization as specified in 36 CFR 217.14(a).

Decisions on site-specific projects are not made in this document. Decisions on proposed projects will not be made until completion of environmental analyses and documentations for the specific projects, in compliance with NEPA.

Contact Person

If you would like more information on this revised record of decision for maintenance of DFPZs within the HFQLG Pilot Project area, please contact the following official:

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Signatures

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