

# Watdog Project

## Final Supplemental Environmental Impact Statement

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**Abstract:** The USDA Forest Service, Plumas National Forest, Feather River Ranger District proposes to reduce fire hazards, harvest trees using group selection methods, perform associated road system improvement work, and carry out a range of aquatic and wildlife habitat improvement activities on approximately 4,000 acres of forested federal land northeast of Lake Oroville and Feather Falls, California. This *Final Supplemental Environmental Impact Statement* (FSEIS) documents the analysis of four alternatives:

- **Alternative A** is the No-action alternative.
- **Alternative B** is the agency preferred alternative. Alternative B proposes fuel treatments that include construction of a Defensible Fuel Profile Zone (DFPZ), group selection harvests, and road system improvements. This alternative is designed to reduce the potential for spread of crown fires and treat surface, ladder, and canopy fuels to reduce fire intensity.
- **Alternative C** is designed to retain more canopy cover in the DFPZs (40 percent) than alternative B. Fewer acres of group selection harvest are proposed in order to meet the 40 percent canopy cover by stand. Alternative C is less cost effective than alternative B.
- **Alternative D** proposes to retain 50 percent canopy cover and harvest trees no larger than 20 inches diameter-at-breast-height (dbh) in DFPZs. This alternative is less cost effective and proposes fewer acres of group selection harvest than alternatives B or C in order to meet the 50 percent canopy cover by stand.

## Summary

The Feather River Ranger District of the Plumas National Forest proposes to meet objectives to improve overall forest health conditions and vegetative diversity and reduce the threat of large-scale, high-intensity wildfires by reducing hazardous fuels within the Watdog Project. The district also proposes to provide access to the project and reduce water quality impacts by improving the transportation system in the area. The project evolved from needs and opportunities identified in the Fall River South Branch Middle Fork of the Feather River Landscape Assessment (Landscape Assessment). The Landscape Assessment included two watersheds and covered 43,000 acres. It was started in 2001 and completed in 2005. The Watdog Project was one of the opportunities identified on National Forest lands to meet the landscape objectives listed above and addressed in the Landscape Assessment.

The proposed project integrates several strategies aimed at reducing hazardous fuels, providing commercial products, and coordinating vegetation management activities with local communities. The legislation, strategies, and documents integrated into the Watdog Project are as follows:

- *Plumas National Forest Land and Resource Management Plan and ROD (1988)*
- *Herger-Feinstein Quincy Library Group Forest Recovery Act (1998)*
- *Herger-Feinstein Quincy Library Group Environmental Impact Statement and ROD (1999)*
- *National Fire Plan (2000)*
- *Cohesive Strategy (2000)*
- *10-Year Comprehensive Strategy (2001)*
- *Healthy Forest Restoration Act (2003)*
- *Herger-Feinstein Quincy Library Group Environmental Impact Statement Supplemental Environmental Impact Statement and Record of Decision (2003)*
- *Sierra Nevada Forest Plan Amendment Final Supplemental Environmental Impact Statement and Record of Decision (2004)*
- *Fall River South Branch Middle Fork of the Feather River Landscape Assessment (2005)*
- *Organic Administrative Act (1897)*
- *Multiple-Use Sustained Yield Act (1960)*
- *Forest and Rangeland Renewable Resources Planning Act (1974)*
- *National Forest Management Act (1976)*

## Purpose and Need for Action

The purpose of the Watdog Project is to:

- Promote fire resilient forest ecosystems to improve firefighter safety and wildfire suppression efficiency by adding to the Feather River District's Defensible Fuel Profile Zone's (DFPZ's) network, in support of the 300,000-acre fuel break strategy per the Herger-Feinstein Quincy Library Group (HFQLG) Forest Recovery Act Pilot Project. This proposal is designed to construct DFPZ's to accomplish an additional estimated 20 percent of the District's program, of which 40 percent has been either previously authorized or is in the final stages of the environmental analysis process.
- Alter existing conditions to achieve uneven-aged, multistory, fire-resilient forest ecosystem conditions, while contributing to community stability through the application of Group Selection (GS) provisions of the HFQLG Forest Recovery Act.
- Reduce transportation system generated resource impacts by accomplishing infrastructure upgrades/re-location and decommissioning/closing unessential roads to lower overall road densities, while improving road access to aid proposed Watdog Project activities.
- Promote a species diverse forest ecosystem, particularly where hardwoods such as black oak are present to stimulate natural regeneration, tree health and growth using vegetation management practices.
- Provide for healthy aquatic and riparian (meadow) ecosystems by improving fish passage at migration barriers, along with streambank stabilization and meadows enhancement using watershed restoration practices.

The purpose of the Watdog Project will be accomplished by:

- Implementing fuels reduction by proposing DFPZ treatments to provide for fire resiliency and improved fire fighter safety;
- Implementing group selection timber harvest to shift existing conditions towards an uneven-aged, multistory, fire-resilient forest, and contribute to community stability; and
- Reducing impacts of the transportation system on forest resources by implementing road system improvements as part of project access.

The proposed project includes the following restoration opportunities:

- Promote a more natural forest ecosystem with a higher abundance of hardwoods and create openings around existing California black oaks to stimulate natural regeneration
- Provide for healthy aquatic and riparian ecosystems by implementing restoration projects to improve fish passage in streams and restore selected streams and meadows.

## Proposed Action

The project proposal has four main actions:

- Reducing fire hazards through fuel treatments and harvesting trees in DFPZs,
- Harvesting trees using Group Selection silvicultural methods,
- Performing associated road work in the project area, and
- Additional restoration of aquatic and wildlife habitat.

Treatments would include reduction of surface fuels, ladder fuels and canopy fuels through a variety of methods such as mechanical harvest, hand thinning, mastication of brush and small trees, piling and burning, and prescribed underburning. No trees 30 inches dbh or larger would be cut except as needed for safety and/or operability. DFPZ construction is proposed within late-successional old-growth (LSOG) Rank 4 and 5 stands consistent with the Standards and Guidelines in Table 2 of the 2004 SNFPA ROD. DFPZs have been designed to avoid old forest stands (California Wildlife Habitat Relationship [CWHR] classes 5M, 5D, and 6) within this allocation. No group selection treatments would be implemented in LSOG rank 4 and 5 areas, but the proposed action includes treating fuels by underburning in 20 acres of a portion of the Middle Fork Roadless Area, which is part of the Semi-Primitive Area (Rx-8) land prescription defined by the *Plumas National Forest Land and Resource Management Plan* (LRMP, p. 4-88:90). The Middle Fork Roadless Area is identified on the Plumas National Forest Roadless Area Conservation inventoried roadless map of September 15, 2000. Consistent with current interim guidelines, no other treatments besides underburning would be implemented in the roadless area.

Group selection vegetation treatments would be conducted on approximately 231 acres. Group selection would involve removal of conifers less than 30 inches dbh in areas 0.5–2 acres in size. Again, no trees larger than 30 inches dbh would be cut except as needed for operability. Slash would be treated and natural regeneration or reforestation would occur in the openings. Shade-intolerant, fire-resilient species would be encouraged.

Several steps were used to identify the stands best suited for group selection. The first step was to calculate the available land base for timber production. The second step identified the vegetation types with moderate to dense canopy and merchantable sized trees. The final step involved further refining the land base to accommodate site-specific protection of resources, operability, and economics.

The dominant vegetation type on the project area is Sierra Nevada mixed conifer. Other vegetation types include ponderosa pine, hardwood, chaparral (found on slopes burned by wildfire), and true firs at higher elevations. It includes variable, but extensive, large same-aged stands resulting from wildfire and timber harvest/plantation establishment. Meadows and corridors of riparian vegetation exist along numerous perennial and intermittent streams. Wildlife habitat exists that supports most species common in the Sierra Nevada. The area consists of abundant surface and ladder fuels, shade-tolerant fire-prone species, and interlocking crowns. The area is extensively roaded with main roads as well as numerous non-system roads.

Opportunities for aquatic and wildlife habitat restoration proposed as part of the project include black oak stand restoration, culvert removal and upgrade to improve fish passage in streams, meadow restoration, and streambank stabilization.

Road work associated with the proposed activities consists of:

- Approximately 4.5 miles of existing system road and 0.1 mile of non-system road would be closed with barriers upon project completion.
- Approximately 9 miles of existing system road and 3.9 miles of non-system road would be decommissioned during project implementation.
- Approximately 1.2 miles of new system road would be constructed and closed upon project completion.
- Approximately 1.8 miles of existing road would be removed from the system.
- Approximately 0.5 mile of temporary roads would be constructed. Temporary roads would be decommissioned after use.
- Approximately 17.1 miles of road would be reconstructed and left open upon project completion.
- Approximately 0.7 mile of system road would be reconstructed prior to project use and closed upon project completion.

## **Tribal Consultation**

The following federally recognized tribes and interested and affected tribes were consulted regarding the Watdog Project: Mooretown Rancheria, Enterprise Rancheria, Berry Creek Rancheria, Chico Band of Mechoopda Indians, and the Konkow Valley Band of Maidu.

## **Public Involvement**

An extensive public involvement process has been conducted for the Watdog Project. The Forest Service used a variety of methods to solicit input and comments from members of the public, other public agencies, tribes, adjacent property owners, and organizations.

On December 21, 2007, an NOA was published in the Federal Register to announce plans to prepare a second Draft Supplemental EIS. Upon publication in the Federal Register, legal notices were posted in two local newspapers to announce the opening of the public comment period in December 2007. Letters were sent to Tribal members and other interested citizens who previously expressed interest in the Watdog Project, indicating supplemental information has been prepared and is availability for public review. The Forest Service website was also updated to reflect the changes and to encourage the public to view the document electronically.

Comments were accepted for the 45-day Comment Period, which ended on February 10, 2008, as required by regulations set forth by the Council of Environmental Quality (CEQ). The Forest Service received three letters, copies of which are included in Appendix I. Comments address resource issues regarding hazard tree and snag analyses, large woody debris requirements, canopy cover and cumulative effects linked to the CWHR 4 and 5 areas (e.g. old forest components) and impacts to old-forest dependent species such as the California spotted owl, American marten, and Pacific fisher.

Detailed information about the comments and Forest Service responses to comments are contained in Appendix I of the FSEIS.

## **Alternative Development**

To narrow the scope of the environmental analysis process, the IDT focused on issues that provide comparative measures between the proposed action and the other management scenarios considered for this project. The IDT, in conjunction with the Responsible Official, developed alternatives to the proposed action in response to the following issues: (1) Fuels and Fire Behavior, (2) Landscape Structure, (3) Aquatic and Wildlife Concerns, (4) Cost Effectiveness and Community Stability, (5) Post-treatment Vegetative Response, (6) Post-treatment Maintenance and Monitoring.

One alternative was developed in part to address public concerns that harvesting trees greater than 20 inches in diameter would be detrimental to old forest conditions and would not be necessary to achieve fire objectives.

Indicator measures display the most important environmental effects between the alternatives and provide a clear basis for choice among the options. Thus, the purpose and need, range of alternatives, environmental effects, and final decision will be discussed throughout this document in terms of the issues and the corresponding indicator measures.

The following is a summary of the alternatives developed from scoping:

### **No-Action Alternative (Alternative A)**

Under the no-action alternative, no fuels treatments, DFPZ construction, group selection harvests, transportation system improvements, or aquatic/wildlife habitat restoration would be implemented to accomplish the purpose and need. This alternative would not meet the intent of the Plumas National Forest LRMP, as amended by the SNFPA Record of Decision (ROD) and the Herger-Feinstein Quincy Library Group (HFQLG) ROD. The desired condition set forth in the HFQLG Act of an uneven-aged, multistory, fire-resilient forest would not be achieved. Ecological health of the forest would not be improved and maintained.

## Action Alternatives

All three action alternatives (B, C, and D) propose DFPZ and group selection treatment methods. They only differ by the number of acres of group selection harvest treatments and the canopy cover and diameter limits in the DFPZ treatments. The exception is, under alternative D there will be no new road construction and fewer miles of road reconstruction. The different canopy cover and diameter limits in the DFPZ treatments reduce the acres of treatments across action alternatives.

Alternative B is the Preferred Alternative and is described above under the description of the proposed action. Alternative B proposes 4,021 acres of DFPZ construction and 231 acres of group selection treatments. Opportunities for aquatic and wildlife habitat restoration proposed as part of the project include black oak stand restoration, culvert removal and upgrade to improve fish passage in streams, meadow restoration and streambank stabilization. This alternative is designed to reduce the potential for spread of crown fires and treat surface fuels to reduce fire intensity. This alternative proposes to reduce canopy cover to 40 percent in stands of medium to large trees greater than 24 inches dbh (CWHR Size Class 5 stands). Stands of small, 11–24 inches dbh trees (CWHR Size Class 4 stands) would be thinned to 70 trees per acre at 25-foot spacing. There are no canopy cover restrictions for CWHR 4 stands, per the SNFPA ROD (2004, table 2) requirements. This alternative is designed to: (1) maintain sufficient spacing between overstory crowns to reduce the potential for spread of crown fires; and (2) treat surface fuels to produce less than 4-foot flame lengths or below the fire intensity threshold that would result in 10 percent mortality within the residual stand (HFQLG FEIS, appendix J). Alternative B is the most cost effective means to conduct the HFQLG Pilot Project.

Alternative C (40 percent canopy closure) was developed to meet the desired condition as described in appendix J of HFQLG FEIS for canopy cover of 40 percent. It is designed to retain more canopy cover in the DFPZs at 40 percent than alternative B, and fewer acres of group selection harvest are proposed. Alternative C is less cost effective than alternative B. The treatments are the same as alternative B, except that 3,898 acres of DFPZs (CWHR Size Class 4 stands) would be thinned to a 40 percent canopy cover, and 151 acres of group selection treatments would occur. Transportation and restoration opportunities are the same as those listed for the proposed action above.

When averaged across all stands, canopy cover under alternative B differs only slightly from that of alternative C. However, at the stand level, post-treatment canopy cover in 20 of the 26 CWHR Size Class 4 stands would be less than 40 percent to increase crown separation.

More than half of the stands with less than 40 percent canopy cover are located above steep-sided canyons. Increased crown separation in these strategically-located stands would reduce the possibility that a crown fire burning up from the canyon would carry across the canopy in the DFPZ. In some cases, the increased crown separation would protect adjacent private land or wildlife habitat.

Alternative D (50 percent canopy cover and 20 inch upper diameter limit) was developed to meet internal and external issues identified in coordination with the Responsible Official and Line Officers. It proposes to retain 50 percent canopy cover and harvest trees no larger than 20 inches dbh in DFPZs.

The treatments are the same as alternative B, except 2,523 acres of DFPZ (CWHR Size Class 4 and 5 stands) would be thinned to 50 percent canopy cover and 105 acres of group selection treatments would occur. Transportation and restoration opportunities are the same as those listed in the proposed action above, except no new road construction would be completed and road reconstruction would be reduced by 0.4 mile.

This document analyzes the effects of the four alternatives on twelve resource topic areas in chapter 3: Air Quality; Botany and Noxious Weeds; Economics; Fire and Fuels; Heritage Resources; Hydrology (Watershed); Range; Recreation, Visuals, Lands, and Minerals; Soils; Transportation Systems; Vegetation; and Wildlife and Fish.

## Summary of Environmental Consequences

The summary of effects is based on the following five indicators. Additional effects are described in chapter 3.

- Fire Behavior
- Landscape Structure
- Aquatics and Wildlife Concerns
- Cost Effectiveness and Community Stability

### Alternative A (No Action)

Ability to suppress fires in the Watdog Project area would not change with this alternative. This alternative would make little to no contribution to an uneven-aged, multistoried landscape structure in terms of fire-resistant trees, low stand densities, and structural diversity. This alternative would not affect existing suitable foraging habitat for the California spotted owl or existing suitable nesting habitat. The risk of losing owl nesting and roosting sites to wildland fire would not change from existing conditions. This alternative would not be cost effective in terms of having an estimated net value of \$0, and producing no sawlogs. This alternative would not contribute to the economic stability of the communities. It would support no full-time jobs and would not generate any employee-related income. No road closure or decommissioning would be performed.

### Alternative B (Preferred Alternative)

This alternative would make a high contribution to an uneven-aged, multistoried landscape structure in terms of fire-resilient tree species, low-stand densities, and structural diversity. Wildlife concerns are measured by the number of acres of habitat that would remain after harvest. This alternative would retain approximately 85 percent of the existing suitable foraging habitat for the California spotted owl and 98 percent of the existing suitable nesting habitat. There would be a lower risk than in alternative C or D of losing owl nesting and roosting sites to wildland fire. It would also retain approximately 88 percent of the existing suitable foraging habitat and 97 percent of existing suitable nesting habitat for the northern goshawk.

This alternative would be the most cost effective of the alternatives in terms of having estimated net harvest revenue of \$624,763. It would generate 16.3 million board feet of sawlogs and 33,000 tons of biomass. It would contribute to the economic stability of the communities by supporting 302 full-time jobs and \$13 million in employee-related income. This alternative proposes to construct 1.2 miles of new roads, close (with barriers such as gates) 4.6 miles of roads, reconstruct 17.1 miles of roads, and decommission 12.7 miles of roads.

## **Alternative C**

This alternative would make less of a contribution to an uneven-aged, multistory landscape structure than alternative B. As with alternative B, this alternative would retain approximately 85 percent of the existing suitable foraging habitat for the California spotted owl and 98 percent of the existing suitable nesting habitat. There would be a lower risk than alternative D, but a higher risk than alternative B, of losing owl nesting and roosting sites to wildland fire. It would also retain approximately 88 percent of the existing suitable foraging habitat and 97 percent of the existing suitable nesting habitat for the northern goshawk. This alternative would be less cost effective than alternative B, in terms of having estimated net harvest revenue of \$43,093. It would generate 12.7 million board feet of sawlogs and 33,000 tons of biomass. It would contribute to the economic stability of the communities by supporting 253 full-time jobs and \$11 million in employee-related income. This alternative proposes to construct 1.2 miles of new roads, close (with barriers such as gates) 4.6 miles of roads, reconstruct 17.1 miles of roads, and decommission 12.7 miles of roads.

## **Alternative D**

This alternative would make less of a contribution to an uneven-aged, multistory landscape structure in terms of fire-resistant trees, low stand densities, and structural diversity than either alternative B or C. This alternative would retain approximately 98 percent of the existing suitable foraging habitat and 99 percent of the existing suitable nesting habitat for the California spotted owl. There would be a higher risk than alternative B or C of losing owl nesting and roosting sites to wildland fire. It would also retain approximately 98 percent of the existing suitable foraging habitat and 99 percent of the existing suitable nesting habitat for the northern goshawk. This alternative would be less cost effective than alternative B or C. There would be an estimated net harvest loss of revenue of -\$269,234. It would generate 4.4 million board feet of sawlogs and 15,000 tons of biomass. It would contribute to the economic stability of the communities by supporting 161 full-time jobs and \$7 million in employee-related income. This alternative proposes no new road construction, close (with barriers such as gates) 4.6 miles of roads, reconstruct 17.1 miles of roads, and decommission 12.7 miles of roads.

## **Decision Framework**

Based upon the effects analysis of the alternatives, the Deciding Officer will decide whether to implement the Watdog Project as proposed, implement the project based on an alternative to this proposal that is formulated to resolve identified conflicts, or not implement this project at this time. The Deciding Officer has identified alternative B as the preferred alternative.

## Timing

The project is scheduled to begin in 2008 and be completed by 2012. General treatment schedules for DFPZ and group selection units are shown in appendix A of this document.

# Contents

## CHAPTER 1 — PURPOSE AND NEED FOR ACTION

1.1	Changes Between the Final Environmental Impact Statement and the Final Supplemental Impact Statement .....	1-1
1.2	Document Structure .....	1-1
1.3	Background.....	1-2
1.4	Purpose and Need .....	1-3
1.4.1	Implement Fuels Reduction by using the DFPZ Provisions of the HFQLG Act.....	1-4
1.4.2	Implement Group Selection Provisions of the HFQLG Act.....	1-6
1.4.3	Provide Project Access and Reduce Transportation System Impacts.....	1-8
1.4.4	Restoration Of California Black Oak Stands.....	1-10
1.4.5	Restoration Of Meadow and Riparian Ecosystems .....	1-11
1.5	Proposed Action.....	1-12
1.6	Project Location.....	1-12
1.7	Decision Framework.....	1-14
1.8	Scoping and Public Involvement .....	1-14
1.9	Issues.....	1-16
1.9.1	Fuels and Fire Behavior .....	1-16
1.9.2	Landscape Structure .....	1-17
1.9.3	Wildlife Concerns .....	1-18
1.9.4	Post-Treatment Vegetative Response, Maintenance, and Monitoring.....	1-18
1.9.5	Cost Effectiveness and Community Stability .....	1-19
1.9.6	Summary of Issues .....	1-19

## CHAPTER 2 — ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1	Changes Between the Draft and Final SEIS.....	2-1
2.1	Changes Between the Draft and Final SEIS .....	2-1
2.2	Introduction .....	2-1
2.3	Alternatives Considered in Detail .....	2-3
2.3.1	Alternative A – No Action .....	2-2
2.3.2	Action Alternatives Considered In Detail .....	2-3
2.4	Design Features and Practices Common To All Action Alternatives Considered in Detail.....	2-3
2.4.1	Defensible Fuel Profile Zones (DFPZs).....	2-4
2.4.2	Group Selection.....	2-6
2.4.3	Prescribed Burning.....	2-6
2.4.4	Mastication.....	2-7
2.4.5	Grapple Piling and Pile Burning.....	2-7
2.4.6	Transportation System Improvements: Project Access .....	2-7
2.4.7	Transportation System Improvements: Fish Passage.....	2-7
2.4.8	Black Oak Stand Restoration .....	2-8
2.4.9	Streambank Stabilization.....	2-8

2.4.10 Meadow Restoration..... 2-8

2.4.11 Monitoring and Mitigation Measures ..... 2-9

2.5 Alternative B – Preferred Alternative ..... 2-10

2.5.1 Defensible Fuel Profile Zones (DFPZs) and Group Selection Treatments..... 2-11

2.5.2 Transportation and Restoration Improvements ..... 2-12

2.6 Alternative C ..... 2-15

2.6.1 Defensible Fuel Profile Zones (DFPZs) and Group Selection Treatments..... 2-16

2.6.2 Transportation and Restoration Improvements..... 2-17

2.7 Alternative D ..... 2-19

2.7.1 Defensible Fuel Profile Zones (DFPZs) and Group Selection Treatments..... 2-20

2.7.2 Transportation and Restoration Improvements..... 2-21

2.8 Alternatives Considered but Eliminated from Detailed Study ..... 2-24

2.8.1 Comparison of the Alternatives ..... 2-26

**CHAPTER 3 — AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

3.1 Introduction

3.1.1 Scope of the Analysis ..... 3-1

3.1.2 Description of Alternatives..... 3-2

3.1.3 Cumulative Effects Analysis ..... 3-3

3.2 Air Quality

3.2.1 Introduction ..... 3-7

3.2.2 Existing Condition and Environmental Effects ..... 3-13

3.2.3 Irreversible, Irretrievable Effects..... 3-16

3.2.4 Summary of Cumulative Effects ..... 3-16

3.3 Botany and Noxious Weeds

3.3.1 Introduction ..... 3-17

3.3.2 Regulatory Framework..... 3-17

3.3.3 Methodology for Assessing Impacts on Botany and Noxious Weeds ..... 3-19

3.3.4 Existing Condition and Environmental Effects ..... 3-20

3.3.5 Irreversible, Irretrievable Effects..... 3-38

3.3.6 Summary of Project Effects..... 3-39

3.4 Economics

3.4.1 Introduction ..... 3-40

3.4.2 Existing Condition and Environmental Effects ..... 3-41

3.5 Fire and Fuels

3.5.1 Introduction ..... 3-49

3.5.2 Scope of the Analysis ..... 3-49

3.5.3 Analysis Methods ..... 3-49

3.5.4 Regulatory Framework..... 3-51

3.5.5 Existing Conditions and Environmental Effects for Fire and Fuels ..... 3-52

3.5.6 Effects of the Alternatives on Fire and Fuels ..... 3-56

3.5.7 Irreversible, Irretrievable Effects..... 3-67

3.5.8 Summary of Cumulative Effects ..... 3-67

3.6	Heritage Resources	
3.6.1	Introduction .....	3-69
3.6.2	Existing Condition and Environmental Effects .....	3-73
3.6.3	Irreversible, Irretrievable Effects.....	3-75
3.6.4	Summary of Cumulative Effects .....	3-75
3.7	Hydrology	
3.7.1	Introduction .....	3-76
3.7.2	Scope of the Analysis .....	3-76
3.7.3	Regulatory Framework.....	3-76
3.7.4	Existing Condition and Environmental Effects .....	3-85
3.7.5	Irreversible, Irretrievable Effects.....	3-97
3.7.6	Summary of Cumulative Effects .....	3-97
3.8	Rangeland	
3.8.1	Introduction .....	3-99
3.8.2	Existing Condition and Environmental Effects .....	3-100
3.8.3	Irreversible, Irretrievable Effects.....	3-101
3.8.4	Summary of Cumulative Effects .....	3-101
3.9	Recreation, Visuals, Lands, and Minerals	
3.9.1	Introduction .....	3-102
3.9.2	Analysis Methods.....	3-102
3.9.3	Existing Condition and Environmental Effects .....	3-104
3.9.4	Irreversible, Irretrievable Effects.....	3-108
3.9.5	Summary of Cumulative Effects .....	3-108
3.10	Soils	
3.10.1	Introduction .....	3-109
3.10.2	Scope of the Analysis .....	3-109
3.10.3	Regulatory Framework.....	3-112
3.10.4	Management Guidance.....	3-113
3.10.5	Existing Condition and Environmental Effects .....	3-116
3.10.6	Irreversible, Irretrievable Effects.....	3-132
3.10.7	Summary of Cumulative Effects .....	3-133
3.11	Transportation System	
3.11.1	Introduction .....	3-137
3.11.2	Existing Condition and Environmental Effects .....	3-138
3.11.3	Irreversible, Irretrievable Effects.....	3-140
3.11.4	Summary of Cumulative Effects .....	3-141
3.12	Vegetation	
3.12.1	Introduction .....	3-142
3.12.2	Scope of the Analysis .....	3-142
3.12.3	Existing Condition and Environmental Effects .....	3-146
3.12.4	Irreversible, Irretrievable Effects.....	3-172
3.12.5	Summary of Cumulative Effects .....	3-172
3.13	Wildlife and Fish	
3.13.1	Introduction .....	3-176
3.13.2	Species Considered in the Analysis.....	3-177
3.13.3	Scope of the Analysis .....	3-181
3.13.4	Regulatory Framework.....	3-182
3.13.5	Analysis Methods.....	3-183

3.13.6 Existing Condition and Environmental Effects ..... 3-185  
 3.13.7 Irreversible, Irretrievable Effects..... 3-240  
 3.13.8 Determinations ..... 3-240  
 3.13.9 Summary of Cumulative Effects ..... 3-241  
 3.14 Short-term Uses and Long-term Productivity ..... 3-244  
 3.15 Unavoidable Adverse Effects ..... 3-244  
 3.16 Cummulative Effects ..... 3-245  
 3.17 Other Required Disclosures  
 3.17.1 Endangered Species Act..... 3-247  
 3.17.2 Clean Water Act ..... 3-247  
 3.17.3 Clean Air Act..... 3-247  
 3.17.4 National Preservation Act..... 3-247  
 3.17.5 National Forest Management Act..... 3-247

**CHAPTER 4: CONSULTATION AND COORDINATION**

4.1 Preparers and Contributors  
 4.1.1 ID Team Members.....4-1  
 4.1.2 Federal, State, and Local Agencies .....4-3  
 4.1.3 Tribes.....4-3  
 4.1.4 Organizations and Individuals .....4-4  
 4.2 Distribution of the Final Environmental Impact Statement 4-3  
 4.2.1 Federal, State, and Local Agencies .....4-4  
 4.2.2 Tribes, Organizations, and Individuals .....4-4  
 ACRONYMS ..... 4-5  
 GLOSSARY ..... 4-9  
 REFERENCES ..... 4-14  
 INDEX..... 4-22

**APPENDICES**

Appendix A: Proposed Vegetation Treatment Schedules..... A-1  
 Appendix B: Treatments by Alternative..... B-1  
 Appendix C: Watdog Project Maps ..... C-1  
 Appendix D: Road Treatments ..... D-1  
 Appendix E: Project Design Features and Mitigation Measures .....E-1  
 Appendix F: Economic Analysis .....F-1  
 Appendix G: National Forest Management Act Findings ..... G-1

Appendix H: Watdog Defensible Fuel Profile Zone Monitoring and Maintenance Guidelines ..... H-1  
Appendix I: Response to Comments ..... I-1

**FIGURES**

1-1. Backfire Strategy – Fighting Fire with Fire ..... 1-1  
1-2. Prescribed Underburning Operation..... 1-6  
1-3. A simplified representation of an uneven-age, multi-story, “fire-prone forest..... 1-7  
1-4. A simplified representation of an uneven-age, multi-story, fire-resilient forest..... 1-8  
1-6. California spotted owl..... 1-15  
1-7. Pacific fisher ..... 1-15  
1-8. American marten..... 1-15  
2-1. Alternative A – No Action ..... 2-2  
2.2 Alternative B - Proposed Action ..... 2-10  
2.3 Alternative C – Modified Action..... 2-15  
2.4 Alternative D ..... 2-19  
2.5 Comparison of DFPZ treatments by alternative using stand visualization simulator (SVS)..... 2-29  
3-1. California air basins and counties ..... 3-6  
3-2. California Air Quality Management Districts and counties ..... 3-9  
3-3. Stand structure and fuel ladder potential for CWHR 4 stands..... 3-158  
3-4. Stand structure and fuel ladder potential for CWHR 5 stands..... 3-158  
3-5. Comparison of stand structure by alternative using stand visualization simulator (SVS)..... 3-159  
3-6. Change in seral stage diversity for the Watdog Project alternatives ..... 3-170

**TABLES**

1-1. Issue categories addressed in the Watdog Project Final Environmental Impact Statement ..... 1-20  
2-1. Land Allocations Applicable to All Alternatives ..... 2-4  
2-2. Alternative B (Preferred Alternative) – DFPZ and Group Selection Treatments..... 2-11  
2-3. Alternative B – Transportation and Restoration Improvements ..... 2-12  
2-4. Alternative C – DFPZ and Group Selection Treatments ..... 2-16  
2-5. Alternative C – Transportation and Restoration Improvements..... 2-17  
2-6. Alternative D – DFPZ and Group Selection Treatments..... 2-20  
2-7. Alternative D – Transportation and Restoration Improvements..... 2-21  
2-8. Hazardous Fuels Practices Common to the Action Alternatives..... 2-26

2-9. Other Improvements/Restoration Practices Common to the Alternatives Considered in Detail ..... 2-27

2-10. Alternative Comparison of Canopy Cover by CWHR Size Classes..... 2-28

2-11. Alternative Comparison of Proposed Group Selection Treatments..... 2-30

2-12. Alternative Comparison by Indicator ..... 2-30

3-1. Past, present, future, and foreseeable future actions in and near the Watdog Project area ..... 3-3

3-2. FOFEM PM emission estimates by burn type, stand type, and fuel loading ..... 3-12

3-3. Annual criteria pollutant totals for Watdog Project timber operations and prescribed burning ..... 3-15

3-4. Acres of Sensitive and Special Interest species identified in the project area and within treatment units ..... 3-21

3-5. Known noxious weed occurrences within and near Watdog Project treatment units ..... 3-37

3-6. Area estimations of known noxious weed occurrences in the Watdog Project area based on ocular observation ..... 3-37

3-7. Percentage of Plumas National Forest system lands by county..... 3-41

3-8. Secure Rural Schools and Community Self-Determination Act full payment amounts to counties for fiscal year 2005 ..... 3-43

3-9. Comparison of economic effects by alternative ..... 3-45

3-10. Pilot Project region averages of accomplished DFPZ acres and sawlog and biomass volumes offered..... 3-47

3-11. Watdog Project contribution to the HFQLG Pilot Project area ..... 3-47

3-12. 90th percentile weather conditions (1980–2002) for the Pike County weather station ..... 3-50

3-13. Historical fire regimes, ranked by frequency and severity ..... 3-53

3-14. Fire behavior predictions (BEHAVE GTR-194) based on uphill fire on 20 percent and 60 percent slopes ..... 3-56

3-15. Fireline production rates for fire suppression crews in chains per hour ..... 3-56

3-16. Predicted stand conditions for selected units for the no-action alternative (alternative A) and after treatments and prescribed burning of alternatives B, C, and D ..... 3-57

3-17. Stand level CWHR 4 predicted average crown base height for alternative A (the no action alternative) and after primary thinning treatment of alternatives B, C and D..... 3-57

3-18. Effect of modeled post-treatment wildfire on stand mortality for CWHR Size Class 4 stands in selected Watdog treatment units for alternative B..... 3-63

3-19. CWHR 4 stand structure by averaged trees per acre by size class ..... 3-63

3-20. Projects and events considered in the cumulative effects analysis for fires and fuels ..... 3-65

3-21. Watersheds and subwatersheds of the Watdog analysis area ..... 3-77

3-22. Existing condition ERA compared to TOC by subwatershed ..... 3-88

3-23. Alternative B: Proposed Action ERA compared to the TOC by subwatershed..... 3-93

3-24. CWE results for alternative C..... 3-95

3-25.	CWE results for alternative D .....	3-96
3-26.	CWE results for all alternatives .....	3-98
3-27.	Livestock Utilization standards and guidelines, Sierra Nevada Forest Plan Amendment 2004 ROD.....	3-99
3-28.	Table Omitted .....	
3-29.	Treatment units with low amounts of large woody debris per acre.....	3-127
3-30.	Miles of road by maintenance level, Watdog Roads Analysis area .....	3-139
3-31.	Determination of group selection acres within Watdog Project area and watersheds based on HFQLG Act annual expectations .....	3-145
3-32.	Elevation ranges for westside and eastside geographic areas within the Watdog Project area .....	3-146
3-33.	Description of forest types found in the Watdog Project area.....	3-147
3-34.	Stand attributes by treatment group.....	3-151
3-35.	Stand structure by size class.....	3-152
3-36.	Forest vegetation data for the Fall River and South Branch Middle Fork Feather River watersheds.....	3-153
3-37.	Existing condition and desired condition for tree size class distribution for Fall River and South Branch Middle Fork Feather River watersheds.....	3-155
3-38.	Canopy cover summary by treatment group for each alternative.....	3-155
3-39.	Canopy cover by tree size class for CWHR Size Class 4 and 5 stands.....	3-157
3-40.	Trees per acre by size class for CWHR Size Class 4 and 5 stands.....	3-157
3-41.	Quadratic mean diameter for each treatment group .....	3-160
3-42.	Basal area and trees per acre within proposed DFPZ.....	3-161
3-43.	Basal area retention in CWHR Size Class 4 and 5 stands .....	3-162
3-44.	Total trees per acre of black oak and tanoak in the Watdog Project area.....	3-164
3-45.	Estimated number of black oaks in Watdog Project area and potential number of black oak within group selection units that may be affected by group selection harvest.....	3-166
3-46.	Percent cover and average height of shrubs, grasses, and herbs .....	3-167
3-47.	Status of threatened and endangered species that potentially occur on the Plumas National Forest .....	3-178
3-48.	List of species not analyzed in detail for the Watdog Project .....	3-179
3-49.	Management Indicator Species, Plumas National Forest, and selection of MIS for Project-Level Analysis for the Watdog Project .....	3-180
3-50.	Comparison of post-treatment canopy cover by alternative.....	3-194
3-51.	CWHR 4 (FS size class 3) average canopy cover, including Group Selections.....	3-195
3-52.	DFPZ CWHR 5 (FS size class 4) average canopy cover, including Group Selections .....	3-196

3-53. Northern goshawk nesting and foraging requirements by CWHR forest strata type..... 3-209

3-54. Vegetation treatments proposed in potential northern goshawk foraging habitat  
 surrounding PACs ..... 3-211

3-55. California spotted owl nesting and foraging requirements by CWHR forest strata type..... 3-216

3-56. Acres of treatment in California spotted owl Home Range Core Area for the  
 action alternatives..... 3-217

3-57. Changes to California spotted owl Home Range Core Areas for each California  
 spotted owl PAC as a result of the preferred alternative (B) treatments..... 3-218

3-58. Suitable habitat for Pacific fisher and American marten by CWHR forest strata type ..... 3-224

3-59. Acres of CWHR 4/5 D and 4/5 M habitat affected pre-and post-treatment ..... 3-226

3-60. Acres of CWHR 4 and density changes for each alternative..... 3-226

3-61. Acres of CWHR 5 and density changes for each alternative..... 3-226

**Maps**

1-1. Vicinity Map ..... 1-13

2-1. Management Direction and Land Allocations ..... 2-5

2-2. Alternative B – Vegetation and Fuel Treatments ..... 2-13

2-3. Alternative B and C – Road Treatments Plan..... 2-14

2-4. Alternative D – Vegetation and Fuel Treatments ..... 2-18