

June 2004  
NW-ID-2004-030

United States  
Department of  
Interior

Bureau of Land  
Management



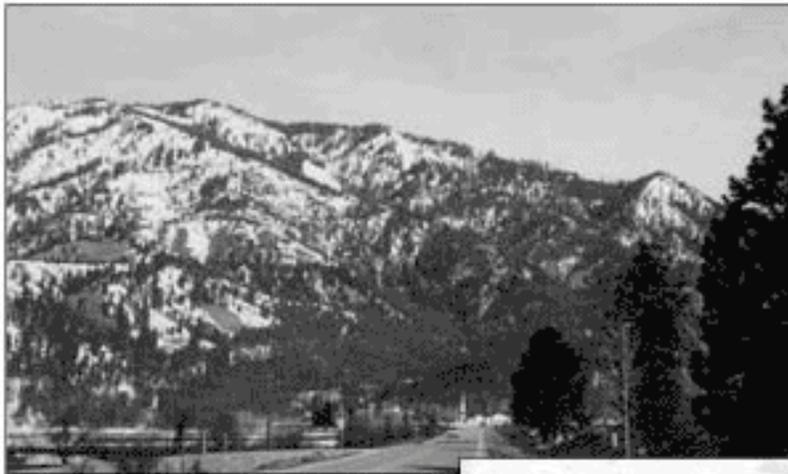
EA # ID-096-2004-055

# Garden Mountain Fuels Management Project

## Predecisional Environmental Assessment

For The Garden Valley and Crouch Communities  
Boise County, Idaho

U.S. Bureau of Land Management, Four Rivers Field Office



For Information Contact: Irene Saphra  
Bureau of Land Management  
Boise District, Four Rivers Field Office  
3948 Development Avenue  
Boise, Idaho 83705

# List of Acronyms

BA	Basal Area
BLM	Bureau of Land Management
BMPs	Best Management Practices
BP	Before Present
CEQ	Council on Environmental Quality
DBH	Diameter at Breast Height
DG	Decomposed Granite
EA	Environmental Assessment
ECA	Equivalent Clearcut Area
ESA	Endangered Species Act
FORVIS	Forest Vegetation Information System
FRFO	Four Rivers Field Office
GMFMP	Garden Mountain Fuel Management Project
HUC	Hydrologic Unit Code
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
IDT	Interdisciplinary Team
INFISH	Interim Strategy for Managing Non-Anadromous Watersheds
LCAS	Lynx Conservation Assessment and Strategy
MBF	Thousand Board Feet
MU	Management Unit
NEPA	National Environmental Policy Act
NOAA Fisheries	National Oceanic and Atmospheric Administration Fisheries (formerly National Marine Fisheries Service)
NFP	National Fire Plan
OHV	Off-Highway Vehicle
PM	Particulate Matter
RHCA	Riparian Habitat Conservation Area
RM	River Mile
RMP	Resource Management Plan
SCS	Soil Conservation Service
SHPO	State Historic Preservation Officer
SSS	Special Status Species
TPA	Trees per Acre
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRM	Visual Resource Management
WUI	Wildland Urban Interface

# GLOSSARY

**Butt Rigging** - A system of swivels and clevises that connect the haulback and mainline together and to which butt hooks are fastened. An essential part of the high lead, cable logging system.

**Cable Yarding** - Taking logs from the stump area to a landing using an overhead system of winch-driven cables to which logs are attached with chokers.

**DG Soil** - Highly erosive, decomposed granite soil formed from the Idaho Batholith.

**Felling** - Cutting standing trees, causing them to fall as a result.

**Hand Treatments** - A variety of hand treatments (e.g. brush removal, slash piling, lop and scatter, and pruning) that would be used on slopes greater than 35 percent to protect soil, site productivity, and water quality.

**Haulback** - A wire rope used to pull the mainline with carriage or butt rigging with chokers back to the timber for the next turn.

**Highlead Yarding System** - Wire rope system that involves yarding in logs or trees by means of a rope passing through a block at the top of the head spar. The basic system consists of a two-drum yarder and a spar or tower. The term "highlead" refers to the location of the mainline block elevated above the ground by the spar. Logs are not suspended off the ground.

**Jackstrawed** - Trees or logs that have fallen or have been piled in a random manner.

**Jammer Logging System** - Cable logging system generally restricted to one skidding line and used for winching logs up to 300 feet from the cutting area to a log collection point.

**Landing Site** - Usually flat ground to which logs are yarded, where they will be loaded on railroad cars or trucks; a collection point for logs.

**Lop and Scatter** - A method for distributing logging "slash" (waste from timber harvest) to reduce fuelbed depth, protect soil, and help re-establish vegetation.

**Mainline** - The cable used to haul logs into the landing. Some cable yarder configurations, such as running skyline, may have more than one mainline.

**Mechanical Treatments** - The use of tractors to pile slash. Mechanical slash piling is limited to slopes less than or equal to 35 percent to protect soil, site productivity, and water quality.

**Skidding** - Transporting trees or parts of trees by trailing or dragging them.

**Skyline** - A yarding system that uses a cable system with either one end or full log suspension to minimize soil disturbance moving logs from steep slopes to the log landing.

**Stand-Replacing Fire** - An uncharacteristically high intensity or long duration fire that kills all trees in the stand.

**Subbasin** - U.S. Geological Survey 4<sup>th</sup> field HUC drainage area (e.g. Middle Fork Payette Subbasin).

**Subwatershed** - U.S. Geological Survey 6<sup>th</sup> field HUC drainage area (e.g. Pyle Creek Subwatershed). A tributary to a 5<sup>th</sup> field HUC watershed.

**Target Canopy Closure** - The percentage of post-project canopy closure that would be retained.

**Tractor Skidding** - Powered vehicle for off-the-road hauling. May be mounted on crawler tracks or wheels.

**Uncharacteristic Fire** - A fire that is burning with atypical behavior and effects, given the historic fire regime for the area. On Garden Mountain, an uncharacteristic fire would consist of a crown fire or stand-replacing fire.

**Watershed** - U.S. Geological Survey 5<sup>th</sup> field HUC drainage area (e.g. Crouch Watershed). A major tributary to a 4<sup>th</sup> field HUC subbasin.

**Yarding** - Initial hauling of a log from the stump to a landing site.

## Table of Contents

1	PURPOSE AND NEED.....	1
1.1	Introduction.....	1
1.2	Project Location.....	2
1.3	Background.....	2
1.4	Purpose of and Need for Action.....	4
1.5	Conformance Statement: Relationship to Statutes, Regulations, or Other Plans.....	4
1.6	Decision Framework.....	5
1.7	Scoping and Identification of Resource Concerns.....	5
2	PROPOSED ACTION AND ALTERNATIVES.....	7
2.1	Alternative Development Process.....	7
2.2	Alternatives Considered but Not Carried Forward.....	8
2.3	Description of Alternatives.....	8
	2.3.1 Alternative 1 - No Action.....	
	2.3.2 Alternative 2 - Proposed Action (Forest Health).....	9
	2.3.3 Alternative 3 - Alternative 3 - (Shaded Fuelbreak).....	15
2.4	Alternative Comparison.....	17
3	AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES.....	20
3.1	General Setting.....	20
3.2	Critical Elements of the Human Environment.....	21
3.3	Soils.....	22
3.4	Water.....	27
3.5	Cultural Resources.....	34
3.6	Visual Resources.....	36
3.7	Air Quality.....	39
3.8	Fishes and Aquatic Habitat.....	42
3.9	Wildlife.....	45
3.10	Vegetation.....	51
3.11	Additional Disclosures.....	58
4	CONSULTATION AND COORDINATION.....	59
4.1	BLM Interdisciplinary Team Members.....	60
4.2	Federal, State and Local Agencies.....	60
4.3	Tribes.....	60
4.4	Public Meetings.....	60
4.5	Additional Outreach.....	62
4.6	Preparer.....	62
	REFERENCES AND PERSONAL COMMUNICATION.....	62

## Appendices

APPENDIX A. PROPOSED ACTION HARVEST TREATMENTS	A-1
APPENDIX B. SCHEDULE	B-1
APPENDIX C. COST ANALYSIS	C-1
APPENDIX D. BLM SPECIAL STATUS ANIMALS	D-1
APPENDIX E. BLM SPECIAL STATUS PLANT SPECIES	E-1

## List of Figures

Figure 1. Project Location .....	2
Figure 2. Land Ownership Map.....	3
Figure 3. Proposed Action .....	10
Figure 4. Jammer Based Logging System .....	12
Figure 5. Highlead Logging System .....	12
Figure 6. Full Suspension Running Skyline Logging System.....	13
Figure 7. Shaded Fuelbreak Alternative.....	16
Figure 8. Watershed Boundaries and Water Bodies .....	28

## List of Tables

Table 1. Comparison of Alternatives .....	18
Table 2. Critical Elements of the Human Environment.....	222
Table 3. Recent Past and Reasonably Foreseeable Cumulative Actions in the Watershed .....	266
Table 4. IDEQ 303(d) Listed Water Bodies Downstream of Project Area .....	<b>Error!</b> <b>Bookmark not defined.</b> 31
Table 5. Four Rivers Field Office ESA Listed, Proposed, and Candidate Species .	48
Table 6. Sensitive Species With Potential Habitat in the Project Area .....	49

# 1 - PURPOSE AND NEED

## 1.1 Introduction

The U.S. Department of Interior (USDI) Bureau of Land Management (BLM), Boise District, Four Rivers Field Office (FRFO) has prepared the Garden Mountain Fuels Management Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR 1500), the BLM NEPA Handbook (H-1790-1, USDI BLM 1988), and other relevant federal and state laws and regulations.

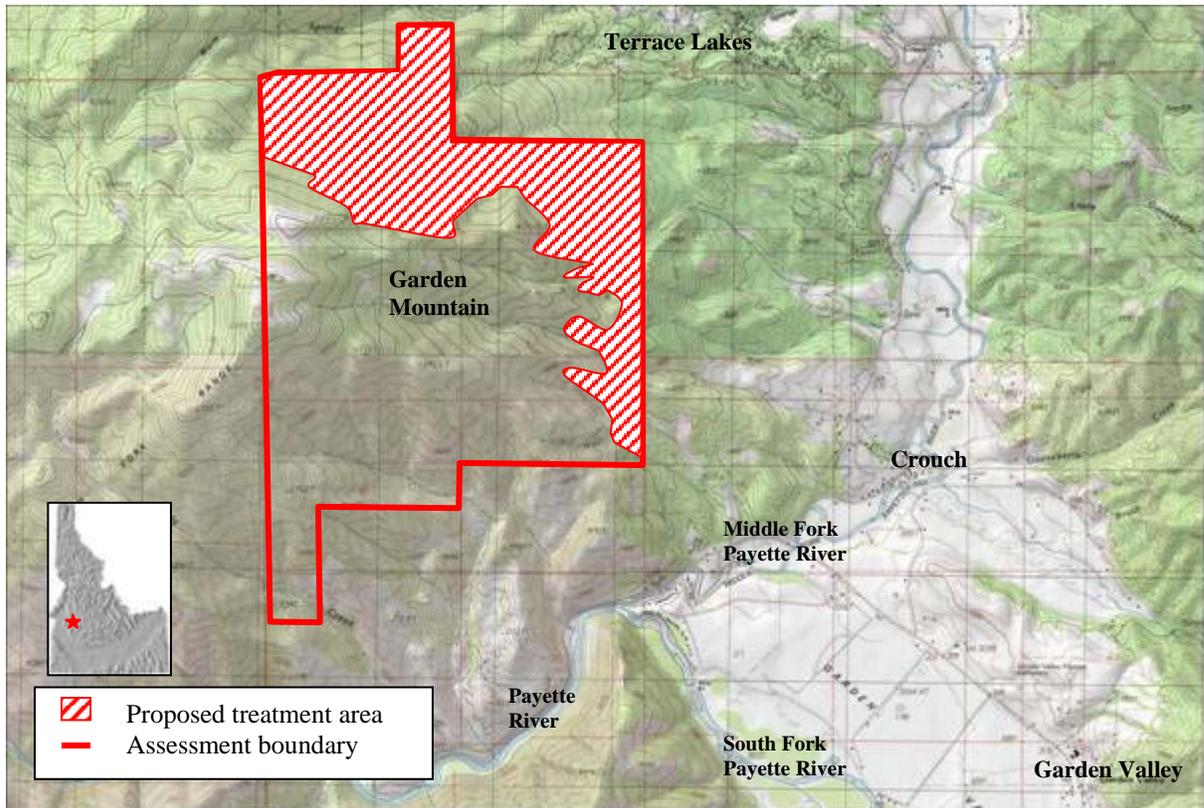
This EA discloses the direct, indirect, and cumulative environmental effects that would result from the Proposed Action and alternatives as required by NEPA and the CEQ Regulations. The EA provides the decision maker with pertinent information regarding the environmental impacts of implementing this proposal, displays the alternatives in comparative form, defines the issues and provides a clear basis for choice among the alternatives. The primary purpose of this EA is to facilitate a decision and to ensure the policies and goals defined by NEPA and contained in the Cascade Resource Management Plan (RMP, USDI BLM 1987) and other guiding documents are adhered to. Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the FRFO in Boise, Idaho. The EA is organized into the following four chapters and appendices.

- *Chapter 1 – Purpose and Need:* This chapter includes information on the history of the project, the purpose of and need for the project, and the BLM’s proposal for achieving that purpose and need. This section also briefly describes how the BLM informed the public of the proposal and the concerns that were identified.
- *Chapter 2 – Proposed Action and Alternatives:* This chapter presents the alternatives that were considered, and provides a detailed description of the agency’s proposed action as well as alternatives for achieving the stated purpose. A summary of the environmental consequences associated with each alternative is also presented.
- *Chapter 3 – Affected Environment and Environmental Consequences:* This chapter describes the environmental effects of implementing the proposed action and other alternatives. The analysis is organized by resources and considers direct, indirect, and cumulative effects. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- *Chapter 4 – Consultation and Coordination:* This chapter describes the composition of the interdisciplinary team (IDT) and lists those agencies, interested groups, and members of the public that were consulted or provided comments during the development of the EA.
- *Appendices:* The final section provides a series of appendices that present more detailed information in support of the EA to assist the FRFO Manager in making an informed decision.

## 1.2 Project Location

Garden Valley and Crouch are small towns along the Middle Fork of the Payette River, approximately 40 miles northeast of Boise, Idaho in Boise County. The proposed project area is located northwest of these communities on Garden Mountain and consists of portions of T9N, R4E; Sections 5-8, 17-19, and T10N, R4E, Section 31 (Figure 1). In the surrounding area there are several older farmhouses and homesteads, as well as newer subdivisions, and several businesses.

Figure 1. Project Location



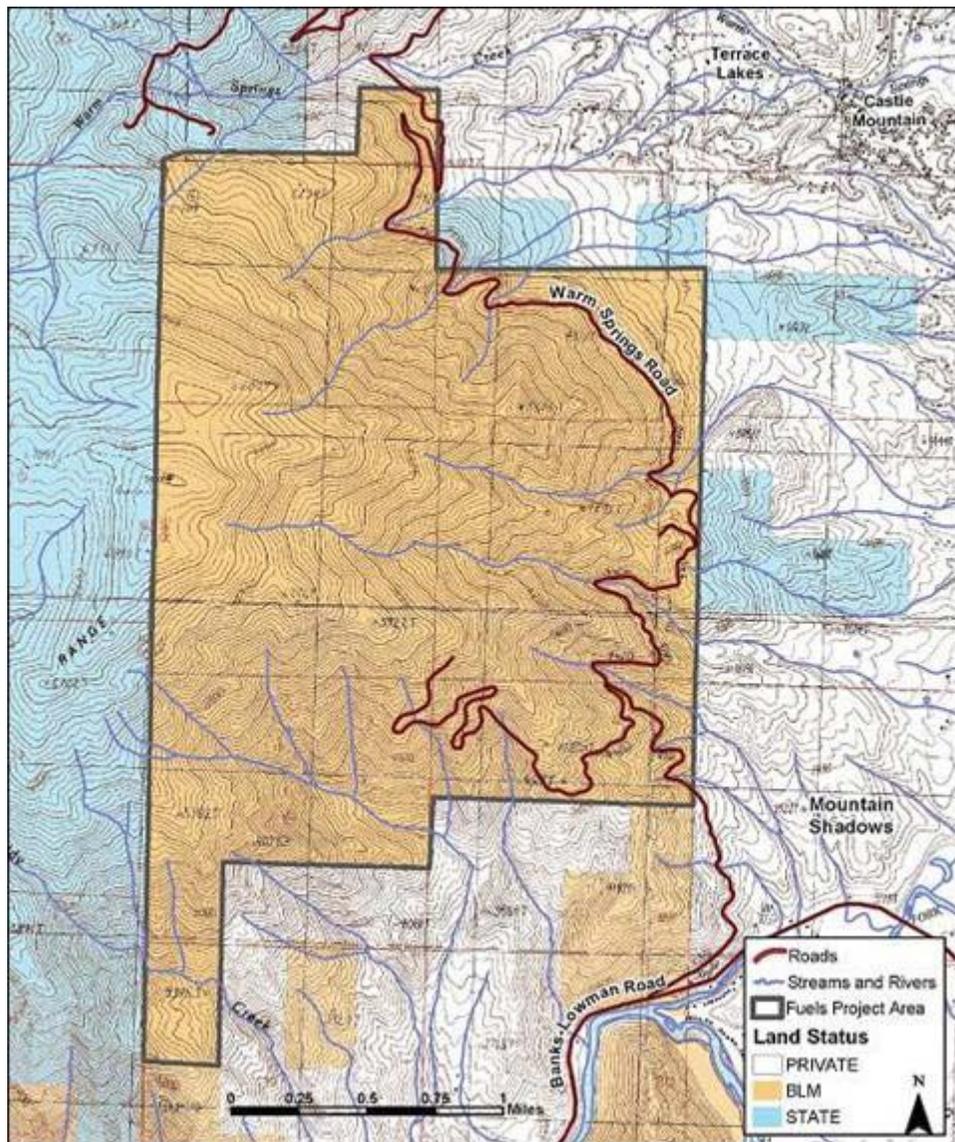
## 1.3 Background

In 2001 a list of communities within the vicinity of federal lands at high risk from wildfire were identified in the Federal Register (Vol. 66, No. 160, August 17, 2001). Because of their high resource values and threat from wildfire, the communities of Crouch and Garden Valley were identified as high priority communities-at-risk. Since 2000, two large wildfires have burned adjacent to these communities and posed threats to life and property. Previously, a hazardous fuels assessment and a mitigation plan were developed for the area with input from the local community (USDI BLM 2001a). Approximately 3,130 acres of high-hazard fuels (i.e. dense, insect and disease infested stands with heavy fuel loading) were identified surrounding the communities. Due to overcrowding and over competition many of the stands in the project area have become weakened and are being infected by bark beetle, mistletoe and western spruce budworm.

Historically (prior to 1900), low-intensity wildfires were typical, burning through the project area and surrounding regions in the Boise Basin every ten to 25 years. Since that time, the long-term exclusion of fire has also contributed to a decline in forest health and has led to an increase in stand density and ladder fuels. This makes the area highly susceptible to “uncharacteristic fire,” which is defined as fire that is burning with atypical behavior and effects, given the historic fire regime for the area.

On Garden Mountain, an uncharacteristic fire would consist of a crown or stand-replacing fire. Typically, winds during wildfire season blow from southwest to northeast. A crown fire in combination with extreme weather conditions could quickly out-pace suppression capabilities and threaten lives and property in nearby communities, including the Terrace Lakes, Castle Mountain, Valley-Hi, and Mountain Shadows Subdivisions. Land owners in the surrounding area include BLM, U.S. Department of Agriculture (USDA) Forest Service, Idaho Department of Lands (IDL), and Boise Cascade Corporation (Figure 2).

**Figure 1. Land Ownership Map**



## 1.4 Purpose of and Need for Action

The FRFO is proposing to improve forest health and reduce fuels and associated fire hazards on approximately 1,400 acres of BLM-administered land within the project area, while maintaining scenic, watershed, and fisheries values. Selective harvesting for forest health and shaded fuelbreaks (defensible zones) are the two primary treatment types proposed. Activities such as shaded fuelbreaks, selective timber harvests, and slash piling and burning would be designed to reduce fuel hazards near roads, interface areas, and private land. These activities would help to create areas of defensible space in the case of wildfires, as well as restore the historic fire regime typical of the area. Efforts would also be made to develop cooperative agreements with adjacent private property owners in order to effectively manage fuels in the surrounding area and reduce the risk of fire. A more detailed description of the Proposed Action is provided in Chapter 2.

Road renovation on Warm Springs Road is not proposed as part of this project. This road, which is currently not passable, runs from just above Terrace Lakes, south inside the project area along the eastern BLM boundary, to the Banks-Lowman Road. Warm Springs Road is also called the Crouch Round Valley Road. Inside the project area the road is officially referred to as the Section 5-6 Road. For ease of reference and understanding, the entire road segment, including the Section 5-6 Road and part of the Crouch Round Valley Road, is referred to as the Warm Springs Road for the purposes of this proposal. Renovation is being considered under separate BLM activities, but not as part of this proposal.

The *purpose* of this proposal is to reduce fuels and restore the historic fire regime in the Garden Mountain project area. This proposal is *needed* to (1) reduce the risk of a stand-replacing crown fire to resources and communities around Garden Mountain; (2) improve suppression success by creating fuelbreaks that would protect lives and public and private property; (3) improve forest health conditions; and (4) meet goals identified in the Cascade RMP (USDI BLM 1987) and the National Fire Plan (NFP, Cohesive Strategy, Goals 1, 2, and 3).

## 1.5 Conformance Statement: Relationship to Statutes, Regulations, or Other Plans

The project objectives were developed for consistency with the NFP and the President's Healthy Forests Initiative, and the Proposed Action is in conformance with the Cascade RMP (USDI BLM 1987). Timber harvest methods would be designed to comply with resource management objectives established in the RMP and all forestry practices would meet or exceed those set forth under the Idaho Forest Practices Act, Title 38, Chapter 13, Idaho Code. The project area is designated as a general forest management area, which means emphasis should be on managing timber "...to maintain healthy stands, ...while maintaining site productivity, water quality, stream stability, and unique features for wildlife habitat, and providing for other uses" (USDI BLM 1987). Timber management practices would include special measures to protect riparian and other resource values found in this area.

All aspects of the Proposed Action and any alternatives would comply with the Decision Record for the *Inland Native Fish Strategies EA* (USDA Forest Service 1995). That EA was

developed for managing inland fish-producing watersheds in order to protect habitat and populations of resident native fish habitat in Eastern Oregon and Washington, Idaho, and portions of California, commonly referred to as INFISH. In accordance with section 7 of the Endangered Species Act (ESA), BLM policy, and other regulations, the necessary consultation and coordination with the National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) and the U.S. Fish and Wildlife Service (USFWS) for the protection of federally listed threatened and endangered species and designated critical habitat would be completed.

## **1.6 Decision Framework**

The FRFO Manager will decide which of the alternatives meets the purpose and need of this project and is in accordance with BLM goals and objectives. Based on public input and the analyses in the EA, the FRFO Manager will decide whether to implement an action alternative, a modified action alternative, or to defer fuels treatment activities in the Garden Mountain area at this time (No Action alternative). The FRFO Manager will document any concurrence with the findings in the EA in a Decision Record and Finding of No Significant Impact. If an action alternative is selected, it would include: (1) project location, (2) silvicultural and fuels treatments, and (3) a description of the design features included as part of the action.

## **1.7 Scoping and Identification of Resource Concerns**

Scoping is an initial step in the NEPA process that was conducted to determine the scope of issues to be addressed in the analysis and to identify the significant issues related to the Proposed Action (40 CFR §1501.7). A scoping notice was sent to other agencies, organizations, and the interested public on February 27, 2004, initiating a 30-day comment period. Two public meetings were held (See Chapter 4: *Public Meetings* for a summary). Using the comments from the public, in conjunction with the field-related resource information and field surveys of the proposed project area, a list of resource concerns to be considered in the analysis was developed. These concerns were considered and used to help refine the Proposed Action as presented in Chapter 2. Resource concerns identified in the development of this proposal and discussed in Chapter 3 are listed below.

### **1.7.1 Concerns Carried Through for Analysis**

Special Status Species (SSS), water quality, invasive species/noxious weeds, soils, cultural resources, visual resources, air quality, and forest health were identified as resource concerns based on their potential to be affected by the Proposed Action. These resources are discussed in Chapter 3.

### **1.7.2 Concerns Considered, But Not Analyzed**

**Recreation** - Garden Mountain is heavily used by local residents and visitors during hunting season. There is also camping, hiking, and off-highway vehicle (OHV) use. The action alternatives include activities that could affect recreation, including smoke from prescribed burning and dust from road use and construction. Users may experience some short-term impacts from the proposed action such as temporary access restrictions or short-term degradation of natural resources. The use of prescribed fires would result in displacing dispersed recreation users from the burned areas and the presence of logging equipment

would result in temporary displacement from those areas as well. General deer and elk hunting season in the Garden Mountain area encompasses the period from October 5<sup>th</sup> to October 31<sup>st</sup>. General wild turkey hunting season is from April 15<sup>th</sup> to May 25<sup>th</sup> and from September 15<sup>th</sup> to October 4<sup>th</sup>. Attempts would be made to avoid prescribed burning activities during these time periods.

In the long term, consumptive (such as hunting) and non-consumptive (such as wildlife viewing) wildlife activities would increase because of the improvement in wildlife habitat resulting from the proposed action. Additionally, vegetative mosaics that would result from the thinning and use of prescribed fires could enhance the visitor's experience. The cumulative impact of this action would be positive in the long term because it would reduce fuel loads and lower the risks of large, uncharacteristic fires which could destroy recreation opportunities over large areas. Given the diffuse nature of activities that would occur, none of the action alternatives would have a significant effect on recreation. This issue is not discussed further in the EA.

**Livestock Grazing** - The proposed project area includes the Patterson & Goodwin Allotment (# 116), which is permitted for 168 AUMs from June 1 to September 30. Currently the forested communities on Garden Mountain produce little forage for livestock grazing because of the dense overstory of trees and shrubs and livestock do not typically utilize areas with steep slopes such as those in the treatment areas. Livestock would be restricted from the treatment areas until resource management objectives have been met. Subsequent to the proposed action implementation, the BLM would consult with the livestock permittee to address any potential issues and find other potential grazing areas if needed and/or alternative methods (i.e., fencing, herding, watering) to keep livestock off the treatment areas. After treatment there would be an increase in understory vegetation (i.e., perennial grasses and forbs) resulting in additional forage that would be available to livestock as well as wildlife. The Jerusalem Grazing Association was contacted during the scoping period. No comments were received. Because of the small size of the treatment areas in relation to the total size of the allotment in addition to the factors mentioned above this action is not expected to affect livestock grazing. This issue is not discussed further in the EA.