SOUTHWEST OREGON

INTERAGENCY FIRE MANAGEMENT PLAN

U.S. Forest Service, Rogue River-Siskiyou National Forest

Bureau of Land Management, Medford District

Oregon Department of Forestry, Southwest District

National Park Service, Oregon Caves National Monument

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Interagency Fire Management Plan For The

Southwest Oregon Fire Planning Unit

June 2011

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Table of Contents

Chapter 1. Introduction 9

Chapter 2. Policy, Land Management Planning, and Partnerships 12

2.1. National and Regional Fire Management Policy 12

2.2. Interagency Land and Resource Management Plan 13

2.3. Partnership 14

Chapter 3. Fire Management Unit Descriptions 16

3.1. Fire Management Considerations Applicable to All Forest Fire Management Units 16

3.1.1. Land and Resource Management Plan Guidance 16
3.1.2. Specific Range of Management Options 19
3.1.3. Wildland Fire Operations guidance 29
3.1.4. Preparedness 29
3.1.5. Physical Characteristics that Apply to All Fire Management Units 31
3.1.6. Description of Wildland Fire Management Strategies by Land Use Allocation (LUA) 32
3.1.7. LUA Relationship to Federal Land and Resource Management Plans 39
3.1.8. Resource and Fire Management Objectives Common to all LUA's on all Jurisdictions 40

3.2. Fire Management Considerations for Specific Fire Management Units 44

3.2.1. Bear Creek FMU Snap Shot 44
3.2.2. FMU Guidance – See Section 3.1 47
3.2.3. FMU Characteristics 47
3.2.4. Bridge FMU Snap Shot 52
3.2.5. FMU Guidance – See Section 3.1 55
3.2.6. FMU Characteristics 55
3.2.7. Chetco FMU Snap Shot 58
3.2.8. FMU Guidance - See Section 3.1 60
3.2.9. FMU Characteristics 60
3.2.10. Copper Salmon Wilderness FMU Snap Shot 61
3.2.11. FMU Guidance - See Section 3.1 64
3.2.12. FMU Characteristics 64
3.2.13. DFPA Grave Creek FMU Snap Shot 66
3.2.14. FMU Guidance - See Section 3.1 68
3.2.15. FMU Characteristics 68
3.2.16. Evans FMU Snap Shot 71
3.2.17. FMU Guidance- See Section 3.1 73
3.2.18. FMU Characteristics 73
3.2.19. Galice FMU Snap Shot 77
3.2.20. FMU Guidance - See Section 3.1 80
3.2.21. FMU Characteristics 80
3.2.22. Grassy Knob Wilderness FMU Snap Shot 85

3.2.23. FMU Guidance - See Section 3.1 87
3.2.24. FMU Characteristics 87
3.2.25. Humbug FMU Snap Shot 89
3.2.26. FMU Guidance - See Section 3.1 91
3.2.27. FMU Characteristics 91
3.2.28. Illinois Valley FMU Snap Shot 92
3.2.29. FMU Guidance - See Section 3.1 95
3.2.30. FMU Characteristics 95
3.2.31. Jenny Creek FMU Snap Shot 104
3.2.32. FMU Guidance - See Section 3.1 106
3.2.33. FMU Characteristics 106
3.2.34. Jumpoff Joe FMU Snap Shot 112
3.2.35. FMU Guidance - See Section 3.1 114
3.2.36. FMU Characteristics 114
3.2.37. Kalmiopsis FMU Snap Shot 117
3.2.38. FMU Guidance - See Section 3.1 119
3.2.39. FMU Characteristics 119
3.2.40. Little Butte FMU Snap Shot 120
3.2.41. FMU Guidance - See Section 3.1 123
3.2.42. FMU Characteristics 123
3.2.43. Lower Applegate FMU Snap Shot 128
3.2.44. FMU Guidance - See Section 3.1 130
3.2.45. FMU Characteristics 130
3.2.46. Red Buttes Wilderness FMU Snap Shot 135
3.2.47. FMU Guidance - See Section 3.1 137
3.2.48. FMU Characteristics 137
3.2.49. Rogue River FMU Snap Shot 138
3.2.50. FMU Guidance - See Section 3.1 141
3.2.51. FMU Characteristics 141
3.2.52. Rogue Umpqua Wilderness FMU Snap Shot 144
3.2.53. FMU Guidance 145
3.2.54. FMU Characteristics 146
3.2.55. Siskiyou Wilderness FMU Snap Shot 148
3.2.56. FMU Guidance - See Section 3.1 150
3.2.57. FMU Characteristics 150
3.2.58. Sky Lakes Wilderness FMU Snap Shot 152
3.2.59. FMU Guidance - See Section 3.1 154
3.2.60. FMU Characteristics 154
3.2.61. Trail Creek FMU Snap Shot 157
3.2.62. FMU Guidance - See Section 3.1 159
3.2.63. FMU Characteristics 159
3.2.64. Upper Applegate FMU Snap Shot 163
3.2.65. FMU Guidance - See Section 3.1 165
3.2.66. FMU Characteristics 165
3.2.67. Upper Rogue FMU Snap Shot 171
3.2.68. FMU Guidance - See Section 3.1 173

3.2.69. FMU Characteristics 173
3.2.70. West Fork Cow Creek FMU Snap Shot 178
3.2.71. FMU Guidance - See Section 3.1 181
3.2.72. FMU Characteristics 181
3.2.73. Wild Rogue Wilderness FMU Snap Shot 185
3.2.74. FMU Guidance - See Section 3.1 187
3.2.75. FMU Characteristics 187

3.3. Appendix 190

3.3.1. Appendix A: Operational Procedures For Response to Wildland Within The Southwest Oregon Fire Planning Unit 190
3.3.2. Appendix B: NFDRS Break Points 191
3.3.3. Appendix C: Fire Regime and Condition Class Analysis 193
3.3.4. Appendix D: WFDSS 201
3.3.5. Appendix E Rogue River- Siskiyou NF Resource Advisor Reference 214
3.3.6. Appendix F: Medford BLM Resource Advisor Reference 270
3.3.7. Appendix G: Smoke Management/Smoke Management Techniques 273
3.3.8. Appendix H: Emergency Stabilization and Rehabilitation 276
3.3.9. Appendix I: Monitoring and Evaluation 278
3.3.10. Appendix J: Soda Mountain Wilderness Operations Plan 279
3.3.11. Appendix K: Mechanized and Motorized Use in the Wilderness 327
3.3.12. Appendix L: List of Acronyms and Glossary of Terms 331
3.3.13. Appendix M: Other Useful Information and Websites 342

Overview

Interagency Federal fire policy requires that every area with burnable vegetation is covered by an approved Fire Management Plan (FMP). This FMP provides information concerning the management of wildfire for the Rogue River-Siskiyou National Forest, Medford District BLM, Oregon Caves National Monument, and Oregon Department of Forestry Southwest District. This plan compiles guidance from existing sources such as but not limited to, the Rogue River-Siskiyou National Forest Land and Resource Management Plans (LRMPs) (Rogue River LRMP 1990, Siskiyou LRMP 1989*, Do we need BLM Park Service Resource Mgmt Plans* national policy, and national and regional directives.

The potential consequences to firefighter and public safety and welfare, natural and cultural resources, and values to be protected determine the management response to wildfire. Firefighter and public safety are the first consideration and are always the top priority during every response to wildfire.

While the FMP is required for the U.S. Forest Service (USFS), Bureau of Land Management (BLM), and National Park Service (NPS), specific requirements and policy are different for each agency. The Oregon Department of Forestry, a key cooperator in Southwest Oregon, is also covered by this FMP, and is responsible for fire suppression on BLM lands (under contract). In the following pages of this plan, icons are used to identify direction that is unique to one agency. Specific agency direction will be noted throughout this document with the following icons:

- Denotes Direction specific to the Rogue River-Siskiyou NF
- Denotes Direction specific to the Medford BLM
- Denotes Direction specific to the Oregon Caves National Monument
- Denotes Direction specific to the Oregon Department of Forestry

No icon denotes direction that is applicable to all four main agencies

The following chapters discuss broad Forest Service, BLM, and NPS specific Fire Management Unit (FMU) characteristics and guidance.

Chapter 1 introduces the area covered by the FMP, includes a map of the Southwest Oregon Fire Planning Unit, addresses the agencies involved, and states why the agencies are developing the FMP.

Chapter 2 establishes the link between higher-level planning documents, legislation, and policies and the actions described in FMP.

Chapter 3 articulates specific goals, objectives, standards, guidelines, and/or desired future condition(s), as established in the agencies' land and resource management plans, which apply to all the Southwest Oregon Fire Planning Unit (SWOFPU) FMUs and those that are unique to individual FMUs.

Chapter 1. INTRODUCTION

This Fire Management Plan (FMP) provides a framework for the fire management programs of the U.S. Forest Service's Rogue River-Siskiyou National Forest (USFS), Bureau of Land Management's Medford District (BLM), National Park Service's Oregon Caves National Monument (NPS), and Oregon Department of Forestry's Southwest District (ODF). This joint management plan includes all aspects of managing wildland fire for safe accomplishment of both resource protection and resource management objectives. This plan applies to approximately 4 million acres of federally managed and state protected lands in Southwest Oregon, with a small portion in Northwest California (see Figure 1).

Its boundaries embrace the Siskiyou Mountains, Coastal Range, and West Side of the Cascade Range. Lands within Oregon are located within Douglas and Coos Counties to the North, Curry County to the West, Josephine County in the center and Jackson and Klamath Counties to the East (Figure 1). Lands administered by the Rogue River-Siskiyou National Forest within California are located in Del Norte and Siskiyou Counties.

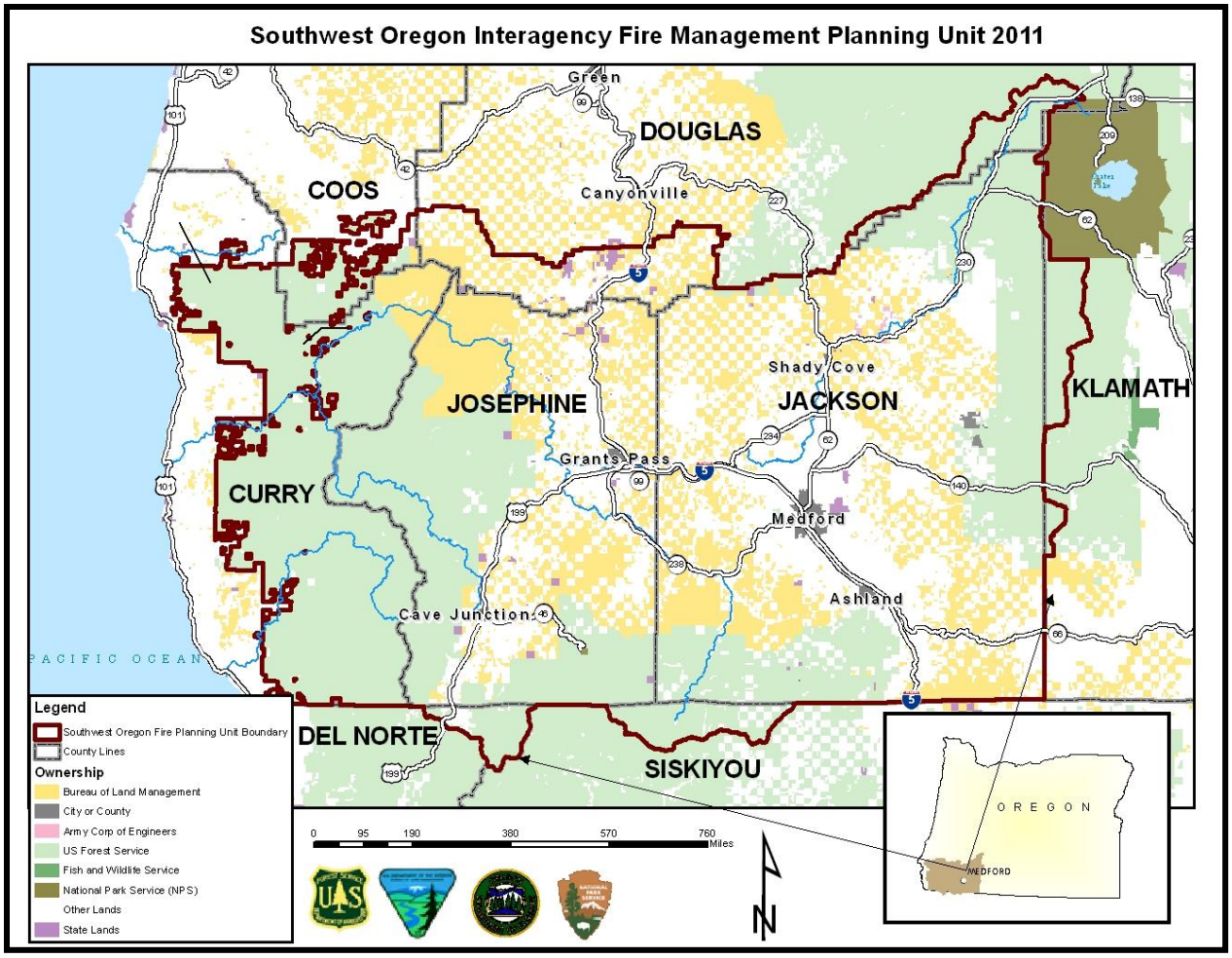


Figure 1. Southwest Oregon Fire Management Planning Unit.

The purpose of this FMP is to identify and integrate all Federal wildland fire guidance, direction, and information required to implement national fire policy and fire management direction in a single document. The FMP allows management direction to be easily accessible by fire and resource personnel. It highlights management direction to facilitate development and implementation of fire management strategies.

Contemporary wildland fires in the geographic area have grown in size and intensity in recent history thus causing numerous undesirable changes in the structure, function and composition of forest vegetation (Skinner et al. 2006). One of the primary factors responsible for the increased size, intensity, and severity of wildfires is fire exclusion in all fire-adapted ecosystems, which has lead to uncharacteristically high fuel accumulations in many of those ecosystems (Arno and Allison-Bunnell 2002, Stephens and Sugihara 2006).

The increasing size, intensity, and severity of wildfires pose greater ever increasing threats to human life, property and natural resources. More people are recreating on federal lands and building homes in wildland urban interface areas,

increasing their exposure to naturally ignited wildland fires and increasing the risk of human-caused wildfire ignitions. In addition, the threat to cultural resources is increased by uncharacteristically high fire intensities and severities resulting from changes in vegetation, fuel loadings, and fire behavior. Fire suppression costs continue to increase each year.

This FMP highlights management direction to facilitate development and implementation of appropriate fire management strategies. FMPs do not make decisions and are not static documents. This document will evolve and be revisited as conditions change on the ground and as modifications are made to the Federal agencies' Land and Resource Management Plans or as new NEPA decisions are made.

This document provides information, organized by **Fire Management Units (FMUs),** which provides a finer scale summarization of information than is possible at the forest-wide, BLM district-wide, or monument level.

Western Oregon Fire Protection Contract (BLM administered Lands)

ODF and the Douglas Fire Protective Association (DFPA) provide suppression, prevention and detection services to the BLM administered Public Lands in the Medford District through the Western Oregon Fire Protection Contract. The inter-mixed ownership patterns of the BLM lands and private land in relation to fire protection makes this an efficient arrangement for all parties. The contract is based on the resource objectives described in the Resource Management Plans (RMP) of this BLM administrative unit. The contract can be modified to reflect new or changes in resource objectives.

Chapter 2. POLICY, LAND MANAGEMENT PLANNING, AND PARTNERSHIPS

The regulations and policy in the following documents guide the fire management as outlined in this FMP.

2.1. National and Regional Fire Management Policy

Forest Service policy and direction that are relevant to this plan include:

- **National Fire Plan**
- **The Implementation Plan for the 10 year Comprehensive Strategy and Collaborative Memorandum of Understanding**
- **Master Cooperative Wildland Fire Management and Stafford Act Response Agreement**
- **Protecting People and Sustaining Resources in Fire Adapted Ecosystems – A Cohesive Strategy**
- **1995 Federal Wildland Fire Management Policy and Program Review (January 2001)**
- **A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy, August 2001, May 2002, December 2006**
- **Guidance for Implementation of Federal Wildland Fire Management Policy (February, 2009)**
- **Interagency Standards for Fire & Aviation Operations 2011 (Redbook)**
- **Interagency Helicopter Operations Guide (IHOG) 2009**
- **Interagency SEAT Operations Guide 2009**
- **Pacific Northwest Aviation Plan**
- **The Healthy Forests Initiative and Healthy Forests Restoration Act**
- **Interagency Special Status / Sensitive Species Program**
- **Oregon Department of Fish and Wildlife - Threatened, Endangered, and Candidate Fish and Wildlife Species in Oregon**
- **Forest Service Manual 5100 (Fire Management)**
- **Forest Service Manual 2320 (Wilderness Management)**
- **Forest Service Handbook 5109 (Fire Management)**
- **Aerial Application of Fire Retardant, ROD Dec 2011**
- **Inland Native Fish Strategy (INFISH), 1995**
- **Northwest Forest Plan**

- BLM Manual 9200-9218 described the authority for fire management activities on Bureau of Land Management Lands

- **National Park Service Reference Manual – 18**
- **Senate Bill 360 (Oregon Forestland-Urban Interface Fire Protective Act of 1997)**

2.2. Interagency Land and Resource Management Plan

- **Rogue River National Forests , Land and Resource Management Plan(1990 as amended)**
- **Siskiyou National Forests, Land and Resource Management Plan (1989 as amended)**
- **Rogue River-Siskiyou National Forest Fire Use Amendment Environmental Assessment**
- **Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (March 2004)**
- **Medford District BLM Resource Management Plan (RMP) and Final Environmental Impact Statement and Record of Decision (1995)**
- *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl"* and associated *"Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl" (*Northwest Forest Plan, 1994)
- Record of Decision Amending Resource Management Plans for Seven Bureau of Land Management Districts and Land and Resource Management Plans for Nineteen National Forests Within the Range of the Northern Spotted Owl Decision to Clarify Provisions Relating to the Aquatic Conservation Strategy (March 2004)

- **Resource Management Plan and General Management Plan for Oregon Caves National Monument (1998)**

- **Interagency Special Status Species EIS (2007)**
- Record of Decision to the Northwest Forest Plan, Decision to Clarify Provisions Relating to the Aquatic Conservation Strategy (March 2004)

- **Record of Decision and Land and Resource Management Plan Amendment for Management of Port-Orford-Cedar in Southwest Oregon (March 2004)**

Northwest Forest Plan (NWFP)

The NWFP contains direction for *survey and management* of potentially rare and/or isolated species. The latest direction (released in May 2008) and can be found at: **http://www.fws.gov/pacific/ecoservices/endangered/recovery/NSORecoveryPlanning.htm**

The NWFP addresses wildland fire in Appendix B8: Fire Management Standards and Guidelines, Pages B133-B136 (1994). These standards include:

- Fire managers will respond to all wildland fires by taking appropriate suppression (management) responses. In most cases, responses will consist of aggressive initial attack.
- Fire management plans will be written or revised for all areas, as necessary, consistent with existing guidance. The plans will be developed in an interdisciplinary manner.
- The use of prescribed fire for ecosystem management will restore processes that have been limited by relatively effective fire exclusion.
- The goal is to reduce the risk of large scale, high intensity wildland fires which will prevent land managers from meeting resource management objectives.
- Resource experts should be involved in project level (prescribed fire) plans.
- Adhere to air quality Standards & Guidelines (S&G's).Fire should be used to restore or maintain ecosystem processes or structures.

2.3. Partnership

The Southwest Oregon FPU consists of 4 primary administrative jurisdictions that provide much of the wildland fire protection response, fuels management, and other wildland fire management activity for the planning area. These primary jurisdictions include:

- U.S. Forest Service, Rogue River-Siskiyou National Forest
- Bureau of Land Management, Medford District
- Oregon Department of Forestry, Southwest Oregon District
- National Park Service, Oregon Caves National Monument

The group's mission is to promote safe, effective fire management through interagency cooperation. Because many wildland fires are of a multi-jurisdictional nature, interagency cooperation provides an ideal background for cohesive ecological, social, political and ecological considerations for land management.

The primary jurisdictions of SWOFPU have had cooperative agreements and close working relationships with local and county organizations for well over a decade.

Community capacity is very high in some places, and localized efforts have taken place in developing community fire plans. All Counties with land within the FPU have been required by the Federal Emergency Management Administration (FEMA) to compile emergency management systems for natural disasters (including wildland fire). In the development and updating of these Community Wildfire Protection Plans (CWPP), the federal agencies have provided expertise in fire and fuels analysis in order to more accurately assess a strategic hazard and risk reduction outlook with all stakeholders involved.

Chapter 3. FIRE MANAGEMENT UNIT DESCRIPTIONS

The primary purpose of developing FMUs in fire management planning is to assist in organizing information in complex landscapes. FMUs divide the landscape into smaller geographic areas to more easily- describe safety considerations, physical, biological, social characteristics and to frame associated planning guidance based on these characteristics.

The following information, including the summaries of fuels conditions, weather and burning patterns, and other conditions in specific FMUs, helps determine the management response to an unplanned ignition and provides a quick reference to the strategic goals in the forest's LMP.

3.1. Fire Management Considerations Applicable to All Forest Fire Management Units

3.1.1. Land and Resource Management Plan Guidance

Rogue River-Siskiyou NF Specific Direction

Goals

- Manage wildland fires in a cost efficient, timely and safe manner consistent with land management objectives and current fire management direction.
- Use prescribed fire and unplanned natural ignitions considered the Use of Wildland Fire (UWF) for Resource Benefit to obtain and enhance the ecological characteristics of the area

Objectives

- Conduct prescribed burning in such a manner that it will conform to applicable provisions of the Federal Clean Air Act and the Oregon Smoke Management Act.
- Burning will be planned so as to have a minimum impact on use of the recreation opportunities in the area.
- For Research Natural Areas (Management Strategy 25), prohibit prescribed fire unless approved by the Director of the Forest and Range Experiment Station.
- In Restricted Riparian (Management Strategy 26) areas, avoid high intensity prescribed fire on soils that are highly erodible and/or are subject to the development of hydrophobic conditions.

Bureau of Land Management and ODF SW District Specific Direction

On private, state, and local government lands residing in the FMUs, wildland fire protection responsibilities are carried out by ODF SW, rural fire district resources, and DFPA.

Goals

Because ODF SW and DFPA provide the suppression services for Medford BLM lands, the resource advisor becomes an important figure in providing direction that may differ from the suppression effort when property and jurisdictional lines are crossed. ODF SW and DFPA management objectives for wildland fire on private lands within the bounds of the Medford BLM and ODF SW Districts jurisdictional boundaries are:

- Provide for the health, welfare, and safety of the public and fire personnel.
- Protect valuable resources from damage due to wildland fire.
- Protect private property from damage to wildland fire.
- Suppress, with aggressive action, all wildland fire to provide least monetary cost and safest work environment.
- Use a suppression strategy on all ignitions, containing 94% of them to 10 acres or less in size.

Objectives

- Protect the environment from adverse effects of suppression actions.
- Provide for the health, welfare, and safety of the public and fire personnel.
- Protect private property from damage due to wildland fire.
- Protect resource values from high severity and large scale wildland fire.
- Provide for rehabilitation of sites affected by suppression actions and adverse fire effects.
- Use a suppression strategy on all ignitions, containing 94% of them to 10 acres or less in size.
- Use prescribed fire and hazardous fuel reduction throughout the District to reduce impacts from large scale disturbance. Use prescribed fire for restoration of desired vegetation condition, management of habitat, and silvicultural treatments. Initiate hazardous fuels treatments, in the form of prescribed burning, mechanical or manual manipulation of forest vegetation, to modify fuel profiles in order to lower potential of high intensity, stand replacing wildland fires.
- To meet Resource and Management objectives for all BLM lands within the administrative boundaries of the Medford District, the following principles should be followed unless they would impede public or fire personnel safety or protection of private property values.

- Locate incident bases, camps, helibases, staging areas, and other centers for incident and other fire management activities outside of riparian reserves.
- Minimize delivery of chemical retardant, foam, or other additives to surface water. Standards for retardant application in reference to stream location can be found in the aviation plan.
- Locate and manage water drafting sites to minimize adverse effects on riparian habitat and water quality as consistent with Aquatic Conservation Strategy.
- When riparian reserves are significantly affected or damaged by wildland fire, establish emergency rehabilitation team to conduct an assessment and design plan for recovery that follows the Aquatic Conservation Strategy and riparian reserve objectives.
- Design fuel treatment and fire suppression strategies, practices, and activities to meet Aquatic Conservation Strategy and riparian reserve objectives and to minimize disturbance of riparian ground cover and vegetation.
- Consider rapid extinguishment of coarse woody debris and duff during fire management operations to protect these attributes to habitat and ecosystem values.
- Wash vehicles and equipment involved in fire management activities to reduce the spread of noxious weeds, and pathogens.
- A wide range of cultural resources, including archeological and historic sites, can be found within the Medford District. These site types include the earliest known archeological or pre-historic site in SW Oregon. These include rock shelters, rare rock art sites, and National Register listed historic sites. All cultural resources are fragile, non-renewable resources. Once damaged, these sites cannot be replaced. Therefore, all cultural resources are at risk from ground disturbing fire fighting operations. All of these cultural resources are also at risk from collection activities of fire fighting personnel. The collection of artifacts, both archeological and historic, from federal land is prohibited by the Archeological Resources Protection Act which determines monetary fines for infractions. Those cultural resources with a wooden component, usually a historic site, are at risk from the fire itself. Known cultural resource sites will be considered and protected in the tactical decisions and actions made by fire resources through the advice of the resource advisors. The location of newly discovered artifacts will be reported to the resource advisor for consideration.
- Avoid aircraft travel routes and activities for fire management incidents and projects that may interfere with nesting, roosting, mating, and activity of threatened and endangered bird species.
- 100 acre Spotted Owl Core, Bald Eagle, and Great Grey Owl Areas are located throughout the Medford District jurisdiction. Core Areas may be located in any Fire Management Unit. The same resource

and management objectives will apply for all Owl Core Areas as designated for LSR in the Medford District RMP (see FMU LSE for specific stipulations for Late Successional species habitat).

- Protect snags and large down wood to the extent possible in all fire management activities on federal lands within the Medford District jurisdiction. Use water, foam, or buffers to protect them where practical. If snags must be felled, consider cutting them away from the area where they may burn, as to retain them for future down wood.
- Protect water sources, seeps, springs and streams from surface disturbance. Maintain as much vegetation next to these areas as practical. Avoid mechanized equipment in waterways.
- Do not feed or bait animals, leave trash, or food of any kind outside of food storage areas. Do not harass or handle wild animals found in or near fire area.
- Avoid disturbance activities in sensitive areas such as: caves, mines, and wildlife protection areas.
- Special Management Areas (ACEC's RNA's) exist throughout the administrative boundary of the Medford District. These are areas of critical environmental concern or uniqueness and are designated by their inclusion in FMU Special. Impacts from suppression related activities may endanger the qualities of these areas more than the effects of a wildland fire. A listing of locations and constraints for activities within these areas are included for the resource advisors in each resource area within the jurisdiction of the Medford District and ODF protected areas.
- Some sensitive botanical species and their habitats are located outside these specially designated areas and exist throughout the other FMUs. Locations of known sites of listed and sensitive plant populations will be available to resource advisors and fire personnel for protection from ground disturbing FMU activities.

3.1.2. Specific Range of Management Options

U.S. Forest Service – Human-Caused Planned and Unplanned Ignitions

- **The Rogue River National Forest LRMP (1990), and The Siskiyou National Forest LRMP (1989)** amended by the Rogue River-Siskiyou National Forest, **Forest Fire Amendment, Record of Decision (2010)** Proposed Action states that for all Management Areas, Management Strategies, Standards and Guidelines the following applies.
  1. Aggressive suppression of all unplanned human-caused wildfires will continue.
  2. Aggressive suppression action will be taken to protect adjoining lands from fires threatening to cross National Forest boundaries.

3. Aggressive action will be taken to protect areas under contract (timber sales, thinning contracts, and stewardship contracts etc.).
4. **Emergency consultation** on the actions taken to manage and wildland fire would continue pursuant to the requirements of the Endangered Species Act.
5. Management requirements of other amendments to the Forest Plans (e.g., the Port-Orford cedar root disease Record of Decision) will be followed.

U.S. Forest Service: Natural Unplanned Ignitions

The Forest Service's response to an natural unplanned fire (wildfire) is intended to support the land management direction within the Forest Plan and to protect other ownerships from fires originating on National Forest System lands. The response can include both protection and resource benefit objectives with the full range of potential tactical actions on the ground. The full range of potential responses spans monitoring a fire to minimizing the acres burned through intensive suppression actions. Forest Service policies and rules currently require a land management plan decision to recognize resource benefits from naturally-ignited fires.

The agency's response to any unplanned fire is intended to:

- Keep both firefighters and the public safe during and after the fire;
- Avoid or prevent damage to or loss of private property and resources;
- Maximize the resource benefits that may occur; and
- Manage wildland fires at a reasonable cost.

The response to an unplanned, naturally ignited fire includes a full range of tactical actions ranging from monitoring to complete perimeter control, which may be applied on any given fire. The Fire Management Plan (FMP) identifies the decision criteria and implementation procedures to use for determining the management objectives and the agency's response to a given ignition and gives general direction and guidance on how it is to be managed. In a given year, the area available for the complete range of potential responses varies based on a number of factors such as specific values at risk, fuel conditions, time of year, current and expected fire behavior, and so forth.

When considering these proposed amendments, it may be helpful to have an understanding of Federal fire policy and current implementation direction. For policy, a good source of information may be found at **NWCG - Federal Fire Policy**. For implementation of policy, go to the **Policy Implementation Guide**.

- **The Rogue River National Forest LRMP** (1990) as amended by the Rogue River-Siskiyou National Forest, Fire Amendment Record of Decision (2010) states that for all Management Areas, Management Strategies, Standards, and Guidelines the following Management Options are available for implementation.
  1. The use of wildland fire is allowable to obtain desired ecological characteristics of the area. (pg. II – 4)
  2. Each wildfire will have a management response, including consideration of the use of wildland fire. (pg. II – 4)
  3. **Wilderness (MS-13):** Provide for the natural role of fire in Wilderness. Use of wildland fire is allowable to meet wilderness management objectives consistent with the 1964 Wilderness Act, legislation establishing each designated wilderness area, and Forest Service wilderness management regulations. (pg. II – 10)
  4. **Restricted and Managed Watershed (MS-22/23):** Protection of the watershed resource will be highest priority. Wildfires with in or which may burn into the watershed will receive a management response, including consideration of the use of wildland fire. (pg. II – 13/14)
  5. **Research Natural Areas (MS-25):** Each wildfire will have a management response, including consideration of the use of wildland fire. High impact methods will be used only to prevent a total loss of the Research Natural Area (FSM 4063.45). (pg. II-14)
  6. **Restricted Riparian (MS-26):**
     - The use of wildland fire is allowable to obtain the desired ecological characteristics of the area
     - Protection of the riparian resource will be highest priority. Wildfires with in or which may burn into the riparian area will receive a management response, including the consideration of the use of wildland fire (pg. II – 15).
  7. **Red Buttes Wilderness:** (pg. II - 15/16)
     - The long-range objective is to allow fire in Red Buttes Wilderness to play, as nearly as possible, its natural, ecological role -- while, at the same time, not compromising public safety or resource values outside of the Wilderness. Fire responses (strategies and tactics) should be sensitive to wilderness values.
     - Each wildfire will have a management response, including consideration of the use of wildland fire.
     - Use of prescribed fire in the Red Buttes Wilderness will be based on fire's natural, ecological role. Although additional beneficial effects may result from a decision to use prescribed fire, fire in wilderness will be used only to meet approved wilderness management objectives.
     - Manage wildfires within the Wilderness in accordance with applicable Forest Service policies
  8. **Sky Lakes Wilderness:** policies (pg. II – 17/18)

- The objective is to allow fire in Sky Lakes Wilderness to play, as nearly as possible, its natural, ecological role -- while, at the same time, not compromising public safety or resource values outside of the Wilderness. Responses to unplanned, natural ignitions will take into consideration the need to maintain natural ecosystems in the Wilderness and reduce the risk presented to Wilderness and adjacent resources. Fire responses (strategies and tactics) should be sensitive to wilderness values.
- The use of wildland fire is allowable to obtain desired ecological characteristics of the area.
- Manage wildfires within the Wilderness in accordance with applicable Forest Service).

- **The Siskiyou National Forest LRMP** (1989) amended by the Rogue River-Siskiyou National Forest, Forest Fire Amendment Record of Decision (2010) states that for all Management Areas, Management Strategies, Standards, and Guidelines the following Management opportunities are available for implementation.
  1. **WILD RIVER (MA-2), BOTANICAL (MA-4), UNIQUE INTREST (MA-5), BACKCOUNTRY RECREATION (MA-6), SUPPLEMENTAL RESOURCE - MA-7, SCENIC/RECREATION RIVER (MA-10), RIPARIAN (MA-11), RETENTION VISUAL (MA-12), PARTIAL RETENTION VISUAL (MA-13), GENERAL FOREST (MA-14):** All wildfires will have a management response, including consideration of the use of wildland fire for resource benefit.
  2. All wildfires shall receive a management response, including consideration of the use of wildland fire. This shall be safe, timely, and cost efficient while meeting management objectives for the specified area (pg. II – 18).
  3. The use of wildland fire is allowable to reduce fire hazard by enhancing horizontal and vertical diversity in fuels; to enhance diversity in the structure and composition of plant communities; to enhance the production and protection of commercial timber yields; and to enhance other resource outputs such as wildlife habitat, forage, and browse. (pg. II – 19).
  4. The use of wildland fire is allowable in all areas of the forest to obtain desired ecological characteristics of the area (pg. II – 19)
  5. **SPECIAL WILDLIFE SITE (MA-9):**
     - All wildfires will have a management response, including consideration of the use of wildland fire. (pg. 11-26)
     - The use of wildland fire is appropriate for meadow restoration and enhancement. (pg. 11-26)
  6. **Grassy Knob Wilderness (MA-4): (pg. 11-30)**
     - The principle objective for fire management is to manage wildfires using a management response that is appropriate, which includes consideration of the use of wildland fire to obtain desired

ecological characteristics for the area. The protection of water quality and associated fish habitat, and maintenance of the natural functioning of this tanoak/Douglas fire ecosystem area are the primary goals.

- Each wildfire will have a management response, including consideration of the use of wildland fire. The selected response should consider the need to maintain natural ecosystems in the wilderness as well as the need to reduce the risk potential to wilderness and adjacent resources caused by the unnatural accumulation of fuels.

7. **Kalmiopsis Wilderness (MA1-12):**
   - A fire management program commensurate with wilderness values, including the use of wildland fire when appropriate, should be used to:
     1. reduce the adverse consequences of wildfire within the Wilderness, or escaping from the Wilderness and
     2. allow fire to play its natural ecological role. (pg. II-22)
   - Each wildfire will have a management response, including consideration of the use of wildland fire. The selected response should consider the need to maintain natural ecosystems in the wilderness as well as the need to reduce the risk potential to wilderness and adjacent resources caused by the unnatural accumulation of fuels. (pg. II-31)
   - All wildfires will have a management response, including consideration of the use of wildland fire. (pg. II-31)
8. **Wild Rogue Wilderness (MA1-13):**
   - A fire management program commensurate with wilderness values, including the use of wildland fire when appropriate, should be used to:
     1. Reduce the adverse consequences of wildfire within the Wilderness, or escaping from the Wilderness and
     2. Allow fire to play its natural ecological role.
   - All wildfires will have a management response, including consideration of the use of wildland fire. Because of the relatively small size and the narrow shape of this Wilderness and the presence of the Wild and Scenic River, opportunities to use wildland fire to maximize resource benefits may be limited, but should still be considered and taken advantage of when appropriate. (pg. 11-32
   - Fire response strategies and tactics should provide for a high degree of public safety and the least amount of operational impairment. Closure of the Rogue River Corridor to use by the public should be avoided in all but the extreme cases. (pg. II-31)
9. **Red Buttes and Siskiyou Wilderness (MA1-15):** A fire management program including the use of wildland fire may be used

to maintain a fuels complex commensurate with wilderness values. (pg. II-23)

10. **Research Natural Area (MA-3):** All wildfires will have a management response, including consideration of the use of wildland fire. In suppressing fires, chemicals fire retardants and ground disturbing activity should be avoided.

Decision Criteria for Implementation of the Use of Wildland Fire for Resource Benefit.

The following section contains criteria and information regarding how and when fire mangers make the decision to allow for the use of wildland fire. A number of decision criteria will be used, although which criteria serve to best identify which responses are suitable for a specific fire situation may vary between land allocations and over time as conditions change. In addition, the RRSNF will need to test various criteria to determine which specific criteria work best.

The following factors are taken into account by managers prior to and during wildfire operations:

- **Firefighter and Public Safety** – the ability to keep people safe at all times;
- **Time of Year** – when the fire is ignited, how much time is left in fire season, and weather predictions help managers determine if a naturally-ignited wildfire can meet resource objectives;
- **Location** – the wildfire's proximity to the forest boundary, to private lands, to recreation sites, to habitat for Threatened, Endangered or Sensitive species, to archaeology sites, to ongoing operations (like timber sales) and overall proximity to other capital investments across the forest;
- **Availability of Firefighting Resources** – are there resources available should conditions change or are all resources across the region committed;
- **Predicted Fuel Conditions** – local knowledge of fuel moistures and fuel profiles in the area where the fire ignites and is predicted to burn;
- **Air Quality** – smoke management concerns for human health and welfare; and,
- **Socio-Political Climate** – ongoing analysis of local, state, regional and national concerns.

All of these factors go into management's confidence and risk assessment regarding the ability to meet resource objectives.

The full range of tactical actions is available for application on all wildfires, regardless of the management strategy and objectives. There may be no

apparent difference in the actions taken between a wildfire managed primarily for resource benefits and a wildfire managed primarily with protection objectives. Tactical actions ranging from monitoring to complete perimeter control may be appropriate to consider for any wildfire.

The intent is to provide the line officer and incident commander with information *before* unplanned (emergency) fire management activities so that they can appropriately address resource and social concerns. Any action taken must be based on direction in the Land and Resource Management Plans and/or Fire Management Plan objectives with respect to the protection of adjoining lands. The Wildland Fire Decision Support System (WFDSS) is utilized to aid the line officer/incident commander in selecting the response to a wildfire.

Bureau of Land Management

Management of Wildland Fire for all Land Use allocations.

- Minimize direct negative impacts of wildfire suppression on ecosystem management objectives.
- Respond to all wildland fires by taking appropriate suppression responses. Responses will generally consist of aggressive initial attack to extinguish fires at the smallest size possible. Confinement of fires in multiple fire situations at low fire intensity levels ranges, or due to fire fighter safety may be employed on Medford District BLM jurisdiction.

Key considerations for Wildland Fire:

- Protection of specific attributes of each land use allocation
- Coordination of wildland fire suppression activities to avoid causing adverse impacts on federal and nonfederal lands.
- Appropriate use of suppression tools and clear definitions of any restriction to their use.
- Guiding principle is to provide for firefighter and public safety.
- Full suppression on all fires except for management ignited for accomplishing resource objectives.
- Fire suppression considerations:
  1. Aviod the use of mechanized equipment in the stream channels.
  2. Avoid the application of retardants in riparian areas.
  3. Waterbar firelines and catroads upon completion of the incident.
  4. Develop a rehabilitation plan through the IDT process.
  5. Consider POC restrictions and Best Management Practices.

Fuels Treatment:

Prescribed Fire: for all land use allocations

- Use prescribed fire to meet resource management objectives. This will include – but not be limited to – fuels management for wildland fire hazard reduction, restoration of desired vegetation conditions, management of habitat, management of fire dependent/adapted species, and silvicultural treatments.
- Modify fuels profiles to lower the potential of fire ignition and rate of spread: protect and support land use allocation objectives by lowering the risk of high intensity, stand replacement wildfires.
- The use of prescribed fire will be based on an interdisciplinary evaluation.

Non-fire Applications: for all land use allocations

- Modify fuels profiles to lower the potential of fire ignition and rate of spread; protect and support land use allocation objectives by lowering the risk of high intensity, stand replacing wildfires.
- Hazard reduction can be attained through methods such as mechanical or manual manipulation of forest vegetation and debris; removal of forest vegetation and debris; and combinations of these methods.

Wilderness Study Areas:

- Soda Mountain Wilderness is located on the Medford District within the Cascade Siskiyou National Monument (CSNM). Nationally there are interim guidelines for fire management activities in these designated lands. The CSNM Record of Decisions addresses fire management direction for the Soda Mountain Wilderness and the rest of the Monument (**see Appendix J**).

Oregon Department of Forestry

Management Response to Wildland Fire Suppression for all land use allocations.

Wildland fire suppression for all protected lands:

- The objective is to control all wildland fires in an efficient, cost effective, and timely manner. This will be accomplished while providing public and firefighter safety. Suppression priorities, as established by state law, are life, resource values, and property values.
- Responses will consist of aggressive initial attack to extinguish fires at the smallest size possible, with consideration for minimizing total cost. This will be accomplished with emphasis on aggressive and safe direct attack, utilizing aggressive nighttime suppression when burning conditions are less intense.

- Respond to all wildfires by taking appropriate response in accordance with state law (ORS Chapter 477), Oregon administrative rules, Board of Forestry policy, and ODF directives and guidance.
- All fires will be suppressed using ODF standards for initial attack, 94% of fires controlled at 10 acres or less.
- Landowner/agency considerations will be included in all fire suppression responses. This includes but is not limited to resource value, cultural sites, watershed and soil values, etc. Resource advisors are utilized on BLM lands when necessary to meet resource objectives in fire suppression activities.

Wildfire use:

- No state laws, policy, or directives exist that allow fire use.

Fuels treatment:

- A range of opportunities are available for landowners to meet land management objectives and to abate fire hazard liability generated by forest activities.
- A hazard rating system for assessing hazard following commercial forest activities is used to assign the responsibility for fire suppression costs in areas where an additional fire hazard has been created.
- Biomass utilization of hazardous fuels is encouraged by the Oregon Board of Forestry and the Protection from Fire Program.
- ODF works with federal and state agencies, counties, and legislators to accomplish the objective of reducing wildfire risk to communities within the wildland urban interface. Interface landowners are encouraged to mitigate hazardous fuels near structures by:
  1. The Oregon Forestland-Urban Interface Fire Protection Act of 1997.
  2. Administration of the National Fire Program and other grant programs.
  3. Senate Bill 360

Prescribed fire:

- Use prescribed fire to meet landowner resource land management objectives within the parameters of state law and Board of Forestry policy, including burning permits and the Oregon Smoke Management Plan.
- By Oregon administrative rule, landowners are encouraged to use alternatives to burning when feasible to minimize the impact of smoke.

Non-fire:

- Mechanical: Use mechanical treatments to meet landowner resource land management objectives within parameters of state law and Board of Forestry policy
- Chemical: Use chemicals treatment to meet private landowner resource land management objectives within parameters of federal and state law and Board of Forestry policy

Oregon Caves National Monument

Management Response to Wildland Fire For All Land Use Allocations.

Wildland Fire Suppression

- All wildland fires will be suppressed using the appropriate management response. The appropriate management response will vary from fire to fire and sometimes even along the perimeter of a fire.
- Appropriate management response options range from monitoring with minimal on-the-ground disturbance to intense suppression actions on all perimeters of the fire. The appropriate management response is developed from analysis of local situations. Factors such as values to be protected, management objectives, external concerns and land use need to be formally assessed.

Wildland Fire Use

- One management strategy not available to the Monument is wildland fires managed for resource benefits (wildland fire use). Wildland fire use is a strategy for allowing naturally ignited wildland fires, to burn as long as the fire meets pre-stated resource management objectives in the Maximum Manageable Area and prescriptive parameters are not exceeded. Due to the relatively small area involved in the park and the surrounding values, a wildland fire use program will not be implemented.

Prescribed Fire

- Prescribed fires are intentionally ignited under predetermined weather and fuel-moisture conditions allowing managers to exert substantial influence over the spread and intensity of the fire. Managers ignite these fires to accomplish resource management objectives and subsequently reduce hazard fuel as well. All prescription parameters, acceptable ranges, and objectives are clearly stated in a Prescribed Fire Plan for each prescribed fire conducted.
- Prescribed fire may be used for hazard fuel reduction within the Monument as needed. Projects will be documented with a written plan approved by the Park Superintendent. Each plan will describe the fuel hazard and the values at risk. The plan will specify proposed mitigation action with scope of work to be completed, and cost breakdown associated with the mitigation. Firefighter, public, and visitor safety associated with public use areas and travel corridors will be of highest priority, followed by protection of public and private property.
- Prescribed fire may also be used to meet objectives for hazard fuel management activities outside of developed areas, while maintaining

the fire dependency of the ecosystem treated. Managers may select mechanical removal of hazard fuel in areas with excess fuel loads. This program will reduce hazard fuel to levels that limit the probability of accidental ignition of fuels and that enable local wildland fire suppression forces to control fires with minimal loss of values to be protected, should fire occur.

- The focus of prescribed fire will be ecosystem management with reduction of hazard fuels as an additional benefit. Managers do not expect to use fire strictly for the purpose of hazard fuel reduction at Oregon Caves National Monument. Mechanical hazard fuel reduction may be necessary prior to a prescribed fire in the vicinity of cultural resources.

3.1.3. Wildland Fire Operations guidance

Standardized Federal agency specific guidance for operations in fire program management and ground operations, can be found in the **"Interagency Standards for Fire and Fire Aviation Operations."**

The ODF and DFPA are bound by direction in State Law and Statute, which serve as the parent documents for these administrative units. ORS 477.005 provides the original framework for policy within these agencies by mandating the "Protection of the forest and the conservation of the forest resources through the prevention and suppression of forest fires." This statute also acknowledges the need for a complete and coordinated forest protection system to accomplish this purpose. This purpose is second only to the protection of life. The Oregon Department of Forestry is responsible under The Western Oregon BLM Protection Contract (Fire Protection Services Contract) for Medford District fire prevention, detection, initial attack, suppression, mop-up, rehabilitation, and reporting services. This contract is administered locally by the Douglas Forest Protection Associations as well as the Southwest Oregon ODF. Annually in compliance with the contract the protection associations and ODF provide both BLM districts an Operations Guide for federal lands they protect.

3.1.4. Preparedness

The FPU emphasizes a suppression strategy as the primary response for Initial Attack of wildland fires; this document also identifies resource concerns for protection (firefighter, public, resource) from high severity fire and adverse suppression effects.

To provide this protection, an assortment of fire and fuels management resources are staffed by the administrative jurisdictions. Pre-season reviews, training, and exercises focus on inter-related tiers of organizations, which are listed below:

a) Annual reviews are held with resource specialists along with fire managers to make recommendations, review best management practices, and discuss lessons learned on issues concerning suppression activities. These meetings are held in conjunction with local Type 3s team and other fire overhead to insure that direction for protection of resource values are understood and considered when those situations are appropriate.

b) For Incident Qualifications the Rogue River-Siskiyou NF will meet the requirements as outlined in the **FSH 5109.17 Fire and Aviation Management Qualifications Handbook**. ODF will meet the requirements as outlined in the **Wildland and Prescribed Fire Qualifications System Guide (PMS 310-1)** and the ODF Training and Certifications Manual. The BLM and OCNM will meet the requirements as outlined in PMS-310 and updates as provided in the Interagency Standards for Fire and Fire Aviation Operations. All federal agencies operating under the Interagency Standards for Fire and Fire Aviation Operations are directed to have an Incident Qualifications committee that reviews training needs (wildfire and prescribed fire) annually.

c) Managers are also involved in reviews and fire related training at approximately this same time. Wildland Fire Decision Support System (WFDSS) training and refreshers are held with managers, resource specialists, and fire specialists.

d) Suppression resources hold a number of meetings and mandatory annual refreshers throughout the Planning Unit, to re-assert: fireline and job safety, leadership, fire behavior and weather, fire suppression tactics and strategy, equipment management, fire cache protocols, and organizational structure.

The agencies (State and Federal) coordinate annually on the availability of resources that may be used to manage fire in each jurisdiction. This coordination meeting occurs prior to fire season. The units discuss the qualifications of personnel, anticipated availability, funding opportunities, interagency support for fire and fuels management, and a critique of the previous operating season.

Annual firefighter training is coordinated between the agencies to facilitate an efficient and cost effective method of maintaining and updating qualifications. Notifications of training opportunities are shared between the units as well as through the normal training announcements and postings on the **South West Oregon fire-training**.

Coordination between agencies takes place if an ignition is managed within an adjacent FMU, or at any time an ignition begins to affect the neighboring agency with smoke or public concern. This will be accomplished by notifying the appropriate dispatch center.

When multiple fires occur within the FMU, the agencies coordinate priorities and resource availability as necessary, as outlined in the **PNW mobilization Guide**, ODF Mob Guide, Rogue River-Siskiyou National Forest Mob guide, and local Operating Plans. Prioritization of suppression responses will be based on all agencies need for assistance. All suppression responses will be based on the appropriate management response for each FMU. As always, priorities for suppression actions will be based on responsible agency policy.

Formal requests for resources will be made through the appropriate dispatch center. Neighborhood policy as outlined in the **PNW Mobilization Guide** and the local mob guides will be used.

Pre-positioning of resources will be coordinated between the agencies. The resources will be used throughout the FPU and used on priority fires. The need for these resources and additional requests shall be coordinated by the Unit FMO (or delegate) and/or Unit Forester. Severity requests will be coordinated by the Deputy Fire Staff – Operations, Unit FMO and/or Unit Forester in conjunction with adjacent Units.

When it is determined that a need for a detection flight in the FPU, the initiating agency dispatch center will contact the neighboring agency with a courtesy call to provide detection assistance for the neighboring agency. A determination of need will be made at the time of the flight. It will be mandatory for each agency to maintain a set of neighboring agency maps and radio frequencies and carry them during each detection flight. Wilderness concerns for over flights will be observed.

For a complete list of current Forest-wide Standard and Guidelines, refer to the ***Rogue River-Siskiyou National Forest Fire Use Amendment Environmental Assessment (October 2010)*, pages II-3 to II-33**

3.1.5. Physical Characteristics that Apply to All Fire Management Units

Topography in southwest Oregon is rugged and varied and the antiquity of the area has allowed unusual speciation to occur. Winters are wet and warm toward the coast, and wet and cooler at higher elevations. Summers are characterized by long drought periods, which are occasionally punctuated by electrical storms. Historically, the summer lightning, which occurs from May through October, has resulted in fires. These natural, along with aboriginal ignited fires, have caused vegetation to evolve with frequent low-intensity fires on some areas of this FPU and they are considered fire adapted. Some landscapes are affected by autumn east winds that occur when stable air

pushes across a mountain range and then descends on the leeward side. The air becomes warmer and drier as it descends and can lead to increased, sometimes extreme fire behavior in lower lee side locations, especially on lands associated with the west side of this FPU.

Disturbances are an intrinsic part of ecosystem development (Cooper 1913, Raup 1957, Oliver 1981, Pickett and White 1985) and fire has been an important natural process in the maintenance of historic ecosystem health and diversity in the forests of the western United States. In southwest Oregon, ecosystems developed in concert with, and are subject to, a variety of natural, introduced, and altered fire regimes. Most forests in southwestern Oregon were part of a low- to moderate-severity fire regime. There are many forest types in this area where fire played an important ecological role (Agee and Huff, 2000).

3.1.6. Description of Wildland Fire Management Strategies by Land Use Allocation (LUA)

For purposes of further defining the fire management issues and missions of the primary jurisdictions within the FPU the area was divided into sections which have a direct bearing on the types of fire management approach and activities which may occur. These divisions are described as Land Use Allocations (LUA). The SWOFPU has 5 general land use allocations found in the federal agencies parent documents and Oregon State Department of Forestry delineation of Communities at Risk, along with the County Wildland Fire Protection Plans. These divisions were chosen to provide a means for resource specialists to apply management objectives and direction to fire management activities through the guidance of the LRMP's and RMP's of the Federal Agencies and through the recent direction of policy and law on private and intermixed lands.

The LUA's within the Planning Unit are:

1. **Wildland Urban Interface** areas where wildland fire has the potential or has in the past affected private property, residences, and communities. Areas mostly in the interior portion of the planning unit which are intermixed private and federal lands that correlate to the current State Communities at Risk determination. Included around the communities at risk is the WUI area which encompasses private and federal lands to watershed boundaries or other landscape features that would assist fire protection activities.
2. **General Forest**- Includes private land holdings primarily larger areas of industrial or commercial private lands, or other private lands not under the planning restrictions of federal land. Areas denoted in LRMP/RMP's of federal land plans as general or matrix forest lands with multiple use management objectives and directives are included in this LUA.

3. **Late Sucessional Emphasis Areas**- This LUA has the greatest portion of land mass designated as Late Successional Reserve by the NW Forest Plan and Federal LRMP/RMP's.
4. **Special Management Areas**- Areas mainly on federal lands with special designation due to a recognized unique trait and given special status. Some are congressional or administratively withdrawn. These include Wild and Scenic River Corridors, Research Natural Areas, Botanical Areas, Areas of Critical Environmental Concern, National Monuments and some camp grounds.
5. **Wilderness** – Federally withdrawn lands that are congressionally designated as Wilderness.

The boundaries of these LUA's may change as amendments or revisions are made to Land Management Plans, policy documents, or reviews of this document.

1. Wildland Urban Interface

Description: 1,959,481 acres. Spatially the coastal area and interior valleys are included based on the Resource Program Direction Rural Interface Areas within the Medford District RMP, the Communities at Risk designation from ODF, and CWPP definitions of WUI. Ownership patterns are typically interspersed tracts of Federal, private, and state lands.

Characteristics: Topographically steep drainages form from ridgelines at the mid and higher elevations and descend to narrow to broad drainage bottoms lands. The Federal jurisdiction is usually higher on the slopes and the private lands generally occupy the drainage bottoms.

Fire history: Recent large fire have occurred within and threatened this LUA from the edges. In general this LUA experiences frequent fires, many of which have grown large in size.

Fire Regime/ Condition Class (Defined): Historically this area was accustomed to frequent low to moderate severity fires in much of the LUA area. Fire regimes vary from 1 through 3 with most acres being in fire regimes 1, 2, and fewer lands in 3. Missed fire regimes and climatic variation have created landscapes within this LUA that are uncharacteristic compared to their historic condition. Condition classes range from 1 to 3 with the majority of the non urban/agricultural area in condition class 2 and 3.

Values at Risk: By long standing policy the federal agencies are required to prioritize protection values by threats to life, property, and resources. ODF prioritizes by life, resources, and property. This LUA addresses these policies and identifies the area where all three of these priority elements are concentrated and intermixed in a locality. This LUA has the highest

concentrations of population and private property values in the federal and ODF SW jurisdictions. Protection emphasis is for public safety and private property and resources. Other improvements exist on federally administered and private lands within this LUA as such as; recreation sites, watersheds important to the water quality of communities, and important ingress and egress routes in times of emergencies. Numerous spotted owl cores and reserved areas of Endangered Species Habitat exit in close proximity to populated area.

Protection Priority: Very High

Communities at Risk: 26 Communities at risk fall within the WUI LUA boundary. Communities will be specified in the FMU descriptions. The boundary for the areas covered by communities at risk is adopted from ODF mapping of population densities serviced by these communities (**Communities-At-Risk Assessments**, **Oregon Communities Reporting Tools**).

Wildland Fire Protection Objectives:

- An initial attack suppression response on all fire occurrence within this LUA will occur. Naturally ignited fires on Forest Service jurisdictions will be considered for the use of Wildland fire.
- On ODF protected lands, contain 94% of unwanted fire occurrence at 10 acres or less (on ODF protected lands).
- Insure fire is extinguished 100% on above incidents.
- Coordinate fire management activities in rural interface areas with local governments, fire departments, agencies, and landowners.
- Provide information and assistance to communities and publics for development of protection plans that include strategies for evacuation, defense from, and education in wildland fires role in ecosystem dynamics.
- Protection emphasis for public safety, private property and resources, public resources is very high.

Resource and management objectives on private and state lands under ODF protection will be negotiated with landowner at the time of the incident.

2. General Forest (Matrix)

Description: 569,028 acres. Spatially this LUA encompass landscapes that generally lie between the WUI and Late Successional Emphasis LUA. These landscapes are characterized by principally Forest Service lands with interspersed tracts of BLM and private land in-holdings consisting of mainly industrial timber lands. These are made up of areas within designated General Forest (GFMA) in the Medford BLM District RMP and Matrix as identified in the Northwest Forest Plan. This FMU directly relates to the protection direction for GFMA in the Medford BLM RMP and relates to ODF policy of resource protection. This FMU is less populated than WUI but the protection emphasis is still for public, private property and resources.

Characteristics: Landscapes within this LUA cover the elevation range throughout the southwest portion of the FPU. Management activities, such as logging and planting have taken place for the past 60-80 years.

Fire history: Recent large fire have occurred within and threatened this LUA from the edges. In general this LUA experiences frequent fires, many of which have grown large in size.

Fire Regime/ Condition Class: Historically this area was accustomed to frequent low to moderate severity fires in much of the LUA area. Fire regimes vary from 1 through 4 with most acres being in fire regimes 1 and 3a, 3b, and 3c. Condition class range from 1 to 3 with the majority of the natural stands in condition classes 2 and 3.

Values at Risk: GF landscapes occupy strategic ground with reference to WUI. Resource values are second only to protection of life for ODF SW protected private lands. Commercial timber values on federal lands are also important in this FMU. Other improvements exist on BLM administered and private lands within this FMU such as; recreation sites and important ingress and egress routes in times of emergencies.

Protection Priority: High

Communities at Risk: Communities at risk are within close proximity to GF FMU boundary.

Wildland Fire Protection Objectives:

- Provide an initial attack suppression response all fire occurrences within this LUA. Naturally ignited fires on Forest Service jurisdictions will be considered for the use of Wildland fire.
- With multiple ignitions consider prioritizing those within close proximity to private property boundaries or occurring on private lands.
- For ODF protected lands, suppress 94% of unwanted fire occurrence at 10 acres or less (on ODF protected lands).
- Insure fire is extinguished 100% on above incidents.
- On BLM lands resource objectives to protect ecosystem qualities are provided below. The resource advisor assigned to the incident will assist the suppression resources to consider them with respect to fire behavior and values at risk.
- Protection emphasis for public safety, private property and resources, public resources is high. Within the jurisdiction of ODF SW (private lands) private resources are the priority after protection of life.

  Resource and management objectives on private and state lands under ODF protection will be negotiated with landowner at the time of the incident.

3. Late Sucessional Emphasis Area (Late Sucessional Reserve)

Late Successional Emphasis Areas occur in this LUA in close proximity to communities at risk. The management and resource objectives for these areas will emphasize whenever possible:

- Retention of snags and coarse woody debris
- Protection of the area from large high severity fires
- Protection of the area from resource damage from suppression activities
- Emphasize protection of snags, large coarse wood, and duff from residual burning and suppression activities when practical.

Description: 1,020,830 acres. The LSE LUA comprises mid to higher elevation landscapes that had the least management activities within them historically. Some of these areas were identified and reserved by the Northwest Forest Plan of 1995. This LUA was delineated by broad areas that were designated by the NW Forest plan and the LRMP/RMP of the Forest Service and BLM. Some private lands were included into the FMU delineation due to the interspersed nature of the ownership pattern of the landscapes. Private lands are not represented by the resource and management objectives listed below. The BLM and Forest Service lands within this FMU will use the following resource and management to guide fire management activities.

Characteristics: Due to the wide-spread designation of habitat areas suitable for the Late Successional Reserves some portions of this land use allocation falls inside the WUI LUA because they exist next to communities at risk. In these cases the LSE designation has been delineated on the maps within the WUI LUA and the following resource and management objectives will be used to guide fire management activities within those specific areas on federal lands when practical. Due to federal policy prioritizing life and property over resources the WUI LUA was considered the priority for these areas and the LSE designation secondary when considering initial response to a wildland fire. The acreage figures given above do not include the LSE designated lands that reside in the WUI LUA but indicate the solid blocks of the LSE LUA.

Fire history: Recent large fire have occurred within and threatened this LUA from the edges. Wildland fires in this LUA are relatively frequent and have the potential to get large in size.

Fire Regime/ Condition Class 9 (Defined): Historically this area was accustomed to frequent low to infrequent mixed severity fires in much of the

LUA area. Fire regimes vary from 1 through 4 with most acres being in fire regimes 3a, 3b, 3c, 4a and 4b.

Values at Risk: Late Successional habitat areas are host to numerous threatened, endangered, and sensitive wildlife and botanical species. Laws, policy, the federal agencies parent documents, all provide and encourage protection of this type of habitat from wildland fire that may put their constituent elements at risk. Unwarranted suppression activities that may damage the habitat.

Communities at Risk: Aside from LSR areas that fall within the WUI LUA, which are tactically important ground for communities and private lands they are adjacent too, LSE FMU is strategically important ground to many of the communities at risk.

Wildland Fire Protection Objectives:

- Due to the interspersed land ownership patterns, the potential persistence of fire activity over long periods because of type and loading of fuel, and type and kind of fire fighting resources, all wildland fire incidents in this LUA will receive a suppression action. Naturally ignited fires on Forest Service jurisdictions will be considered for the use of Wildland fire.
- An initial attack suppression response will be initiated on all fire occurrence within this LUA.
- Suppress 94% of unwanted fire occurrence at 10 acres or less on ODF protected lands.
- Insure fire is extinguished 100% on above incidents.
- With multiple ignitions consider prioritizing those within close proximity to private property boundaries or occurring on private lands.
- On BLM lands resource objectives to protect ecosystem qualities are provided below. The resource advisor assigned to the incident will assist the suppression resources to consider them with respect to fire behavior and values at risk.
- A protection emphasis is desired to increase public safety, private property and resources, public resources. Within the jurisdiction of ODF SW (private lands) private resources are the priority after protection of life.

The following is a description of the protection levels and sensitivity of the activity (fire or suppression) in proximity of those sites. For the purposes of this document, a “site” is defined as a known location where a particular species is found. The physical size of a “site” varies by species and it is necessary to consult with a biologist to obtain species specific information.

- Category A: Sites that require complete protection when practical. Overstory and understory should be protected to the extent possible. Limit disturbance in the site area. In the case of bat habitat keep firefighting personnel out of caves and mines where they are located.

- Category B: These sites require overstory protection, light underburns are acceptable. Protection measures should emphasize retention of large trees, snags, logs, and canopy. These sites are most often associated with threatened and endangered bird species such as Northern Spotted Owls, Bald and Golden Eagles, Great Grey Owls, and Northern Goshawks. While the protection measures are desired for the area in the vicinity of where these species live, the nest trees on the site are of particular importance in terms of protection from fire and suppression activities.
- Category C: Protect site from surface disturbance. These sites are known to have species that exist at ground level or below. Ground disturbance from digging, driving of machinery, or severe sub surface heating from fire should be avoided. Firelines, mechanized equipment, fire camps should be excluded from these areas.

4. Special Emphasis Area

Description: The Special Management FMU denotes sites, located throughout the Rogue River Siskiyou NF and Medford BLM ODF SW jurisdiction mainly within BLM ownership, that have notable vegetation or other ecosystem qualities that set them apart from other areas. These sites have been formally designated through the legislative process or by administrative decree to set them aside and protect them from damage. Most of the above acreage are generally included in Areas of Critical Environmental Concern (ACEC), Research Natural Areas (RNA), or congressionally/administratively determined reserves such as Wild and Scenic River Corridor (Rogue) and the Cascade Siskiyou National Monument (fire management issues covered in CSNM EIS will supersede this FMP).

Characteristics: This LUA encompasses many diverse areas of the FPU. The largest single somewhat contiguous landscape is the Cascade Siskiyou National Monument. Soda Mountain Wilderness is located within the CSNM and the fire management direction pertinent to this area is discussed in the EIS. Many special status botany and wildlife sites are outside of the Wilderness.

Fire history: Recent large fire have occurred within and threatened this LUA from the edges.

Fire Regime/ Condition Class (Defined): Historically these areas were accustomed to a wide range of fire regimes. Frequent low to moderate severity fire regimes 1, 2, 3a represent many of the areas in this LUA, but they vary from 1 through 4 across the whole FMU.

Values at Risk: Sensitive, threatened, and endangered species and their habitats are critical values within the LUA. Critical elements of wildlife and botanical habitat may be threatened by uncharacteristic wildland fire and by

suppression activities. Areas of the LUA are in close proximity to private property, private improvements and may affect public safety during wildland fire incidents.

Communities at Risk: Aside from Special areas that fall within the WUI LUA, some more remote Special LUA areas are tactically and strategically important ground to many of the communities at risk.

Wildland Fire Protection Objectives:

- An initial attack suppression reponse will occur on all fire occurrence within this LUA. Naturally ignited fires on Forest Service jurisdictions will be considered for the use of Wildland fire.
- Suppress 94% of unwanted fire occurrence at 10 acres or less on ODF protected lands.
- Insure fire is extinguished 100% on above incidents.
- With multiple ignitions consider prioritizing those within close proximity to private property boundaries or occurring on private lands.
- On BLM lands resource objectives to protect ecosystem qualities are provided below, the resource advisor assigned to the incident will assist the suppression resources to consider them with respect to fire behavior and values at risk.
- Protection emphasis public safety, private property and resources, public resources. Within the jurisdiction of ODF SW (private lands) private resources are the priority after protection of life.

5. Wilderness

Description: 366,867 acres. Areas designated as Wilderness on the Rogue River – Siskiyou National Forest and Medford District BLM are considered pristine scenic landscapes that are preserved as vestiges of wild America, and provide and opportunity for solitude. These wildernesses must be managed by the Wilderness Act of 1964.

3.1.7. LUA Relationship to Federal Land and Resource Management Plans

These LUA's tie to the LRMP/LMP of the federal parent documents and Communities at Risk (CAR) State of Oregon determinations with defensible boundaries for fire protection.

LUA's were not designed to alter the land management goals, objectives and activities identified from their counterpart land use allocations within the Federal Agencies RMP / LRMP's. LUA's were designed to prioritize land use plan accepted fire suppression actions necessary to provide protection

of life, property and resources across (jurisdictional/ administrative) boundaries within the FPU.

In all LUA's throughout the planning unit, areas have attempted to capture the resource and management objectives for federal and state lands. The bulk of the LUA General Forest and Wildland Urban Interface are private property with intermixed federal lands. The protection objectives for these LUA's will address life, private property and federal and public resources.

On Federal lands, land use allocations that are different than LUA designation in this plan, will be displayed in Appendix B and have management objectives developed by resource specialists that follow the decisions made by the Land and Resource Management Plans when practical from a protection perspective. The most common example are Late Successional Reserve Areas (or spotted owl cores) designated by the Land/Resource Management Plan that reside within the LUA WUI. These areas will have resource objectives which address Late Successional Reserve and protection objectives that address the resource and the wildland urban interface. This delineation is done in order to not loose sight of protected habitats that exist close to communities which are threatened by wildland fire. While our highest priority is firefighter and public safety, the resource issues that are associated with these protected habitats will also be considered.

In general, the majority of the federal land base within a specific LUA delineation directly correlates to the land use allocation that is predominate for that area in the LRMP/RMP's and resource direction of the Federal Agencies.

The LUA's Late Successional Emphasis and Wilderness follow allocations developed in the Northwest Forest Plan and adopted by the Land and Resource Management Plans and from congressional reservation respectively. The LUA "Special" incorporates some executive/legislative withdrawn areas and identified areas with special needs due to rare plants, unique environmental locations, and improvements or developments on federal lands. It also includes the only National Park Service land within the FPU.

3.1.8. Resource and Fire Management Objectives Common to all LUA's on all Jurisdictions

The issues surrounding resource and fire management objectives within the FPU sometimes conflict, and final resolution of questions concerning activities to reduce the impacts from unwanted and uncharacteristic wildland fire many times are a tradeoff on federal and state lands. The inter-mixed ownership patterns between federal, private and state lands presents a distinct need for public safety and private property, and resource protection from unwanted wildland fire. While providing this protection is the highest priority, protecting the environment from adverse effects of some suppression actions is important to

maintaining the characteristics of the landscape. Since each incident has a different set of circumstances surrounding it, general sets of guidelines are provided for resource concerns by LUA and specific areas of resource concern will be addressed by FMU.

Often on federally administered lands, when fire management activities are necessary in an emergency situation, negotiation between ecosystem values and life and property values at risk are carried on between the agency administrators and fire managers. At times the environmental concerns of these activities are in conflict with general direction for protection purposes. Often the tradeoffs will involve allowing some limited adverse affects on a local site to protect larger areas from unwanted damage. During these instances a resource advisor, knowledgeable of the environmental concerns at the site, assists the fire managers and agency administrator balance adverse impacts to the site in relation to the threat to safety, property, and resource protection. For this writing of the FMP the protection emphasis within the jurisdiction of federal and state will remain constant throughout the LUA, the tactics and tools used to perform the suppression activities may change from one LUA to another to address the most pertinent concerns of the sites. The intensity of the suppression actions may vary due to the LUA's characteristics in relation to protection priorities and resource objectives and dependent on the situations surrounding the incident. This document is aimed at providing the line officer, fire management officer and resource advisor a concise collection of information to consider while giving input to tactical and strategic decisions made with respect to fire management activities on any given wildland fire site on federally administered lands. There are many resource and management objectives that would affect fire management activities throughout the federal lands regardless of LUA designation. As mentioned above these recommendations will be weighed against the fire situation and values at risk on a case by case basis.

Wildland fire protection objectives for all lands within the administrative boundaries of the SWOFPU are:

- Provide for the health, welfare, and safety of the public and fire personnel.
- Protect private property from damage due to wildland fire
- Protect resource values from high severity wildland fire
- Provide for rehabilitation of sites affected by suppression actions and adverse fire effects
- All wildfires will receive a management response
- Use prescribed fire throughout the FPU to reduce the impacts from large scale disturbance through hazard fuels reduction. Use prescribed fire for restoration of desired vegetation condition, management of habitat, and silvicultural treatments. Hazardous fuels treatments to modify fuel profiles in order to lower potential of high intensity, stand replacing wildland fires may come in the form of prescribed burning, mechanical or manual manipulation of forest vegetation.

- Avoid disturbance activities in sensitive areas such as: caves, mines, and wildlife protection areas.
- Special Management Areas (ACEC's RNA's) exist throughout the FPU. These are areas of critical environmental concern or uniqueness, and are designated by their inclusion in LUA Special. Impacts from suppression related activities may endanger the qualities of these sites more than the effects of a wildland fire.
- Some sensitive botanical species and their habitats are located outside these specially designated areas and exist throughout the other LUA's. Locations of known sites of listed and sensitive plant populations will be available to resource advisors and fire personnel for protection from ground disturbing activities.
- Air Quality issues in wildland fire situations have degraded to below the National Standards for Ambient Air Quality in the past. Notification to the public and health officials will be conducted during wildland fire activities in combination with atmospheric conditions that would degrade air quality in populated areas. All fuels reduction activities will follow smoke management guidelines found in the State Implementation Plan.

These principles should be followed unless they would impede public or fire personnel safety or protection of private property values.

- Locate incident bases, camps, helibases, staging areas, and other centers for incident and other fire management activities outside of riparian reserves.
- Minimize delivery of chemical retardant, foam, or other additives to surface water.
- Locate and manage water drafting sites to minimize adverse effects on riparian habitat and water quality as consistent with Aquatic Conservation Strategy.
- When riparian reserve are significantly affected or damaged by wildland fire, establish emergency rehabilitation team to make assessment and design plan for recovery and to attain Aquatic Conservation Strategy and riparian reserve objectives.
- Design fuel treatment and fire suppression strategies, practices, and activities to meet Aquatic Conservation Strategy and riparian reserve objectives and to minimize disturbance of riparian ground cover and vegetation.
- Consider rapid extinguishment of coarse woody debris and duff during fire management operations to protect these attributes to habitat and ecosystem values.
- Consider washing vehicles and equipment involved in fire management activities to reduce spread of noxious weeds, and pathogens. Follow guidelines in Port Orford Cedar EIS.
- A wide range of cultural resources, including archeological and historic sites are known to occur throughout the FPU. These site types include the

earliest known archeological or pre-historic site in SW Oregon, rock shelters, rare rock art sites, and National Register listed historic sites. All cultural resources are fragile, non-renewable resources. Once damaged, these sites cannot be replaced. Therefore, all cultural resources are at risk from ground disturbing fire fighting operations. All these cultural resources are also at risk from collection activities of fire fighting personnel. The collection of artifacts, both archeological and historic, from federal land is prohibited by the Archeological Resources Protection Act which provides monetary fines for infractions. Those cultural resources with a wooden component, usually a historic site, are at risk from the fire itself. Known cultural resource sites will be considered and protected in the tactical decisions and actions made by fire resources through the advice of the resource advisors. The location of newly discovered artifacts will be reported to the resource advisor for consideration.

- Avoid aircraft travel routes and activities for fire management incidents and projects that may interfere with nesting, roosting, mating, and activity of threatened and endangered bird species.
- 100 acre Spotted Owl Core, Bald Eagle, and Great Grey Owl Areas are located throughout the FPU. Core Areas may be located in any Fire Management Unit. The same resource and management objectives will apply for all Owl Core Areas as designated for LSR.
- Protect snags and large down wood to the extent possible on federal lands within the FPA. Use water, foam, or buffers to protect them when practical. If snags must be felled, consider cutting them away from the area where they may burn, as to retain them for future down wood.
- Protect water sources, seeps, springs and streams from surface disturbance. Maintain as much vegetation next to these areas as practical. Avoid mechanized equipment in waterways.
- Do not feed or bait animals, leave trash, or food of any kind outside of food storage areas. Do not harass or handle wild animals found in or near fire area.

3.2. Fire Management Considerations for Specific Fire Management Units

3.2.1. Bear Creek FMU Snap Shot

FMU Number: 001

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Buckhorn Springs RAWS**

Acres/Agency/Land Use Allocation:

Bear Creek FMU	Wildland Urban Interface	Grand Total
USFS	23,001	**23,001**
BLM	20,457	**20,457**
PV	174,318	**174,318**
State	967	**967**
Totals	**218,743**	**218,743**

Predominant Vegetation Types: Vegetation complexes generally flow from grass shrub in heavily developed valley bottoms, to a mix of chaparral shrublands with timber litter in the mid elevations, and timber understory with heavy dead and down in the uplands.

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Medford, Ashland, Jacksonville, Central Point, Phoenix and Talent

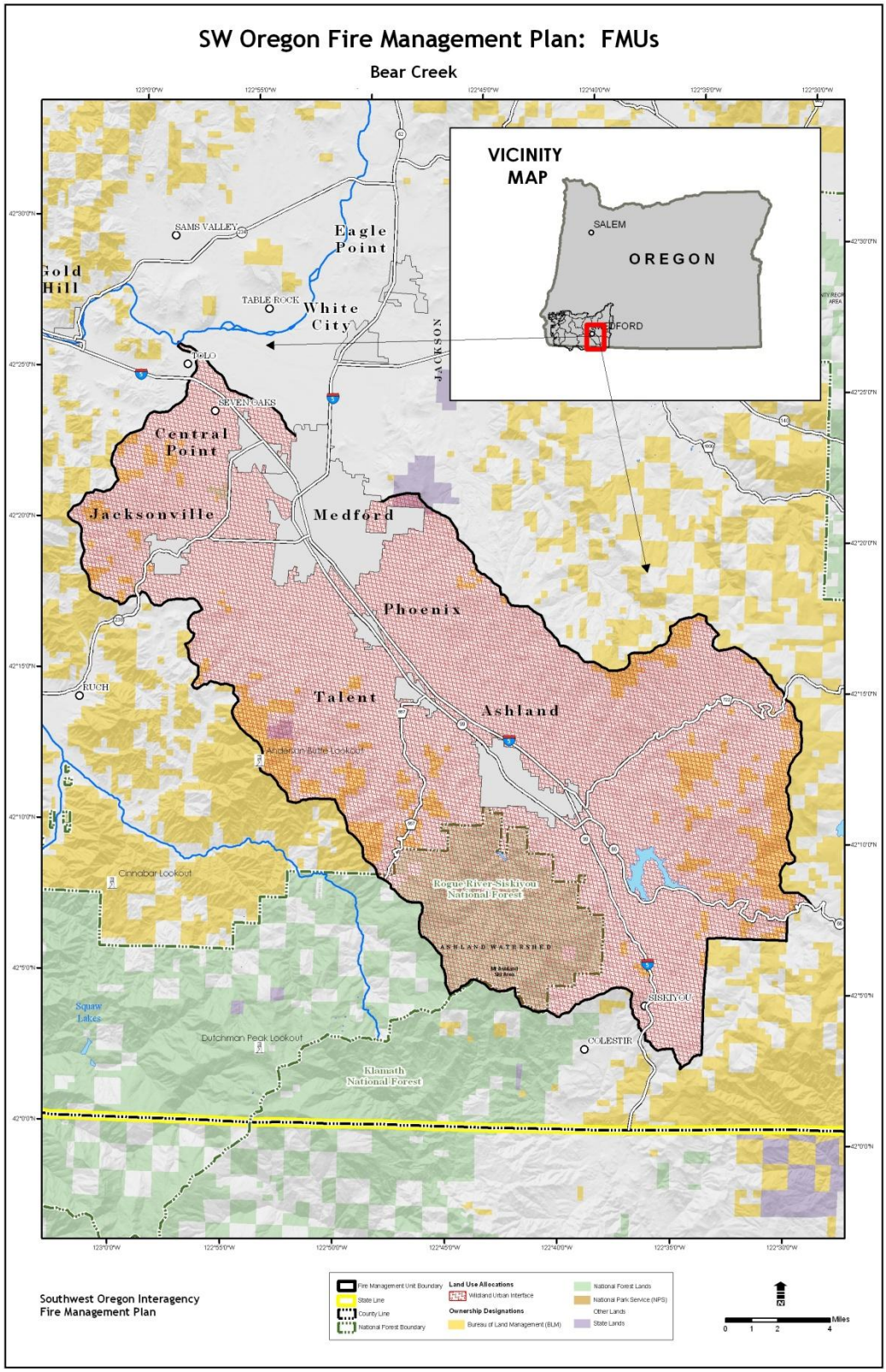
LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit

- Full suppression

Special safety considerations:

- Explosives storage container at Mt. Ashland Ski area
- Diesel and propane tanks located at the Mt. Ashland Ski Area


SW Oregon Fire Management Plan: FMUs
Bear Creek
VICINITY MAP
SALEM
OREGON
SAMS VALLEY
Eagle Point
Gold Hill
TABLE ROCK
White City
JACKSON
TOLO
SEVEN OAKS
Central Point
Jacksonville
Medford
Phoenix
Talent
Ashland
RUCH
Anderson Butte Lookout
Cinnabar Lookout
Rogue River-Siskiyou National Forest
ASHLAND WATERSHED
SISKIYOU
COLESTIN
Squaw Lakes
Dutchman Peak Lookout
Klamath National Forest
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
State Line
County Line
National Forest Boundary
Land Use Allocations
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.2. FMU Guidance – See Section 3.1

3.2.3. FMU Characteristics

3.2.3.1. Safety

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.3.2. Physical

This FMU is essentially all wildland urban interface and includes the larger communities of Medford, Ashland, and Jacksonville which are designated as communities at risk. The Bear Creek FMU encompasses all of the Ashland Municipal Watershed. The Ashland Research Natural Area is located in the northern part of the Ashland Watershed, and the Mt. Ashland Ski area lies in the southern portion. There are several buildings located near or at the ski area, some of which have diesel and propane tanks. Other communities include White City, Central Point, Talent and Phoenix. Some portions of this area are in a developed agricultural state of which some would be conducive to burning. All the areas in these fuel complexes are intermixed ownership mainly private and BLM.

3.2.3.3. Biological

Wildlife:

Category A: Complete Protection

- Townsend's big-eared bat is found in the FMU. **See GIS data and fauna observations**.

Category A: Complete Protection

- Overstory and understory need protection, no disturbance. Keep crews out of caves and mines.
  These include: Bat Caves and Mines

Category B: Overstory Protection

- Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy.
- Bald Eagle Nest Sites
- Golden Eagle Nest Sites
- Northern Spotted Owl Nest Sites
- Known Spotted Owl Activity Centers
- Great Gray Owl Reproductive Sites

- **Category C: Protect from Surface Disturbance**
  - No fire lines, roads, fire camps, heavy equipment.
  - Mardon Skipper Sites

Fisheries:

- Coho salmon (*Onchorynchus kisutch*), fall Chinook salmon (*O. tshawytscha)*, summer and winter steelhead (*O. mykiss*), and Pacific lamprey (*Entoshpenus tridentatus)* are native anadromous fish species present in the Bear Creek FMU. Steelhead are known to occur in the Neil Creek, and Horn Gulch (Wagner Creek) drainages. Within USFS lands all other fish bearing waters within the FMU exclusively support resident trout populations.

Botany:

- **Most critical botanical resource concern when suppressing fires in this FMU:** Do not build dozer line on the Forest boundary (Rogue/Klamath divide) from the summit of Mt. Ashland westward along the main ridge 1 mile toward Grouse Gap. Do not stage fire suppression activities from this summit and ridge either. This summit and ridge hosts the world's largest populations of *Lupinus lepidus* ssp. *ashlandensis* (Mt. Ashland lupine) and *Horkelia hendersonii* (Henderson's horkelia). The location is T40S, R1E, Sec 20, NE ¼ of the NE ¼, Sec 17 south ½, Sec 21 NW ¼ of the NW ¼. UTM coordinates at the midpoint of this 1-mile strip are 4659013 (N), and 522720 (E).

  - Other botanical resources that could be damaged by suppression activities in this FMU (including noxious weed issues specific to this FMU):
    - Ashland Research Natural Area and McDonald Peak Botanical Area are present.
    - Engelmann Spruce (rare in the Klamath Mtns. and rare this far south) occupies 6-7 miles of stream reaches in the East Fork Ashland Creek watershed.
  - A large dalmation toadflax (noxious weed) population occurs at T39S, R1E, Sec 28, SW ¼ of the NE ¼. Other rare plant and noxious weed locations to be avoided in this FMU can be located in the **GIS Reference Data**.

3.2.3.4.Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Bear Creek FMU.

- The Rich Gulch Diggings Mining Ensemble National Register site is located within the corporate boundary of Jacksonville, OR. The legal description is Section 31 T. 37S R. 2W. Ten (10) acres of this ensemble are on BLM lands. Fire fighting operations or ground disturbing activities have the greatest chance of impacting this area which contains intact segments of ditch, man-made ravines, tailings piles, roadway reservoir and headgate, and glory holes.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- **Suppression Constraints:** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Timber and Silviculture:

- ***Values:*** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands

receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- ***Objectives:*** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- ***Suppression constraints:*** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

- **Special Areas:**
  - **Holton Creek Research Natural Area, 423 acres**

    Values: Natural systems and late successional forest communities.

    Objectives: Maintain natural system and watershed processes, however protect from stand replacing wildfire.

    Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, low to moderate severity back burns/burnouts, or fire retardant/ foam.

  - **Cascade Siskiyou National Monument**

    Botanical Resources – 1,508 acres

    Values: There are eight (8) known sites for the federally listed Gentner's fritillary containing about 196 plants on 8 acres. There are 78 sites for 6 Bureau sensitive species occupying about 1,500 acres. Of the 78 sites, 45 are for the Ashland thistle which occupies over 1,443 acres. The other 5 species have small scattered populations.

    Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

    Suppression constraints: Dispatch botanical resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or sensitive plant sites; No dozers in these sites. No ground disturbance or hand lines within federally listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No

restrictions on retardant except within vernal pool and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites. For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.4. Bridge FMU Snap Shot

FMU Number: 007

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Westside Special Interest Group

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Springs RAWS

Nearest Weather Station: Long Prairie RAWS

Acres/Agency/Land Use Allocation:

Bridge FMU	General Forest	LSE Special	Grand Total
USFS	4,924	58,542	**63,477**
BLM	382	526	**907**
PV	1,005	2,174	**3,179**
Totals	**6,311**	**61,241**	**67,562**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM

IA Dispatch Office:

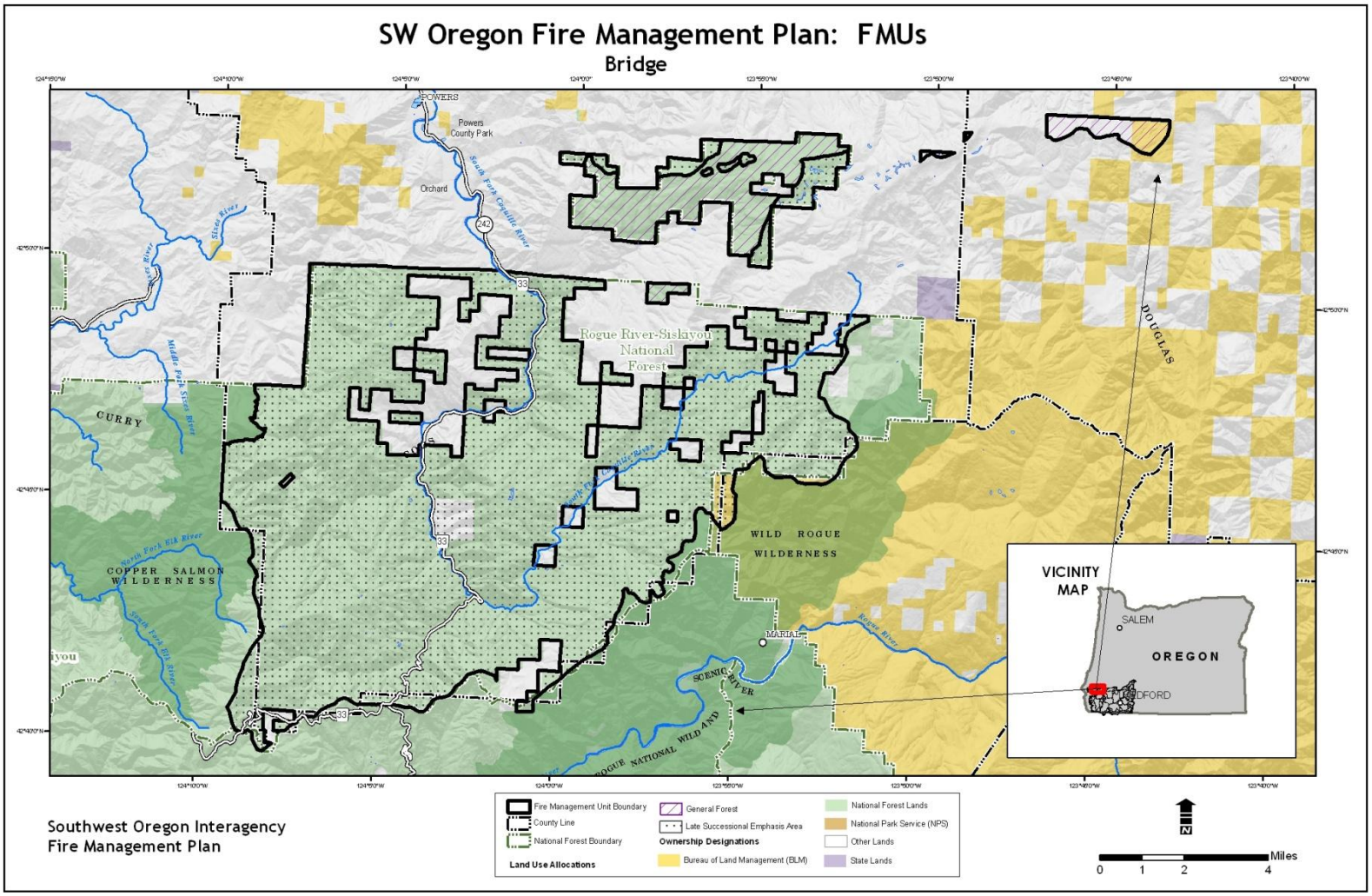
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands

Communities adjacent or within FMU: None

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression

- **Special safety considerations:** Fiber optic line is buried in areas on FS administered lands. Dispatch resource specialist to direct handline and/or dozer line around infrastructure sites/features.


SW Oregon Fire Management Plan: FMUs
Bridge
POWERS
Powers County Park
Orchard
South Fork Coquille River
Sixes River
Middle Fork Sixes River
CURRY
Rogue River-Siskiyou National Forest
DOUGLAS
WILD ROGUE WILDERNESS
COPPER SALMON WILDERNESS
North Fork Elk River
South Fork Elk River
MARIAL
Rogue River
SCENIC RIVER
ROGUE NATIONAL WILD AND
VICINITY MAP
SALEM
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
General Forest
Late Successional Emphasis Area
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
N
Miles
0 1 2 4

3.2.5. **FMU Guidance** – **See Section 3.1**

3.2.6. **FMU Characteristics**

3.2.6.1. Safety

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.6.2. Physical

The area with in Rogue River – Siskiyou NF administrative jurisdiction in the Bridge FMU is South of Powers, Oregon and is mainly within Coos county. Bound on the north by Coos Bay/Roseburg FPU (NW_OR_011) to the east and south by the Wild Rogue Wilderness, and the west by the Copper Salmon and Grassy Knob Wildernesses.

The FMU is intersected by the South Fork of Coquille river canyon which contains high cliffs and numerous waterfalls. The topography is generally narrow river canyons dominated by moderate to steep gradient slopes with sharp ridge tops.

The vegetation complex is old-growth Douglas fir, Port Orford cedar, and coastal flora. The moist and mild climate found along the South Fork of the Coquille River provides a mix of vegetation including Grand fir, western red cedar, and myrtlewood, big leaf maple and Douglas-fir, and Port-Orford-Cedar (*Chamaecyparis lawsoniana)*.

Elevation rages between 200 and 1500 feet above sea level.

This FMU is moderately roaded, with main access in canyon bottoms and ridge tops.

This FMU is approximately 86% LSE

3.2.6.3. Biological

Wildlife:

- **<u>Category A: Complete Protection</u>**

  One site for Townsend's big-eared bat is known. See GIS layer and fauna observations.

- **<u>Category B: Overstory Protection</u>**

  26 spotted owl sites and 17 murelet occupied sites are located in the FMU. Locations are available in GIS and fauna observations. **See guidelines common to all FS FMUs for recommendations**.

Fisheries

- Anadromous fish habitat, including federally listed coho salmon, is widespread within the FMU, downstream of the Coquille River Falls. Anadromous fish bearing streams within the FMU include: South Fork Coquille River, Johnson Creek, Granite Creek, Poverty Gulch, Sucker Creek, and Rock Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

Timber and Silviculture

- **Port Orford Cedar Root Disease:**

  When practicable, management strategies to prevent/reduce Phytopthora Lateralis (PL) would include treating firefighting water with Clorox Regular Bleach to kill waterborne PL spores. This treatment is for use in water tanks, and water drafted for aerial spread. This treatment should also be used for washing vehicles, tools and clothing ensuring that direct run-off from this process will not enter streams.

  While management objectives for POC are a concern, safety of firefighters and the public, and protection of property is always a higher priority. Existing or “in-place” disease controlling management practices such as road closures may be compromised. Road closures and other compromised disease controlling measures would be reinstalled following suppression and emergency rehabilitation unless changed circumstances indicate otherwise.

  Look here for more specific **POC Management direction**.

  Mixing Clorox Regular Bleach and Retardant (PHOS-CHEK 259-F and R, G75F, D75F and R, LV-R and LC95A):

  The Forest has a requirement to treat water taken from sources infested with Phytophthora lateralis spores to prevent spread of the Disease. It was recently discovered that it’s not about mixing the chemicals together but rather how and when they are mixed together. The hazard occurs if the retardant and bleach gets mixed together simultaneously or undiluted bleach gets added directly into retardant. The result of improper mixing techniques can result in not only a toxic but a possibly explosive reaction. Proper mixing of the two chemicals requires a gallon of Clorox Regular Bleach be added to a minimum of 1000 gallons of water and circulated for a minimum of 10 minutes prior to being added to the retardant. MTDC is scheduled to create a

Technical Bulletin or Safety Alert addressing this hazard and corrective measures.

3.2.6.4. Resources

Special Areas:

- Port Orford Cedar Research Natrual Area (1,100 acres)
- Port Orford Cedar Experimental Forest (1,220 acres)
- Coquille River Falls Research Natural Area (490 acres)
- Big Tree Special Interest Area (130 acres)
- Federally designated Scenic Byway (Road 3300) through the narrow Coquille River Canyon

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic feature include Ferris Ford Cedar Bark House.

3.2.7. Chetco FMU Snap Shot

FMU Number: 003

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**
- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Westside Special Interest Group

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Springs RAWS

Nearest Weather Station: Quail Prairie RAWS

Acres/Agency/Land Use Allocation:

Chetco FMU	LSE Special	Wildland Urban Interface	Grand Total
USFS	95,864	19,822	**115,686**
PV	1,735	1,526	**3,261**
Totals	**97,691**	**21,466**	**119,158**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

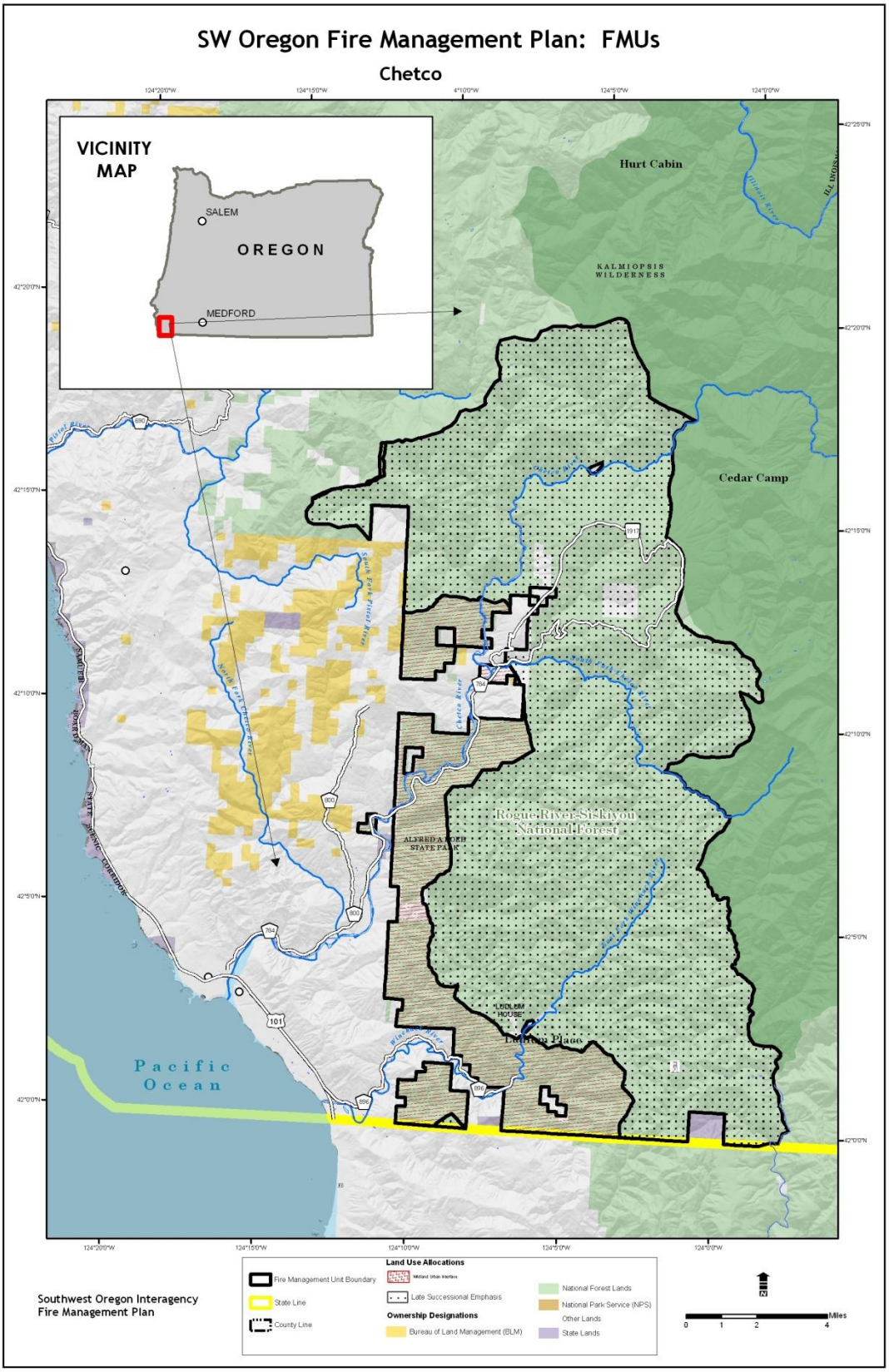
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: None

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit

- **Special safety considerations:** No special or extraordinary safety considerations exist


SW Oregon Fire Management Plan: FMUs
Chetco
VICINITY MAP
SALEM
OREGON
MEDFORD
Hurt Cabin
KALMIOPSIS WILDERNESS
Cedar Camp
Rogue River-Siskiyou National Forest
ALFRED A. LOEB STATE PARK
Lobster Place
Pacific Ocean
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
State Line
County Line
Land Use Allocations
Late Successional Emphasis
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0
1
2
4

3.2.8. **FMU Guidance** - **See Section 3.1**

3.2.9. **FMU Characteristics**

3.2.9.1. Safety

Roaded access is limited due to large portion of FMU designated as Roadless

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.9.2. Physical

This FMU is located in the extreme Southwest Corner of Oregon along the California border.

The eastern half experienced the Biscuit Fire (~ 500,000 acres) of 2002.

Topography with in this FMU is broken and steep

This FMU contains the most Northern extent of a mature redwood stand in North America.

Three main river drainages intersect this FMU from north to south

1. Main stem of Chetco River
2. The South Fork of the Chetco River
3. East Fork Winnchuck River

3.2.9.3. Biological

Wildlife:

- Spotted owl sites, osprey sites, and murrelet occupied sites are located within the FMU. Locations are available in GIS and fauna observations. See guidelines common to all FS FMUs for recommendations.

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is widespread within this FMU. This FMU contains the Winchuck River drainage, and lower portions of the Chetco River drainage. Both of which support multiple anadromous fish species. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

Botany:

- **Most critical botanical resource concern when suppressing fires in this FMU:** A small population of *Arabis macdonaldiana* (Macdonald's rockcress), a federally-listed plant species, is present near the "rain gauge on Hardtack Creek and Forest Road 1107-220". The exact location is in T40S, R11W, Sec 33, SW ¼ of the SW ¼. UTM coordinates are 4654600 (N) and 417920 (E). This site has not been relocated since it was first reported, but care should be taken to avoid this site if building dozer line in this vicinity.
- Other botanical resources that could be damaged by suppression activities in this FMU (including noxious weed issues specific to this FMU):
  - Lemmingsworth Gulch Research Natural Area is loaded with rare plants, particularly the wetlands there.
  - Wheeler Creek Research Natural Area is present.
  - The following special intrest botanical areas are present: Big Craggies, Vulcan, Redwood Groves, Snaketooth Redwood.
- There are lots of noxious weed locations to avoid in this polygon, including gorse sites. Noxious weed locations and rare plant sites to avoid in this FMU can be viewed in GIS.

3.2.9.4. Resources

Hydrology:

- Emily and Dry Creeks are a designated Key Watersheds.

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct hand-line and dozer line around historic sites/features. Historic features include the Wheeler Ridge Bombing Site.

Values at Risk:

- Known values at risk also include Packer's Cabin (recreation rental), Quail Prairie and Snow Camp Mt. Lookouts and the Ludlum House (recreation rental).

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

3.2.10. FMUCopper Salmon Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

- **NFDRS Weather Station:**
  Westside: Special Interest Group (SIG)
  1. Provolt RAWS
  2. Squaw Peak RAWS
  3. Buckhorn Springs RAWS

Nearest Weather Station: **Quail Prairie Lookout**

Acres/Agency/Land Use Allocation:

Copper Salmon Wilderness FMU	Wilderness	Grand Total
USFS	13,730	**13,730**
Totals	**13,730**	**13,730**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

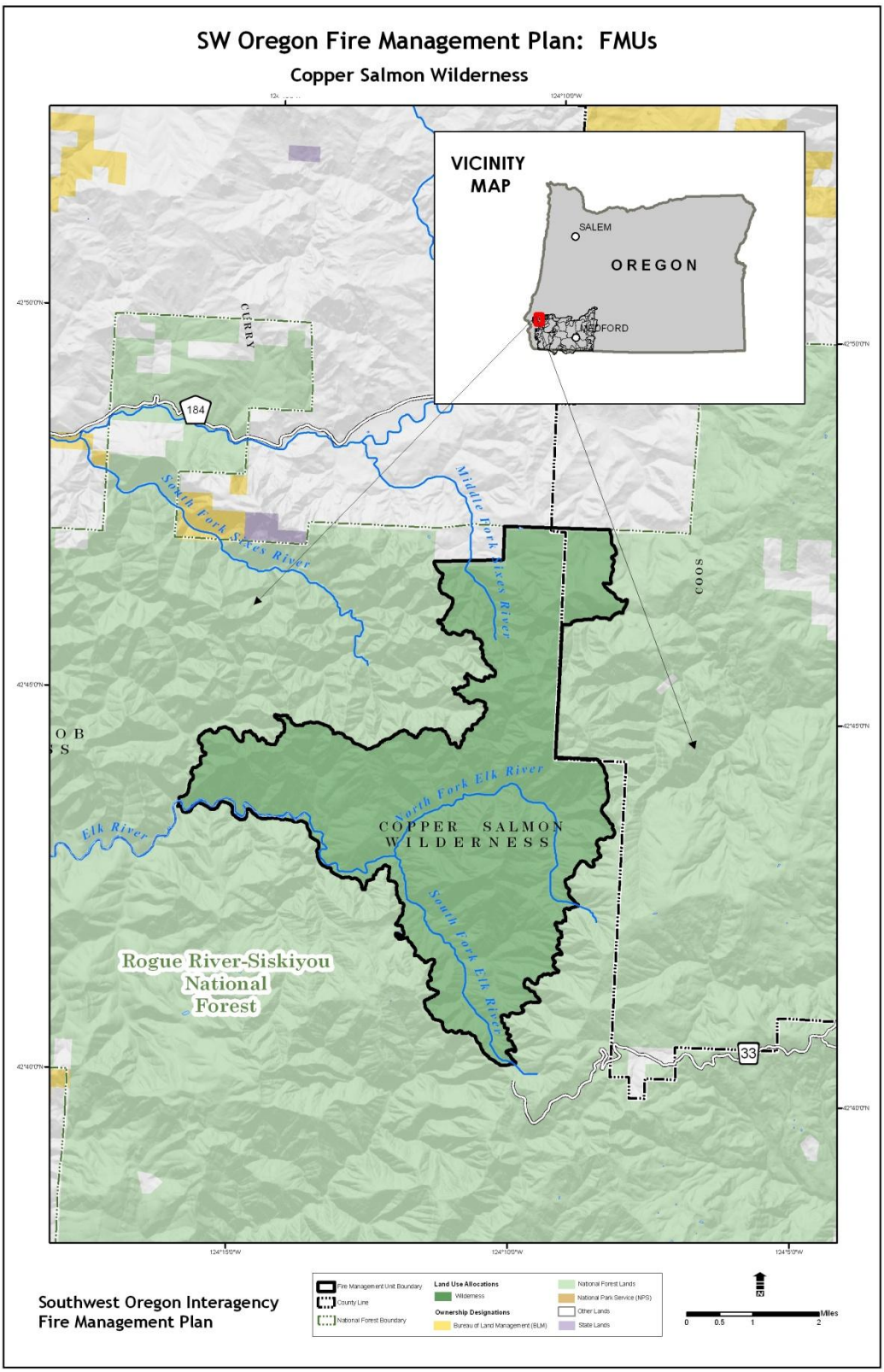
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: None

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit

- **Special safety considerations:** No special or extraordinary safety considerations exist


SW Oregon Fire Management Plan: FMUs
Copper Salmon Wilderness
VICINITY MAP
SALEM
OREGON
MEDFORD
CURRY
184
South Fork Sixes River
Middle Fork Sixes River
COOS
North Fork Elk River
Elk River
COPPER SALMON WILDERNESS
South Fork Elk River
Rogue River-Siskiyou National Forest
33
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wilderness
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.11. FMU Guidance - See Section 3.1

3.2.12. FMU Characteristics

3.2.12.1. Safety

Although roads do exist in this FMU, their use is not allowed due to the FMU being designated as wilderness (roads were created before the wilderness was created).

Remote area conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.12.2. Physical

Designated in 2009, the Copper Salmon Wilderness is the newest wilderness that is administered by the Rogue River-Siskiyou NF

It is managed using the same guidance as for the Humbug FMU, in addition to the guidance provided for wilderness areas in the Siskiyou NF LRMP.

This FMU is south of Powers, OR

The North, South and main stem of the Elk River intersect this FMU

Topography is broken and steep.

3.2.12.3. Biological

Wildlife:

- **Category B: Overstory Protection**
  Spotted owl sites, Murrelet occupied sites, and fisher records are known to exist in the FMU. Locations are available in GIS and fauna observations. See guidelines common to all FS FMUs for recommendations.

Hydrology / Fisheries:

- The Elk River is designated as a Wild and Scenic River. Portions of the Elk River drainage and the Sixes River drainage are designated as critical habitat for coho salmon. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.12.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource

specialist to direct handline and dozer line around historic sites/features.

3.2.13. DFPA Grave Creek FMU Snap Shot

FMU Number: 004

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High (60% WUI)

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: Silver Butte RAWS

Acres/Agency/Land Use Allocation:

DFPA Grave Creek	General Forest	LSE Special	Wildland Urban Interface	Grand Total
BLM	21,160	12,067	29,156	**62,382**
PV	20,514	5,690	49,339	**75,542**
Other			6,531	**6,534**
Totals	**41,674**	**17,760**	**85,030**	**144,464**

Predominant Vegetation Types: Timber

Unit: Medford BLM, ODF SW District (DFPA)

IA Dispatch Office:

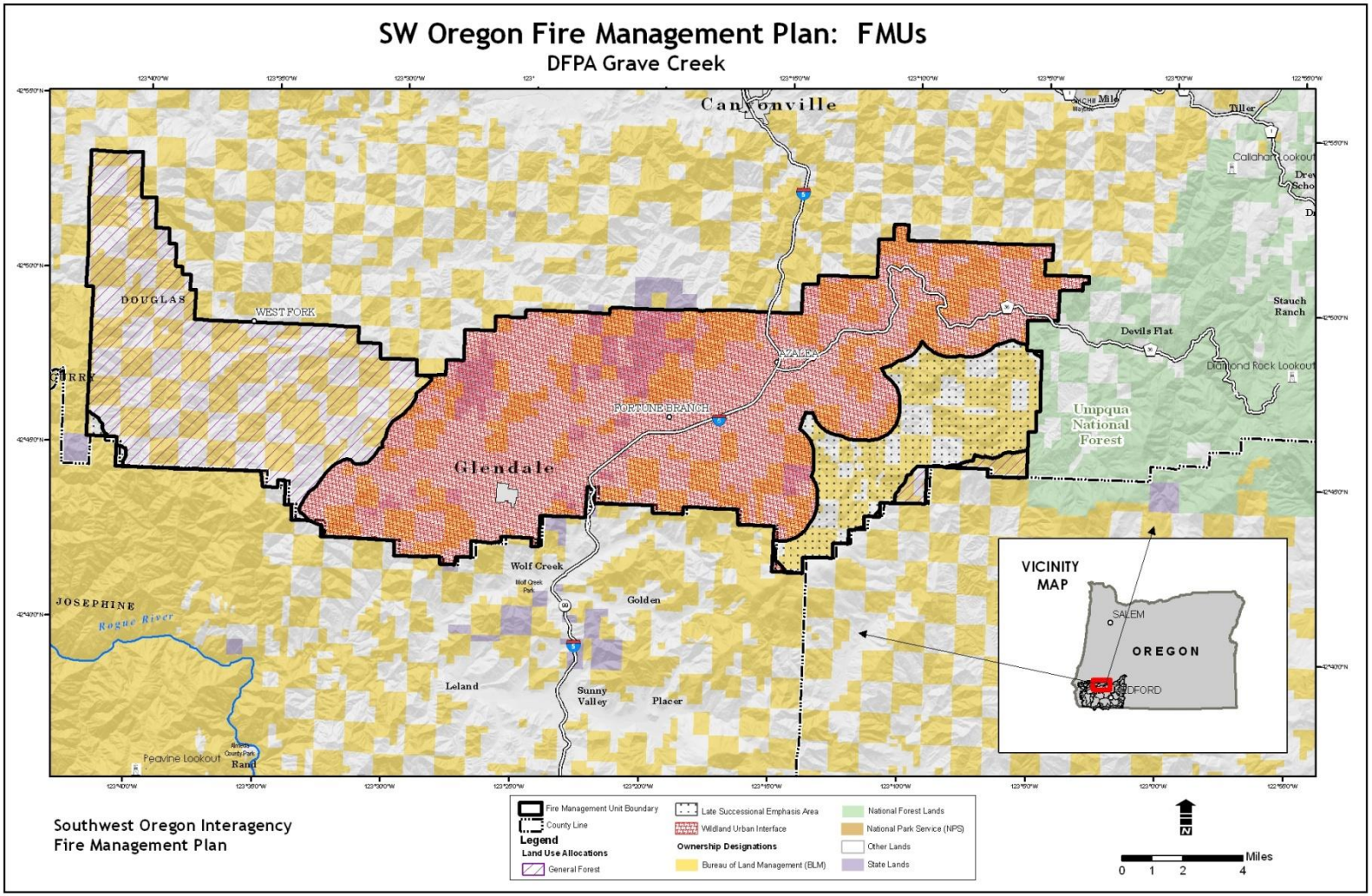
- Douglas Fire Protective Association is responsible for fire suppression on Medford BLM lands

Communities adjacent or within FMU: Glendale, Azalea, Quinnes Creek, and Reuben

LMP Options available for response to ignition:

- Full suppression

- **Special safety considerations:** No special or extraordinary safety considerations exist


SW Oregon Fire Management Plan: FMUs
DFPA Grave Creek
Canyonville
Tiller
Callahan Lookout
Stauch Ranch
Devils Flat
Diamond Rock Lookout
Umpqua National Forest
DOUGLAS
WEST FORK
AZALEA
FORTUNE BRANCH
Glendale
Wolf Creek
Golden
JOSEPHINE
Rogue River
Leland
Sunny Valley
Placer
Peavine Lookout
Rand
VICINITY MAP
SALEM
OREGON
MEDFORD
Fire Management Unit Boundary
County Line
Legend
Land Use Allocations
General Forest
Late Successional Emphasis Area
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4
Southwest Oregon Interagency
Fire Management Plan

3.2.14. FMU Guidance - See Section 3.1

3.2.15. FMU Characteristics

3.2.15.1. Safety

Remote area conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.15.2. Physical

Grave Creek protection provided by Douglas Forest Protective Association BLM, a cooperator, to BLM and private wildlands with in the FPU. Northern most FMU of Medford BLM/ODF SW jurisdiction, ecosystems generally receive more moisture and higher year round humidity than the other FMUs of this jurisdiction. Even though the historic fire regimes may be longer, many of the sites throughout this area are near, or outside, the range of their natural variability in terms of disturbance from fire. 58% of this polygon is designate LUA WUI. 17% is LSE within the WUI due to designated spotted owl habitat in close proximity to communities at risk. Designated communities at risk include Glendale and Azalea other communities include Quinnes Creek and Reuben.

3.2.15.3. Biological

Wildlife:

- **Category A: Complete Protection**
  Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:
  - Bat Caves and Mines

- **Category B: Overstory Protection**
  Light underburn is acceptable Need to protect large trees, snags, logs, and canopy. These include:
  - Bald Eagle Nest Sites
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers
  - Northern Goshawk Reproductive Sites

3.2.15.4. Resources

Cultural Resources:

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the DFPA Grave Creek FMU.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- **Suppression Constraints:** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Timber and Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where there is potential for scorch and bole damage.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

Special Areas:

- **Bobby Creek Research Natural Area, 2,130 Acres**

  Values: Later successional natural systems and botanical, wildlife, fisheries resources

  Objectives: Maintain natural system and processes.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the RNA. Minimize ground disturbance from hand crews. Limit fertilizer based retardant use. Limit back-burns within the RNA to low severity ground fires.

- **Botanical Resources – 8 acres:**

  Values: There are known sites for three (3) Bureau sensitive species with in this FMU.

  Objectives: Conserve sensitive species. Low to moderate severity fire can benefit the Bureau sensitive species. However, ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

  Suppression constraints: Dispatch botanical resource specialist. Bureau Sensitive plants (special status): No heavy equipment or vehicles through known sensitive plant sites; No dozers. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant or foam, or on back burns/burn-outs (ground fire) through the populations.

  There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

  For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.16. Evans FMU Snap Shot

FMU Number: 005

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: Evans Creek RAWS

Acres/Agency/Land Use Allocation:

Evans Creek FMU	General Forest	Wildland Urban Interface	Grand Total
USFS	5,101	4,688	**9,789**
BLM	19,937	73,807	**93,744**
PV	16,079	168,297	**184,376**
Other	708	772	**1,480**
Totals	**41,825**	**247,564**	**289,389**

Predominant Vegetation Types: Timber

Unit: Medford BLM, ODF SW District

IA Dispatch Office:

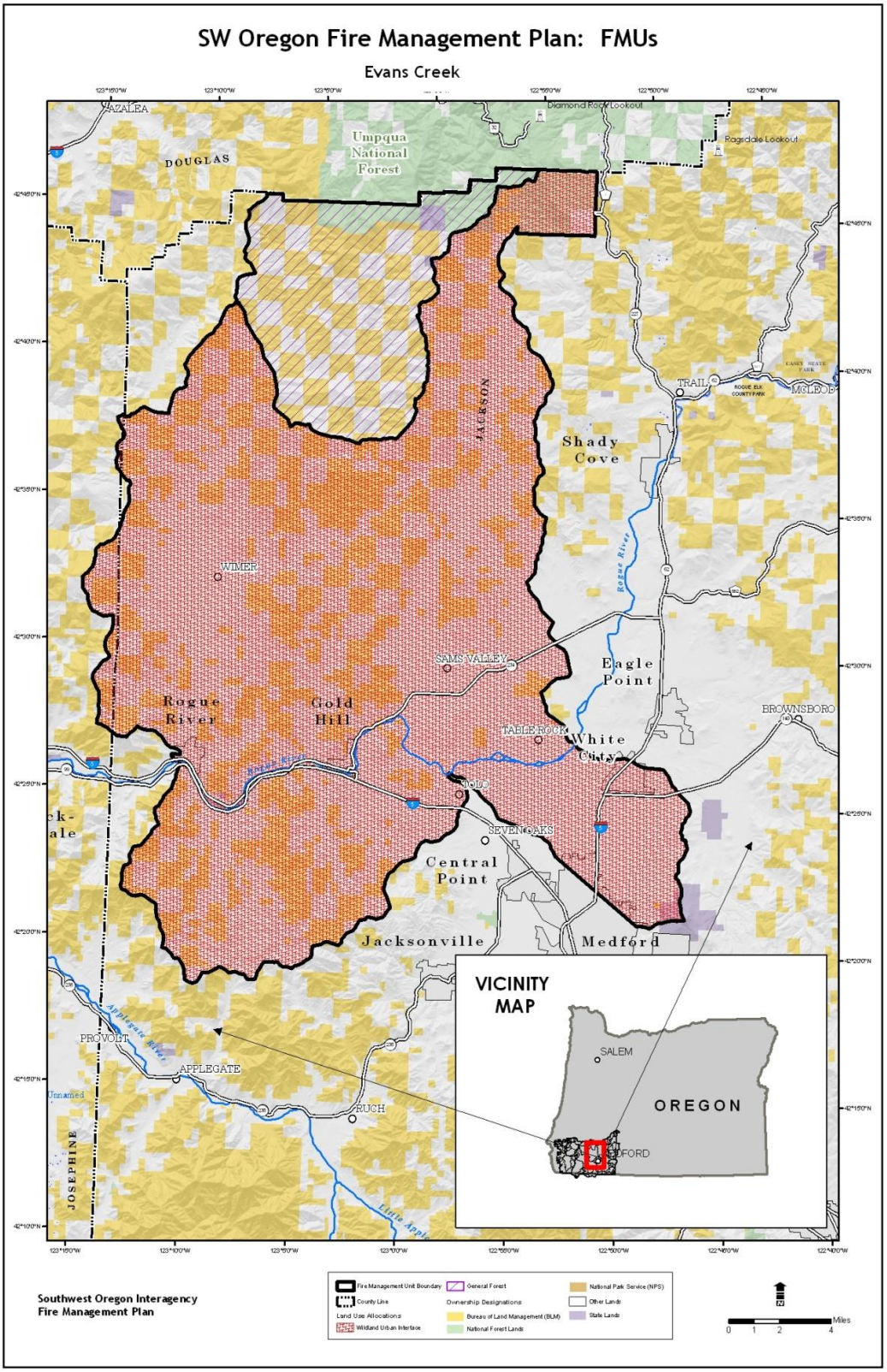
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Rogue River, Gold Hill, Wimer, Sam's Valley, Shady Cove.

LMP Options available for response to ignition:

- Full suppression

- **Special safety considerations:** No special or extraordinary safety considerations exist


SW Oregon Fire Management Plan: FMUs
Evans Creek
AZALEA
DOUGLAS
Umpqua National Forest
Diamond Rock Lookout
Ragsdale Lookout
JACKSON
Shady Cove
TRAIL
MCLEOD
WIMER
SAMS VALLEY
Eagle Point
Rogue River
Gold Hill
TABLE ROCK
White City
BROWNSBORO
SEVENOAKS
Central Point
Jacksonville
Medford
PROVOLT
APPLEGATE
RUCH
JOSEPHINE
VICINITY MAP
SALEM
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
Land Use Allocations
Wildland Urban Interface
General Forest
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.17. FMU Guidance- See Section 3.1

3.2.18. FMU Characteristics

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

Remote area conditions exist

3.2.18.1. Physical

Evans Cr. FMU is about 87% WUI

The interspersed land ownership pattern throughout the polygon creates an increased emphasis on protection values of life and property

The Special Areas within the WUI are associated with Table Rocks where there are botanical and wildlife concerns.

Topography within the FMU is generally broad valley bottoms in the eastern portion of the FMU and drainages with moderately steep slpoes and ridges.

3.2.18.2. Biological

- **Wildlife:**
  - **Category A: Complete Protection**
    Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:
    - Bat Caves and Mines
  - **Category B: Overstory Protection**
    Light underburn is O.K. Need to protect large trees, snags, logs, and canopy.
    These include:
    - Golden Eagle Nest Sites
    - Northern Spotted Owl Nest Sites
    - Known Spotted Owl Activity Centers
    - Great Gray Owl Reproductive Sites
    - Northern Goshawk Reproductive Sites
  - **Category C: Protect from Surface Disturbance**
    No fire lines, roads, fire camps, heavy equipment.
    These include:
    - Vernal Pool Fairy Shrimp

3.2.18.3. Resources

Cultural Resources:

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Evans Creek FMU.
- The Indian Rock Art site is located within this FMU and has been determined to be eligible for the National Register of Historic Places. Although located in the middle of a rock quarry, this rock art site is at greatest risk from fire fighting operations or ground disturbing activities. The fire itself also has the potential for damaging the painted images.
- Although not on BLM lands there are historic wooden covered bridges within this FMU. These site types are at greatest risk from fire itself.
- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.
- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.
- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.
- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

- **Timber and Silviculture:**

  - **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

  - **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

- **Special Areas:**
  - **Lower Table Rock Area of Critical Environmental Concern, 400 acres**

    Values: Geologic, cultural, recreation, a federally listed species (fairy shrimp) and Bureau special status species including dwarf meadow foam (*Limnanthes floccosa var. pumila*).

    Objectives: Maintain natural systems and processes and the recreational values; Protect and prevent irreparable damage to the vernal pool systems, federally listed fairy shrimp, and cultural resources. Conserve the Bureau special status species.

    Suppression constraints: No heavy equipment or vehicles off road within the ACEC. No hand lines on top of the ACEC. No retardant or foam on top of the ACEC within the vernal pool systems. No restrictions on back-burns or burn-outs.

  - **Upper Table rock Outstanding Natural Area, 840 acres (partly in Trail Cr. FMU)**

    Values: Geologic, cultural, recreation, federally listed species (fairy shrimp) and Bureau special status species including dwarf meadow foam (Limnanthes floccosa var. pumila).

    Objectives: Maintain natural systems and processes and the recreational values; Protect and prevent irreparable damage to the vernal pool systems, federally listed fairy shrimp, and cultural resources. Conserve the Bureau special status species.

    Suppression constraints: No heavy equipment or vehicles off road within the ACEC. No hand lines on top of the ACEC. No retardant or foam on top of the ACEC within the vernal pool systems. No restrictions on back-burns or burn-outs.

  - **Botanical Resources – 392 acres**

    Values: There are known populations of. the federally listed plant Gentner's fritillary. There are known sites for 6 Bureau sensitive plant species. Most of the Bureau sensitive plant sites, with the exception of Southern Oregon buttercup and dwarf meadow foam, are small and scattered.

Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

Suppression constraints: Dispatch botanical resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or sensitive plant sites; No dozers. No ground disturbance or hand lines within federally listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant except within vernal pool and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.19. Galice FMU Snap Shot

FMU Number: 006

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**
- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Onion Mountain Lookout RAWS**

Acres/Agency/Land Use Allocations:

Galice FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	25,633	110,514	920	**137,067**
BLM	2,244	99,528		**101,772**
PV	1,141	4,027	18	**5,187**
Other		769	19	**789**
Totals	**29,018**	**214,839**	**958**	**244,815**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

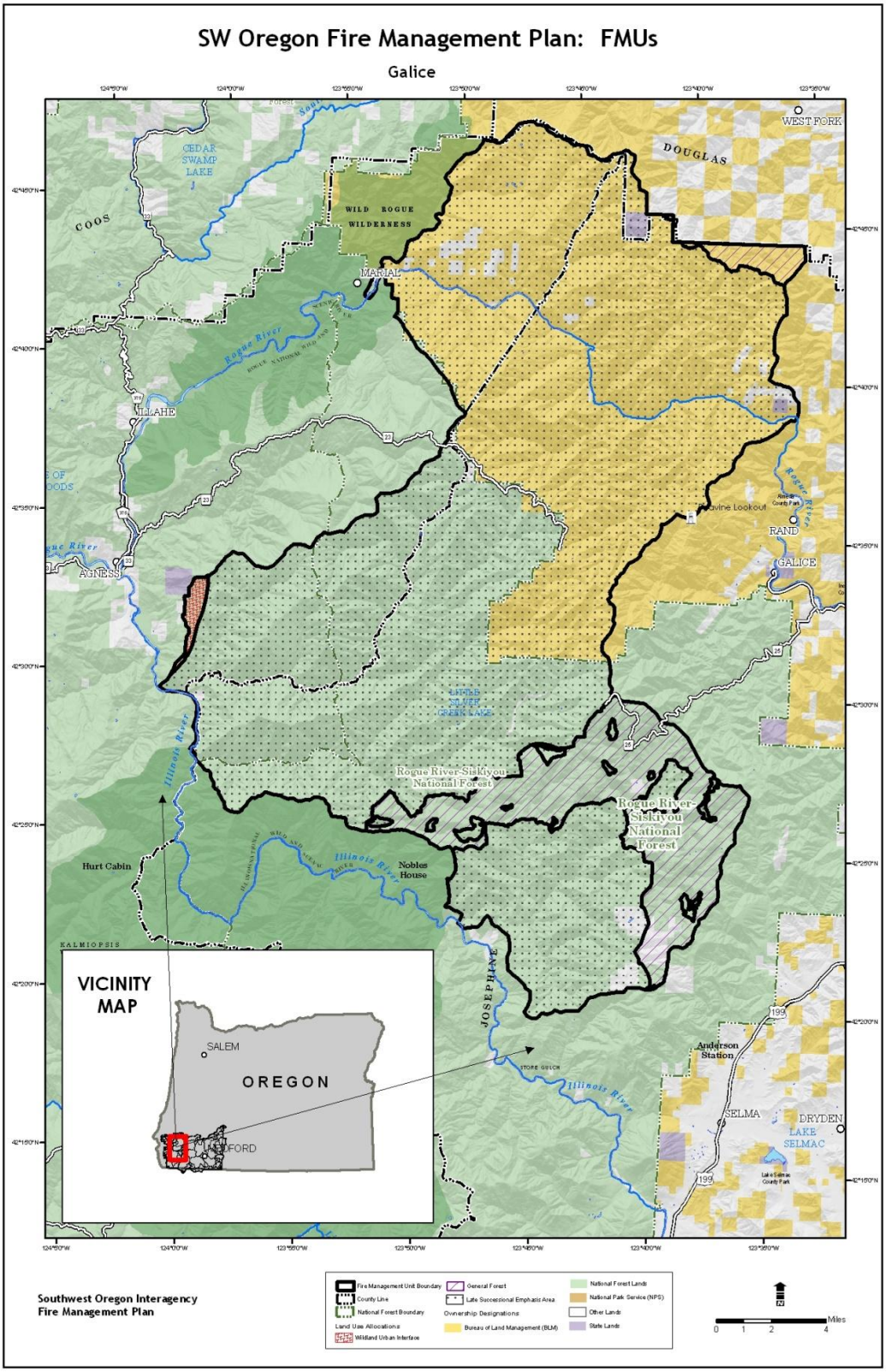
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Agness

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Galice
WEST FORK
DOUGLAS
CEDAR SWAMP LAKE
COOS
WILD ROGUE WILDERNESS
MARIAL
Rogue River
ILLAHE
AGNESS
Rogue River
RAND
GALICE
Rogue River
LITTLE SILVER CREEK LAKE
Illinois River
Rogue River-Siskiyou National Forest
Rogue River-Siskiyou National Forest
Hurt Cabin
Illinois River
Nobles House
KALMIOPSIS
JOSEPHINE
STORE GULCH
Illinois River
Anderson Station
SELMA
DRYDEN
LAKE SELMAC
VICINITY MAP
SALEM
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wildland Urban Interface
General Forest
Late Successional Emphasis Area
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.20. FMU Guidance - See Section 3.1

3.2.21. FMU Characteristics

3.2.21.1. Safety

Roaded access is limited due to large amount of Roadless designation in the Southwest portion of the FMU

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.21.2. Physical

The Galice FMU is about 98% Late Successional Emphasis or Special Areas FMUs.

96% of the land base is BLM administered.

The private lands are mainly in holdings along the Rogue Wild and Scenic River Corridor. Most of the Special designation is along this Corridor and are a high emphasis for protection due to visual and recreational resources.

This FMU experienced the Silver Fire of 1987 and the Biscuit Fire of 2002.

It is adjacent to the Illinois River and includes on its western edge, the community of Agness.

3.2.21.3. Biological

Wildlife:

- Spotted owl sites, osprey sites and marnwtte urrelet occupied sites are located in the FMU. Locations in GIS and fauna observations are available. See guidelines common to all FS FMUs for **recommendations**.

- **Category A: Complete Protection**
  Overstory and understory need protection, no disturbance. Keep crews out of caves and mines.
  These include:
  - Bat Caves and Mines

- **Category B: Overstory Protection**
  Light underburn is O.K. Need to protect large trees, snags, logs, and canopy.
  These include:
  - Bald Eagle Nest Sites

- Northern Spotted Owl Nest Sites
- Known Spotted Owl Activity Centers
- Northern Goshawk Reproductive Sites

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is widespread within this FMU. Within USFS lands, anadromous fish are known to occur in the following drainages: Illinois River, Indigo Creek, North Fork Indigo Creek, East Fork Indigo Creek, West Fork Indigo Creek, Snail Creek, Silver Creek, North Fork Silver Creek, South Fork Silver Creek, Little Silver Creek, Todd Creek, Briggs Creek, Soldier Creek, Horse Creek (Soldier Cr. drainage), Red Dog Creek, Swede Creek, Onion Creek, Secret Creek, Brushy Creek, Dutchy Creek, Myers Creek, Horse Creek (Briggs Creek drainage). To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.21.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Galice FMU.

- Both the Whiskey Creek Cabin National Register site and the Rogue River Ranch National Register site are located within the Galice FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from fire itself.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, rock shelters, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Pioneer Cemeteries have been recorded in this FMU. Because of the wooden features of these historic cemeteries such as wooden grave markers and wooden fences, these site types face potential impacts from fire fighting operations or ground disturbing activities, as well as fire.

- A lookout tree (a tree used as a fire lookout tower) has been recorded in this FMU. This site type faces potential impacts from fire fighting operations or ground disturbing activities, as well as fire itself.

- Historic cabins, wooden flumes, and other wooden structures associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items and report them to the BLM District Archeologist.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

Timber and Silviculture:

- **Port Orford Cedar Root Disease:**
  When practicable, management strategies to prevent/reduce Phytopthora Lateralis (PL) would include treating firefighting water with Clorox Regular Bleach *(see directions for use below)* to kill waterborne PL spores. This treatment is for use in water tanks, and water drafted for aerial spread. This treatment should also be used for washing vehicles, tools and clothing ensuring that direct run-off from this process will not enter streams.

  While management objectives for POC are a concern, safety of firefighters and the public, and protection of property is always a higher priority. Existing or “in-place” disease controlling management practices such as road closures may be compromised. Road closures and other compromised disease controlling measures would be reinstalled following suppression and emergency rehabilitation unless changed circumstances indicate otherwise.

  POC Management direction

Mixing Clorox Regular Bleach and Retardant (PHOS-CHEK 259-F and R, G75F, D75F and R, LV-R and LC95A):
The Forest has a requirement to treat water taken from sources infested with *Phytophthora lateralis* spores to prevent spread of the Disease. It was recently discovered that it's not about mixing the chemicals together but rather how and when they are mixed together. The hazard occurs if the retardant and bleach gets mixed together simultaneously or undiluted bleach gets added directly into retardant. The result of improper mixing techniques can result in not only a toxic but a possibly explosive reaction. Proper mixing of the two chemicals requires a gallon of "Clorox Regular Bleach" be added to a minimum of 1000 gallons of water and circulated for a minimum of 10 minutes prior to being added to the retardant. MTDC is scheduled to create a Technical Bulletin or Safety Alert addressing this hazard and corrective measures.

Clorox Regular Bleach Label Information

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

Special Areas:

- **Wild and Scenic River Corridor**

  Values: Natural scenic qualities, fisheries resource and water quality, and recreational opportunities.

  Objectives: Provide river orientated recreational opportunities in a primitive setting; Preserve the river and the environment in a natural, wild, and primitive condition; Protect and enhance the outstandingly remarkable values while providing quality river related outdoor recreation opportunities; minimize impacts on state and federally listed flora and fauna, cultural resources, Native American religious sites, or historical sites.

  Suppression constraints: Constrain suppression activities dependent on effects to view-shed qualities. Use suppression

equipment is with guidance from BLM River Coordinator. Rehabilitate all suppression impacts.

Botanical Resources:
There are no known federally listed or Bureau Sensitive plant sites, but few formal surveys have ever occurred within this area. There are no suppression constraints for wildfire operations for existing Bureau Assessment plant species or Bureau Tracking plant species sites.

North Fork Silver Creek Research Natural Area, 499 acres

Values: Natural systems and botanical and aquatic resources

Objectives: Maintain natural systems and processes

Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the RNA. Limit ground disturbance from hand crews in Sensitive plant sites, avoid if possible. No restrictions on back burns, or retardant.

Botanical Resources – ***96 acres****:*

Values: There are known sites for three (3) Bureau sensitive plants, (Oregon bensoniella, clustered green gentian, and Rogue River stone crop). There are no known listed plant sites.

Objectives: Conserve sensitive species. Low to moderate severity fire can benefit the sensitive species. However, ground disturbance (dozers, hand lines) within occupied sensitive plant habitat from suppression activities can be detrimental.

Suppression constraints: Dispatch botanical resource specialist. No heavy equipment or vehicles through known sensitive plant sites; No bulldozers. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant, or on back burns/burn-outs (ground fire) through the populations.

There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.22. Grassy Knob Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**
- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: Onion Mountain Lookout RAWS

Acres/Agency/Land Use Allocation:

Grassy Knob Wilderness FMU	Wilderness	Grand Total
USFS	17,135	**17,135**
Totals	**17,135**	**17,135**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

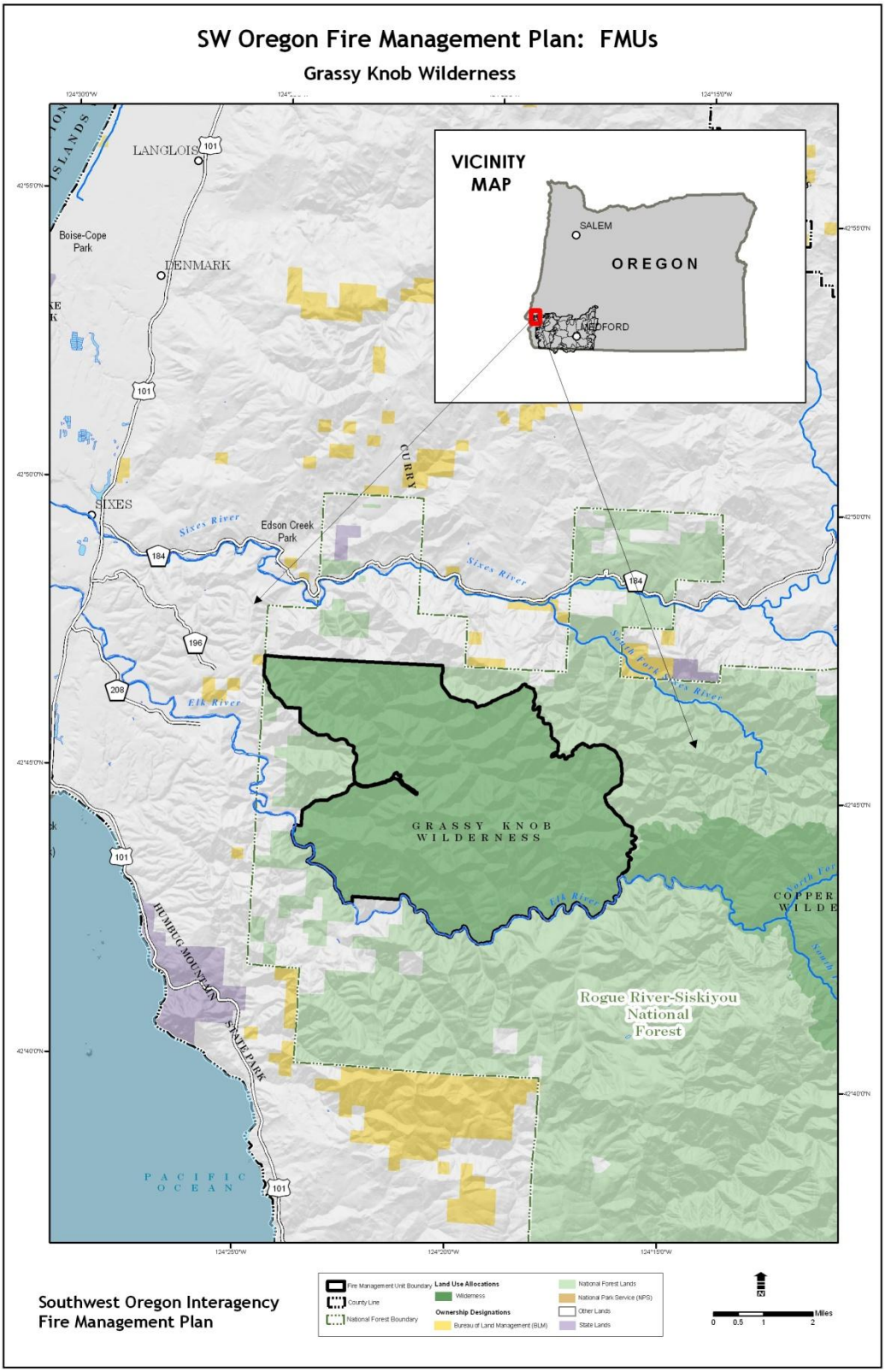
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: None

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit


SW Oregon Fire Management Plan: FMUs
Grassy Knob Wilderness
VICINITY MAP
SALEM
OREGON
MEDFORD
LANGLOIS
DENMARK
Boise-Cope Park
SIXES
Edson Creek Park
Sixes River
Elk River
GRASSY KNOB WILDERNESS
Rogue River-Siskiyou National Forest
HUMBUG MOUNTAIN STATE PARK
PACIFIC OCEAN
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wilderness
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.23. FMU Guidance - See Section 3.1

3.2.24. FMU Characteristics

3.2.24.1. Safety

Roaded access is limited due to wilderness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.24.2. Physical

Steep rugged terrain, travel is difficult due to dense vegetation and lack of maintained trails. Protection of anadromous fisheries habitat is of prime importance. Dry Creek provides prime spawning habitat for 65% of the salmon and 25 % of the Steelhead in the Sixes River system.

3.2.24.3. Biological

Wildlife:

- **Category B: Overstory Protection**
  Spotted owl sites, murrelet and fisher occupied sites are known to exist within the FMU. Locations are available in GIS and fauna observations. **See guidelines common to all FS FMUs for recommendations**.

Hydrology and Fisheries:

- Dry Creek provides prime spawning habitat for 65% of the salmon and 25 % of the Steelhead in the Sixes River system. Dry Creek is a designated Key Watershed. The Elk River is located on the southern boundary of the FMU, and is an important drainage for anadromous fish, including federally listed coho salmon. Portions of the Elk River drainage and the Sixes River drainage are designated as critical habitat for coho salmon. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.24.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

Wilderness Resource:

- Dispatch Wilderness Resource Specialist. MIST will be employed whenever possible. Follow the most current Forest Supervisor Policy Letter for authorization requirements on the use of motorized equipment and mechanized transport, aerially delivered firefighters and recommendations for preferred equipment and methods for restoration/rehabilitation of suppression impacts. Use of tractors requires Regional Forester approval. Use of retardant and the construction of helispots require Forest Supervisor approval. Strategies and tactics should provide for the least acres burned with specific attention paid to effects upon water quality and fish habitat. Efforts will emphasize direct attack whenever possible. Rehabilitation plans should be developed during the suppression action and implemented as soon as safety allows. Rehabilitation should prevent future resource damage, such as erosion and help restore the area by mitigating the visual effects of suppression activities.

3.2.25. Humbug FMU Snap Shot

FMU Number: 008

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**
- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Flynn Prairie Lookout RAWS**

Acres/Agency/Land Use Allocation:

Humbug FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	1,361	29,722	7,477	**38,559**
PV	58	666	1,101	**1,825**
Totals	**1,437**	**30,451**	**8,654**	**40,542**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

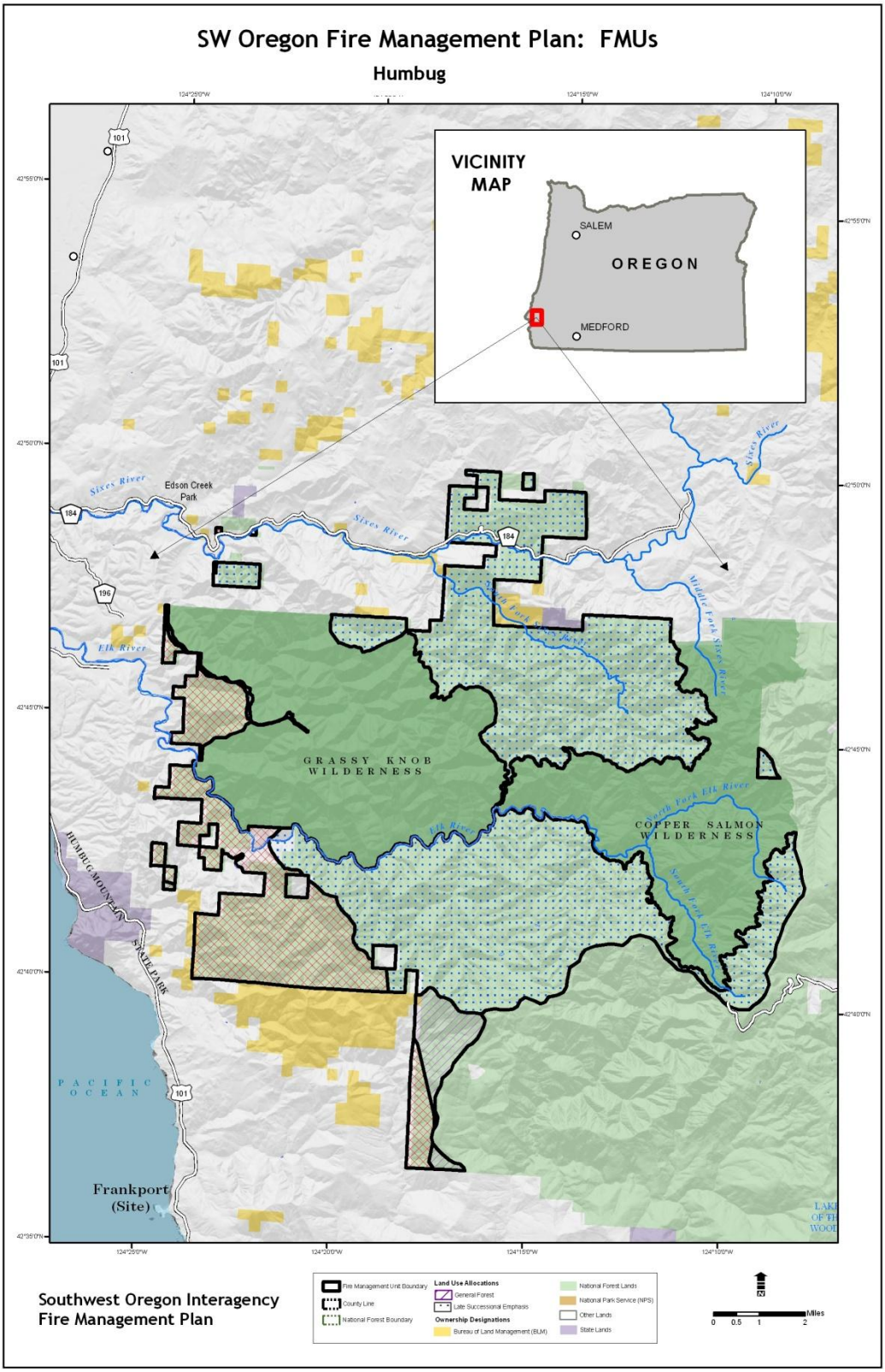
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: Agness

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit.


SW Oregon Fire Management Plan: FMUs
Humbug
VICINITY MAP
SALEM
OREGON
MEDFORD
Sixes River
Edson Creek Park
Elk River
GRASSY KNOB WILDERNESS
COPPER SALMON WILDERNESS
Middle Fork Sixes River
South Fork Elk River
HUMBUG MOUNTAIN STATE PARK
PACIFIC OCEAN
Frankport (Site)
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
General Forest
Late Successional Emphasis
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.26. FMU Guidance - See Section 3.1

3.2.27. FMU Characteristics

3.2.27.1. Safety

Roaded access is limited due to Roadless designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.27.2. Physical

Humbug FMU is the area due west of the Port Orford, Oregon and surrounds the Grassy Knob Wilderness.

3.2.27.3. Biological

Wildlife:

- **Category B: Overstory Protection:**
  Spotted owl sites, Murrelet occupied sites, and fisher records are known to exist in the FMU. Locations are available in GIS and fauna observations. **See guidelines common to all FS FMUs for recommendations**.

Hydrology / Fisheries:

- Elk River Hatchery (due west of Grassy Knob polygon) operates on Forest Service land in this polygon. The Elk River is designated as a Wild and Scenic River. Portions of the Elk River drainage and the Sixes River drainage are designated as critical habitat for coho salmon. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.27.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include and Huckleberry Knoll Cemetery.

3.2.28. Illinois Valley FMU Snap Shot

FMU Number: 009

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High for all jurisdictions

Fire Behavior Indicator: Burning Index (BI), Energy Release Component (ERC). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**
- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Illinois Valley Airport RAWS**

Acres/Agency/Land Use Allocation:

Illinois Valley FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	12,942	155,584	61,909	**230,434**
BLM	318	529	56,155	**57,002**
PV	177	3,391	105,691	**109,258**
NPS			484	**484**
Other	15	26	3,244	**3,244**
Totals	**13,451**	**159,530**	**227,482**	**400,463**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District, Oregon Caves National Monument

IA Dispatch Office:

- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands

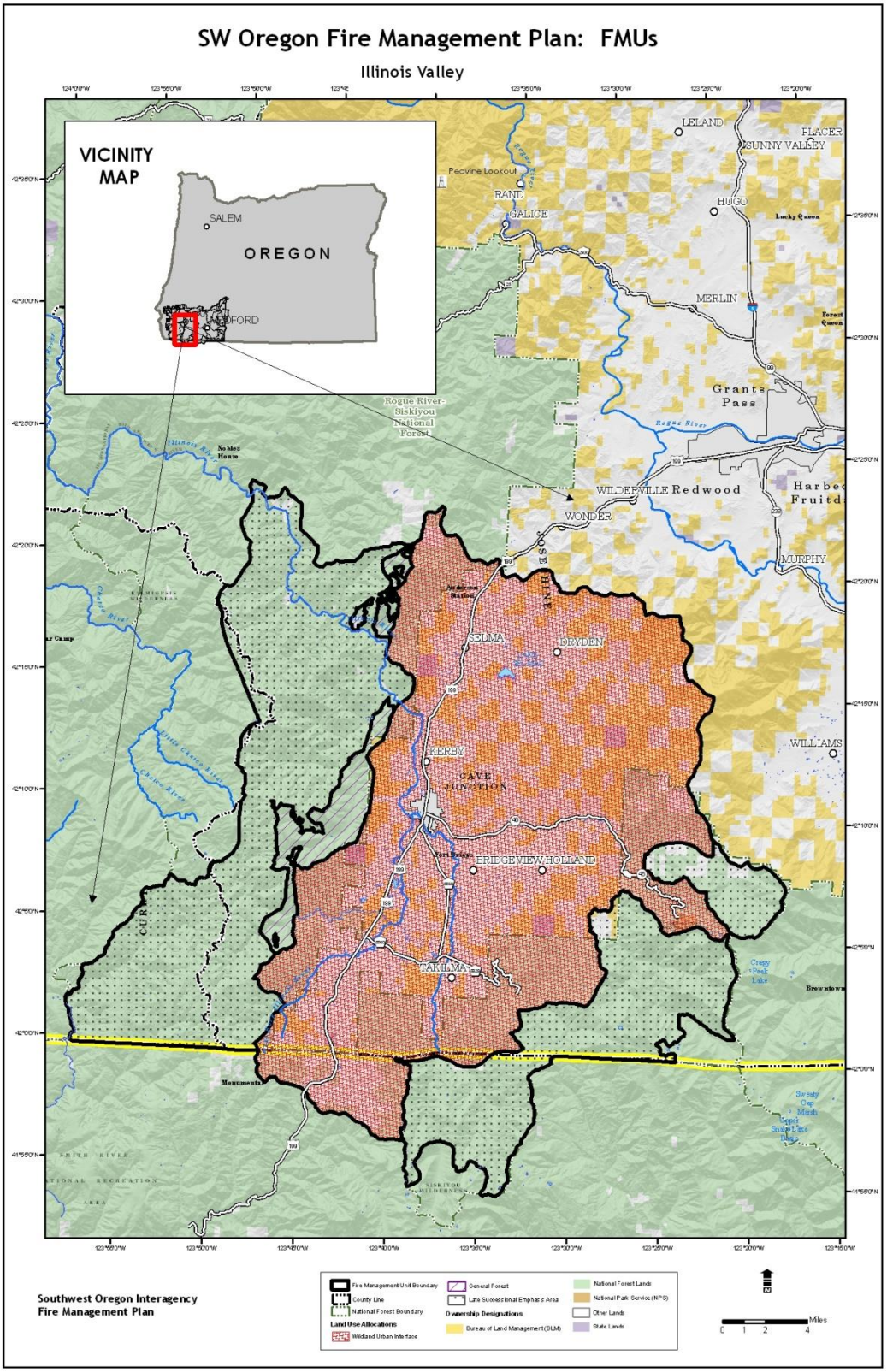
- Medford ODF
- Medford Interagency Communications Center (MICC) - – Rogue River-Sisiyou NF is responsible for fire suppression at Oregon Caves National Monument

Communities adjacent or within FMU: Cave Junction, Selma, Kirby, Obrien, Bridgeview, Holland, Takilma

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression
- Full suppression


SW Oregon Fire Management Plan: FMUs
Illinois Valley
VICINITY MAP
SALEM
OREGON
LELAND
PLACER
SUNNY VALLEY
Peavine Lookout
RAND
GALICE
HUGO
MERLIN
Grants Pass
Rogue River-Siskiyou National Forest
WILDERVILLE
Redwood
WONDER
MURPHY
SELMA
DRYDEN
KERBY
CAVE JUNCTION
WILLIAMS
BRIDGEVIEW
HOLLAND
TAKILMA
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wildland Urban Interface
General Forest
Late Successional Emphasis Area
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.29. FMU Guidance - See Section 3.1

3.2.30. FMU Characteristics

3.2.30.1. Safety

Roaded access is limited

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.30.2. Physical

The Illinois Valley FMU is predominately WUI. A substantial part of the WUI has either a Special or Late Successional designation. Many rural communities are located in this FMU as well as private lands with interspersed BLM lands. Designated communities at risk include Illinois Valley (Cave Junction) and Selma. Others include Kirby, Obrien, Bridgeview, Holland, and Takilma . The Oregon Caves National Monument lies within this FMU.

The area administered by Medford BLM and ODF SW is about 96% WUI. A substantial part of the WUI (15%) has either a Special or Late Successional designation. Many rural communities are located in this polygon as well as private lands with interspersed BLM lands. Special protection emphasis for the BLM administered lands designated LSE and Special that reside within the WUI are listed below.

The area with Rogue River-Siskiyou administrative jurisdiction in the Illinois Valley FMU is 60% LSE. It lies between communities in the Illinois Valley and the Kalmiopsis Wilderness.

The terrain in the FMU ranges in elevation from 3,680 to 5,480 feet above mean sea level, and is very steep, usually exceeding 100% slopes. Slope has been a major factor in the location, and limitation, of human development. Debris flows are known to occur on soils derived from quartz diorite and argillite, two prevalent rock types in the area.

Oregon Caves National Monument (within Illinois Valley FMU)

The Oregon Caves National Monument is operated by the National Park Service and fire suppression is administered through the Rogue River-Siskiyou NF .

Fire Regime / Condition Class: Most of the Monument is at a moderate (M) or high (H) risk to lose key components of its ecosystem.

Management Constraints Specific to Oregon Caves National Monument

- Fire Management objectives for the entire monument is full suppression of all wildland fires regardless of cause, with emphasis on fire threatening historic structures, visitors, and ingress/egress
- Employ Minimum Impacts Suppression Tactics (MIST).
- No bulldozer or grader use will be allowed unless approved by the Superintendent.
- Protection mitigation measures for known historic, biological, and cultural resource sites in or near the project area must be assured before a prescribed burn project is initiated.
- No fire management operations will be initiated until all personnel involved receive a safety briefing describing known hazards and mitigating actions using Lookouts, Communication Escape Routes, Safety Zones (LCES), current fire season conditions, and current and predicted fire weather and behavior
- Low level aircraft use and retardant must be approved by the Superintendent.

Smoke management reporting procedures for burning in Oregon will be followed for all prescribed fire operations.

3.2.30.3. Biological

Wildlife:

Category A: Complete Protection:

- Peregrine sites are known to exist in this FMU. There has been one peregrine sighting at Black Butte.
- Localities are known for Bald Eagle.
- A cave site is known for Townsend's big-eared bat.
- Locations are available in GIS layers and fauna observations.

Category A: Complete Protection:

Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:

- Bat Caves and Mines

Category B: Overstory Protection:

- Spotted owl sites are known to exist within the FMU.
- Pacific fisher localities are known to exist with in the FMU**.**
- Locations are available in GIS layers and fauna observations.
- **See guidelines common to all FS FMUs for recommendations.**

Category B: Overstory Protection:

Light underburn is O.K. Need to protect large trees, snags, logs, and canopy. These include:

- Bald Eagle Nest Sites
- Northern Spotted Owl Nest Sites
- Known Spotted Owl Activity Centers

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is widespread within this FMU. Within USFS lands, coho salmon are known to occur in the following drainages: Illinois River, Rancherie Creek, Deer Creek, West Fork Illinois River, Wood Creek, Whiskey Creek, Elk Creek, Trapper Gulch, Broken Kettle Creek, East Fork Illinois River, Scotch Gulch, Page Creek, Dunn Creek, North Fork Dunn Creek, Althouse Creek, Sucker Creek, Bolan Creek, Cave Creek, Grayback Creek, and Baldface Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.30.4. Resources

Recreation:

- This FMU receives a high amount of recreational use year round depending on the snow level and including a sno-park. Public, private and permitted uses includes: developed and dispersed recreation sites on both private and public lands, Illinois Wild and Scenic River corridor, North Fork Smith Wild and Scenic River, and Oregon Caves National Monument. The strategic objective is to protect recreational sites and areas.

- Private recreation sites:
  - McCaleb Ranch Boy Scout Camp

- Public recreation sites:
  - Oregon Caves National Monument
  - Boundary National Recreation Trail
  - North Fork Smith Wild and Scenic River
  - Illinois Wild and Scenic River Corridor
    - Briggs Creek Campground and Trailhead
    - Miami Bar Boat Ramp
    - Store Gulch Campground and Day Use Area
    - Six Mile Day Use Area
    - River Bench Day Use Area

- Diver's Hole Day Use Area
- Kerby Flat Viewpoint and Trailhead
- Eight Dollar Bridge Picnic Site
- Fall Creek Trailhead
- Josephine Camp

- Campgrounds
  - Bolan Lake
  - Cave Creek
  - Chinquapin Camp
  - Grayback
  - Sourdough

- Trailheads
  - Babyfoot Lake
  - East Fort Illinois River
  - Grayback Interpretive
  - Kalmiopsis Rim
  - Limpy Botanical Interpretive Loop
  - Elk Creek
  - Sucker Creek
  - Boundary
  - Tannen Lake
  - Sucker Creek
  - Bigelow Lakes
  - Sanger Creek
  - Black Butte
  - Lower Fall Creek
  - Upper Chetco
  - Fall Creek
  - Kalmiopsis Rim-Onion Mountain
  - Kalmiopsis Rim-Frantz
  - MeadowBaldface Creek

- Public recreation facilities
  - Bridge Interpretive Site
  - Cedar Guard Station
  - Bolan Lookout
  - Onion Mountain Lookout
  - Pearsoll Peak Lookout
  - Sanger Peak Lookout
  - Page Mountain Sno-Park

- Government facilities

- Store Gulch Guard Station

Recommendations:

- Protect recreational and government facilities, sites and areas by:
  - Minimize adverse impacts of wildfire suppression activities,
  - Where water is available, considered sprinkler systems to insure protection.
  - Wrap isolated facilities and clear fuel to maximize success of protection,
  - Use minimum impact suppression tactics (MIST),
  - Oregon Caves National Monument; use MIST tactics and unless approved by the Superintendent – no bulldozer or grader use.
  - Coordinate river closures for public safety with the Bureau of Land Management.

Hydrology/Soils:

- White Creek (Deer Creek) is a deferred watershed because of past management activities. Consult a hydrologist and/or soil scientist regarding suppression strategy and tactics to minimize impacts to high value fish resources.
- There is an extensive acreage of serpentine soils present in this watershed. These soils provide habitat for a number of rare plant species. More than half of the BLM lands within the West Fork Illinois River Watershed are serpentine.

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include Store Gulch Guard Station, Pearsoll Peak Lookout and Cedar Guard Station.

- The National Park Services, Oregon Caves National Monument has numerous cultural resource structures of note, especially “The Chateau” at the Cave entrance.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Illinois Valley FMU.

- Mining resources of the Upper Illinois Valley National Register property includes 20 mining related properties in the Waldo area. This National Register listing includes 1 townsite, 3 cemeteries, 8

mines, 5 water supply ditches, 2 drainage features and 1 gravel mill. These site types face potential impacts from fire fighting operations or ground disturbing activities, as well as fire.

- Waldo cemetery and St. Patrick's Catholic cemetery are historic pioneer cemeteries located on public lands in this FMU. They are part of the Mining Resource of the Upper Illinois Valley National Register property. Because of the wooden features of these historic cemeteries such as wooden grave markers and wooden fences, these site types face potential impacts from fire fighting operations or ground disturbing activities, as well as fire.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Timber and Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where there is potential for scorch and bole damage.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

Special Protection Areas:

- **Crooks Creek Area of Critical Environmental Concern, 149 acres**
  Values: Later successional natural systems and wildlife resources.

  Objectives: Maintain natural system and protect old growth stands from stand replacing fire.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the ACEC. No restrictions on hand lines or fire retardant. Limit back burns/burnouts to ground fires.

- **Eight Dollar Mountain Area of Critical Environmental Concern, 1,247 acres**
  Values: High density of special status plants and Darlingtonia fens.

  Objectives: Maintain natural systems and processes; protect fens and special status plant populations from ground disturbance caused by suppression activities.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road in the ACEC, except on old existing cat roads; no new dozer lines. Limit hand lines through special status plant populations. Limit back burns/burn-outs to ground fires. No use of bogs as a water source. No chemical or fertilizer based retardant or foam within 500 feet of fens/bogs.

- **Brewer Spruce Research Natural Area, 1,774 acres**
  Values: Late successional natural system with Brewer's spruce, Port Orford cedar and aquatic resources (ponds).

  Objectives: Maintain natural system and processes, however prevent stand replacing fires in the Brewer's spruce stands.

  Suppression constraints*:* Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the RNA. No use of ponds as a water source. No chemical/fertilizer based retardant or foam within 500 feet of ponds. Limit back burns/burnouts to low

severity ground fires to protect spruce stands. No restrictions on hand lines. Follow POC fire protocols.

- **Woodcock Bog Research Natural Area, 280 acre**
  Values: Natural system, high density of special status plants, wetlands, and Darlingtonia fens.

  Objectives: Maintain natural system and processes; protect Darlingtonia fens and special status plants from physical ground disturbance caused by suppression activities.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the RNA. No use of water from bogs/seeps as a water source. No chemical/fertilizer based fire retardant in the RNA (water ok). Limit hand line construction through special status plant populations. No restrictions on back burns/burnouts. Follow POC fire protocols.

- **Rough and Ready Area of Critical Environmental Concern, 1,164 acres**
  Values: Natural systems, federally listed and special status plants.

  Objectives: Maintain natural system and processes. Protect federally listed plant populations (Cook's lomatium) and conserve special status plants from ground disturbance caused by fire suppression activities.

  Suppression constraints: Dispatch resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles off existing roads; no dozer lines in the ACEC. No hand line construction through federally listed plant sites. Limit hand line construction through special status plant populations. No retardant or foam in the ACEC (water ok). No restrictions on back burns/burn-outs.

- **French Flat Area of Critical Environmental Concern, 656 acres**
  Values: Natural systems, historic sites, federally listed and special status plants

  Objectives: Maintain natural system and processes. Protect federally listed plant populations (Cook's lomatium) and special status plants from ground disturbance caused by fire suppression activities. Protect cultural sites from ground disturbance.

  Suppression constraints: Dispatch resource specialist immediately because of federally listed plant and cultural issues. No heavy

equipment or vehicles off existing roads; no dozer lines in the ACEC. No hand line construction through federally listed plant sites or cultural sites. Limit hand line construction through special status plant populations. No retardant or foam in the ACEC (water ok). No restrictions on back burns/burnouts.

- **Botanical Resources – 956 acres:**
  Values: There are a large number of special status plants in this FMU, mostly associated with serpentine fens, grassland meadows, low elevation oak woodlands, and chaparral. There are 29 federally listed plant sites (Lomatium cookii – federally endangered) occupying less than 29 acres. Most populations are small and scattered. There are 765 Bureau Sensitive plant locations for 13 Bureau sensitive species.

  Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve state listed and Bureau sensitive sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

  Suppression constraints: Dispatch botanical resource specialist immediately, because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or Bureau sensitive plant sites. No dozers or hand lines through listed plant sites. Limit hand line construction or ground disturbance in Bureau sensitive plant sites; avoid if possible. No restrictions on retardant, except within serpentine fens and wetland plant sites. Water drops are preferred in these sites. No restrictions on low to moderate severity back burns/burn-outs (ground fire).

- No restrictions for Bureau Assessment plant species or Bureau Tracking species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.31. Jenny Creek FMU Snap Shot

FMU Number: 010

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Buckhorn Springs RAWS**

Acres/Agency/Land Use Allocation:

Jenny Creek FMU	General Forest	LSE Special	Wilderness	Wildland Urban Interface	Grand Total
USFS	563	27		8,303	**8,893**
BLM	7,208	165	24,131	12,946	**42,761**
PV	21,860	29	550	21,708	**45,836**
Totals	**29,631**	**223**	**24,691**	**43,084**	**97,629**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

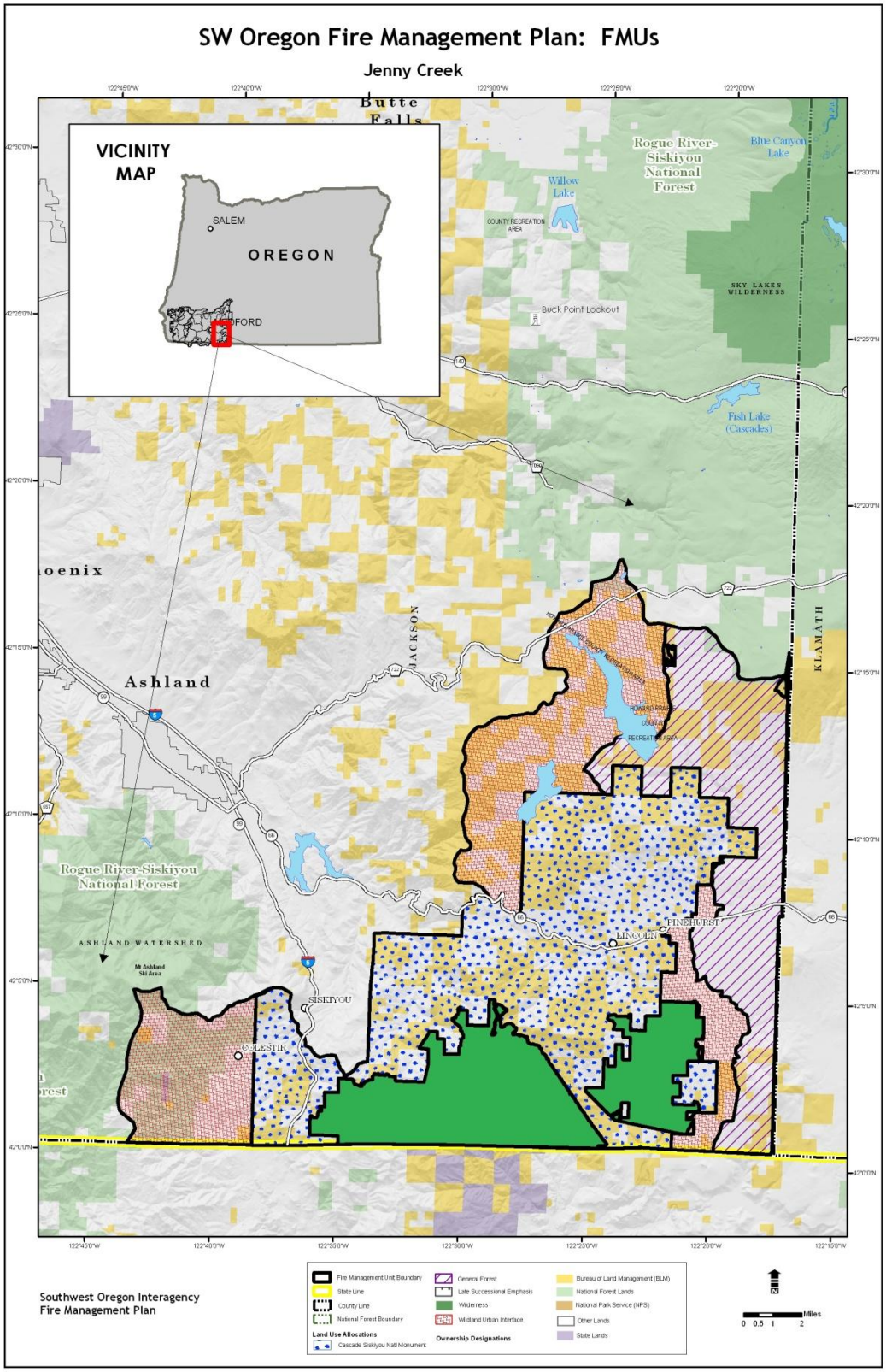
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Colestin, Lincoln, Pinehurst

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Jenny Creek
VICINITY MAP
SALEM
OREGON
Butte Falls
Rogue River-Siskiyou National Forest
Blue Canyon Lake
Willow Lake
Buck Point Lookout
SKY LAKES WILDERNESS
Fish Lake (Cascades)
Ashland
JACKSON
KLAMATH
Rogue River-Siskiyou National Forest
ASHLAND WATERSHED
Mt Ashland Ski Area
SISKIYOU
GOLDSTIR
LINCOLN
PINEHURST
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
State Line
County Line
National Forest Boundary
Land Use Allocations
Cascade Siskiyou Natl Monument
General Forest
Late Successional Emphasis
Wilderness
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.32. FMU Guidance - See Section 3.1

For more information refer to **Appendix J**: Soda Mountain Wilderness Operations Plan for more specific information.

3.2.33. FMU Characteristics

3.2.33.1. Safety

Roaded access is limited due to large amount of Roadless and wilderness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.33.2. Physical

The largest contiguous land area designate Special is located here mainly in the bounds of the recently dedicated Cascade Siskiyou Monument. A management plan for the Monument is being completed and recommendations for fire management activities within this area will be input into this document in future revisions.

WUI comprises about 45% of the land base although 63% of that land has characteristics and designation to make it Special. The management response to wildland fire is a suppression response, but due to the uniqueness of the area constraints and resource, specialist involvement is paramount when fires occur. Designated communities at risk include Colestin; other communities include Lincoln, Pinehurst and numerous other developments around the lakes and highways.

The area with Rogue River–Siskiyou administrative jurisdiction in the Jenny Creek FMU is a small portion on the south segment of the Cascade Zone.

3.2.33.3. Biological

Wildlife:

- There are no known sensitive wildlife localities with the FMU.

- **Category A: Complete Protection:**
  Overstory and understory need protection, no disturbance. Keep crews out of caves and mines.
  These include:
  - Bat Caves and Mines

- **Category B: Overstory Protection:**
  Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy.
  These include:
  - Bald Eagle Nest Sites
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers
  - Great Gray Owl Reproductive Sites
  - Northern Goshawk Reproductive Sites

- **Category C: Protect from Surface Disturbance:**
  No fire lines, roads, fire camps, heavy equipment.
  These include:
  - Mardon Skipper Sites

3.2.33.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Jenny Creek FMU.

- The Applegate Trail a portion of the Oregon California National Historic Trail crosses BLM in this FMU. The Siskiyou Wagon Trail, also known as the Ewing Young Trail which is designated as an Oregon Historic Trail, crosses BLM within this FMU. The majority of the potential for damage to these trails comes from the fire fighting operations or ground disturbing activities. The blazed trees which mark the trail route are also at risk from fire.

- Other types of cultural resource sites known to exist in this FMU include extensive archeological lithic sites, historic trails, and dams. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, such as the Box O Ranch, Jenny Creek Ranch and the Bean Cabin are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground

disturbing activities, these wooden structures are at risk from the fire itself.

- **Suppression Constraints**: Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Timber / Silviculture:

- ***Values:*** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- ***Objectives:*** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- ***Suppression constraints:*** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

- **Special Areas:**
  - **Moon Prairie Area of Critical Environmental Concern, 91 acres**

    Values: Natural Processes, late successional forest.

    Objectives: Maintain natural system and old growth stand from stand replacing fire.

    Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the ACEC. No restrictions on hand lines, low to moderate severity back burns/burnouts, or fire retardant/ foam.

- **Old Baldy Research Natural Area, 166 acres**

  Values: Natural system including high elevation white fir/Shasta red-fir/mountain hemlock communities.

  Objectives: Maintain natural system and processes.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, low to moderate severity back burns/burnouts, or fire retardant/ foam.

- **Hoxie Creek Area of Critical Environmental Concern, 255 Acres**

  Values: Natural systems including old growth forests, and wet meadows.

  Objectives: Maintain natural system and protect old growth from stand replacing fire.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the ACEC. No restrictions on hand lines, low to moderate severity back burns/burnouts, or fire retardant/ foam.

- **Tin Cup Area of Critical Environmental Concern, 84 Acres**

  Values: Late successional white fir forest island adjacent to prairie.

  Objectives: Maintain old-growth from stand replacing fire.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, low to moderate severity back burns/burnouts, or fire retardant/ foam.

- **Oregon Gulch Research Natural Area, 1,047 acres**

  Values: Natural systems; federally listed (Gentner's fritillary) and BLM special status plants.

Objectives: Maintain natural system and process, however, protect mixed conifer stands from stand replacing fire. Protect listed plant sites from ground disturbance caused by suppression actions. Conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however stand replacing (high severity) fires and ground disturbance from suppression actions (dozers, hand lines) within occupied habitat can be detrimental.

Suppression constraints: Dispatch resource specialist because of listed plant sites. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No ground disturbance in occupied listed plant sites. Limit ground disturbance in Bureau sensitive hand lines. There are no restrictions on low to moderate severity back burns/burnouts, or fire retardant/ foam.

Scotch Creek Research Natural Area, 1,797 acres

Values: Natural systems and process, especially rosaceous chaparral community; Bureau special status plants.

Objectives: Maintain natural systems and processes. Conserve Bureau Sensitive plant species.

Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. Limit ground disturbance from hand lines through Sensitive plant sites. No restrictions on low to moderate severity back burns/burnouts, or fire retardant/ foam. Wildfire through special status plants will likely be beneficial.

Botanical Resources – 743 acres

Values: There are known sites for the federally listed Gentner's fritillary, many of the sites for this listed lily are small. There are known sites for 7 Bureau special status plant species. Green's mariposa lily sites are known in the Cascade Siskiyou National Monument.

Objectives*:* Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

Suppression constraints: Dispatch botanical resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or sensitive plant sites; No dozers in these sites. No ground disturbance or hand lines within federally listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant or foam except within vernal pool and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

- There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.34. Jumpoff Joe FMU Snap Shot

FMU Number: 011

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Merlin Seed Orchard RAWS**

Acres/Agency/Land Use Allocation:

Jumpoff Joe FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
BLM	15,465	2,206	54,460	**72,132**
PV	12,474	610	85,564	**98,648**
Other			3,225	**3,225**
Totals	**27,940**	**2,816**	**143,249**	**174,004**

Predominant Vegetation Types: Oak woodlands, Timber

Unit: Medford BLM, ODF SW District

IA Dispatch Office:

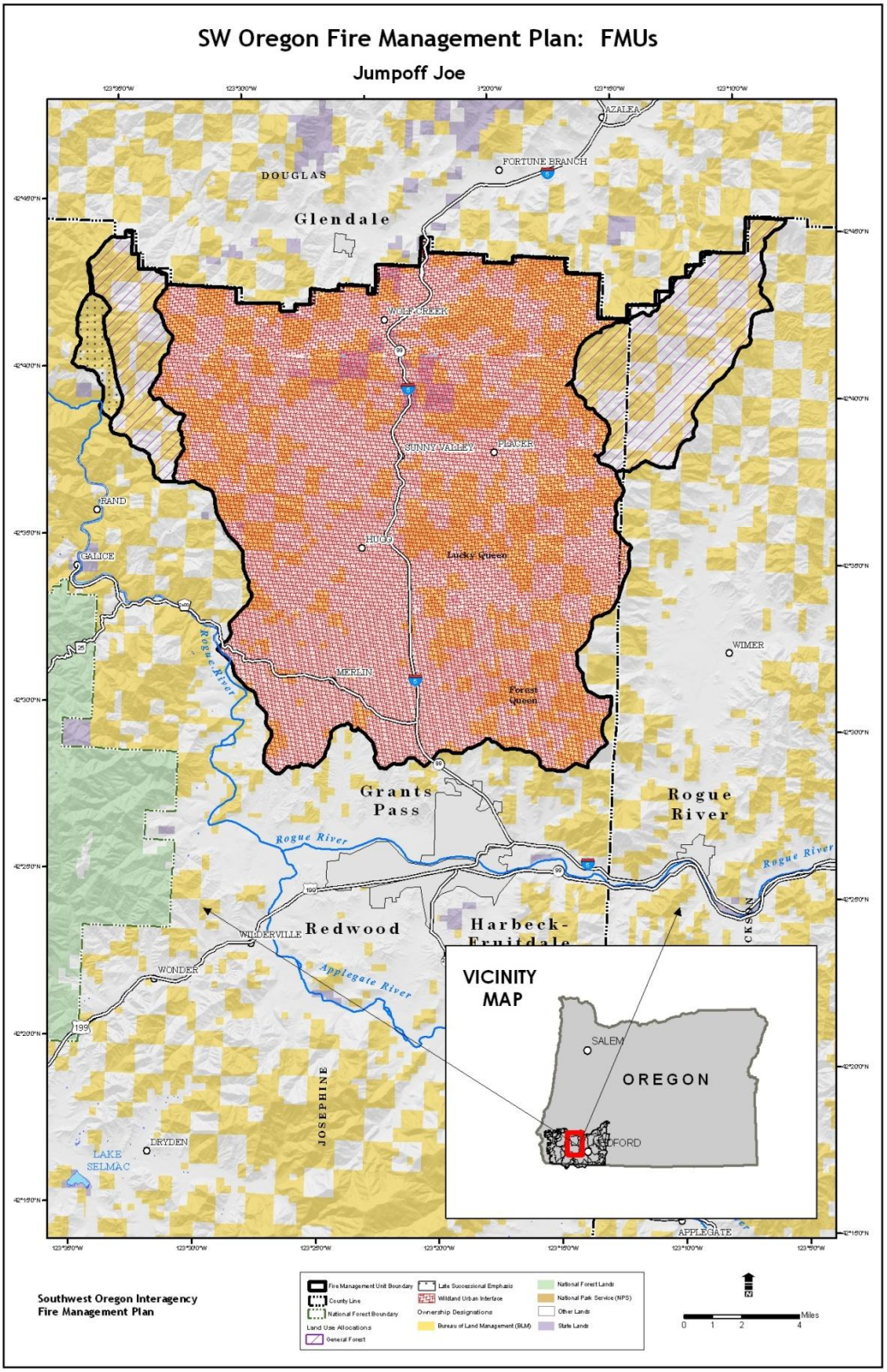
- Grants Pass ODF – ODF responsible for fire suppression on Medford BLM lands
- Grants Pass ODF

Communities adjacent or within FMU: Merlin, Sunny Valley, Hugo

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full suppression


SW Oregon Fire Management Plan: FMUs
Jumpoff Joe
DOUGLAS
Glendale
AZALEA
FORTUNE BRANCH
WOLF CREEK
SUNNY VALLEY
PEARCE
RAND
GALICE
HUGG
Lucky Queen
MERLIN
Forest Queen
WIMER
Rogue River
Grants Pass
Rogue River
Rogue River
Rogue River
WILDERVILLE
Redwood
Harbeck-Fruitdale
WONDER
Applegate River
JOSEPHINE
DRYDEN
LAKE SELMAC
APPLEGATE
VICINITY MAP
SALEM
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
General Forest
Late Successional Emphasis
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.35. FMU Guidance - See Section 3.1

3.2.36. FMU Characteristics

3.2.36.1. Safety

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.36.2. Physical

75% of this FMU is WUI. The private lands along the I5 corridor north of Grants Pass have the heaviest concentration of people, residences, and communities. Designated communities at risk include Merlin, Hugo and Sunny Valley. Much of the remainder of this polygon is in the General Forest FMU (23%) these lands are located in the Northwest and Northeast corners of the polygon. Like the WUI these acres are intermixed between federal and private ownership. To the north of this polygon fire response in the wildland, in Douglas county is within the jurisdiction of the Douglas Forest Protective Association.

3.2.36.3. Biological

Wildlife:

- **Category A: Complete Protection:**
  Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:
  - Bat Caves and Mines

- **Category B: Overstory Protection:**
  Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy. These include:
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers
  - Northern Goshawk Reproductive Site

3.2.36.4. Resources

Cultural Resources:

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Jumpoff Joe FMU.

- Although not on BLM lands, the Golden Historic District is a National Register site consisting of several wooden structures. This site is

located at 3482 Coyote Creek Rd. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from fire.

- Although not on BLM lands there are historic wooden covered bridges within this FMU. These site types are at greatest risk from fire.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Timber / Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where the potential for scorch and bole damage exist.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs

Special Areas:

- **Botanical Resources – 1,039 acres:**

  Values: There are known sites containing 3 federally listed plants (Gentner's fritllary). There are a high number of Bureau Sensitive plants 5 sensitive species. The FMU contains the sensitive species Howell's camas (*Camassia howellii).* Most of the sensitive plant sites occur on serpentine influenced soils.

  Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit the listed plant, and many of the special status plant species, especially Howell's camas. However, ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental to individuals or populations.

  Suppression constraints: Dispatch botanical resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or sensitive plant sites; No dozers. No ground disturbance or hand lines within federally listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant except within serpentine fens and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

- There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

- **Hydrology/Soils**

  - Upper Jumpoff Joe Creek is a deferred watershed (Medford District RMP) due to cumulative impacts from past timber harvest activites. Minimize any road construction and rehabilitate areas where they needed to be built.

3.2.37. Kalmiopsis FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Nearest Weather Station: **Quail Prairie Lookout RAWS**

Acres/Agency/Land Use Allocation:

Kalmiopsis Wilderness FMU	Wilderness	Grand Total
USFS	179,992	**179,992**
Totals	**179,992**	**179,992**

Predominant Vegetation Types: Timber, montane shrub/brush

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

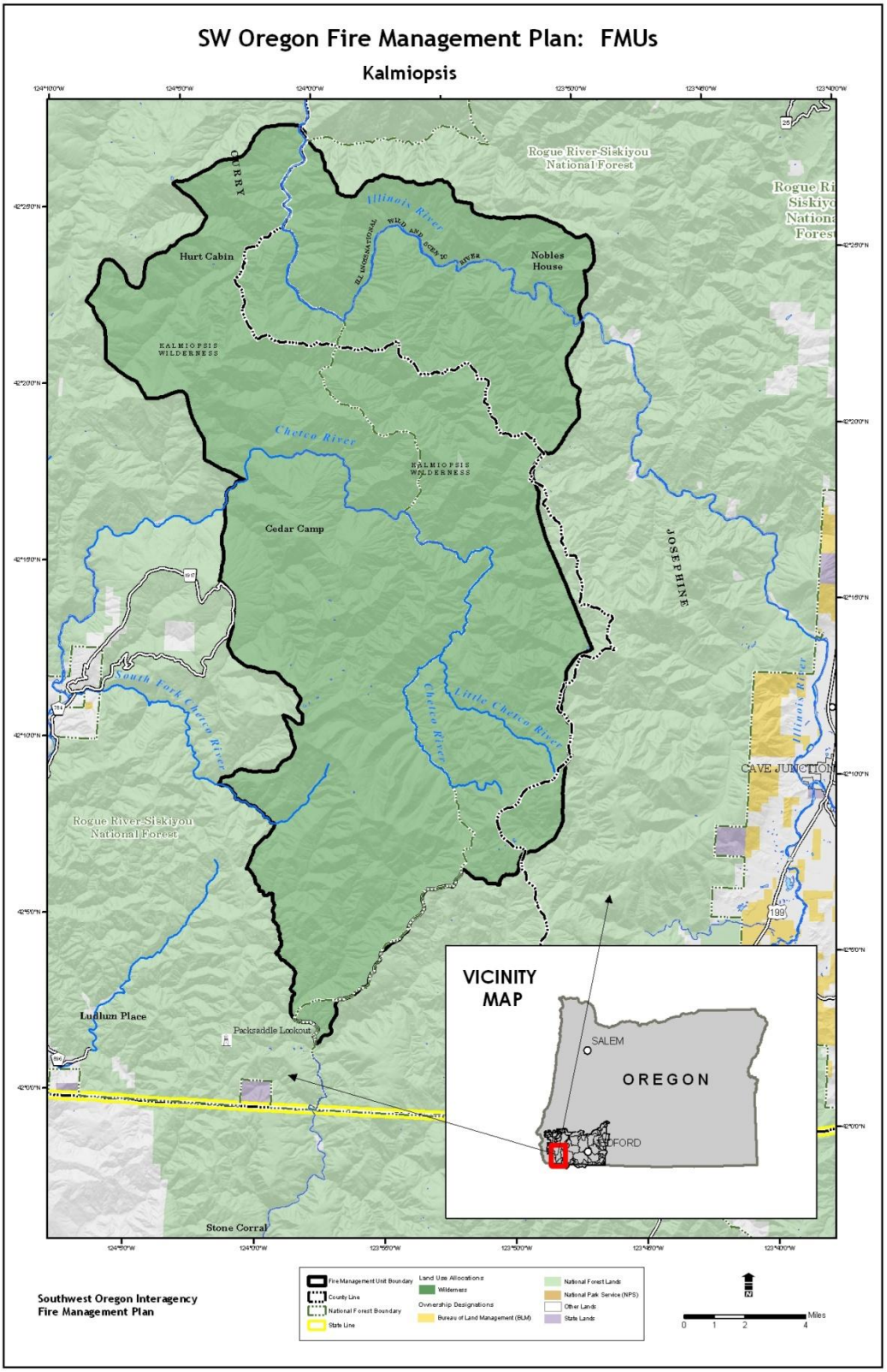
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: None

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit


SW Oregon Fire Management Plan: FMUs
Kalmiopsis
Rogue River-Siskiyou National Forest
Illinois River
Hurt Cabin
Nobles House
KALMIOPSIS WILDERNESS
Chetco River
Cedar Camp
JOSEPHINE
South Fork Chetco River
Little Chetco River
CAVE JUNCTION
Ludlum Place
Packsaddle Lookout
Stone Corral
VICINITY MAP
SALEM
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
State Line
Land Use Allocations
Wilderness
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles

3.2.38. FMU Guidance - See Section 3.1

3.2.39. FMU Characteristics

3.2.39.1. Safety

Roaded access is limited due to widerness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.39.2. Physical

Harsh rugged terrain, coupled with the unique botanical values and mining history. The management emphasis is aimed at preserving the natural ecosystem and sensitive plants as well as providing visitors solitude in a natural environment. The Wilderness is located in difficult terrain with heavy fuels accumulations in many places. Fuels consist mostly of dense brush but vary from dense forest growth to very open scattered Jeffrey pine and scattered grass.

3.2.39.3. Biological

Wildlife:

- There are known spotted owl sites within the FMU. Locations are available in GIS and fauna observations. **See guidelines common to all FS FMUs for recommendations.**

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is widespread within this FMU. Within the FMU, anadromous fish are known to occur in the following drainages: Illinois River, Collier Creek, North Fork Collier Creek, South Fork Collier Creek, Klondike Creek, Florence Creek, Pine Creek, Knome Creek, Chetco River, South Fork Chetco River, Tincup Creek, Fall Creek and Boulder Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.39.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

Wilderness Resources:

- If available dispatch Wilderness Resource Specialist. MIST will be employed whenever possible. Follow the most current Forest Supervisor Policy Letter for authorization requirements on the use of motorized equipment and mechanized transport, aerial delivered firefighters and recommendations for preferred equipment and methods for restoration/rehabilitation of suppression impacts. Use of tractors requires Regional Forester approval. Use of retardant and the construction of helispots require Forest Supervisor approval. Water should not be used from the Little Chetco River or from the Chetco River from its confluence with the Little Chetco downstream due to POC disease contamination unless treated as described in the Forest's **POC management direction**.
- Rehabilitation plans should be developed during the suppression action and implemented as soon as safety allows. Rehabilitation should prevent future resource damage, such as erosion and help restore the area by mitigating the visual effects of suppression activities.

Values at Risk:

- Recreating public and outfitter guides under special-use permit. Trailhead facilities (such as toilets, parked cars etc) which are located adjacent to the wilderness boundary.
- Pearsoll Peak Fire Lookout, which is in close proximity of the wilderness boundary.
- Private property (no standing structures) located along the Little Chetco River.
- Josephine County Forestry land (no standing structures) located at Connor's Place along the Illinois River.
- Active mining claim (standing storage shed) along the Chetco River north of Chetco Bar.
- There are two standing structures on the old Peterson Mining Claim (no longer valid) on the upper portion of the Little Chetco River.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management

3.2.40. Little Butte FMU Snap Shot

FMU Number: 013

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **ZIM RAWS**

Acres/Agency/Land Use Allocation:

Little Butte FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	560	44,332	8,822	**53,715**
BLM	9,414	1,142	44,651	**55,208**
PV	9,541	6,182	106,091	**121,814**
Other			1,955	**1,955**
Totals	**19,515**	**51,656**	**161,520**	**232,692**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

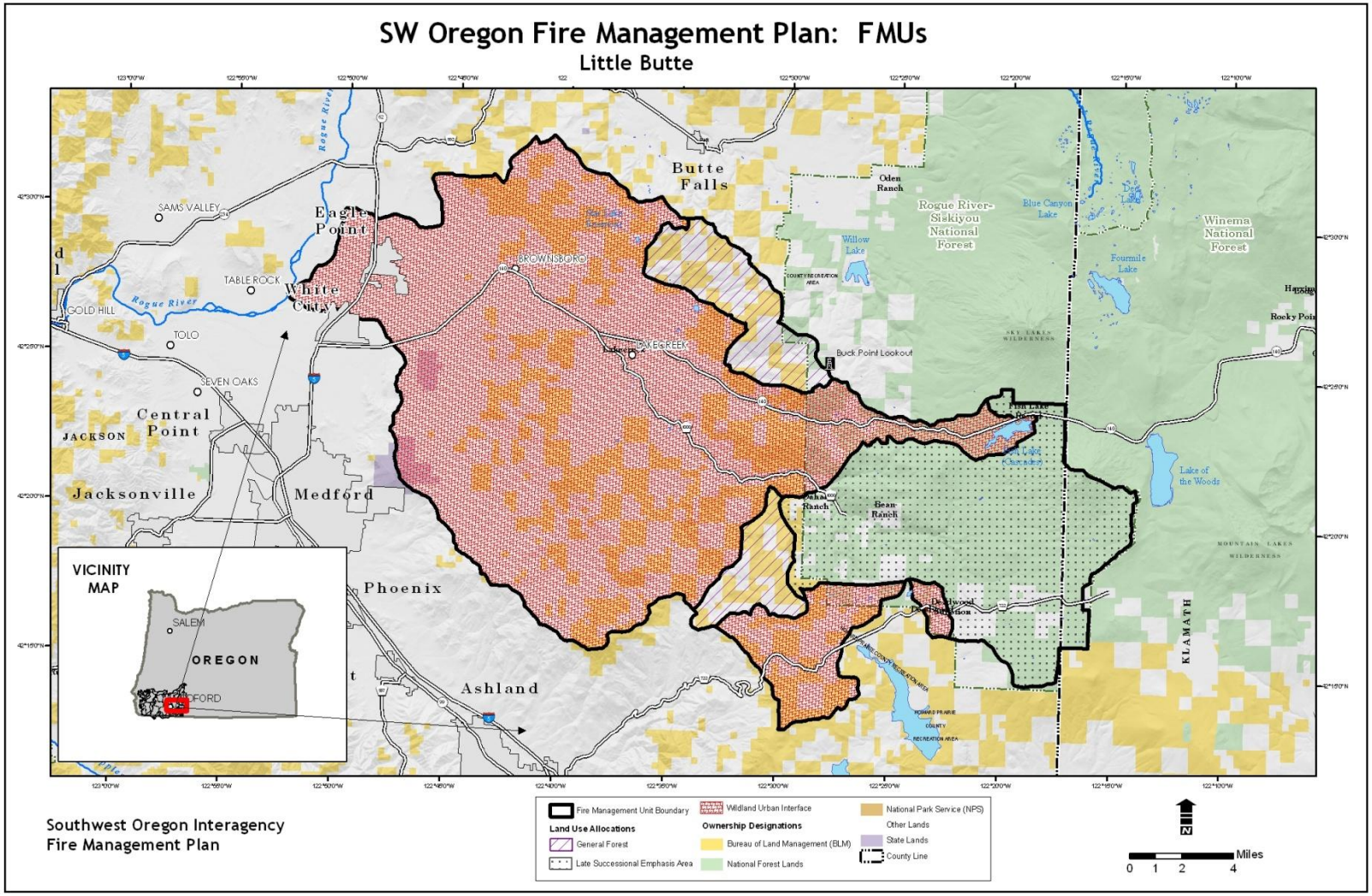
- Medford Interagency Communications Center (MICC)
- Medford BLM – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Lake Creek, Eagle Point, Brownsboro

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Little Butte
Butte Falls
Eagle Point
White City
Central Point
Jacksonville
Medford
Phoenix
Ashland
Rogue River
SAMS VALLEY
TABLE ROCK
GOLD HILL
TOLO
SEVEN OAKS
JACKSON
BROWNSBORO
LAKE CREEK
Oden Ranch
Rogue River-Siskiyou National Forest
Blue Canyon Lake
Willow Lake
Fourmile Lake
Winema National Forest
Buck Point Lookout
Lake of the Woods
Bean Ranch
KLAMATH
VICINITY MAP
SALEM
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
Land Use Allocations
General Forest
Late Successional Emphasis Area
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
County Line
Miles
0 1 2 4

3.2.41. FMU Guidance - See Section 3.1

3.2.42. FMU Characteristics

3.2.42.1. Safety

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.42.2. Physical

81% of the land base within the jurisdiction of Medford and ODF SW Districts is within the WUI. Critical municipal watershed is incorporated in WUI. Private and BLM lands are intermixed throughout this designation and GF, which accounts for most of the remaining area (16%). Designated communities at risk include Lake Creek, Eagle Point and Brownsboro. BLM administered Special Areas located south of Poole Hill and on Little Butte Cr.

The Rogue River – Siskiyou administrative jurisdiction in the Little Butte FMU is 92% LSE. It includes Fish Lake (with numerous vacation homes) to the North, and Brown Mountain and lava beds to the Northwest.

3.2.42.3. Biological

Wildlife:

- **Category B: Overstory Protection:**
  Within the FMU are spotted owl sites, great gray owl sites, and fisher habitat throughout the FMU. Locations are available in GIS and fauna observations. See guidelines common to all FS FMUs for recommendations.

- **Category C: Protect from Surface Disturbance:**
  There are known *Monadenia chaceana* sites. See conservation recommendations, GIS data, and fauna observations.

- **Category A: Complete Protection:**
  Overstory and understory need protection, no disturbance. Keep crews out of caves and mines.
  These include:
  - Bat Caves and Mines

- **<u>Category B: Overstory Protection:</u>**
  Light underburn is acceptable Need to protect large trees, snags, logs, and canopy.
  These include:
  - Bald Eagle Nest Sites
  - Golden Eagle Nest Sites
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers
  - Great Gray Owl Reproductive Sites
  - Northern Goshawk Reproductive Sites

- **<u>Category C: Protect from Surface Disturbance:</u>**
  No fire lines, roads, fire camps, heavy equipment.
  These include:
  - Vernal Pool Fairy Shrimp

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. Anadromous fish bearing streams, on USFS lands include: North Fork Little Butte Creek, South Fork Little Butte Creek, Grizzly Creek, and Dead Indian Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.42.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include Big Elk Guard Station and Short Creek Prairie Cabin.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Little Butte FMU.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In

addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Hydrology:

- Snotel sites exist around Fish Lake. The Bureau of Reclamation and the Medford Irrigation District Operate a Dam at Fish Lake. The Talent Irrigation District maintains canals in the Little Butte Polygon. Dispatch resource specialist. Little Butte is a designated Key Watershed.

Timber / Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

Values at Risk:

- Known values at risk include: Robinson Butte Lookout, buried fiber optic cable in T36S R3E Sec. 33, Fish Lake Resort and summer homes, Brown Mt. Shelter, Short Creek Cabin, Camp Latgawa, Big Elk Guard Station and the SNOTEL site.

Special Areas:

- **Round Top Research Natural Area, 604 acres**

  Values: Natural systems including oak woodland/grass savannah and chaparral.

  Objectives: Maintain natural system and processes

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, low to moderate severity back burns/burnouts, or fire retardant/ foam.

- **Hole-in-the-Rock Area of Environmental Concern, 63 acres**

  Values: Geological values.

  Objectives: Protect the site.

  Suppression constraints: None. Don't disturb the hole.

- **Lost Lake Research Natural Area, 384 acres**

  Values: Natural systems, including a natural low elevation lake.

  Objectives: Maintain natural systems and protect aquatic environment

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, or back burns/burnouts. Keep fire retardant/ foam out of aquatic system. Do not use the lake as a water source.

- **Hollenbeck Environmental Area, 20 acres**

  Values: Environmental Education

  Objectives: Protect the natural features of the site and trail.

Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines. Limit hand lines through the site. No restrictions on back burns (ground) or retardant.

- **Botanical Resources- 1,555 acres**

  Values: There are no federally listed plant issues in this area. There are known sites for 6 Bureau Sensitive plant species throughout the FMU. Two species, Southern Oregon buttercup that is known from oak woodlands, chaparral and meadows, and Bellinger's meadow foam (vernal pools).

  Objectives: Conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

  Suppression constraints: Dispatch botanical resource specialist. No heavy equipment or vehicles through known sensitive plant sites; No dozers in these sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant or foam except within vernal pool and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

- There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.43. Lower Applegate FMU Snap Shot

FMU Number: 014

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Merlin Seed Orchard RAWS**

Acres/Agency/Land Use Allocation:

Lower Applegate FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	13,809	12,096	16,141	**42,046**
BLM	2,325	10,050	64,649	**77,025**
PV	838	190	114,728	**115,756**
Other	640	3	1,218	**1,861**
Totals	**17,612**	**22,340**	**196,736**	**236,688**

Predominant Vegetation Types: Oak woodlands, Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

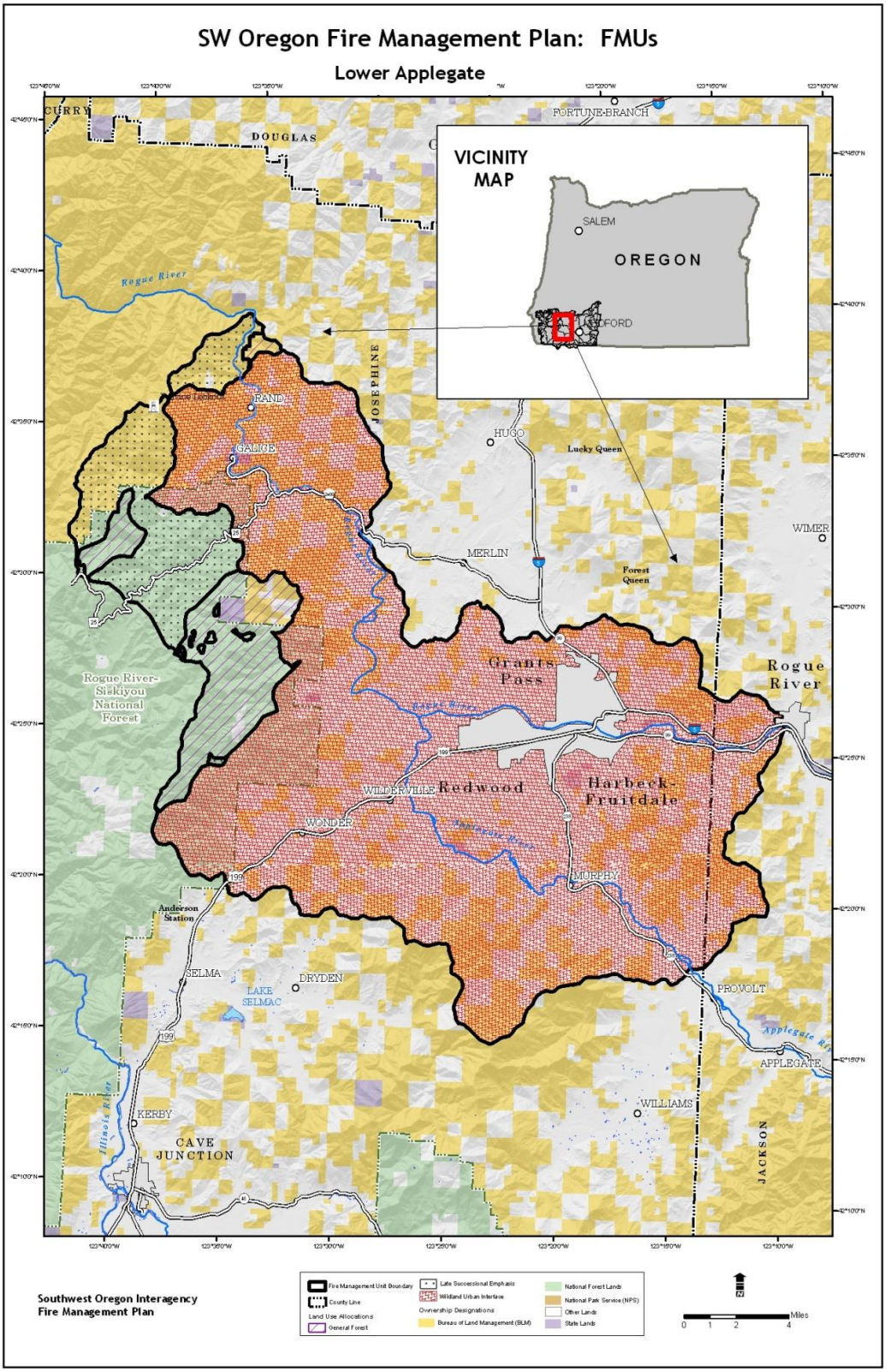
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

- **Communities adjacent or within FMU:** Grants Pass, Galice, Murphy, Wilderville, Wonder, Rand

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Lower Applegate
VICINITY MAP
SALEM
OREGON
MEDFORD
CURRY
DOUGLAS
FORTUNE-BRANCH
JOSEPHINE
Rogue River
RAND
GALICE
HUGO
Lucky Queen
WIMER
MERLIN
Forest Queen
Grants Pass
Rogue River
Rogue River-Siskiyou National Forest
WILDERVILLE
Redwood
Harbeck-Fruitdale
WONDER
MURPHY
Anderson Station
SELMA
DRYDEN
LAKE SELMAC
PROVOLT
Applegate River
APPLEGATE
WILLIAMS
KERBY
CAVE JUNCTION
Illinois River
JACKSON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
Land Use Allocations
General Forest
Late Successional Emphasis
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.44. FMU Guidance - See Section 3.1

3.2.45. FMU Characteristics

3.2.45.1. Safety

Roaded access is limited in some areas

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.45.2. Physical

77% of the land base within this FMU is within the WUI. Private and BLM lands are intermixed throughout this designation and GF, which accounts for most of the remaining area (12%). LSE and Special comprise about 10% of the Medford BLM ODF SW jurisdiction in this polygon. The Special areas are mainly associated with the river system (see constraints below for BLM administered lands) and the LSE is located principally in the northwest corner in conjunction with larger tracts of LSE administered by the FS. Designated communities at risk include Grants Pass, Galice, Murphy, Wilderville, Wonder and Rand.

30% of the area administered by the Rogue River – Siskiyou National Forest in this FMU is WUI. This is due to the communities in and Southwest of Grants Pass, Oregon. The frequently visited South Fork of Taylor Creek drainage is located in this polygon and serves as the main access road into Briggs Valley.

3.2.45.3. Biological

Wildlife:

- **Category A: Complete Protection:**
  A peregrine site (Apple Site), locality known for Bald Eagle, and several sites known for Townsend's big-eared bat are known to exist in the FMU. See GIS data layer and fauna observations for locations.

- **Category B: Overstory Protection:**
  Spotted owl sites are known to exist within the FMU. Locations are available on GIS and in fauna observations. **See guidelines common to all FS FMUs for recommendations.**

- **Category A: Complete Protection**:

Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:

- Bat Caves and Mines

Category B: Overstory Protection:
Light underburn is O.K. Need to protect large trees, snags, logs, and canopy. These include:

- Bald Eagle Nest Sites
- Golden Eagle Nest Sites
- Northern Spotted Owl Nest Sites
- Known Spotted Owl Activity Centers
- Northern Goshawk Reproductive Sites

Fisheries:

Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. Anadromous fish bearing streams, on USFS lands include: Rogue River, Galice Creek, Taylor Creek, West Fork Taylor Creek, South Fork Taylor Creek, China Creek, Minnow Creek, Shan Creek, Limpy Creek, Dutcher Creek, Slate Creek, Waters Creek, Cedar Log Creek, Buckeye Creek, Ramsey Creek, and Butcherknife Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.45.4. Resources

Cultural Resources:

The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Lower Applegate FMU.

The Rand Ranger Station Ensemble National Register site is located within this FMU. This ensemble is composed of 12 separate buildings and structures. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from fire.

Speed's Place on the Rogue is another National Register site. Although located on private lands at 11407 Galice Road, the BLM has a scenic easement on this property. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from fire.

- Camp Rand, the old Civilian Conservation Corps (CCC) camp, lies in the flat meadow immediately south of the Rand Ranger Station. The greatest risk to this historic site is from fire fighting operations or ground disturbing activities.

- The Almeda mine site is located along the Rogue River in T. 34S R. 8W Section 13. The greatest risk to this historic site is from fire fighting operations or ground disturbing activities.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, CCC built and other historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites and homesteads, as well as fire lookout towers are known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from fire.

- There are a series of former occupancy trespasses, most of which are located along the Rogue River. These old occupancy trespass sites are considered historic sites. In some cases these historic properties were built on top of an archeological site. Many of these old occupancy trespass areas have been converted into day use recreation sites along the Rogue River. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Do <u>NOT</u> use the meadow south of the Rand Ranger station as a fire fighting equipment storage area or as a staging area.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

Timber / Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

- **Special Areas:**
  - **Recreation section of the Rogue River**

    Values: Natural scenic qualities, fisheries resource and water quality, recreational opportunities

    Objectives: Protection and enhancement of the outstandingly remarkable values while providing quality river-related outdoor recreational opportunities; provide for diversified recreational opportunities while minimizing conflicts between recreational user groups and their potential effects on other ecological components; Protect scenic qualities; minimize impacts on state and federally listed flora and fauna, cultural resources, Native American religious sites, or historical sites.

    Suppression constraints: Constrain suppression activities dependent on effects to view-shed qualities. Use suppression equipment is with guidance from BLM River Coordinator. Rehabilitate all suppression impacts.

  - **Iron Creek Area of Critical Environmental Concern, 286 acres**

Values: Late successional natural systems and processes, wildlife resources

Objectives: Protect old growth from stand replacing fire.

Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the ACEC. No restrictions on hand lines or fire retardant. Limit back burns to ground fires.

- **Botanical Resources – 87 acres**

  Values: There are five (5) known locations of the federally endangered Gentner's fritillary (*Fritillaria gentneri*) within this FMU, including the largest population known on federal land in Pickett creek. There are 6 Bureau sensitive species, most sites consist of small scattered populations. Many of the sensitive species sites within this FMU are on or influenced by serpentine soils. Two of the species are known from vernally wet meadows and stream edges.

  Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

  Suppression constraints: Dispatch botanical resource specialist immediately, because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or sensitive plant sites; No dozers. No ground disturbance within federally listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant or foam, except within vernal pool or riparian systems. No restrictions on back burns/burn-outs (ground fire) through the populations.

- There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.46. Red Buttes Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAW
3. Agness 2 RAWS

Nearest Weather Station: **Crazy Peak RAWS**

Acres/Agency/Land Use Allocation:

Red Buttes Wilderness FMU	Wilderness	Grand Total
USFS	20,102	**20,102**
Totals	**20,102**	**20,102**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: None

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit

SW Oregon Fire Management Plan: FMUs
Red Buttes Wilderness
Pepper Camp
OREGON CAVES NATIONAL MONUMENT
Steamboat
Browntown
Crazy Peak Lake
Applegate Lake
COPPER
Rogue River-Siskiyou National Forest
Klamath National Forest
Middle Fk Applegate River
OREGON
CALIFORNIA
Sweaty Gap Marsh
Upper Snake Lake Basin
Butte Fork Applegate River
RED BUTTES WILDERNESS
Lily Pad Lake
O'BRIEN
TAKILMA
VICINITY MAP
SALEM
OREGON
Fire Management Unit Boundary
National Forest Boundary
State Line
County Line
Land Use Allocations
Wilderness
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4
Southwest Oregon Interagency Fire Management Plan

3.2.47. FMU Guidance - See Section 3.1

3.2.48. FMU Characteristics

3.2.48.1. Safety

Roaded access is limited due to large amount of Roadless and wilderness designation in the vicinity of this FMU

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.48.2. Physical

With elevations ranging from 2,800 to 6,739 feet above sea level, the Red Buttes Wilderness is characterized by steep ridges and mountains and is botanically diverse and contains old growth forests, small meadows, extensive brush fields and rocky open slopes. Large fires have been a major factor in the forest.

3.2.48.3. Biological

Wildlife:

- **Category B: Overstory Protection:**
  Spotted owl sites exist within the FMU. Locations are available in GIS and in fauna observations. **See guidelines common to all FS FMUs for recommendations.**

Fisheries:

- Within this FMU, resident fish are present within Butte Fork, Steve Fork, Middle Fork Applegate River, Azalea Lake, Hello Lake, Lonesome Lake, Tannen Lake, East Tannen Lake, and Towhead Lake. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.48.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include Toolhouse Shelter, Sucker Creek Shelter, and the Mohawk Mine.

Hydrology:

- Taylor Creek in this polygon is a designated key watershed.

Wilderness Resource:

- If available dispatch Wilderness Resource Specialist. MIST will be employed whenever possible. Follow the most current Forest Supervisor Policy Letter for authorization requirements on the use of motorized equipment and mechanized transport, aerially delivered firefighters and recommendations for preferred equipment and methods for restoration/rehabilitation of suppression impacts. Use of dozers requires Regional Forester approval. Use of retardant and the construction of helispots require Forest Supervisor approval. Rehabilitation plans should be developed during the suppression action and implemented as soon as safety allows.

Values at Risk:

- Recreation use trail shelters: Butte Fork Toolhouse and Sucker Creek. Rehabilitation should prevent future resource damage, such as erosion and help restore the area by mitigating the visual effects of suppression activities.

3.2.49. Rogue River FMU Snap Shot

FMU Number: 016

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Nearest Weather Station: **Agness 2 RAWS**

Acres/Agency/Land Use Allocation:

Rogue River FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	14,988	118,290	72,027	**205,306**
PV	281	256	3,903	**4,440**
Totals	**15,283**	**118,902**	**76,019**	**210,205**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

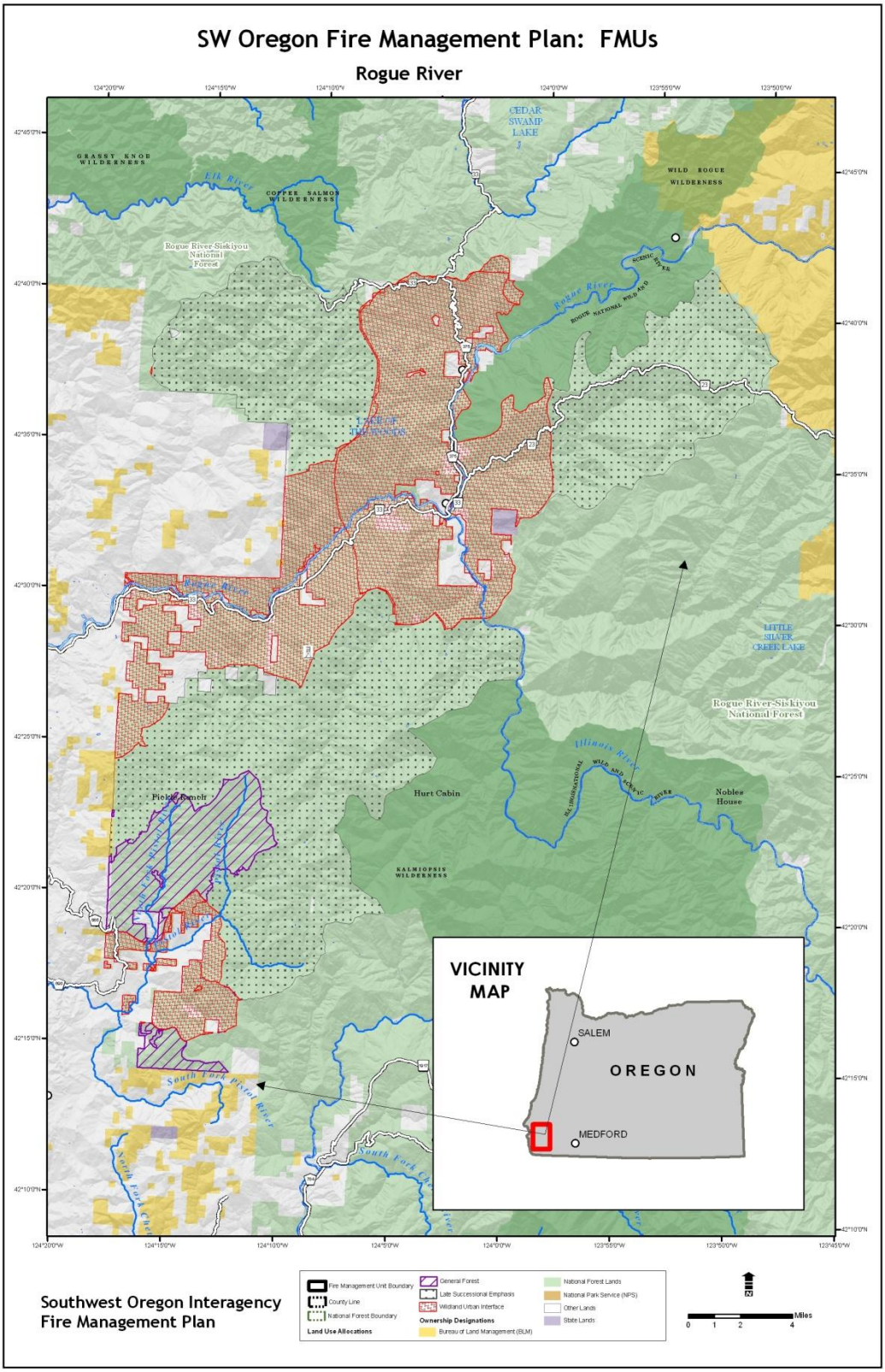
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: Agness, Illahe

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit


SW Oregon Fire Management Plan: FMUs
Rogue River
GRASSY KNOB WILDERNESS
COPPER SALMON WILDERNESS
CEDAR SWAMP LAKE
WILD ROGUE WILDERNESS
Elk River
Rogue River-Siskiyou National Forest
Rogue River
LAKE OF THE WOODS
LITTLE SILVER CREEK LAKE
Rogue River-Siskiyou National Forest
Illinois River
Hurt Cabin
Nobles House
KALMIOPSIS WILDERNESS
Pickett Cemetery
South Fork Pistol River
VICINITY MAP
SALEM
OREGON
MEDFORD
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
General Forest
Late Successional Emphasis
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.50. FMU Guidance - See Section 3.1

3.2.51. FMU Characteristics

3.2.51.1. Safety

Roaded access is limited in some areas

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.51.2. Physical

The area with Rogue River – Siskiyou NF administrative jurisdiction in the Rogue River FMU is northwest of the Kalmiopsis Wilderness and experienced the Biscuit Fire of 2002. It includes the Rogue River west of the community of Agness and south of Illahe.

3.2.51.3. Biological

Wildlife:

- **Category A: Complete Protection:**
  - Spotted owl sites and Peregrine falcons are known to exist within the FMU. Locations are available in GIS and in fauna observations. **See guidelines common to all FS FMUs for recommendations.**

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. Anadromous fish bearing streams, on USFS lands include: Rogue River, Lobster Creek, South Fork Lobster Creek, Quosatana Creek, Illinois River, Lawson Creek, Shasta Costa Creek, Pistol River, South Fork Pistol River, North Fork Pistol River, Sunrise Creek, East Fork Pistol River, South Fork Collier Creek, and North Fork Collier Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.51.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include Wildhorse Lookout.

Values at Risk:

- Known values at risk include: Snow Camp and Quail Prairie Lookouts.

- Additionally, this FMU also contains Long Term Ecosystem Productivity (LTEP) sites. Aggressively suppress fires that threaten these sites. Do not use retardant in the sites or construct firelines through them. If fire gets established in one block, let the entire block burn. Contact Bernard Bormann of the PNW Research Station for fires that threaten or occur in these sites.

Hydrology:

- Lobster Creek, Quosatana, Shasta Costa, and Lawson are designated Key Watersheds.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

Timber / Silviculture:

- **Port Orford Cedar Root Disease:**
  When practicable, management strategies to prevent/reduce Phytopthora Lateralis (PL) would include treating firefighting water with Clorox Regular Bleach *(see directions for use below)* to kill waterborne PL spores. This treatment is for use in water tanks, and water drafted for aerial spread. This treatment should also be used for washing vehicles, tools and clothing ensuring that direct run-off from this process will not enter streams.

  While management objectives for POC are a concern, safety of firefighters and the public, and protection of property is always a higher priority. Existing or "in-place" disease controlling management practices such as road closures may be compromised. Road closures and other compromised disease controlling measures would be reinstalled following suppression and emergency rehabilitation unless changed circumstances indicate otherwise.

  Go here for more specific POC Management direction.

  Mixing Clorox Regular Bleach and Retardant (PHOS-CHEK 259-F and R, G75F, D75F and R, LV-R and LC95A):
  The Forest has a requirement to treat water taken from sources infested with Phytophthora lateralis spores to prevent spread of the

Disease. It was recently discovered that it's not about mixing the chemicals together but rather how and when they are mixed together. The hazard occurs if the retardant and bleach gets mixed together simultaneously or undiluted bleach gets added directly into retardant. The result of improper mixing techniques can result in not only a toxic but a possibly explosive reaction. Proper mixing of the two chemicals requires a gallon of Clorox Regular Bleach be added to a minimum of 1000 gallons of water and circulated for a minimum of 10 minutes prior to being added to the retardant. MTDC is scheduled to create a Technical Bulletin or Safety Alert addressing this hazard and corrective measures.

Clorox Regular Bleach Label Information

3.2.52. Rogue Umpqua Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou and Umpqua NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Onion Mountain Lookout RAWS**

Acres/Agency/Land Use Allocation:

Rogue Umpqua Wilderness FMU	Wilderness	Grand Total
USFS	6,043	**6,043**
Totals	**6,043**	**6,043**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF but administered by the Umpqua NF

IA Dispatch Office: Umpqua NF

Communities adjacent or within FMU: Prospect, Union Creek

Special safety considerations: No special or extraordinary safety considerations exist

3.2.53. FMU Guidance

- **Consult the Umpqua Fire Management Plan**, (pages 182-195) for additional mitigation measures for: wildlife; aquatics; cultural resources; threatened, endangered, and sensitive plants; recreation; and prevention of noxious weed spread.
- **Management Requirements:**
  The following is taken from the Umpqua NF Fire Management Plan. Items that appear in the Umpqua NF Fire Management Plan, but are not relevant to this Wilderness are not included.
  - Live trees should not be cut unless it is determined that they will cause fire to spread across the fire line, or may present a hazard to workers.
  - Include a qualified Resource Advisor as a position in the District initial attack organization. This person should be familiar with the area and its resource values, and have a thorough knowledge of the Standards and Guidelines of the Northwest Forest Plan.
  - Wood should not be bucked or removed from stream channels.
  - Locate incident bases, fire camps, helibases, staging areas and other facilities outside riparian areas.
  - Initiate BAER assessment on wildfires greater than 300 acres to protect life, property or resources.
  - Provide timely and safe fire suppression in the wilderness commensurate with the risk.
  - Minimize the impacts of fire suppression tactics on the wilderness resource.
  - Only clear fugitive retardant or water will be used.
  - Helicopters will not be used for personnel transport, rappelling, sling loads, bucket drips or tactical purposes without approval of the Forest Supervisor.
  - The use of power equipment, such as pumps or chainsaws, requires a formal waiver approved by the Forest Supervisor.
  - The use of fireline explosives for line construction or snag felling requires the approval of the Forest Supervisor.
  - The use of dozers requires the approval of the Regional Forester.
  - Camps should be established outside of wilderness.
  - The objective of post-suppression rehabilitation is to return the affected area to wilderness standards to the extent possible.
  - Burned are emergency rehabilitation (BAER) will be utilized to protect life, prevent loss of wilderness characteristics, prevent loss of resources outside of wilderness areas, and to prevent loss of other resources such as property, facilities, roads, streams or endangered species habitat.
  - Only native plants shall be used for rehabilitation needs.
  - Conduct all fire management activities within wilderness in a manner compatible with overall wilderness management objectives. Give preference to methods and equipment that cause the least need for subsequent restoration and mitigation.

Strategic Objectives:

- Human life, firefighter, and public safety are the highest priority and will drive all wildland fire and fuels treatment actions.
- Contain unwanted fires at the smallest possible size using appropriate suppression response.
- Ecosystems are restored and maintained consistent with land uses and historic fire regimes, prescribed fire, and mechanical fuel treatments. Refer to the Umpqua RMP, Appendix D, for Wilderness Management Plan.
- Protect high value resources through mechanical fuel treatments and prescribed fire.
- Assess the potential wildland fire action impacts to invasive species spread.
- Minimize the impacts of fire suppression tactics on the wilderness resource.
- Permit lightning caused fires to play, as nearly possible, their natural ecological role within the wilderness.

3.2.54. FMU Characteristics

3.2.54.1. Safety

Roaded access is limited due to wilderness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.54.2. Physical

The Rogue Umpqua Divide Wilderness is administered by the Umpqua National Forest. Approximately 6,000 acres are located within the Rogue River-Siskiyou NF. Fire management of this wilderness is addressed in the Umpqua National Forest's fire, titled "**Central Coast Range and Cascades Fire Planning Unit (FPU) Fire Management Plan**". Direction specific to this wilderness is found in FMU 011, "Wilderness/ Forest Service/ Cascades FMU".

Coordinate all fire responses to fires with the Umpqua NF.

The Rogue Umpqua Divide Wilderness is located to the north-west of the Upper Rogue FMU. It is characterized by a major ridge system and

consists of a mosaic of conifers, mountain meadows and large rock outcrops. Elevations range from 3200 to 6400 feet. Natural vegetation includes mountain hemlock and silver fir in the highest elevations, white fir and Shasta red fire in the lower elevations, western hemlock in the drainages, and Douglas-fir on the driest sites. Summers are warm with temperatures reaching into the eighties and nineties.

3.2.55. Siskiyou Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Crazy Peak RAWS**

Acres/Agency/Land Use Allocation:

Siskiyou Wilderness FMU	Wilderness	Grand Total
USFS	5,409	**5,409**
Totals	**5,409**	**5,409**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

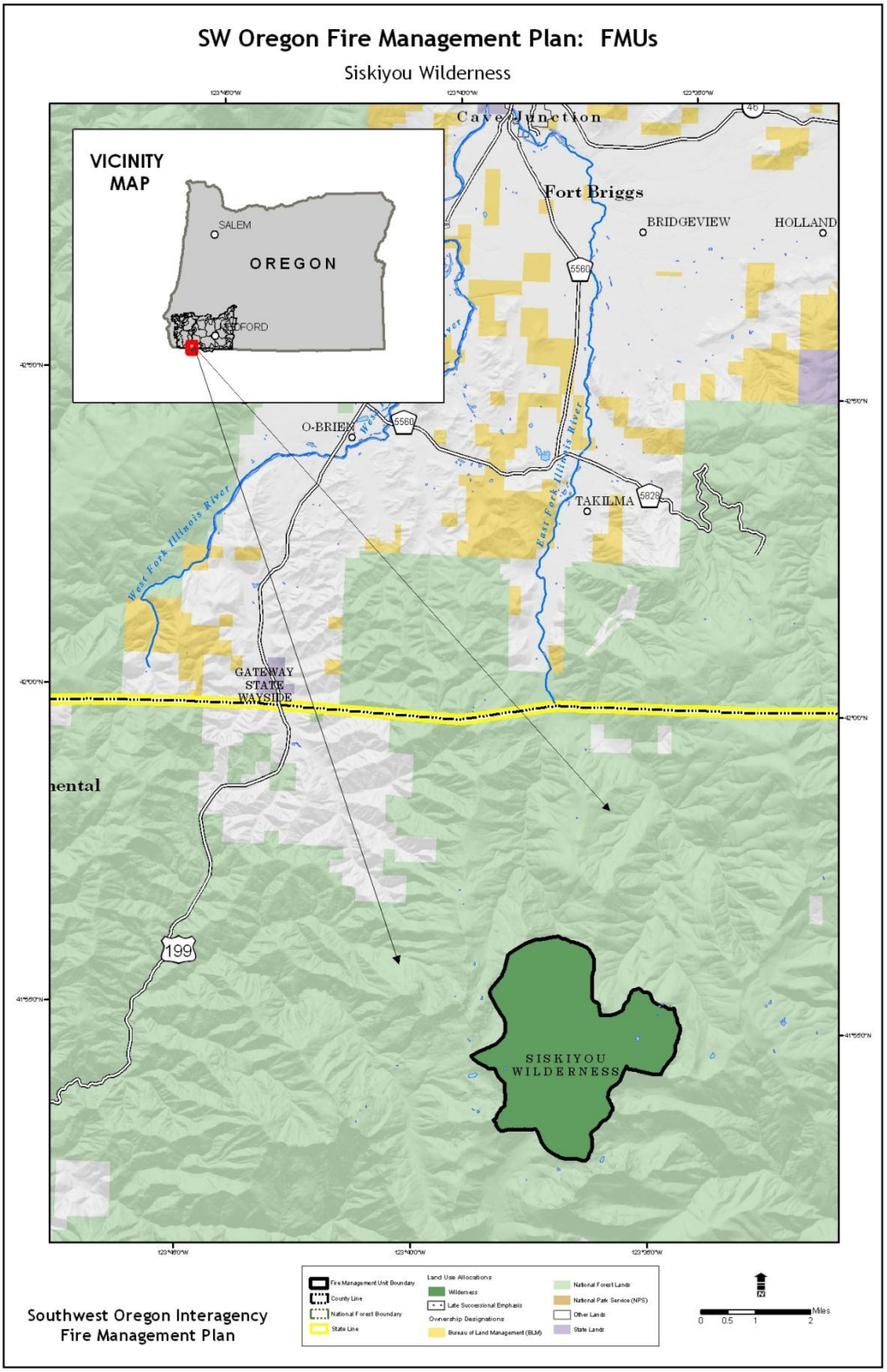
- Medford Interagency Communications Center (MICC) - The Rogue River-Siskiyou N.F manages a portion of this wilderness. Fire Management Directions are given by the Klamath National Forest LRMP.

Communities adjacent or within FMU: None

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit


SW Oregon Fire Management Plan: FMUs
Siskiyou Wilderness
VICINITY MAP
SALEM
OREGON
MEDFORD
Cave Junction
Fort Briggs
BRIDGEVIEW
HOLLAND
5560
O-BRIEN
TAKILMA
5629
West Fork Illinois River
East Fork Illinois River
GATEWAY STATE WAYSIDE
199
SISKIYOU WILDERNESS
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
State Line
Land Use Allocations:
Wilderness
Late Successional Emphasis
Ownership Designations:
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.56. FMU Guidance - See Section 3.1

3.2.57. FMU Characteristics

3.2.57.1. Safety

Roaded access is limited due to wilderness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.57.2. Physical

The area within the Rogue River–Siskiyou NF administrative jurisdiction in the Siskiyou Wilderness FMU is just a small portion of a larger Wilderness managed by the Klamath National Forest. There is an approved WFU plan for the portion of the wilderness managed by the Klamath National Forest as well as the Rogue River–Siskiyou National Forest's portion.

3.2.57.3. Biological

Wildlife:

- Peregrine Falcon Management Areas are prevalent in this polygon. Dispatch resource specialist.

3.2.57.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct hand-line and dozer line around historic sites/features.

Wilderness Resources:

- Coordinate with Klamath National Forest. If available dispatch Wilderness Resource Specialist. MIST will be employed whenever possible. Follow the most current Forest Supervisor Policy Letter for authorization requirements on the use of motorized equipment and mechanized transport, aerially delivered firefighters and recommendations for preferred equipment and methods for restoration/rehabilitation of suppression impacts. Use of dozers requires Regional Forester approval. Use of retardant and the construction of helispots require Forest Supervisor approval. Rehabilitation plans should be developed during the suppression action and implemented as soon as safety allows. Rehabilitation should prevent future resource damage, such as erosion and help

restore the area by mitigating the visual effects of suppression activities.

3.2.58. Sky Lakes Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: Mount Stella RAWS

Acres/Agency:

Sky Lakes Wilderness FMU	Wilderness	Grand Total
USFS	69,825	**69,825**
Totals	**69,825**	**69,825**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

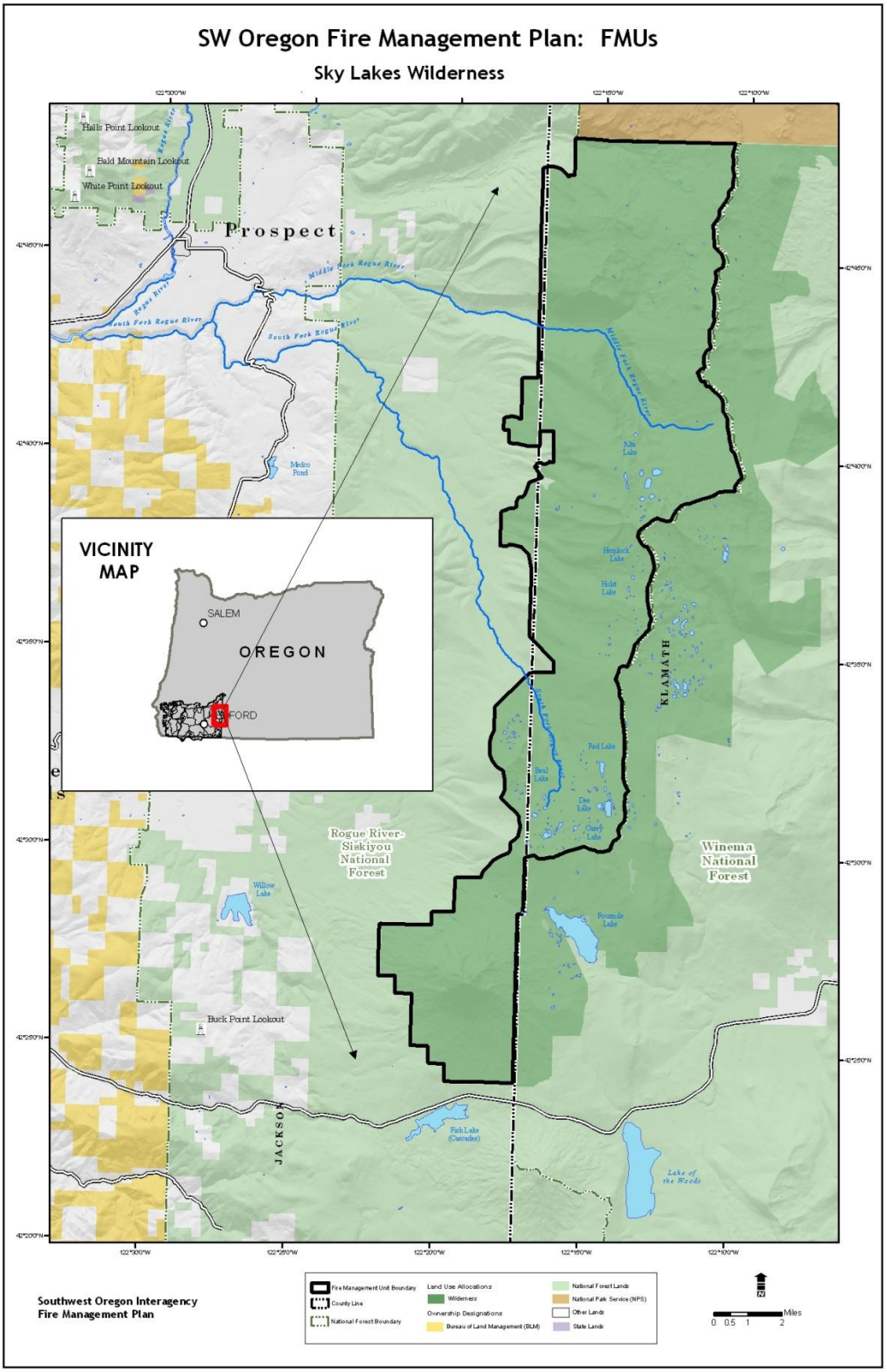
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: None

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit


SW Oregon Fire Management Plan: FMUs
Sky Lakes Wilderness
Hall's Point Lookout
Bald Mountain Lookout
White Point Lookout
Prospect
Middle Fork Rogue River
South Fork Rogue River
Medco Pond
VICINITY MAP
SALEM
OREGON
FORD
Rogue River-Siskiyou National Forest
Willow Lake
Buck Point Lookout
JACKSON
KLAMATH
Winema National Forest
Fish Lake (Cascades)
Lake of the Woods
Fourmile Lake
Red Lake
Hemlock Lake
Holst Lake
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wilderness
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.59. FMU Guidance - See Section 3.1

- Coordinate wilderness fire management planning and activities with the Winema NF and Crater Lake National Park. Manage wildfires within the wilderness in accordance with WFDSS decision. Utilize Minimum Impact Suppression Tactics (MIST) approach, in order to avoid undesirable impacts from suppression activities. Whenever feasible, helispots and spike camps will be located (a) outside the Wilderness or (b) so as to have the least impact to Wilderness values (e.g. locations at lakeshores should be avoided whenever possible) Use of natural barriers is encouraged in lieu of fire lines. Cut only those trees necessary to stop the fire or to provide for human safety. Mechanical aids such as chain saws and water pumps are allowed when overall impacts are assessed to be less with their use (these aids can only be used with Forest Supervisor approval; the same is true for aircraft). Heavy equipment is permitted only with Regional Forester approval.

3.2.60. FMU Characteristics

3.2.60.1. Safety

Roaded access is limited due to wilderness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

3.2.60.2. Physical

- With elevations ranging from 4000 to 9,475 feet above sea level, the Sky Lakes Wilderness consists of the crest zone of the High Cascades. Although steep relief is found in such places as the glacially carved Middle Fork of the Rogue River Canyon and the slopes of Mount McCloughlin, Sky Lakes is generally characterized by gentle, forested terrain of volcanic origin. The high-elevation forest is composed largely of mountain hemlock and Shasta red/noble fir stands which are interspersed with small meadows and numerous lakes, most them concentrated in three glacial basins near the crest of the Cascades. The Rogue River-Siskiyou and Winema National Forests share the administrative responsibility for the Sky Lakes Wilderness.

3.2.60.3. Biological

Wildlife:

- **<u>Category B: Overstory Protection:</u>**
  There are 17 known spotted owl sites within the FMU. Locations are available on GIS and in fauna observations. See guidelines common to all FS FMUs for recommendations.

Fisheries:

- The Sky Lakes Wilderness contains many fish bearing high mountain lakes. Assume all lakes are fish bearing, unless specifically identified as non-fish bearing by a fish biologist. Additionally, the Middle Fork and South Fork Rogue River, originate within the wilderness boundary. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.60.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include Judge Waldos Tree near Island Lake in the Sky Lake Basin.

Hydrology:

- Refer to the **High Cascades Dip Site Plan** for off limits and preferred dipping sites.
- The water quality in this FMU is very high. Avoid retardant drops adjacent to the lakes in this FMU.

Wilderness Resources:

- Coordinate with Crater Lake National Park and Winema National Forest. Dispatch Wilderness Resource Specialist. MIST will be employed whenever possible. Follow the most current Forest Supervisor Policy Letter for authorization requirements on the use of motorized equipment and mechanized transport, aerially delivered firefighters and recommendations for preferred equipment and methods for restoration/rehabilitation of suppression impacts. Use of dozers requires Regional Forester approval. Use of retardant and the construction of helispots require Forest Supervisor approval. Rehabilitation plans should be developed during the suppression action and implemented as soon as safety allows. Rehabilitation should prevent future resource damage, such as erosion and help restore the area by mitigating the visual effects of suppression activities.

- **Values at Risk:**
  - Solace Cabin
  - Administrative use Honeymoon Cabin
  - Waldo Tree (southeast shore Island Lake)

3.2.61. Trail Creek FMU Snap Shot

FMU Number: 019

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: Zim RAWS

Acres/Agency/Land Use Allocation:

Trail Creek FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	48	26,630	199	**26,878**
BLM	178	5,446	55,478	**61,102**
PV	479	11,478	90,134	**102,091**
Other			1,219	**1,219**
Totals	**705**	**43,555**	**147,030**	**191,290**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

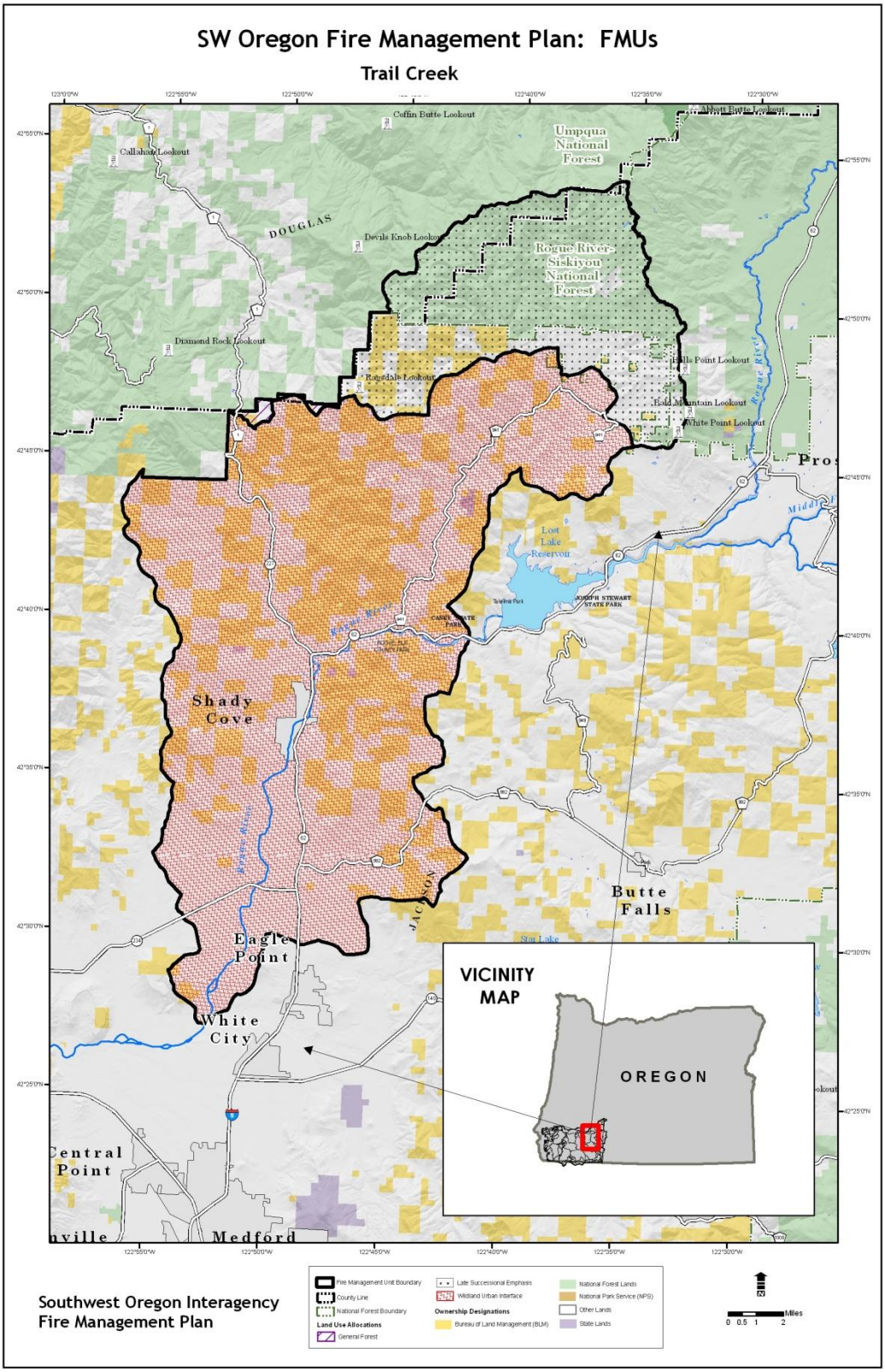
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Shady Cove, Trail, Eagle Point, Brownsboro, Prospect

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Trail Creek
Coffin Butte Lookout
Umpqua National Forest
Callahan Lookout
DOUGLAS
Devils Knob Lookout
Rogue River-Siskiyou National Forest
Diamond Rock Lookout
Rogerdale Lookout
Halls Point Lookout
Bald Mountain Lookout
White Point Lookout
Lost Lake Reservoir
JOSEPH STEWART STATE PARK
Shady Cove
JACKSON
Butte Falls
Eagle Point
Star Lake
White City
Central Point
Medford
VICINITY MAP
OREGON
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
General Forest
Late Successional Emphasis
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.62. FMU Guidance - See Section 3.1

3.2.63. FMU Characteristics

3.2.63.1. Safety

Roaded access is limited in some areas

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.63.2. Physical

76 % of the land base within the jurisdiction of Medford and ODF SW Districts is within the WUI. Private and BLM lands are intermixed throughout this designation and LSE, which accounts for most of the remaining area (24%). Designated communities at risk include Shady Cove and Trail. Other communities include Eagle Point and Brownsboro. BLM administered Special Areas are located throughout the area (see below).

The area with Rogue River–Siskiyou administrative jurisdiction in the Trail Creek FMU is 99% LSE. The area is Northwest corner of the Rogue River-Siskiyou NF Cascade Zone. It encompasses both Jackson and Douglas County and is adjacent to the boundary between the Umpqua and Rogue River-Siskiyou National Forests.

3.2.63.3. Biological

Wildlife:

<u>Category A: Complete Protection:</u>
Peregrine site is known to exist in the FMU. The location is available in GIS layers, fauna observations.

<u>Category B: Overstory Protection:</u>
Spotted owl sites are known to exist in the FMU. See guidelines common to all FS FMUs for recommendations.

<u>Category A: Complete Protection:</u>
Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:

- Bat Caves and Mines

<u>Category B: Overstory Protection:</u>

Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy. These include:

- Bald Eagle Nest Sites
- Northern Spotted Owl Nest Sites
- Known Spotted Owl Activity Centers
- Great Gray Owl Reproductive Sites
- Northern Goshawk Reproductive Sites

- **Category C: Protect from Surface Disturbance:**
  No fire lines, roads, fire camps, heavy equipment. These include:
  - Vernal Pool Fairy Shrimp

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. Anadromous fish bearing streams, on USFS lands include: Elkhorn Creek, Sugarpine Creek, Coalmine Creek, Bitter Lick Creek, and Brush Creek. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.63.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Trail Creek FMU.

- Mathew's Guard Station located in T. 32S R. 2E Section 17 is on the National Register of Historic Places. In addition to potential impacts from fire fighting operations or ground disturbing activities, this wooden structure is at risk from the fire itself.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with homesteads are known to be present in this FMU. In addition to

potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

Timber / Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

- **Special Areas:**
  - **Upper Table rock Outstanding Natural Area, 840 acres (partly in dispatch block 13)**

    Values: Geologic, cultural, recreation, federally listed species (fairy shrimp) and Bureau special status species including dwarf meadow foam (*Limnanthes floccosa var. pumila*).

Objectives: Maintain natural systems, processes and the recreational values; Protect and prevent irreparable damage to the vernal pool systems, federally listed fairy shrimp, and cultural resources. Conserve the Bureau special status species.

Suppression constraints: No heavy equipment or vehicles off road within the ACEC. No hand lines on top of the ACEC. No retardant or foam on top of the ACEC within the vernal pool systems. No restrictions on back-burns or burn-outs.

- **Botanical Resources – 524 acres**
  Values: There are known sites containing the federally listed plant Gentner's fritillary. There are 6 Bureau sensitive plant species.

  Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

  Suppression constraints: Dispatch botanical resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles through known federally listed or sensitive plant sites; No dozers. No ground disturbance or hand lines within federally listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant except within vernal pool and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

- There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

- **Values at Risk:**
  - Whale Back Snow Survey Cabin
  - Al Sanena Mine
  - Pacific Power transmission line, passive reflector near White Point Lookout
  - Halls Point and White Point Lookouts are located on the border with the Upper Rogue FMU.

3.2.64. Upper Applegate FMU Snap Shot

FMU Number: 020

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: **Squaw Peak RAWS**

Acres/Agency/Land Use Allocation:

Upper Applegate FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	79,616	55,653	49,476	**184,745**
BLM	5,297	224	115,697	**121,218**
PV	11,837	8,121	78,370	**98,328**
Other	759		511	**1,270**
Totals	**97,509**	**63,998**	**244,054**	**405,561**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

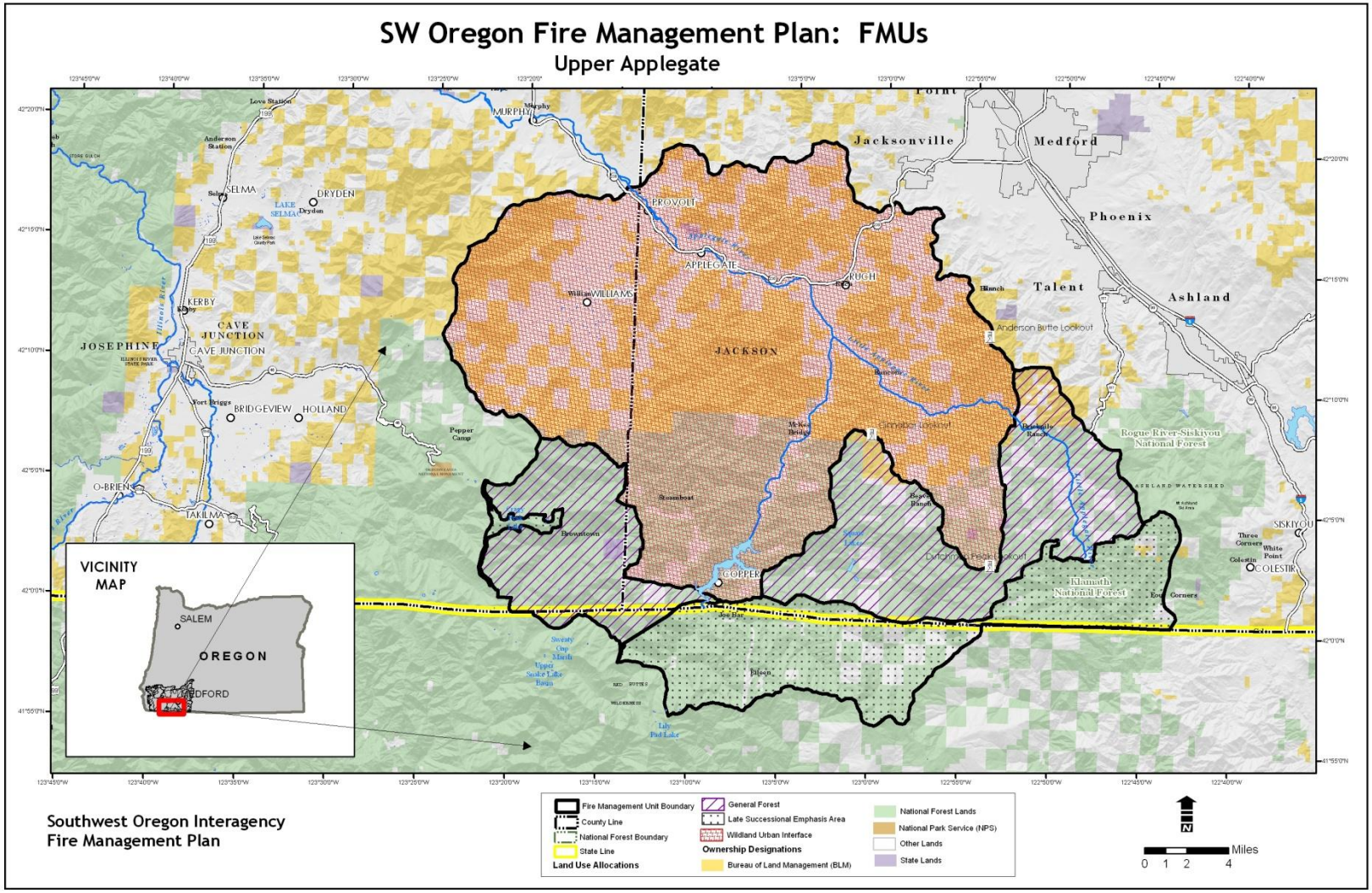
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Williams, Applegate, Ruch

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Upper Applegate
Jacksonville
Medford
Phoenix
Talent
Ashland
PROVOLT
APPLEGATE
RUGH
WILLIAMS
JACKSON
JOSEPHINE
CAVE JUNCTION
KERBY
SELMA
DRYDEN
BRIDGEVIEW
HOLLAND
O-BRIEN
TAKILMA
COPPER
SISKIYOU
COLESTIN
Anderson Butte Lookout
Rogue River-Siskiyou National Forest
Klamath National Forest
VICINITY MAP
SALEM
OREGON
MEDFORD
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
State Line
Land Use Allocations
General Forest
Late Successional Emphasis Area
Wildland Urban Interface
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.65. FMU Guidance - See Section 3.1

3.2.66. FMU Characteristics

3.2.66.1. Safety

Roaded access is limited in some areas

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.66.2. Physical

87% of the land base within the FMU is within the WUI. Private and BLM lands are intermixed throughout this designation and LSE within the WUI accounts for 18% of the WUI area. LSE FS accounts for 9% of the total lands administered by BLM / ODF SW. Designated communities at risk include Williams, Applegate, and Ruch. BLM administered Special Areas located throughout the area with special protection measures (see below).

The area with Rogue River–Siskiyou administrative jurisdiction in the Upper Applegate FMU is generally the southern portion of the National Forest. It is adjacent, and dips into California and includes the popular recreation areas of Applegate and Squaw Lakes.

3.2.66.3. Biological

Wildlife:

- **Category A: Complete Protection:**
  A peregrine site (Apple Site), locality known for Bald Eagle, and several sites known for Townsend's big-eared bat are located within the FMU. Locations are available in GIS and fauna observations. See GIS layers and fauna observations for locations.

- **Category B: Overstory Protection:**
  Spotted owl sites and fisher locations are known to exist within the FMU. See GIS layers and fauna observations for locations. **See guidelines common to all FS FMUs for recommendations.**

- **Category C: Protect from Surface Disturbance:**

High priority sites for Siskiyou Mountains salamander exist within the FMU. See Conservation plan, GIS layers, and fauna observations.

- **Category A: Complete Protection:**
  Overstory and understory need protection, no disturbance. Keep crews out of caves and mines.
  These include:
  - Bat Caves and Mines

- **Category B: Overstory Protection:**
  Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy.
  These include:
  - Golden Eagle Nest Sites
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers
  - Great Gray Owl Reproductive Sites

- **Category C: Protect from Surface Disturbance:**
  No fire lines, roads, fire camps, heavy equipment.
  These include:
  - Siskiyou Mountain Salamander Sites

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. Anadromous fish bearing streams, on USFS lands include: Applegate River, Thompson Creek, Palmer Creek, Nine Dollar Gulch, Dark Canyon, Beaver Creek, Hanley Gulch, Petes Camp Creek, and Mule Creek. This FMU also contains Applegate Lake, a popular recreation destination and sport fishery. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.66.4. Resources

Hydrology:

- Snotel sites exist at Bigelow Camp at Red Mountain.

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include: the Tack Room at Star Ranger Station; the Bigfoot Trap on Collings Mt. Trail; China Walls Mining Site; the Gin Lin Trail; Dutchman Peak Lookout; Squaw Peak Lookout; Kendall Cabin; Grayback Snow Shelter; Perks Pasture

Guard Station; Harlow Cabin; Star Ranger Station Barn; and Wrangle Snow Shelter.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Upper Applegate FMU.

- The Sterling Mining Ditch was nominated to the National Register of Historic Places. This site type is at greatest risk from fire fighting operations or ground disturbing activities. Do NOT breach this ditch.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, Chinese mining sites, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with homesteads as well as fire lookouts are known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from fire.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Values at Risk:

- Known values at risk include Dutchman and Squaw Peak Lookouts as well as recreational improvements near Applegate and Squaw Lakes.

Timber / Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where scorching and bole damage are potential.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs.

- **Special Areas:**
  - **Greyback Glades Research Natural Area, 1,069 acres**

    Values: Natural systems (white fir-Port Orford Cedar, Shasta Red-fir), springs and alder glades.

    Objectives: Maintain natural system and processes.

    Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, back burns/burnouts or fire retardant. Follow POC protocols for fire suppression.

  - **Pipe Fork Research Natural Area, 529 acres**

    Values: Late successional natural systems (white fir-Port Orford Cedar, Shasta Red-fir).

    Objectives: Maintain natural system and processes

    Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the RNA. No restrictions on hand lines, back burns or burn-outs, or chemical/fertilizer based fire retardant. Follow POC protocols for fire suppression.

  - **Sterling Mine Ditch Area of Critical Environmental Concern, 141 acres (linear feature)**

    Values: Cultural resources and recreation trail.

    Objectives: Protect historic resource and recreation site

Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads onto trail. No ground disturbance (no hand lines) within linear boundaries. No restrictions on back burns or retardant or foam.

- **Hidden Creek Environmental Area, 20 acres**

  Values: Environmental education

  Objectives: Protect natural features of the site and trail.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the environmental education area. Limit hand lines through the site. Limit burnouts or back burns to ground fires. No restrictions on retardant.

- **Long Gulch / Mount Wellington – Area nominated for ACEC, BLM wild lands nomination, Approximately 5,000 acres**

  Values: Natural systems, historic sites, federally listed and special status plants, spotted owl habitat, south slope old growth forest

  Objectives: Maintain natural system and protect old growth stands from stand replacing fire. Maintain riparian systems.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off road; no dozer lines in the area. No restrictions on hand lines or fire retardant. Limit back burns/burnouts to ground fires.

- **Listening Tree Environmental Area, 15 acres**

  Values: Environmental Education

  Objectives: Protect natural features of the site and trail.

  Suppression constraints: Dispatch resource specialist. No heavy equipment or vehicles off existing roads; no dozer lines in the environmental education area. Limit hand lines through the site. No restrictions on back burns/burnouts (ground) or retardant.

- **Botanical Resources – 127 acres**

  Values: There are known sites for the federally listed plant (Gentner's fritillary) within the FMU. There are 4 Bureau sensitive

plant species. Most of the Bureau sensitive plant sites, with the exception of wayside aster (*Eucephalus vialis*) are small and scattered.

Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

Suppression constraints: Dispatch botanical resource specialist immediately, because of federally listed plant issues. No heavy equipment or vehicles or hand lines through known federally listed plant sites. No heavy equipment or vehicles through Bureau sensitive plant sites. Limit hand lines or other ground disturbance through sensitive plant sites. No restrictions on retardant, except within serpentine fens and wetland plant sites. Water drops are preferred in these sites. No restrictions on low to moderate severity back burns/burnouts (ground fire) through federally listed or sensitive plant populations.

- No restrictions for Bureau Assessment plant species or Bureau Tracking species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

3.2.67. Upper Rogue FMU Snap Shot

FMU Number: 021

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: High

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**

NFDRS Weather Stations:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Nearest Weather Station: Mount Stella RAWS

Acres/Agency/Land Use Allocation:

Upper Rogue FMU	General Forest	LSE Special	Wildland Urban Interface	Grand Total
USFS	137,537	109,148	17,667	**264,352**
BLM	18,015		29,736	**47,751**
PV	59,557	2,031	78,166	**139,754**
Other	2,358	4	3,346	**5,709**
Totals	**217,468**	**111,182**	**128,916**	**457,566**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

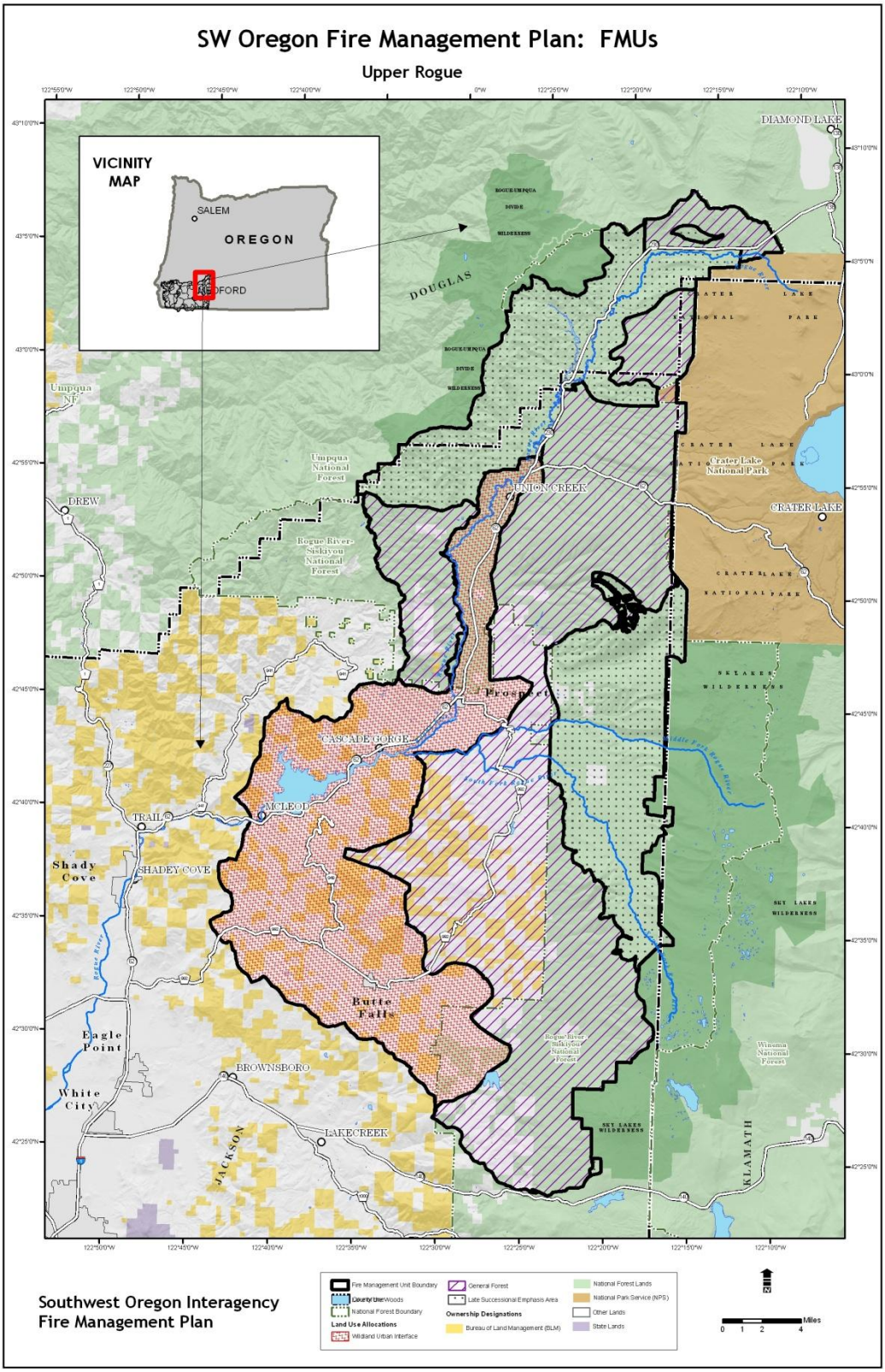
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: Butte Falls, Prospect, Union Creek, McLeod

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
Upper Rogue
VICINITY MAP
SALEM
OREGON
MEDFORD
DIAMOND LAKE
DOUGLAS
Umpqua NF
Umpqua National Forest
DREW
Rogue River-Siskiyou National Forest
UNION CREEK
Crater Lake National Park
CRATER LAKE
Prospect
CASCADE GORGE
MCLEOD
TRAIL
SHADEY COVE
Shady Cove
Butte Falls
Eagle Point
White City
BROWNSBORO
LAKECREEK
JACKSON
KLAMATH
Winema National Forest
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wildland Urban Interface
General Forest
Late Successional Emphasis Area
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.68. FMU Guidance - See Section 3.1

3.2.69. FMU Characteristics

3.2.69.1. Safety

Roaded access is limited in some areas

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.69.2. Physical

62% of the land base within the jurisdiction of Medford and ODF SW Districts is within the WUI. Private and BLM lands are intermixed throughout this designation and GF accounts for most of the remaining acres (37%). Designated communities at risk include Butte Falls, Prospect, Union Creek, and McLeod. BLM administered Special Areas are located throughout the area. See below for special protection needs.

- The area within the Rogue River–Siskiyou NF administrative jurisdiction in the Upper Rogue FMU is west and southwest of Crater Lake National Park. It encompasses most of the western portion of the Rogue River-Siskiyou National Forest and includes the Big Butte Springs Watershed. It is typical of Westside Cascade Range vegetation.

3.2.69.3. Biological

Wildlife:

Category A: Complete Protection

- Peregrine sites, localities known for Bald eagle and osprey, sites for goshawk, and a known site for Townsend's big-eared bat are located within the FMU. Locations are available in GIS and fauna observations. See GIS layers and fauna observations for locations.

- Overstory and understory need protection, no disturbance. Keep crews out of caves and mines. These include:
  - Bat Caves and Mines

Category B: Overstory Protection

- Spotted owl sites and Great gray owl sites are known to exist within the FMU. Fisher is also found with in the FMU. See GIS layers and fauna observations for locations. **See guidelines common to all FS FMUs for recommendations.**

- Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy. These include:
  - Bald Eagle Nest Sites
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers
  - Great Gray Owl Reproductive Sites
  - Northern Goshawk Reproductive Sites

<u>Category C: Protect from Surface Disturbance:</u>

- Sites for *Monadenia caceana* and sites for *Vespericola sierrianus* exist within the FMU. See Conservation plan, GIS layers, and fauna observations.

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. The FMU also contains many high value recreational fisheries including the headwaters of Big Butte Creek and the Rogue River. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.69.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features. Historic features include Hershberger Mountain Lookout, Long Prairie Camp, Mount Stella Lookout, Whaleback Snow Survey Cabin, Bessie Trail Shelter, and Imnaha Guard Station (FS recreation rental).

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the Upper Rogue FMU.

- A portion of the Jacksonville-Klamath military road, a National Register site, is located within this FMU. This site is at greatest risk from fire fighting operations or ground disturbing activities.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, archeological pit houses, historic trails, mining sites, railroad grades. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with homesteads as well as fire lookouts, railroad tressels are known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself.

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Hydrology:

- Avoid bulldozers in Soda Springs and Bobs Bog.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

Research Natural Area:

- Contains the Abbot Creek Research Natural Area.

Special Areas:

- **<u>Poverty Flat Area of Critical Environmental Concern, 29 acres</u>**

  Values: Natural Systems, Botanical resources including vernal pools/springs containing Bellinger's meadowfoam (Limnanthes floccosa ssp. Bellingeriana)

  Objectives: Maintain natural systems and protect the diversity of the vernal pool system

  Suppression constraints: Dispatch Resource Specialist. No heavy equipment off road in the ACEC. Limit ground disturbance from hand

lines in the ACEC, especially in areas containing vernal pools and sensitive plants. No restrictions on use of back burns/burnouts, foam or retardant.

- **Baker's Cypress Area of Critical Environmental Concern, 15 acres (within the northern parcel of the Flounce Rock Environmental Area)**

  Values: Botanical – Rare Baker's cypress stand (*Cupressus bakeri*)

  Objectives: Protect and maintain the Baker's cypress stand

  Suppression constraints: Dispatch resource specialist. No vehicles or heavy equipment in the ACEC. No falling of Baker's cypress trees. Limit ground disturbance from hand lines in the ACEC. No back burns or burnout as Baker's cypress is fire intolerant. No restrictions on fertilized based retardant or foam. Under-story thinning of the stand to reduce the risk of high severity wildfire is desirable.

- **Flounce Rock Environmental Education Area, 532 acres (2 parcels)**

  Values: Historic, cultural, scenic, educational values, and communication site

  Objectives: Protect historic and communication site

  Suppression constraints: Dispatch resource specialist. Restrict off road vehicles or heavy equipment on the historic military road in section 17. No restrictions on hand crews, back burns, or fire retardant. Protect adjacent Baker's cypress ACEC.

- **Botanical Resources – 54 acres**

  Values: There are known sites for the federally listed Gentner's fritillary. The populations are small and scattered. There are 4 Bureau Sensitive plant species located within the FMUn

  Objectives: Protect federally listed plant sites from disturbance caused by fire suppression activities, and conserve Bureau sensitive plant sites. Low to moderate severity fire can benefit many of the special status plant species however ground disturbance (dozers, hand lines) within occupied habitat from suppression activities can be detrimental.

Suppression constraints: Dispatch botanical resource specialist immediately because of federally listed plant issues. No heavy equipment or vehicles through known listed or sensitive plant sites; No dozers in these sites. No ground disturbance in listed plant sites. Limit hand line construction through known special status plant sites; avoid if possible. No restrictions on retardant or foam except within vernal pool and wetland plant sites; water drops are preferred in these sites. No restrictions on low – moderate severity back burns/burn-outs (ground fire) through the populations.

- There are no suppression constraints for wildfire operations for Bureau Assessment plant species or Bureau Tracking plant species sites.

- For site locations and buffer information see: GIS data layer Resource_Advisor.apr

Timber / Silviculture:

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where potential for scorch and bole damage.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs

- **Values at Risk:**
  - Halls Point and White Point Lookouts (both located on the border between the Upper Rogue and Trail Creek FMUs), Big Butte Springs Municipal Watershed, Mt. Stella RAWS station, Rustler Lookout, Lodge Pole Guard Station (FS recreation rental), Union Creek Sno Park Pole Barn, Union Creek Resort and developments, and Baptist Camp

3.2.70. West Fork Cow Creek FMU Snap Shot

FMU Number: 022

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Interior - BI Pocket Card**
- **RSF Interior - ERC Pocket Card**
- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Interior Special Interest Group (SIG)

1. Bald Knob RAWS
2. Long Prairie RAWS
3. Agness 2 RAWS

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Nearest Weather Station: Bald Knob RAWS

Acres/Agency/Land Use Allocation:

West Fork Cow Creek FMU	General Forest	LSE Special	Grand Total
USFS		2,032	**2,032**
BLM	5,309	11,525	**16,835**
PV	4,342	10,471	**14,813**
Other		617	**617**
Totals	**9,652**	**24,645**	**34,296**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF, Medford BLM, ODF SW District

IA Dispatch Office:

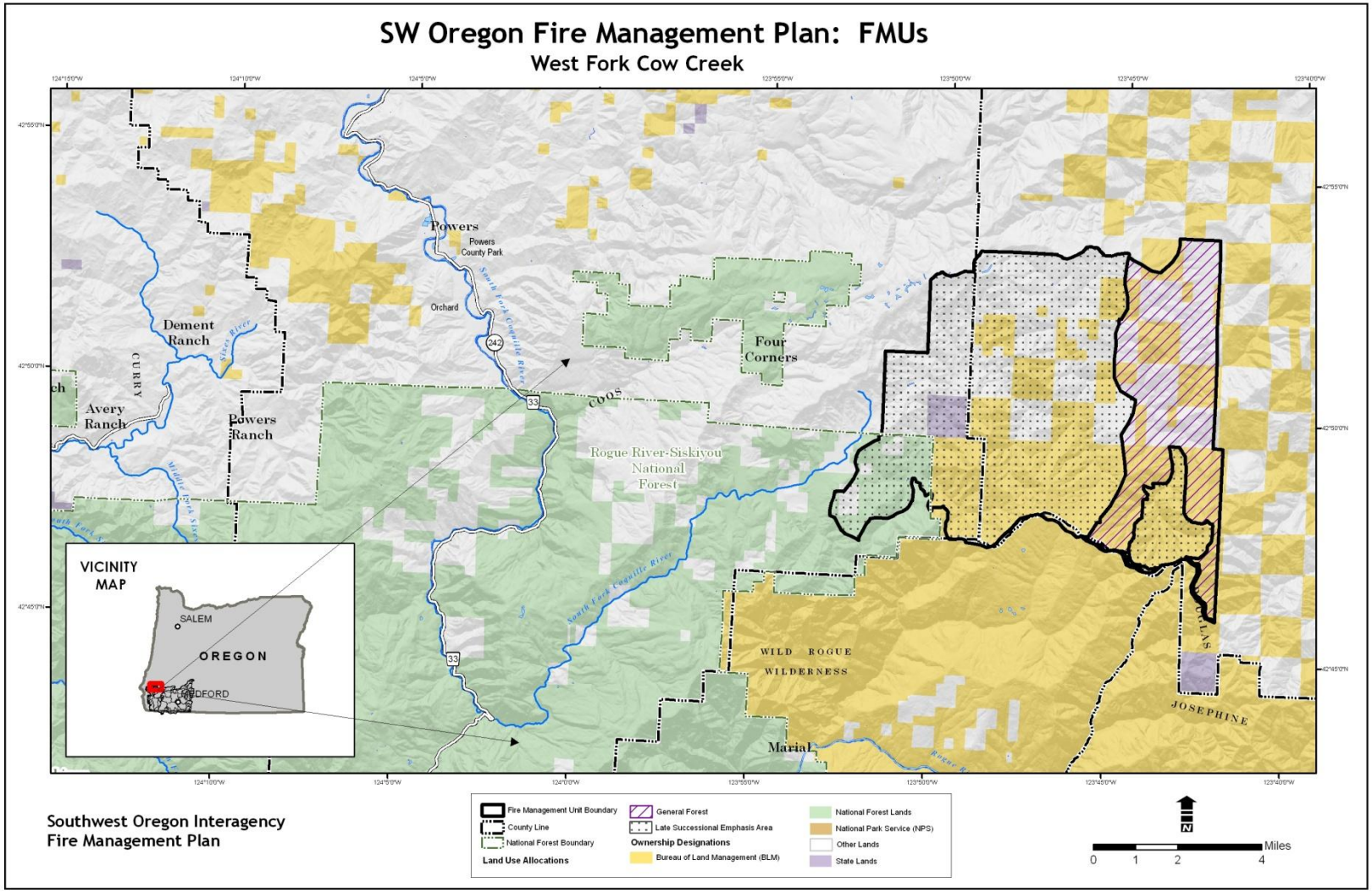
- Medford Interagency Communications Center (MICC)
- Medford ODF – ODF responsible for fire suppression on Medford BLM lands
- Medford ODF

Communities adjacent or within FMU: None

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit
- Full suppression


SW Oregon Fire Management Plan: FMUs
West Fork Cow Creek
Powers
Powers County Park
Orchard
Dement Ranch
Avery Ranch
Powers Ranch
Four Corners
Rogue River-Siskiyou National Forest
WILD ROGUE WILDERNESS
Marial
CURRY
COOS
JOSEPHINE
VICINITY MAP
SALEM
OREGON
MEDFORD
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
General Forest
Late Successional Emphasis Area
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 1 2 4

3.2.71. FMU Guidance - See Section 3.1

3.2.72. FMU Characteristics

3.2.72.1. Safety

Roaded access is limited in some areas

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.72.2. Physical

63% of the land base within this FMU is within LSE. Private and BLM lands are intermixed throughout this designation and GF accounts for most of the remaining acres (31%). The FS administers 5 % of the acres in the FMU. There are no designated communities at risk in this FMU. BLM administered Special Areas located in southeast portion of polygon (see below).

3.2.72.3. Biological

Wildlife:

Category A: Complete Protection:

- Overstory and understory need protection, no disturbance. Keep crews out of caves and mines.
  These include:
  - Bat Caves and Mines

Category B: Overstory Protection:

- Spotted owl sites are located within the FMU. See GIS and fauna observations for location. See guidelines common to all FS FMUs for recommendations.

- Light underburn is acceptable. Need to protect large trees, snags, logs, and canopy. These include:
  - Northern Spotted Owl Nest Sites
  - Known Spotted Owl Activity Centers

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. The South Fork of the Coquille and the West Fork of Cow Creek are designated key watersheds.

3.2.72.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

- Cultural resource sites (both archeological sites and historic sites) have been recorded on BLM lands within the West Fork Cow Creek FMU.

- Other types of cultural resource sites known to exist in this FMU include archeological lithic sites, historic trails, mining tailings, and mining ditches. These site types are at greatest risk from fire fighting operations or ground disturbing activities.

- Historic cabins or other wooden buildings associated with mining sites, homesteads, etc. are also known to be present in this FMU. In addition to potential impacts from fire fighting operations or ground disturbing activities, these wooden structures are at risk from the fire itself

- ***Suppression Constraints:*** Collecting artifacts from public lands is illegal. That means do NOT collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location of these items on a map (GPS if possible) and report information to a resource advisor or to the BLM District Archeologist. If prehistoric artifacts (such as arrowheads, grinding stones etc.) are found during fireline construction and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do collect** the item; note the location on a map (GPS if possible) and turn the item in to a resource advisor or BLM District Archeologist. Please leave contact information with collected items should there be any questions about the location.

- Regardless of whether or not they currently flow water, do NOT breach mining or other ditches.

Timber / Silviculture:

- **Port Orford Cedar Root Disease:**
  - When practicable, management strategies to prevent/reduce Phytopthora Lateralis (PL) would include treating firefighting water with Clorox Regular Bleach *(see directions for use below)* to kill waterborne PL spores. This treatment is for use in water tanks, and water drafted for aerial spread. This treatment should also be used for washing vehicles, tools and clothing ensuring that direct run-off from this process will not enter streams.

  - While management objectives for POC are a concern, safety of firefighters and the public, and protection of property is always a higher priority. Existing or "in-place" disease controlling management practices such as road closures may be compromised. Road closures and other compromised disease controlling measures would be reinstalled following suppression and emergency rehabilitation unless changed circumstances indicate otherwise.

  - **Go here for more specific POC Management direction.**

  - **Mixing Clorox Regular Bleach and Retardant (PHOS-CHEK 259-F and R, G75F, D75F and R, LV-R and LC95A):**
    The Forest has a requirement to treat water taken from sources infested with Phytophthora lateralis spores to prevent spread of the Disease. It was recently discovered that it's not about mixing the chemicals together but rather how and when they are mixed together. The hazard occurs if the retardant and bleach gets mixed together simultaneously or undiluted bleach gets added directly into retardant. The result of improper mixing techniques can result in not only a toxic but a possibly explosive reaction. Proper mixing of the two chemicals requires a gallon of Clorox Regular Bleach be added to a minimum of 1000 gallons of water and circulated for a minimum of 10 minutes prior to being added to the retardant. MTDC is scheduled to create a Technical Bulletin or Safety Alert addressing this hazard and corrective measures.

- **Values:** Stands where trees average 20 inches or greater in diameter and crown closure reaches 60 percent or greater. Stands receiving above average silvicultural investments for the purposes of research, genetics and seed production.

- **Objectives:** Suppress all crown and canopy fires. Limit or suppress all fires where the potential scorch and bole damage.

- **Suppression constraints:** No restrictions on retardant. Limit bole damage by mechanized suppression efforts. No restrictions on low – moderate severity back burns/burn-outs

3.2.73. Wild Rogue Wilderness FMU Snap Shot

FMU Number: 050

Radio Frequency:

- Refer to **Rogue River-Siskiyou NF Frequency List and Coverage Maps**

General Risk Category: Moderate

Fire Behavior Indicator: Burning Index (BI). Pocket Cards available at:

- **RSF Westside - BI Pocket Card**
- **RSF Westside - ERC Pocket Card**

NFDRS Weather Station:

Westside Special Interest Group (SIG)

1. Provolt RAWS
2. Squaw Peak RAWS
3. Buckhorn Ridge

Nearest Weather Station: **Agness 2 RAWS**

Acres/Agency/Land Use Allocation:

Wild Rogue Wilderness FMU	Wilderness	Grand Total
USFS	26,874	**26,874**
BLM	8,671	**8,671**
Totals	**35,982**	**35,982**

Predominant Vegetation Types: Timber

Unit: Rogue River-Siskiyou NF

IA Dispatch Office:

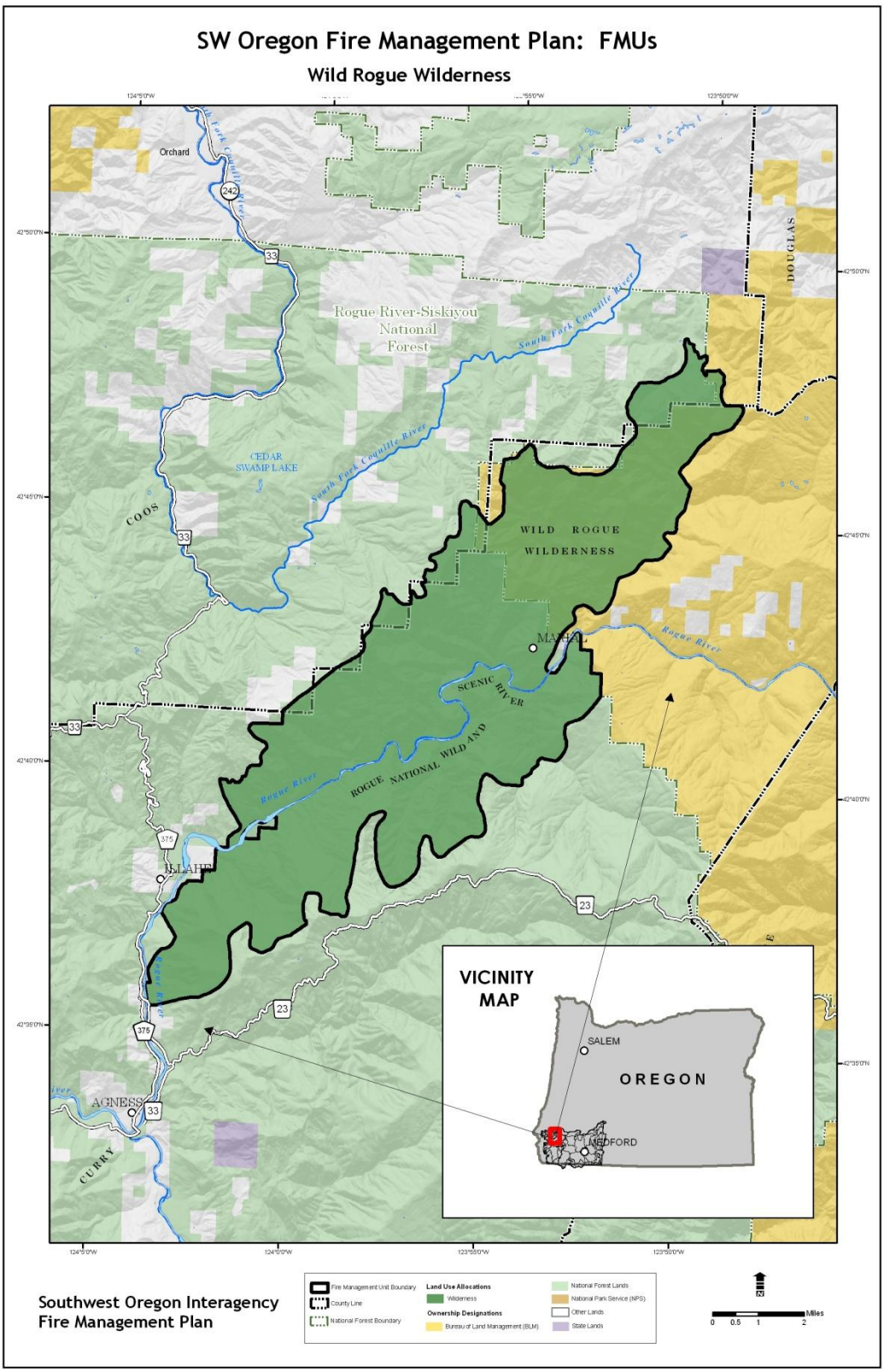
- Medford Interagency Communications Center (MICC)

Communities adjacent or within FMU: Agness, Illahe, Marial

Special safety considerations: No special or extraordinary safety considerations exist

LMP Options available for response to ignition:

- Full range of management responses (from suppression to monitoring), including use of wildland fire for resource benefit


SW Oregon Fire Management Plan: FMUs
Wild Rogue Wilderness
Orchard
Rogue River-Siskiyou National Forest
South Fork Coquille River
CEDAR SWAMP LAKE
COOS
DOUGLAS
WILD ROGUE WILDERNESS
MARIAL
Rogue River
SCENIC RIVER
ROGUE NATIONAL WILD AND
ILLAHE
AGNESS
CURRY
VICINITY MAP
SALEM
OREGON
MEDFORD
Southwest Oregon Interagency Fire Management Plan
Fire Management Unit Boundary
County Line
National Forest Boundary
Land Use Allocations
Wilderness
Ownership Designations
Bureau of Land Management (BLM)
National Forest Lands
National Park Service (NPS)
Other Lands
State Lands
Miles
0 0.5 1 2

3.2.74. FMU Guidance - See Section 3.1

3.2.75. FMU Characteristics

3.2.75.1. Safety

Roaded access is limited due to wilderness designation

Remote area conditions exist

Poor and hazardous road conditions exist

Steep slopes exist in some areas

Cell phone and radio reception may be unreliable

Poison Oak (*Toxicodendron diversilobum*) exists throughout the entire FMU

3.2.75.2. Physical

Rugged heavily timbered canyons with heavy fuel accumulation. Fine flashy fuels such as grass are commonly found adjacent to high use areas and extend to the brush and timber on the middle and upper slopes. The Rogue Wild and Scenic River is heavily used as a white water and fishing river. Located within this river are privately owned lodges and summer homes.

3.2.75.3. Biological

Wildlife:

- Spotted owl sites, bald eagle sites, osprey records occur within the FMU. See GIS layers and fauna observations for locations. **See guidelines common to all FS FMUs for recommendations.**

Fisheries:

- Anadromous fish habitat, including federally listed coho salmon and coho salmon critical habitat, is present within this FMU. Anadromous fish bearing streams, on USFS lands is limited to the mainstem of the Rogue River. To minimize impacts to high value fish resources, a Fisheries Biologist should be consulted regarding suppression strategy and tactics.

3.2.75.4. Resources

Cultural Resources:

- The impacts to all cultural resources will be mitigated, as set forth in the National Historic Preservation Act of 1966. Dispatch resource specialist to direct handline and dozer line around historic sites/features.

Recreation:

- Coordinate river closures for public safety with the Bureau of Land Management.

Timber / Silviculture:

- **Port Orford Cedar Root Disease:**
  When practicable, management strategies to prevent/reduce Phytopthora Lateralis (PL) would include treating firefighting water with Clorox Regular Bleach *(see directions for use below)* to kill waterborne PL spores. This treatment is for use in water tanks, and water drafted for aerial spread. This treatment should also be used for washing vehicles, tools and clothing ensuring that direct run-off from this process will not enter streams.

  While management objectives for POC are a concern, safety of firefighters and the public, and protection of property is always a higher priority. Existing or "in-place" disease controlling management practices such as road closures may be compromised. Road closures and other compromised disease controlling measures would be reinstalled following suppression and emergency rehabilitation unless changed circumstances indicate otherwise.

  Go here for more specific POC Management direction.

  Mixing Clorox Regular Bleach and Retardant (PHOS-CHEK 259-F and R, G75F, D75F and R, LV-R and LC95A):
  The Forest has a requirement to treat water taken from sources infested with Phytophthora lateralis spores to prevent spread of the Disease. It was recently discovered that it's not about mixing the chemicals together but rather how and when they are mixed together. The hazard occurs if the retardant and bleach gets mixed together simultaneously or undiluted bleach gets added directly into retardant. The result of improper mixing techniques can result in not only a toxic but a possibly explosive reaction. Proper mixing of the two chemicals requires a gallon of Clorox Regular Bleach be added to a minimum of 1000 gallons of water and circulated for a minimum of 10 minutes prior to being added to the retardant. MTDC is scheduled to create a Technical Bulletin or Safety Alert addressing this hazard and corrective measures.

- **Values at Risk:**
  - Marial Lodge, a private facility located on Forest Service Lands under a special use permit.

- Large volume of river based public recreation use and outfitter guides under special-use permit and hikers of the National Recreation Rogue River Trail. Structures include private lodges and summer homes, FS administrative cabins and adjacent BLM campground (Tucker Flat) and the historic Rogue River Ranch. The Rogue River Trail contains numerous wooden footbridges and pit toilets.

- **Wilderness Resource:**
  - Coordinate with Bureau of Land Management. If available dispatch Wilderness Resource Specialist. MIST will be employed whenever possible. Follow the most current Forest Supervisor Policy Letter for authorization requirements on the use of motorized equipment and mechanized transport, aerially delivered firefighters and recommendations for preferred equipment and methods for restoration/rehabilitation of suppression impacts. Use of dozers requires Regional Forester approval. Use of retardant and the construction of helispots require Forest Supervisor approval. Strategies should provide for public safety and least amount of operational impairment. Public closure of the river corridor should be avoided in all but extreme cases. Rehabilitation plans should be developed during the suppression action and implemented as soon as safety allows. Rehabilitation should prevent future resource damage, such as erosion and help restore the area by mitigating the visual effects of suppression activities.

3.3. Appendix

3.3.1. Appendix A: Operational Procedures For Response to Wildland Within The Southwest Oregon Fire Planning Unit

ESCAPE FIRES AND THE WILDLAND FIRE DECISION SUPPORT SYSTEM

The Fire Staff, Resource Advisors, Initial Attack IC's and Federal Agency Administrators will prepare a Wildland Fire Decision Support System (WFDSS) document in the event of a wildfire escaped wildfire on federal land.

A. The format to be used for the WFDSS process is available **here**:

B. The Agency Administrator is required to review the WFDSS following a pre-determined schedule to verify that the document is still valid. If the WFDSS is not valid, a revision of the existing document is to be completed. All completed WFDSS documents become part of the final incident package.

C. The US Forest Service is required to prepare a WFDSS for all fires, regardless of size or cause.

The WFDSS system assists fire managers and analysts in making strategic and tactical decisions for fire incidents. It has replaced the WFSA (Wildland Fire Situation Analysis), Wildland Fire Implementation Plan (WFIP), and Long-Term Implementation Plan (LTIP) processes with a single process that is easier to use, more intuitive, linear, scalable, and progressively responsive to changing fire complexity.
WFDSS integrates the various applications used to manage incidents into a single system, which streamlines the analysis and reporting processes.
WFDSS provides the following advantages over previous systems:

- Combines desktop applications for fire modeling into a web-based system for easier data acquisition.
- Provides an easy way for fire managers and analysts to accurately document their decision-making process by allowing results of analyses to be attached to the decision point and included in the final incident report.
- Provides one decision process and documentation system for all types of wildland fires.
- Is a web-based application for easier sharing of analyses and reports across all levels of the federal wildland fire organization.
- Introduces economic principles into the fire decision process.

3.3.2. Appendix B: NFDRS Break Points

NFDRS Breakpoints

Preparedness and Planning Levels

NFDRS Breakpoints for Planned Staffing
Examples of fire season planning models

Local indications of weather and fuel conditions that could determine fire season readiness and severity of conditions may be developed and used by the FPU over time. These indicators may be used to aid in the decision process to determine the need for severity requests, additional local staffing, closures etc.

Below is an example of such a analysis based on an average ten year period from five weather stations in the Rogue Valley (SW OR 9 SIG), which breaks ERC into percentile groups and then gives the associated 1000hr fuel moistures and BIs' for those percentile groups. This analysis is based on annual staffing dates of 4/15-10/31.

ERC		BP	line	ERC	days	1000hrs	Range BI	Avg BI	Planning Level
.1 to 25%	0-25%tile		529	>32	528	19+	0-40	24	I
25.1 to 50	25%tile	544.75	530	32	550	17,18,	28-60	38	I
50.1 to 75	50th%tle	1089.5	1080	47	507	14,15,16	31-61	45	II
75.1to 80	75th%tile	1634.25	1587	58	136	12,13	46-63	50.3	III
80.1to 85	80th%tile	1743.2	1723	61	96	10,11	41-66	50.6	III
85.1to 90	85th%tile	1852.15	1819	63	118	10,11	45-67	53.5	IV
90.1to 95	90th%tile	1961.1	1937	66	128	9,10	48-70	54.8	IV
95.1to 97	95th%tile	2070.05	2065	70	50	9	49-78	57.8	V
97.1to100	97th%tile	2113.63	2115	72	64	>9	50-79	57	V

<u>Local Preparedness Levels</u>:

Preparedness Level I - Little or no fire activity, pre-season preparedness duties being accomplished, little to no IA, little threat of large fire activity.

Preparedness Level II - Low to moderate fire activity, interagency involvement occurring, potential for Class B or C fire exists, wind event could cause large fire activity.

Preparedness Level III - increased potential for escaped fires Class C or larger.

Preparedness Level IV – potential for multiple A, B, C, and/or large fires, extended attack occurring when ignitions occur, IA resources committed, predicted LAL 3 or Red Flag conditions exist.

Preparedness Level V - Multiple large fires, all IA resources committed, significant LAL and Red Flag conditions.

3.3.3. Appendix C: Fire Regime and Condition Class Analysis

Fire Regime Condition Class

A fire regime refers to an integration of disturbance attributes including type, frequency, duration, extent (Pickett and White 1985) and severity of fire. Natural disturbances in southwest Oregon include fire, insects, pathogens, wind throw, weather, avalanche, and earthquake. Introduced disturbances include livestock grazing, mining, timber harvesting, roads, insects, and pathogens. Natural fire regimes have been altered by management activities including fire exclusion, livestock grazing, and timber harvesting to mention a few. Historic climate variability and potential global climate change have and may further impact fire regimes.

Ecosystem and landscape composition and structure results from, and in turn, influence fire regimes at different spatial and temporal scales. Disturbances and successional trajectories interact, creating patterns of vegetation across landscapes (Bormann and Likens 1979, Pickett and White 1985, Lehmkuhl and others 1994). Landscape vegetation patterns can amplify (Turner and Bratton 1987, Franklin and Forman 1987) or impede (Knight 1987, Rykiel and others 1988) the spread of disturbances across landscapes.

Five fire regime classes have been identified, to aid fire management analysis efforts, as discussed in “Mapping Historic Fire Regimes for the Western United States: Integrating Remote Sensing and Biophysical Data” (Hardy et al 1998). They reflect fire return intervals and severity.

The five fire regimes developed by Hardy, et al were modified and further stratified by a group of fire managers and ecologists on October 10, 2000, to reflect the Pacific Northwest (Oregon & Washington) conditions. For southwestern Oregon, spatial data layers were developed to display these fire regimes using the Draft Plant Series data that was developed in 1995 for the Southwest Oregon LSR Assessment and after that converted to Plant Association Groups (PAGs). The PAG data will be used to inform the Satellite imagery from LANDFIRE to separate SW Oregon into the 5 Fire Regime Groups.

Fire Regimes for this FPU: (Note: there may be variation among the species listed under each Fire Regime)

Fire Regime I; <35 years non-lethal, low-severity (mostly forested areas). (Ponderosa pine, Oregon white oak, pine-oak woodlands, Douglas-fir and dry site white fir plant associations)

Fire Regime II; <35 years stand replacing (grassland and shrublands). (Shrub-steppe community)

Fire Regime III; 35-100+ years, mixed severity. (Moist/high elevation white fir, tanoak, western hemlock series)

Fire Regime IIIa; < 50 years, mixed severity. (Dry site tanoak series)

Fire Regime IIIb**;** 50-100+ years, mixed severity. (Low elevation, wet site White fir, wet site tanoak, and low elevation western hemlock series)

Fire Regime IIIc; 100-200 years, mixed severity. (High elevation, white fir series)

Fire Regime IV; 35-100+ years stand replacing. (Shasta red fir and Port-Orford cedar associations)

Fire Regime IVa; 35-100+ years stand replacing.

Fire Regime V; 200+ years stand replacement (Western hemlock, silver fir and mountain hemlock series)

A close approximation as to the past frequency of fire occurrence, extent, and severity (Fire Regime) on particular sites is important in understanding the relative difference in vegetation and dead /down debris on these sites today. The change or departure on these sites in the amount of these materials has a direct relationship to the type of fire behavior and post fire effects these sites will support today, compared to the past. In an assessment of site-specific conditions, classifying the site's current condition compared to a reference will give some indication of the change to the type of fire severity or fire behavior characteristics. The ability to predict potential fire behavior characteristics is important for understanding the risk to people and key ecological resources.

The condition class scale was developed to exhibit this departure in severity, intensity, and frequency of fires burning in the ecosystem in its current condition as compared to their historic, or reference condition. The departure being described in these assessments results in changes to one or more of the following key ecological components: vegetation characteristics (species composition, structural stages, stand ages, canopy closure and mosaic pattern); fuel composition; fire frequency; severity and pattern; and other associated disturbances; the introduction of invasives, grazing and insect and disease mortality. Reference conditions are very useful as indicators of ecosystem function and sustainability, but do not necessarily represent desired future conditions, i.e., they may not reflect sustainable conditions under current climate, land use, or managerial constraints, and they may not be compatible with social expectations.

Condition Class is a relative description of the degree of departure from historical fire regimes and generally describes how ecosystems have reacted with fire intervals outside their historic range of variability.

Condition Class 1 = Fire frequencies are within or near the historical range, and have departed from historical frequencies by no more than one return interval; vegetation attributes are intact and functioning within the historic range**.** The risk of losing key ecosystem components is low.

Condition Class 2 **=** Fire frequencies and vegetation attributes have been moderately altered from the historical range, and fire frequencies have departed from historical frequencies by more than one return interval. The risk of losing key ecosystem components is moderate.

Condition Class 3 = Fire frequencies and vegetation attributes have been significantly altered from the historical range, and fire frequencies have departed from historical frequencies by multiple return intervals. The risk of losing key ecosystem components is high.

For the purpose of implementing RMP, LRMP and State Law direction, Fire Regimes and Condition Class (FRCC) can be a useful tool to characterize the risk to key features of ecosystems and people found throughout the planning unit.

Fire has been traditionally defined as a "disturbance event" in most ecological literature. However, fire managers and scientists now regard fire an important successional **process** for maintaining biodiversity in ecosystems, particularly in the fire driven Mediterranean ecosystems of southwest Oregon. The fire regime, the quantification of the fire processes over time, directly effects mortality, growth, decomposition and regeneration. It assures that new genetic combinations are constantly being tested through natural selection, as climate fluctuation stimulates environmental and biotic stresses. It may seem counterintuitive, but "disturbance" by fire assures the survival of the most resilient species and a diverse, healthy mosaic of age classes across the landscape.

Fire suppression has altered fire regimes across the western states. The most obvious direct affect is the accumulation of fuel that would have otherwise been burned. Indirectly, growth, regeneration, decomposition, and mortality rates also have been altered which in turn affects fire intensity and duration. Since regimes change with changing climate, it is difficult to separate the effects of suppression from climate change.

Biophysical Settings (BpS) represent the vegetation that may have been dominant on the landscape prior to Euro-American settlement and is based on both the current biophysical environment and an approximation of the historical disturbance regime. Map units are based on **NatureServe's Ecological Systems classification**, which is a nationally consistent set of mid-scale ecological units (Comer and others 2003). As used in LANDFIRE, map unit names represent the natural plant communities that may have been present during the reference period.

Structure class (sclass) categorizes current vegetation composition and structure into up to five successional states defined for each LANDFIRE Biophysical Settings (BpS) Model. An additional category defines uncharacteristic vegetation components that are not found within the compositional or structural variability of successional states defined for each BpS model, such as exotic species. Typical structural stages are:

- Early seral
- Mid seral – open canopy
- Mid seral – closed canopy
- Late seral – open canopy
- Late seral – closed canopy

A tabular database of Reference Conditions (refcon) is used to inform the model of the assumed historic amount of various successional stages in each BpS. Each BpS has a model describing the vegetation, geography, biophysical characteristics, succession stages, and disturbance regime. Descriptions also document the assumptions behind, the outstanding questions about, the contributors to, the resources used for, and the evolution of each model. The reference condition models were developed using the VDDT (Vegetation Dynamics Development Tool) software. VDDT is a public domain, aspatial, user-friendly modeling tool, available from ESSA Technologies. The VDDT data include quantitative information about the rates and pathways of succession and the frequency and effects of disturbances.

Model Outputs

The model output attempts to quantify the ecological departure in each biophysical setting and structural class by contrasting current conditions with the historical reference condition. The departure from historical fire regimes may serve as a useful ecological proxy of the potential for uncharacteristic fire effects. The map tool process does not use the historic Fire Regime map themes to advise the condition class output. It relies in departure of vegetation from the current to the modeled reference data base to arrive at condition class. Thus areas that have pronounced management activities that have taken the vegetation character in a different pathway than the reference model the condition class is more extreme without regard for the number of fire cycles that may have been missed.

Output map layers include:

LANDFIRE FRCC; which is at the sub geographic scale. This map aggregates all of the Bps' over large landscapes to produce a coarse scale picture of the condition class based mainly on vegetation departure.

Strata FRCC and **Strata departure**; depicts landscape scale combinations of Bps' at a scale closer to the analysis needed for 4th and possibly 5th field watersheds. The

aggregation still lumps large areas in tracts of land into an adjusted or median condition class based on vegetation departure from reference conditions.

Stand FRCC and **stand FRCC departure**; depicts the FRCC analysis at the finest scale practical for the application needs in the context of what is needed to be analyzed balanced against the specificity of the data layers available for the analysis (Landfire).

Sclass departure; where current vegetation differs in amount to the historic condition in terms of structural class (ie, early, mid closed and open, late open, closed, and uncharacteristic) captured in all the landscape units. While viewing the stand FRCC layer this departure determines the condition class more or less pixel by pixel at the 6th field watershed resolution. Scale is 0-100 breakpoints for condition class are 1=33, 2=66, etc.

Sclass percent difference; percent difference between current and reference conditions in structure class on a scale of -100 to +100 which will further display areas of difference in terms of vegetation departure. This scale is used to determine the relative difference in structure class as compared to the reference.

Sclass relative difference; the scaling of sclass percent difference in current vegetation compared to reference conditions such that negative values from -100 to -33 display the range of trace, and under-represented structure classes and positive values from +33 to +100 displays the range of over-represented and abundant, while values of -33 to +33 show areas that are similar to the reference condition.

The significance of these groups is to inform practitioners as to areas that may need treatments or monitoring to bring them closer to the ecosystem resilience of the reference condition (ie, abundance of mid closed stands compared to the reference may indicate that these stands need to be brought more to the mid open or late open development in order to replicate the systems that were functioning in a healthy manner prior to European settlement).

Prioritized FRCC; In response to requirements of the Federal Land Assistance, Management, and Enhancement (FLAME) Act of 2009, the Wildland Fire Leadership Council (WFLC) directed the development of the **National Cohesive Wildland Fire Management Strategy (Cohesive Strategy)**. The Cohesive Strategy, as well as other documents founding the National Fire Plan prioritizes the areas that treatments are to take place with the funds provided by the initiative. According to these documents priority of treatments should be focused on fire regimes 1, 2 and 3, in condition class 2, 3 in that order.

In the prioritization mapping used here, Stand FRCC is used to judge the condition class at the 6th field watershed level scale. Because, ecological departure mapping is not attributed to cause and much of the departure is due to the influence of management practices, a modification was made to include fire regime in the

prioritization. In this prioritization scheme, a large priority number is of higher significance than a lower number.

Cohesive Strategy Prioritization		
FR	**CC**	**Priority**
1	3	15
2	3	14
1	2	13
2	2	12
3	3	11
3	2	10
1	1	9
4	3	8
4	2	7
5	3	6
5	2	5
2	1	4
3	1	3
4	1	2
5	1	1

Calculation of Fire condition Class

Fire Regime Condition Class (FRCC) is an interagency, tool for determining the degree of departure from reference condition vegetation, fuels and disturbance regimes. It is a tool to help guide management objectives and set priorities for treatments.

Condition class descriptions: Condition classes are a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire exclusion, timber harvesting, grazing, introduction and establishment of exotic plant species, insects and disease (introduced or native), or other past management activities.

Condition Class	Attributes	Example Management Options
Condition Class 1	·Fire regimes are within or near an historical range. ·The risk of losing key ecosystem components is low. ·Fire frequencies have departed from historical frequencies by no more than one return interval. ·Vegetation attributes (species	Where appropriate, these areas can be maintained within the historical fire regime by treatments such as fire use.

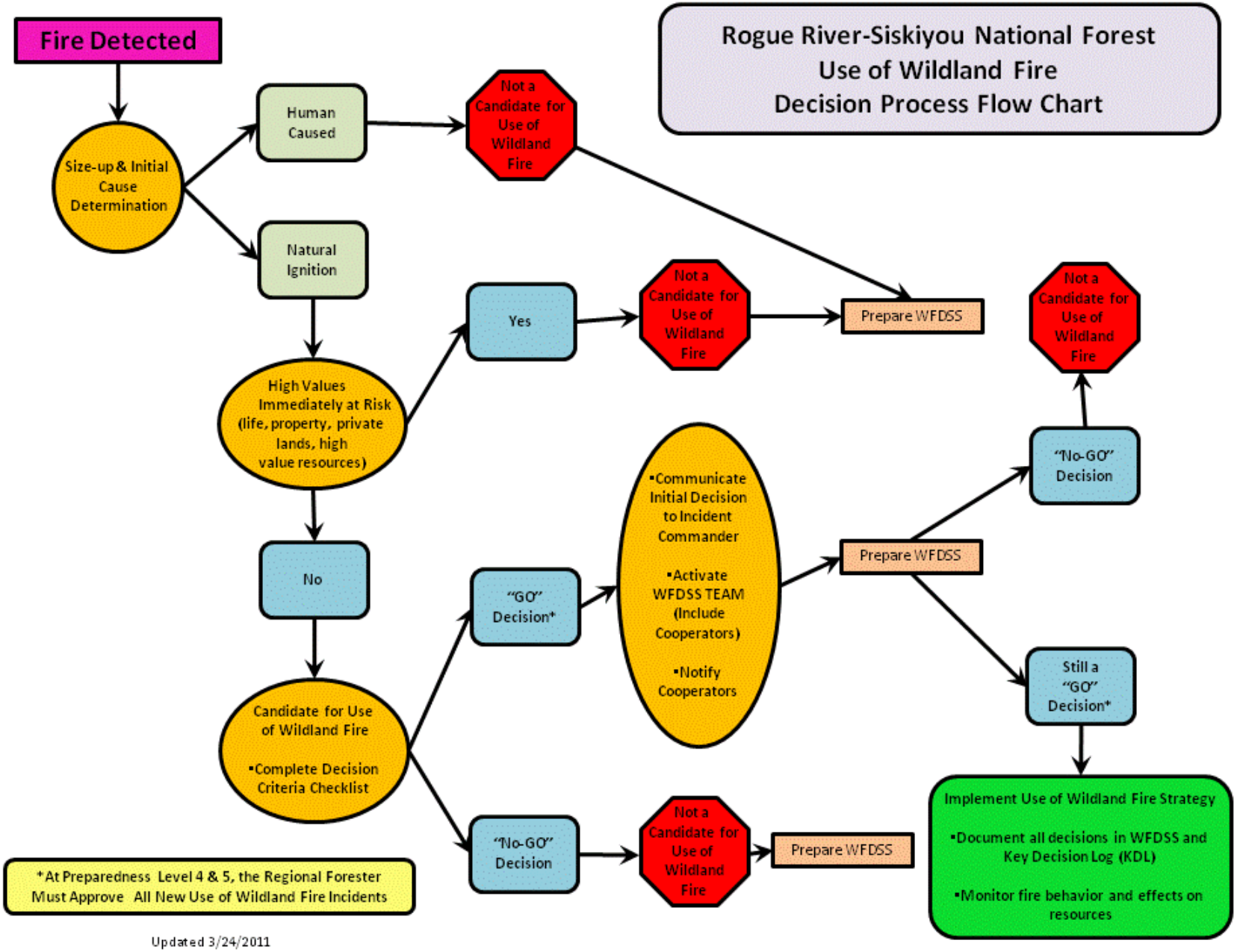
Condition Class	Attributes	Example Management Options
	composition and structure) are intact and functioning within an historical range.	
Condition Class 2	·Fire regimes have been moderately altered from their historical range. ·The risk of losing key ecosystem components has increased to moderate. ·Fire frequencies have departed (either increased or decreased) from historical frequencies by more than one return interval. These results in moderate changes to one or more of the following: fire size, frequency, intensity, severity, or landscape patterns. ·Vegetation attributes have been moderately altered from their historical range.	Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the historical fire regime.
Condition Class 3	·Fire regimes have been significantly altered from their historical range. ·The risk of losing key ecosystem components is high. ·Fire frequencies have departed from historical frequencies by multiple return intervals. These results in dramatic changes to one or more of the following: fire size, frequency, intensity, severity, or landscape patterns. ·Vegetation attributes have been significantly altered from their historical range.	Where appropriate, these areas may need high levels of restoration treatments, such as hand or mechanical treatments. These treatments may be necessary before fire is used to restore the historical fire regime.

These definitions are qualitative to allow for local variation and application. They rely heavily on temporal variation (frequency, which is highly variable even within a plant association and more variable at the next level of classification, the plant association group PAG) and indicate the influence of landscape. While fire frequency reflects an estimated central tendency, stand conditions are directly related. For example, as fire cycles are missed diameters increase, crown cover increases, and usually the number

of layers increase. These variables not only verify missed cycles, they validate on the ground fuel conditions related to fire risk. Thus, condition class reflects both the temporal and spatial variability across the landscape that can be used to evaluate relative fire risk.

3.3.4. Appendix D: WFDSS

THE DECISION PROCESS FLOW CHART FOR USE OF WILDLAND FIRE FOR RESOURCE BENEFIT AND THE WILDLAND FIRE DECISION SUPPORT SYSTEM


Rogue River-Siskiyou National Forest
Use of Wildland Fire
Decision Process Flow Chart
Fire Detected
Size-up & Initial Cause Determination
Human Caused
Natural Ignition
Not a Candidate for Use of Wildland Fire
High Values Immediately at Risk (life, property, private lands, high value resources)
Yes
Not a Candidate for Use of Wildland Fire
Prepare WFDSS
Not a Candidate for Use of Wildland Fire
No
Candidate for Use of Wildland Fire
•Complete Decision Criteria Checklist
"GO" Decision*
•Communicate Initial Decision to Incident Commander
•Activate WFDSS TEAM (Include Cooperators)
•Notify Cooperators
Prepare WFDSS
"No-GO" Decision
Still a "GO" Decision*
"No-GO" Decision
Not a Candidate for Use of Wildland Fire
Prepare WFDSS
Implement Use of Wildland Fire Strategy
•Document all decisions in WFDSS and Key Decision Log (KDL)
•Monitor fire behavior and effects on resources
*At Preparedness Level 4 & 5, the Regional Forester Must Approve All New Use of Wildland Fire Incidents
Updated 3/24/2011

WFDSS Management Requirements & Strategic Objectives

(Also refer to **Management Considerations that applies to all FMU's**)

Last updated: July 7, 2009

Line No.	Statement	Management Requirement	Strategic Objective	Fire Management Unit (FMU)														
				Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
	Wildlife																	
1	Marbled Murrelet, Spotted Owl, Bald Eagle, Osprey, Gray Owl, Goshawk: 1) minimize repeated aircraft flights that are less than 1,500 feet Above Ground Level (AGL) at all known sites. Minimize the use of fireline explosives within 1 air mile of occupied sites during the protection period. Within 200 feet of known nest sites minimize equipment noise (pumps, chainsaws, heavy equipment, blasting); 2) light underburns are acceptable; 3) emphasize retention of large trees, snags, logs, and canopy closure; 4) camps and staging areas should not be set up within 0.25 miles of any known nest sites.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2	LSR/LSE: 1) protect at least 90% of old growth and minimize creation of openings greater than 3 acres in size; 2) protect at least 80% of mature forest and minimize creation of openings greater than 3 acres in size; 3) protect at least 60% of small forest and minimize creation of openings greater than 20 acres in size; 4) minimize felling of large live and dead trees (deciduous trees greater than 10 inches DBH and conifers greater than 20 inch DBH).		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
3	Peregrine Falcon: minimize human activity, blasting, aircraft within 0.5 air miles of known nest sites.		x						x			x	x	x	x	x		

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
4	Bats: keep firefighting personnel out of caves and mines. To the extent possible, protect overstory and understory. Limit ground disturbance in the site area.		x	x	x		x		x			x	x		x	x		x
5	Protect snags and large downed wood to the extent possible in all fire management activities.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	*Monadenia chaceana, Vespericola sierrianus,* Siskiyou Mountains Salamander*:* ground disturbance from digging, driving of machinery, or severe sub-surface heating from fire should be avoided.		x	x			x		x		x	x	x		x	x		
7	Siskiyou Wilderness: Peregrine Falcon: minimize human activity, blasting, aircraft within 0.5 air miles of known nest sites.		x															x
	Fisheries and Hydrology																	
8	Leave adequate water (1/2 the pond volume unless directed otherwise by Resource Advisor) in ponds to protect aquatic wildlife. When pumping/drafting from streams, leave at least 1/2 of the original stream flow below pumping sites.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
9	Streams, rivers, creeks, ponds, marshy areas, etc.: minimize ground disturbance; minimize surface water contamination by aerially delivered suppression chemicals; keep chemical mixing tanks at least 150 feet from streams & wetlands; minimize impacts due to drafting water; avoid mechanized equipment in areas of flowing/standing water; minimize removal of canopy cover (trees, bushes, etc.).		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	Coho salmon: avoid use of dozers within 300 feet of river/stream. Includes areas designated as "Key Watersheds" by the Northwest Forest Plan.	x		x	x	x	x	x	x		x	x	x	x	x	x	x	

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
11	Minimize the spread of invasive aquatic organisms and diseases when acquiring water from multiple sources.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
12	Where practical, minimize the construction of dams to create water sources in known critical habitat streams.		x	x	x	x	x	x	x		x	x	x	x	x	x	x	
13	Whenever possible, let fire back slowly into riparian areas rather than burning out from stream edge.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
14	Monitor the amount of water taken from Reeder Reservoir and report to City of Ashland.	x		x														
15	Grassy Knob Wilderness: Coho salmon: avoid use of dozers within 300 feet of river/stream. Dry Creek designated as a Key Watershed.	x																x
16	Grassy Knob Wilderness: Where practical, minimize the construction of dams to create water sources in known critical habitat streams.		x															x
17	Kalmiopsis Wilderness: Coho salmon: avoid use of dozers within 300 feet of river/stream.	x																x
18	Kalmiopsis Wilderness: Where practical, minimize the construction of dams to create water sources in known critical habitat streams.		x															x
19	Wild Rogue Wilderness: Coho salmon: avoid use of dozers within 300 feet of river/stream.	x																x
20	Wild Rogue Wilderness: Where practical, minimize the construction of dams to create water sources in known critical habitat streams.		x															x

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
21	Red Buttes Wilderness: Coho salmon: avoid use of dozers within 300 feet of river/stream. Taylor Creek designated as a Key Watershed.	x																x
22	Red Buttes Wilderness: Where practical, minimize the construction of dams to create water sources in known critical habitat streams.		x															x
23	All things being equal, Key Watersheds should be a higher protection priority than non-anadromous watersheds.		x	x	x	x	x	x	x		x	x	x	x	x	x	x	x
24	Copper-Salmon Wilderness: Coho salmon: avoid use of dozers within 300 feet of river/stream.	x																x
25	Copper-Salmon Wilderness: Where practical, minimize the construction of dams to create water sources in known critical habitat streams.		x															x
	Cooperating Fire Agencies																	
26	Coordinate fire management strategies and tactics with cooperating agencies when lands within their jurisdiction are involved or threatened. Structural firefighting is the responsibility of local governments.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
27	WUI: coordinate suppression response with cooperating agencies (state, local fire department).	x		x	x	x	x	x	x	x	x	x	x	x	x	x		
28	WUI: consider use of fire prevention/education team.		x	x		x			x			x	x		x			
	Botany																	
29	No use of dozers in meadows unless absolutely necessary.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
30	Avoid where possible noxious weed locations when choosing routes for dozer or hand lines.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
31	Minimize ground disturbance from suppression actions within Research Natural Areas and Botanical Areas.		x	x	x	x	x	x	x			x	x			x		
32	Minimize ground disturbance from ground based suppression actions within areas of sensitive plants.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
33	Noxious weeds & Pathogens: wash vehicles and equipment to reduce spread.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	
34	Sky Lake Wilderness: Minimize ground disturbance from suppression actions within Research Natural Area.		x															x
35	Kalmiopsis Wilderness: Minimize ground disturbance from suppression actions within Botanical Area.		x															x
36	*Fritillaria ganeterii* (Gantner's Fritillary), *Arabis Macdonaldinia* (McDonald's Rockcress) - Endangered plants: protect from ground disturbing suppression actions.	x			x				x			x						
37	LTEP Sites: 1) aggressively suppress fires that threaten the sites; 2) no retardant use in sites; 3) do not construct fireline through sites; 4) if fire gets established in one block, let the entire block burn; 5) contact Bernard Bormann of the PNW Research Station for fires that occur in these sites.	x											x					
	Cultural Resources																	
38	Collecting artifacts from public lands is illegal. Notify Forest archaeologist of location when items are found.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
39	Avoid ground disturbance in known cultural resource sites.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
40	Protect where possible: Barklow Mt., Huckleberry Knoll Cemetery and Thompson Flat Mine as commensurate with values at risk and firefighter safety.		x					x										
41	Protect where possible: Store Gulch Guard Station, Pearsoll Peak Lookout, Gold Blanket Mine, and Cedar Guard Station as commensurate with values at risk and firefighter safety.		x						x									
42	Kalmiopsis Wilderness: Protect where possible: Uncle Sam Mine and Pine Flat Camp as commensurate with values at risk and firefighter safety.		x															x
43	Protect where possible: Big Elk Guard Station and Short Creek Prairie Cabin as commensurate with values at risk and firefighter safety.		x								x							
44	Protect where possible: Buckeye Mine as commensurate with values at risk and public safety.		x									x						
45	Red Buttes Wilderness: Protect where possible: Toolhouse Shelter, Sucker Creek Shelter, and Mohawk Mine as commensurate with values at risk and firefighter safety.		x															x
46	Protect where possible: Whitten Prairie, Wildhorse Lookout, Nancy Cabin, and Signal Buttes area as commensurate with values at risk and firefighter safety.		x										x					
47	Sky Lakes Wilderness: Protect where possible: Judge Waldos Tree near Island Lake in the Sky Lake Basin, Honeymoon Cabin, and Solace Cabin as commensurate with values at risk and firefighter safety.		x															x

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
48	Protect where possible: Big Foot Trap, Cook and Green Guard Stations, China Walls Mining site, Dutchman Peak Lookout, Squaw Peak Lookout, Kendall Cabin, Grayback Snow Shelter, Perks Pasture Guard Station, Harlow Cabin, Star Ranger Station Barn, and Wrangle Snow Shelter as commensurate with values at risk and firefighter safety.		x												x			
49	Protect where possible: Herschberger Mt. Lookout, Long Prairie Camp, and Mount Stella Lookout, Whaleback Snow Survey Cabin, Bessie Trail Shelter, and Imnaha Guard Station as commensurate with values at risk and firefighter safety.		x													x		
50	Protect where possible: Camp Chicago and Bell Echo Camp as commensurate with values at risk and firefighter safety.		x														x	
51	Wild Rogue Wilderness: Protect where possible: Marial Lodge and Illahe settlement site as commensurate with values at risk and firefighter safety.		x															x
52	Protect where possible: Wheeler Ridge Bombing Site (Japanese Incendiary Device) as commensurate with values at risk and firefighter safety.		x			x												
53	Protect where possible: Ferris Ford Cedar Bark House as commensurate with values at risk and firefighter safety		x		x													
	Safety																	
54	Human, firefighter, and public safety are the highest priority and will be considered when determining all strategies and tactics. Sound risk management practices will be used at all times.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
	Oregon Caves National Monument																	
55	Utilizing unplanned fires to obtain resource benefit is not authorized within Oregon Caves National Monument.	x							x									
56	Oregon Caves National Monument: Minimize ground disturbing activities; heavy equipment, retardant use, and helicopter bucket work require Superintendent approval. Stay clear of caves and mines.	x							x									
57	Notify Oregon Caves National Monument of any fires threatening Monument lands or access to the Monument.	x							x									
	Recreation																	
58	Wild Rogue Wilderness: River closure for public safety will be coordinated with the Bureau of Land Management.	x																x
59	Ashland Ski Area: notify Ski Area Management if improvements are threatened.	x		x														
60	Fires threatening ski area improvements will be aggressively suppressed.		x	x														
61	Designated Scenic Byways: 1) suppression tactics should minimize physical disturbance; 2) use of water is preferred over fireline construction in the foreground and middleground.	x			x											x		

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
	Pathogens																	
62	Port Orford Cedar Root Rot Disease (POC) and Sudden Oak Death (SOD): treat all water with 1 gallon of Clorox Regular Bleach to 1000 gallons of water, avoid chlorine treated water entering streams or wetlands.	x			x	x	x						x				x	
63	Wild Rogue Wilderness: Port Orford Cedar Root Rot Disease (POC) and Sudden Oak Death (SOD): treat all water with 1 gallon of Clorox Regular Bleach to 1000 gallons of water, avoid chlorine treated water entering streams or wetlands.	x																x
64	Kalmiopsis Wilderness: Port Orford Cedar Root Rot Disease (POC) and Sudden Oak Death (SOD): treat all water with 1 gallon of Clorox Regular Bleach to 1000 gallons of water, avoid chlorine treated water entering streams or wetlands.	x																x
	Timber Management Areas																	
65	Aggressively suppress all fires in areas of sold timber sales.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	
66	Matrix lands: actively suppress fires with high probability of stand replacement potential.		x	x	x		x	x	x	x	x	x	x	x	x	x		
	Soils																	
67	Soils: when constructing dozer line, create an effective fireline with the minimum amount of disturbance possible.	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
	Special Approvals																	
68	Consider use of fugitive retardant.		x															x
	Improvements																	
69	Elk River Fish Hatchery: Notify hatchery management; fires threatening improvements will be actively suppressed.	x						x										
70	Protect where possible: Forest Service recreational site improvements, trail heads, day use facilities, campgrounds, administrative sites, lookouts, recreation rentals, interpretive sites, communications sites, and RAWS stations as commensurate with the values at risk and firefighter safety.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
71	Talent Irrigation Ditch: notify Talent Irrigation District. Avoid fireline construction that would damage canal structure.	x									x							
72	Big Buttes Springs Watershed: notify Medford Water Commission.	x														x		
73	Avoid fiber optic lines and other buried utility locations when using heavy equipment.	x			x												x	
74	Privately owned values at risk: Union Creek Resort and summer homes and Baptist Camp.		x													x		
75	Privately owned values at risk: Fish Lake Resort and summer homes, Camp Latgawa, and buried fiber optic cable in T36S R3E Sec. 33.		x								x							
76	Fish Lake Dam: notify Bureau of Reclamation. Avoid constructing fireline that will damage the surface of the dam (sides or top).	x									x							

Line No.	Statement	Management Requirement	Strategic Objective	Bear Creek (001)	Bridge (007)	Chetco River (003)	Galice (006)	Humbug (008)	Illinois Valley (009)	Jenny Creek (010)	Little Butte (013)	Lower Applegate (014)	Rogue River (016)	Trail Creek (019)	Upper Applegate (020)	Upper Rogue (021)	West Fork Cow Creek (022)	Wilderness (050)
77	Applegate Lake Dam: notify Army Corps of Engineers if fire has potential to threaten access to dam facilities.	x													x			

3.3.5. Appendix E Rogue River- Siskiyou NF 2011 Resource Advisor Reference

Rogue River – Siskiyou NF
2011 Resource Advisor Reference Materials

- **Resource Advisor Delegation of Authority**
- **Rogue River – Siskiyou National Forest – Resource Specialist Call List**
- **2009 Emergency Consultation Memo**
- **Recommendations for Wildland Fire Emergency Consultation Biological Assessments**
- **Guidelines for All Listed Species**
- **Procedures for Initiating Emergency Consultation for Wildland Fire Suppression Activities with NMFS in Southwest Oregon**
- **Aquatic Invasive Organisms-Interim Guide for 2011 Fire Operations**
- **AQUATIC INVASIVE SPECIES MANAGEMENT IN FIRE OPERATIONS PACIFIC NW REGION OPERATIONAL GUIDELINES FOR 2011**
- **Wildfire Suppression Recommendations for Fisheries Resources In Southwest Oregon**
- **BAER Activities Recommendations for Fisheries Resources in Southwest Oregon**
- **High Cascades Dip Site Guide**
- **Fire Suppression Guidelines for Natural and Heritage Resources**
- **Invasive Species Memo & Guidelines**
- **Rogue River-Siskiyou Commercial Road Rules and Forest Bridge Ratings**
- **Monitoring and Consultation Requirements for Retardant and Foam in Waterways and Threatened and Endangered Species (TES) Habitats**
- **Wildland Fire Chemical Application Assessment and Monitoring Instructions**
- **RSF GIS Data Locations**

2013 Delegation of Authority for Forest Resource Advisors

File Code: 1230/5130 Date: May 1, 2013

Route To:

Subject: Delegation of Authority for Forest Resource Advisors

To: District Rangers, Kevin Donham, Fred Wahl

The following employees are delegated to serve in the position of **Resource Advisor** on wildland fires that occur on the Rogue River-Siskiyou National Forest.

Unit	Employee Names
Powers Ranger District	Doug Middlebrook (Trainee)
Gold Beach Ranger District	**Clint Emerson**, **Mike Miller (AD), Matt Timchak**, James Simino (Trainee), Tim Spencer (Trainee), Jessie Dubuque (Trainee), Kristen Hauge (Trainee)
Wild Rivers Ranger District	**Ian Reid**, Rob Barnhart (Trainee)
Siskiyou Mts. Ranger District	**Ian Reid, Barb Mumblo**, **Brian Long**
High Cascades Ranger District	**Jeff VonKienast**, Les Moscoso (Trainee), Marc Ellis (Trainee), Sheila Miara (Trainee), Brenda Tippin (Trainee)
Supervisor's Office	**Steve Brazier**, **Jon Lamb, Dave Clayton**, Joni Brazier (Trainee), Susan Maiyo (Trainee)

These employees are available to serve on any District. Personnel identified as trainees will be assigned directly to a Resource Advisor. Many of the duties and responsibilities of this position are identified in the January 2004 "Resource Advisor's Guide for Wildland Fire". In addition, those serving as Resource Advisor (READ) are responsible for:

- Initiating the request for Technical Specialists through the established ordering process at the time. Each person needs to be on a Resource Order.
- Ensure that Technical Specialists have the proper Work Capacity Test (WCT) level, have attended fire refresher, have all required Personal Protective Equipment (PPE), are provided radios, and have adequate transportation.

- The **Lead Resource Advisor** will be responsible to approve Technical Specialists crew time reports and/or fire time reports.
- As Resource Advisor, I expect you to work closely with the Incident Management Teams (IMT) and my Agency Administrators Representative (AAR). Have information gathered and available to IMT and concerns resolved with the AAR in a timely manner is critical.
- As a Resource Advisor, you need to be proactive and start gathering (either directly or through Technical Specialists) critical resource information early on during an incident.
- The Resource Advisor will prepare the Suppression Rehabilitation Plans for the Incident. They will work with both the IMT and AAR to ensure the Plan's actions are appropriate, cover only those items damaged by suppression activities, and consider least cost methods. I am requiring that the Forest Fire Staff Officer and Forest Natural Resource Staff Officer review and concur with all Suppression Rehabilitation Plans prior to approval.

When a fire is in the initial attack or extended attack phase it is not necessary to have a fully qualified Resource Advisor on scene. Many of our Technical Specialists are qualified to advise the Incident Commander on environmental and heritage concerns during these early phases of a ongoing fire.

In an effort to increase the number of qualified Resource Advisors on the Forest, the Resource Advisor trainees should pursue additional opportunities to gain incident experience. Although there is no taskbook for the Resource Advisor position, experience as a trainee on both small and large fires is strongly encouraged. Incident experience, combined with classroom study and other requirements, is critical for successfully performing the duties of a Resource Advisor. Personnel identified as trainees will be contacted by the Natural Resources and Fire Management Staff Officers to coordinate potential trainee assignments.

Attached is an updated Forest-wide contact list of Biologists, Botanists, Hydrologists, Cultural Resources, and Forest Pathology staff. Personnel that are identified on this list may serve as Technical Specialists provided they meet the qualifications for the duties they will be performing. I expect that all Technical Specialists are available to serve on any District. If you have any questions regarding this delegation of authority for Forest Resource Advisors, please contact Fred Wahl at (541) 618-2050 or Kevin Donham at (541) 618-2100.

/s/ Robert G. Macwhorter
ROBERT G. MACWHORTER
Forest Supervisor

Contact list for Rogue River-Siskiyou N.F. Biologists, Botanists, Hydrologists, Cultural Resources, Port Orford Cedar and Sudden Oak Death staff.

Area	Name	Email Address	Work Phone	
Rogue River- Siskiyou SO	Fred Wahl (NR Staff Officer)	fwahl@fs.fed.us	(541) 618-2050	
	Sue Maiyo (Fisheries)	smaiyo@fs.fed.us	(541) 618-2052	
	Wayne Rolle (Botany/Weeds)	wrolle@fs.fed.us	(541) 618-2056	
	Dave Knutson (Cultural)	dknutson@fs.fed.us	(541) 618-2078	
	Jeff Lalande – AD (Cultural/Wilderness)	jmaxlalande@gmail.com	(541) 778-3257	
	Ellen Goheen (Sudden Oak Death- POC)	egoheen@fs.fed.us	(541) 858-6126 (541) 840-2502	
	Frank Betlejewski (Port Orford Cedar)	fbetlejewski@fs.fed.us	(541) 858-6127	
	David Clayton (Wildlife)	dclayton@fs.fed.us	(541) 618-2054	
	Chris Park (Hydrology)	cpark@fs.fed.us	(541) 471-6761	
	Steve Brazier (Fisheries)	sbrazier@fs.fed.us	(541) 471-6766	
	Joni Brazier (Soils/Hydro)	jdbrazier@fs.fed.us	(541) 471-6760	
Siskiyou Mountains Ranger District	Ian Reid (Fisheries)	ireid@fs.fed.us	(541) 552-2914 (541) 899-3800	
	Jeff Von Kienast (Wildlife/Fisheries)	jvonkienast@fs.fed.us	(541) 560-3440	
	Dave Knutson (Cultural)	dknutson@fs.fed.us	(541) 618-2078	
	Barbara Mumblo (Botany/Weeds/Cultural)	bmumblo@fs.fed.us	(541) 899-3855	
	Steve Johnson (Cultural)	srjohnson@fs.fed.us	(541) 552-2908	
High Cascades Ranger District	Sheila Miara (Wildlife)		(541) 560-3479	
	Jeff Von Kienast (Wildlife/Fisheries)	jvonkienast@fs.fed.us	(541) 560-3440	
	Wayne Rolle (Botany/Weeds)	wrolle@fs.fed.us	(541) 618-2056	
	Barbara Mumblo (Botany/Weeds/Cultural)	bmumblo@fs.fed.us	(541) 899-3855	
	Marc Ellis (Wilderness-Recreation)	mellis@fs.fed.us	(541) 865-2730	

	Les Moscoso (Wilderness-Recreation)	lmoscoso@fs.fed.us	(541) 865-2710	
Gold Beach Ranger District	James Simino (Fisheries)	jsimino@fs.fed.us	(541) 247-3634	
	Jessie Dubuque (Wildlife)	jdubuque@fs.fed.us	(541) 247-3651	
	Mike Miller (AD) (Wildlife)	mikemiller03@wildblue.net		
	Clint Emerson (Botany)	cemerson@fs.fed.us	(541) 247-3656	
	Kailey Albertson (Botany)	klalbertson@fs.fed.us	(541) 247-3654	
	Catherine Dunn (Botany)	cmdunn@fs.fed.us	(541) 247-3652	
	Kristen Hauge (Archaeologist, Heritage)	khauge@fs.fed.us	(541) 247-3697	
	Matt Timchak (Forestry./SOD)	mstimchak@fs.fed.us	(541) 247-3624	
	Steve Boyer (Silviculture/SOD)	sfboyer@fs.fed.us	(541) 247-3686	
Wild Rivers Ranger District	Stuart Osbrack (Botany/Weeds)	sosbrack@fs.fed.us	(541) 592-4052	
	Ian Reid (Fisheries)	ireid@fs.fed.us	(541) 552-2914 (541) 899-3800	
	Karla Cottom (Fisheries/Wildlife/Botany)	kreeves@fs.fed.us	(541) 439-6250	
Powers Ranger District	Karla Cottom (Fisheries)	kottom@fs.fed.us	(541) 439-6250	
	Clint Emerson (Botany)	cemerson@fs.fed.us	(541) 247-3656	
	Kailey Albertson (Botany)	klalbertson@fs.fed.us	(541) 247-3654	
	Catherine Dunn (Botany)	cmdunn@fs.fed.us	(541) 247-3652	
USFWS Roseburg Field Office	Craig Tuss	Craig_Tuss@fws.gov	(541) 957-3470	
	Cindy Donegan	Cindy_Donegan@fws.gov	(541) 618-2374	
NOAA Fisheries Roseburg Field Office				
	Ken Phippen	ken.phippen@noaa.gov	(541) 957-3383	
	Michelle McMullin	michelle.mcmullin@noaa.gov	(541) 957-3378	

Emergency Consultation Documents and Fire Call List

File Code: 5130-1/2670 Date: June 10, 2009

Route To:

Subject: 2009 Emergency Consultation Documents and Fire Call List

To: District Rangers

Enclosed are the U.S. Fish and Wildlife Service and National Marine Fisheries Service emergency consultation procedures, fire suppression recommendations, Burned Area Emergency Response recommendations, listed species recommendations, and the natural resources fire call list for fire season 2009. Please distribute widely to your fire organization and resource specialists. For ESA listed fish species consultation issues please contact Susan Maiyo, Forest Fishery Biologist, at (541) 618-2052. For ESA listed terrestrial species consultation issues please contact Dave Clayton, Forest Wildlife Biologist, at (541) 618-2056.

/s/ Debra Globig (for)
SCOTT D. CONROY
Forest Supervisor

Enclosures

cc: Mary J Harvie
Susan J Maiyo

Recommendations for Wildland Fire Emergency Consultation Biological Assessments

The Biological Assessment shall be inclusive of all fire suppression actions on aquatic and terrestrial resources. Additional information may be required to address incident-specific issues. Please confer with your Service biologist during preparation of the Biological Assessment.

The following items are recommended:

a. Justification for expedited consultation.
b. Description of the emergency including how the fire started, a chronological description of the fire, fire behavior, how many acres burned each day, fire movement and when it was contained, controlled and declared out.
c. Consultation to Date – describe contacts made with the Service in regard to the fire, whether a Service representative visited the fire, any reconnaissance that was done, preliminary assessments made, any minimizations or avoidance recommended, and preliminary determinations made.
d. Current Management Direction – reference the wildfire management guidelines in the Forest Land and Resource Management Plan, previously developed Fire Management Plans for a specific area, emergency consultation regulations, and any applicable recovery plans.
e. Description of the Action Area including the area affected both directly and indirectly by fire suppression actions. The Action Area is not necessarily the fire perimeter but inclusive of a larger geographic area (e.g. dozer lines cut outside fireline as backup containment lines, fire camp, water drafting/dipping sites, and helicopter staging areas).
f. Description of the Proposed Action including fire-suppression activities (e.g. back-burning, dozer and hand line construction, etc.), how those activities were accomplished and where and when they took place. It is advisable to include a summary of the miles and type of line construction. A summary of the gallons spread, known locations and brand of chemical support utilized. This section shall also include any actions that were taken during the suppression rehabilitation, and the fire rehabilitation which involved the Burn Area Emergency Rehabilitation actions taken and planned for the following 12 months.
g. Existing Environment – provide a brief overview of the drainage(s) where the fire occurred: general location on the forest, past land management practices, elevations, and land allocations.
h. The following individual Species Accounts and Habitat Descriptions may be required to update the baseline and analyze effects. All updated baseline information should calculate the total acres burned due to wildfire, and those acres burned due to suppression actions *separately*.

- **Northern spotted owl** (*Strix occidentalis caurina*) environmental baseline updates summarizing: (1) the total number of acres of suitable habitat burned; (2) an updated baseline of suitable habitat within each of the Northwest Forest Plan land allocations (e.g. Matrix, LSR, etc.); (3) an updated baseline for total acres of suitable nesting, roosting, foraging and dispersal habitat within the activity centers and home ranges for each owl; (4) an updated baseline for total suitable habitat within Critical Habitat Units; and (5) nest activity survey information for affected nests (e.g. active, inactive, successful, etc.). For nests and/or nest trees destroyed during the incident, identify whether they were destroyed by wildfire or destroyed due to fire suppression actions.
- **Bald eagle** (*Haliaeetus leucocephalus*) environmental baseline updates summarizing: (1) the total acres of suitable habitat burned in Bald Eagle Management Areas; (2)

remaining roosting and perching snags. Those snags no longer acting as roosting or perching snags are to be identified as destroyed by wildfire or removed due to suppression actions. Please identify if the removed snags were physically taken off site; (3) nest activity survey information for affected nests (e.g. active, inactive, successful, etc.). For nests and/or nest trees destroyed during the incident, identify whether they were destroyed by wildfire or destroyed due to suppression actions.

- **Marbled Murrelet** (*Brachyramphus marmoratus*) environmental baseline updates summarizing: (1) the total number of acres of suitable habitat burned; (2) an updated baseline of suitable habitat within each of the Northwest Forest Plan land allocations (e.g. Matrix, LSR, etc.); (3) nest activity survey information for affected nests (e.g. active, inactive, successful, etc.). For nests and/or nest trees destroyed during the incident, identify whether they were destroyed by wildfire or destroyed due to fire suppression actions.

- **Gentner's fritillary** (*Fritillaria gentneri*) (1) total number of acres of occupied habitat burned; (2) location and length of hand and dozer lines in suitable habitat (3) life stage of plant(s). For plants destroyed during incident, identify if destroyed by the fire or suppression actions.

Discuss proposed and candidate species and habitats with your Service biologist.

i. Effects of the Action which describe the impacts to listed species and their habitats due to wildland fire, fire suppression actions, rehabilitation actions and BAER actions. **Cite any agency actions taken to avoid and minimize effects.** Also, explain how the Services' recommendations were implemented and the results of implementation in minimizing take.
j. A Cumulative Effects Analysis which includes effects of any future State, Tribal, local or private actions that are reasonably certain to occur within the action area.
k. Determinations – are based on disturbance to individuals, loss and modification of habitat, injury or death to individuals; and effects to critical habitat and its primary constituent elements. In order to make determinations in regard to fire suppression, one shall consider the time of year, suitable habitat lost, survey results, unsurveyed and unoccupied habitat, post-fire monitoring results, total suppression activities, and post-fire response activities (BAER). Determinations should be made for the suppression activities only and should clearly distinguish between disturbance versus habitat loss.

Pictures and maps of the fire, species location and/or habitat, severity and intensity, flight routes, locations of chemical use and tractor/dozer lines, etc. are excellent to add to a referenced appendix. This type of information is generally easier to acquire if done prior to the overhead team departing and turning the fire back over to the home unit.

Guidelines for All Listed Species

- **Protection of human life and property are the primary objectives of all suppression actions.**
- Minimize felling of snags and leave felled trees or snags in largest pieces possible.
- Burning snags or trees will only be felled when they pose a definite threat to the containment of the fire or the safety of fire fighters.
- Limbing of trees adjacent to fire lines will be done only if needed for fire suppression and/or fire fighter safety.
- Close any roads opened during suppression actions as soon after BAER and suppression rehabilitation as possible.
- Place fire lines and other suppression activities along ridgelines where possible, rather than mid-slope or in riparian areas and where they can take advantage of natural barriers such as rock outcrops, streams and changes in vegetation.
- Limit retardant contamination of water sources.
- Minimize disturbance of riparian and aquatic habitats by working outside of these areas to the maximum extent possible.
- Minimize the use of heavy equipment (dozers, etc) in riparian/aquatic habitats, within spotted owl cores and on ridgelines where listed plants are known to exist.
- Minimize felling and bucking of trees within riparian areas/aquatic habitats, spotted owl core areas and within ¼ mile of any bald eagle nest sites.
- Locate camps and equipment servicing/storage areas away from riparian areas/aquatic habitats and at least ¼ mile away from stands occupied by spotted owls, bald eagles and marbled murrelets.
- Conduct refueling operations away from streams (at least 150 feet from water bodies), and place pumps and other machinery on pads and/or protect adjacent streams from chemical contamination to maximum extent possible.
- Obtain water for suppression operations from the largest body of water possible to minimize effects to fish.
- Retain at least one half of the original stream flow volume below pump sites.
- From January 1- August 30 minimize noise disturbance within 1 mile of Bald Eagle nest sites.
- Minimize repeated aircraft flights that are less than 1,500 feet Above Ground Level (AGL). Do not fly directly over nest sites with buckets (except to protect nests).
- From 1 March – 30 June minimize noise disturbance within stands occupied by spotted owls and within 120 yards of the edge of these stands. Minimize repeated aircraft flights that are less than 120 yards AGL.
- From 1 April - 5 August minimize noise disturbance within stands occupied by marbled murrelets and within 120 yards of the edge of these stands. Minimize repeated aircraft flights that are less than 120 yards AGL.
- Minimize the use of fire line explosives within 1 air mile of occupied stands during the protection period for bald eagles, spotted owls and marbled murrelets.
- Consider Minimum Impact Suppression Tactics (MIST) for use within the protection zones for eagles, spotted owls and murrelets.

Resource Advisors/Environmental Specialists will recommend actions that may minimize impacts to listed species and their habitat during suppression activities to Line Officers and Incident Commanders.

Information on species and habitat locations will be available to fire staff through pre-suppression briefings, through maps showing areas of concerns (readily accessible through GIS), and pertinent species management plans, *i.e.*, bald eagle site management plans. With this information, fire staff can determine possible needs during initial attack.

Resource specialists, resource advisers, environmental specialists will give biological input to personnel in charge of fire suppression activities. The resource advisor/environmental specialist will work for the Line Officer and with the Incident Commander to relay biological concerns.

Whenever possible, protect known nest sites of any listed species from high intensity fire.

Procedures for Initiating Emergency Consultation for Wildland Fire Suppression Activities with NMFS in Southwest Oregon

Call the NMFS Roseburg Office as soon as possible to begin emergency consultation:
Michelle McMullin 541-957-3378

Do not delay emergency response to make contact with NMFS.

Emergency consultation is required under ESA and the Magnuson Stevens Fishery Conservation and Management Act (MSA) for Essential Fish Habitat (EFH). EFH in southwest Oregon generally includes the range of Chinook and coho salmon, so please provide the same conservation recommendations if working in these areas.

The threshold for ESA emergency consultation is "may affect," which includes LAA and NLAA beneficial effects. The threshold for EFH emergency consultation is "may adversely affect."

Resource Advisors are the only link to the suppression teams that can effectively distribute conservation measures. Please try to include conservation measures in IAP.

During the emergency, communication with NMFS and documentation of activities are the main consultation activities.

"Official" initiation will occur after the fire and must include:

- a description of the emergency,
- a justification for the expedited consultation,
- an evaluation of the response to and the impacts of the emergency on affected species and their habitats, including documentation of how the conservation recommendations were implemented, and the results of implementation in minimizing take.

Suggested Information to Collect for Wildland Fire Suppression Emergency Consultation with NMFS in Southwest Oregon

1. Progression Map
2. Intensity/Severity Map
3. Amount, location, and types of line constructed
4. Locations and amount of riparian backburning operations
5. Locations of drafting/dip sites, whether chlorinated, and approximate level of use
6. Locations and number of retardant drops including type of retardant used
7. Location, extent, and circumstances of hazardous material spills (fuels, retardant, (etc)
8. Location, extent, species affected, and circumstances of any ESA-listed fish kills
9. Location of fire camps, helispots, helibases, and fuel storage areas
10. Rehabilitation activities utilized during mop-up and BAER activities and locations
11. Fifth and sixth field HUC names and codes
12. Record any ESA-listed fish entrained or impinged during drafting, dipping, or pumping. Include species and numbers.

File Code: 2600/5100/2150/1010 Date: June 3, 2011
Route To:

Subject: Preventing Spread of Aquatic Invasive Organisms in the Pacific Northwest Region - an Interim Guidance for 2011 Fire Operations

To: Forest Supervisors, RO Staff Directors

This Interim Guidance for 2011 Fire Operations gives recommendations to minimize the spread of aquatic invasive species (AIS) during fire management activities. Because of the long distances that fire crew's travel, their potential to act as vectors for spreading AIS is significant. To address this threat, interim guidelines were developed collaboratively between regional fish and fire personnel. These guidelines are based on the current scientific literature. The guidelines are as practical and effective as possible and are applicable to other agencies that fight fire on National Forest System Land within the Region.

This direction focuses upon a short list of focal species identified by AIS experts within the Region. The regional focal species list may change annually based upon the degree of their threat to the Region and knowledge of new invaders. A map was prepared showing known locations for this year's focal AIS. The map can be used to emphasize precautions above and beyond normal measures. The most recent regional focal species map can be found at: **ftp://ftp.nifc.gov/Incident_Specific_Data/PACIFIC_NW/!SORO/Invasive_Species/**. It is important to note, just because a water body is not documented as inhabited by invasive species on a map location doesn't mean they do not exist there. Care should be taken whenever transporting water and equipment between watersheds. Extra precautions should be taken when a water body is known to be infested by invasive species. That water should not be transported to disconnected aquatic habitats within the watershed or transported outside of the watershed. Extra care should be invested in cleaning equipment.

This is interim guidance. After the fire season, we will incorporate comments from field personnel who implemented the guidelines and consider additional scientific research to integrate the guidance into regional Best Management Practices and/or directives. We expect similar direction from the Washington Office in the future.

A short (10 minutes or less) outreach slideshow will be prepared by the Regional Office and distributed to the field to be incorporated into regular spring/early summer firefighter training sessions. The intent of the slideshow will be to inform firefighters of the threat, ensure their familiarity with the direction, and develop ground-up support. The slideshow can be presented by Forest or District level Fisheries Biologists and/or Invasive Species Specialists.

If you have any questions about this guidance or its implementation, please contact Regional Fire Information Specialist, Dale Guenther at 503-808-2188 (**dguenther@fs.fed.us**) or Regional Fisheries Biologist, James Capurso at 503-808-2847 (**jcapurso@fs.fed.us**).

/s/ Calvin N. Joyner (for):

KENT P. CONNAUGHTON
Regional Forester

Enclosure
cc: James Capurso, Dale G Guenther

AQUATIC INVASIVE SPECIES MANAGEMENT IN FIRE OPERATIONS PACIFIC NW REGION OPERATIONAL GUIDELINES FOR 2011

Firefighter and public safety is the first priority, but the threat of aquatic invasive species (AIS) has increased the need for Regional operational guidelines for safeguards against the spread of AIS. These guidelines should be implemented during the transport of water and equipment because AIS pose a risk to Forest aquatic and riparian habitat, water recreation, the operation of utilities, agricultural irrigation, local and national economies, and firefighting equipment. Some invasive plants and animals can clog valves, pumps, and screens if equipment is not completely drained or treated. Note that the States of Oregon and Washington are responsible for administering and enforcing some environmental quality laws and may provide additional guidance. Upon conflicting guidance, the US Forest Service (USFS) Pacific Northwest Regional Office will coordinate with state environmental quality agencies and state AIS coordinators and develop further guidance.

PREVENTION

- The current distribution of AIS in the Region has been mapped. This map can be used as a general indicator of where invasive species have been documented. These are areas where extreme care in the use of water should occur and no water should be transferred between watersheds or to disconnected waters within an infected watershed. A GIS file is available for download at: **ftp://ftp.nifc.gov/Incident_Specific_Data/PACIFIC_NW/!SORO/Invasive_Species/**
- Please note that you can never be certain that invasives are NOT present within a watershed, but this map will inform you where they ARE present. Precautions should be taken near any water source to avoid the spread of invasives.
- The sharing of firefighting equipment between incidents provides pathways for invasion. Firefighting equipment can be highly mobile during a fire season, often being re-assigned from incent to incident, sometimes hundreds or even thousands of miles apart. The well established interagency coordination of firefighting on federal, tribal, and state lands provides a highly efficient and effective means of moving equipment and personnel where needed. Equipment arriving to a fire shall be inspected.
    - Water handling equipment will arrive dry, so it can be inspected.
    - If the equipment is full, then it must be verified that the source of the water was a municipal water supply.
    - Check that no mud, aquatic vegetation, or aquatic animals are attached to or within equipment.
- During operations and transport, avoid contacting mud and aquatic plants.
- Avoid transferring water between drainages or between unconnected waters within the same drainage. Avoid dumping water directly from one stream or lake into another.
- Avoid sucking organic and bottom material into water intakes when drafting from streams or ponds. Use screens.
- Avoid obtaining water from multiple sources during a single operational period unless drafting/dipping equipment is sanitized between sources.
- If contamination of gear with raw water or mud/plants is unavoidable, see ‘Sanitizing’ below.
- Water storage tanks are required to be dry upon entry into the Region.

SANITIZING

- External surfaces of all equipment that comes in contact with water:

  - Any equipment that comes into contact with raw water should be sanitized.
  - Cleaning and sanitizing equipment will be necessary before use if it is unknown if the equipment has been cleaned previous to entering the project area.
  - Establish sanitation areas where there is no potential for runoff into waterways, storm drains, or sensitive habitats.
  - Thorough drying is an easy and effective sanitizing method, but required drying times vary considerably with the species involved and may not be practical for a quick turnaround. Drying may be possible, however, after the incident.
  - Remove all visible plant parts and mud from external surfaces of gear and equipment. Power-wash all accessible surfaces with clean water (ideally, hot water ≥140ºF). Power washing will reduce the likelihood any target AIS are present.
- Internal tanks of water tenders, engines, and other equipment:
  - Disinfect all equipment prior to use if it has an unknown sanitizing history as well as after an incident.
  - Set up a portable disinfection tank (pumpkin) using a cleaning solution of quaternary ammonium compounds (common cleaning agents used in homes and hospitals). Quat compounds are considered safe for gear and equipment when used at recommended concentrations and rinsed. Two brands are readily available (see below for suppliers): *Quat128®* or *Sparquat 256®*. *Sparquat 256®* has been discontinued and has been replaced by Green Solutions High Dilution (contains same compounds as Sparquat but at higher concentrations). Costs and effectiveness are comparable. Both are labeled for use as fungicides/virucides.

Recipes for cleaning solutions using either *Quat128® or Green Solution or Sparquat 256®*

- For engines and tenders, empty the tank, then circulate the cleaning solution for 10 minutes. Circulate cleaning solution from a pumpkin through portable pumps for 10 minutes. Pump cleaning solution through hoses. Rinse or use equipment after 1 hour. Discharge cleaning solution back into the disinfection tank for reuse.

Volume of tap water	**Volume of *Quat128®*** (5%)	**Volume of *Sparquat 256®*** (3%)	**Green Solution High Dilution** (1.8%)
100 mL water	4.6 mL	3.0 mL	1.8 mL
1 gallon water	6.4 liquid oz.	4.1 liquid oz.	2.5 liquid oz.
1 gallon water	12.7 tbsp	8.2 tbsp	5.0 tbsp
1 gallon water	0.8 cup	0.5 cup	0.3 cup
100 gallons water	5 gallons	3.2 gallons	2.0 gallons
1000 gallons	50 gallons	32.2 gallons	19.6 gallons

water			

- Where feasible, dip gear or equipment (e.g. helicopter buckets) into the cleaning solution. Alternatively, put the cleaning solution in backpack spray pumps to clean portable tanks, helicopter buckets, and other equipment. The solution must be in contact with the surface being sanitized for at least 10 minutes. Wait 1 hour before rinsing with water.

TESTING DISINFECTANT CONCENTRATIONS

When a large volume of quat solution (as in a pumpkin) has been used repeatedly and possibly diluted with excess water or mud, the solution can lose its effectiveness.
To determine if the solution is at the correct strength, use "Quat Chek 1000" Test Papers, which function like Litmus paper (see below for suppliers). The cleaning solution needs to be diluted before it can be tested with these papers. To do this:

- For *Sparquat 256®*, take **one** cup of your cleaning solution, pour into a bucket. Add **5** cups of water. Mix.
- For *Quat128®*, take **one** cup of used cleaning solution, pour into a bucket. Add **4** cups of water. Mix.
- For *Green Solution High Dilution*, follow label instructions.

Test the diluted solution in the bucket with "Quat Chek 1000" Test Paper. Match up the color of the paper with the ppm's on the color chart. For optimal disinfection, the diluted solution should have a concentration between 600 and 800 ppm. If it is too dilute, dispose of properly and make a new cleaning solution.

DISPOSAL

Used cleaning solution may be disposed over open land or on roadways where there is no potential for runoff into waterways, storm drains, or sensitive habitats. Quat chemicals are quickly neutralized by soil. Do not dump treated water into any stream or lake, or on areas where it can migrate into any water body, storm drain, or sensitive habitat. Do not dispose of large quantities of diluted quat chemicals in municipal sewer systems without consulting the facility. Use caution when disposing the used cleaning solution and follow all federal, state, and local regulations.

SAFETY

- Use protective, unlined rubber gloves and splash goggles or face shield when handling the cleaning solution and take extra precautions when handling undiluted chemicals.
- Have eye wash and clean water available on-site to treat accidental exposure.
- Consult the product label and Material Safety Data Sheet for additional information.

STORAGE AND SHELF-LIFE

Sparquat 256® and Quat 128® (Waxie) can be stored at least 2 years in an unopened container without losing their effectiveness. Both should be stored in a cool, dry place, out of direct sunlight. Temperatures can range from 32 to 110 F.

Once the quat solution is made up, it can be used repeatedly for up to a week unless heavily muddied or diluted. Solutions kept in sealed containers, free of contamination by foreign materials, remain more stable and can be effectively used for longer timeframes (Ron Cook,
Spartan Chemical Co., personal communication).

SUPPLY SOURCES

The recommended chemicals are available through GSA (https://www.gsaadvantage.gov) and also through local janitorial chemical suppliers.

Quat 128® (Waxie) Waxie's Enterprises Inc.
GSA (NSN No. 170304) =$36 per case (4 gal)
EPA registration #1839-166-14994. Additional info at http://www.waxie.com

Sparquat 256®, Spartan Chemical Company
GSA (NSN No. 1025-04) = $56 per case (4 gal)
EPA registration #5741-9. Additional info at http://www.spartanchemical.com

pHydrion® Quat Test 1000 Papers (0-1000 ppm Hi-Range)
(These papers are NOT available from GSA. GSA only has the papers for low concentrations)

- Microessential Labs (https://www.microessentiallab.com/ProductInfo/W20-QUATTQUATCK-SRD.aspx) $44 for 10 kits. Each 'kit' provides 150 tests.
- Grainger, Inc. (http://www.grainger.com/Grainger/items/3UDF5?Pid=search) $48 for 10 kits. Each 'kit' provides 150 tests.

Wildfire Suppression Recommendations for Fisheries Resources in Southwest Oregon

Remember, safety first! Do not delay a response to a wildfire to contact NMFS.

Streams, Lakes, and Riparian Areas

- A journey level fish biologist will be involved in development of the Wildland Fire Decision Support System document (WFDSS) when fires occur in drainages with listed fish species.
- Utilize Minimum Impact Management Techniques (MIMT) in areas where there is potential to injure or harass listed fish or damage critical habitat. Every effort should be made to minimize stream course disturbance, sedimentation, and actions that may result in increased water temperatures.
- Provide complete briefing/maps to overhead teams and crews where salmon species & critical habitat are present.
- Snags and down wood are very important to riparian areas. Try not to fall snags. Leave downed trees and snags in the largest pieces possible. If it is necessary to cut riparian trees, fall them into the stream where possible.
- Avoid falling trees that shade the stream unless absolutely necessary.
- Avoid cutting up or bucking large logs from stream channels unless absolutely necessary.
- Whenever possible, let fire back slowly into riparian areas and stream banks rather than lighting in riparian areas.
- Follow the **"Interagency Guidelines for Aerial Delivery of Retardant or Foam Near Waterways"**
- Within coho salmon occupied drainages, no mechanical fireline construction within 300 feet of river/stream.
- Avoid building dozerline in riparian areas unless absolutely necessary. Finish fireline by hand rather than taking dozerline to stream.
- Avoid constructing fireline parallel to streams for long distances in riparian areas because it can cause erosion of sediment into the stream.
- When using hose near streams, set nozzle to wide mist rather than narrow stream to limit erosion and avoid "hydromining" sediment into the stream.
- Temporary chemical mixing tanks should not be used within 150' of streams and wetlands. Do not apply retardant or foam directly in streams and wetlands.
- Locate camps, equipment servicing/storage, fueling and staging areas away from riparian areas and wetlands (at least 150' from water bodies if possible).
- Flush out engine and water tender tanks arriving from outside the watershed before drafting to avoid spreading invasive aquatic organisms.
- Water Tenders and engines shall not dump water directly from one stream or lake into another, in order to prevent the potential spread of aquatic organisms/diseases.
- Engines and helicopters should not obtain water from multiple sources during a single operational period unless drafting equipment is sanitized between sources.
- Avoid sucking organic and bottom material into water intakes when drafting from streams and ponds.
- Minimize vehicle fords on streams.

Pumping from Streams, Lakes, and Ponds

- Use alternative water sources rather than pumping directly from fish-bearing streams when possible. If unable to avoid pumping water from fish-bearing streams, use **3/32"** screen mesh on pump draft hoses.
- Use overhead fill stations where possible, or set up a volume pump if possible rather than having each engine or tender draft water.
- Pump from the largest body of water available if you have a choice. Avoid fish-bearing streams where possible.
- Leave at least half the original stream flow below the pumping site.
- Leave at least half the water volume in ponds/lakes when they are used as water sources, unless directed otherwise by a Resource Advisor.
- To the extent practicable, avoid and minimize dam construction to pond water for drafting in streams where listed species or their critical habitat are known or believed to be present.
- Place pumps on level ground as far away from the stream bank as possible.
- Place pumps and fuel cans in plastic berms and/or on absorbent pads or other effective spill containment system.
- Refuel at least 150' from streams if possible.
- Contain spills of gas or diesel with absorbent booms and **immediately** report to the Resource Advisor/Technical Specialist (and HAZMAT personnel if present on the fire).

Aerial Retardants

- Follow the **"Interagency Guidelines for Aerial Delivery of Retardant or Foam Near Waterways"**
- Report incidents of retardants and foams hitting streams and wetlands (or close calls within 300') to the Resource Advisor/Technical Specialist.
- Have ground crew keep track of types and amounts of retardant used and approximate location where each drop was made (by talking with pilots and plotting on maps).

Use of chlorine in watersheds infected with Port Orford Cedar root rot disease

- Locate vehicle-washing stations (with chlorinated water) where water will not run into streams.
- When refilling tenders/engines, fill with water first, pull 150' away from the stream (or where overland flow will not run back into the stream), and then add the chlorine.
- Avoid dropping buckets of or directly releasing chlorine-treated water into streams or wetlands.
- Don't treat water from streams that are uninfected with the root rot disease, unless it is for use at washing stations (to avoid unnecessary use of chlorine).

Helicopter Dip Site Guidance
High Cascades RD, Rogue River-Siskiyou NF

Rationale
This document is intended to help facilitate the selection and use of helicopter dip sites during fire suppression activities. The guidelines are intended to provide reasonable protection of aquatic resources while maintaining public safety and meeting fire suppression needs.

The Sky Lakes Wilderness contains numerous high mountain lakes. All of these lakes have extremely high water quality and many support fish populations. The high water quality in these lakes is attributed to the limited spatial scale of the individual lake basins, and the lack of anthropogenic disturbance within the wilderness. These lakes contain very little dissolved chemical (i.e. they are similar to distilled water). This condition reduces the buffering capacity (i.e. ability to resist changes in pH) of these lakes and makes them very susceptible to impacts from anthropogenic disturbances within their respective basins. For this reason, the use of fire retardant or other fire chemicals within the wilderness is prohibited unless approved by the Agency Administrator.

Aquatic Invasive Species (AIS) are aquatic and terrestrial organisms and plants that have been introduced into new ecosystems throughout the United States and the world, and are both harming the natural resources of these ecosystems and threatening the human use of these resources. AIS are also considered “nuisance” species or “exotic” species and the terms are often used interchangeably. Because of the large expanses in which fire crews travel, the potential to serve as vectors for invasive species is significant.

These dip site guidelines are intended for use starting with the 2011 fire season and will continue to be refined and revised over time. **As with other resource protection measures, public and firefighter safety and protection of property take precedence over these guidelines.**

Preferred Dip Site Locations (coordinates are in WGS 84 datum)
When feasible, dip site locations outside of the wilderness high lakes are preferable. Preferred sites include:

- Rogue River mainstem
- Fish Lake N 42º 23.430’ W 122º 19.324’
- Fourmile Lake N 42º 28.048’ W 122º 15.242’
- Medco Pond N 42º 39.472’ W 122º 26.136’
- Willow Lake N 42º 28.461’ W 122º 26.895’
- Lost Creek Lake N 42º 40.712’ W 122º 39.050’

Fish Lake, Willow Lake, and Lost Creek have all had blue green algae blooms in the recent past. All buckets and drafting equipment that utilizes these water sources will be sanitized prior to using another water source.

If dipping within the wilderness is determined to be necessary, it is limited to the following sites, as these sites have been used in the past. Dipping at these lakes should be closely monitored and reevaluated if substantial drawdown of the lake level is occurring. **All dip sites shall be approved by a local resource advisor, fisheries biologist, hydrologist, or wilderness manager.**

- Lake Ivern N 42º 40.653’ W 122º 13.746’
- Grass Lake N 42º 39.731’ W 122º 12.988’

The following locations should not be utilized for dipping:

- Alta Lake (no dipping or pumps)
- High use recreation sites – Natural Bridge, Union Creek, River Bridge
- Fish Lake west of Doe Point (suspended pumps within lake near private house sites)

Required Actions that can Help Prevent Spread of AIS

- Minimize driving equipment through or wading across waterbodies whenever possible.
- Avoid transferring water between drainages or between unconnected waters within the same drainage (i.e. avoid dumping water from one stream or lake into another).
- Avoid sucking organic and bottom material into water intakes when drafting from stream or ponds. Use screens.
- Avoid obtaining water from multiple sources during a single operational period unless drafting/dipping equipment is sanitized between sources.
- If contamination of gear is unavoidable, contact the Resource Advisor and/or District Fish Biologist for cleaning guidance.
- Off-Forest fire equipment (engines, buckets, etc.) shall be sanitized upon check-in at a fire incident on the RRSNF.
- Local Forest equipment shall be sanitized upon demobilization from any off-forest incident or upon arriving back on unit.

If you have questions, ask the Resource Advisor and/or District Fish Biologist/Hydrologist

BAER Activities Recommendations for Fisheries Resources in Southwest Oregon

National Marine Fisheries Service, Southwest Oregon Habitat Branch – Roseburg 2008

Safety is the first priority!

- Provide complete briefing and maps to teams and crews where listed salmon species, critical habitat and/or essential fish habitat are present.
- Avoid falling trees that shade the stream unless absolutely necessary. Maintain shade, bank stability and large wood recruitment potential to the greatest extent possible.
- Snags and down wood are very important to riparian and aquatic areas. Avoid falling snags, riparian, or stream-adjacent trees unless absolutely necessary. If it is necessary to cut riparian and stream-adjacent trees, fall them toward or into the stream where possible.
- Leave downed trees and snags in the largest pieces possible.
- Avoid cutting up or bucking large logs from stream channels unless absolutely necessary. Coordinate with fisheries and hydrology personnel when removing logs or other natural debris from streams.
- When cleaning culverts, wood recovered during cleaning should be placed downstream within the stream channel, where possible. Other options include placing in riparian or in-stream within same 5th field HUC. Minimize turbidity and sediment delivery to streams.
- Minimize the use of heavy equipment (dozers, etc.) in riparian areas.
- Minimize disturbance to any remaining native vegetation in ditches.
- Locate equipment servicing/storage, staging areas, refueling areas, and camps away from riparian areas and wetlands (at least 150' from water bodies). Place fuel cans in plastic berms and/or on absorbent pads or other effective spill containment system. All heavy equipment should be inspected for leaks and all leaks repaired before leaving the staging area when used in riparian/aquatic areas.
- Develop and implement a spill containment and control plan and provide spill containment equipment on site.
- Locate vehicle-washing stations where water will not run into streams or other water bodies.
- Use certified weed-free straw or hay bales to prevent introduction of noxious weeds.
- Use native seeds acquired from a local seed source supplier when seed treatments are necessary. Coordinate activities with botany personnel.
- Minimize pesticides/herbicides/fertilizer use in riparian reserves and use application methods with the least amount of impact to fisheries resources.
- Minimize the amount of rip rap used, if necessary, for scour or bridge protection. For bank stabilization, use native materials and a minimum amount of rock, if necessary. Coordinate with fisheries and hydrology personnel.
- When replacing culverts, follow NFP, ODFW and NMFS guidelines for design and installation. Coordinate with fisheries and hydrology personnel and consider designing permanent stream crossings in the following priority: (1) Road realignment, (2) bridge, (3) streambed simulation/bottomless arch, and (4) no-slope design/hydraulic design culvert.
- For monitoring purposes, summarize all activities; document activity type and location; provide a brief description for use in emergency consultation.

<u>NFMS Consultation Biologist for Southwest Oregon:</u> Michelle McMullin: 541-957-3378

Fire Suppression Guidelines for Natural and Heritage Resources

Heritage Resources:
Collecting artifacts from public lands is illegal. That means, in most circumstances, **do NOT** collect such items as arrowheads, grinding stones, bottles, insulators as well as all other cultural artifacts. Instead, note the location on a map, (GPS it if possible) and ask the division supervisor to report the information to a resource advisor or archaeological technical specialist. However, if prehistoric artifacts (such as arrowheads, grinding stones etc.) are **found during construction of fireline** and/or other ground-disturbing activities that will receive heavy firefighter traffic, **do** collect the item; note the location where it was found (GPS it if possible), and turn the item over to a resource specialist with a request it go to the Forest Archeologist. Please leave your name and an address and phone number of your home unit where you can be reached if any further questions about location arise. Note: Firefighters on the 2002 Biscuit Fire were responsible for finding several very important archaeological artifacts on the firelines, and they turned these over to the proper Forest Service personnel, thereby contributing to the knowledge of regional prehistory.

Timber and Silviculture:
The following guidelines are common to all FMUs for Timber and Silviculture resources.

- Firefigher and public safety are always the highest priority.
- To the extent possible, protect stands with a greater than 30% component of Pines 20 inches or greater in diameter.
- Aggressively suppress all fires in areas of awarded timber sales.
- To the extent possible, protect areas in which significant investments in silvicultural activities have taken place.
- Actively suppress fires when weather potential could trigger a stand replacement fire.
- Actively suppress fires when 30% or more of the area is in a shrub stratum condition (goal is to avoid a crown fire if possible).
- Actively suppress fires in areas in which multiple fire return intervals have been missed. Due to high fuel loadings and the availability of ladder fuels, mechanical treatment and prescribed burning may be needed before fire a less aggressive suppression strategy will be effective.

Soils:
Rather than overtly restrict Initial Attack on soils of concern it may be more important to be aware of those concerns and then focus on site rehabilitation. It is important to rehab lines as soon as possible and consider using an excavator with a thumb, or a small dozer like the John Deere 450 to rehab dozer lines.

Whenever possible maximize the use of natural barriers rather than constructing line. This could be in areas devoid of vegetation, such as rock outcrops and talus slopes.

Consider back burning from a wet line rather than a constructed line.

Initial deployment concerns

-- Dozers brought in for initial attack may have been working hours before in the valley without first being cleaned. The potential to spread unwanted seeds or SOD and POC is increased during initial attack when using dozers.

-- When accessing slopes, dozers commonly drive up draws rather than the steep cutbank. This practice should be minimized. If driving up a draw must be done to leave the road prism then move out of the draw as soon as possible.

-- Consider walking the dozer in from a distance to keep from entering a draw.

Dozer suggestions
-- Stress to Dozer Bosses that dozer operators under their charge are to remove the least amount of soil needed to meet objectives.

-- Dozer boss should caution operator to minimize disturbance when turning.

-- Dozer boss should control height of berms, lower berms means less rehab and soil disturbance.

-- In dense brush fields there is often little vegetation underneath the brush, consider using a dozer with a brush rake to"float" brush off without excessively affecting the soil resource.

-- Use dozers on slopes under 35 percent, short steeper pitches OK if really needed.

Soils of Concern

Granitic Soils or Pumice Soils on Steep Slopes
-- Easily erodible when disturbed
-- Keep dozers on ridges whenever possible
-- Minimize cross slope dozer lines

Black Schist
Condrey Mountain Schist on Rogue River NF
Coleman Schist on Siskiyou NF
-- Slippery soils (high in graphite)
-- Landslide prone

Serpentine Schist
-- Lacks nutrients (many T&E Species)
-- Hard to rehab
-- less vegetation than on most other soils

Lateritic Erosional Pavements -Siskiyou concern only, not a Cascade problem.
-- Generally bare ground on red soils covered with pebbles or gravel
-- Pebbles and gravel are all that prevents erosion
-- When surface is disturbed bright red runoff occurs during rain events
-- Very difficult if not impossible to rehab

Clay Rich Soils
-- Often wet (many T&E Species)

-- Easily compacted and rutted
-- Very difficult to rehab

Microbiotic Soils - ***Siskiyou concerns only, not a Cascade problem.***
-- These soils are generally devoid of tall grasses and appear non-vegetated. The soil particles are held together in a mat by fungal and bacterial filaments.
-- Once disturbed soil below these mats are subject to erosion and may take decades for natural rehabilitation to occur.
-- They occur only on ridgetops and Rough-and-Ready in this area but are common on Eastside deserts.
-- Consider wet-lined edge as to hold backburn.

Wildlife:
The Forest Service goals for wildlife apply to all land allocations. Species are associated with habitats; therefore, the existing condition of habitats in any given area is of primary interest for agencies' wildlife goals during fire suppression actions.

No wildlife habitats need protection from low intensity fire (FIL 1 or 2). Old growth and mature forest do not need protection from moderate intensity fire (FIL 3 or 4); however, smaller forests need protection from FIL 3 or 4. Meadow habitats do not need protection from high intensity fire (FIL 5 or 6); however, all forested habitats need protection from high intensity fire (FIL 5 or 6).

Protect and restore late successional forest habitat, especially in Wilderness, LSR, and Riparian Reserve. LSR objective: "Protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth forest related species including the northern spotted owl" (NWFP, ROD, 1994, pg. A-4).

1) Old growth forest (>32" dbh with > 40% canopy cover) has the highest value for agencies' wildlife objectives, because its abundance is well below desired levels and because of its importance as nesting habitat for T&E species; i.e., marbled murrelet, spotted owl, and bald eagle. This habitat is even farther below desired levels at low elevations (<3500').

a) Protect at least 90% of old growth and minimize creation of openings greater than 3 acres in size.

2) Mature forest (21-32" dbh with > 40% canopy cover) has the next highest value, because it could become old growth forest sooner than younger forest and is used by northern spotted owls for roosting and foraging habitat; occasionally as nesting habitat. Mature forest also provides habitat for fisher, a large pine martin like animal that is found all areas of the Forest except the Powers Ranger District.

a) ***Protect at least 80% of mature forest and minimize creation of openings greater than 3 acres in size.***

3) Small forest (10-21" dbh with > 40% canopy cover) has higher value than seed/sap, because it (young) is used by northern spotted owls for dispersal/foraging habitat. In addition, except for large areas within the Biscuit Fire, the abundance of this habitat type is generally above desired levels in the planning area.

a) ***Protect at least 60% of small forest and minimize creation of openings greater than 20 acres in size.***

4) Seed/sap forest (1-9" dbh) has the lowest values for wildlife, because, except for large areas within the Biscuit Fire, the abundance of this habitat type is generally above desired levels in the planning area.

a) ***Do not suppress fires to protect seedling/sapling forest for wildlife, because this would generally prevent low intensity from burning larger areas where this is needed in larger/older forest habitat.***

5) Larger deciduous oaks (>10" dbh) are generally located in stands dominated by Douglas-fir from 10-40" dbh that has encroached into this pine/oak savanna during the past 60-150 years of fire exclusion. These stands tend to be classified as Dry Douglas-fir. For protection of deciduous oaks from stand replacement fire intensities, apply the same protection criteria described for old growth, mature, and small forest habitats.

6) Do not protect grass/forb habitats from fire, because fire is required for healthy grass/forb habitats.

7) No dozers in meadows. If meadows are needed for safety zones, use prescribed fire to eliminate the fire hazard from grasses and forbs.

8) Minimize felling of large live and dead trees. Minimize felling of deciduous oaks.

9) Leave adequate water in ponds to protect aquatic wildlife. A good rule of thumb is to leave ½ of the water, unless directed otherwise by a resource advisor. More than ½ of the water may need to be left in some Wilderness lakes.

10) Don't feed the wildlife or leave garbage. Especially bears.

Minimize disturbance to nesting Threatened or Endangered Species and peregrine falcons, and ***emphasize that human safety comes first, before protection of T&E species.*** Information below is based on 2004-2008 and the 2006-2008 Biological Opinions for Rogue River Siskiyou NF and Medford BLM. See appropriate maps and management plans if extended attack is during critical nesting period for any of these species.

- **Operation restrictions for Northern spotted owl -1 March to 30 June**

Type of Activity – Prescribed Distances for Spotted Owl	Zone of Restricted Operation
Blast of more than 2 pounds of explosive	1 mile
Blast of 2 pounds or less of explosive	120 yards
Impact pile driver, jackhammer, or rock drill	60 yards
Helicopter or single-engine airplane Type I or II Helicopters	120 yards for small helicopters; 0.25 miles for Type I or II helicopters
Chainsaws (hazard trees, tree harvest, etc.)	195 feet
Heavy equipment	105 feet

- **Operations restrictions for Marbled Murrelet - 1 April to 5 August**

Type of Activity – For Marbled Murrelet	Zone of Restricted Operation
Blast of more than 2 pounds of explosive	1 mile
Blast of 2 pounds or less of explosive	120 yards
Impact pile driver, jackhammer, or rock drill	100 yards
Helicopter or single-engine airplane	120 yards
Chainsaws (hazard trees, tree harvest, etc.)	100 yards
Heavy equipment	100 yards

- **Operation restrictions for bald eagle from 1 January to 31 August, or two weeks after chicks are fledged, if known.**

- **Operation restrictions for peregrine falcon** should be based on site-specific nesting chronology and generally adhere to the following guidelines**:**

Elevation	Restricted Period
1 - 2,000 ft	1 January – 1 July
2,000 – 4,000 ft	15 January – 31 July
> 4,000 ft	1 February – 15 August

Restricted zones around peregrine nest sites should be detailed on a site-specific basis, but will follow these general guidelines:

Zone	Restricted Distance from active cliff	Restricted activities during nesting period
Primary	0.25 – 0.75 (avg. 0.5) air miles	Minimize human activity
Secondary	0.5 up to 2 air miles	Minimize human activity
Tertiary	3 air miles	Minimize large helicopters or any blasting

Consider **Guidelines for Threatened or Endangered Species** from USDI Fish and Wildlife Service.

File Code:	1910/2080/5100/2520-3	Date:	July 26, 2006
Route To:			

Subject: Integrating Invasive Species Considerations into Fuels and Fire Management Activities and Burned Area Emergency Response (BAER) in R6

To: Forest Supervisors, CRGNSA Manager, Director, Resource Planning and Monitoring, Director, Natural Resources, Director, Fire and Aviation Management

On October 11, 2005, I signed a Record of Decision (ROD) for programmatic *Invasive Plant Program - Preventing and Managing Invasive Plants within the Pacific Northwest Region*. The ROD amends Forest Land and Resource Management Plans with standards for preventing the introduction, establishment, and spread of invasive plants and standards for invasive plant treatment and site restoration. This new direction for invasive plant management is incorporated into Forest Plans effective on March 1, 2006.

Hazardous fuels reduction, wildfire suppression, and burned area emergency response (BAER) are three activities where the ROD standards apply. Specifically fire and fuels management plans, wildland fire situation analyses, wildland fire incident management plans and BAER implementation plans are required to address invasive weed prevention standards. In addition, the *National Strategy and Implementation Plan for Invasive Species Management* (USFS, 2004) calls for comprehensive management of impacts and threats from invasive species as a whole.

To assist in compliance with the programmatic ROD and Forest Plans, Forests are expected to include the enclosed ***R6 Invasive Species Watch-Out Checklist for Fuels Management Activities, Wildfire Suppression and BAER*** as standard forest procedure and include in the Delegation Letter to Incident Management Teams brought on Forest. This checklist highlights the key areas where invasive species should be integrated into fire related activities.

Thank you for your support in preventing the spread of invasive species on National Forests. Questions may be addressed to Nancy Phelps at 503.808.2914 (**nphelps@fs.fed.us**), Steve Howes at 503.808.2937 (**showes@fs.fed.us**) or Dave Bridgwater at 503.808.2666 (**dbridgwater@fs.fed.us**).

/s/ Charlie Krebs (for)
LINDA GOODMAN
Regional Forester

Enclosure

cc: Nancy Phelps, David Bridgwater, Steve Howes, Ken Snell

R6 Invasive Species Watch-Out Checklist for Fuels Management Activities, Wildfire Suppression and BAER

☐ 1. Has the lead agency provided the Incident Management Team (IMT) with maps and management information on noxious weed populations and aquatic nuisance species (ANS; e.g. whirling disease, New Zealand mud snail, Eurasian watermilfoil, sudden oak death, Port Orford cedar root rot) locations? Have vehicle wash sites been identified and mapped? Are management emphasis areas for the IMT designated, including staging areas, dip sites or the potential burn area? (This should be done immediately upon arrival)

☐ 2. Are fire camps, spike camps, helipads and vehicle staging areas located on areas free of noxious weeds?

☐ 3. Are vehicle undercarriages examined at appropriate times (arrival to, and/or departure from, a weed infested site) by a knowledgeable inspector for weed contamination? Are identified vehicles pressure washed thoroughly? Unwashed equipment and vehicle undercarriages are potentially transporting noxious weed seeds and/or disease spores.

☐ 4. Where weeds are identified, the Natural Resource Advisor should be consulted to ensure weed and ANS prevention practices are followed e.g. hand pulling, mowing helipads, and flagging off weed infestations. Were proper weed disposal techniques used?

☐ 5. Are vehicle wash stations self-contained (weed seeds and spores stay on-site) and/or located on hardened sites that will not readily become infested later?

☐ 6. Is the vehicle wash station(s) schedule coordinated with the daily equipment deployment schedules, reducing chance of equipment bottlenecks?

☐ 7. Are daily briefings of fire line personnel and equipment operators being conducted to ensure staff are knowledgeable of the priority weeds and their locations? Do staff members clearly understand their role in preventing infestations of invasive species?

☐ 8. Are ANS prevention protocols being supported (e.g. washing and drying water buckets with chlorine solution, cleaning equipment before contaminating other water sources and water bodies that contain ANS species)? Are the necessary precautions being taken to avoid mixing contaminated water or depositing with other water source(s)?

☐ 9. Certified weed free materials should be used for revegetation activities (i.e. hay, straw, mulch, soil, and seed). Are proper testing procedures for seed purchases being followed?

Rogue River Siskiyou NF
Bridges Rated at Less Than Highway Legal Loading Load Rating in Tons

				Inventory			Operating		
District	Road #	Mile Post	Bridge Name	Type 3	3S2	3-3	Type 3	3S2	3-3
GB	1108000	3.1	E. FK. Winchuck	23	37	46	36	58	69
GB	1376000	1	Chetco River	27	43	39	39	61	75
GB	1376000	12.4	Upper Chetco River	24	38	47	36	56	69
GB	1407150	3.9	S. Fk. Eagle Creek	25	34	39	42	56	64
GB	3300000	28.8	Shasta Costa	24	38	46	36	57	70
WR	4402206	4.5	Lower Fall Creek	24	36	48	34	50	67
WR	4611000	2.3	Grayback #1	32	33	36	55	55	60
PW	3358000	14.9	Cedar Swamp	15	24	30	29	41	50
PW	5201000	0	Elephant Rock Cr.	22	36	49	37	58	72
PW	5201000	8.3	Rusty Butte Half	22	31	44	38	60	74
PW	5201000	23	Elk River	26	34	41	40	52	61
SM	1030000	5.1	Steve Fork 3	24	42	42	39	70	70
SM	1030400	0.1	Low Gap Cr 1	24	37	46	35	55	67
HC	6200400	0.34	Union Creek	21	33	40	65	103	127
HC	6215000	0.44	Mill Creek	24	37	47	37	57	72
HC	6400000	10.7	Abbot Creek	24	38	46	34	54	67

Notes:

Highway Legal Loadings for Rating Vehicles

1. Type 3 Trucks (3 axle end dumps) = 25 Tons
2. Type 3-2 Trucks (Loaded log trucks, 3-axle tractor with 2-axle semi-trailer) = 36 Tons
3. Type 3-3 Trucks (Highway trucks with 3-axle tractor and 3-axle trailer) = 40 tons

For equipment overload permitting consult the following direction:
Rogue River Siskiyou NF - Commercial Road Use Rules And Road Use Permit Requirements (link)

Incident Signage and Placement on County and State Jurisdiction Roads

Name	Agency	Title	Office	Cell	Mgmt. Area/Road
Lanty Jarvis	ODOT Dist. 7	Sign Coordinator	541-957-3678	580-8517	Hwy. 101
Randy Camp	ODOT Dist. 7	Dist. Crew Leader	541-957-3651	580-8516	
Jeff Waddington	ODOT Dist. 7	Permit Writer	541-396-1151		
Charlie Creese	ODOT Dist. 8	Maint. Manager	659-3196		
Gary Lollar	ODOT Dist. 8	Sign Coordinator	541-665-5210		Hwy. 199, 62,230
Roger Alleman	ODOT Dist. 8	Permit Writer	541-774-6360	890-1268	
Russ Peterson	ODOT Dist. 8	Maint. Supervisor			
Dave Steiner	ODOT Dist.11	Permit Specialist	541-883-5786		Hwy. 140
Natalie Santos	CalTrans	Engineer	707-445-5390		District Eng. Group
Brad Wittler	Josephine Co.	Traffic Engineer	541-659-9730		
Mike Lutz	Jackson Co.	R/W Specialist	541-774-6241		
Dale Petrasek	Jackson Co.	Project Engineer	541-774-6248		
Frank Barrata	Jackson Co.	Veg. Manager	541-774-6307		
Mike Boren	Jackson Co.	Maint. Foreman	541-774-6254		North District
Jeff Pruitt	Jackson Co.	Maint. Foreman	541-774-6256		South District
Larry Goddard	Jackson Co.	Sign Coordinator	541-774-6260		

WILDLAND FIRE CHEMICAL APPLICATION ASSESSMENT AND MONITORING

Guidance Plan for Assessment of Fire Chemical Misapplication

The post-spill evaluation of misapplied (or intentionally applied based on exception) fire chemicals is envisioned as a tiered, stepwise approach graphically represented in the flow charts (Figures 1-6). The evaluation is initiated by the observation of fire chemicals in potential habitats of concern (Figure 1). An Interagency Wildland Fire Chemical report is required anytime retardant or other fire chemical falls within the 300' buffer zone, in a waterway or in T&E species habitat (website for form: **http://www.fs.fed.us/rm/fire/wfcs/report.htm**).

Observations may include discovery of spill site by ground crews, air- or ground-based visual record of misapplication, or knowledge of application in habitats designated for "water only" treatments. The observation would include or be documented by a cursory examination of the site, noting an estimate of amount released or extent of coverage in an intrusion report filed by the fire Resource Advisor or the Incident Commander. The resource advisor would identify if threatened or endangered species are potentially at risk. The advisor may also need to evaluate applications in terrestrial habitats, if the site of application provides habitat for threatened or endangered species that are potentially impacted (Figure 2). If the observed fire chemical is encountered due to initial or extended attack fire suppression, then the individual making the observation should contact the unit's resource specialist with the location.

In aquatic habitats, subsequent investigations by the resource specialist/advisor would include a characterization of the site including:

- Site terrain, substrate, vegetation cover
- Estimated amount and type of fire chemical released
- Fuel type
- Spatial extent of chemical application,
- Extent of stream directly impacted
- Approximate width, depth, and flow of the stream
- Water quality (clarity, color, temperature, pH, conductivity)
- Amount of canopy cover

Subsequent investigation of the misapplication incident will depend on the magnitude of apparent impact and whether the site provides habitat for a threatened or endangered species.

Figure 1 **Misapplications in Aquatic Habitats**

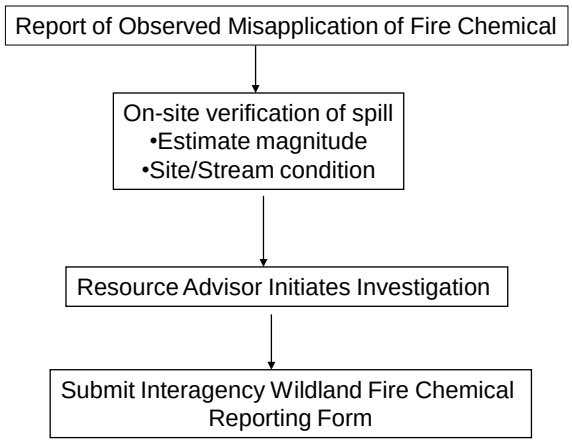
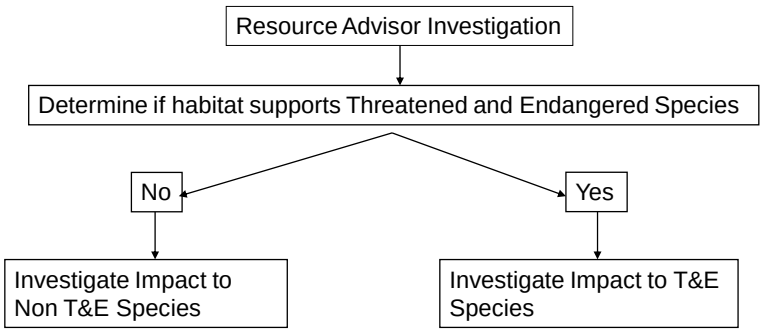


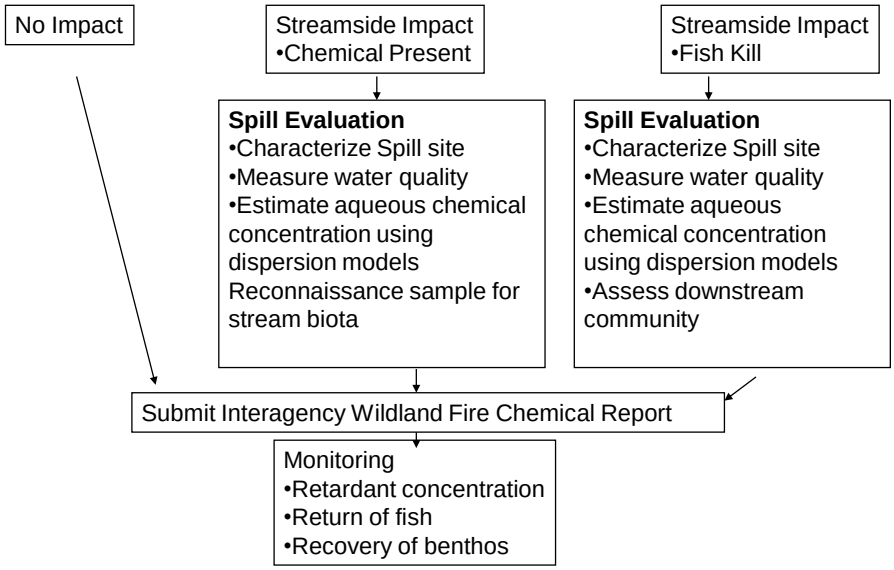
Figure 2 **Misapplications in Aquatic Habitat**



Evaluation of misapplication in aquatic habitats supporting a non-T&E species site could be judged a non-impact incident and no further action would be required when limited coverage is observed within 300 feet of the stream but did not enter the stream, or occurred in a dry stream bed.

Misapplications of fire retardants are frequently observed as watersheds marked with red colorant. The ecological significance of the hazard can be ambiguous because it may not be known when the application occurred. The colorant can persist longer than the degradation of the retardant and remain evident after the system has recovered. The appearance of red substrates or retardant residues in stream beds would require characterization of water quality (e.g., site-specific measurement of pH, ammonia, dissolved oxygen, temperature). In addition, a mixing zone model calculator may be used to estimate possible fire chemical concentrations based on extent of stream impacted. If these calculations indicate an exceedance of the LC 50 concentration, then a reconnaissance kick sample of the stream bed downstream of the application should be conducted to determine the presence and preliminary observations of benthic biota. If live benthic invertebrates are observed then further assessment is probably unnecessary. If benthic invertebrates are not apparent during the kick sample, then sampling at later dates would be necessary. If the model calculator indicates that the LC50 was not exceeded, then there would be no need for sampling or monitoring.

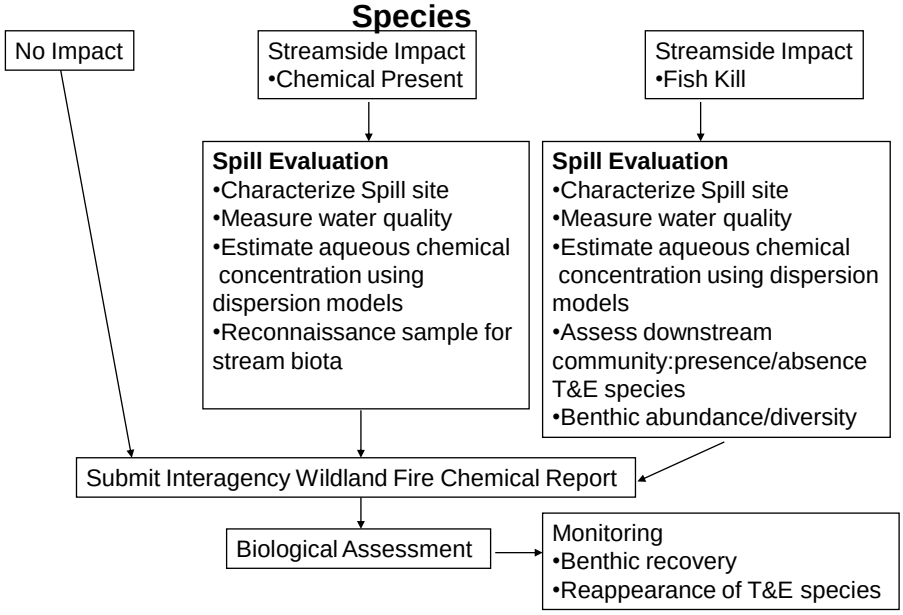
Figure 3 **Misapplications in Aquatic Habitat of Non-Threatened and Endangered Species**



In the event of a fish kill, the species, age or size, and number of organisms should be documented. Fish samples should be collected if species identification is uncertain. Documentation should continue downstream beyond the drop zone until no dead fish are apparent. The use of flow dispersion models could also be used to estimate concentrations and downstream extent of impact that may have occurred during the time of misapplication. Water quality measurements as described above should be made. Water samples could also be collected for ammonia analysis. Kick samples should also be made to determine the presence of live benthic invertebrates, areas upstream of the drop zone should be similarly sampled for comparison. The stream site should be reevaluated at intervals following the application to document recovery of water quality and recolonization of the benthos, and return of fish.

The unit's resource advisor will investigate any misapplication of fire chemicals in habitats supporting threatened and endangered species (Figure 4) in order to determine if subsequent consultation with NMFS or FWS is required. The areas within National Forest's critical habitat and areas within which the species range have been identified in the management plan for each National Forest. Thus GPS or navigational logs of location of fire chemical release, witnessed accounts of misapplications, or encountered retardant-stained habitats are sufficient to initiate investigation by the unit's resource advisor. As described earlier, the effort required in the documentation of impact will depend upon the magnitude of the application. Where coverage within 300 feet of the stream bank is minimal, an investigation of water quality above and within the drop zone and evidence of benthic biota from sediment kick samples should be sufficient for a determination of no significant impact. This determination can also be estimated from model calculations of likely ammonia concentrations in water resulting from the percentage of chemical coverage on adjacent stream banks.

Figure 4 **Misapplications in Aquatic Habitat of Threatened and Endangered Species**



In the event of presumably significant fire chemical misapplication, coverage would be assumed when chemical-covered substrates are encountered in areas immediately adjacent to and within the stream banks. Estimates of aqueous concentrations could be derived through models of stream width, depth, and flow relative to estimated percentage coverage. In addition, water quality would be

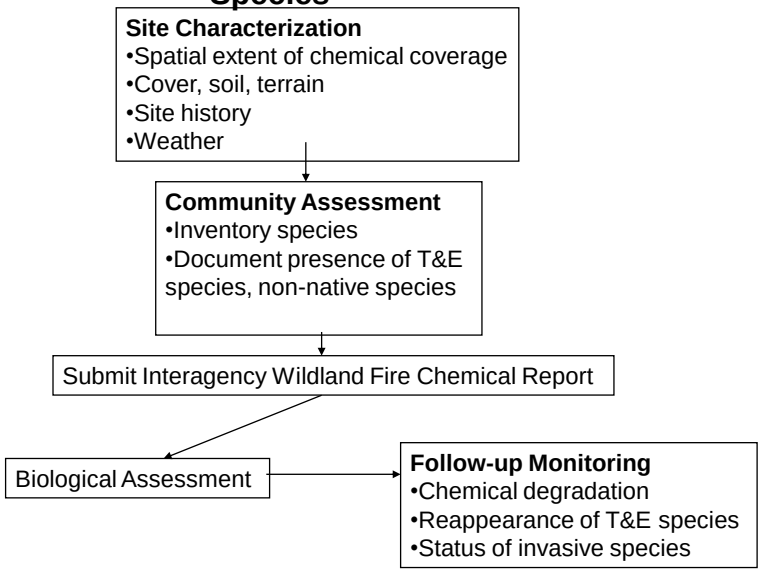
measured upstream, within, and downstream of the drop zone. Kick samples of stream substrates would be conducted in these areas to determine the presence of live benthic invertebrates, and define the area of impact. Subsequent monitoring may be required to document degradation of fire chemicals, return of water quality to upstream or pre-application conditions, and evidence of recolonization of impacted areas of the stream.

The occurrence of a fish kill involving threatened and endangered species would require the most extensive evaluation of a misapplication incident which would include documentation of the drop zone, and estimates of distance downstream likely to have been impacted based on width, depth, and flow. The species, number of affected animals observed, and their age class (or size) of the species impacted would need to be documented, with samples gathered to confirm species. Benthic samples upstream, within, and downstream of the drop zone would also need to be collected in order to determine the diversity and abundance of the benthic community. Following guidance from the consultation, periodic sampling may be advised to monitor return of drop zone water quality and colonization to upstream condition.

The location and range of habitats supporting terrestrial threatened and endangered species (Figures 5 and 6) have been identified for each National Forest. Through pre-fire and Forest Management Plans consultation with FWS and NMFS these areas have often been designated as “water only” fire suppression. For plant species, the immediate impact of fire retardant will be consistent with over application of fertilizer including a yellowing (chlorosis), withering, and possible loss of leaves. Chronic exposure to heightened nitrogen concentrations may physiologically impair the plant, increasing their susceptibility to insects and disease, and reducing competitive success with invasive vegetation resulting in a reduction or absence of the T&E species over time. Larval stages of T&E invertebrates may be directly injured through dermal contact with fire chemicals. In addition insects such as butterflies may lose critical host plants. Terrestrial vertebrates may suffer less impact because the zone of fire chemical application is limited, but may be impacted through hydration and dermal contact. Thus the level of evaluation of a misapplication will vary depending on the species of concern.

Misapplication of fire chemicals in habitats supporting T&E species requires an evaluation of the site to determine the extent of injury to T&E species and the community with in which they live and to document the degradation of the fire chemicals (Figure 5).

Figure 5 **Misapplications in Terrestrial Habitats of Threatened and Endangered Species**



For T&E plants it is important to verify the survival of the T&E species through the next growing season and to document that invasive species have not increased as a result of fire chemical misapplication.

When misapplication of fire chemicals has been determined, a site characterization should be initiated to document:

- spatial extent of the fire chemical application,
- terrain, slope and surface soil
- site history
- weather

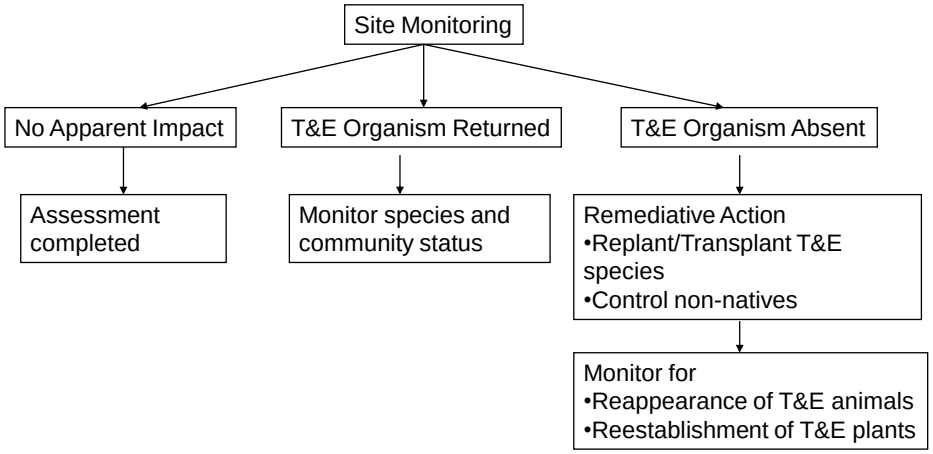
Plant species within the affected area should be identified, with photo documentation to confirm species. The presence of T&E plant species should be confirmed, and their numbers and condition should be documented. Ammonia concentrations in retardant covered soil should be evaluated to determine degradation.

The presence and condition of invertebrate and vertebrate T&E species should be confirmed. A lack of evidence of fire chemicals exposure would likely support a decision of no apparent impact. The return of a T&E animal to the site and the degradation of ammonia would also support a decision of no apparent impact.

We anticipate that the response to fire chemicals will be delayed, thus the site should be reevaluated within several weeks to a month after misapplication to document injury to plants and to determine presence/absence of invertebrate/vertebrate fauna. The site should also be reevaluated during the next growing season to confirm the viability of T&E plant species.

The documented loss of a T&E plant may require remediation, including transplantation and care sufficient for the reestablishment of the species and providing subsequent support, possibly including the control of non-native plants within the area of impact.

Figure 6 **Monitoring in Terrestrial Habitat of Threatened and Endangered Species**
(continued from Figure 5)



INTERAGENCY WILDLAND FIRE CHEMICAL REPORTING FORM

(and INSTRUCTIONS)

1. Incident Name:	**2. Date/Time of Occurrence**:
3. Date/Time of Discovery:	**4. GPS Location** (decimal °): Lat: Long:
5. Physical Location of Occurrence – Unit Name (Forest, District, etc), waterway and any other landmark names:	
6. Type of Fire Chemical: Retardant ☐ Foam ☐ Water Enhancer (Gel) ☐	
7. Name of Fire Chemical:	
8. Method of Exposure: Large Airtanker ☐ SEAT ☐ Helibucket ☐ Helitanker ☐ Ground ☐	
9. Occurrence Was: Accidental (aerial) ☐ Accidental (ground) ☐ Exception to 2000 Guidelines ☐	
10. Description of Fuel Coverage at Site: Open Light Fuels ☐ Brush ☐ Open Timber/Grass ☐ (check all that apply) Timber/Brush ☐ Heavy Timber/Closed Canopy ☐ Slash ☐	
11. Physical Description of Site (steep, level, rocky, high organic soil, etc.):	
12. Description of Chemical Coverage on Site: Light Mist ☐ Spotty ☐ Continuous ☐ Puddles ☐	
13. Extent of Chemical Coverage: Limited Coverage ☐ Scattered Coverage ☐ Widespread Coverage ☐	
14. Ground Spill (Approx. # of Gallons**)**:	A**erial Drop** (% of Load Dropped - Full,1/2,1/4,etc) :
15. Approximate Size of Total Area Affected by Occurrence: Length ft. Width ft.	
(NOTE: If reporting chemicals in a waterway, or the 300' buffer zone, please complete #16, #17 & #18 below. Otherwise, skip to #19.)	
16. Did Chemical Enter the Waterway: Yes ☐ No ☐ **If Yes, Estimated Amount:** gal. (or) %	
17. Approx. Size and Depth of Waterway at Site (in feet): Length Width Depth	
18. Description of Waterway: Stream ☐ River ☐ Pond ☐ Lake ☐ Other (list)	
19. Name(s) of any Potentially Affected TES Species: (include ESU/DPS designation)	**20. Orientation & Extent of Application to Waterway and/or T&E Species Terrestrial Habitat** (see form directions below)**:**
21. Assessment of the Direct and Indirect Environmental Effects of the Wildland Fire Chemical (attach photos and maps if available):	
22. Additional Comments:	

23. Report of Fire Chemical Application made by (include unit/incident position, email address and phone #):
24. Date and Time Reported:

COMPLETING THE FIRE CHEMICAL REPORTING FORM

Use this form for reporting any aerial application of retardant, foam or water enhancer (gel) in a waterway or within the 300-foot buffer area; or when a transportation accident results in a spill of a wildland fire chemical into a waterway or within the 300-foot buffer; or when ground resources apply a wildland fire chemical that enters, or has potential to enter a waterway; or when applied on USFS administered lands in the habitats of the 45 Threatened & Endangered Species (TES) identified by the US Fish & Wildlife Service (USFWS) as being the most vulnerable to retardant, regardless of the 300' waterway buffer.

Waterway defined: "Any body of water including lakes, rivers and ponds whether or not they contain aquatic life."

Please complete the form as accurately as possible. If unsure of the answer to any question write "Unknown" in the applicable block. Submit the completed form to the host unit Agency Administrator and a copy to the Wildland Fire Chemicals System (WFCS) program at the Missoula Technology and Development Center (MTDC). The information can be sent via fax, hard copy mail, or email. This form may also be used by the local unit for the initial reporting to the appropriate regulatory agencies and specialists within the local jurisdiction. **Note:** if the agency administrator determines that there have been adverse effects to any aquatic TES within the 300 foot buffer, then emergency consultation requirements must be followed with the USFWS or the local National Marine Fisheries Service.

FAX for WFCS: (406) 329-4763

Mailing Address: WFCS, MTDC
5785 Highway 10 West
Missoula, MT 59808

Questions about the form: WFCS Chemical Reporting: 406-329-4859
(or) WFCS Program Leader: 406-829-6761

E-mail the form to: szylstra@fs.fed.us and
asuter@fs.fed.us

Form Instructions:

1. Incident Name: Self-explanatory

2. & 3. Date and Time of Occurrence/Discovery: Provide the date and time of the event if known, or the date and time of its discovery.

4. GPS Location: Record the latitude and longitude in degrees decimal (eg. 43 21.89 x 116 72.67)

5. Physical Location of Occurrence: List the drainage name(s), landmark name if applicable, and names of all known bodies of water affected. Include the Forest, District and/or Resource Area name.

6. Type of Fire Chemical: List whether retardant, foam or gel if known.

7. Name of Fire Chemical: Provide the product name of the wildland fire chemical if known.

8. Method of Exposure: Record the application method used in the delivery of the wildland fire chemical, either Large Airtanker (includes Very Large Airtanker), SEAT, helicopter bucket, helitanker or ground system.

9. Occurrence Was: State if the application was an accidental aerial application or an accidental transport application (due to a tanker truck or some other type of land delivery mishap) or by an exception to the 2000 "Guidelines for Aerial Delivery of Retardant or Foam Near Waterways" (exception is also found in the *Interagency Standards for Fire and Fire Aviation Operations*). If discovering the exposure after the fact, note that on the form.

10. Description of Fuel Coverage at Site: Self-explanatory

11. Physical Description of Site (steep, level, rocky, high organic soil, etc.): Self-explanatory

12. Description of Chemical Coverage on Site: Check the one that best describes the over-all coverage across the site area. **Light Mist**: self-explanatory. **Spotty**: ground & vegetation is covered w/chemical spotting, but not continuous chemical present. **Continuous**: chemical application is heavy enough that there is no longer individual spotting of chemicals. **Puddles:** chemical application is heavy enough that there are standing puddles present on the ground and/or vegetation.

13. Extent of Chemical Coverage: Check the coverage that best describes the over-all application within the 300' waterway buffer or the TES habitat.

14. Ground Spill / Aerial Drop: For a transportation accident, estimate the number of gallons spilled and note if the gallons spilled are for concentrate or mixed product. For an aerial drop, state the % of the load dropped by the aircraft into the affected area, if known. The tanker pilot, lead plane or ATGS may have that info if available.

15. Approximate Size of Total Area Affected by Occurrence: Self-explanatory

16. Did Chemical Enter the Waterway: If yes, give your best estimate on the number of gallons that entered the waterway. If an aerial drop, give your best estimate of the drop percentage that impacted the waterway (e.g. 5%, 10%, etc.)

17. Approx. Size and Depth of Waterway at Site: <u>If chemical entered the waterway</u>, give approximate average in feet of the length, width and depth of waterway area affected by the occurrence

18. Description of Waterway (if applicable): Check as many as apply. "Other" could include canals, marshes and springs. If a body of water is present, it could also include riparian areas and intermittent streams.

19. Name(s) of any Potentially Affected T&E Species: for Waterway or terrestrial T&E species; include ESU (evolutionarily significant unit) and DPS (distinct population segment) name, if applicable.

20. Orientation & Extent of Application to Waterway and/or T&E species Terrestrial Habitat: If applicable, for Waterway T&E species or non-waterway habitats of the 45 T&E species identified in the FWS Biological Opinion, give the orientation of the drop or spill proximity to the waterway and/or terrestrial habitat. For example, if the stream runs E-W, was the drop/spill parallel (E-W) to, perpendicular (N-S) to, or angled

(NW-SE) across the waterway. Which part of the drop/spill appeared to enter waterway (middle, end, all)? You may submit a map with the affected area drawn in.

21. Assessment of the Direct and Indirect Environmental Effects of the Wildland Fire Chemical: Provide information concerning the impact to the waterway, buffer zone, and if applicable, the TES and/or habitat area. Provide the names of any affected species. Direct impacts include factors like dead aquatic species, if a TES plant is completely covered, if the ground in the area is covered, etc. An example of indirect impacts would include the prevalence of fire chemicals in the area of a TES, but the chemicals are not touching or in close proximity to the species.

22. Additional Comments: Provide any other relevant information. This may include contributing factors like visibility issues, malfunctioning equipment, the use of fire chemicals being necessary for the protection of life and property or the use of chemicals potentially prevented more severe resource damage to the watershed/habitat than occurred from the chemical application itself.

23. Report of Fire Chemical Application made by: Self-explanatory

24. Date and Time Reported: Self-explanatory

Wildland Fire Chemicals
Tactics and Product Characteristics
Ground Application

Why are wildland fire chemicals used?

- They chemically treat fuels to make them less combustible (long-term retardant)
- They maximize available water supply (foam and water enhancer/gel)
- They improve efficiency of water (foam and water enhancer/gel)
- They reduce fire intensities (retardant, foam and water enhancer)
- They reduce mop-up time and labor (foam)

What kinds of chemicals can be used?

- Only chemicals that are on the Qualified Products List (QPL) shall be used and only for the delivery method approved: See website for details: **http://www.fs.fed.us/rm/fire/wfcs/index.htm**

What kinds of products are available?

- **Foam fire suppressants** enhance water in three ways: First, they lower the surface tension of water, which reduces runoff and helps it absorb into fuels faster. Second, they form bubbles, which hold water above the fuels (keeping fuels cooler) and also block combustible gases that fuels release when heated. Third, a thick lather coating of foam can provide a reflective surface which keeps the fuel underneath cooler and protects from ignition. Once the water in the foam has evaporated, it is no longer effective.
- **Water enhancers (gels)** improve the ability of water to cling to vertical and smooth surfaces by making water thick and sticky. The thick, sticky layer of water insulates fuels and delays ignition. The consistency of these products can change drastically depending on the quality of mix water. As with foams, these products also rely on the water they contain to suppress the fire. Once the water has evaporated, they are no longer effective, but generally last longer than foams.
- **Long-term retardants** contain retardant salts (typically fertilizers) that alter the way the fire burns, decreasing the fire intensity and slowing the advance of the fire, <u>even after the water in the mix has evaporated</u>. None of the fertilizer salts used in retardants has explosive characteristics.

Personal and Environmental

Health/Environmental:

- Approved fire suppressant chemical products have been tested and meet specific minimum requirements with regard to mammalian and aquatic toxicity. The field is required to report known accidents, spills, and exceptions to the Guidelines for Aerial Delivery of Retardant or Foam near waterways (2000 Guidelines) and the non-waterway habitats of the 45 T&E species habitats noted in the Chief of the Forest Service Decision Notice.

- Develop a local plan for dealing with a spill and report any spill to the resource advisor
- Non-municipal water sources may contain aquatic invasive species. Consult with Incident Resource Advisor on areas of exceptional concern, and always avoid transferring water or dirty, muddy equipment to new locations. Use portable wash stations before leaving incident.

Do's:

- Follow manufacturer's recommendations as found on product label and MSDS
- Mix in well-ventilated areas
- **PPE:** Wear eye protection and waterproof gloves when mixing
- Have eye wash capability and first aid kit available at mixing sites
- Rinse exposed skin, clothing and equipment thoroughly with water as soon after direct contact as possible (extended exposure to wildland fire chemicals can enhance skin irritation)
- Be cautious of slippery conditions in work area
- Follow ICS and/or Agency Chain of Command process for reporting of spills and/or applications near waterways.
    - **Interagency Reporting Form**
- Always clear personnel and equipment from an aerial drop zone! The impact force of chemicals dropped from all aircraft can severely damage vehicles and injure or kill people.

Don'ts:

- Don't inhale vapors, dust or powder when mixing (wear dust mask around dry chemicals)
- Don't eat or drink chemicals
- Don't mix, stage or apply chemicals near water supply

Ground Equipment Basics

Thoroughly rinse tanks, hoses and attachments after every use or at the end of each day, to minimize corrosion and other damage. Lubricate equipment often. Foam concentrate in a sealed system (not exposed to air) can generally be left alone during use season, but flush before storage. ***Note: All rinse water should be handled like it is contaminated. Contain and dispose of properly!***

- Conventional nozzles - more efficient use of common equipment, create only froth (wet foam)
    - Gels may plug conventional nozzles and valves; test before using and flush thoroughly
- Aspirating nozzles (Nozzle Aspirated Foam Systems or NAFS)- most economical generating device, limited foam variability (do not use for gels)
- Proportioners - control and maintain consistent percentage injection, produce all foam types; gels should have their proportioning system defined by the gel vendor for each application. A report on the tested performance of proportioners

in firefighting conditions is forthcoming; preliminary evidence indicates that some proportioners are not always accurate under field conditions
- Compressed Air Foam Systems, or CAFS units - most stable foam, longer stream throw, produces all foam types – consult gel manufacturer for guidance on using CAFS

Note: most products have specific uses and may not be approved for all application methods. See QPL and website noted above.

Using Chemicals Effectively

Mixing Considerations:

- Percent Concentration:
  - Foams: 0.1% to 1%. Most applications use 0.1% for wetting, 0.3% (CAFS) to 0.5% (NAFS) for general use, and up to 1% for exposure protection.
  - Gels: Maximum 3%. See QPL for approved concentration for each product.
  - Retardants: Currently approved long-term retardants are generally mixed with specialized equipment and trained personnel (often vendors). Consult with contracting officer for QA/QC responsibilities.
- Mix Water Quality:
  - Salt in mix water, even in small amounts, will inhibit foams from foaming and gels from gelling. Hard water has a similar, less severe, effect.
- Product Qualities:
  - Foams: Each product has a different foaming and wetting profile. Varying the percent injected, the type of nozzle used, and the amount of air injected (for CAFS) will vary the foam characteristics within this profile. Crews should become familiar with this profile for the foam they most commonly use.
  - Gels: Thickness and stickiness can be adjusted, to a limited extent, by varying the percent concentration to adjust for water quality. Increase mix ratios gradually and never exceed the maximum percent approved, as the gel may clog equipment.

How long can I expect products to remain effective?

- Long-Term Retardants – Days/Weeks (or until removed by rain or wind)
- Foams - Minutes (direct) to minutes/hours (mop-up)
- Water Enhancers/Gels – Minutes/Hours (direct sunlight breaks down gels faster)

Are there issues with mixing different products?

- **Do not mix:** Each product has specific characteristics; combining different products may give the worst characteristics of each.

Wildland Fire Chemicals
Tactics and Product Characteristics
Aerial Application

What kinds of chemicals can be used?

- Only chemicals that are on the **Qualified Products List (QPL)** shall be used, and only for the delivery method approved.

What kinds of products are available?

- **Suppressants (direct attack only):**
  - **Foam fire suppressants** contain foaming and wetting agents. The foaming agents and percentage concentrate added affect the accuracy of an aerial drop, how fast the water drains from the foam, and how well the product clings to the fuel surfaces. The wetting agents increase the ability of the drained water to penetrate fuels. These products are dependent on the water they contain to suppress the fire. Once the water they contain has evaporated, they are no longer effective.
  - **Water enhancers** contain ingredients designed to alter the physical characteristics of water to increase effectiveness, accuracy of the drop, or adhesion to fuels. They also improve the ability of water to cling to vertical and smooth surfaces. The consistency of these products can change depending on the quality of the water used for mixing. Once the water they contain has evaporated, they are no longer effective.
- **Long-term retardants (direct and indirect attack):**
  - Contain retardant salts (typically fertilizers) that alter the way the fire burns, decreasing the fire intensity and slowing the advance of the fire, even after the water in the mix has evaporated. ***Note: Long-term retardants are no more effective than plain water in direct attack. Whenever possible, plain water, foam or gel should be used for direct attack.***

Personal and Environmental

Health/Environmental:

- Approved fire suppressant chemical products have been tested and meet specific minimum requirements with regard to mammalian and aquatic toxicity. The field is required to report known accidents, spills, and exceptions to the Guidelines for Aerial Delivery of Retardant or Foam near waterways (2000 Guidelines) and the non-waterway habitats of the 45 T&E species habitats noted in the Chief of the Forest Service Decision Notice.
- Aerial operations, especially dipping, snorkeling and scooping operations, have a high potential for spreading invasive species. Consult with Incident Resource Advisor on areas of exceptional concern, and avoid transferring water from one source to another.

Do's:

- Follow manufacturer's recommendations as found on product label and MSDS
- **PPE:** Wear eye protection and waterproof gloves when mixing
- Have eye wash capability and first aid kit available at mixing sites
- Be cautious of slippery conditions in work area
- Rinse exposed skin, clothing and equipment thoroughly with water after use
- Apply spill containment procedures in accordance with Agency policy
- Follow ICS and/or Agency Chain of Command process for reporting of all spills and/or applications near waterways
  - Reporting form and more information is available on **Aerial Application of Fire Retardant**.

Don’ts:

- Don’t inhale vapors or dust when mixing (wear dust mask around dry retardant)
- Don’t eat or drink chemicals
- Don’t mix, stage or apply chemicals near water supply (follow 2000 Guidelines for application)
- Don’t dispose of unused chemicals without Incident Resource Advisor approval

Aerial Equipment Basics

Why are wildland fire chemicals used?

- They chemically treat fuels to make them less combustible (long-term retardant)
- They maximize available water supply (foam and water enhancers)
- They improve efficiency of water (foam and water enhancers)
- They reduce fire intensities (retardant, foam and water enhancers)

How long can I expect products to remain effective?

- Long-Term Retardants – Days to Weeks (or until removed by rain or wind)
- Foams – Minutes
- Water Enhancers/Gels - Minutes to Hours (direct sunlight breaks down gels faster)

Are there issues with mixing products?

- **Never mix retardant with foam or gel!** Even residual retardant will break down an entire batch of foam or gel.
- **Do not mix different foams or different gels:** Many products are incompatible with each other.

Equipment considerations:

- Large Air Tankers, SEATs, Helicopter fixed tanks and buckets: All accept batch-mixed product, some SEATs and helicopter fixed tanks and buckets have foam injection capabilities
- Consult QPL for product compatibility

Note: most products have specific uses and may not be approved for all drop systems. See QPL and website noted above. Products must have received approval for the type of equipment that will be used.

Official Duties:

- Typically, aerial operations involve contractor support. Refer to the appropriate retardant contract for explanation of Government and Contractor responsibilities.

Equipment care:

- Rinse tanks, tankers and buckets after every use or at the end of each day, to minimize rust and other corrosion
    - Helicopter fixed tanks and buckets delivering retardant should draft from a dip tank of clean water at the end of the day to thoroughly rinse exposed components

- Lubricate equipment often
- Foam concentrate in a sealed system (not exposed to air) can generally be left alone during use season, but flush before storage

Note: All rinse water should be handled like it is contaminated. Contain and dispose of properly!

RSF GIS Data Locations
Rogue River-Siskiyou National Forest – Location of GIS Data
Check Metadata for more information on each layer
All Gedatabases are located in:T:\FS\Reference\GIS\r06_rrs\Data

Geodatabase	Feature Dataset	Feature Classes	Description
Activities.gdb	Activities	ActivityPolygon	Past Harvest Activities by Year
		ActFuelTreat2000 to 2010	Fuel treatment by Year

Geodatabase	Feature Dataset	Feature Classes	Description
ANNO.mdb		R06_AnnoBdy63360	Designated Boundary Annotation
		R06_AnnoInfrastructure63360	Designated Infrastructure Annotation
		R06_AnnoLandSurvey63360	Designated Land Survey Annotation
		R06_AnnoRecreation63360	Designated Recreation Annotation
		R06_AnnoTopography63360	Designated Contour & Topographic
		R06_AnnoTransportation63360	Designated Road Number System
		R06_AnnoWater63360	Designated Water Sources

Geodatabase	Feature Dataset	Feature Classes	Description
aviation_Hazards_2010.gdb	DVOF	AviationHazardPt	
	Local_data	aerial_recreation_areas	aerial recreation areas
		aerial_recreation_points	aerial recreation points
		airports	airports
		falcon_pst	falcon nests
		guard_stations_retardant_jettison	guard stations

Geodatabase	Feature Dataset	Feature Classes	Description
CartographicRefernce.gdb	CartographicReference	Quad	71/2 min. quads for the Forest.

Geodatabase	Feature Dataset	Feature Classes	Description
Cff.gdb		Peaks	Mountain Tops

Geodatabase	Feature Dataset	Feature Classes	Description

ConstructedFeatures.gdb	ConstructedFeatures	RoadPointEventFeaturesRSW	gates, barriers, culverts, signs, bridges etc.

Geodatabase	Feature Dataset	Feature Classes	Description
FireAndAviation.gdb	Airport	AirportPolygon	Airports
	FireHistory	FireHistoryPL	Fire History Polygons
		FireHistoryPt	Fire History Points
	FirePlanning	CommunitiesAtRisk	Communities at Risk
		DispatchBlock	Forest Dispatch Blocks
		FireManagementUnit	Fire Management Unit
		FireManagementZone	Fire Management Zone
		FirePlanningUnit	Fire Planning Units
		LookoutROR	Lookouts on the Rogue side of the forest
		RadioSites	Radio Sites
		RepeaterSites	Repeater sites
		WatersourceHighCascades	Watersource locations on the High Cascades
		WatersourceSiskiyou	Watersource locations on the Siskiyou side of the forest
		WatersourceSiskiyoumts	Watersource locations on the Siskiyou Mountains
		WUI	Wildland Urban Interface
	FlightHazard	FlightHazardLine	Flight hazard
		FlightHazardPoint	Flight hazard
		FlightHazardPolygon	Flight hazard

Geodatabase	Feature Dataset	Feature Classes	Description
FishandWildlife.gdb	Fish_Distribution	FishAnadromous	Anadromous Fish Distribution
		Fish_Resident	Resident Fish Distribution in streams
	Fish_Management	Fish_KeyWatershed	Key Watershed for Fish
		FishSection7Grouped	Section 7, Biological Assessment
	Fish_Passage	R6FishCulverts_Rogue_20101116	Fish Culverts
		R6FishCulverts_Siskiyou_20101116	Fish Culverts
	Wildlife	WL_Chu_MM	Marbled Murrelet Critical Habitat Unit
		WL_Chu_Nso1992	Northern Spotted owl Critical Habitat

			unit 1992
		WL_Chu_Nso2008	Northern Spotted owl Critical Habitat unit 2008
		WL_MM_Zone	Marbled Murrelet Zones
		WL_Nso_HCA1993	Northern Spotted Owl Habitat Conservation Areas
		WL_Nso_MOCA2008	Northern Spotted Owl Moca 2008

Geodatabase	Feature Dataset	Feature Classes	Description
Geophysical.gdb	Geology	GeoHazardPolygon	Landslide hazard areas rogue
		GeologyRockType	Geology Rock type scattered areas
		GeoResourcePoint	quarries, borrow pits and rock source inventories
		GeoResourcePointGoldBeach	quarries, borrow pits and rock source inventories for GBRD
		GeoResourcePolygon	Geo Resource Polygons
		GeoUnit	Geological units for the state of Oregon
		LandslideBiscuit	Landslide layer from Biscuit
		LandslidePoint	Landslide points Siskiyou
		LandslidePoint_ror	Landslide points Rogue
		MineralPotential	Mineral Potential on the siskiyou
	Soil	Erosion	Prediction of soil erosion
		Soil	soil type Parent material
		SoilDepth	soil Depth
		SoilInventoryJacksonCounty	Soil Inventory jackson county
		SoilNonSerpentine	Non Serpentine soils
		SoilResourceInventory	SRI
		SoilSerpentin	Serpentine soils
	Topography	Contour100	100 foot contours
gridfiles		Elevation10_rr	Digital Elevation Model 10 meter Rogue
		Elevation10_sis	Digital Elevation Model 10 meter Siskiyou
		Elevation30_cz	Digital Elevation Model 30 meter Cascades
		Elevation30_sis	Digital Elevation Model 30 meter Siskiyou
		Elevation30_sz	Digital Elevation Model 30 meter Siskiyou Zone

		ElevationNCalifonia	Digital Elevation model 10 meter Northern California

Geodatabase	Feature Dataset	Feature Classes	Description
Hydro.gdb	Climate	WeatherStation	Weather Station
	Hydrography	Ditch	Ditch
		rivers	Rivers
		RoadStreamCrossing	Road and Stream Crossings
		StreamClass	Streams by Stream Class
		Waterbody	Waterbodies, lakes
	HydrologicUnits_Historic	Basin_SIS	Historic basins
		Catchment_ROR	7th field Watershed Rogue
		Catchment_SIS	7th field Watershed,Siskiyou
		Region_SIS	1st field Watershed, Siskiyou
		Subbasin_SIS	4th field Watersheds, Siskiyou
		Subregion_SIS	2nd field Watersheds, Siskiyou
		Subwatershed_SIS	6th Field Watersheds, Siskiyou
		Watershed_SIS	5th Field Watersheds, Siskiyou

Geodatabase	Feature Dataset	Feature Classes	Description
Infrastructure.gdb		Gnis	Geographic names Information System

Geodatabase	Feature Dataset	Feature Classes	Description
InsectDisease	InsectDisease	DiseaseRootRot_POC	POC Root Rot Disease Updates for the Siskiyou
		DiseaseRootRot_POC_BiscuitPowers	POC Root Rot Disease Updates for the Siskiyou
		DiseaseRootRot_POC_Drainage7	7th field Uninfected POC Watersheds from the POC EIS
		DiseaseRootRot_POC_Historic	Historic POC Root Rot Disease
		Sudden_Oak_Death_Quarantine	Sudden Oak Death Quarantine Area

Geodatabase	Feature Dataset	Feature Classes	Description
Land.gdb	AdministrativeSite	AdminSitePoint	Admin sites on the forest
	Land	AdministrativeForest	Administrative Boundary

		City	City and Towns around the Rogue River Siskiyou NF
		CityLimits	City Boundary
		HJStoneNursery	Jherbert stone Nursery
		MineClaimSis	Mining Claims Siskiyou
		NPS_Boundary	Crater Lake NP Boundary
		OregonCaliforniaRailroadRor	O and C lands Rogue
		OregonCaliforniaRailroadSis	O and C Lands Siskiyou
		OtherNationalDesignatedArea	Cascade Siskiyou National Monument
		Province	Province Boundaries
		RangerDistrict	Ranger District Boundary
		ResearchNaturalArea	Research Natural Area
		SectionRor	Public Land Line
		SectionSis	Public Land Line
		SurfaceOwnership	Ownership within the Rogue River Siskiyou NF
		Township	Township lines
		Wilderness	Wilderness boundary
		WildScenicRiver	Wild and Scenic Rivers

Geodatabase	Feature Dataset	Feature Classes	Description
ManagementDirection.gdb	LandManagementPlan	AdaptiveManagementArea	AMA boundary
		AdministrativeWithdrawn	Administratively withdrawn
		AdministrativeWithdrawn_ror	Administratively withdrawn
		Backcountry	Backcountry
		Botanical	Botanical Areas
		LandMgmtPlanPolygon_ror	LRMP rogue
		LandMgmtPlanPolygon_sis	LRMP Siskiyou
		LandUseallocation_1993	Land Use Allocation 1993
		LandUseAllocation_2002	Land Use Allocation 2002
		LateSuccessionalOldGrowth_1993	Late Successional Old Growth 1993
		LateSuccessionalOldGrowthCores	Late Successional Old Growth cores
		MarbledMurrelet_CH_1993	Marbled murrelet Critical Habitat
		MarbledMurreletZone_1993	Marbles Murrelet Zones
		Matrix	matrix
		NSO_Center_1993	NSO Centers 1993 - Siskiyou
		NSO_Center_1993_ror	NSO Centers 1993 rogue

		NSO_Habitat1993	NSO Habitat areas rogue
		NSO_Habitat_1993_sis	NSO Habitat areas Siskiyou
		NSO_Habitat_2008	NSO Habitat Areas R6
		NSOowlreserves	NSO Owl Reserves - 100 acres cores rogue
		RiparianReserves	Riparian Reserves siskiyou
		RiparianReserves_ror	Riparian Reserves Rogue
		Roadless	Roadless Area
		Roadless_ror	Roadless Area Rogue
		SpecialInterestAreas	Special Interest Areas
		Supplemental Resource	Supplemental Resource areas
		WatershedKey_1993	Key Watersheds 1993
		WatershedKey_1993_ror	Key Watersheds 1993 Rogue
	ResourceManagement	ResearchNaturalArea	RNA
		SpecialInterest	Special Interest Areas
		Visual	VQO Siskiyou
		Visual_HighCascades	VQO High Cascades
		WLHabitat	Wildlife Habitat
		WLUse	Wildlife Use areas Siskiyou
	RMU	RangeImprovementLN	Range Improvement lines
		RangeImprovementpt	Range Improvement Points
		rmu_unit	Range management Units

Geodatabase	Feature Dataset	Feature Classes	Description
Recreation.gdb	Recreation	DispersedRecSitePoint	Dispersed Rec site Rogue
		DispersedRecSitePolygon	Dispersed Rec Site Siskiyou
		RecreationOpportSpectrum	ROS
		RecreationSitePoint	Recreation Site Point
		RecreationSitePolygon	Recreation Site Polygon Rogue
		Trailhead	TrailHead Rogue

Geodatabase	Feature Dataset	Feature Classes	Description
Transportation_RRS.mdb		blm_roads	BLM GIS Road System
		major_roads	Major roads within swor
	Transportation	Road	National Forest Road System
		RoadEvent	Road System with info

		Trail	National Forest Trail System
		TrailEvent	Trail System with info
		TravelRoute_ln	Travel routes.

Geodatabase	Feature Dataset	Feature Classes	Description
VEGETATION.mdb	Vegetation_Botany	InvasivePlantAll	Invasive Plants Poly
		Meadow	Meadows
		PlantSpeciesPolygon	Federally listed Plants
		PortOrfordCedar_BiscuitPowers	All POC in the Biscuit fire and Powers RD
		PortOrfordCedar_Siuslaw	Poc on the Siuslaw NF
		TESP_OccurrenceAll	Threatened and Endangered species
	Vegetation_Historic	HistoricVegetationPOC	Historic POC data areas outside of Biscuit and PWRD
	Vegetation_Stand	Existing_Vegetation_Stand	Existing Veg
		FSVeg_Location	FS veg
grid files		GNN_Vegetation2001	Satellite Data Gradient Nearest Neighbor
		PAG051903	Plant Association Group

this harddrive also contains imagery for the Rogue Siskiyou
E:\FireGISLayers2011\imagery
Forest_vis_maps: Forest Visitor Maps
Naip 2005: Ortho quads from 2005
sc_pbs: Topographic quads for the Rogue River Siskiyou

the pdfs for aviation hazards were downloaded from ftp://ftp.nifc.gov/Incident_Specific_Data/PACIFIC_NW/!SORO/Aviation_Hazards/2010/
Aviation_Hazards were downloaded from the nifc website.

3.3.6. **Appendix F: Medford BLM Resource Advisor Reference**

March 24, 2004

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Roseburg Office
2900 NW Stewart Parkway
Roseburg, Oregon 97470
Phone: (5413)957-3474 FAX: (541)957-3475

Reply To: 8330.02482 (04)
File Name: MEDBLM.doc
TS Number: 04-2055

Memorandum

To: Tim Reuwsaat, District Manager, Medford District BLM, Medford, Oregon

From: Craig A. Tuss, Field Supervisor, Roseburg Field Office, Roseburg, Oregon

Subject: Emergency Consultation requirements of the Endangered Species Act

As the upcoming fire season approaches, I would like to take the opportunity to review the Emergency Consultation requirements of the Endangered Species Act. The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) requires appropriate precautions be taken to minimize adverse impacts to threatened and endangered species during all federal actions, include the emergency consultation process. During an emergency, the Action Agency has a duty to meet their section 7(a)(2) and 7(d) obligations. The U.S. Fish and Wildlife Service, Roseburg Fish and Wildlife Office (Service) recognizes that protection of human life and property are paramount in fire emergencies, and offers the attached recommendations for your consideration as a supplement to your agency specific mitigation measures when conducting suppression activities on federal lands administered by the Medford District BLM.

Please note the “federal action” during suppression actions refers to actual fire suppression activities, such as hand and dozer line construction, application of fire retardant, and backfire operations. These actions shall be analyzed independent of the effects of the fire itself. Information necessary for the completion of emergency consultation includes identification of highly impacted areas (by both fire and suppression actions) such as safety zone construction, spike camps, sanitation facilities, landings, etc), Hand-built fire line, machine-built fire line, new, re-opened or re-constructed roads and trails, water sources, retardant drop sites and location and approximate acres of backfire operations. Please refer to the attached recommendations for completing a biological assessment regarding emergency consultations (Attachment 1).

We encourage you to share the “general guidelines for all species” (Attachment 2) with fire staff, resource advisors and Interagency Fire Management Teams that may be required for suppression actions on public lands administered by your agency.

Service staff will review the attached list of guidelines, and make appropriate site-specific recommendations upon initiation of an emergency consultation. We are available to assist with the implementation and conclusion of Emergency Consultation requirements, and look forward to working with your staff. If you have any questions about this letter, please contact either myself at 541-957-3470, or Cynthia Donegan at (541) 957-3469. During a fire emergency, our staff may be contacted through the Umpqua National Forest Dispatch Office, at 541-957-3325

Aviation Management

Aviation management includes all activities associated with providing aircraft support services for natural resource protection and management functions. Mission flights may be either routine or emergency, and may include such activities as leadplane, smokejumper/para-cargo, aerial photography, mobilization or demobilization of emergency support resources, reconnaissance, survey, and project support. Each Federal Jurisdiction designates a Unit Aviation Officer that administers aviation policy who reports to the Fire Staff Officer (see FSM 5700). ODF and aviation assets are managed by each Unit Forester's Office (see ODF Fire Aviation Procedures Manual).

Federally staffed aviation resources include the Siskiyou Rappellers and Medford air tanker base. ODF SW has contracted aerial retardant planes the past several fire seasons, which are stationed at the Medford Interagency Air Tanker Base and are budget dependent. Up to three helicopters aircraft used for recon and fire suppression activities are also staffed annually by ODF SW and are located throughout the Rogue valley.

3.3.7. Appendix G: Smoke Management/Smoke Management Techniques

The land management plans of the Federal Agencies within the SWOFPU establish that the agency will meet or exceed applicable Federal and State air quality standards and that visibility and other air quality related values (AQRV) within Class I areas will not be impaired as a result of prescribed burning operations.

In Oregon, Congress designated eleven of the state's wilderness areas and Crater Lake National Park as mandatory federal Class I areas. An additional twenty-three areas were designated as wilderness lands under The Oregon Wilderness Act of 1984. Congress has not designated these lands as Class I areas.

Local Wilderness and National Park Lands included within the scope of the Visibility Protection Plan are the Kalmiopsis Wilderness (Rogue River-Siskiyou National Forest) and Crater Lake National Park. These lands have been designated in whole or in part as federal mandatory Class I Areas under the Clean Air Act, Public Law 95-95. Visibility Protection for the mandatory Federal Class I Areas is required by the Clean Air Act Amendments of 1990. Generally, all population centers in the Rogue Basin and along the coast are considered Smoke Sensitive Areas.

Consultation and approval by the State of Oregon is a continuing process, as described below. Management will cooperate with other land managers and the State of Oregon to minimize air quality impacts from smoke on local communities and individuals, including the following specific measures:

- Agencies will obtain all necessary air pollutant emission permits and approvals from the State of Oregon (or State of California for Rogue River-Siskiyou NF lands located in that state) prior to initiating a prescribed fire. The agencies will follow and implement the terms of the interagency Oregon Smoke Implementation Plan and MOU as well as any site-specific open burning permit.

- The agencies will assess potential air quality impacts through the use of smoke dispersion modeling techniques to predict particulate matter emissions, smoke plume characteristics, exposure and visibility impacts.

- The agencies will apply management techniques to minimize smoke production and to enhance dispersion, including burning under optimum weather conditions, expanding the burning season, using backing fires where applicable, burning small blocks, expediting mop-up, etc. These techniques

are described in the **Prescribed Fire Smoke Management Guide, published by the National Wildfire Coordinating Group (NFES No. 1279, PMS 420-1; 1985)**. Application of these techniques will minimize smoke exposure impacts.

- Once a prescribed fire is initiated, the agencies will monitor weather and the burning and smoke dispersion conditions to assure air quality impacts remain within prescribed smoke management levels. If monitoring indicates conditions are no longer within prescription, managers will declare the fire an unwanted wildland fire, and initiate the a suppression response.

- Monitoring of PM 10 and 2.5 levels occur at various locations across the FPU. For example, the Medford BLM has two mobile PM monitoring stations, and the Rogue River-Siskiyou National Forest maintains an IMPROVE Site at Agness to monitor air quality for the Kalmiopsis Wilderness Area.

- The agencies will establish and maintain close communications with State and local agencies regarding the status of prescribed fire projects and wildfires. They will notify concerned smoke-sensitive organizations (e.g.; hospitals, schools, retirement centers) of intentions and conditions, both prior to and during prescribed fire activities.

- The agencies will ensure that the general public is informed of the status of prescribed burns, including smoke management contingencies, through the local news media.

- The field personnel will maintain communications with the appropriate dispatch center. Dispatch will act as a clearinghouse, providing and maintaining daily information on burning projects throughout the region.

These potential impacts were considered in developing this Fire Management Plan, and mitigation measures have been built into the Plan to offset potential negative impacts from smoke pollution. For one, air quality is a factor that must be considered in the Prescriptive Criteria (Go/No Go Checklist) to determine the viability of implementing a prescribed fire. If the established federal and state standards for air quality cannot be met or mitigated in an acceptable manner, the project will not be implemented until conditions change. Secondly, even when these standards are met, the Plan also provides a list of smoke management techniques to mitigate potential impacts, which includes monitoring the amount of emissions and the direction of the smoke dispersal. Prescribed fire projects will comply with the more stringent regulations in these areas.

Finally, the Plan is also designed to accommodate areas where fire is not desired and other types of fuels treatments need to be used. Therefore, additional areas where concerns with air quality standards would require the use of alternative fuels treatments are identified in this plan. Alternatives such as mechanical treatments,

including brush beating, and thinning are utilized throughout the planning area. Chemical treatments are allowable for use on private lands.

The procedure for permit approval by the state of Oregon is carried on through the FASTRACS (Fuel Analysis, Smoke Tracking, and Report Access Computer System).

3.3.8. Appendix H: Emergency Stabilization and Rehabilitation

Emergency Stabilization and Rehabilitation:

The federal agencies will operate within the guidelines of the Interagency Burned Area Emergency Rehabilitation Handbook (Interpretation of Department of the Interior 620 DM 3 and USDA Forest Service Manual 2523) found **here**

For Federal Agencies the budgeting structure of the programs have been separated so that emergency stabilization is covered under the suppression activities and funds and the site rehabilitation activities are applied for in a separate process.

Emergency stabilization projects are "planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or repair/replace/construct physical improvements necessary to prevent degradation of land or resources." Pertinent time frames and procedures to acquire funding to accomplish emergency stabilization funds are listed below.

- Emergency stabilization actions must be taken within one year following containment of a wildland fire.
- For BLM, Department Manual (620 DM 3) requires an initial report or plan to be submitted within seven days from containment of the fire.
- Final Emergency Stabilization Plan is due within 21 days from the date of fire containment. Plans less than $100,000 are submitted to the State Office. Plans for review of approval over that amount are submitted to the National Office. Both the State and National Offices are involved in the reviews and determinations will be made within six days.
- If funding is approved for emergency stabilization it must be spent within 1 year, although monitoring of the projects may be funded up to 3 years. Each year monitoring project funds are requested separately and an "end of 3-year lifecycle" closeout document is required.
- On the Medford District emergency stabilization projects are reported through the NFPORS databases, as appropriate.

Rehabilitation is defined as "Efforts undertaken within three years of containment of a wildland fire to repair or improve fire-damaged lands unlikely to recover naturally to a management approved condition, or to repair or replace minor facilities damaged by fire.

- Rehabilitation Plans should be written concurrently with Emergency Stabilization Plans and submitted just after the due date for the ES Plan.
- Ongoing rehabilitation activities from previous year's fires in their second and third year of rehabilitation require submission of Monitoring Summary Form before the end of the fiscal year to be considered for funding the following year. They will also be required to submit an "end of 3-year lifecycle" closeout report.

- On the Medford District All Rehabilitation projects must be entered into the NFPORS database.
- For Federal Agencies, Emergency Stabilization and Rehabilitation Plans require documentation to provide them NEPA adequacy. A site-specific plan is developed for each fire ESR project after fire containment. Typical activities that are involved include seeding, planting, water bars, hazard tree removal, fence replacement, and monitoring of effects of the fire and the activities. In many instances these activities can be categorically excluded, in other situations they may require an EA or an EIS.

Each Resource Area on the Medford District has an ESR coordinator. This person, along with resource specialist, resource advisors from the fire, and fire specialist, assess what the needs are for stabilization and rehabilitation projects after a fire incident. The Resource Area coordinators are led at the district level by the unit FMO, who advises them of changes in policy, procedures, budget, and requirements for their projects. Some of the monitoring projects are coordinated through the District Fire Ecologist. The annual workload involved with the ESR programs for the District as a whole is quite variable dependent on fire season activities. Over the past decade an average of one work month a year is spent by the Medford Resource Area Coordinators and unit FMO on ESR projects plans, requests, implementation, and documentation. This amount of time may increase with the new requesting formats for these programs. Yearly accomplishment and requesting procedures rather than a 3-year request for rehabilitation and monitoring of stabilization will increase the workload at this level. Resource Specialist spends approximately the same amount of time per project that they are responsible for. All the salary charges accrued from these projects are cycled back to the fire number as the project code.

3.3.9. Appendix I: Monitoring and Evaluation

Monitoring and Evaluation

a) FMP Monitoring

All members of the FPU will be involved, along with resource specialist from their jurisdiction, in annual reviews of this FMP. Certain pages within this document are designed to be changed on a yearly basis.

The Fire Managers and Agency Administrators of the Primary Jurisdictions will designate who is responsible for these updates, and assign it in the annual Program of Work.

b) Program Monitoring

Locally each jurisdiction has protocols in place to evaluate the effectiveness of their programs. Other program elements such as fuels management have routines to evaluate whether a project best fits the purpose it was designed to implement.

The Federal Agencies follow the monitoring protocol for goal and annual trend analysis as described in the RMP and LRMPs. These are detailed in an annual monitoring report for each of the federal agencies in this FPU.

Monitoring is an integral part of the Federal Land Management Plans. Projects and programs are monitored for consistency with the plans and to test the validity of the plans themselves. The 3 types of monitoring used by land use or resource management plans are:

- Implementation – used to determine if the standards and guides were followed.
- Effectiveness – evaluating if the application of the management plan achieved the desired goals.
- Validation – are the underlying resource management assumptions correct.

There is provision for amendment or revision of the Federal Land Management Plans where monitoring shows a need for change or when changes in laws and regulations occur.

Three critical areas to be monitored by the primary jurisdictions of this FPU for compliance with land and resource management plans are:

- Air Quality
- Rural Interface Areas (WUI)
- Fire/Fuels Management

3.3.10. Appendix J: Soda Mountain Wilderness Operations Plan

- **Fire Management**

- ***Fire Management Policy in Wilderness Areas***

The SMW is managed under regulations 43 CFR 6300 Wilderness Management and BLM Manual 8560 "Management of Designated Wilderness Areas." The following are provisions of the BLM Manual 8560 that direct fire management in the SMW:

- **Fire, Insects, and Diseases** – The BLM allows fire, insects and diseases to play a natural role in the wilderness ecosystem, except where these activities threaten human life, property, or high value resources on adjacent non-wilderness lands, or where these would result in unacceptable change to the wilderness resource (BLM Manual 8560.11A2).
- **Minimum Tool -** Tools, equipment, or structures may be used for management when they are the minimum necessary for protection of the wilderness resource or when necessary in emergency situations for the health and safety of the visitor. Management must use the *minimum* tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently (BLM Manual 8560.13).
- **Acceptable tools** - Acceptable tools, equipment, and structures may include but are not limited to: fire towers, patrol cabins, pit toilets, temporary roads, spraying equipment, hand tools, fire-fighting equipment caches, fencing, and controlled burning. In special or emergency cases involving the health and safety of wilderness visitors, or the protection of wilderness values, aircraft, motorboats, and motorized vehicles may be used (BLM Manual 8560.13A).
- **Overriding Fire Guidance for Wilderness Areas** – All fires must be controlled to prevent loss of human life or property within wilderness areas or to prevent the spread of fire to areas outside of the wilderness where life, resources, or property may be threatened. Human-caused wildfires must be prevented and/or controlled unless the fire meets wilderness fire management objectives (BLM Manual 8560.35A1).
- **Natural Fire** – Natural fire (lightning-caused) is normally a part of the ecology of the wilderness, and human efforts to ban this agent have resulted in significant ecological changes in flora and fauna of some areas. In order to return some wilderness ecosystems to a more natural state, it may be appropriate to allow natural fire to burn, but only in conformity with an approved Resource and Fire Management Plan and the overriding fire guidance (above paragraph) (BLM Manual 8560.35A2).

- ***Federal Wildland Fire Management Policy***

The *Review and Update of the 1995 Federal Wildland Fire Management Policy* (January 2001) is the primary interagency wildland fire policy document. The *Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy* (June 20, 2003) was developed and approved under the authority of the Wildland Fire Leadership Council (WFLC) to set forth direction for consistent implementation of the federal fire policy. In 2009, the 2003 Interagency *Strategy for the Implementation of Federal Wildland Fire Management Policy* was replaced by the *Guidance for Implementation of Federal Wildland Fire Management Policy* (GIFWFMP) (February 2009).

The CSNM ROD/RMP (USDI 2008) included and integrated the 1995/2001 and 2003 policies into the ROD/RMP. However, this predates the policy changes adopted in February 2009.

Elements of the Federal Wildland Fire Management Policy that Influence Fire Management in SMW

The following policy statements relate to fire management in the SMW (GIFWFMP February 2009, pages 10-15):

- **Safety** - Firefighter and public safety is the first priority.
- **Fire Management and Ecosystem Sustainability** - The full range of fire management activities would be used to help achieve ecosystem sustainability, including interrelated ecological, economic, and social components.
- **Response to Wildland Fire** - Fire, as a critical natural process, would be integrated into land and resource management plans and activities on a landscape scale across agency boundaries. Response to wildland fires is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, the likely consequences to firefighter and public safety and welfare, the natural and cultural resources and the values to be protected dictate the appropriate response to fire.
- **Use of Wildland Fire** - Wildland fire would be used to protect, maintain and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Use of fire would be based on approved Resource Management Plans, Fire Management Plans and would follow specific prescriptions contained in operational plans.
- **Protection Priorities** - The protection of human life is the single overriding suppression priority. Setting priorities among protecting public communities and community infrastructure, other property and improvements and natural and cultural resources would be done based on the values to be protected, public health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected.
- **Suppression** - Fires are suppressed at minimum cost, considering firefighter and public safety, benefits and all values to be protected consistent with resource objectives.

Fire Management in the SMW and 2009 Changes in Policy

Changes in guidance in policy that have implications for fire management actions in SMW include the following (GIFWMP, pages 19-20):

- **Fire Terminology** - The 2009 changes now define <u>wildland fire</u> as: A general term describing any non-structure fire that occurs in the wildland. Wildland fires are now categorized into <u>two</u> distinct types:
  <u>Wildfires</u> – Unplanned ignitions or prescribed fires that are declared wildfires.
  <u>Prescribed Fires</u> - Planned ignitions.

  Prior to 2009, wildland fire included three types of fire: wildfire, wildland fire use, and prescribed fire. Wildland fire use (the use of a naturally occurring fire for resource benefit) is no longer a separate type of fire. The new terminology and policy recognizes that wildfire and prescribed fire can be used to protect, maintain, and enhance resources.

- **Human Caused Wildland Fires** – The 2009 change is that, "Initial action on human-caused wildfire will be to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety." Prior to 2009, the policy was "Human-caused wildland fires will be suppressed in every instance and will not be managed for resource benefits."

- **Wildland Fire Management Objectives** – The 2009 changes now state: "A wildland fire may be concurrently managed for one or more objectives and objectives can change as the fire spreads across the landscape. Objectives are affected by changes in fuels, weather, topography; varying social understanding and tolerance; and involvement of other governmental jurisdictions having different missions and objectives."

  Prior to this change only one management objective was allowed to be applied to a wildland fire. Wildland fires were either managed for resource benefits or suppressed. A wildland fire could not be managed for both objectives concurrently, and once a wildland fire had been managed for suppression objectives, it could never be managed for resource benefit objectives.

- ***Wildland Fire Suppression Objectives***

The CSNM ROD/RMP analysis acknowledged the "important role fire has played in influencing historical ecological processes and continues to be recognized as a needed component in the development and maintenance of vegetative diversity in fire-adapted ecosystems found throughout the CSNM (USDI 2008, page 17)." However, the decision made in the CSNM ROD/RMP was that the only option would be a full suppression response. This was based on the ownership patterns and logistic constraints. Allowing the use of natural fire for resource benefit and the achievement of ecological objectives by not immediately suppressing fires was not included in any alternative.

This analysis and decision predated the changes to fire policy in 2009. In August 2008, when the CSNM ROD/RMP was completed, the policy was still three types of wildland fire: wildfires, wildland fire use, and prescribed fire, and fires could only have one objective.

Current Suppression Policy - Response to wildland fires is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, the likely consequences to firefighter and public safety and welfare, the natural and cultural resources and the values to be protected dictate the appropriate response to fire.

Potential to Utilize Wildfire for Wilderness Resource Benefit - The ability to utilize wildfire for resource benefit is very limited. The potential acres that perhaps would be allowed to burn for resource benefit would be measured in the tens of acres, less often in hundreds of acres, but extraordinarily rare in the thousands of acres. This is due to the small size of the SMW, the presence of private lands within wilderness boundaries, the adjacent high value resources, air quality considerations, and the number of days that southwest Oregon experiences high to extreme fire behavior potential during fire season. Decisions on the response to a wildfire will consider the topography, limited access, fuel types, and extent of moderate and high hazard conditions, and minimum tools available. Firefighter safety conditions will dictate how direct or indirect the fire would be controlled. Fires that start outside of peak fire season, burning with lower than average intensity conditions typically can be safely direct-attacked by firefighters. During peak fire season, when fires burn with greater than average intensity, indirect attack is often necessary for firefighter safety. Firefighter safety considerations have the potential to result in more indirect suppression actions and therefore, result in additional acreage burned, beneficial or not.

The following is a hypothetical example of how this change could influence wildland fire suppression in the SMW: A wildfire burning in the SMW has one side (west side) of the fire threatening to leave the wilderness boundary and burn onto private property, threatening public safety. The opposite side (east side) has no threat to private property, public safety, and is not a threat to leave the wilderness.

The objective on the west side of the fire would be an immediate need to aggressively suppress the spread of the fire. On the east side, it is determined that fire intensity level and behavior are a benefit and producing no unacceptable change to the wilderness resource. There is no threat to human life, property, or high value resources on adjacent non-wilderness lands. There is no urgent, without delay, need for stopping the fire spread on this side of the fire. The fire would be suppressed; however, the decision on the location and tactics to use can integrate the benefit to wilderness resource objectives into the decision process. The process would include situational assessment, analyze hazards and risk (mainly for firefighters), define implementation actions, and document decisions and rationale for those decisions. The result would be additional burned acres (beneficial), along with potentially enhanced safety for firefighters and reduced suppression costs.

- ***Fire Suppression Organization***

The Bureau of Land Management has a contract with the Oregon Department of Forestry (ODF) to provide fire prevention, detection and suppression services. This contract directs ODF to take immediate action to control and suppress all fires. Their primary objective is to minimize total acres burned while providing for firefighter safety. ODF is required to be consistent with BLM resource management objectives in selecting suppression action alternatives, and when conducting suppression actions on BLM lands.

- ***Fire Facilities***

Water Sources - There are six existing water source installations within the wilderness boundary that have been identified by ODF and BLM as necessary for fire suppression and the health and safety of wilderness visitors (Map 15). These water sources are considered crucial for fire suppression and the use of water is considered the least degrading to wilderness values. All six of these are water impoundments were originally developed for the fire suppression purposes. Routine maintenance and repair of these structures will occur as needed. There will be no change to the location, size or type, nor increase to the original capacity of these water sources. It is anticipated that needs and methods will include the use of hand tools, and replacement parts and materials. The potential need for the use of small power equipment may arise, and the potential for aerial delivery of personal and equipment exists. All maintenance and repair actions would have a Minimum Requirement Analysis to determine the minimum tools and equipment necessary to successfully, safely, and economically accomplish the objective.

Helispots – There are three helispot locations within the wilderness identified by ODF and BLM as the minimum necessary for fire suppression and emergency situations for the health and safety of visitors (Map 15). These helispots require minimal clearing of natural vegetation. Routine maintenance needs and methods will include the use of hand tools and the potential for the use of chainsaws exists. The helispots will be cleared of stumps, brush, posts, large rocks or anything over 18 inches high. The safety circle would be 75, 90, or 110 feet in diameter, with touchdown pads 15 ft. x 15 ft., 20 ft. x 20 ft., or 30 ft. x 30 ft. in size based on needs for Type III, Type II, or Type I helicopters, respectively. All maintenance and repair actions will have a Minimum Requirements Analysis to determine the minimum tools and equipment necessary to successfully, safely, and economically accomplish the objective.

- ***Fire Suppression Actions***

The following general framework will be used when suppressing fires in the SMW:

- Provide for the natural role of fire in wilderness. Use of wildland fire is allowable to meet wilderness management objectives consistent with the 1964 Wilderness Act, legislation establishing the wilderness area, and BLM wilderness management regulations.

- The long-range objective is to allow fire in the SMW to play, as nearly as possible, its natural, ecological role—while, at the same time, not compromising public and firefighter safety or resource values outside of the wilderness.
- All wildfires will have a management response, including consideration of the use of wildland fire. Because of the relatively small size of this wilderness, proximity of Interstate 5, adjacency to the Ashland/Medford Air Quality Management Area (AQMA), and adjacent high value resources, opportunities to use wildland fire to maximize resource benefits may be limited, but should be considered and taken advantage of when appropriate.
- Minimum Impact Suppression Tactics (MIST) guidelines would be followed in an effort to minimize impacts to wilderness character (Appendix C). Any actions deemed necessary by the Incident Commander for public and firefighter safety would be authorized.
- The existing six water sources and three helispots will be retained in the SMW. They are necessary for conducting fire suppression and for the safety of firefighters. They conform to the minimum tool policy as permitted by the Wilderness Act. The ability to use water to control wildfire is considered the least degrading to wilderness values because it reduces the need for fireline construction. The pre-approved designated helispots were chosen for their strategic locations, minimal need to initially clear vegetation, and minimal need for maintenance in the long-term. Retention of these helispots will provide potentially less need for future, emergency helispot construction, no time delay in deploying firefighters, and known evacuation locations. It is anticipated that water source installations and helispots may require a level of maintenance in the long-term. They would be maintained for continued use until such time, if and when, they are determined to no longer qualify for retention under the minimum tool criteria.
- Fire response strategies and tactics should provide for a high degree of public safety and the least amount of operational impairment. Closure of the Pacific Crest National Scenic Trail to use by the public should be avoided in all but extreme cases.
- The Southwest Oregon Interagency Fire Management Plan (FMP) will incorporate SMW resource and management objectives identified in this *Final Soda Mountain Wilderness Stewardship Plan* and the fire suppression guidelines in Appendix C.

- ***Implementation of Rehabilitation of Damages from Suppression Operations***

The goal of wildfire rehabilitation in wilderness is to mitigate or eliminate impacts caused by the fire suppression effort and rehabilitation of the area to as natural a condition as possible. This goal coincides with the intentions of the Wilderness Act, which states: "....wilderness is an area affected primarily by nature, with human activity substantially unnoticeable...." In the case of wildfire suppression, it is the human involvement that has the potential to be the damaging effect on the wilderness resource, even more so than the effects of the fire.

The following general guidance would be used in rehabilitating damages to wilderness character from fire suppression activities:

- BLM policy emphasizes the need to rehabilitate areas disturbed during the fire suppression effort to as natural an appearance as possible.
- Rehabilitation of damages caused from suppression operations will not be the typical BLM standards used on non-wilderness fires.
- Prior to the start of fire season, BLM and ODF personnel will meet to review the wilderness standards and practices used in wilderness rehabilitation. Examples of these are shown in Appendix D.

- Knowledge and understanding of the standards and practices used in wilderness rehabilitation prior to initial attack can be beneficial in selecting and implementing suppression actions which will reduce the amount of rehabilitation needed.
- BLM and ODF will jointly develop a rehabilitation plan as early as possible during the incident to minimize costs.
- ODF and BLM Resource Advisor(s) will need to communicate and collaborate early to ensure efficiency in the rehabilitation work.
- If any motorized vehicle access is used, routes and evidence of human activity would be removed or rehabilitated to the maximum extent possible upon completion of the reclamation work.
- Should seeding be required, the use of certified, weed-free seed and/or the use of species known to compete with invasive species that are known or likely to be present post-fire will be used.

Specific guidelines for rehabilitation practices following wilderness fire suppression activities in the SMW are in located in Appendix D.

- ***Prescribed Burning***

Prescribed burning may be implemented when the objective is to retain the wilderness character of the environment and allow ecological processes to function properly. Where the use of natural fire does not meet management objectives, prescribed burning may be approved according to BLM wilderness policy on a case-by-case basis for the following purpose:

- To restore or maintain the natural condition of a fire-dependent ecosystem.
- To restore fire where past fire exclusion measures have interfered with natural and ecological processes.
- Where a primary value of a given area would be perpetuated as a result of the burning.
- Where it will perpetuate a threatened or endangered species.

A detailed, project-level NEPA analysis would be prepared prior to implementing prescribed burning projects within the SMW.

- **Air Quality Management**

The Clean Air Act Amendments of 1977 designated wilderness areas existing at that time to be Class I Areas. Areas designated wilderness after 1977 are classified as Class II, unless they are additions to existing Class I areas. The Soda Mountain Wilderness area is a Class II, which allows moderate degradation associated with moderate, well-controlled industrial and population growth.

According to the Clean Air Act, air quality reclassification is the prerogative of the states. BLM manages designated wilderness areas as Class II unless they are reclassified by the state as a result of the procedures prescribed in the Clean Air Act, as amended (1977).

Appendix C

Fire Suppression Guidelines

- **Minimum Impact Suppression Tactics**
- **Implementation Guidelines**
- ***Fire Lining Phase***
  - Select procedures, tools, and equipment that least impact the environment.
  - Whenever possible utilize existing barriers such as rock outcrops, talus slopes, sparsely or non-vegetated areas, and trails as control line locations.
  - Give serious consideration to the use of water as a firelining tactic.
  - If there is a risk that hose coming direct from a local unit's cache is contaminated with noxious weed seeds, order fresh hose from the regional cache.
  - Resource Advisors, Operations Chief, and Logistics Chief should be cognizant of any equipment that is being moved from a non-wilderness fire to a wilderness fire and make attempts to clean equipment of noxious weed seeds prior to it being used in the wilderness.
  - In light fuels consider:
    - Cold-trail line. Constantly recheck.
    - Allowing fire to burn to natural barriers.
    - Burn out and the use of a "gunny" sack or swatter.
    - If constructed fireline is necessary, use minimum width and depth to check fire spread.
  - In medium and heavy fuels consider:
    - Use of natural barriers and cold-trailing.
    - Cooling with dirt and water and cold-trailing.
    - If constructed fireline is necessary, use minimum width and depth to check fire spread.
    - Minimize bucking to establish fireline. Preferably move or roll material out of the intended constructed fireline area. If moving or rolling is not possible, or the down log is already on fire, build line around the log and let it be consumed.
  - In aerial fuels, brush, trees, and snags:
    - Minimize cutting of trees and snags.
    - Live trees should not be cut unless it is determined they will cause fire spread across the fireline or seriously endanger workers. If tree cutting occurs, cut the stumps flush with the ground and camouflage the cut surface with soil or brush.
    - Scrape around tree bases near fireline if hot and likely to cause fire spread.
    - Identify hazard trees with either an observer, flagging, and/or glow-sticks.
  - When using indirect attack:
    - Do not fall snags outside the constructed fireline, unless they are an obvious safety hazard to crews working in the vicinity.
    - On the intended burn-out side of the line, fall only those snags that would reach the fireline should they burn and fall over. Consider alternative means to falling, i.e.: fireline explosives or bucket drops.
    - Review consideration listed above for aerial fuels, brush, trees, and snags.

- ***Spike and Overnight Personal Camp Conduct***
  - Minimize disturbance to land in preparing bedding and campfire sites. Do not clear vegetation, trench, or excavate a flat spot to create bedding sites.
  - Use established latrines where provided. If latrines are not available use the "cat-hole" method of disposing of human waste. Toilet sites should be located a minimum of 200 feet from water sources. Holes should be dug 6-8 inches deep.
  - If a campfire is built for warmth in the evening, build either a pit or mound fire. A fire shelter placed beneath the coals provides extra protection for the soil
  - Use dead and down firewood. Use small diameter wood that burns down more cleanly. Don't burn plastics or aluminum - pack it out with the rest of the camp garbage.
  - If a designated personal washing area is not provided, carry water and bathe away from lakes and streams. Do not introduce soap, shampoo, or other personal grooming chemicals into waterways.
  - Do not use nails in trees.
  - Constantly evaluate the impacts that will occur, both short and long term.

- ***Helispot Construction***
  - Whenever possible, locate helibases in weed free areas, to prevent the transport of noxious weeds into wilderness.
  - When planning for helispots, determine the primary function of each helispot, i.e.: crew shuttle, logistical support, or both.
  - If a helispot is only needed for logistical support to deliver and retrieve supplies or gear, consider using a long line remote hook in lieu of constructing a helispot.
  - If a helispot is needed for crew shuttle, consider the minimum size helicopter that could do the job, if you have an option, and still meet suppression objectives.
  - Use natural openings as much as possible. If some tree falling or cribbing is necessary, avoid high visitor use locations unless the modifications can be rehabilitated to be generally unnoticeable. Feather the opening so that it appears more natural looking.
  - Perform an aerial reconnaissance of the fire area and select potential helispots. In determining helispot locations, involve, at a minimum, the Air Operations Manager, responsible land manager or Resource Advisor, and the Helitack Foreman. Consider drawing a sketch and discuss which trees need to be cut to ensure a safe operation for the size of the helicopter deemed necessary or available.
  - If a high level of resource impact is anticipated from a proposed helispot, evaluate carefully whether it is absolutely necessary and if there isn't an alternative outside Wilderness.
  - Whenever possible, the resource advisor should observe the construction of a helispot.

- ***Mop-up Phase***
  - Use gravity socks in streams and/or a combination of water blivits and fold-a-tanks to minimize impacts to streams.
  - Do not bring in any non-native materials to be used for sediment traps in streams. Use of non-native materials creates a risk that noxious weeds will be introduced to the area.
  - Place absorbent cloth under pumps to avoid spilling fuel on the ground.
  - Personnel should avoid using rehabilitated firelines as travel corridors whenever possible because of potential soil compaction and possible detrimental impacts to rehab work, i.e.: water bars.
  - Consider using infrared detection devices along perimeter (aerial or hand-held).

- Align saw cuts to minimize visual impacts from more heavily traveled corridors. Slope cut away from line of sight when possible.
- In light fuels:
  - -Cold-trail areas adjacent to unburned fuels.
  - -Do minimal spading; restrict spading to hot areas near fireline only.
  - -Use extensive cold-trailing to detect hot areas.
- Medium to heavy fuels:
  - - Cold-trail charred logs near fireline; do minimal scraping or tool scarring.
  - - Minimize bucking of logs to check for hot spots or extinguish fire; preferably roll the logs and extinguish the fire.
  - - Return logs to original position after checking or when ground if cool.
  - - Refrain from making bone piles; burned and partially burned fuels that were moved should be arranged in natural position as much as possible after they are cold.
  - - Consider allowing larger logs near the fireline to burn out, instead of bucking them into manageable lengths. Use a lever or pry bar to move large logs.
- Aerial fuels, brush, small trees, and limbs:
  - - Remove or limb only those fuels which, if ignited, have the potential to spread fire outside the fireline
- Burning trees and snags:
  - - First consideration is to allow burning trees or snags to burn themselves out or down. Ensure adequate safety measures are communicated.
  - - Identify hazard trees with either an observer, flagging, and/or glow-sticks.
  - - If burning trees/snags pose serious threat of spreading fire brands, consider attempting to extinguish fire with water or dirt. Felling chainsaw should be last means, consider falling by blasting, if available.

- **Preseason Preparedness**

Prior Authorization:

- BLM will consider the forecasted fire danger, potential seasonal outlook, the late spring fuel conditions, and projected fuel and weather conditions in the wilderness area to determine which tools, equipment, or activities will have preseason authorization.
- BLM will determine which tools, equipment, or activities ODF will be pre-authorized for use in initial attack prior to actual fire occurrence. Preseason knowledge of the available tools, equipment, and activities will allow ODF the basis to prepare and train for wilderness minimum impact suppression tactics (MIST).
- BLM will provide ODF with a written authorization (Figure C-1), signed by the delegated Agency Administrator, typically the Field Manger, which will include the specific tools, equipment, and activities along with any instructions associated with their use, and the names and contact information for BLM employees associated with the wilderness management.
- Annually ODF will determine the services and resources they will provide for the protection of the wilderness area, along with a cost estimate. These will be included in the annual Extreme-risk Mitigation Plan.
- BLM will annually update ODF on any new or changed conditions, issues or items that might impact fire suppression strategy, tactics, and safety.
- Prior to the start of fires season, BLM and ODF personnel will meet to review the wilderness standards and practices used in wilderness rehabilitation.

- Knowledge and understanding of the standards and practices used in wilderness rehabilitation prior to initial attack can be beneficial in selecting and implementing suppression actions which will reduce the amount of rehabilitation needed.

- ### Fire Season

Fire Notification

- ODF will notify BLM of a fire occurring within or adjacent to the wilderness through the existing notification process.
- BLM will dispatch a Project Inspector/Resource Advisor (PI/RA) to all fires within or adjacent to the wilderness to ensure ODF receives guidance on resource issues and implementation of MIST.
- BLM will provide ODF the names and contact information for the PI/RA at the time of their dispatch.

Initial Action

- Preseason authorizations for use of tools, equipment, and activities are valid during the first 24 hours of the incident. A new authorization will be required after 24 hours and will be based on the specific strategy and tactics for that incident.
- In recognition of the need for urgency, ODF requests for authorization can be granted orally by the BLM Delegated Agency Administrator. Follow up documentation of the requests and authorizations will be made utilizing a mutually agreed upon written form (Figure C-2).
- BLM representative or PI/RA will remain available to ODF throughout the incident to provide prompt information regarding resources, issues, objectives, and maintain communications link to Delegated Official for approval of tools, equipment, or activities.
- All fire suppression activities in wilderness would use MIST unless a higher degree or level of fire suppression is required.
- Use of any motorized equipment, including heavy machinery such as bulldozers, would be considered for approval by the District Manager in cases where the fire is threatening human life, property, or wilderness characteristics.
- Use of retardant and/or foam must be approved by the District Manager; if retardant and/or foam is not approved, water may be dropped from retardant aircraft as ordered by the Incident Commander without additional authorization.

Extended Action and Long Term Incident

- BLM will assign Resource(s) Advisors, Agency Representative; issue a written Letter of Direction that provides the IMT with resource objectives to incorporate into planning and implementing fire suppression. Due to the added complexity of suppressing wilderness fires using the minimal tools, a close working relationship will be needed between ODF incident management and BLM representatives.
- BLM will designate a Lead Advisor who will be the point of contact in the event more than one Resource Advisor is assigned.
- Helibases and helispots, other than the pre-approved designated helispots, would be located outside of wilderness boundaries. When this is not feasible, the District Manager may approve sites within wilderness that require minimal clearing of natural vegetation.
- Staging areas and fire camps requiring motorized access would be located outside of wilderness unless authorized by the District Manager.
- Staging areas and fire camps that only require non-motorized access may be located in wilderness areas if authorized by the Wilderness Resource Advisor.

- Sling loading materials into or out of wilderness using a helicopter must be approved by the District Manager.
- Helicopters or other aircraft may be used for aerial reconnaissance work.
- Use of retardant and/or foam must be approved by the District Manager; if retardant and/or foam is not approved, water may be dropped from retardant aircraft as ordered by the Incident Commander without additional authorization.
- The strategy developed for controlling noxious weeds in the monument (CSNM ROD/RMP 2008, Appendix F) would be used. Suppression equipment would be inspected and washed to prevent the spread of noxious weeds. Wash-down sites would be recorded using a GPS unit, if possible, and reported to the Resource Advisor. Camps and other assembly points would not be located in noxious weed infestation areas.
- Leave No Trace principles would be used in wilderness areas. All evidence of human activity would be removed or rehabilitated to the maximum extent possible.

Post Fire and Season Reviews

As soon as possible after a wilderness fire an After Action Review (AAR) should be held to share the lessons learned and consider any improvements that can be made in procedures and operations.

Appendix D

Rehabilitation of Wilderness Fire Suppression Activities

The major goal of wildfire rehabilitation is to mitigate or eliminate environmental resource impacts caused by the fire suppression effort and rehabilitate the area to as natural conditions as possible. BLM policy emphasizes the need to rehabilitate areas disturbed during the fire suppression effort to as natural an appearance as possible.

This goal coincides with the intentions of the Wilderness Act, which states: "....wilderness is an area affected primarily by nature, with human activity substantially unnoticeable...." In the case of wildfire suppression, it is the human involvement that has the potential to be the damaging effect on the wilderness resource, even more so than the effects of the fire.

Major areas to consider in rehabilitation of fire suppression activities are firelines, helispots, camps, staging areas and any actions taken related to the fire suppression effort. The following are examples of the actions that may be used for the rehabilitation of fire suppression activities for each area or type of location.

Constructed Fireline Rehabilitation

The following are examples of actions that may be utilized in rehabilitation of constructed firelines:

- After fire spread is secured, replace dug-out soil/duff; obliterate any berms and leave as natural appearing.
- Provide some means for drainage to prevent erosion on firelines or trails created on sloped areas, i.e., shadow-depth water bars, or natural material to act as sediment dams.
- Scatter some cut brush/limbs onto fireline or impacted areas so it blends with the natural appearing landscape.
- Scatter obvious, excess accumulations of cut limbs/seedlings/saplings into a more natural arrangement.
- If excessive amounts of cut vegetation exist, consider piling and burning at a later date.
- Flush cut stumps of felled trees and snags with the ground surface; scatter cut portion out of sight.
- Camouflage cut stumps in a manner that blends with surrounding natural landscape.
- Use a variety of means to camouflage cut faces of stumps and bolewood (rocks, dead woody material, fragments of stumps, bolewood and/or limbs, soil, and fallen/broken green branches).
- If need be, bring in some of the natural material you will use to camouflage cut faces of stumps and boles from adjacent untouched areas.
- Piece together cut sections of down logs to appear natural, if possible. Place soil or some existing debris over where the cut was made.
- Position cut logs where they will be least noticeable to wilderness visitors.
- If bolewood can be moved, place cut end adjacent to or underneath existing down material.
- For large size bolewood that cannot be moved, place a slant cut (45-60 degree angle) on the bottom side.

- Do not lop and scatter tops of cut trees. (Lop and scatter could create a harvest/pre-commercial thin appearance instead of a natural landscape).
- If there has been an excessive amount of bucking, limbing and topping, consider slinging rounds and tops from the site.
- Remove all plastic flagging and trash along the fireline.

- **Natural Barrier Firelines**

Natural or man-made breaks in vegetation, such as water ways, hiking trails, rocky outcrops, talus and scree slopes, and roads, are preferred when possible for use as barriers to contain a fire. These barriers may be effective as is (unimproved) or they may need "improvement." It is the "improved" barriers that need rehabilitation due to the activities required to widen the barrier. The degree of improvement determines the amount of rehabilitation.

Water Ways

Limbs and logs thrown into a stream during line construction and constructed water impoundments can alter the water flow. Any alteration in water flow should be corrected.

- Remove all woody material (brush, branches and logs) that were thrown into the water during the fire.
- Remove dams, sumps and other human interventions.
- Retrieve flagging and remove all litter, tools, etc.

Hiking Trails

When hiking trails are employed as firelines they may have been widened by the cutting or limbing of trees that line the trail. The following are examples of actions that may be utilized in rehabilitation of hiking trail firelines:

- Flush cut conspicuous stumps and camouflage the ends with soil and vegetation.
- Place all cut limbs and seedlings alongside trail, near their source if possible, with the cut ends facing away from the trail.
- Camouflage or block entrances to access trails and switchback short cuts. Switchback shortcuts need to be rehabilitated according to their level of impact, and may require following the guidelines for firelines.
- Retrieve flagging and remove all litter, tools, etc.

- ***Rocky Outcrops, Talus or Scree Slopes***

These natural firebreaks are rarely improved upon. If vegetation was removed, no rehabilitation to replace the vegetation is necessary. Most of the impact seen in these areas will be in the form of trenches for fire access trails.

- If necessary, restore slope contour by raking slope material back into fireline until flush.
- Retrieve flagging and remove all litter, tools, etc.

- ***Fire Access Trails***

These are trails created by foot traffic along hose lines and firelines; accessing pump sites; and other areas of the fire. Treatments differ for access trails in burned areas versus vegetated areas.

1) Through Fire: Access trails that travel through the fire usually need attention in preventing further erosion and further use. The following are examples of actions that may be utilized in rehabilitation of access trails created through the fire area:

- Restore slope contour by raking in nearby fill to a level equal to adjacent soil level.
- Drag available burned logs and brush across the "trail" every 50 feet.
- If slope is greater than 25 degrees, drainage dips should be added every 20 feet, or where natural features on the land dictate them most useful, i.e., where they provide the most drainage (where the trail changes direction).
- Camouflage beginning of access trail so visitors will not be tempted to travel on it.

2) Through Vegetation: An access trail through vegetation is rehabilitated as if it were a fireline, but because the level of impact is not normally as severe; the amount of work required is less intensive. Usually, slope and soil loss are observed, as well as compaction of the soil. The degree of rehabilitation required is determined by the amount of impact observed.

- If soil is compacted, scarify the area lightly without killing any vegetation.
- Replace recoverable soil and rocks that were displaced during use of access trail, trying to keep soil horizons correct.
- Restore slope contour, compensating for settling.
- Scrape back litter.
- Drag available burned logs. Drag available burned logs and brush across the "trail."
- If access trail is deeper than 4 inches and slope is very steep: consider following the rehabilitation standards for constructed fireline.

- ***Special Areas***

Special areas receive unusual, intermittent, unregulated, and/or extreme use. These special areas include: helispot sites, "coyote" camps, helispots, pump sites, spike camps, and staging areas. Although the extent of impact to these areas may vary, the same type of impact often occurs throughout.

Helispots

Helispot construction in Wilderness can cause a double impact—the impact of abrupt or unnatural appearing openings in a timber-vegetative covered landscape, and the impact resulting from cut-faces of tree boles and stumps. Many of the same type of impacts associated with fireline construction can occur during helispot construction and operation, therefore many of the techniques listed above under constructed firelines can be used. Some other potential actions include:

- If excessive amounts of cut vegetation exist, pile and arrange to be burned at later date, or consider slinging cut material from the site.
- Obliterate landing pad and leave in as natural a condition as possible: bury painted helispot markers, remove litter, clean up any area where oil or fuel spills occur, and break up compacted soil.

Camp Situations and Personal Conduct

- Scatter campfire site rocks and charcoal; cover charred fire ring rocks with soil if necessary.
- Scatter any cut limbs or saplings that may have occurred.
- Cover latrine sites.
- Remove camp/tent poles and stakes and scatter in nearby timbered area.

- Pick up litter and pack out as garbage.

Staging Areas, Etc.

In some wildfire situations, a fire camp, staging areas, drop-off points, and other miscellaneous constructed facilities are within the Wilderness. These all will be assessed for possible rehab needs, and measures taken accordingly to ensure the area is left in as natural appearing condition as possible.

Spike Camps

Groups of firefighters can stress the resource as they live and work out of spike camps for an extended period of time. Areas of possible impact include sleeping sites, mess area, first aid station, sanitation sites, equipment caches, and vehicle parking. At these specific spots and throughout the area, potential impacts include compacted soil, bare ground, litter, oil/fuel spills, disturbed slope as in leveled sleeping areas, human refuse/toilet paper, kitchen refuse (sump holes), campfire pits, cut seedlings and limbs, social trails between various living areas, and primitive constructions such as nails in trees, hooches, etc.

Coyote Camps

Coyote camps are temporary firefighter camps located throughout the fire. Although these camps are not used for any length of time, they can exhibit impacts which may need rehabilitation work. The main impacts include: litter, compacted soil, bare ground, leveled sleeping sites, human refuse/toilet paper, campfire pits, cut seedlings and limbed trees.

Pump Sites

The operation of a portable water pump impacts both the ground on which the pump is resting and the required water supply. Impacts may include: oil/fuel spills, water pollution, compacted soil, bare ground, dammed and altered streambeds, erosion from overflowing portable water tanks, and litter.

- ***Land Stewardship with Fire Suppression***

Suppression impacts and resource damage that may have a level of acceptance on non-wilderness lands may not conform to the “Limits of Acceptable Changes” for wilderness. The appreciation of the need of minimum impact and damage to wilderness resources should occur in initial actions to suppress fire and be incorporated in on-going decisions of suppression actions throughout the incident. The consequence will be a lessening in the need for extensive and costly rehabilitation actions.

DRAFT

Soda Mountain Wilderness Fire Suppression Information Specific Action and Preparedness Plan 2012

Oregon Gulch Fire 7/15/2011 Helicopter transport

Soda Mountain Wilderness

Bureau of Land Management Representative Signiture

_____ ***Date*** _____

Oregon Department of Forestry Representative Signiture

_____ ***Date*** _____

Compiled by: Greg Alexander ODF, Tom Murphy BLM
Revised: 3-12

Soda Mountain Wilderness
Fire Suppression Plan 2011

Table of Contents

Signature Page	P. 2
ODF Fire Suppression	P. 4
Possible Access Points – California	P. 7
Helicopter Landing Zones	P. 8
Water Sites	P. 9-10
Wilderness Sling Loads	P. 11

Maps:

Cascade-Siskiyou National Monument	P. 12
Soda Mountain Wilderness Fires	P. 13
Cascade-Siskiyou National Monument/Wilderness	P. 14

Appendices

Appendix A	Pre-season Authorization	P. 15
Appendix B	Fire Suppression Summary	P. 16
Appendix C	Soda Mountain Chainsaw Guidelines	P. 17
Appendix D	ODF Radio Frequencies	P. 18
Appendix E	SMW Action/Preparedness Plan	P. 19
Appendix F	Minimum Impact Suppression Tactics (MIST)	P. 22
Appendix G	Rehabilitation of Suppression Activities in Wilderness	P. 24
Appendix H	SMW Designated Trail System	P. 28

Oregon Department of Forestry

Southwest Oregon District

This plan will be used for fire suppression in the Soda Mountain Wilderness Area.
The wilderness area contains nearly 24,100 acres and is within the 53,827 acres Cascade-Siskiyou National Monument. The wilderness lands are owned by the Bureau of Land Management, the lands within the Cascade-Siskiyou National Monument are owned by private individuals, timber companies, state government and the BLM.
Fire suppression in the Cascade-Siskiyou National Monument is status quo for the normal ODF fire suppression response. Meaning if a fire is on lands other than BLM immediate and aggressive fire suppression action will be taken with whatever means is necessary and prudent for the situation. On BLM lands, a BLM Resource Advisor will be notified of fires within the monument. Aggressive fire suppression actions could include whatever means is necessary and prudent for the situation, some special protection areas on BLM owned land are within the NM that may restrict some fire suppression actions, but they are all available if needed for fire suppression. Many roads have been closed, gated or decommissioned but may still used for fire suppression with motorized equipment. **Opening up decommissioned roads, construction of new roads and using dozers for fire line construction within the Monument will need approval from a BLM resource advisor on BLM owned lands.**
Fire suppression in the Soda Mountain Wilderness Area is limited. All motorized equipment that is needed for fire suppression will need approval by the BLM before it is used within the wilderness. This includes at a minimum; fire engines, helicopters sling loads, saws, pumps, ATV's, dozers and retardant planes.
All roads that are within the wilderness will be blocked or decommissioned and not be available for motorized use. Roads within the wilderness will **not** be used for motorized equipment, i.e. Fire engines, dozers, ATV's etc. If there is a need for motorized equipment ODF will need to request and the request approved by BLM before these roads are used. It is possible that these roads will not be able to be used for motorized equipment.
There is a network of roads within the wilderness that have been in place for decades. These roads include the Schohiem, Lone Pine, Scotch Creek, Hutton Cr., Pilot Rock and many others. These roads may be available for access for hiking fire crews into fires. The roads have not been maintained for many years.
The Pacific Crest Trail runs through the north side of the National Monument as well as the Wilderness area. Another hiking trail starts on the Pilot Rock Road and goes to Pilot Rock. Trail systems that will be maintained are shown in Appendix H.
The California border is the south side of the Monument and wilderness area. There are roads coming up from California that will stop at the Monument, these roads are accessed through Hutton Creek, Scotch Creek and Camp Creek from the California side.
The Soda Mountain Wilderness area has elevations 2800' at the bottom of Salt Creek to 6000' near Soda Mountain. The Wilderness has a predominantly southern exposure.
The Wilderness is divided by two power line routes that run northwest to southeast from the end of the Soda Mountain Road to Copco Road to the east and into California to the south. The power lines separate the Wilderness by approximately ½ of a mile. There are some BLM and

Private Ownership lands between the Wilderness boundaries near the power lines. These BLM lands are within the Cascade-Siskiyou National Monument.
There are 3 Helicopter Landing Zones established within the Wilderness and these will be maintained in the future. There are 6 additional helicopter landing zone locations identified in the CSNM and SMW Map handbook. These 6 and any other helispots that are not yet identified could still be used for fire suppression if permission is requested and received from the BLM to use these areas; this includes felling trees and cutting brush to make helispots.
These landing zones have a good possibility of being used more now that there will no longer be fire engines allowed to drive on roads within the Wilderness.
There are several ponds within or near the Wilderness area; the water sources could or could not hold water for helicopters or fire crews.
See pages 8-10 for the spreadsheet with the locations of the helispots and water sources.
Fires will be dispatched with crews responding off of run cards. The dispatchers or protection supervisors will have to amend the initial attack response for fires within the wilderness since mechanized equipment is not permitted. Fires along the Wilderness boundary near a road may be accessible for hose lays from fire engines.
Since there are private lands near to the border of the Wilderness and BLM lands that are near but not in the Wilderness a full run card dispatch is necessary to ensure an effective initial attack response. If a fire is determined to be in the Wilderness after the initial attack dispatch has been ordered, the response will be determined by dispatch or protection supervisors with regards to Wilderness fire suppression and fire access in the Wilderness.
When a fire is a confirmed fire or a report of fire in the Wilderness and fire conditions warrant an initial attack effort, a recon aircraft may be ordered to ensure fire suppression actions are sufficient and to lead crews into the fire. If necessary a helicopter may be ordered to do recon or to transport crews or provide water drops on the fire. If helicopters, or low flying aircraft like retardant planes, are used in the Wilderness permission needs to be obtained from the BLM.
Permission to use power equipment within the Soda Mountain Wilderness needs to be obtained from the BLM. This includes chainsaws, portable pumps, helicopters, retardant, engines, dozers, ATV and any other mechanized equipment. A phone call to BLM with the request for what power equipment we want to use will be required. A quick turn around with permission to use most equipment should be granted, except for dozers and possibly driving vehicles and ATV's in the Wilderness.
Permission needs to be obtained from BLM for the use of retardant in the Wilderness. Water can be used in the Wilderness in place of retardant.
Access to the Wilderness area could include long hikes or helicopter transports. Some roads near the Wilderness within the Cascade-Siskiyou National Monument will remain open and these may be the starting points for hiking into the Wilderness to suppress fires. Helicopters may be used for access for firefighters. Some helispots are established and others may be used if necessary after BLM gives the approval.
If crews are transported into the Wilderness for fire suppression, the crews should be prepared to spend several days in the Wilderness. When the crews initially hike into the Wilderness or are helicopter transported into the Wilderness they need to be prepared to spend the first night and well into the next shift on the fire line. If the walk into the Wilderness is more than 3 hours, or the crews are transported by helicopter, the crews should plan on staying and

extended amount of time up to 3 nights on the fire if the fire warrants such effort. If the fire crews plan on staying three nights on the fire they may need to be supplied with sling loads from helicopters for their fire supplies. A list of initial attack supplies is listed on page 11 for up to 6 firefighters.

When a fire in the Wilderness is larger, or too difficult for the initial attack crews to suppress, larger crews may be ordered to assist with fire suppression. These crews will need to be hiked or moved with helicopters to helipots in the Wilderness. A spike camp will need to be set up in the Wilderness. This camp will need to have a manager to organize the ordering and delivery of supplies and equipment for the camp. The camp manager will work for the IC of the fire.

When initial attack crews are helicopter transported into the Wilderness the helicopter pilot can brief and organize the loading, transport of supplies and personnel to the helicopter landing zones.

When the fire requires crews beyond initial attack a helicopter manager may be needed at both landing zones to insure safety of firefighters as they board and leave the aircraft.

If permission is given to ODF for sling load use in the Wilderness, the cargo nets should be able to be unhooked by initial attack crews who have limited training. If a fire goes beyond initial attack a helicopter manager will also have to manage the loading and off loading of supplies at both landing zones.

Fires that are determined to be within the Wilderness will have an initial attack effort of 3 engines, meaning 6 firefighters will respond to the fire either by hiking or aircraft. (This is subjective based on the fire in the Wilderness is the only fire in the unit at the time) If more firefighters are needed they may be ordered. If less is needed then the initial dispatch of 6 firefighters will be adjusted. Planning for replacement crews needs to be arranged to get any more than the 6 firefighters off the fire so they can resume initial attack duties. If the fire is contained quickly the release of fire fighters that are not necessary for mop up or rehab should be done so they are again available for initial attack. Crews on the fire in the Wilderness may have to plan on staying on the fire until it is completely out which may take up to several nights since access into and out of the Wilderness could be difficult.

When initial attack fire crews are sent into the Wilderness, back up crews will need to be ordered to insure the unit will be able to maintain successful initial attack capabilities by filling the holes that now have no initial attack capabilities because the engine crews are committed in the Wilderness.

Soda Mountain Wilderness

Access point: Hutton Creek road system in California

Part of the southwest end of the Soda Mountain Wilderness is accessible by road from California. The road is a privately owned. Permission will need to be obtained from the landowner to use this system if we feel a need to get our fire folks to the Wilderness boundary through this road system.

The landowner would prefer if we did not need to use his roads to assess the Wilderness.

If at a last resort we feel we need to use his road system a call to him will need to be made to get his permission.

Just for clarification the Oregon Department of Forestry has no jurisdiction on lands not within Oregon. Therefore our normal initial attack rights of trespass would not apply to lands in

California. The same goes for use of water out of private lakes and ponds in California, we probably need to try to get permission, or at least pursue permission, from the landowner as we are using the water, Cal-Fire may be able to assist us with road access and permission for water use.
Landowner: Steve DeClerk 530-842-4827, 530-226-2800
Approximate location of access points to Oregon:
41s 2E 14 NWNE 41S 2E 15 NWNW

Helicopter Landing Zones in Roadless Area

Site Name	Status Date	Latitude			Longitude			Twp	Rng	Sec.	Legal	Status
***Upper Dutch West**	Aug. 2007	42	2	40.28	-122	30	10.56	40s	3e	31	NESE	non-op
Upper Dutch	Aug. 2007	42	2	40.41	-122	29	27.70	40s	3e	32	NWSE	non-op
***Pilot-Schoheim Jct**	Aug. 2007	42	1	13.46	-122	34	38.64	41s	2e	10	SWNW	operational
East Fork Hutton	Aug. 2007	42	1	18.98	-122	33	3.807	41s	2e	11	NWNE	operational
Upper Slide Creek	Aug. 2007	42	0	35.58	-122	32	23.54	41s	2e	12	SWSW	operational
Lower Camp Creek	Aug. 2007	42	1	37.34	-122	27	30.80	41s	3e	3	SESW	operational
Middle Camp Creek	Aug. 2007	42	1	50.72	-122	27	42.53	41s	3e	3	NWSW	operational
Upper Camp Creek	Aug. 2007	42	2	19.08	-122	27	7.240	41s	3e	3	NWNE	operational
Lone Pine North	Aug. 2007	42	2	6.441	-122	30	31.24	41s	3e	6	SENE	operational
Middle Scotch	Aug. 2007	42	1	38.23	-122	30	40.81	41s	3e	6	SWSE	non-op
*** Schoheim**	Aug. 2007	42	1	48.15	-122	30	58.87	41s	3e	6	NESW	non-op
Lower Scotch Ck	Aug. 2007	42	0	51.43	-122	29	46.45	41s	3e	8	NESW	operational
Lone Pine South	Aug. 2007	42	0	59.87	-122	28	58.91	41s	3e	9	NWSW	operational

- Bold * indicates the three helispots that will be permenantly

Water Access Site Inventory

Site Name	Status Date	Latitude			Longitude			Twp	Rng	Sec.	Legal	Status
Gov. Camp Spring	July 2005	42	9	16.3	-122	24	34.927	39s	3e	25	NENE	Spring near old CCC foundations
Keene Ck Reservoir	July 2005	42	7	48.7	-122	28	42.05	39s	3e	33	SESW	(air photo) 1800'x200'x20' +d PC/Heldip
Box R South Pond	July 2005	42	7	29.7	-122	23	8.864	39s	4e	31	SWSW	(air photo) 110'x75'x?d PC/Helidip
Coker Pond	July 2005	42	7	49.1	-122	24	2.669	39s	4e	31	SWSW	(air photo) 40'x45'c?d PC/Helidip
Box R East Pond	July 2005	42	7	46.2	-122	22	-20.7	39s	4e	32	SWSE	(air photo) 100'x350'x?d PC/Helidip
Box R North Pond	July 2005	42	7	45.1	-122	23	3.288	39s	4e	32	SWSW	(air photo) 200'x375'x?d PC/Helidip
Joe's Rock Pond	July 2005	42	3	48.2	-122	31	52.93	40s	2e	25	SWNE	(air photo) 30'x20'x?d PC/Helidip

Spring Creek Pond	July 2005		42	4	1.84		-122	33	46.12		40s	2e	27	NENE	Unconfirmed (air photo) PC/ Helidip 100'x200'x?d
Radio Hill Dip 1	July 2005		42	2	59		-122	34	12.71		40s	2e	34	SWNE	(air photo) 85x30'x?d PC/Helidip
Radio Hill Dip 2	July 2005		42	3	3.31		-122	34	16.69		40s	2e	34	SWNE	(air photo) 100'x60'x?d PC/Helidip
Howard Prairie Canal	July 2007		42	7	27.3		-122	25	47.42		40s	3e	2	NENE	circles s. of chinquipin mtn on the 4400' contour
Dist. 5 Storage Tank	July 2005		42	6	57.7		-122	29	55.902		40s	3e	5	SWSW	steel tank 10K gal
Linda Cook's	July 2005		42	7	26.5		-122	29	29.73		40s	3e	5	NWNE	(air photo) 75'x150'x?D PD/Helidip
Schoolhouse Ck Pond	July 2005		42	7	11.5		-122	29	46.45		40s	3e	5	NESW	(air photo) 80'x50'x?d PC/Helidip
Kieleys Pond	July 2005		42	7	5.64		-122	31	20.518		40s	3e	6	NWSW	(air photo) 85' x 20'
Hobart Lake	July 2005		42	5	52.6		-122	28	50.48		40s	3e	9	SWSW	(air photo) 1000'x500'x20'd PC/Helidip
Middle Parsnip Lake	July 2005		42	6	25.2		-122	27	1.939		40s	3e	10	SWNE	(air photo) 100'x250'x??d PC/Helidip
Keen Ck Bridge	July 2007		42	6	16.8		-122	24	46.99		40s	3e	12	NWSE	Perennial stream. Pump chance/helidip near bridge
Thompson Pond	July 2005		42	6	23.5		-122	24	59.38		40s	3e	12	SENW	(air photo) PC/Helidip 200'x30'x? deep

Site Name	Status Date	Latitude			Longitude			Twp	Rng	Sec.	Legal	Status
Lincoln Ck Pond	July 2007	42	5	30.9	-122	25	6.143	40s	3e	13	SENW	40'x20' PC. Choked with cattails
Mill Creek	July 2005	42	5	43.9	-122	25	41.54	40s	3e	14	NENE	(air photo) 100'x100'x?d PC/Helidip
Baldy Creek Pond	July 2005	42	5	19.8	-122	31	2.841	40s	3e	18	NESW	Field notes 7/20/05?x?x?
Soda Mtn Jeep Rd Dip	July 2005	42	4	9.44	-122	28	59.16	40s	3e	21	SWSW	Field notes (aerial) 100'x60'x?d
Upper Lincoln Ck Pond	July 2005	42	4	32.1	-122	25	37.31	40s	3e	23	NESE	(air photo) PC/Helidip 60'x40'x? deep
Soda Mtn Porta Tank	July 2005	42	4	4.1	-122	24	51.47	40s	3e	25	NWNE	field notes ?x?x?
Bowman Pond	July 2007	42	3	13.9	-122	26	4.205	40s	3e	26	SWSE	50'x100'x10+d PC/Helidip
Skookum East	July 2007	42	3	23.1	-122	25	33.33	40s	3e	26	SESE	100'x30'x2 deep. PC/Helidip
Upper Skookum Spring	July 2007	42	3	51.6	-122	27	40.69	40s	3e	27	SWNW	10'x20'3-4' deep PC/Helidip marginal
Camp Creek Tank	July 2007	42	3	38.9	-122	28	4.671	40s	3e	28	NESE	Steel tank 4k gal PC/Helidip
Soda Mtn Dip	July 2005	42	3	55.7	-122	29	6.908	40s	3e	29	NENE	(air photo) 20'x40"x?d PC/Helidip
Belle Pond	July 2005	42	6	57.6	-122	23	45.967	40s	4e	6	SWSE	(air photo) 60'x45'x?d PC/Helidip
Lincoln Millpond	July 2005	42	6	29.4	-122	24	9.700	40s	4e	7	SWNW	(air photo) 700x200x?d PC/Helidip
Randcore	July 2007	42	4	27.5	-122	24	15.82	40s	4e	19	NWSW	36'x24'x4-5' deep. PC/Heldip-LL
Rosebud Helipad Dip	July 2005	42	4	4.1	-122	22	47.13	40s	4e	29	NENW	(air photo) PC/Helidip 30'x50'x? deep
Andrew Pond	July 2007	42	3	11.1	-122	24	0.911	40s	4e	31	NENE	40'x20'6-8'deep. PC/Helidip
Deadhorse Pond	July 2007	42	2	42.2	-122	23	45.86	40s	4e	31	NWSE	30'x100'x3-5'deep. PC/Helidip
Pilot Rock Pond	July 2005	42	1	46.4	-122	34	11.14	41s	2e	3	NWSE	(air photo) 60'x40'x?d PC/Helidip
Pilot Rock Dip	July 2005	42	1	24.4	-122	34	23.36	41s	2e	10	NENW	(air photo) 60'x40'x?d PC/Helidip
Troutmans Pond	July 2005	42	1	58.2	-122	-19	-18.8	41s	4e	2	SENW	(air photo) 375'x100'x?d PC/Helidip
Agate Flat	July 2005	42	0	55.4	-122	23	32.4	41s	4e	7	NESE	Unconfirmed (air photo) PC/ Helidip 150'x100'x?
Wards North Pond	July 2005	42	1	24.8	-122	-20	-6.67	41s	4e	10	NWNE	(air photo) 200'x200'x?d PC/Helidip
Wards East Pond	July 2005	42	0	42.4	-122	-19	-13.7	41s	4e	11	SESW	(air photo) 150'x400"x?d

															PC/Helidip

Wilderness Sling Loads

☐	2	ea	cargo nets
☐	2	ea	net swivels

Standard order for sling load for spike camp in wilderness (6 person camp for 3 days)

☐	6	ea	Flash lights
☐	5	case	MRE's
☐	10	ea	5 Gallon Drinking Water
☐	6	ea	Quart Canteens
☐	6	ea	Sleeping Bags
☐	12	ea	Sleeping Pads
☐	1	ea	First Aid Kit (10 Person)
☐	6	ea	Toilet Paper
☐	12	ea	Ear Plugs
☐	12	bricks	AA batteries
☐	2	bricks	D batteries
☐	2	ea	Clam Shells
☐	4	case	Drinking water
☐	1	box	plastic trash bags
☐	100	feet	parachute cord
☐	2	ea	12'x14' tarps

These items need to be confirmed with IC before they are ordered

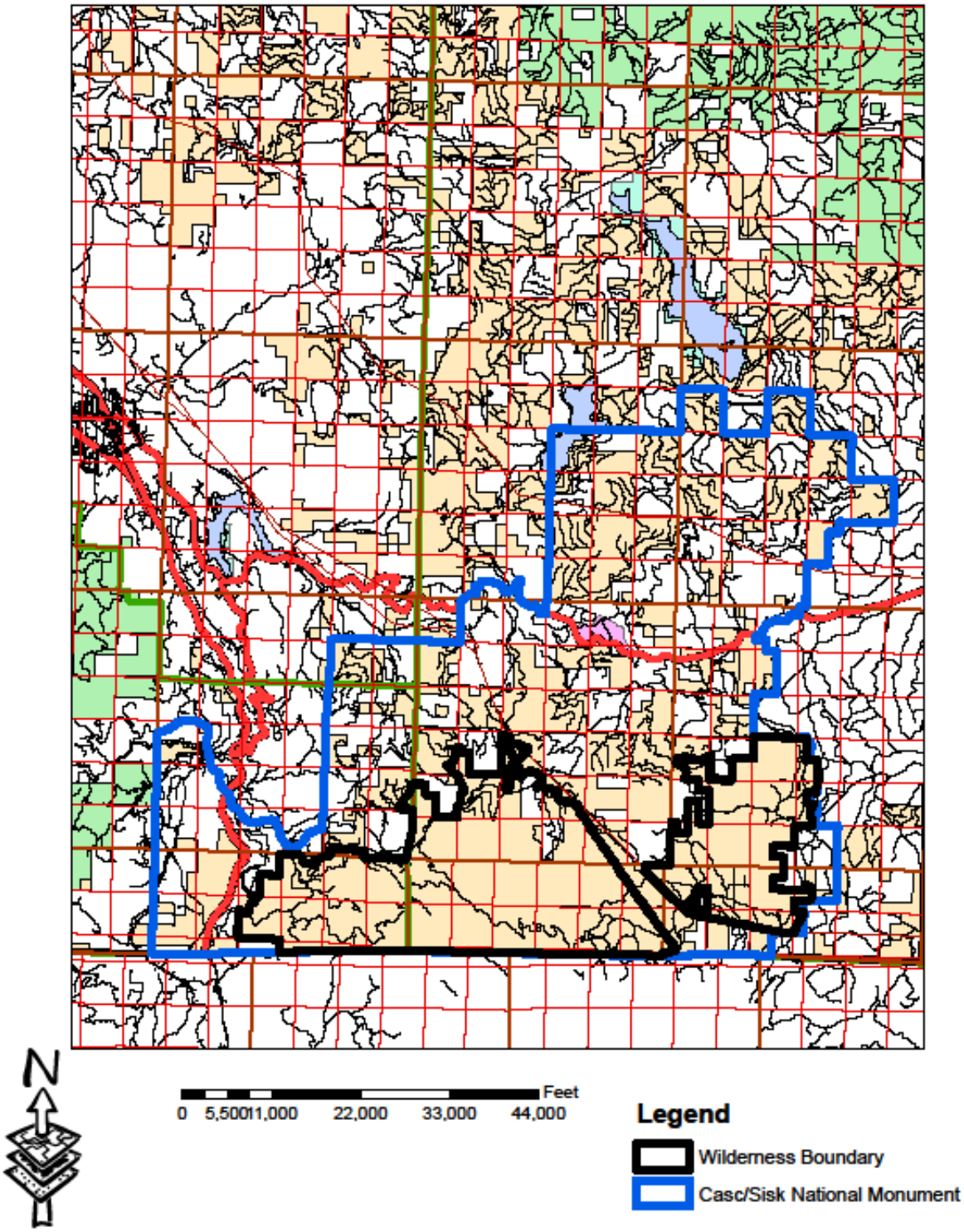
☐	Fedco's	
☐	Helicopter water bag with kit	
☐	Free Standing Fold-a-tank (500 gallon) w kit 3/4"	
☐	Shovel	
☐	Pulaskie	
☐	Saw Gas/Oil	
☐	Portable Pump w kit	(Including berm)
☐	Pump/Chain saw fuel	
☐	Fire hose 3/4" and fittings	
☐	Fire hose 1" and fittings	
☐	Fire hose 11/2" and fittings	
☐	IC Kit *	

Possible loading sites outside of the wilderness

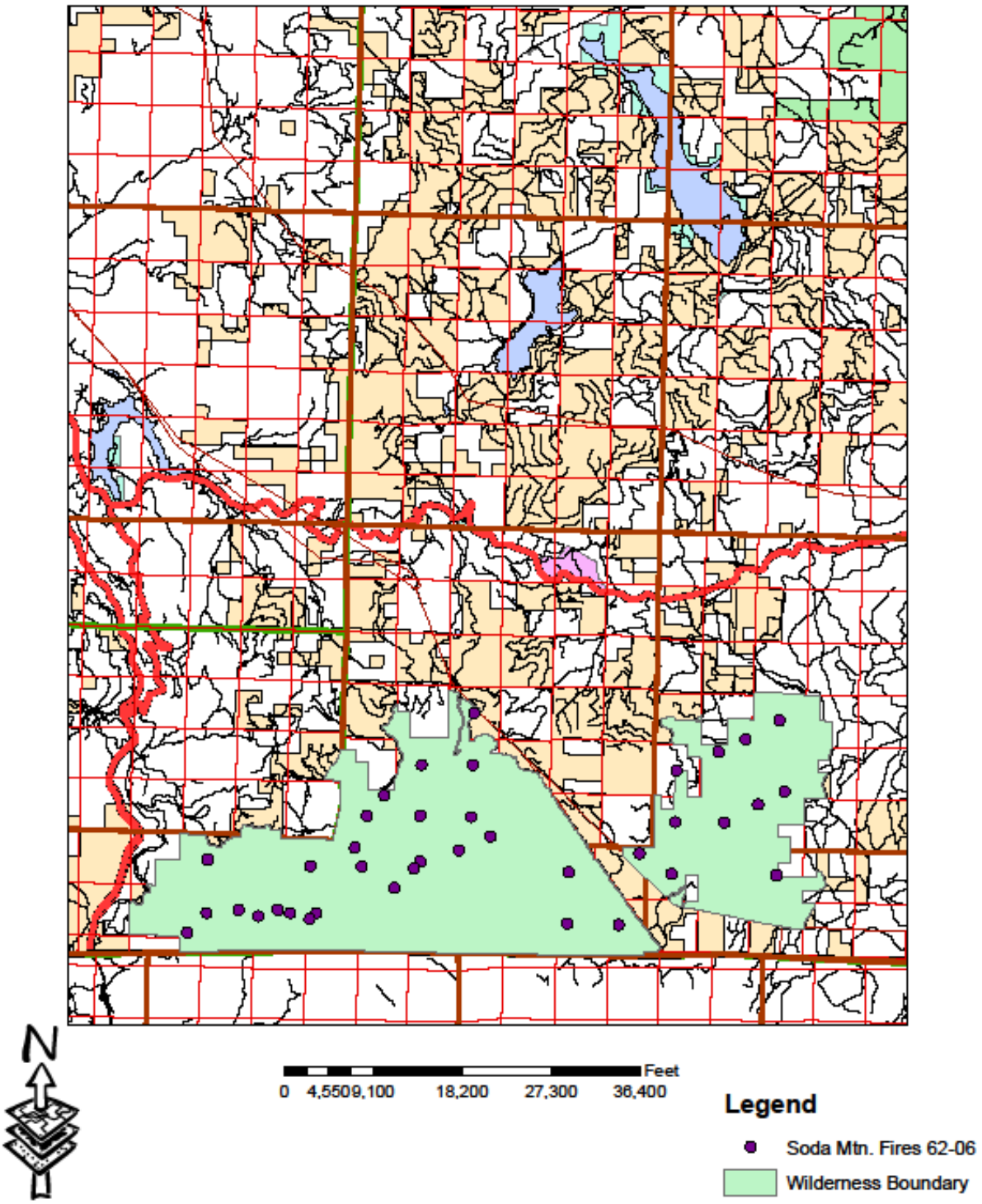
Pinhurst Airport	40s 4e 8		122 22 56	42 6 38
Old Highway 99 gravel pit	40s 2e 33	swnw	122 36 5	42 2 52
Ashland Airport	39s 1e 12	swsw	122 39 22	42 11 15

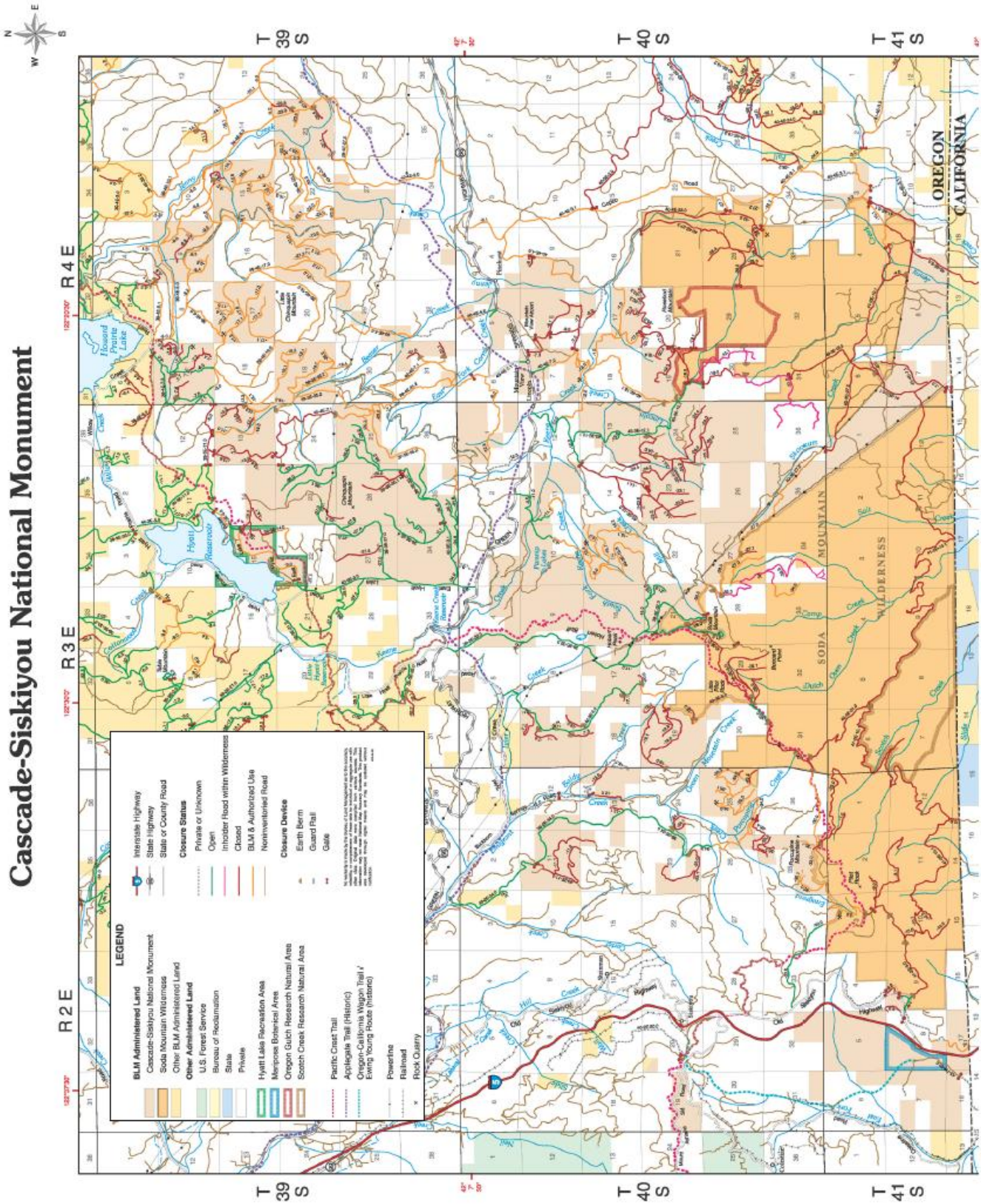
* IC Kit = 1 box ink pens, 1 box pencils, 1 box magic markers, signs (DIVS, Drop point, etc.) 4 tablets, 10 wilderness maps, 10 unit logs, 10 blank shift plans, 12 roles flagging

Cascade-Siskiyou National Monument



Soda Mtn. Wilderness Fires 1962-2006




Cascade-Siskiyou National Monument
R 2 E
R 3 E
R 4 E
T 39 S
T 40 S
T 41 S
OREGON
CALIFORNIA
SODA MOUNTAIN WILDERNESS
LEGEND
BLM Administered Land
Cascade-Siskiyou National Monument
Soda Mountain Wilderness
Other BLM Administered Land
Other Administered Land
U.S. Forest Service
Bureau of Reclamation
State
Private
Hyatt Lake Recreation Area
Mariposa Botanical Area
Oregon Gulch Research Natural Area
Scotch Creek Research Natural Area
Pacific Crest Trail
Applegate Trail (Historic)
Oregon-California Wagon Trail / Ewing Young Route (historic)
Powerline
Railroad
Rock Quarry
Interstate Highway
State Highway
State or County Road
Closure Status
Private or Unknown
Open
Inholder Road within Wilderness
Closed
BLM & Authorized Use
Noninventoried Road
Closure Device
Earth Berm
Guard Rail
Gate

Appendix A

Soda Mountain Wilderness Preseason Authorization For Motorized Equipment & Activities During Initial Attack Fire Suppression Operations

1 The Oregon Department of Forestry is hereby authorized he use of the following during the first 24 hours of initial attack suppression operations within the boundary of the Soda Mountain Wilde

Small Equipment

2	XX	Chain Saws (felling of burning trees for fire fighter safety
3	XX	Hose lays from engines (engines outside of wilderness
4		Chain Saws (Fire line construction, felling danger/burning trees)
5		Portable Pumps (hoselasys, water bags)
6		

Large Equipment

14		
15		
16		
17		

Aircraft

7	XX	Helicopter for crew transport loading and unloading
8	XX	Fixed-wing aerial delivery of water
9	XX	Helicopter Water Drops
10	XX	Helicopter water drops
11	XX	Helicopter sling loads (waterbags, supplies & equipment)
12	XX	Helicopter use of water from the wilderness (from 8 ponds located within the wilderness)
13		

Miscellaneous

18	XX	Reconnaissance flights below 500 ft. AGL
19		
20		
21		
22		

ODF Dispatch Phone #664-1213
BLM Dispatch Phone #618-2510

23

24 XX Contact Names & Phone Numbers:

Field Manager: John Gerritsma 541-944-7901 (cell) 541-664-1139 (home)

Assistant Monument/Wilderness Manager: Howard Hunter 541-601-1876 (cell) 541-482-2925 (home)

Resource Advisor: Kathy Minor 541-973-5742 9(cell) 541-261-6621 (cell)

Assistant Resource Advisor: Armand Rebischke 541-944-6621 (cell), 541-482-2141 (home)

Assistant Resource Advisor: Jennifer Smith 541-840-2538 (cell), 541-826-7208 (home)

Assistant Resource Advisor: Ted Hass 541-941-1743 (cell), 541-779-0943 (home)

Assistant Resource Advisor: Chris Volpe 541-621-0862 (cell), 541-618-2462 (work)

25 XX BLM Appproval by: /s/ **John Gerritsma** (see signed copy on file for signature) 10-May-11

Approving Official Title: Ashland Resource Area Field Manager

ODF Dispatch Phone #664-1213
BLM Dispatch Phone #618-2510

Appendix B

Soda Mountain Wilderness
Siskiyou Cascade National Monument
Fire Suppression Summary

	Allowed	*Pre-Season Authorization*	*Not allowed until authorized*	*Not Allowed*	***Landowner***
Chain Saws	X				*ODF Protection (Private, State, BLM, etc.)*
For FF safty felling buring	X				*BLM Cascade-Siskyou National Monument*
trees is pre-authorized.				xdm	*BLM Soda Mountain Wilderness*
Portable Pumps	X				*ODF Protection (Private, State, BLM, etc.)*
	X				*BLM Cascade-Siskyou National Monument*
				xdm	*BLM Soda Mountain Wilderness*
Fire Engines	X				*ODF Protection (Private, State, BLM, etc.)*
	X				*BLM Cascade-Siskyou National Monument*
				xdm	*BLM Soda Mountain Wilderness*
Dozers	X				*ODF Protection (Private, State, BLM, etc.)*
			x		*BLM Cascade-Siskyou National Monument*
				xdm	*BLM Soda Mountain Wilderness*
Retardant	X				*ODF Protection (Private, State, BLM, etc.)*
Water in retardant plane	X				*BLM Cascade-Siskyou National Monument*
pre-authorized				xdm	*BLM Soda Mountain Wilderness*
Helicopter	X				*ODF Protection (Private, State, BLM, etc.)*
dip sites, water drops, sling	X				*BLM Cascade-Siskyou National Monument*
loads, crew transport		X			*BLM Soda Mountain Wilderness*
Recon Flights	X				*ODF Protection (Private, State, BLM, etc.)*
below 500' fixed wing,	X				*BLM Cascade-Siskyou National Monument*
helicopter		X			*BLM Soda Mountain Wilderness*

xdm = BLM District Manager Authorization, Field Manager or their authorized representative

Hoselays from engines outside of wilderness are preauthorized

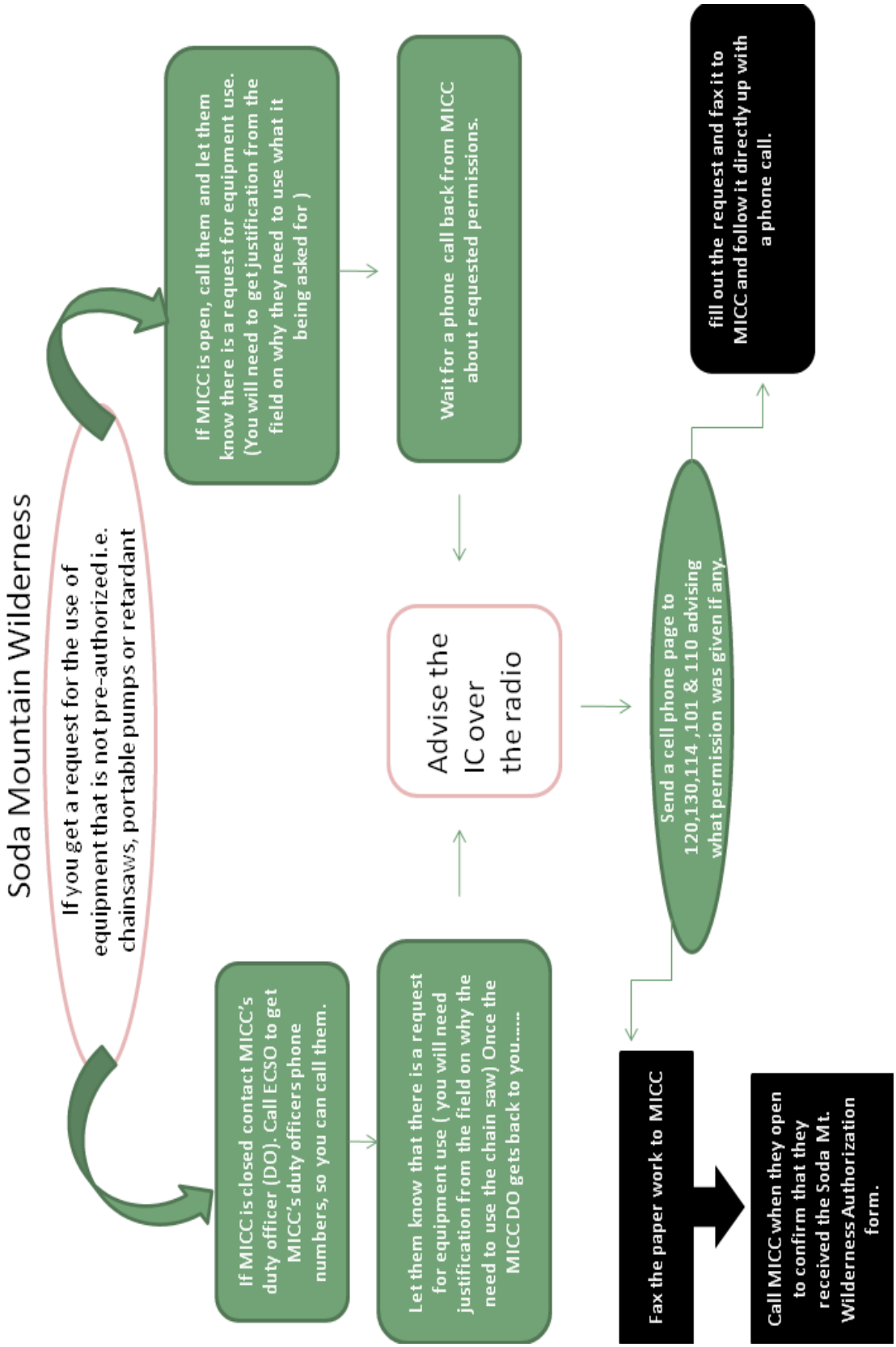
Use of water from wilderness ponds is pre-authorized

Chain Saw (felling of burning trees for firefighter safety is pre-authorized)

Fixed-wing aerial delivery of water is pre-authorized

Wilderness Pre-authorizations are good for only 24 hours. Authorization then based on specific fire conditions and needs.

Appendix C


Soda Mountain Wilderness
If you get a request for the use of equipment that is not pre-authorized i.e. chainsaws, portable pumps or retardant
If MICC is open, call them and let them know there is a request for equipment use. (You will need to get justification from the field on why they need to use what it being asked for)
Wait for a phone call back from MICC about requested permissions.
fill out the request and fax it to MICC and follow it directly up with a phone call.
Advise the IC over the radio
Send a cell phone page to 120,130,114 ,101 & 110 advising what permission was given if any.
If MICC is closed contact MICC's duty officer (DO). Call ECSO to get MICC's duty officers phone numbers, so you can call them.
Let them know that there is a request for equipment use (you will need justification from the field on why the need to use the chain saw) Once the MICC DO gets back to you.....
Fax the paper work to MICC
Call MICC when they open to confirm that they received the Soda Mt. Wilderness Authorization form.

Appendix D

ODF Radio Frequencies

Name	Receive	RX Tone	Transmit	TX Tone	Location	Use
Flounce	151.175N	179.9	159.4125 N	173.8	North Jax	Dispatch
Soda	151.175N	179.9	159.4125 N	151.4	South Jax	“
Roxy Ann	151.175N	179.9	159.4125 N	179.9	Central Jax	“
Tallowbox	151.175N	179.9	159.4125 N	131.8	Applegate	“
Medford Dir	151.175N	179.9	151.175N	179.9	District	Unit-to-unit
Red Net	151.340N	156.7	151.340N	156.7	Statewide	Tactical
White Net	151.310N	156.7	151.310N	156.7	Statewide	Air to Ground
ODF NICS	159.240N	156.7	159.240N	156.7	Statewide	Tactical
Blue Net	159.2625N	156.7	159.2625 N	156.7	Statewide	Tactical/Secondary Air to Gnd.

Appendix E

Fire Season 2012
Soda Mountain Wilderness
Specific Action and Preparedness Plan

Situation: A management plan for the Soda Mountain Wilderness has been completed and is under review. Final approval date is uncertain at this time (March 16, 2012). Therefore, although this Action and Preparedness Plan reflects all decisions contained in the SMW Plan under review, this must serve as interim direction and guidance until the plan is finalized, approved and signed into effect. This interim direction will ensure BLM policy for the management of wilderness is followed; and that ODF may complete their responsibilities for wildland fire prevention, detection, and suppression activities.

Purpose: Contained herein are the objectives, organizational guidance, operational procedures and plan of action for suppression activities within the Soda Mountain Wilderness for 2012 fire season.

Guidance & Principles: The following are the key direction and guidance from the BLM Wilderness Management Manual that will the basis for fire protection and suppression actions; and the objectives of the ODF fire protection program:

<u>BLM 8568 Manual Direction</u>

.15C Control of Fires, Insects, and diseases. Where fire, insects, and diseases threaten human life, property, or high-value resources on adjacent nonwilderness lands, or where they would cause unacceptable change to the wilderness resource, measures may be taken as necessary to control them.

.13 Minimum Tool. Tools, equipment, or structures may be used for management when they are the minimum necessary for protection of the wilderness resources or when necessary in emergency situations for the health and safety of the visitor. Management must use the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently.

A. Acceptable Tools. Acceptable tools, equipment, and structures may include but are not limited to; fire towers, patrol cabins, pit toilets, temporary roads, spraying equipment, hand tools, firefighting equipment caches, fencing, and controlled burning. In special or emergency cases involving the health and safety of wilderness visitors, or the protection of wilderness values, aircrafts, motorboats and motorized vehicles may be used.

<u>ODF 2012 Fire Action Plan</u>

The objective of the Southwest Oregon District fire protection program is:

- Conduct all fire suppression activities in a manner that protects the safety of firefighters and citizens.
- To establish and maintain an effective system for the discovery and suppression of wildfire.
- To minimize the cost of suppression and the damage to the forest and watershed environment caused by wildfire.
- To provide for fire discovery, reporting and initial attack capability that will control 94% of all wildfires at Class “B” size or smaller (10 acres or under).

- To conduct fire suppression activities in such a way as to minimize the damage to the site that may be caused by such activities.

Fire Suppression Guidelines
Preseason Preparedness
Prior Authorization:

- BLM will consider the forecasted fire danger, potential seasonal outlook, the late spring fuel conditions, and projected fuel and weather conditions in the wilderness area to determine which tools, equipment, or activities will have preseason authorization.
- BLM will determine which tools, equipment, or activities ODF will be pre-authorized for use in initial attack prior to actual fire occurrence. Preseason knowledge of the available tools, equipment, and activities will allow ODF the basis to prepare and train for wilderness minimum impact suppression tactics (MIST).
- BLM will provide ODF with a written authorization (Attachment A - Preseason Authorization for Motorized Equipment & Activities), signed by the delegated Agency Administrator, typically the Field Manger, which will include the specific tools, equipment, and activities along with any instructions associated with their use, and the names and contact information for BLM employees associated with the wilderness management.
- Annually ODF will determine the services and resources they will provide for the protection of the wilderness area, along with a cost estimate. These will be included in the annual Extreme-Risk Mitigation Plan.
- BLM will annually update ODF on any new or changed conditions, issues or items that might impact fire suppression strategy, tactics, and safety.
- Prior to the start of fires season, BLM and ODF personnel will meet to review the wilderness standards and practices used in wilderness rehabilitation.
- Knowledge and understanding of the standards and practices used in wilderness rehabilitation prior to initial attack can be beneficial in selecting and implementing suppression actions which will reduce the amount of rehabilitation needed and minimize costs.

Fire Season
Fire Notification

- ODF will notify BLM of a fire occurring within or adjacent to the wilderness through the existing notification process.
- BLM will dispatch a Project Inspector/Resource Advisor (PI/RA) to all fires within or adjacent to the wilderness to ensure ODF receives guidance on resource issues and implementation of MIST.
- BLM will provide ODF the names and contact information for the PI/RA at the time of their dispatch.

Initial Action

- Preseason authorizations for use of tools, equipment, and activities are valid during the first 24 hours of the incident. A new authorization will be required after 24 hours and will be based on the specific strategy and tactics for that incident.
- In recognition of the need for urgency, ODF requests for authorization can be granted orally by the BLM Delegated Agency Administrator. Follow up documentation of the requests and authorizations will be made utilizing a mutually agreed upon written from (Attachment B - Initial Attack Authorization for Motorized Equipment & Activities).
- BLM representative or PI/RA will remain available to ODF throughout the incident to provide prompt information regarding resources, issues, objectives, and maintain communications link to Delegated Official for approval of tools, equipment, or activities.
- All fire suppression activities in wilderness would use MIST unless a higher degree or level of fire suppression is required.
- Use of any motorized equipment, including heavy machinery such as bulldozers, would be considered for approval by the District Manager in cases where the fire is threatening human life, property, or wilderness characteristics.
- Use of retardant and/or foam must be approved by the District Manager; if retardant and/or foam is not approved, water may be dropped from retardant aircraft as ordered by the Incident Commander without additional authorization.

<u>Extended Action and Long Term Incident</u>

- BLM will assign Resource(s) Advisors, Agency Representative; issue a written Letter of Direction that provides the IMT with resource objectives to incorporate into planning and implementing fire suppression. Due to the added complexity of suppressing wilderness fires using the minimal tools, a close working relationship will be needed between ODF incident management and BLM representatives.
- BLM will designate a Lead Advisor who will be the point of contact in the event more than one Resource Advisor is assigned.
- Helibases and helispots, other than the pre-approved designated helispots, would be located outside of wilderness boundaries. When this is not feasible, the District Manager may approve sites within wilderness that require minimal clearing of natural vegetation.
- Staging areas and fire camps requiring motorized access would be located outside of wilderness unless authorized by the District Manager.
- Staging areas and fire camps that only require non-motorized access may be located in wilderness areas if authorized by the Contracting Officers Representative (COR).
- Sling loading materials into or out of wilderness using a helicopter must be approved by the District Manager.
- Helicopters or other aircraft may be used for aerial reconnaissance work.
- Use of retardant and/or foam must be approved by the District Manager; if retardant and/or foam is not approved, water may be dropped from retardant aircraft as ordered by the Incident Commander without additional authorization.
- The Medford District Noxious Weed Prevention Plan will be utilized when it is determined by the BLM that noxious weed prevention is an issue for a given fire's

location. The Plan identifies best management practices to be utilized to prevent the spread of noxious weeds. Suppression equipment would be inspected and washed to prevent the spread of noxious weeds. Wash-down sites would be recorded using a GPS unit, if possible, and reported to the Resource Advisor. Camps and other assembly points would not be located in noxious weed infestation areas.

- Leave No Trace principles would be used in wilderness areas. All evidence of human activity would be removed or rehabilitated to the maximum extent possible.

Post Fire & Season Reviews

As soon as possible after a wilderness fire an After Action Review should be held to share the lessons learned and consider any improvements that can be made in procedures and operations.

Appendix F

Minimum Impact Suppression Tactics Implementation Guidelines

Fire Lining Phase

- Select procedures, tools, and equipment that least impact the environment.
- Give serious consideration to the use of water as a firelining tactic.
- If there is a risk that hose coming direct from a local unit's cache is contaminated with noxious weed seeds, order fresh hose from the regional cache.
- Resource Advisors, Operations Chief, and Logistics Chief should be cognizant of any equipment that is being moved from a non-wilderness fire to a wilderness fire and make attempts to clean equipment of noxious weed seeds prior to it being used in the wilderness.
- In light fuels consider:
  - Cold-trail line. Constantly recheck.
  - Allowing fire to burn to natural barriers.
  - Burn out and the use of a "gunny" sack or swatter.
  - If constructed fireline is necessary, use minimum width and depth to check fire spread.
- In medium and heavy fuels consider:
  - Use of natural barriers and cold-trailing.
  - Cooling with dirt and water and cold-trailing.
  - If constructed fireline is necessary, use minimum width and depth to check fire spread.
  - Minimize bucking to establish fireline. Preferably move or roll material out of the intended constructed fireline area. If moving or rolling is not possible, or the down log is already on fire, build line around the log and let it be consumed.
- In aerial fuels, brush, trees, and snags:

-Minimize cutting of trees and snags.
-Live trees should not be cut unless it is determined they will cause fire spread across the fireline or seriously endanger workers. If tree cutting occurs, cut the stumps flush with the ground and camouflage the cut surface with soil or brush.
- Scrape around tree bases near fireline if hot and likely to cause fire spread.
- Identify hazard trees with an observer, flagging, and/or glow-sticks.

- When using indirect attack:

  - Do not fall snags outside the constructed fireline, unless they are an obvious safety hazard to crews working in the vicinity.
  - On the intended burn-out side of the line, fall only those snags that would reach the fireline should they burn and fall over. Consider alternative means to falling, i.e.: fireline explosives or bucket drops.
  - Review consideration listed above for aerial fuels, brush, trees, and snags.
- Minimize disturbance to land in preparing bedding and campfire sites. Do not clear vegetation, trench, or excavate a flat spot to create bedding sites.
- Use established latrines where provided. If latrines are not available use the "cat-hole" method of disposing of human waste. Toilet sites should be located a minimum of 200 feet from water sources. Holes should be dug 6-8 inches deep.
- If a campfire is built for warmth in the evening, build either a pit or mound fire. A fire shelter placed beneath the coals provides extra protection for the soil
- Use dead and down firewood. Use small diameter wood that burns down more cleanly. Don't burn plastics or aluminum - pack it out with the rest of the camp garbage.
- If a designated personal washing area is not provided, carry water and bathe away from lakes and streams. Do not introduce soap, shampoo, or other personal grooming chemicals into waterways.
- Do not use nails in trees.
- Constantly evaluate the impacts that will occur, both short and long term.

Helispot Construction

- Whenever possible, locate helibases in weed free areas, to prevent the transport of noxious weeds into wilderness.
- When planning for helispots, determine the primary function of each helispot, i.e.: crew shuttle, logistical support, or both.
- If a helispot is only needed for logistical support to deliver and retrieve supplies or gear, consider using a long line remote hook in lieu of constructing a helispot.
- If a helispot is needed for crew shuttle, consider the minimum size helicopter that could do the job, if you have an option, and still meet suppression objectives.
- Use natural openings as much as possible. If some tree falling or cribbing is necessary, avoid high visitor use locations unless the modifications can be rehabilitated to be generally unnoticeable. Feather the opening so that it appears more natural looking.

- Perform an aerial reconnaissance of the fire area and select potential helispots. In determining helispot locations, involve, at a minimum, the Air Operations Manager, responsible land manager or Resource Advisor, and the Helitack Foreman. Consider drawing a sketch and discuss which trees need to be cut to ensure a safe operation for the size of the helicopter deemed necessary or available.
- If a high level of resource impact is anticipated from a proposed helispot, evaluate carefully whether it is absolutely necessary and if there isn't an alternative outside Wilderness.
- Whenever possible, the resource advisor should observe the construction of a helispot.

Mop-up Phase

- Use gravity socks in streams and/or a combination of water blivits and fold-a-tanks to minimize impacts to streams.
- Do not bring in any non-native materials to be used for sediment traps in streams. Use of non-native materials creates a risk that noxious weeds will be introduced to the area.
- Place absorbent cloth under pumps to avoid spilling fuel on the ground.
- Personnel should avoid using rehabilitated firelines as travel corridors whenever possible because of potential soil compaction and possible detrimental impacts to rehab work, i.e.: water bars.
- Consider using infrared detection devices along perimeter (aerial or hand-held).
- Align saw cuts to minimize visual impacts from more heavily traveled corridors. Slope cut away from line of sight when possible.
-
- In light fuels:
    - Cold-trail areas adjacent to unburned fuels.
    - -Do minimal spading; restrict spading to hot areas near fireline only.
    - -Use extensive cold-trailing to detect hot areas.
- Medium to heavy fuels:
    - Cold-trail charred logs near fireline; do minimal scraping or tool scarring.
    - Minimize bucking of logs to check for hot spots or extinguish fire; preferably roll the logs and extinguish the fire.
    - Return logs to original position after checking or when ground if cool.
    - Refrain from making bone piles; burned and partially burned fuels that were moved should be arranged in natural position as much as possible after they are cold.
    - Consider allowing larger logs near the fireline to burn out, instead of bucking them into manageable lengths. Use a lever or pry bar to move large logs.
    - Aerial fuels, brush, small trees, and limbs:
    - Remove or limb only those fuels which, if ignited, have the potential to spread fire outside the fireline
- Burning trees and snags:
    - First consideration is to allow burning trees or snags to burn themselves out or down. Ensure adequate safety measures are communicated.

- Identify hazard trees with an observer, flagging, and/or glow-sticks.
- If burning trees/snags pose serious threat of spreading fire brands, consider attempting to extinguish fire with water or dirt. Felling chainsaw should be last means, consider falling by blasting, if available.

Appendix G

Rehabilitation of Wilderness Fire Suppression Activities

The major goal of wildfire rehabilitation is to mitigate or eliminate environmental resource impacts caused by the fire suppression effort and rehab the area to as natural conditions as possible. BLM policy emphasizes the need to rehabilitate areas disturbed during the fire suppression effort to as natural an appearance as possible.

This goal coincides with the intentions of the Wilderness Act, which states: "....wilderness is an area affected primarily by nature, with human activity substantially unnoticeable...." In the case of wildfire suppression, it is the human involvement that has the potential to be the damaging effect on the wilderness resource, even more so than the effects of the fire.

Major areas to consider in rehab of fire suppression activities are firelines, helispots, camps, staging areas and any actions taken related to the fire suppression effort.

Following are examples of the actions that may be used for the rehabilitation of fire suppression activities for each area or type of location.

Constructed Fireline Rehabilitation

The following are examples of actions that may be utilized in rehabilitation of constructed firelines:

- After fire spread is secured, replace dug-out soil/duff; obliterate any berms and leave as natural appearing.
- Provide some means for drainage to prevent erosion on firelines or trails created on sloped areas, i.e., shadow-depth water bars, or natural material to act as sediment dams.
- Scatter some cut brush/limbs onto fireline or impacted areas so it blends with the natural appearing landscape.
- Scatter obvious, excess accumulations of cut limbs/seedlings/saplings into a more natural arrangement.
- If excessive amounts of cut vegetation exist, consider piling and burning at a later date.
- Flush cut stumps of felled trees and snags with the ground surface; scatter cut portion out of sight.
- Camouflage cut stumps in a manner that blends with surrounding natural landscape.
- Use a variety of means to camouflage cut faces of stumps and bolewood (rocks, dead woody material, fragments of stumps, bolewood and/or limbs, soil, and fallen/broken green branches)
  If need be, bring in some of the natural material you will use to camouflage cut faces of stumps and boles from adjacent untouched areas.
- Piece together cut sections of down logs to appear natural, if possible. Place soil or some existing debris over where the cut was made.
- Position cut logs where they will be least noticeable to wilderness visitors.

- If bolewood can be moved, place cut end adjacent to or underneath existing down material.
- For large size bolewood that cannot be moved, place a slant cut (45-60 degree angle) on the bottom side.
- Do not lop and scatter tops of cut trees. (Lop and scatter could create a harvest/precommercial thin appearance instead of a natural landscape)
- If there has been an excessive amount of bucking, limbing and topping, consider slinging rounds and tops from the site.
- Remove all plastic flagging and trash along the fireline.

Natural Barrier Firelines

Natural or man-made breaks in vegetation, such as water ways, hiking trails, rocky outcrops, talus and scree slopes, and roads, are preferred when possible for use as barriers to contain a fire. These barriers may be effective as is (unimproved) or they may need "improvement". It is the "improved" barriers that need rehabilitation due to the activities required to widen the barrier. The degree of improvement determines the amount of rehab.

Water Ways: Limbs and logs thrown into a stream during line construction and constructed water impoundments can alter the water flow. Any alteration in water flow should be corrected.

- Remove all woody material (brush, branches & logs) that were thrown into the water during the fire.
- Remove dams, sumps and other human interventions.
- Retrieve flagging and remove all litter, tools, etc.

Hiking Trails: When hiking trails are employed as firelines they may have been widened by the cutting or limbing trees that line the trail. The following are examples of actions that may be utilized in rehabilitation of hiking trail firelines:

- Flush cut conspicuous stumps and camouflage the ends with soil and vegetation.
- Place all cut limbs & seedlings alongside trail, near their source if possible, with the cut ends facing away from the trail.
- Camouflage or block entrances to access trails and switchback short cuts. Switchback shortcuts need to be rehabilitated according to their level of impact, and may require following the guidelines for firelines.
- Retrieve flagging and remove all litter, tools, etc.

Rocky Outcrops, Talus or Scree Slopes: These natural firebreaks are rarely improved upon. If vegetation was removed, no rehab to replace the vegetation is necessary. Most of the impact seen in these areas will be in the form of trenches for fire access trails.

- If necessary, restore slope contour by raking slope material back into fireline until flush.
- Retrieve flagging and remove all litter, tools, etc.

Fire Access Trails: Trails created by foot traffic along hose lines and firelines, accessing pump sites and areas of the fire. Treatments differ for access trails in burned areas versus vegetated areas.

1) **Through Fire:** Access trails that travel through the fire usually need attention in preventing further erosion and further use. The following are examples of actions that may be utilized in rehabilitation of access trails created through the fire area:

- Restore slope contour by raking in nearby fill to a level equal to adjacent soil level.
- Drag available burned logs and brush across the "trail" every 50 ft.
- If slope is >25 degrees, drainage dips should be added every 20 feet, or where natural features on the land dictate them most useful i.e. where they provide the most drainage, (where the trail changes direction).
- Camouflage beginning of access trail so visitors will not be tempted to travel on it.

2) **Through Vegetation:** An access trail through vegetation is rehabilitated as if it were a fireline, but because the level of impact is not normally as severe; the amount of work required is less intensive. Usually, slope and soil loss are observed, as well as compaction of the soil. The degree of rehabilitation required is determined by the amount of impact observed.

- If soil is compacted, scarify the area lightly without killing any vegetation.
- Replace recoverable soil and rocks that were displaced during use of access trail, trying to keep soil horizons correct.
- Restore slope contour, compensating for settling.
- Scrape back litter.
- Drag available burned logs. Drag available burned logs and brush across the "trail".
- If access trail is deeper than 4 inches and slope is very steep: consider following the rehabilitation standards for constructed fireline.

Special Areas

Special areas receive unusual, intermittent, unregulated, and/or extreme use. These special areas include: helispot sites, "coyote" camps, helispots, pump sites, spike camps, and staging areas. Although the extent of impact to these areas may vary, the same type of impact often occurs throughout.

Helispots: Helispot construction in Wilderness can cause a double impact—the impact of abrupt or unnatural appearing openings in a timber vegetative covered landscape, and the impact resulting from cut-faces of tree boles and stumps. Many of the same type of impacts associated with fireline construction can occur during helispot construction and operation, therefore many of the techniques listed above under constructed firelines can be used. Some other potential actions include:

- If excessive amounts of cut vegetation exist, pile and arrange to be burned at later date, or consider slinging cut material from the site.
- Obliterate landing pad and leave in as natural condition as possible: bury painted helispot markers, remove litter, clean up any area where oil or fuel spills occur, and break up compacted soil.

Camp Situations and Personal Conduct:

- Scatter campfire site rocks and charcoal; cover charred fire ring rocks with soil if necessary.
- Scatter any cut limbs or saplings that may have occurred.
- Cover latrine sites.
- Remove camp/tent poles and stakes and scatter in nearby timbered area.
- Pick up litter and pack out as garbage.

Staging Areas, Etc.:

In some wildfire situations, a fire camp, staging areas, drop-off points, and other miscellaneous constructed facilities are within the Wilderness. These all will be assessed for possible rehab needs, and measures taken accordingly to ensure the area is left in as natural appearing condition as possible.

Spike Camps:

Groups of firefighters can stress the resource as they live and work out of spike camps for an extended period of time. Areas of possible impact include sleeping sites, mess area, first aid station, sanitation sites, equipment caches, and vehicle parking. At these specific spots and throughout the area potential impacts includes compacted soil, bare ground, litter, oil/fuel spills, disturbed slope as in leveled sleeping areas, human refuse/toilet paper, kitchen refuse (sump holes), campfire pits, cut seedlings and limbs, social trails between various living areas, and primitive constructions such as nails in trees, hooches, etc.

Coyote Camps:

Coyote camps are temporary firefighter camps located throughout the fire. Although these camps are not used for any length of time, they can exhibit impacts which may need rehab work. The main impacts include: litter, compacted soil, bare ground, leveled sleeping sites, human refuse/toilet paper, campfire pits, cut seedlings and limbed trees.

Pump Sites:

The operation of a portable water pump impact both the ground on which the pump is resting and to the required water supply. Impacts may include: oil/fuel spills, water pollution, compacted soil, bare ground, dammed and altered streambeds, erosion from overflowing portable water tanks, and litter.

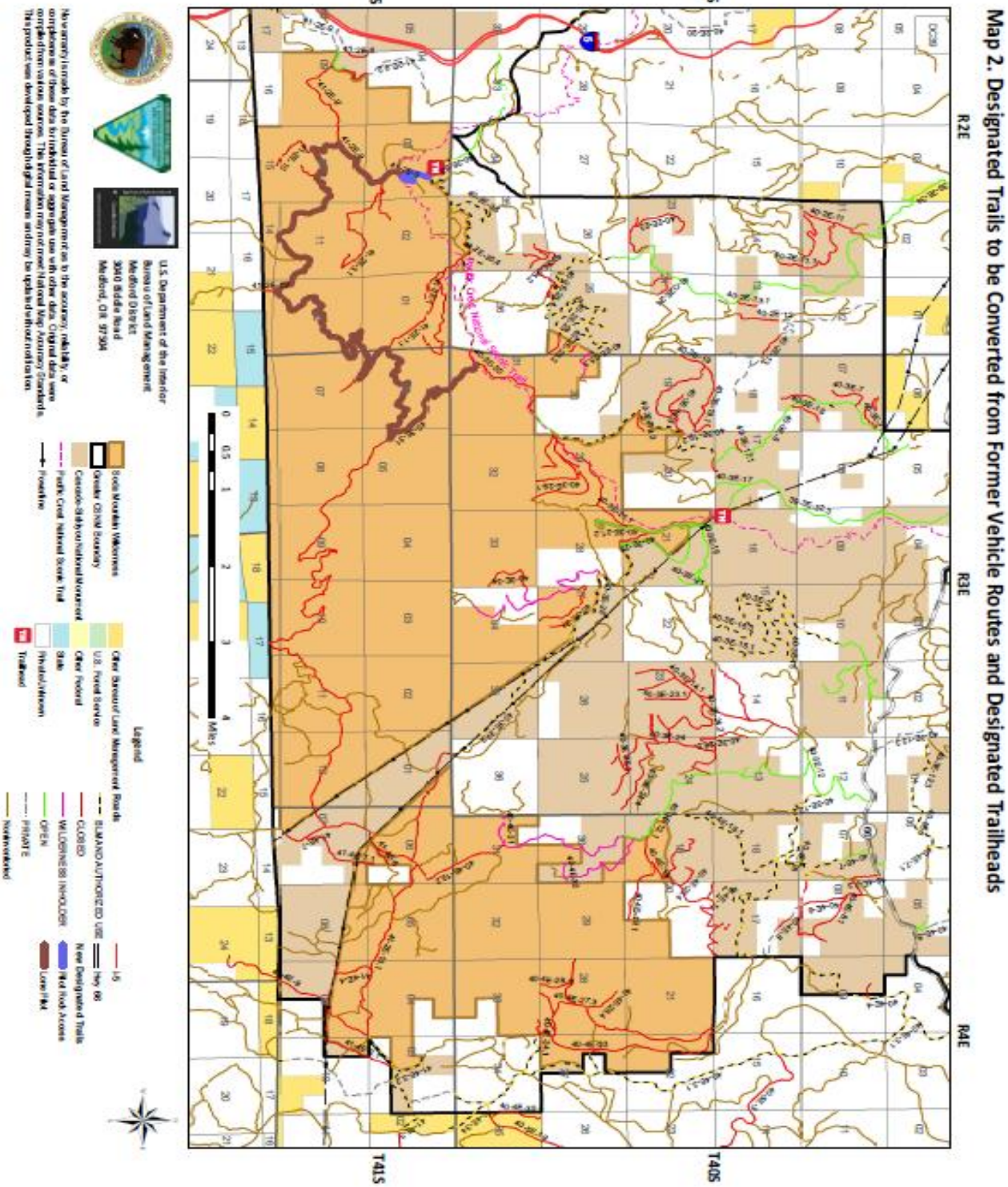
Land Stewardship with Fire Suppression

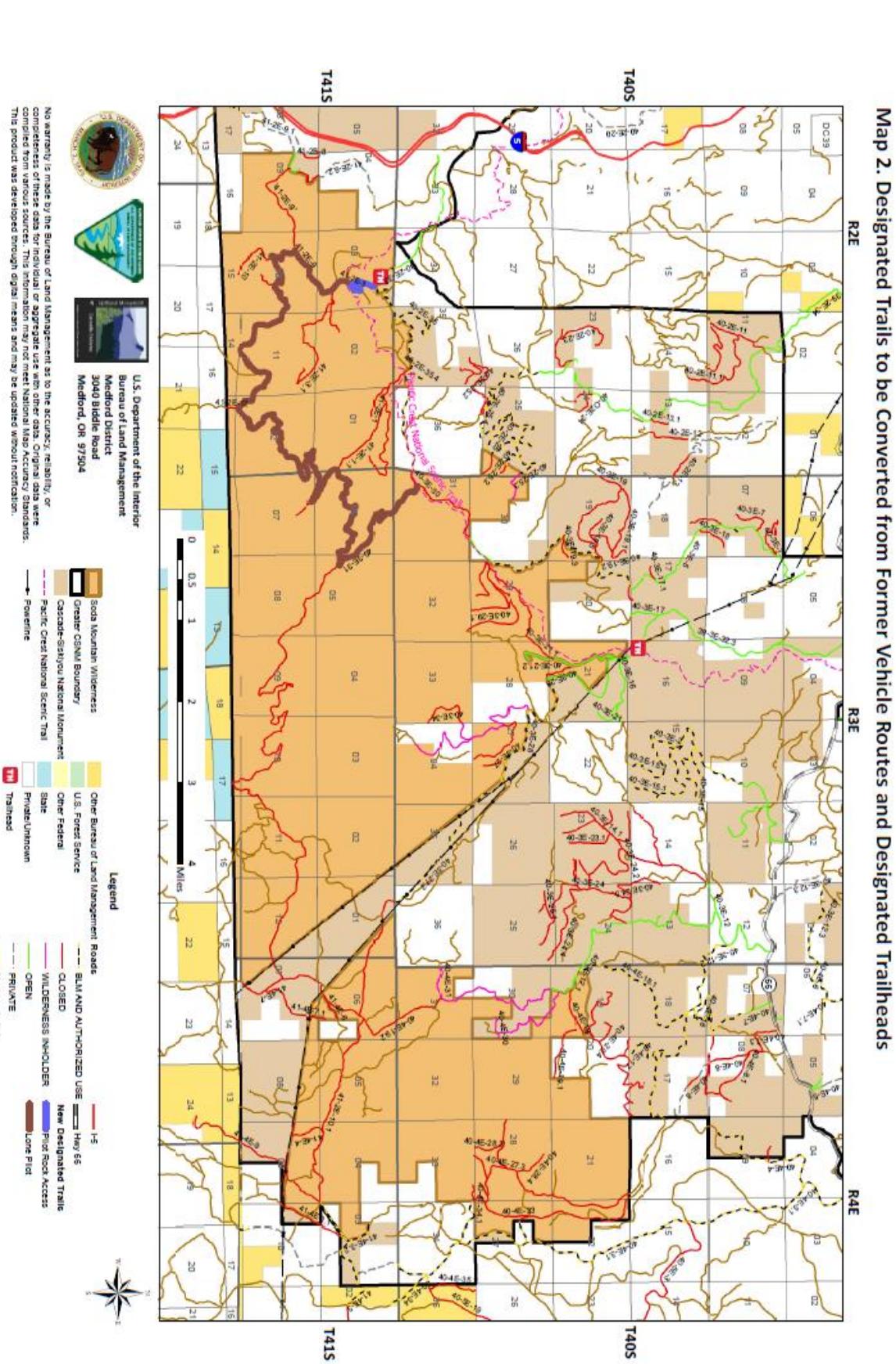
Suppression impacts and resource damage that may have a level of acceptance on nonwilderness lands may not conform to the “Limits of Acceptable Changes” for wilderness. The appreciation of the need of minimum impact and damage to wilderness resources should occur in initial actions to suppress fire and be incorporated in on-going decisions of suppression actions throughout the incident. The consequence will be a lessening in the need for extensive and costly rehabilitation actions.

Soda Mountain Wilderness Designated Trail System

- The final plan reduces the number of trails heads from four to two, allowing for designated trail heads at Hobart Bluff on Soda Mountain Road and at the old quarry on Pilot Rock Road leading to Pilot Rock.

- Two roads to trails conversions are planned; one at the former Pilot Road from the quarry parking lot to the Pacific Crest Trail as well as a trail conversion utilizing part of the old Schoheim Road, creating a loop trail that ties into the Pacific Crest Trail. The plan also allows for a reroute of the Pilot Rock Trail from the PCT up to Pilot Rock to address erosion and safety concerns.


Map 2. Designated Trails to be Converted from Former Vehicle Routes and Designated Trailheads
T41S
T40S
R2E
R3E
R4E
Legend
Miles
U.S. Department of the Interior
Bureau of Land Management
Medford District
3040 Biddle Road
Medford, OR 97504


Map 2. Designated Trails to be Converted from Former Vehicle Routes and Designated Trailheads
R2E
R3E
R4E
T40S
T41S
Legend
Soda Mountain Wilderness
Greater CSNM Boundary
Cascade-Siskiyou National Monument
Pacific Crest National Scenic Trail
Pownline
Trailhead
Other Bureau of Land Management
U.S. Forest Service
Other Federal
State
Private/Unknown
Roads
BLM AND AUTHORIZED USE
CLOSED
WILDERNESS INHOLDER
OPEN
PRIVATE
Nonmentioned
I-5
Hwy 66
New Designated Trails
Pilot Rock Access
Lone Pilot
0 0.5 1 2 3 4 Miles
U.S. Department of the Interior
Bureau of Land Management
Medford District
3040 Biddle Road
Medford, OR 97504
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Appendix K: Mechanized and Motorized Use in the Wilderness

Use of Motorized Equipment or Mechanical Transport in Wilderness

The following information has been gathered to answer a number of questions regarding use of motorized equipment/mechanical transport in wilderness. It provides a summary of 1964 Wilderness Act, current Code of Federal Regulation (CFR) citations, and Forest Service Manual (FSM) direction. It also summarizes line officer authorities, including authorities delegated from the R6 Regional Forester to Forest Supervisors.

1964 Wilderness Act, Summary

"...except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (to secure an enduring resource of wilderness), ... there shall be ... no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport..."

36 CFR 261.16

"The following are prohibited in National Forest System wilderness:
(a) Possessing or using a motor vehicle, motorboat or motorized equipment except as authorized by Federal Law or regulation.
(b) Possessing or using a hang glider or bicycle
(c) Landing of aircraft, or dropping or picking up of any material, supplies, or person by means of aircraft, including a helicopter"

36 CFR 261.57(h)

"When provided by an order, the following are prohibited:
(h) Possessing or using a wagon, cart or other vehicle."

36 CFR 293.6

"Except as provided in the Wilderness Act, subsequent legislation establishing a particular wilderness…there shall be no…aircraft landing strips; no heliports or helispots, no use of motor vehicles, motorized equipment, motorboats, or other forms of mechanical transport; no landing of aircraft; no dropping of materials, supplies, or persons from aircraft…"

Defines motorized equipment as:

"...shall include any machine activated by a nonliving power source, except that small battery-powered, hand-carried devices such as flashlights, shavers, and Geiger counters, are not classed as motorized equipment."

Defines mechanical transport as:

"...shall include any contrivance which travels over ground, snow, or water on wheels, tracks, skids, or by flotation and is propelled by nonliving power source contained or carried on or within the device."

FSM 2320.5 Definitions

3. Mechanical Transport. Any contrivance for moving people or material in or over land, water, or air, having moving parts, that provides a mechanical advantage to the user, and that is powered by a living or nonliving power source. This includes, but is not limited to, sailboats, hang gliders, parachutes, bicycles, game carriers, carts, and wagons. It does not include wheelchairs when used as necessary medical appliances. It also does not include skis, snowshoes, rafts, canoes, sleds, travois, or similar primitive devices without moving parts.

4. Motorized Equipment. Machines that use a motor, engine, or other nonliving power sources. This includes, but is not limited to, such machines as chain saws, aircraft, snowmobiles, generators, motor boats, and motor vehicles. It does not include small battery or gas powered handcarried devices such as shavers, wristwatches, flashlights, cameras, stoves, or other similar equipment.

FSM 2326 - Use of Motorized Equipment or Mechanical Transport in Wilderness

The objectives of use of motorized equipment or mechanical transport in wilderness is defined as:
2326.02 - Objectives

1. Accomplish management activities with nonmotorized equipment and nonmechanical transport of supplies and personnel.

2. Exclude the sight, sound, and other tangible evidence of motorized equipment or mechanical transport within wilderness except where they are needed and justified.

The Regional Forester has authority for approving the following, and has delegated this authority to Forest Supervisors if 1) they have attended national or regional wilderness stewardship training provided by the Carhart Interagency Wilderness Training Center and 2) if the District Ranger involved has also been to this training. This is a line authority and may not be delegated to staff.
2326.04b - Regional Forester

The Regional Forester is responsible for approving:

1. Transport and supply by aircraft, air drop, motor boat, or mechanical transport for situations that meet the conditions under items 2, 4, or 5, in FSM 2326.1.
2. Hand-portable motorized equipment for needs that meet conditions listed under item 5 of FSM 2326.1.
3. Motorized ground equipment not designed for personnel transport and of a type or size that is controlled from a position afoot.
4. Use of motor vehicles, motorized equipment, and mechanical transport for situations involving established livestock grazing operations (FSM 2204 and 2323.2), and transport of wildlife or fish when nonmotorized means are not feasible (FSM 2323.3).
5. Use of motorized equipment specifically allowed by individual wilderness acts subsequent to the Wilderness Act.

2326.04c - Forest Supervisor

The Forest Supervisor approves the use of motorized equipment or mechanical transport under conditions described in section 2326.1, item 1 or 3. However, the Regional Forester shall approve the use of tractors for fire suppression.

2326.1 - Conditions Under Which Use May Be Approved

Allow the use of motorized equipment or mechanical transport only for:
1. Emergencies where the situation involves an inescapable urgency and temporary need for speed beyond that available by primitive means. Categories include fire suppression, health and safety, law enforcement involving serious crime or fugitive pursuit, removal of deceased persons, and aircraft accident investigations.
2. Aircraft or motorboat use established before the area was designated as wilderness by the Act of 1964 or subsequent wilderness legislation.
3. Exploration and development of valid existing mineral rights (FSM 2323.7).
4. Access to surrounded State and private lands and valid occupancies (FSM 2326.13).
5. To meet minimum needs for protection and administration of the area as wilderness, only as follows:

a. A delivery or application problem necessary to meet wilderness objectives cannot be resolved within reason through the use of nonmotorized methods.
b. An essential activity is impossible to accomplish by nonmotorized means because of such factors as time or season limitations, safety, or other material restrictions.
c. A necessary and continuing program was established around the use of motorized equipment before the unit became a part of the National Wilderness Preservation System, and the continued use of motorized equipment is essential to continuation of the program.
d. Removal of aircraft wreckage when nonmotorized methods are unsuitable.

The above conditions in 2326.1 items 2 and 4 refer to aircraft or motorboat use established before the area was designated as a wilderness and to provision of access to inholdings, respectively. Item 5 refers to approval of use "to meet minimum needs for protection and administration of the area as wilderness.

Wilderness Mechanized Transport / Motorized Equipment Use
Authorization Record

Date of Request: _____ Wilderness: _____

Authorization: Approved ☐ Disapproved ☐

Authorized Time Span Starting Date: _____ Ending Date: _____

Type of Authorization: Emergency, Fire ☐ Administrative ☐ Emergency, Search and Rescue ☐ (Minimum Tool Analysis required, attach copy)

If the Type of Authorization has Identification # what is it? Fire: _____

Explanation of circumstances:
Approval or Disapproval:

Equipment Authorized	Quantity	Comments

Authorization Approval Date: _____

_____

Approving Official: **Title:**

3.3.11. Appendix L: List of Acronyms and Glossary of Terms

13/13	Seasonal employee, guaranteed 13 pay periods of work per y
18/8	Seasonal employee, guaranteed 18 pay periods of work per y
ACEC	Area of Critical Environmental Concern
ACS	Aquatic Conservation Strategy
AFMO	Assistant Fire Management Officer
AMA	Adaptive Management Area
AMR	Appropriate Management Response
AQMA	Air Quality Management Area
AQRV	Air Quality Related Values
BLM	Bureau of Land Management
BMPs	Best Management Practices
CAA	Clean Air Act
CAR	Community at Risk
CEQ	Council on Environmental Quality
CFPA	Coos Forest Protective Association
CFR	Code of Federal Regulations
CLNP	Crater Lake National Park
CSNM	Cascade-Siskiyou National Monument
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
DEQ	Department of Environmental Quality
DFPA	Douglas Forest Protective Association
DM	Decision Memo
DN	Decision Notice
DOI	Department of the Interior
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESR	Emergency Stabilization and Rehabilitation
ESU	Evolutionary Significant Unit
FACTS	Forest Service Activity Tracking System
FASTRACS	Fuels Analysis, Smoke Tracking, and Report Access Computer System
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency

FIL	Fire Intensity Level
FMO	Fire Management Officer
FMP	Fire Management Plan
FMU	Fire Management Unit
FPA	Fire Program Analysis
FPU	Fire Planning Unit
FR	Federal Register
FRCC	Fire Regime Condition Class
FS	Forest Service
FSH	Forest Service Handbook
FSM	Forest Service Manual
FWS	Fish and Wildlife Service
GF	General Forest
GFMA	General Forest Management Area
ha	Hectare
HFI	Healthy Forest Initiative
HFRA	Healthy Forest Restoration Act
HRC	Human Resource Coordinator
IDT	Interdisciplinary Team
IFPL	Industrial Fire Protection Level
IMPROVE	Interagency Monitoring of Protected Visual Environments
IVMP	Interagency Vegetation Monitoring Project
JJLCG	Josephine-Jackson Local Coordinating Group
L.C.E.S.	Lookouts, Communications, Escape Routes, Safety Zones
LRMP	Land and Resource Management Plan
LSE	Late Successional Emphasis
LSR	Late-Successional Reserve
LUA	Land Use Allocation
MA	Management Area
MICC	Medford Interagency Communications Center
MIS	Management Indicator Species
MIST	Minimum Impact Suppression Tactics
MOU	Memorandum of Understanding
MS	Management Strategy
NAAQS	National Ambient Air Quality Standards
NASF	National Association of State Foresters
NEPA	National Environmental Policy Act
NF	National Forest
NFMA	National Forest Management Act
NFP	National Forest Plan
NFPORS	National Fire Plan Operations & Reporting System
NFR	Natural Fire Rotation
NFS	National Forest System

NFSL	National Forest System Lands
NHPA	National Historic Preservation Act
NPS	National Park Service
NSO	Northern Spotted Owl
NWCG	National Wildfire Coordinating Group
NWFP	Northwest Forest Plan
OAR	Oregon Administrative Rules
ODA	Oregon Department of Agriculture
ODEQ	Oregon Dept. of Environmental Quality
ODF	Oregon Department of Forestry
ODF SW	Oregon Department of Forestry, Southwest Oregon District
ODFW	Oregon Dept. of Fish and Wildlife
ONHP	Oregon Natural Heritage program
OR	Oregon
P.L.	Public Law
PAG	Plant Association Group
PFT	Permanent Full Time
PL	Phytophthora lateralis
PM10	Particulate Matter 10 micrometers in size
PM2.5	Particulate Matter 2.5 micrometers in size
PNW	Pacific Northwest
POC	Port Orford Cedar Root Disease
PUR	Public Use Restriction
R6	Forest Service Region Six
RAWS	Remote Automated Weather Station
RD	Ranger District
RIA	Rural Interface Area
RIEC	Regional Interagency Executive Committee
RMP	Resource Management Plan
RNA	Research Natural Area
ROD	Record of Decision
RRNF	Rogue River National Forest
RRSNF	Rogue River-Siskiyou National Forest
RS	Revised Statute
S&G	Standard and Guideline
SHPO	State Historic Preservation Office
SNF	Siskiyou National Forest
SOD	Sudden Oak Death
SWO	Southwest Oregon
SWOCG	Southwest Oregon Coordination Group
SWOFPU	Southwest Oregon Fire Planning Unit
T&E	Threatened and Endangered
US	United States

USC	United States Code
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFS	United States Forest Service
USFS	US Forest Service
USFWS	United States Fish and Wildlife Service
VMS	Visual Management System
WFDSS	Wildland Fire Decision Support System
WFSA	Wildland Fire Situation Analysis
WFU	Wildland Fire Use
WIMS	Weather Information Management System
WO	Washington Office (Forest Service)
WOPR	Western Oregon Plan Revisions
WUI	Wildland Urban Interface

Glossary of Terms

The following are selected definitions, as of November 2008, from the *Glossary of Wildland Fire Terminology*, published by the National Wildfire Coordinating Group (NWCG) in Boise, Idaho. In some cases, the definition has been modified for clarity to a more general audience. Copies of the full glossary are available at **http://www.nwcg.gov/pms/pubs/glossary/pms205.pdf**. Updates to the definitions of several terms took place via an April 30, 2010 memorandum from the NWCG (reference number NWCG#024-2010). Definitions provided here have been updated to reflect those changes in terminology.

Active Crown Fire – a fire in which a solid flame develops and spreads in the crowns of trees, but where continued spread in the crowns is dependent on the surface fire as well.

Activity Fuels – fuels resulting from, or altered by, land management practices, such as timber harvest or thinning.

Aerial Fuels – standing and supported live and dead combustible vegetation not in direct contact with the ground and consisting mainly of foliage, twigs, branches, stems, cones, bark, lichens, and vines. Also known as canopy fuels.

Appropriate Management Response – the response to a wildfire is based on evaluation of risks to firefighter and public safety, the circumstances under which the fire occurs, including weather and fuel conditions, natural and cultural resource management objectives, protection priorities, and values to be protected. The evaluation must also include an analysis of the context of the specific fire within the overall local, geographic, or national wildland fire situation. This term is now obsolete, according to the National Wildfire Coordinating Group.

Available Fuel – that portion of the total vegetation that would actually burn under a given set of environmental conditions.

Backfire – a fire set along the inner edge of a fireline to consume the fuel in the path of a fire or change the direction of the fire or its convection column.

Backing Fire – a fire spreading into (against) the wind or downslope.

Blackline – burning fuel adjacent to a control line under cooler burning conditions to secure the line. Typically, this term is used for prescribed fires.

Benefits – fire effects with positive value or that contributes to the attainment of organizational goals. Synonym: Resource Benefits. Also known as Fire Benefits.

Burn Out – setting fire inside a control line to consume fuel between the edge of the fire and the control line. Typically, this term is used for unplanned ignitions.

Burn/Fire Severity – a qualitative assessment of the effects of a fire on a particular aspect environment such as soils, fuel consumption, and plant mortality.

Burning Period – that part of each 24-hour period when fires spread most rapidly; typically from 10:00 to sundown during the hottest, driest part of the fire season.

Cold Trailing – careful inspection and hand feeling of a partly dead fire edge to detect any hot spots and edges and either extinguishing the hot areas or constructing short segments of fireline.

Condition Class – see Fire Regime Condition Class

Confinement – a strategy under AMR that uses a combination of natural and constructed barriers, changes in fuel loading or type, and weather to restrict a fire to a specified area.

Containment/Contained – a status of a fire that indicates that control line has been completed around a fire and any associated spot fires, which is expected to prevent any additional fire spread.

Contingency Plan – a back-up plan of actions when the actions in the primary plan have failed or are expected to fail in the near future.

Control Line – all constructed and natural barriers and treated fire edges used to stop fire spread.

Controlled – a status of a fire that indicates sufficient actions have been taken to prevent any additional fire spread under the foreseeable conditions.

Creeping Fire – fire burning with low flame lengths and slow spread rates.

Crown Fire – a fire burning through the tops of trees or shrubs; used most often in forest fires.

Crown Out – a fire that rises from the ground into tree crowns; may involve just a single tree or a group of trees.

Crown Scorch – browning of needles or leaves in the crown of a tree or shrub caused by heating to lethal temperatures; may not be apparent until several days to weeks after a fire has passed.

Crowning Potential – the probability that a crown fire may start; based on the moisture content of the foliage, the height of the lowest part of the tree crowns above the surface and surface fire flame lengths.

Direct Attack/Direct Line – any action applied directly to the burning fuel, such as wetting, smothering, or chemically quenching the fire or by constructing control line either directly along the burning edge or a short distance away (few inches to few feet).

Draped Fuels – needles, leaves, and twigs that have fallen from trees and have lodged in the lower branches or the crowns of shrubs; considered a part of aerial fuels.

Drift Smoke – smoke that has moved from its point of origin and is no longer dominated by convective motion; usually applied to smoke near the surface.

Dry Lightning Storm – a thunderstorm in which little or no rain reaches the surface.

Duff – the layer of decomposing needle and twigs lying below the loose litter and above the soil; the material in duff has been consolidated into a solid mass by fungal hyphae.

Escape Route – a planned route firefighters take to move away from a threatening fire and into a safer area.

Escaped Fire – a fire which has exceeded or is expected to exceed the initial actions taken.

Escaped Prescribed Fire – prescribed fire that has exceeded or is expected to exceed prescription parameters or otherwise meets the criteria for conversion to a wildfire. Criteria for conversion are specified in “Interagency Prescribed Fire – Planning and Implementation Procedures Reference Guide”.

Extended Attack – additional actions taken on a fire that has exceeded the capability of the initial forces and for which more firefighting forces have arrived, are en route, or are being ordered by the initial attack incident commander.

Extreme Fire Behavior – fire behavior that precludes the use of direct attack actions and is generally unpredictable and erratic. Examples include very high rates of spread, extensive crowning or spotting, and the presence of fire whirls.

Fine Fuels – fast-drying dead or live vegetation (grass, needles, leaves, etc.) that ignites readily and is consumed rapidly by fire when dry. Also called flash or flashy fuels.

Fire Front – the part of the fire where continuous flaming combustion, or the most active spread, is taking place.

Fire Hazard/Hazardous Fuels – the mix, arrangement and condition of burnable vegetation that determines how easily fires will start and spread and how difficult it will be to control the fire.

Fire Intensity – the rate of heat released per unit of time per length of fire front; roughly equivalent to flame length.

Fire Management – all activities related to the management of wildland fires.

Fire Regime – a description of the patterns of fire occurrences, frequencies, sizes, and severities in a given area or ecosystem.

Fire Regime Condition Class – a measure of the relative degree of departure from historical fire regimes. "Historical" generally refers to the conditions and fire regimes present prior to Euro-American settlement and including the burning practices of Native Americans as well as natural ignitions.

Fire Regime Groups – a classification of fire regimes into discrete categories usually based on frequency and severity. At present, five groups are used on a national basis.

Fire Risk – the chance of a fire starting.

Fire Season – the time of year when wildland fires are likely to start and spread. A legally enacted time during which burning activities are regulated by federal, state or local authority; sometimes called 'declared fire season.'

Fire Severity – the degree to which a given location or environmental factor has been altered or disrupted by fire.

Fire Type – the type of fire based on whether the ignition was planned (type: prescribed) or unplanned (type: wildfire).

Fire Whirl – a spinning vortex of ascending hot air and flammable gases, similar to a dust devil, that also includes flames.

Firebrand – flaming or glowing particles of fuel carried by wind, convection currents or gravity into unburned fuels.

Firebreak – a natural or constructed barrier used to stop or slow fire spread and which may also serve as a control line.

Flame Depth – the width, from front to back, of the fire front.

Flame Height – the average maximum vertical extension of flames at the fire front; usually less than the flame length.

Flame Length – the average distance from the flame tip to the midpoint of the flame depth at the base of the flame, an indicator of fire intensity.

Flanking Fire – a fire spreading at right angles to the wind or upslope.

Flare-up – a sudden acceleration in the rate of fire spread or intensification of the fire, usually of relatively short duration.

Fuelbreak – a natural or human-made change in fuel arrangement or continuity that reduces fire behavior to a level that allows for easier control of fire spread.

Ground Fire – fire that burns organic material below the general surface or within the soil, such as peat.

Head Fire – a fire spreading with the wind or upslope.

Heavy Fuels/Coarse Fuels – fuels of large diameter, such as snags, logs and large limbs, which do not ignite readily and are consumed slowly. Also known as coarse woody debris.

Holdover Fire/Sleeper Fire – a fire that remains dormant or undetected for several days to a few weeks after actual ignition.

Hot-spotting – checking the fire spread at the points of more rapid spread or special threat.

Human-caused fire – any fire caused directly or indirectly by person(s).

Independent Crown Fire – a fire that advances through the crowns of trees that does not require energy from the surface fire to sustain combustion. Very rarely occurs.

Incident objectives – site specific guidance and direction necessary for the selection of appropriate strategy(s) and the tactical direction of resources on an incident.

Indirect Attack – a method of controlling the fire where the control line is located some distance (tens of feet or further) from the fire's active edge.

Initial Attack – an aggressive action to put the fire out consistent with firefighter and public safety and values to be protected.

Initial Response – immediate decisions and actions taken to react to an ignition. Synonym/formerly known as: Initial Action.

Ladder Fuels – fuels which provide vertical continuity from the ground to the tree crowns that allow fire to move with relative ease into the crowns.

Litter – the top layer of dead vegetation on the ground usually consisting of loose needles, leaves, twigs and small branches.

Mass Fire – a fire resulting from simultaneous or near-simultaneous ignitions of many firebrands.

Mop-up – extinguishing or removing burning material, felling snags, and trenching or turning logs to avoid rolling after an area has burned in order to control the fire or to reduce smoke production.

Natural Fuels – fuels resulting from natural processes and not directly generated or altered by land management activities.

Passive Crown Fire/Torching – a type of crown fire in which a single tree or group of trees are ignited by the passing fire front; these fires are basically not different from surface fires.

Peak Fire Season – that period of the fire season when fires are most likely to start and to burn with greater than average intensity.

Preparedness Level – increments of planning and organizational readiness commensurate with increasing fire danger and level of fire activity.

Prescribed Fire – any fire intentionally ignited by management under an approved plan to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements (where applicable) must be met, prior to ignition. Synonym: Prescribed Burn, Controlled Burn.

Protection – management objective to limit the adverse physical, environmental, social, political, and/or economic effects of fire.

Reburn – repeat burning of an area over which a fire has previously passed but left fuel that later ignites when burning conditions are more favorable. Repeat burning of a previously burned area that has not yet recovered to a forested condition.

Rehabilitation – actions taken within 3 years of an unplanned fire to repair or improve fire-damaged lands unlikely to recover to management approved conditions within a specified time, or to repair or replace minor facilities damaged by a fire.

Residual Smoke – smoke produced by smoldering material.

Resistance to Control – the relative difficulty of constructing and holding a control line due to the type, amount and arrangement of fuel and by fire behavior.

Response to Wildland Fire – decisions and actions implemented to manage a wildland fire based on ecological, social, and legal consequences, the circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected.

Running Fire – a fire spreading rapidly with a well-defined head.

Safety Zone – an area cleared of flammable material into which firefighters can retreat and remain while a fire burns past the location and in which firefighters are not required to use their fire shelters to survive.

Scratch Line – an unfinished preliminary control line hastily built or constructed to check the spread of the fire.

Shaded Fuelbreak – a linear area where trees have been thinned and pruned to reduce the potential flame length yet leave enough canopy to make less favorable burning conditions for surface fires.

Slopover – a fire edge that crosses a control line or natural barrier intended to confine the fire.

Spot Fire – fire ignited outside the perimeter of the main fire by a firebrand.

Spotting – a form of fire behavior characterized by the production of firebrands that start spot fires.

Stand Replacing Fire – fire which kills or top-kills all or most of the trees, also explicitly the nature of fire in grasslands and many shrublands.

Suppression – management action to extinguish a fire or confining fire spread.

Surface Fire – fire that burns the material on the ground, such as needles, leaves, dead branches, duff and low vegetation.

Underburn – a fire that consumes the surface fuels, but not the aerial, or canopy, fuels.

Use of Wildland Fire – management of either wildfire or prescribed fire to meet resource objectives specified in Land/Resource Management Plans. Synonym: Fire Use.

Wildfire – an unplanned ignition caused by lightning, volcanos, unauthorized, and accidental human-caused actions and escaped prescribed fires. See Escaped Prescribed Fire.

Wildland Fire – a general term describing any non-structure fire that occurs in the vegetation and/or natural fuels.

Wildland Fire Use – the application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives in predefined designated areas outlined in Fire Management Plans. Operational management is described in an Implementation Plan. This term is now obsolete, according to the National Wildfire Coordinating Group.

Wildland Urban Interface (WUI) – the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Synonym: I-Zone, Wildland/Urban Interface.

Additional Terms not Included in the NWCG Glossary

Ember Shower – a relatively dense grouping of firebrands usually resulting from a crown fire.

Full Control – a management response where the main objective is to halt further fire spread.

Management Response – any specific action suitable to meet land management objectives. Typically, a management response ranges across a spectrum of tactical options, from monitoring to intensive suppression actions. Response includes both fires that are suppressed and fires that are managed to attain or move toward Forest Plan desired conditions, goals and objectives.

Monitoring – a management response where the main objective is to observe fire behavior and fire spread to determine whether the fire will remain within designated boundaries and what level of damage or resource benefit the fire may be producing.

Naturally-ignited Wildfire – any fire caused directly or indirectly by naturally occurring means or processes such as lightning, volcanos, etc.

Perimeter Control – a management response where the main objective is to keep the fire from spreading beyond designated limits by using a combination of natural and constructed barriers, changes in fuel type or condition, and weather.

Planned Ignition – a fire intentionally set by authorized personnel following a prescribed fire plan. See “Prescribed Fire”.

Plant Association Group: A stratification used that is intermediate between forest series and plant associations. Plant Association Groups are used to organize and discuss vegetation conditions and ecosystem processes.

Point Protection/Point Control – a management response where the main objective is to keep fire from damaging or destroying a particular location.

Prescription Fire – see "Prescribed Fire"

Unplanned Ignition – a wildland fire that is not intentionally started by authorized personnel following a prescribed fire plan. Includes naturally ignited and unauthorized human-caused fires.

Unplanned Fire for Resource Benefit – The management of naturally-ignited fire to accomplish specific resource management objectives identified in the Forest Plan.

3.3.12. Appendix M: Other Useful Information and Websites

Fire Prevention, Community Education and Integrated Fire Planning

The Prevention plans developed by ODF SW for their and Medford BLM jurisdiction are included as **Chapter B** in the ODF SW Mobilization Plan.

Industrial Fire Precaution Levels (IFPL) descriptions:

A web site titled **"Wildland Fire Safety Training Annual Refresher (WFSTAR)"** is available to assist in this training. It can be reached through the National Interagency Fire Center's homepage "Safety" link at **www.nifc.gov** Training schedules are posted and maintained at each geographic level on the internet.