



United States
Department of
Agriculture

DECISION NOTICE AND FINDING OF NO SIGNIFICANT IMPACT

FOR THE

WEST SLOPE WILDLAND URBAN INTERFACE HAZARDOUS FUELS REDUCTION PROJECT ENVIRONMENTAL ASSESSMENT



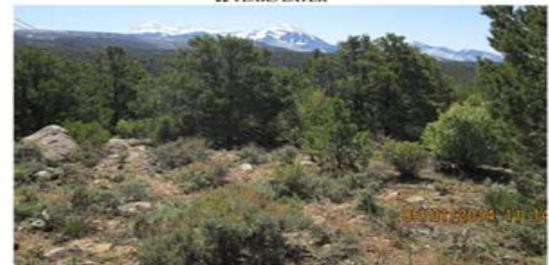
Forest Service
Intermountain Region
Manti-La Sal National Forest
Moab/Monticello Ranger District
San Juan & Grand County, Utah
May 2015



32 YEARS LATER



22 YEARS LATER



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

TABLE OF CONTENTS

INTRODUCTION	1
BACKGROUND.....	1
DECISION	2
ALTERNATIVES CONSIDERED.....	3
DECISION RATIONALE	4
PUBLIC INVOLVEMENT	7
FINDING OF NO SIGNIFICANT IMPACT	7
FINDINGS OF CONSISTENCY	9
PROJECT-LEVEL PREDECISIONAL ADMINISTRATIVE REVIEW PROCESS	11
CONTACT	12
APPENDICES	A-1
APPENDIX A - LITERATURE CITED.....	A-1
APPENDIX B – MAPS.....	B-1
APPENDIX C - DESIGN FEATURES & MONITORING.....	C-1

[Blank Page]

DECISION NOTICE AND FINDING OF NO SIGNIFICANT IMPACT FOR WEST SLOPE WILDLAND URBAN INTERFACE HAZARD FUEL REDUCTION PROJECT ENVIRONMENTAL ASSESSMENT

**USDA Forest Service
Manti-La Sal National Forest
Moab/Monticello Ranger District
San Juan and Grand County, Utah**

INTRODUCTION

This Decision Notice (DN) document describes my rationale and decision regarding the West Slope Wildland Urban Interface Hazard Fuel Reduction Project on the Moab/Monticello District of the Manti-La Sal National Forest (Map 1). My decision and findings are based on the analysis documented in the West Slope Wildland Urban Interface Hazard Fuel Reduction Project Environmental Assessment (EA) (USDA Forest Service 2015a) and its supporting Project Record (USDA Forest Service 2015b) which is incorporated by reference in this document. This analysis and decision tier to the Manti-La Sal National Forest Final Environmental Impact Statement and the Manti-La Sal National Forest Land and Resource Management Plan (USDA Forest Service 1986, as amended).

The proposal for development of an EA under authority of the Healthy Forest Restoration Act of 2003 (HFRA) was presented to the public in November 2012. The purpose of this proposal is to:

1. To reduce the probability of a high severity wildfire that is difficult to control.
2. Reduce the risk from wildfire to life (fire fighters, recreationists, permittees, lands owners) and property in this area.
3. Reduce the negative consequences of a fire on the soil and vegetation resources in the area.

BACKGROUND

During 2012, in collaboration with State and local agencies/governments, it was determined that a fuels reduction project was needed in the Bald & South Mesas, Jimmy Keen Flat and Brumley Ridge areas of the Moab/Monticello District. This is part of the area identified in the Moab Community Wildfire Protection Plan (Hawkins et al 2004) and the Southeastern Utah Regional Wildfire Protection Plan (RWPP) (Utah Division of Forestry, Fire, & State Lands 2007).

Fire Exposure Risk: The West Slope Wildland Urban Interface project is in an area of high recreational and residential use located about 13 miles east of Moab, Utah.

In 2005, the Forest conducted a Fire Regime/Condition Class Assessment (USDA Forest Service 2005). The project area was determined to be Fire Regime 3/Condition Class 2. A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern human intervention but including the possible influence of aboriginal fire use. Fire Regime 3 is described as generally mixed-severity and can also include low severity fires. Fire regime condition class reflects the current conditions' degree of departure from modeled reference conditions. Condition Class 2 represents a moderate departure from historical conditions.

The Mill Creek fire in 1982 burned 40 acres within the project area. Two large fires have occurred recently near the project area. In 2008, the Porcupine Ranch fire burned 3400 acres. In 2013, the Lackey Fan fire burned 900 acres. Both of these natural ignitions responded to high fuel loading, terrain, and dry conditions. These wildfires negatively affected the safety of forest users and area residents. Current vegetation in the West Slope project area is similar to the conditions that burned on these two fires.

Fire history records (GIS) show that approximately 40 fires occurred with ignition points in locations able to burn into the project area during the period from 1988 to 2010. Except for the 1982 Mill Creek fire, all other ignitions

were suppressed at one acre or less in size. Large fire history around the area demonstrates that frequency is one indicator of risk. Prior to the 900 acre Lackey Fan fire, there had been approximately 15 wildfire starts around that area. In the area around the Porcupine Ranch fire, there had been 12 starts previously. This data demonstrates that the potential exists for large fires in the West Slope WUI area.

This project's intent is to change or move between 2,000 to 4,500 acres within the project area from Fire Regime Condition Class 2 to Condition Class 1. The project will provide treatment of pinyon pine (*Pinus edulis*), Utah juniper (*Juniperus osteosperma*), and Gambel oak (*Quercus gambelii*) to create conditions that provide for less severe fires and lower risks to homeowners, area users, and environmental damage. The project provides for firefighter safety and reduces the risk of stand-replacing wildfire to life and property.

Beginning with a field trip to the area in October 2012, the project and potential actions were introduced and discussed with agency staff, area residents, and other concerned groups. This project was then developed and presented to the public for notice and comment in 2012. A public meeting was held on May 8th, 2014 to provide additional opportunity for public review and comment on the project. The Environmental Assessment for the project was released for objection (administrative) review on March 26, 2015 (USDA Forest Service 2015a).

DECISION

I have decided to implement Alternative 3 – Preferred Alternative.

Alternative 3 would reduce vegetation density and ladder fuels within 4546 acres of treatment units in the 8,222 acre project area. In the oakbrush vegetation type, treatment would occur on 30-70% of the unit acreage – for a maximum of 1625 acres treated in the oakbrush type (Map 2). There is one maintenance treatment authorized in this alternative.

1. ***Pinyon-Juniper/Sagebrush Vegetation Type (911 acres of treatment)***: mastication of 70-90% of the pinyon-juniper encroachment into historically sagebrush vegetation communities due to fire suppression. Pinyon pine will be favored for retention over juniper, and the treatment will retain a component of all present age classes. Rocky areas that traditionally did not burn would not be treated. Equipment will be restricted to 30 percent slopes or less.
2. ***Pinyon-Juniper/Shrub Vegetation Type (934 acres of treatment)***: mastication of 70-90 % of the pinyon-juniper encroachment into historically mixed shrub vegetation communities. The treatment will retain a component of all age classes, and pinyon pine will be favored for retention over juniper. Overgrown sprouting shrubs such as serviceberry may be stimulated by top cutting to encourage new growth and provide wildlife with additional forage. Equipment in all areas will be restricted to 30 percent slopes or less.

Pinyon-juniper immediately adjacent (300 ft zone) to private property would be selectively thinned to create a shaded fuel break with 20-30 foot crown spacing to reduce the visual impact of the treatments. The treatment will retain a component of all present age classes, and favor pinyon pine for retention over juniper. Some larger pinyon-juniper may be removed to create crown space or enhance openings. Individual openings should not exceed 1 acre in size. Pruning of residual trees will typically average four feet up from the ground or no more that 50 percent of the live crown of the tree. Equipment in all areas will be restricted to 30 percent slopes or less.

3. ***Gambel Oak Vegetation Type (1,504 acres – up to 1,050 treatment acres)***: a mosaic of openings of 1 to 3 acres would be created using mastication treatment. Some hand treatment (thinning with chainsaws) may occur in suitable areas and on steeper slopes especially in the zone around private land. Gambel oak patches with diameters less than 6 inches will be targeted. Other vegetation types within the treatment areas will be avoided.

4. **Drainage Corridors (366 acres):** pinyon and juniper trees would be masticated as close as 50 feet to intermittent drainages. Within the channel buffer zone, trees may be cut by hand and moved out of the buffer zone to be masticated, burned (pile burning will be >100 feet from drainage) or some material may be lopped and scattered. Tree removal must not adversely affect intermittent channel bank stability. Along perennial drainages, or channels with existing riparian woody vegetation (cottonwood, willow, redbud and/or aspen), measures to protect riparian vegetation and deciduous tree regeneration would be in place prior to treatment in areas where livestock or wild ungulates could potentially access the treatment area. Management options could include but are not limited to: brush fences, temporary fence or no treatment.
5. **Drainage Corridors/Oak Vegetation Type (782 acres – up to 545 treatment acres):** a mosaic of openings of 1 to 3 acres would be created using hand treatment of oak. Gambel oak patches with diameters less than 6 inches will be targeted. In areas with woody riparian vegetation, measures to protect riparian plant species and deciduous tree regeneration would be in place prior to treatment in areas where livestock or wild ungulates could potentially access the treatment area. Management options could include but are not limited to: brush fences, temporary fence or no treatment. Woody riparian species would not be cut.
6. **Communication Site – Gambel Oak (49 Acres – up to 30 treatment acres):** A mosaic of openings of 1 to 3 acres would be created using mastication treatment. Gambel oak patches with diameters less than 6 inches will be targeted. Other vegetation types within the treatment areas will be avoided where possible.

As determined to be appropriate, design features will be incorporated that include Forest Plan standards and guidelines, best management practices, and monitoring measures in order to reduce the impacts of treatments to implement fuel and restoration treatments (Appendix C).

ALTERNATIVES CONSIDERED

Three alternatives were considered in detail in the EA; Alternative 1 – No Action, Alternative 2 – Proposed Action, and Alternative 3 – Preferred Alternative. The development of Alternative 2 - Proposed Action and Alternative 3 – Preferred Alternative meet the requirements of HFRA. Per HFRA, the USDA Forest Service was required to consider the No Action alternative, the Proposed Action, and one additional alternative if it is proposed during the scoping process and if it meets the defined purpose and need. If more than one alternative is proposed, the selection of the additional alternative to analyze is at the discretion of the Secretary.

The alternative presented by Grand Canyon Trust and others was not used in its entirety as it did not meet the defined purpose and need to adequately reduce fire hazards within this area. However, central components of the alternative presented were used in the development of an alternative to the proposed action.

The following actions or alternatives to the proposed action were considered but eliminated from detailed study [40 CFR 1502.14(a)].

Defensible Space – a recommendation was made to limit fuels treatments only to defensible space zones around facilities and improvements. It was determined in the fuels specialist report and others that limiting treatment to areas around residential inholdings would not meet the purpose and need of this project. Although the Forest Service cannot require treatments on private land, local land management agencies are working with the State FFSL to encourage Firewise treatments.

Potential issues with the proposed action were derived from comments received from the public, organizations, other agencies, and Forest Service resource specialists. Following review of public comments and discussion with interdisciplinary team members, I determined that there were two issues with the proposed action that resulted in development of one additional alternative for this EA. The issues used to develop Alternative C and compare alternatives are as follows:

1. **The potential risks associated with herbicide treatment in the Mill Creek watershed**
2. **Treatment of critical fire pathways in project riparian corridors (treatment location, size and shape)**

The majority of public comments focused on concerns relative to the use of herbicide (Tebuthiuron) treatment on 360 acres and the potential resultant effects of herbicide mobility in the Mill Creek watershed. Following scoping and subsequent discussions with participating publics, an alternative that included no herbicidal treatment in the project area was included. Mechanical treatments were substituted in these areas for chemical treatment. This alternative was identified in the EA as the “Preferred Alternative”. These two issues and measures of objective achievement were used to compare the three alternatives evaluated in the EA in conformance with the HFRA. All other issues raised were either outside the scope of the analysis, did not meet the full intent of HFRA (i.e. public safety), or could be addressed and minimized through application of project design features and Forest Plan standards and guidelines to be implemented with the project. This determination is substantiated in the EA, the Comment Analysis (included in the EA, Appendix A), in the information provided in pertinent specialist reports, and in the Biological Evaluation/Biological Assessment (USDA Forest Service 2014a) completed for the analysis that are available for public review.

Alternative A – No Action was not selected because there would be no treatment of vegetation and associated hazard fuels within this high-use high-value area. With no treatment of fuel loading, the potential for wildland fire to escape control would increase over time.

Although fuel hazards would be treated and managed at a slightly lower level than Alternative C, Alternative B – Proposed Action was not selected because of the potential risks associated with the mobility of Tebuthiuron in the Mill Creek watershed and because of no treatments in critical fire pathways in drainage corridors/riparian areas.

DECISION RATIONALE

This decision was made after careful consideration of the proposal, public involvement, the EA, specialists reports, several conversations with the project interdisciplinary team and the supporting project record. The EA and record incorporate best science and includes a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgement of incomplete and unavailable information.

The decision is in conformance with desires raised by cooperators and interested groups during the collaborative process regarding management of vegetation to reduce hazard fuels and reduction of fire regime condition class in this area.

I believe that authorizing this project and its actions are clearly better than not taking action (doing nothing). This decision provides a good combination of physical, biological, social, and environmental benefits with acceptable resource effects, while attaining the stated purpose and need when combined with specified design features and monitoring measures. It employs actions to reduce fuel loading, stand and crown/canopy density, and fire hazards that threaten resources, important watersheds, administrative sites, private property, and the public. It also allows for restoration of important vegetative communities on the forest.

Alignment with the Utah Catastrophic Wildfire Reduction and the National Cohesive Wildfire Management Strategies (Lee et al 2011) - Both of these strategies recognize that fire plays an important role in the ecosystem. However, the goal of the Utah Catastrophic Wildfire Reduction Strategy is to “return landscapes to a condition of health and resilience that allows for wildfires to burn without becoming catastrophic to either human or natural systems” (Utah Department of Agriculture and Food 2013). It primarily identifies that the outcome is to develop

and implement solutions that abate fires whose size and intensity prove damaging to the landscapes, economies, and human safety. The strategy's guiding principles were adapted through discussions by the statewide steering committee and regional working groups. They were to: Focus on action oriented solutions, community safety, sustainable landscapes, economic resilience, the importance of scale and location, and public consent through public participation and engagement. I believe that the development of the West Slope Wildland Interface Hazardous Fuels Reduction project and this decision incorporate all of these principles. Given that there are finite resources and substantial needs, the prioritization of actions to reduce catastrophic fire was also identified in the Utah Strategy as being essential for effectiveness. Through the Southeast Regional Working group, pilot projects were identified. The Grand County pilot project was one of two in the Region. It addresses wildfire threats above the communities of Moab and Castle Valley, of which the West Slope Fuels project area is a portion. My decision tiers well with the pilot project components. The treatments around existing mountain communities adjacent to the La Sal Loop Road; the critical Bald Mesa communications site; key road corridors that serve as important evacuation routes; and additional clearing along a vital power line to the Town of Castle Valley were all identified as part of the Grand County Pilot Project.

Best Approach to purpose and need - I believe the decision clearly meets the purpose of the project. The purpose is to: 1) To reduce the probability of a high severity wildfire that is difficult to control; 2) Reduce the risk from wildfire to life (fire fighters, recreationists, permittees, lands owners) and property; and 3) Reduce the negative consequences of a fire on the soil and vegetation resources in the area. It employs actions to reduce fuel loading, stand and crown/canopy density of shrublands and juniper/pinyon woodlands. It will reduce fire hazards that threaten resources, administrative sites, critical utility lines, communication sites, private property, and the public within a heavily used Wildland Urban Interface area. The Porcupine Ranch and Lackey Fan fires were good reminders to all of us of what could potentially occur given the right conditions and circumstances. Historically this area has also seen a substantial number of fire starts. Throughout the planning process, I did not hear any disagreement about the likely negative effects of what a fire of similar magnitude would have. I also heard full agreement from individuals and groups that the project would definitely meet the purpose and need. While I also received several letters of conceptual support, there were some concerns raised regarding the Alternative 2 Proposed Action which I believe my decision has addressed. While I realize that implementing this decision will not eliminate the potential risks from a catastrophic fire, it does create vegetative conditions where fire can be fought more aggressively than possible under current conditions. Another beneficial effect of the extensive public participation in the planning process was that it continued to elevate the need to have private landowners take responsibility for providing fire safe fuel conditions and structures on their own properties.

Water Resource Protection – While this decision would reduce the risk of wildfire within the project area, it would also provide for better protection for the Mill Creek watershed. First, this decision includes additional treatment with specific design features in drainage corridors that could act as funnels during a wildfire. Also, because of Tebuthiuron's water solubility, persistence and mobility in the environment, and the potential for leaching into groundwater or incorporated into surface water during runoff events, I have chosen an approach that does not include the use of herbicide. Based on further site investigation of soils after the public comment period, it was determined that almost all the soils in the project area exhibited high runoff, high shrink-swell, high permeability, and/or high occurrence of rock outcrop. Because these conditions increase the risk of Tebuthiuron mobilizing in the watershed, I felt it was not worthwhile to pursue the herbicide action.

Opportunity for restoring Sagebrush Landscapes - I also believe this project is an important intermediate step in the long-term restoration of sagebrush, mountain shrub and pinyon-juniper habitats in this portion of the district. Over 1,800 acres of encroached shrublands are being treated within the project area, of which 911 acres are in a

sagebrush vegetation type. The sagebrush steppe in the west has been rapidly changing into coniferous woodlands since Euro-American settlement of the western United States. The area occupied by pinyon and juniper has increased dramatically since the mid-late 1800s. Scientists found that an increase in tree dominance began in the mid to late 1800s, and accelerated through the mid-1900s. In Utah alone, this expansion represents 90 percent of the current woodlands (Chambers et al 2008). As result, these woodlands have displaced shrub communities, influenced wildlife habitat, and altered ecological processes. Scientists have found woodland expansion rate and tree density increased with elevation and northerly exposure in the west. In less than 25 years, stands on moderately moist sites achieved a minimum density of over 100 trees per acre, whereas drier sites required forty or more years to achieve a minimum density of fewer than 40 trees. This trend is similar and very apparent in the West Slope project area if you compare the historic and current photo trend sites.

While this expansion has been occurring, the majority of these woodlands are still in the early to mid-phases of stand closure, which means they still support an understory of shrubs and herbaceous vegetation. The majority of these landscapes will become closed woodlands in the next 40 to 70 years without disturbance or intervention based research. This will result in the loss of understory plant species and require significantly greater costs for restoration. Treatments will be more effective before the shift to declining understory occurs. This pending rapid decline also points to a lowered ability of understory plants to rebound after wildland or prescribed fire as tree cover increases beyond 40 to 50 percent. Again, this points to the need to act sooner rather than later.

My decision is in accordance with provisions of Title I of the Healthy Forests Restoration Act (HFRA) for authorized projects (HFRA *Sec. 101* and *Sec. 102*). This is an area which was identified by Grand County and Utah Division of Forestry, Fire and State Lands in an appropriate Community Wildfire Protection Plan that is currently being updated. It has been determined to be primarily Fire Regime III, Condition Class 2. The project is a qualifying Authorized Project under HFRA (EA - 3.4.12).

This proposal will reduce live and dead fuels within the treatment area while restoring the fire regime condition class (FRCC) on approximately 4,500 acres. It will also provide fire fighters the opportunity to suppress fires under conditions that allow for fire fighter safety and protection of life, property, and improvements. This improved condition class and reduced fire risk will benefit National Forest lands and improvements by aiding in protection from fires (natural and man-caused) which spread from private lands, developed recreation sites, dispersed recreation areas, and other areas of the National Forest. It will also aid in the protection of private infrastructure from fires that initiate on and spread from the National Forest. This does not negate the responsibility of Forest permittees to provide safe fire practices in their activities and facilities as required by special use permits, the responsibility of the State of Utah and Grand and San Juan Counties to promote fire safe planning for their constituents, and private land owners responsibility to provide fire safe fuel conditions and structures on properties that are adjacent to the National Forest.

Detailed discussions of potential direct, indirect, and cumulative effects of the Proposed Action, the No Action, and this (preferred) alternative are summarized in the EA and discussed in specialist reports that are included in the Project Record and made available to the public through posting on the Forest website <http://www.fs.fed.us/r4/mantilasal/projects/>.

Modifications in forest and shrubland structure through application of mastication, thinning and prescribed fire treatments open the forest and shrub canopy, triggering changes in surface vegetation and fuels. More light usually triggers growth of grasses, forbs, and where present shrubs that begin to fill open spaces created by the removal of the larger trees. Trees will also seed into and reestablish within these openings. This concept is inherent in the concept of Fire Regime and Condition Class. Plants will grow and fuels will accumulate following treatments, but over time, occurrence of natural disturbances, and additional mechanical treatments, within the frequent disturbance interval estimated for this and other similar areas (5-10 year fire return interval) will

maintain disturbance intensity and severity at low levels with fewer negative impacts to soil, water, wildlife, and vegetation resources, as well as protecting lives and property values associated with this area.

PUBLIC INVOLVEMENT

Initial Scoping: Beginning with a field trip to the area in October 2012, the project and potential actions were introduced and discussed with agency staff, area residents, and other concerned groups.

A legal notice was published on November 29, 2012 under 36 CFR 215. Eight written comments were received during the 30-day notice and comment period.

EA/HFRA Process: A letter dated April 22, 2014 clarifying the project as a Healthy Forests Restoration Act project was sent to all interested parties, including those who commented during the first comment period. A second legal notice was published in the Moab Times-Independent on April 24, 2014, announcing the intent to complete an Environmental Assessment under the authority of HFRA, with a 30-day notice and comment period and an opportunity to attend an Open House for additional information on the proposed project. The Open House was held in Moab on May 8, 2014. Thirteen individuals/representatives attended the Open House.

As a result of our public involvement efforts, we received letters or open house comment forms from 5 individuals/organizations during the 30-day comment period. Three other letters regarding the proposed project were received outside the comment period. As a result of public comments, the District Ranger directed detailed analysis of one additional action alternative in compliance with the Healthy Forest Restoration Act of 2003. A detailed description of the proposed action, other alternatives considered and other alternatives analyzed in detail in this Environmental Assessment (EA) are found in Chapter 2.0 Alternatives.

A Response to Comments is included in the EA as Appendix A. Agency comments are documented in the Project Record (USDA Forest Service 2015b). A review of the literature referenced in the comments is included in a separate document in the project record.

FINDING OF NO SIGNIFICANT IMPACT

After consideration of the environmental effects described in the West Slope Wildland and Urban Interface Hazardous Fuels Reduction Project Environmental Assessment, the Project Record, and as further documented within this Decision Notice, I have determined that this is not a major federal action individually or cumulatively that will significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not needed. This determination is based on analysis of the context and intensity of the environmental effects, including the following factors:

1. ***There are no known significant irreversible resource commitments or irretrievable losses of vegetation, wildlife habitats, soil productivity, or water quality.*** Based on the evidence contained in the EA and its Project Record, the activities described in this decision do not include any significant adverse impacts to any resource (40 CFR 1508.27(b)(1)). Implementation of my decision will not create significant resource commitments or any significant irretrievable losses of vegetation, soils, water, or wildlife and fish habitats. The project will employ project design features and incorporate Best Management Practices, Soil and Water Conservation Practices, and Forest Plan standards and guidelines that provide adequate protection of Forest resources.
2. ***There are no significant effects on public health and safety.*** Project safety on Forest Service managed lands is guided by FS Handbook 6709.11 (Health and Safety Code Handbook). By following Project Design

Features identified in Appendix A, the activities described in my decision will not significantly affect public health or safety (40 CFR 1508.27(b)(2)). All work activities will follow OSHA requirements.

3. ***There are no unique characteristics of the geographical area that will be significantly affected by the selected action.*** There are no known unique features within or adjacent to the treatment areas (such as park lands, prime farmlands, wetlands, Wilderness, Wild and Scenic Rivers, or ecologically critical areas) that may be impacted by my decision (EA). Cultural resources will be avoided or mitigation measures implemented to reduce the risk of damage during project activities; the State Historic Preservation Office has concurred with our determination and applicable design features (EA 3.3.3).
4. ***The effects of this action on the human environment are not highly controversial.*** The effects of the project are limited to the project area. There are no known scientific controversies over the impacts of the project. While some individuals have disagreed with parts of the project, no evidence has been provided that indicates that the environmental effects of the project have been wrongly predicted; therefore the effects are not likely to be highly controversial.
5. ***The environmental analysis revealed no effects on the human environment that are highly uncertain or involve unique or unknown risks.*** Activities proposed and analyzed in the EA do not involve uncertain risks. No uncertain or unique/unknown risks were identified. The Forest Service has extensive past experience with vegetation density management and hazardous fuel reduction treatments, its connected actions, and with the environmental effects associated with these actions.
6. ***This action is not precedence setting.*** The action is not likely to establish a precedent for future actions which may have significant effects, nor does this represent a decision in principle about a future consideration. A decision to implement this decision does not establish any future precedent for other actions within or outside the project area. Future actions will be evaluated through the NEPA process and will stand on their own as to the environmental effects and project feasibility. This finding is demonstrated through the analysis documented in the EA and supporting Project Record.
7. ***There are no known significant cumulative effects from this action.*** All known actions, which have occurred or are likely to occur in the reasonably foreseeable future, were considered in the analysis. These are documented in supporting specialist reports in the Project Record and in the EA. Analysis considered direct, indirect, and cumulative effects of the proposal. There are no significant cumulative impacts. These actions are not related to other actions that, when combined, will have significant impacts. There is no off-site soil erosion, impacts to overall watershed or changes to forest vegetation that would be cumulative to impacts from other activities. There are no adverse effects to cultural resources and therefore no cumulative effect. Effects to wildlife habitat and threatened, endangered, sensitive, and other species of interest are described in the EA and supporting BE/BA (USDA Forest Service 2014a) and wildlife specialist report (USDA Forest Service 2014b) and are generally minor and not significant when considered with other activities in the general area.
8. ***There are no effects on significant scientific, cultural, or historical resources.*** The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible to the National Register of Historic Places. Identified and isolated cultural resources will remain unaffected by my decision. Project survey and implementation requirements are documented in the EA and Project Record (EA 3.3.3). All significant documented sites will be avoided during mechanical treatment activities. Fire intolerant sites will be avoided or protected during prescribed fire activities. The project will not cause loss or destruction of significant scientific, cultural, or historical resources, and will increase protection from the risk of wildfire through fuel reduction in or around eligible historic properties. Appropriate consultations have been completed under the National Historic Preservation Act. SHPO concurrence documents are located in the Project Record (USFS 2015b).

9. ***The action will not adversely affect Threatened or Endangered species or critical habitat.*** The action will not adversely affect any threatened or endangered species or habitat that has been determined to be critical under the Endangered Species Act of 1973. Possible effects to federally listed wildlife species were analyzed in the Forest Service's Biological Evaluation and Biological Assessment (USDA Forest Service 2014a). The determination for all listed species was No Effect. Consultation with the US Fish and Wildlife Service was not required for this project.
10. ***This action does not threaten a violation of Federal, State, or local laws or other legal requirements imposed for the protection of the environment.*** Based on my review of the EA, the Project Record, and the direct, indirect, and cumulative effects of this action, I have determined that my decision is consistent with the Manti-La Sal National Forest Land and Resource Management Plan (1986, as amended) (EA 3.4.13). The decision complies with appropriate laws, regulations, and agreements. Section 3.4 of the EA summarizes consistency of the selected alternative with applicable laws and regulations relating to federal natural resource management and the Project Record provides supporting information in specialist reports. No violations of Federal, State, or local laws or other legal requirements are anticipated.

FINDINGS OF CONSISTENCY

To the best of my knowledge my decision complies with all applicable laws and regulations. The project is consistent with the Standards and Guidelines of the Manti-La Sal Forest Land and Resource Management Plan of 1986, as amended. This Healthy Forest Restoration Act project:

- Reduces fuel loading, stand and crown/canopy density, and resultant fire hazard to vegetation, the public, private property, and firefighters (LRMP III-5).
- Maintains a healthy forest by applying appropriate silvicultural treatments (LRMP III-3).
- Minimizes hazards from wildfire (LRMP III-5).
- Manages trees and shrubs to enhance visual quality and recreation opportunities on existing and proposed recreation facilities (LRMP III-50).
- Has a Biological Evaluation and Assessment prepared evaluating the effects on Threatened, Endangered and USFS R4 Sensitive Species. A Wildlife Report was also prepared addressing the effects on Forest Plan Management Indicator Species.

Threatened and Endangered Species

A Biological Assessment consistent with the requirements of the Endangered Species Act (ESA) was completed, with a determination that there would be no effect to any federally listed species, proposed species, or critical habitat. The effects analysis was prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)), and follows standards established in the Forest Service Manual (FSM 2671.44 and 2672.4). Consultation with the US Fish and Wildlife Service (USFWS) was not required for this project.

Migratory Birds

The project complies with the USFWS Directors Order No. 131 (December 21, 2000) related to the applicability of the Migratory Bird Treaty Act (MBTA) to federal agencies and requirements for permits for 'take'. The project complies with the intent of the MBTA and EO 13186 and the 2008 MOU, and follows bird conservation recommendations in the Utah Partners in Flight (PIF) Avian Conservation Strategy where applicable under the scope of this project (USDA Forest Service 2014).

Cultural and Historic Resources

Cultural resource surveys have been completed for the proposed project. Consultation has been conducted with appropriate tribes. Design features for the management and protection of cultural resources have been included (see Appendix C). The State Historical Preservation Office (SHPO) was consulted and has concurred with the determination of “No Historic Properties Affected”. Eligible sites will be avoided during ground disturbing activities or managed in accordance with the SHPO agreement; therefore, there will be no effect to these sites. The project meets the requirements of Archeological Resources Protection Act and the National Historic Preservation Act (NHPA) of 1966.

Wetlands and Floodplains

There are wetlands, riparian areas, and floodplains in the project area. Design features have been included in the proposed action that minimize disturbance in these areas and provide for their protection. These include avoidance of wetlands and wet areas with mechanized equipment, designation of temporary road and skid trail locations, and others. Best Management Practices (BMPs) and Soil and Water Conservation Practices (SWCPs) will be implemented to mitigate adverse effects and are described in Appendix A. The practices controlling operations are effective in minimizing disturbance when fully and properly implemented. The Proposed Action meets the intent of Executive Orders 11988, 11990, and the Clean Water Act (USFS 2014).

Environmental Justice

The proposed action was assessed to determine whether it would disproportionately impact minority or low-income populations, in accordance with Executive Order 12898. No local minority or low-income populations should be disproportionately impacted by implementation.

Effects of Alternatives on Social Groups

There should be no effects on minorities, Native American Indians, women, or civil liberties of any American citizen resulting from implementation of the proposed action.

Prime Farmland, Rangeland, and Forest Land

All alternatives are in accordance with the Secretary of Agriculture Memorandum 1827 for prime farmland, rangeland, and forest land. “Prime” forest land is a term used only for non-federal land, which would not be affected by project activities. National Forest System lands would be managed with sensitivity to adjacent private lands.

Energy Requirements and Conservation Potential

In terms of petroleum products, the energy required to implement the proposed action is inconsequential when viewed in light of production costs and the effects on the national and worldwide petroleum reserves.

Effects on the Human Environment

The civil rights of any American citizen, including women and minorities, are not differentially affected by implementation of either the No Action or Alternatives B & C.

Conflicts with Other Agency Goals and Objectives

Public involvement with other Federal, State, and local agencies indicate there are no major conflicts between the provisions of the proposed action and the goals and objectives developed for other governmental entities. Collaboration completed for the proposal indicates other interested agencies are supportive of the proposed action.

Climate Change

The Resources Planning Act 2007 update acknowledges and addresses climate change, and indicates that climate variability makes predictions about drought, rainfall, and temperature extremes highly uncertain. Based on the best available science, it would be too remote and speculative to factor any specific ecological trends or substantial changes in climate into the analysis of environmental impacts of the project. Research about long-range shifts in species range, etc. is ongoing and a number of groups are discussing the implications of climate change on forest management. Although there is a solid consensus that global warming is occurring, there is still much uncertainty about subsequent ecological interactions and trends at the local or site-specific scale. Given the stochastic nature of climate-related events such as droughts, wildfire and floods, it would be highly remote and speculative to make management decisions based on such predictions. The best available science concerning climate change is not yet adequate to support reliable predictions about ecological interactions & trends at the local (site-specific) scale.

Healthy Forest Restoration Act of 2003 (HFRA)

The proposed action complies with direction provided in HFRA. One of the purposes of HFRA is to reduce wildfire risk in communities, municipal water supplies, and other at-risk Federal land through a collaborative process of planning, prioritizing, and implementing hazardous fuel reduction projects (HFRA Sec. 2 Purposes).

Other Disclosures

The project area is not within or adjacent to any congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas. The project area contains approximately 200 acres of Inventoried Roadless Area, but proposed treatments will not change potential of this area to qualify or not qualify for potential wilderness designation (USDA Forest Service 2015c). A USFS Regional Office (R4) review of the project concurred that the West Slope WUI project complies with the 2001 Roadless Area Conservation Rule. The Mill Creek Gorge Research Natural Area (RNA) is within the project area boundary, but no vegetation treatment is proposed within the RNA and there will no effects to the integrity of the RNA.

PROJECT-LEVEL PREDECISIONAL ADMINISTRATIVE REVIEW PROCESS

This project is an authorized hazardous fuels reduction project as defined by the Healthy Forest Restoration Act of 2003, section 101(2) (HFRA). As provided by the Pre-decisional Administrative Review Process under 36 CFR 218 for Forest Service proposed actions implementing land and resource management plan activities documented with a Record of Decision or Decision Notice, legal notice of the objection process was published in the newspaper of record for the Moab/Monticello Ranger District, Manti-La Sal National Forest, the Times-Independent in Moab, Utah on March 26, 2015. The 30 day objection period ended on April 27, 2015. One objection was received from two groups with standing. As allowed under 36 CFR 218.11(a), the objection was resolved with the objectors and subsequently withdrawn.

I assessed these changes and find them to be well within the range of environmental effects analyzed in the Environmental Assessment for the action alternatives. An analysis file for this project is available for public review at the Moab, UT office. The analysis file includes specialist reports, data specific to the project, public notifications and their responses, meeting notes, and miscellaneous documentation.

IMPLEMENTATION / OBJECTION REVIEW & FINAL DECISION:

This project may be implemented upon signature of this decision notice. According to regulations (36 CFR 218) no legal notice is required once a Final Decision is signed.

CONTACT

For further information regarding this project and the objection process, contact Barb Smith at **bsmith06@fs.fed.us**, phone number: (435) 636-3366, address: Moab/Monticello District, P.O. Box 386, 62 East 100 North St., Moab, Utah 84532. A copy of the decision is available on the Manti-La Sal National Forest Internet Site or can be obtained at the District office. The Internet address is: **www.fs.fed.us/r4/mantilasal/**.

SIGNATURE / APPROVAL BY RESPONSIBLE OFFICIAL



MICHAEL C. DIEM
District Ranger



Date

APPENDICES

APPENDIX A - LITERATURE CITED

Chambers, J.C. 2008. Sagebrush Steppe: A Story of Encroachment and Invasion. Fire Science Brief. Issue 27. Available at www.firescience.gov

Lee, D.C.; A.A. Agar, D.E. Calkin, M.A. Finney, M.P. Thompson, T.M. Quigley and C.W. McHugh. 2011. A National Cohesive Wildland Fire Management Strategy. 40 pgs.

USDA Forest Service (USFS). 2015a. West Slope Wildland Urban Interface Hazard Fuels Environmental Assessment. Manti-La Sal National Forest, Moab/Monticello District. Moab, UT.

USDA Forest Service (USFS). 2015b. West Slope Wildland Urban Interface Hazard Fuels Environmental Assessment project record. Manti-La Sal National Forest, Moab/Monticello District. Moab, UT.

USDA Forest Service (USFS). 2015c. West Slope Wildland Urban Interface Hazard Fuels Environmental Assessment Wilderness Qualities or Attributes, Recreation/Wilderness Specialist Report. Brian Murdock, Manti-La Sal National Forest. Moab, UT.

USDA Forest Service (USFS). 2015d. Fuels Specialist Report. Brian Mattox, Manti-La Sal National Forest. Moab, UT.

USDA Forest Service (USFS). 2014a. Biological Assessment/Biological Evaluation for the West Slope Wildland-Urban Interface Hazardous Fuels Reduction Project. Barbara Smith, Manti-La Sal National Forest. Moab, UT.

USDA Forest Service (USFS). 2014b. Wildlife Report on Manti-La Sal National Forest Management Indicator Species and Migratory Birds for the West Slope Wildland-Urban Interface Hazardous Fuels Reduction Project. Barbara Smith, Manti-La Sal National Forest. Moab, UT.

USDA Forest Service. 2005. *Manti-La Sal National Forest Fire Regime/Condition Class Assessment*. Manti-La Sal National Forest. Price, UT.

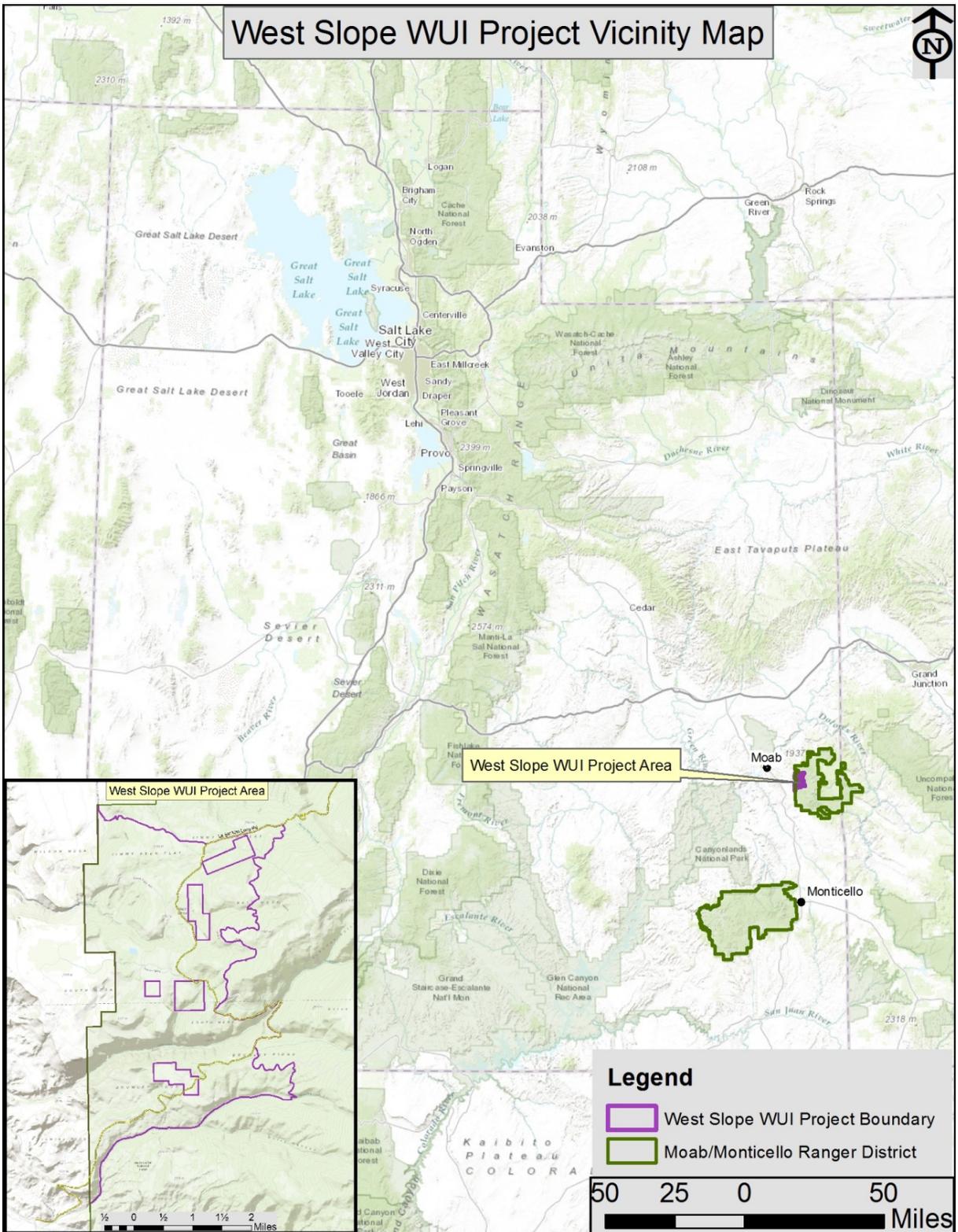
USDA Forest Service. 1986. *Manti-La Sal National Forest Land and Resource Management Plan*, as amended including the 2000 Utah Fire Plan Amendment.

Utah Department of Agriculture and Food. 2013. Catastrophic Wildfire Reduction Strategy. 20 pgs.

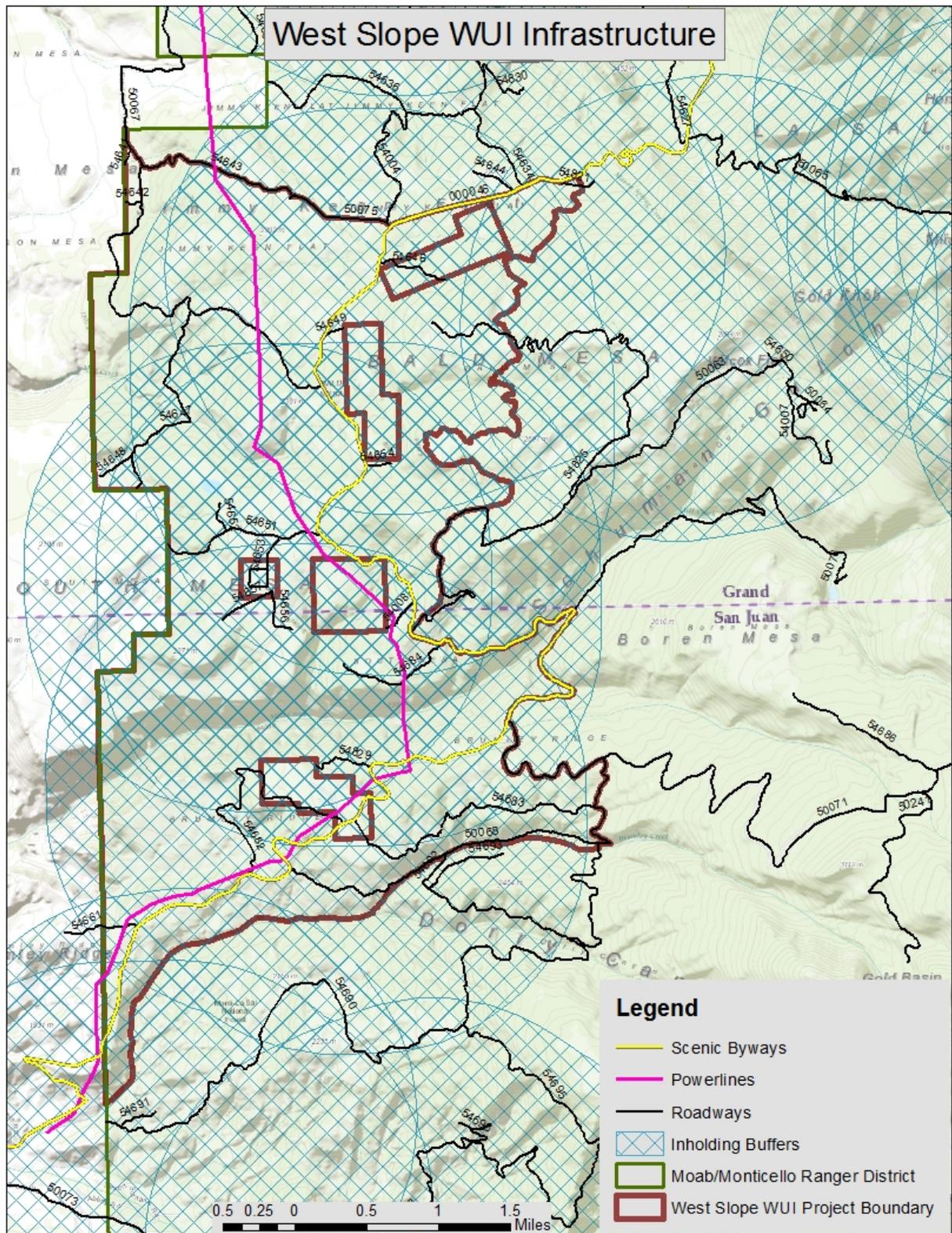
Utah Division of Forestry, Fire, & State Lands. 2007. Portage, SWCA Environmental Consultants, and Wildfire Associates. *Southeastern Utah Regional Wildfire Protection Plan*. 5/11/2007.

APPENDIX B – MAPS

Map 1 - Vicinity Map



Map 2 – Infrastructure and Inholdings Map



APPENDIX C - DESIGN FEATURES & MONITORING

DESIGN FEATURES

The West Slope WUI Project includes the following features designed to better implement the project. All applicable Forest-wide and Management Unit direction identified in the Forest Plan are hereby incorporated by reference unless otherwise stated.

Forest Vegetation

- 70-90 percent of pinyon-juniper mastication will occur in sage/mountain brush vegetation types. Pinyon pine will be favored for retention.
- Pinyon pine or juniper with old growth characteristics will not be removed.
- Thinning and woodland regeneration treatments will emphasize retention of pinyon pine, larger mature trees, and clumps/groups of woodland trees. Designation of openings and clumps/corridors will be coordinated with the District Wildlife Biologist.
- The leave islands would have “feathered”, undulating edges with diverse heights of vegetation retained. A diversity of woody species and age/size classes would be retained.
- Gambel oak vegetation will range from 30-70% of coverage area within project with emphasis on 1-3 acre openings.
- A certified Silviculturist will prepare vegetation prescriptions for this project that provide specific objectives and guidance for treatments utilizing the Decision Notice/FONSI, EA, Forest Plan, and guidance included in specialist reports.
- A project Burn Plan will be prepared utilizing project specific direction provided in the Vegetation Prescription and applicable NEPA documentation prior to burning.
- Firewood gathering in the project area will be controlled with appropriate permits.
- Inform the public about planned burn activities prior to implementation through signing, media notification, or as determined appropriate with community leaders or permittees.
- Leave screening vegetation along the edges of collector roads to the degree feasible to prevent a short-term increase in illegal off-road travel. Monitor off-road vehicle use. When necessary to reduce impacts, rehabilitate mechanized access trails or firelines that intersect Forest Service System Roads.
- Mature pinyons or junipers may be pruned (limbed flush with bole of tree) for a height of 3-5 feet around the base of live trees to minimize the potential spread of fire into tree canopies. This will be required for a distance of about 15 feet around the edge of pockets or groups of un-thinned trees left in woodland areas; for 300 feet on the edge of property boundaries and along access roads.

Fuels and Fire Behavior

- Firefighter and public safety is the most important factor in implementation of prescribed fires (pile burning).
- Use techniques to minimize smoke production and impacts from slash burning:
- Keep soil out of burn piles. Rake and seed burn pile scars.
- Notify area residents and users of prescribed fire (pile burning) activity.

Noxious and Invasive Plants

- Equipment shall be cleaned of soils, seeds, vegetative matter, or other debris that could contain or hold noxious seeds. Operators will ensure that off-road equipment is free of noxious weeds prior to startup of operations.

- If contractors are used to complete treatments they will certify that their equipment is free of noxious weeds prior to startup of operations.
- Noxious weed free certification will be required for all straw or hay bales used for erosion control, any mulch, and seed applied in reclamation.
- Control noxious weeds as appropriate under existing decisions and agreements.

Rangeland Allotment

- Protect all range improvements from project-caused damage.
- Coordinate all work with the District Range Management Specialist. When determined appropriate adjustments in grazing may be implemented under the grazing permit to minimize livestock disturbance or allow recovery of rangeland vegetation following treatment.

Wildlife Resources

- Restrict vegetation treatment in the pinyon-juniper vegetation type from May 1- July 20 to minimize impacts to nesting birds.
- No treatment in General Winter Ranger (GWR) on lower Brumley Ridge during the winter season (Dec 1-April 15) to avoid disturbance to wintering deer and elk.
- Peregrine falcon nesting buffer zone – no vegetation treatment during breeding season (Feb 1-August 30) unless cleared by District Wildlife Biologist
- Additional survey of Loop Road corridor and lower Brumley Ridge treatment unit in Alternative 3 for *Astragalus iselyi*
- If *Astragalus iselyi* is found within any treatment unit, the Forest/District Botanist will designate and mark a site-specific no-treatment buffer zone around the population

Recreation

- Treatment should be scheduled to avoid the opening of the big game hunts (deer and elk).
- Treatments should not occur directly adjacent to the Jimmy Keen non-motorized trail.

Visual Landscape

- Maintain or establish visual continuity of dead-down between treated and untreated areas.
- Woody slash debris should be spread over access routes, staging areas or other disturbed areas. The treatment should replicate conditions adjacent to the area.
- Openings for visual benefits may be created where off-road vehicle access is restricted. Openings will mimic as much as possible, those that occur naturally throughout the area.

Cultural Resources

- Evaluate, protect, and monitor all National Register eligible sites. These sites will be avoided.
- Discovery of previously unknown sites, on either the surface or subsurface, may occur during project implementation and shall be protected in accordance with the requirements of contracts/agreements and Federal Laws as cited below.
- Where project activities cannot be modified to protect sites in place, develop plans to recover scientific data in accordance with the National Historic Preservation Act of 1966 (as amended), Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. Consult with appropriate Native American entities and SHPO as necessary.

Transportation System

- County and National Forest System Roads will be protected.
- Install warning signs and devices on roads commensurate with project and public safety. When necessary, traffic controllers (flaggers) will be used.
- Vehicle traffic and equipment operation will be restricted during wet periods to prevent rutting in excess of one inch on gravel roads, 2 inches on native surface roads, and 4 inches on other work surfaces.

Watershed/Soils

- No heavy equipment operations will occur within 50' of any drainage corridor or riparian zone.
- Refueling of heavy equipment will take place a minimum of 200 feet from water collection areas.
- Spill containment materials will be on site when heavy equipment is used.
- Operate equipment on the contour to minimize slippage and to protect existing vegetation cover.
- Avoid potential soil erosion effects by limiting ground based mechanical treatment to slopes less than 30 percent as prescribed in the Manti-La Sal Land Management and Resource Plan.
- For all treatment areas, ground based mechanical equipment should be restricted to occur during the normal dry conditions to mitigate the potential for detrimental compaction when soils are moist or wet.
- Soil erosion analysis shows that the project area has a predominance of soil types having a high vulnerability to soil erosion following surface soil disturbance. Therefore, extra care should be taken to minimize surface soil disturbance. Extra measures could include:
 - Minimize spinning on tracked equipment
 - Minimize uprooting vegetation
 - Avoid tilling or disking
 - Avoid creating new or temporary access roads or trails
 - Minimize or avoid repeated movement over the same soil surface areas
 - Limit mechanical treatment to slopes less than 30 percent
- Use any historic trails, roads, or user-created routes to minimize new soil disturbance and soil compaction.
- Exclude all operations from wetlands, bogs and wet meadows.
- Any unauthorized user-created routes used for access or egress into treatment areas need to be obliterated and rehabilitated: (1) restore to approximate original contour by pushing and/or lifting road fill back into place and put the road prism back to slope; (2) alleviate road prism compaction and subsurface compaction by ripping, tilling, or deep surface roughening; and (3) seed with an appropriate mix to re-vegetate with native forbs, grasses and shrubbery.
- Any soil compaction resulting from concentrated off-road use needs to be alleviated. Soil productivity may be impacted from resulting soil compaction if treatments are performed on either wet or moist soils. Susceptibility to soil compaction significantly increases as soil-moisture content reaches field capacity, even in sandy soils. Soils within the project area should not be subjected to vehicle or surface disturbance when the soils are wet or near the field capacity point.
- No pile burning will occur within 100 feet of drainage corridors/riparian areas and a greater distance if slopes exceed 30% or if treatment adjoins perennial streams.
- Some slash created during implementation of this project could be left onsite in drainage corridors.

- Native seed mixtures shall include the following certified weed free mixtures and amounts unless alternative native species are approved through the District Range Management Specialist and Silviculturist or Botanist/Wildlife Biologist:

SPECIES	POUNDS/ACRE
Western Wheatgrass or Bluestem (<i>Agropyron smithii</i>)	2.0
<i>Poa fendleriana</i>	1.0
Bluebunch Wheatgrass (<i>Agropyron spicatum</i>)	1.5
Indian Ricegrass (<i>Oryzopsis hymenoides</i>)	.5
<i>Lupinus argenteus</i>	.5
Bitterbrush (<i>Purshia tridentata</i>)	.5
Total Pounds	6

- Implement the following Soil and Water Conservation Practices and State Best Management Practices (USDA Forest Service 2010):

In addition to the beneficial use classifications, all surface waters, irrespective of ownership, that are geographically located within the outer boundary of a National Forest are designated as High Quality Waters – Category 1. Best management practices must be designed to maintain the current, high level of water quality. The Forest Service is the designated Water Quality Management Agency for National Forest System lands in Utah. A 2009 memorandum of understanding (MOU) between the Forest Service and the Utah Division of Water Quality defines the roles and responsibilities of each agency relative to water quality management on National Forest System lands.

To comply with the antidegradation policy and State water quality standards, the Forest Service must implement or ensure the implementation of practices that maintain the current, high level of water quality. These include practices in Forest Service Handbook 2509.22, *Soil and Water Conservation Practices*; State best management practices; or specialized, site-specific practices (USDA Forest Service 2014). All these types of practices are designed to fully protect and maintain water-related beneficial uses, and to prevent or minimize nonpoint source pollution. See Tables 1 and 2 below for SWCPs applicable to this project.

Table 1 - Planning Phase SWCPs

SWCP	SWCP OBJECTIVE	CONSIDERATIONS FOR IMPLEMENTATION
11.01	DETERMINATION OF CUMULATIVE WATERSHED EFFECTS – To determine the cumulative effects or impacts on beneficial water uses by multiple land management activities.	
11.04	FLOODPLAIN ANALYSIS AND EVALUATION – To protect floodplain values and avoid, where possible, the long and short-term adverse impacts to soil and water resources associated with the occupancy and modification of floodplains.	<p><i>The SWCP states that a floodplain analysis and evaluation will be made when sites within floodplains are being considered for structures, developments, or management activities. Environmental quality, ecological effects, and individual safety and health will be considered.</i></p> <p>Floodplains have not been mapped for the project area. All drainages have a flood-prone area adjacent to them. This flood-prone area would be included in the multi-distance buffer zones around all mapped drainages in the project area. The proposed project should not facilitate additional structures or development in the floodplains of streams within the project area.</p>
11.05	WETLANDS ANALYSIS AND EVALUATION – To maintain wetlands function and avoid adverse soil and water resource impacts associated with the destruction or modification of wetlands.	<p><i>The SWCP states that the Forest Service does not permit the implementation of activities and new construction in wetlands whenever there is a practical alternative. A wetland analysis and evaluation will be made prior to acquisition or exchange of wetlands. Evaluation of proposed actions in wetlands will consider factors relevant to the proposal's effect on the survival and quality of the wetlands.</i></p> <p>Wetlands associated with streams, springs, spring brooks, and reservoirs would be included in a multi-distance buffer zone - no herbicide within 100 feet; no burn piles within 100 feet. No adverse effects are expected.</p>
11.14	MANAGEMENT OF SNOW SURVEY SITES – To protect snow courses and related data sited from effects by land management activities	<p><i>The SWCP states that snow survey sites will be protected according to the terms of the MOU or special use permit issued to the NRCS. Consult with the NRCS if adjacent activities might affect their value or site integrity.</i></p> <p>There are no snow courses or SNOTEL sites in the project area.</p>
18.02	FORMULATION OF FIRE PRESCRIPTIONS - To provide for soil and water resource protection while achieving management objectives through the use of prescribed fire.	<p><i>The SWCP identifies the following prescription elements: fire weather, slope, aspect, soil moisture, and fuel moisture. These elements influence fire intensity and have a direct effect on whether a litter layer remains after burning and whether hydrophobic layers develop. The amount of remaining litter and induced hydrophobicity can significantly affect erosion rates, water quality, and runoff volumes. Both the optimum and tolerable limits for soil and water resource effects should be established.</i></p> <p>Slash piles should be constructed at least 100 feet outside of drainages.</p>

Table 2 - Implementation Phase SWCPs

SWCP	SWCP OBJECTIVE	CONSIDERATIONS FOR IMPLEMENTATION
13.02	SLOPE LIMITATIONS FOR TRACTOR OPERATION - To reduce gully and sheet erosion and associated sediment production	Ground-based equipment will be limited to slopes of 30% or less.
13.03	TRACTOR OPERATION EXCLUDED FROM WETLANDS, BOGS, AND WET MEADOWS - To limit soil damage, turbidity, and sediment production resulting from compaction, rutting, runoff concentration, and subsequent erosion. Note that this SWCP applies to all heavy equipment operations.	<i>The SWCP states that application of the SWCP is mandatory for all vegetation manipulation projects, including mining operations; exceptions must be specifically addressed in the EIS. The agency project administrator or project supervisor is responsible for identifying wetlands and meadows not previously recognized in the NEPA process and for following or developing management controls to protect wetland and meadows. Protection of wetlands (mapped and unmapped) should be included in pre-work briefings.</i> A 50-foot no mechanical treatment buffer should be flagged or otherwise marked as necessary to aid in location around springs, spring books, stream channels and reservoirs currently mapped in the project area. Similar buffer zones should be implemented for any springs and/or wetlands located during project implementation. See SWCP 13.08 and 14.20 for description of multi-distance buffer zones.
13.06	SOIL MOISTURE LIMITATIONS FOR TRACTOR OPERATION - To minimize soil compaction, puddling, rutting, and gully with resultant sediment production and loss of soil productivity. Note that this SWCP applies to all heavy equipment operations.	Rutting will be used as an indicator of wet conditions. Vehicle traffic and equipment operation will be restricted to prevent rutting in excess of one inch on gravel roads, 2 inches on native surface roads and 4 inches in other work areas. Proponent(s) will provide maintenance equipment to repair rutting as soon as ground conditions permit.
13.08	APPLY PESTICIDES ACCORDING TO LABEL AND EPA REGISTRATION DIRECTIONS – To avoid water contamination by complying with all label instructions and restrictions. Note that this SWCP also applies to herbicides	The following buffer zones are for groundwater protection: Leave a 100-foot untreated buffer on both sides of all mapped drainages and ditches. Leave a 100-foot untreated buffer around the springs, spring brooks, and reservoirs. Buffer zones should be flagged or otherwise marked as necessary to aid in boundary location.
14.03	USE OF SALE AREA MAPS (SAMs) FOR DESIGNATING SOIL AND WATER PROTECTION NEEDS -To delineate the location of protected areas and available water sources and insure their recognition, proper consideration, and protection on the ground. Note that this SWCP also applies to fuels treatment project maps.	No treatment buffer zones will be mapped and included on project treatment maps.
14.06	RIPARIAN AREA DESIGNATION - To minimize the adverse effects on riparian areas with prescriptions that manage nearby logging and related land disturbance activities. Note that this SWCP applies to all heavy equipment operations.	Buffer zones are specified in SWCP 14.20
14.15	EROSION CONTROL ON SKID TRAILS - To protect water quality by minimizing erosion and sedimentation derived from skid trails. Note that this SWCP applied to any temporary working travelway.	To the extent possible, the “slash busting” equipment should be operated over project-created slash.

SWCP	SWCP OBJECTIVE	CONSIDERATIONS FOR IMPLEMENTATION
14.20	SLASH TREATMENT IN SENSITIVE AREAS - To protect water quality by protecting sensitive tributary areas from degradation which would result from using mechanized equipment for slash disposal.	Buffer zones for mechanical treatments: Leave a 50 foot untreated buffer on both sides of all mapped drainages. Leave a 50 foot untreated buffer around the spring and spring brook. Buffer zones for burn piles: Leave a 100 foot untreated buffer on both sides of all mapped drainages. Leave a 100 foot untreated buffer around the spring and spring brook. Hand (chainsaw) treatments are authorized within the 50 foot drainage corridor/riparian buffer zone.
15.11	SERVICING AND REFUELING EQUIPMENT - To prevent contamination of waters from accidental spills of fuels, lubricants, bitumens, and other harmful materials. <i>Note that this SWCP applies in all areas where heavy equipment is operated.</i>	Refueling areas should be a minimum of 200 feet from perennial and intermittent stream channels, seeps and springs, wetlands, lakes and reservoirs, stock water developments, and other water features. All heavy equipment and service vehicles should have a supply of absorbent and other cleanup materials on hand for initial containment of spills. All projects will adhere to the Hazardous Substance Spill Plan in case of accidents.

MONITORING:

The general objective of monitoring is to determine if land management activities are being implemented correctly and if the implementation requirements are effective. This is accomplished through project supervision or implementation monitoring and post-project monitoring. Post-project monitoring is defined in the Forest Plan. This project will be monitored as appropriate in accordance with that document. The following will be accomplished during and following project implementation:

- Day-to-day monitoring of contract or force account operations will be completed during implementation by a designated Contractor Officer’s Representative (C.O.R.) or by a qualified Forestry Technician (force account).
- Prescribed (pile) burning will be supervised by a qualified Burn Boss to ensure that implementation is completed in accordance with NEPA, Silvicultural Prescription, and Burn Plan.
- Existing or new weed populations will be treated in accordance with existing noxious weed management decisions.
- An interdisciplinary review will be conducted following implementation (within two years) to determine if project objectives have been met and to determine whether implementation of SWCPs has been effective.
- Photo points will be established in each treatment type (mastication, hand-thinning) to identify pre and post-treatment conditions, as well as long-term monitoring points for future reference. Post-treatment photos will be taken within one season of completion.