West Slope WUI Hazard Fuels Reduction

Project ID: 3763
Status: Current
Fiscal Year: 2017
Submitted By: N/A
Total Acres: 2,447

Project Manager: Barb Smith
PM Agency: U.S. Forest Service
PM Office: Moab Ranger District
Lead: U.S. Forest Service
WRI Region: Southeastern

Description:

The West Slope WUI project was designed to reduce hazard fuels and the associated risk to forest resources, wildlife habitat and life and property through mechanical thinning treatments.

Location:

The 8222 acre project area is located on the foothills of the La Sal Mountains east of Moab, Utah. The area is bordered by private and BLM land on the west, and has numerous inholdings. The project area encompasses a large portion of the essential Mill Creek watershed for Moab.

PROJECT NEED

Need For Project:

The current and increasingly dense vegetation communities (Gambel oak, big sagebrush and pinyon/juniper) are in a condition that a fire start, on an average summer day, would be uncharacteristically hot, difficult to control, and would be a significant threat to private land, public and firefighter safety (access and egress) and other developments on the west slope of the La Sal Mountains. Based on recent experiences with wildfires in similar elevation and vegetation communities, the results of a severe fire would likely lead to overland flow, erosion, and debris flows from storm events that would have negative impacts downstream from National Forest System Lands in the North Fork of Mill Creek and Mill Creek drainages.

Encroaching pinyon and juniper trees into sagebrush communities and previously-treated chainings are reducing the value of these areas for wildlife, especially big game, and livestock. Treatment in these areas would increase diversity and productivity of desirable browse and herbaceous forage plants.

Objectives:

1. Reduce the risk from wildfire to life and property in the area.
2. Reduce the negative consequences of a high severity wildfire fire on the soil, vegetation and wildlife habitat resources in the area.

Threats / Risks:

The Forest conducted a Fire Regime/Condition Class Assessment (USDA Forest Service 2005) and the project area was determined to be Fire Regime 3/Condition Class 2 (moderate departure from historic conditions in a mixed severity fire regime).
This project proposes to move up to 4,500 acres within the project area from Condition Class 2 to Condition Class 1 (within the natural range of variability of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances with low risk of loss of key ecosystem components), reducing the risk of uncharacteristic wildfire. The actions provide a combination of physical, biological, social, and environmental benefits while attaining the stated objectives of reducing wildfire risk and improving vegetation conditions. The actions would reduce fuel loading, stand and crown/canopy density, and fire hazards that threaten resources, important watersheds, administrative sites, private property, and the public. Project actions also allow for restoration of important vegetative communities on the forest, using well-documented, effective vegetation treatment methods with little risk of unknown consequences.
The treatments are clearly better than not taking action (doing nothing). The risk from taking no action is the potential to negatively impact a variety of resources if a catastrophic fire were to occur. Negative impacts to wildlife habitat and rangeland resources occur if pinyon-juniper continues increase in density and encroach on natural sagebrush openings, and in previously-treated (chained) areas due to the lack of disturbance. A catastrophic fire would almost certainly lead to a noxious weed infestation. Taking no action would not meet Forest Plan objectives.

Relation To Management Plan:

1. The project is consistent with the Standards and Guidelines of the Manti-La Sal Forest Land and Resource Management Plan of 1986, as amended.
* Minimize hazards from wildfire 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).
* Maintain/improve habitat capability through direct treatment of vegetation (LRMP III-23).
* Provide habitat needs for deer and elk (LRMP III-19), especially improving the cover:forage ratio.
* The Utah Fire Amendment has a goal to reduce hazard fuels. The full range of fuel reduction methods is authorized, consistent with forest and management area emphasis and direction.
* Certain vegetative types are to be managed such that varying successional stages will be present to provide for a high level of vegetative diversity and productivity (III-2). Pinyon-juniper stands on gentle slopes and on lands with good soils will be treated periodically to maintain early successional stages (III-8). Intensive management practices would maintain structural diversity within the woody species in at least 25 percent of the area covered by the Gambel oak and mountain shrub type. In some cases, the Gambel oak would be encouraged to successionally develop as an open savannah or in a high seral stage (III-9).

2. Designated as a Healthy Forest Restoration Act (2003) project, it meets the mandate for the Forest Service to restore fire dependent ecosystems and reduce fire risk to people and property.
3. Project actions are consistent with proposed management in the Moab/Spanish Valley Wildfire Protection Plan and the Southeastern Utah Regional Wildfire Protection Plan.
4. The Statewide Mule Deer Plan specifies management actions for important ranges: convert habitats back to young, vigorous shrub-dominated communities; manage portions of pinyon-juniper ranges in early successional stages. The La Sal Deer Unit Management Plan has an objective of improving deer habitat and carrying capacity, and pursuing cooperative projects to improve the quality and quantity of deer habitat.
5. The project meets several objectives In the Statewide Elk Herd plan: support habitat improvement projects that increase forage for big game and livestock, initiate vegetative treatment projects to improve elk habitat on winter ranges, improve upper elevation winter ranges to encourage elk to winter at higher elevation than mule deer. The project is specified in the 2012 La Sal Elk Herd Management Plan as a habitat improvement project.

6. There are 3 Key Terrestrial Habitat types from the Utah Wildlife Action Plan in the project area. The West Slope project treatments follow the management strategies for these types: restoration in the Gambel oak type by cutting/mulching invading pinyon-juniper, single tree mulching/cutting invading conifer in the mountain sagebrush type, reducing fire risk (uncharacteristic fire could increase the spread and dominance of invasive weeds) in the mountain shrub type through appropriate treatment methods.

Fire / Fuels:

The project is bordered on the west by BLM and private lands and Forest Service lands on the south, east, and north sides. There are private inholdings within the project area, and the 500 acres treated by the Forest Service in 2015 are immediately adjacent to the inholdings with homes and other structures. All proposed treatment locations are within 1.5 miles of private inholdings/Forest boundary. This is an authorized hazardous fuel project as defined by The Healthy Forest Restoration Act of 2003 (HFRA), designed to reduce vegetation density and ladder fuels to reduce the probability of a high severity wildfire in the 8300 acre project area that encompasses five private inholdings with residences, outbuildings, and infrastructure, as well as key public communication systems (Bald Mesa communication site/radio towers), utility lines and Moab's Mill Creek municipal watershed.
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.

Water Quality/Quantity:

The West Slope WUI project is within the town of Moab's sole source aquifer designated by the EPA for protection of drinking water supply. It is the Forest Service's responsibility to ensure that activities implemented by the Forest include appropriate best management and other practices to protect the groundwater classes and meet the associated standards. Project design, site specific recommendations and the incorporation of SWCPs during project implementation mitigate concerns for watershed and water quality. The Forest Hydrologist has determined that project actions will meet the Forest Plan Direction for Soil and Water (USDA Forest Service 1986, p. III-4) including: maintain satisfactory watershed conditions; provide favorable conditions of water flow (quality, quantity and timing); protect soil and water productivity so that neither will be significantly or permanently impaired; and protect and enhance riparian areas including dependent resources. The project will implement practices that maintain the current high level of water quality.

By reducing the risk of severe, large scale wildfire in the project area, the actions will protect watershed values from damage to soils that result in reduced infiltration and increased runoff in the short term and loss of top soil and subsequent reduction in soil productivity in the long term. The additional treatment of drainages that could act as funnels during a wildfire protects these riparian areas in the long term.

The project is designed to increase percent effective ground cover, reduce soil loss due to erosion and reduce the potential amount of area in detrimental soil condition (as from severe fire, compaction or displacement). Monitoring of similar treatments on other areas of the Manti-La Sal National Forest with similar equipment found no detrimental soil compaction from several passes of the machine on the same soil surface. The chips from the mulching added additional ground cover. Soil bulk density following use of the Brush Hog was similar to non-treated or control areas. The total effective ground cover in the Brush Hog (Pinyon-Juniper chipped) areas was higher due to wood chips than non-treated areas.

Compliance:

An Environmental Assessment and Decision Notice/FONSI were completed May 8, 2015. The Decision complies with all applicable laws and regulations, including the ESA, MBTA, ARPA and NHPA (SHPO concurrence is documented in the project record) and the Healthy Forests Restoration Act (HFRA).

Methods:

Through use of Brush Hog-type equipment, mastication of 70-90% of the pinyon-juniper encroachment into big sagebrush and mountain shrub/Gambel oak vegetation communities will be implemented. Some of the areas to be treated are old chainings with significant encroachment by conifers. 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. Overgrown sprouting shrubs such as serviceberry would be stimulated by top cutting to encourage new growth and provide wildlife with additional forage.
Hand-cutting and piling to create shaded fuel breaks around private land was conducted in 2015, and there are some other areas (steeper slopes) that will also receive this type of treatment to reduce density and enhance small openings.

Monitoring:

* 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.
* Three migratory bird point-count transects were established in the project area in 2007, and each has been read 5 times (one has been sampled 7 times). Post-treatment surveys will be conducted.
* Monitoring nests of raptors in the project area (peregrine falcon and golden eagle) will be continued annually.

Partners:

This project is identified on the Manti-La Sal National Forest Five-Year Integrated Vegetation Management Plan (USDA Forest Service 2005-2014), which has been coordinated with other Federal, State, and local agencies as part of our collaborative fuels management program. The State of Utah and Grand and San Juan County, Utah officials have been contacted and support implementation of this project. It is consistent with proposed management in the Moab/Spanish Valley Wildfire Protection Plan and the Southeastern Utah Regional Wildfire Protection Plan (Utah Division of Forestry, Fire, and State Lands 2007).
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.

Future Management:

There is one maintenance treatment authorized by the Environmental Assessment and Decision Notice/FONSI for this project so there can be follow-up treatment where needed. As the need for seeding is not anticipated, no changes have been proposed to grazing management. There are spring protection projects (fencing) ongoing in the area.

Domestic Livestock Benefit:

The project area is part of three allotments. The treatments proposed would decrease the amount of woody vegetation (especially pinyon-juniper and oak) within much of the grazed areas in these allotments. This would likely lead to an increased production of herbaceous vegetation (grass and forb species) on 4500 acres. Noxious weeds are not expected to increase or spread as a result of the treatments as best management practices will be implemented. Range trend studies showed little cheatgrass in the areas to be treated and the

risk of cheatgrass being established as a result of the project is very low, due to the existing diversity and healthy grass production of most of the understory layers and because of the elevation. Any other noxious weeds in the area would continue to be treated. In the short-term there could be some interruption of grazing operations; however the long-term benefits to the range resource outweigh the short-term negative impacts that may have to occur to individual permit holders such as resting pastures or exclusion of livestock from areas.

BUDGET

WRI/DWR	Other	Budget Total	In-Kind Total	Grand Total
$250,560.00	$500,028.00	$750,588.00	$40,000.00	$790,588.00

Item	Description	WRI	Other	In-Kind	Year
Contractual Services	phase III treatment of 1198 acres of pinyon/juniper in sagebrush and mountain brush communities	$0.00	$340,000.	$5,000.00	2017
Contractual Services	in the first phase of the project, 504 acres hand-thinning/piling contract completed in September 2015	$0.00	$160,028.	$12,000.0	2016
Contractual Services	phase II treatment of previously chained areas by contract administered by DWR on 783 acres @ $320/ac	$250,560.	$0.00	$3,000.00	2017
NEPA	preparation of an EA and DN/FONSI	$0.00	$0.00	$20,000.0	2016

FUNDING

WRI/DWR	Other	Funding Total	In-Kind Total	Grand Total
$250,560.00	$500,028.00	$750,588.00	$37,000.00	$787,588.00

Source	Phase	Description	Amount	Other	In-Kind	Year
DNR Watershed	N362		$40,000.0	$0.00	$0.00	2017
FFSL (pre-suppression)	N565		$84,940.0	$0.00	$0.00	2017
Federal Aid (PR)			$125,620.	$0.00	$0.00	2017
USFS		for phase I treatment of 504 acres	$0.00	$160,028.	$12,000.0	2016
USFS		for planned phase III treatment of 1198 acres	$0.00	$340,000.	$5,000.00	2017
USFS		EA completed	$0.00	$0.00	$20,000.0	2016

EXPENSE

WRI/DWR	Other	Expense Total	In-Kind Total	Grand Total
$0.00	$0.00	$0.00	$0.00	$0.00

Source	Phase	Description	Amount	Other	In-Kind	Year
DNR Watershed	N362	N/A	$0.00	$0.00	$0.00	
FFSL (pre-suppression)	N565	N/A	$0.00	$0.00	$0.00	
Federal Aid (PR)		N/A	$0.00	$0.00	$0.00	
USFS		N/A	$0.00	$0.00	$0.00	
USFS		N/A	$0.00	$0.00	$0.00	
USFS		N/A	$0.00	$0.00	$0.00	

SPECIES

Species	"N" Rank	HIG/F Rank
Mule Deer		1

Threat	Impact
Inappropriate Fire Frequency and Intensity	High

Elk		2

Species	"N" Rank	HIG/F Rank
Threat		Impact
Not Listed		NA
Domestic Livestock		N/A
Threat		Impact
No Threat		NA
Golden Eagle	N5	N/A
Threat		Impact
Inappropriate Fire Frequency and Intensity		Medium
Black-tailed Jackrabbit		N/A
Threat		Impact
No Threat		NA
Wild Turkey		1
Threat		Impact
Not Listed		NA

HABITATS

Habitat	
Gambel Oak	
Threat	Impact
Inappropriate Fire Frequency and Intensity	High
Mountain Sagebrush	
Threat	Impact
Inappropriate Fire Frequency and Intensity	Medium
Problematic Plant Species – Native Upland	Very High
Mountain Shrub	
Threat	Impact
Inappropriate Fire Frequency and Intensity	Low
Problematic Plant Species – Native Upland	Low

PROJECT COMMENTS

Comment 01/20/2016 Type: Project Commenter Anthony Wright

This comment has been deleted by author or admin.

Comment 01/21/2016 Type: Project Commenter Alan Clark

Is this phase III of project? Looks like Phase I was 2015 and phase II 2016. So what you do and will need for FY2017 is the line in the budget for Phase III?

Comment 01/25/2016 Type: Project Commenter Barb Smith

Phase I completed 504 acres of hand-treatment/piling in 2015 (USFS WFHF funding). Pile burning on those acres is ongoing this winter. Phase II is what I am asking for WRI funds -- to masticate 783 acres of elk winter and deer transition range on Brumley Ridge and South Mesa. We have asked the USFS Region office for FY16

funding to do the phase III portion (treat 1198 acres of PJ in sagebrush and mountain brush communities), but have not yet received confirmation that we will get that money. If we don't get it for 2016, we would try again next year.

Comment 01/26/2016 Type: Project Commenter Nicole Nielson

I would increase the bullhog budget from $200/acre to $320/acre

Comment 01/26/2016 Type: Project Commenter Barb Smith

Thanks for the tip on current contract prices. I changed the amount in the budget section.

Comment 01/27/2016 Type: Project Commenter Makeda Hanson

Hi Barb,

I've heard a lot about this project from attending the Catastrophic Fire meetings. You may want to work with your local fuels people in order to emphasize how big of a priority this project is to that group. In the last meeting, the west slope was identified as the #1 priority treatment area for catastrophic fire. There have been numerous partners involved in the development of this project and the adjacent projects that aren't on forest land. I think it would be really beneficial to increase the emphasis on this. I wish I could provide more information, but I haven't been involved. Just coming from that meeting, I'm not sure that your proposal currently reflects how much planning, partnering, and development has gone into this plan. With new sections added to ranking for fire/fuels as well as partners, I think this project deserves full points, but that may not be reflected well enough to people who haven't heard as much about it as me (and I'm not on the ranking commitee :)).

Comment 01/29/2016 Type: Project Commenter Makeda Hanson

Remove brush eradication from habitat threats by COB 01/01/2015

Comment 01/29/2016 Type: Project Commenter Barb Smith

item removed 1/29/16
project originally submitted as "Proposed" on 01/16/2016

COMPLETION

Start Date:

End Date:

FY Implemented:
2017

FY Completed:

Final Methods:
N/A

Project Narrative:
N/A

Future Management:
N/A

Map Features

ID	Feature Category	Action	Treatment/Type
5069	Terrestrial Treatment Area	Bullhog	Skid steer
5071	Terrestrial Treatment Area	Vegetation removal / hand crew	Lop-pile-burn
5216	Terrestrial Treatment Area	Bullhog	Skid steer