

## Appendix A – Response to Comments

Len Stull Scoping	
<b>Comment:</b>	I agree with your proposed actions to reduce the amount of flammable fuels on this site and feel it is very well thought out except it could have been created for a skyline harvest operation. I feel it is very much in compliance with the intent of the Healthy Forest Restoration Act and should be carried out to reduce the potential for stand replacing fires that could cause a lot of silt to enter Huntington reservoir. We need to manage our forests and not let things happen by chance.
<b>Response:</b>	Comment noted.
<b>Comment:</b>	I do disagree with your designation of the adjoining area as an inventoried roadless area. Not managing those stands may lead to destruction of the watershed resources if a stand replacement fire occurs.
<b>Response:</b>	The designation of roadless areas is outside the scope of this document.
Sanpete County	
<b>Comment:</b>	I am writing this letter in behalf of the Sanpete Soil Conservation District. We recently received your letter telling about the Lake Fuel Treatment Project. As an elected board representing Sanpete County we are in support of this project. We are glad to see someone taking the proper action to help control this problem, and make the forest healthy again.
<b>Response:</b>	Comment noted.

Bonnie Keele

Comment:

I am in favor of this project. Getting rid of this blight of Beetle killed trees is long overdue on the entire Manti-La Sal National Forest.

I would like to see anything burned hauled away. It seems to defeat the fuels reduction aspect to leave burned trees either standing or laying around as in the burn of the Jungle last year. They also create a hazard.

Response:

Comment noted.

Emery County

Comment:

The site of the proposed project is part of the Huntington Canyon Watershed. This watershed provides water resources for municipal, agricultural and industrial requirements of the Huntington and North Emery communities of Emery County. The Huntington Canyon watershed is the sole source of water resources for these water users. For this reason, watershed health is the primary concern we have when evaluating the wisdom of implementing such projects.

Response:

Comment noted.

<b>Emery County</b>
<p><b>Comment:</b></p> <p>In conclusion, Emery County supports implementation of the proposed Lake Fuels Project because it is consistent both with the Emery County General Plan and the Emery County Wildfire Protection Plan. We're encouraged to see the Forest Service utilizing the HFI and HFRA to get some meaningful management on the ground, and would hope to see similar proposals in proposals in the future.</p>
<p><b>Response:</b> Comment noted.</p>
<b>Hopi Tribe</b>
<p><b>Comment:</b></p> <p>And therefore, if the cultural resources survey of the area of potential effect for this proposal identifies prehistoric sites, please provide us with copies of the survey reports and site avoidance measures for review and comment. If any prehistoric sites will be adversely affected by project activities, please also provide us with a copy of the draft treatment plan for review and comment.</p>
<p><b>Response:</b></p> <p>Cultural resource surveys have been completed for the proposed projects. Design features for the management and protection of cultural resources have been included in the proposed action. No eligible sites were identified during the surveys.</p> <p>Should eligible sites be identified during implementation they will be avoided during timber harvest and temporary road construction activities; therefore, there would be no effect. The State Historical Preservation Office (SHPO) has been consulted for these activities. (Document number #19 project record)</p>
<b>Great Salt Lake Audubon</b>
<p><b>Comment:</b></p> <p>Since we have not seen the site of the proposed project, we do not have specific comments regarding the need of the project. However, in evaluating the proposed project, we ask the Forest Service to consider the impacts the project would have on the viewshed, that best management practices be used to avoid sedimentation in the adjacent waterbodies, that the Forest Service evaluate the impacts this project would have on the inventoried roadless areas, that native plants are used for revegetation, and that success criteria be developed for monitoring and noxious weed control. We recommend that tree removal activities occur outside of the avian breeding season.</p>

**Response:**

1. A visual quality report was prepared for the Lake EIS project. The effects of the project following the spruce beetle epidemic were discussed in the specialist Report. (Document number # 22 project record)
2. The effects of the proposed project on sedimentation are discussed in the Soils Specialist Report (Page 9), the Hydrology Specialist Report, and the Fisheries portion of the BE/BA. The design criteria for the project along with the Best Management Practices are listed in Appendix B of the Lake Fuels EA. (Document numbers # 24 and 26 project record, Appendix B Design Criteria)
3. No activities are proposed in Inventoried Roadless. The effects on the adjacent Inventoried Roadless were discussed in the Recreation Specialist Report Pages 5 thru 8, (Document number # 21 project record)
4. Previous salvage harvest projects on the Manti-LaSal National Forest have used native plant seed mixtures to revegetated disturbed sites. (Appendix B Design Criteria)
5. Noxious weeds. Stipulations in the contract to wash equipment and monitoring for noxious and invasive weeds during stand inspections, to track and treat the areas harvested. (Appendix B Design Criteria, Appendix D Monitoring)
6. Effects of the project on the avian breeding season is discussed in the BE/BA and the wildlife report. (Document numbers # 30 and 31 project record, Appendix B Design Criteria)

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**Comment:**

NFMA compliance is also required as this project is on Forest Service land. The applicable NFMA regulation that must be applied is the “transition rule” from 2000 (as interpreted by a 2004 Federal Register notice), requiring consideration of best available science for all Forest Service implementation projects. (See the attached letter from the Forest Service Washington Office to Regional Foresters dated April 27, 2007.) Therefore, the MLS will need to demonstrate that it has considered and applied the best available science regarding spruce beetles and fire hazards.

**Response:**

The current and accurate science e has been used in the formulation of the proposed action and in evaluation of the proposal as documented in specialist reports and information provided in the project record. A paper has been prepared to evaluate the literature listed in your scoping response and is on file in the project record (Appendix E).

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**Comment:**

- Bebi, P., D. Kulakowski and T.T. Veblen. 2003. Interactions between fire and spruce beetles in a subalpine Rocky Mountain forest landscape. *Ecology* 84(2): 362-371. In a subalpine forest landscape in northwestern Colorado researchers quantified spatial associations of fire and spruce beetle outbreaks over more than a century and developed a model of probability of occurrence of spruce beetle outbreaks. Forests that had burned in 1879 were less affected by the 1940s outbreak than older stands. On the other hand, areas affected by the 1940’s spruce beetle outbreak showed no higher susceptibility to subsequent fires. The results of this study do not support the often suggested increase in fire occurrence expected to follow spruce beetle outbreaks.

Response:

Fire history, potential and effects within the project area have been analyzed in the Fuels Specialist Report. In addition I want to list specific examples of wildfires that have occurred in spruce beetle killed stands on the Manti-LaSal in the past 5 years. The analysis of the No Action Alternative includes discussion of recent wildfire activity in spruce beetle killed spruce stands on the Manti-LaSal National Forest.

**Sixmile Wildfire Use** – 2004 burned approximately 1000 acres in spruce beetle killed spruce fir type. The mortality occurred from 1995 thru 1998, the needles and small branches were no longer on the trees, and understory vegetation had already responded to the decreased canopy cover.

**White Knoll Wildfire Use** – 2005, ignition started in a spruce beetle killed spruce at 10,000 foot elevation on July 14, burned approximately 500 acres in the spruce fir type, the rest in aspen mixed conifer type. The mortality occurred from 1998 thru 1992.

**Jungle burn escaped wildfire** burned approximately 400 acres of spruce beetle killed spruce fir type. The mortality occurred from 1995 thru 1998, the needles and small branches were no longer on the trees, and understory vegetation had already responded to the decreased canopy cover

All 3 of the wildfires listed burned in spruce beetle killed forests that no longer had red needles on the trees. The needles had fallen a minimum of 4 years prior to the wildfires.

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**Comment:**

- Kulakowski, Dominik; Veblen, T.T.; Bebi, Peter. 2003. Effects of Fire and Spruce Beetle Outbreak Legacies on the Disturbance Regime of a Subalpine Forest in Colorado. *Biogeography* 30:1-12. Scientists concluded that, “The lack of increased fire spread or occurrence in beetle-affected stands suggests that a response of fire-hazard mitigation following outbreak may not be necessary in order to maintain a normal fire hazard.” This research concludes that, “Beetle outbreaks may have a counterintuitive effect on the potential of low-severity fire to spread. Stands affected by beetle outbreak may experience increased moisture as suggested by the proliferation of mesic under-story herbs (Reid, 1989), and this increase in moisture may actually decrease the potential of low-severity fire to spread in beetle-affected stands.”

**Response:**

Fire potential and the effects within the project area have been analyzed in the Fuels Specialist Report. In addition I want to list specific examples of wildfires that have occurred in spruce beetle killed stands on the Manti-LaSal in the past 5 years.

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**Comment:**

Furthermore, the mere act of removing trees – whether alive or dead – is not a proven method for reducing fire risk. There is little scientific support for aggressive thinning to reduce fire hazard. In fact, there is some scientific evidence that thinning can make the fuel hazard worse instead of better. “Detailed site-specific data on anything beyond basic forest structure and fuel properties are rare, limiting our analytical capability to prescribe management actions to achieve desired conditions for altering fuels and fire hazard.” Graham, Russell T.; McCaffrey, Sarah; Jain, Theresa B. (tech. eds.) 2004, *Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity*. Gen. Tech. Rep. RMRS-GTR-120. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

**Response:**

The document by Graham and others (*Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity*. USDA General Technical Report RMRS-GTR-120, January 2004) states that stand structure and wildfire behavior are clearly linked. Decision-makers should consider 4 basic principles when making decisions regarding fuel treatments: 1) Reduce surface fuels; 2) Increase canopy base height; 3) Decrease crown density; and 4) Increase proportion of fire resistant trees. Obviously when decisions are made to plant trees in burned areas, vegetation changes as grass, forbs, and shrubs thrive in the open conditions that are created. When trees are planted a vegetation layer is restored to an area that for 20 years or more may be more susceptible to fire because of ladder fuels, low branches, and canopy density. This requires that we consider implementation of measures through time to protect them and eventually reduce the associated fire hazard.

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**Comment:**

- Scientists recognize that large scale prescribed burning and mechanical thinning are still experimental and may yet reveal unanticipated effects on biodiversity, wildlife populations and ecosystem function. Henry Carey and Martha Schumann, *Modifying WildFire Behavior – The Effectiveness of Fuel Treatments — The Status of Our Knowledge*. April 2003.

**Response:**

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**Comment:**

Duke University issued an "Expert Advisory" May 24, 2004 with Professor Norm Christensen saying: "Loss of canopy increases wind speed and air temperatures and decreases humidity in the forest." "As a result, ground fuel fires that break out can spread faster and farther than they would normally." <http://www.ascribe.org/cgi-bin/spew4th.pl?ascribeid=20040524.081406>.

**Response:**

The planned treatments would create openings in the general overstory canopy, provide safe access routes, and create fuel breaks of various age groups of trees. Initial attack forces would have access to the area; have time and defensible space to control the fire prior to the end of the 4-hour window, the reduction of post-activity fuels should, theoretically, increase the effectiveness of control efforts (e.g. less effort required to build fire line in and between former treatment units), increasing the probability of success of the control efforts. (Finney, Design of Regular Landscape Fuel Treatment Patterns for Modifying Fire Growth and Behavior, Forest 7 Science, 2001).

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<p><b>Comment:</b></p> <p>Despite the MLSNF’s contention that removing beetle-killed will suppress fires, the latest scientific studies show that in high-elevation subalpine forests, thinning will most likely not reduce the potential for wildfire. A 2004 article in <i>BioScience</i> found that “the model of historical fire effects and 20<sup>th</sup>-century fire suppression in dry ponderosa pine forests is being applied uncritically across all Rocky Mountain forests, including places where it is inappropriate.” Ponderosa are found at lower elevations and do respond to forest thinning with reduced fire potential. Subalpine fir at high elevations, however, have a different fire regime and typically experience infrequent, high-intensity stand-replacing crown fires. Stand-replacing fires are for the most part uncontrollable, are a necessary component of forest health, and respond little to any previous thinning, as the article states:</p> <p style="padding-left: 40px;">“We expect fuel-reduction treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size, given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not restore subalpine forests, because they were dense historically and have not changed significantly in response to fire suppression. Thus, fuel-reduction efforts in most Rocky Mountain subalpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure outside the historical range of variability...” Schoennagel, Tania; Veblen, Thomas T.; and Romme, William H., <i>The Interaction of Fire, Fuels, and Climate across Rocky Mountain Forest</i>, <i>BioScience</i>, Vol. 54 No. 7, July 2004.</p>
<p><b>Response:</b></p> <p><b>The project is a salvage of already dead trees, thinning the stand is no longer a viable option.</b></p>
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<p><b>Comment:</b></p> <p>Engelmann spruce forests may actually have a <i>decreased</i> risk of stand replacing wildfire events a couple years <i>after</i> a beetle epidemic. It is true that forests in the ‘reds’ stage (when the needles have not yet fallen off the trees) present an increased fire danger. However, once the needles fall onto the forest floor (a couple years), research shows that the ignitability of the snag-rich forest is actually less than even that of a purely green mature spruce/fir forest.</p>

**Response:**

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**Comment:**

**Will the project comply with HFRA requirements?**

**Response:**

The scoping letter dated May 17, 2007 addressed the requirements of a HFRA project and the Lake Fuels project complies with these requirements. In addition the scoping responses from Emery County supported the findings of the Manti-La Sal National Forest that the Lake Fuels project complies with the requirements. (Lake Fuels EA, Page 4 and Emery County Scoping Response Project Record, Document #13)