

# Response to Public Scoping Comments

## Pahvant Interagency Fuels Reduction Project

### **1. Some individuals who attended the public meeting were concerned about the potential economic impacts to range permittees that would result from the resting of grazing pastures after prescribed burning, as described in project design specifications.**

*Response: Pastures within treatment units would be rested from livestock grazing for a minimum of two growing seasons following a prescribed burn in that unit. Pastures would be rested for an additional season(s), where necessary to allow vegetation to grow and reestablish. The following allotments and units would be affected: BLM: Meadow Spring Allotment; USFS: Wild Goose Allotment – Wild Goose Unit; Pioneer Allotment – Pioneer Unit; Center Fork Chalk Creek Allotment – Horse Hollow Unit; Meadow Creek Allotment – Meadow Creek and Walker Canyon units.*

*Most allotments are grazed under a rest rotation grazing system, whereby some pastures are grazed while others are rested each year. The cycle is repeated each year so that all pastures are regularly rested. The Wild Goose allotment is grazed under a four-pasture rest rotation grazing system. The Pioneer Allotment is grazed under a three-pasture alternate year grazing system, and the treatment area currently receives very little grazing use. The Center Fork Chalk Creek Allotment is grazed under a two pasture deferred grazing system with early and late (after seed ripe) grazing alternating between the units. The Horse Hollow treatment unit is in an area that is not grazed on the Center Fork allotment. The Meadow Creek Allotment is grazed under a two pasture alternate year grazing system. Each unit is grazed two years then rested two years. The area scheduled for treatment on this allotment is currently grazed very little. The Meadow Spring Allotment is not currently in use.*

*The grazing sequence would be modified to allow for the allotment units to be rested after prescribed burning on those units. No reduction in total grazing use is anticipated because resting of pastures is already a part of normal operating procedures and some pastures receive little grazing use. Prescribed burns would be coordinated with pasture uses and rotations so that some pastures would be available for use during the same time others are being rested. All pastures are grazed according to proper forage utilization standards, which dictate the timing and use on each pasture. Therefore, there would be no economic impacts to range permittees.*

**2. Comment (Utah Environmental Congress, “UEC”): In a 1995 paper (Wildfires and Salvage Logging, Beschta et al March 1995) the authors urged the Forest Service to begin looking beyond the often simplistic management approaches designed by the agency to address complex problems created by generations of mismanagement. While the paper focuses upon the Columbia and upper Missouri basins, it has clear implications for forest ecosystems across the western United States. We believe continuing historic management practices across the larger landscape will only continue to degrade the ecosystem, alter fire regimes beyond historic patterns, and increase fuel loads.**

*Response: In March 1995, a voluntary report was issued entitled “Recommendations for Ecologically Sound Post-Fire Salvage Logging and Other Post-Fire Treatments on Federal Lands in the West”, authored by Dr. Robert L. Beschta of Oregon State University and others (hereafter referred to as the Beschta Report). This report raised important issues related to the salvage of fire killed and other timber on federal lands in the West, and included a number of relatively prescriptive recommendations for the salvage of such timber. This report was given wide circulation.*

*Due to the broad sweep and serious implications of this report’s recommendations, the Forest Service Research Branch was asked to conduct a thorough peer review of the Beschta report. In response, eight scientists, highly qualified and recognized in their fields, reviewed the report, and submitted comments to the Deputy Chief of the Forest Service, along with a summary of comments referred to hereafter as Conard et al<sup>1</sup>. These scientists, although supporting a number of the principles expressed in the Beschta report, expressed reservations about the tone, specificity, and general application of many of the report’s recommendations.*

*As noted by Conard et al, many statements in the Beschta report are unsubstantiated, and the authors refer to only a very limited selection of available literature. The Beschta report largely ignores existing literature concerning fire, soil, and forest health related to forest problems east of the Cascade Range. Conard et al felt that the Beschta authors mostly ignored the vast differences in ecosystem processes, natural fire regimes, effects of site history and site characteristics, and human needs and impacts across the West in much of their discussion and recommendations.*

*According to Conard et al, two questionable assumptions that the Beschta report appears to make, with little supporting documentation, are that: 1) less human-induced disturbance will prevent further deterioration and foster a process of natural restoration of damaged ecosystems; and 2) all forest ecosystems in the region are in terrible shape as a result of human action and are getting worse. Conard et al believe that the degree of degradation in many ecosystems as a result of past management, including fire suppression, is such that relying solely on natural processes (such as wildfire) will not have the desired effects. Unsuppressed fires in areas of high fuel buildup may cause ecosystem damage far outside that which would be expected to occur historically and could take years to recover. Further, many ecological processes have been modified in ways that make return to “natural” or historical conditions impossible. This implies that some form of management of ecosystem processes is needed to move ecosystems toward a more “desirable” state.*

*The Pahvant Interagency Fuels Reduction Project EA evaluates the effects of the proposed action on local resources, based on existing and desired conditions. The project has been specifically designed to address the components in need of improvement (see EA, “Purpose*

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and Need for Action”), as well as effects to the ecosystem and resource components. The fire regime in the project area has already been altered beyond historic patterns (see EA, “Existing Condition”), and the project has been designed to move ecosystems toward a more desirable state (see EA, “Desired Condition”) by decreasing fuel heights and fuel loads.

**3. Comment (UEC): The Forest Service should consider at least one additional alternative, which recognizes the role of historic management practices (i.e. livestock grazing) in the creation of the conditions this proposal is meant to resolve.**

*Response: The fire regime in the project area has been altered beyond historic patterns (see EA, “Existing Condition”). Historically, fire was a dominant force on the landscape, and many plant communities did not reach older growth stages before being subject to wildfire. These historic patterns changed dramatically with the advent of fire suppression efforts in the mid 1900’s (see Vegetation Report, page 3). Wildfire exclusion has been a major factor that has led to the accumulation of dense vegetation over the last century (see Fire and Fuels Specialist Report, pages 6-9, 12). Previous heavy grazing has also contributed to this condition by removing grasses and forbs, which has prevented the spread of fires. Heavy grazing and fire suppression activities have allowed pinyon-juniper, Gambel oak and sagebrush to increase and spread over areas previously dominated by grass and forbs, thus increasing the cover and density of vegetation in the area (see Vegetation Report, pages 3-5).*

*Today, grazing use is more strictly regulated than during the early part of the century when areas were heavily grazed. Direction in Fishlake Forest Plan describes standards and guidelines for obtaining proper utilization of available forage on suitable rangelands. As recently as 2002 these standards were amended to reflect a decrease in the maximum allowable forage use on uplands and riparian areas. The changes were a result of current scientific literature and findings for healthy and sustainable rangelands and improved watershed conditions. These forage utilization standards are designed to prevent the complete removal of fine fuels, which was a contributing factor in the accumulation of dense vegetation over the last century.*

*Any proposed alternative must fulfill the purpose and need, which is to reduce vegetative fuels and fire behavior. Although grazing has been a contributing factor to the conditions currently existing in the project area today, simply eliminating grazing in this area would not immediately result in the desired change in fuels and fire behavior. Current vegetation conditions are the result of many years of fire exclusion and previous heavy grazing, and are far removed from historic conditions.*

*As discussed in response to comment #2 above, the degree of degradation in many ecosystems as a result of past management is such that relying solely on natural processes will not have the desired effects. Further, many ecological processes have been modified in ways that make return to “natural” or historical conditions impossible. Without reducing the fuel condition and fire behavior that currently exists, the area would continue to experience uncharacteristically intense and severe wildfire, resulting in threat to life, property and resources (see EA, “Existing Condition”). Currently there is no evidence that elimination of grazing would reduce fuels and fire behavior, and the commenter has not provided any*

information to establish such. For these reasons, long-term or permanent suspension of livestock grazing was not considered to be a reasonable alternative.

Furthermore, any proposed long-term or permanent changes to grazing is outside the scope of the proposed action. The current Forest Plan has designated most of the project area to be managed with an emphasis on livestock grazing. Any long-term or permanent changes would be appropriately evaluated during updates to Allotment Management Plans or land use plans.

**4. Comment (U.S. Fish & Wildlife Service, “FWS”): Alternatives should discuss how sensitive fish and wildlife habitats and/or seasons would be avoided or protected.**

*Response:* According to the Biological Evaluation, the project may impact individual Sensitive species or habitat, but will not likely contribute to a trend toward Federal listing or cause a loss of viability to the populations or species. Sensitive fish species do not occur in the analysis area.

A project design specification is to use low- to moderate-intensity prescribed fire to create a patchwork of burned and unburned vegetation. Openings created by prescribed fire would create additional or improved habitat for prey species for Sensitive species such as the spotted bat, western big-eared bat, peregrine falcon, northern goshawk, flammulated owl, and three-toed woodpecker.

Additional project design features would require the prescribed burn treatment areas to be rested for two growing seasons. This would allow vegetation within grazing allotments to reestablish before grazing resumes. Also, some areas may be reseeded to promote recovery of ground cover. This will maintain forage conditions for these Sensitive species.

**5. Comment (FWS): These projects fall within the critical winter range for mule deer and the analysis should consider both positive and negative effects to this species.**

*Response:* Critical winter range for mule deer occurs in the BLM portions of the Holden Springs, Frampton Heights and Meadow treatment units. Effects to the mule deer are discussed in the Wildlife Report (pages 39-42). In summary, anticipated positive effects include an eventual increase in the quality and quantity of forage. Anticipated negative effects include 1) an increase in visibility, which could lead to increased hunter success (deer mortality) during hunting seasons, and 2) a decrease in the amount of hiding and thermal cover. Although hiding and thermal cover would be reduced, Forest Plan requirements for hiding and thermal cover would still be achieved. The negative effects are anticipated to be short-term in duration. Positive long-term effects have been observed on similar prescribed and natural wildfire areas within the analysis area. The proposed action may affect individual mule deer and their habitat, but would not adversely affect population numbers or viability of this species.

**6. Comment (FWS): Impacts to wetland and riparian areas should be avoided to the greatest extent possible.**

*Response: No riparian areas are proposed to be treated. As discussed in the project design specifications, vegetation treatments would not occur within a minimum 100-foot buffer of Pioneer, Chalk, and Meadow creeks, in order to avoid potential negative effects to riparian resources. This design specification is consistent with guidance found in the Fishlake Forest, which states: "Limit use of prescribed fires on areas adjacent to riparian areas to protect riparian and aquatic values" (page IV-49).*

**7. Comment (FWS): The project should be designed to retain some snags and downed wood.**

*Response: The prescribed burns would be implemented in a mosaic burn pattern where 40-80% of approximately 14,329 acres would be treated (5,719 to 1,146 acres) within a 287,495-acre analysis area. This would leave more than 275,000 acres untreated within the analysis area. The trees not burned in the surrounding areas such as rocky outcrops or unburned islands would provide for snag maintenance and recruitment into the future. In addition, as discussed in the project design specifications, an average of two trees per acre would be retained for wildlife habitat in pinyon-juniper targeted for cutting. Also, trees with cavities that are observed during cutting of pinyon and junipers would be retained for cavity nesting bird species.*

**8. Comment (FWS): The canyon in the Horse Hollow and Meadow treatment units should be inventoried to determine if suitable habitat is present for the Mexican spotted owl.**

*Response: Consultation with the Utah Field Office of Fish and Wildlife Service (FWS) determined that habitat for Mexican Spotted Owl does not occur within Millard County, the location of the project area (FWS, 2002, Federally Listed and Proposed Endangered, Threatened, and Candidate Species and Habitat in Utah by County). A letter was received from the FWS on May 5, 2003 stating that the proposed action would not adversely modify or destroy Mexican spotted owl critical habitat.*

**9. Comment (FWS): The Migratory Bird Treaty Act (MBTA) prohibits the take of migratory birds, their parts, nests, eggs, and nestlings. Federal agencies must comply with the MBTA.**

*Response: The Forest Service and BLM would comply with the MBTA. There would be no intentional take of migratory birds, their parts, nests, eggs, and nestlings. Unintentional disturbance or loss of individuals could occur when treatments are conducted during spring or early summer months. The proposed action may affect individual migratory bird species, but would not adversely affect population numbers or viability of these species.*

*The project would improve foraging habitat for many migratory bird species. Fire would create patches or a mosaic of early seral plant species. The addition of early seral plant*

*species would help create size, age, and species diversity important in maintaining functioning ecosystems and create or maintain habitat for a number of migratory birds. Effects on migratory birds are discussed in detail on pages 50-52 of the Wildlife Report.*

**10. Comment (FWS): The Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (Romin and Muck, 2002) should be used to provide for raptor protection measures. Locations of existing raptor nests should be identified prior to initiation of treatments. Direct loss of nesting sites or territories should be avoided. Appropriate spatial buffer zones of inactivity should be established during crucial breeding and nesting periods relative to raptor nest sites or territories. Recommended spatial buffers are 1.0 mile for threatened and endangered raptors, 0.5 mile for other diurnal raptors, and 0.25 mile for nocturnal raptor nests.**

*Response: Extensive wildlife surveys were completed in 2002 in the treatment units. No raptor nests were found. If a nesting raptor were found prior to or during project implementation, a spatial buffer would be established consistent with FWS guidelines described above.*

**11. Comment (FWS): Inventory for invasive plant species should be part of all action alternatives, and should describe the measures to be taken to avoid and/or control invasive plant species.**

*Response: There are approximately 180 acres of musk thistle and 20 acres of white top within the project area. Although noxious weeds have the potential to rapidly expand following disturbance, this has not occurred following past wildfires within the analysis area. There is potential for cheat grass to invade treated sites at lower elevations. Areas where recovery is delayed would be seeded, which may prevent cheatgrass establishment (see page 9 of the Vegetation Report).*

**12. Comment (FWS): Monitoring should be conducted to determine the effectiveness of the treatments in achieving objectives.**

*Response: Monitoring activities can be divided into Forest Plan monitoring and project-specific monitoring. The three categories of Forest Plan monitoring include implementation, effectiveness and validation monitoring. Effectiveness and validation monitoring are not typically done as part of project implementation. This type of monitoring has been conducted at the regional and national levels for various types of activities. Implementation monitoring and any additional project-specific monitoring are however, important aspects of the project.*

*Routine implementation monitoring assesses whether the project was implemented as designed and whether or not it complies with the Forest Plan. Planning for routine implementation monitoring began with the preliminary design of the Pahvant Interagency Fuels Reduction Project. Input by resource staff specialists, such as archaeologists, soil scientists, hydrologists, and biologists is regularly requested during this implementation monitoring process. These specialists provide technical advice when questions arise during project implementation.*

*The Fishlake National Forest staff conducts periodic monitoring, including reviews of macroinvertebrates, fisheries, wildlife, Management Indicator Species, noxious weeds, water quality and recreation use. These reviews may be coordinated with the State and other agencies. Results of this and other monitoring are typically summarized in a National Forest Annual Monitoring and Evaluation Report. This report provides information about how well the management direction of the Forest is being carried out, and measures the accomplishment of anticipated outputs, activities and effects.*

**13. Comment (FWS): The bald eagle, western yellow-billed cuckoo and Utah prairie dog may occur in the project analysis area. The proposed action should be reviewed and a determination made if the action will affect any listed species or their critical habitat.**

*Response: The wildlife biologist determined that habitat for the Utah prairie dog does not occur within the analysis area; therefore, there would be no effect to this species (see Biological Assessment page 2). The wildlife biologist also determined that the project may affect, but is not likely to adversely affect the western yellow-billed cuckoo and bald eagle (see Biological Assessment pages 12-13). The FWS concurred with these determinations in letters on May 5, 2003 and May 28, 2003.*

**14. Comment (FWS): Bonneville cutthroat trout, least chub, and spotted frog may occur in the project area and are managed under Conservation Agreements/Strategies. Project plans should be designed to meet the goals and objectives of these Conservation Agreements.**

*Response: The Forest Service and BLM wildlife biologists determined that the Bonneville cutthroat trout, least chub, and spotted frog do not occur within the analysis area; therefore, they would not be affected by the proposed action.*

*The Bonneville cutthroat trout is a Forest Service Region 4 designated Sensitive species and was addressed in the Biological Evaluation. This species is not known to occur in the analysis area. Populations of Bonneville cutthroat trout are known to occur in Sam Stowe Creek, and a suspected population occurs in Pole Creek. These streams are located in the southern end of the Pahvant Mountain Range, outside of the analysis area and approximately 15 miles south of the southernmost treatment unit (Meadow).*

**15. Comment (Utah Governor's Office of Planning and Budget) The following information should be part of the Fire Management Plan when developed:**

**a. An assessment of the need for burning as compared to alternative mechanical treatments.**

*Response: The most effective means of limiting air pollutant emissions from wildfire is to inhibit these large uncharacteristically intense and severe fires by reducing and breaking up heavy, continuous fuels. The Pahvant project would reduce fuels by cutting and then prescribed burning the downed fuels. Because many of the treatment unit areas would be relatively inaccessible, the most efficient way to reduce fuels would be to burn them in*

place. Where fuels are too dense to safely treat them directly with fire, they would be cut then broadcast burned after drying. This combination of cutting and prescribed fire is an effective method of reducing heavy fuels and creating a vegetative mosaic that would limit the size of potential future wildfires. (Air Quality report, page 4).

**b. Quantification of the amounts, types of material and acreage to be burned.**

*Response: The proposed action is to cut and burn 40-80% of the vegetation in each of the seven treatment units. Vegetation consists of sagebrush-grassland, pinyon-juniper, and Gambel oak. Detailed treatment unit maps, treatment unit acreages, vegetation types and primary treatment methods for each of the treatment units are displayed in Appendix A of the EA.*

**c. Description of the type(s) of burns proposed.**

*Response: Pile burning and broadcast burning by hand and helicopter are proposed. Pile burning and small burn units would maximize fuel consumption, decrease periods of smoke impacts and increase smoke dispersion. Slash burning would occur during fall, winter and spring and would not occur concurrently with wildfires and wildland fires managed for resource benefit. Smoke production from burning slash would be minimal and of short duration. Broadcast burn units tend to burn less than three days with limited smoke after the first burning period.*

**d. Description of measures to reduce emissions.**

*Response: Central Utah interagency fire management personnel currently use a range of smoke management and emission reduction best management practices to reduce emissions during prescribed burning. Techniques that could be used include:*

- cutting and piling before burning where practical*
- igniting during daylight hours only*
- burning mostly during off season months (spring, fall, winter) when recreational use is lower and there would be fewer public present near the burn area who would be subject to emissions.*
- burning during the highest clearing indices possible (above 500)*
- burning only those wildland fuels essential to meet management objectives*
- burning during optimum periods to prevent trapping smoke in inversions or diurnal wind flow patterns*
- mopping up residual burning if down drainage smoke is an issue*
- coordinating all burns through the State Smoke Management Coordinator to minimize overall emissions to central Utah airsheds (Air Quality Report, Page 6).*

**e. Quantification of emission of regulated air pollutants**

*Response: Up to 68 tons of PM10 could be released in the heaviest fuels modeled, over a 1000-acre burn unit, during spring or fall burns. Up to 100 tons of PM10 per day is acceptable. This was derived from the Simple Approach Smoke Emission Model runs. Results from this modeling are found in Attachment 1 of the Air Quality Report. Approximately 1,000 total acres per day would be burned in the heavy pinyon/juniper fuels on all units in the proposed project.*

**f. Description of applicable regulatory requirements.**

*Response: National Ambient Air Quality Standards (NAAQS) related to protection of public health and welfare are described in Section 109 of the Clean Air Act. The NAAQS describe criteria pollutants such as carbon monoxide, lead, nitrogen dioxide, particulate matter (PM), ozone and sulfur dioxide. An air quality State Implementation Plan has been written and approved by the EPA. This allows Utah Department of Environmental Quality to monitor and enforce the NAAQS (page 1 Air Quality Report).*

*All ignitions would follow direction described in specific burn plans for treatment units. Burn plans must adhere to Federal Wildland Fire Management Policy requirements (1995) as well as Bureau of Land Management and Forest Service direction. Burn plans would be prepared and reviewed by qualified personnel, and approved by appropriate officials.*

*Smoke management would adhere to all regulations as defined by the Utah Smoke Management Plan (1999). The state implementation plan (State Rule R307-204) has provisions for tracking prescribed fire smoke emissions. The State Rule also describes appropriate smoke management for prescribed fires in Utah. As the burn plans would be written and implemented, smoke emission production reporting rules would be adhered to as stated in the State Smoke Management Plan. (page 7, Air Quality Report).*

*Specific requirements for state-regulated smoke emission can be found at <http://www.utahsmp.net>. The Utah Smoke Management Plan is included in the project file.*

**g. Qualitative description of air quality impacts focused on new or increased impacts on downwind communities and visibility impacts in Class I areas.**

*Response: There would be no non-attainment areas within 75 miles of the proposed project area, nor near enough to expect any impairment from this project. The closest non-attainment area is located in Utah County, at the north end of airshed eight on the Utah Airshed map, page 10 (page 3, Air Quality Report).*

**h. Modeling of downwind concentrations of pollutants to document compliance with NAAQs, and visibility impacts in Class I areas (if affected).**

*Response: The SASEM model is a tool for the analysis of smoke dispersion from prescribed fires. It is a screening model, in that it uses simplified assumptions and tends to over predict impacts, yielding conservative results. If violations of air quality standards are not predicted by SASEM, it is unlikely that they would occur.*

*Inputs to the model include basic descriptions of the fuels, such as type and loading, expected fireline intensity, and expected burn duration. Wind speed and direction, dispersion conditions, and average mixing height would be considered, as well as distance and direction of the fire from sensitive receptors. The model calculates fuel*

*consumptions and particulate emission factors from fuel loading and expected fireline intensity.*

*Model outputs include maximum particulate concentration and distance from the fire at which it would occur, ranges of distances from the fire, any primary or secondary particulate standards that would be violated, and the reduction in visual range at selected receptors. Outputs are given in tabular form for a range of dispersion and wind speed conditions.*

*Utilizing the heaviest fuel loading expected in pinyon/juniper, the spring and fall model runs from the Simple Approach Smoke Estimation Model estimate no more than 68 tons of emissions would be emitted from 1000 acre units each burn day. The modeling for all fuel types is included as Attachment 1 of the Air Quality Report.*

*All burn plans would contain a monitoring plan for smoke, a detailed map of probable smoke trajectories and estimates of emissions by burn unit. Smoke from prescribed fires would be monitored. Monitoring would consist of visually tracking smoke plumes by field observers or air borne observers and/or via PM10/PM2.5 particulate monitors at sensitive receptors.*