Appendix B

Response to Comments on the Draft Environmental Impact Statement

Appendix B
Response to Public and Agency Comments
West Bear Vegetation Management Project

B1.0 Public Comments and Forest Service Responses

Letter #	Comment #	Name	Summarized Comment	Category	Response to Comment
1	4	Preservation / Conservation Organization, Salt Lake City, Utah	The effectiveness of best management practices and road buffers has not been scientifically validated.	Water Resources	In Chapter 3 on page 11 of the DEIS we state; "Some of the effects of roads can be mitigated by design changes that disperse, rather than concentrate road runoff by gravel surfacing (Burroughs and King 1989, Furniss et al. 1991), seasonal road closures to protect roads without gravel surfaces from use during adverse weather, or by designating undisturbed protective buffers along streams to allow filtering of fine sediments (Roby et al. 1977)" Burroughs and King, 1989 discussed how various treatments in the road buffers affect sediment delivery.
10	6	Utah Farm Bureau Federation	We support relocation and upgrading of roads as described, as well as constsruction of additional temporary roads needed to harvest pockets of marketable timber provided these roads are re-contoured and re-vegetated following completion of the harvest.	Water Resources	Temporary roads would be recountoured, have slash placed on the disturbed surface and seeded. Stream crossings by instermittent service roads would have fills removed with the road surface outside of stream crossings to be scarified and seeded (See DEIS Table 2.1.7 and DEIS 2.1.2.2 and 3.3.4.1). A statement that "fills across stream channels would be removed following completion of use on intermittent service roads" has been added to FEIS Sec. 2.1.2.2 to clarify that this is part of the proposed actions under Alternative 2.
1	8, 9	Preservation / Conservation Organization, Salt Lake City, Utah	Sedimentation will likely deteriorate MIS cutthroat trout individuals and habitat. DEIS, p. 2-13. It is dishonest for the Forest Service to claim movement of the area toward properly functioning condition for healthy watersheds and aquatic habitats when this project will only deteriorate aquatic ecosystems.	Soils	We agree that there may be some impact to aquatic resources at the stream crossing. The riparian habitat conservation areas section of the aquatic resources section of Table 2.2.1 on page 2-23 of the DEIS cites sections DEIS 3.3.4.1 for a summary statement of "slight increase in impacts". This section has a concluding statement of the effects on aquatic habitat as follows: "Using best management practices….would

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					result in a few small and temporary sources of sediment from road crossings. There would be no effect on riprian and stream channel shading or woody debris recruitment. Direct and indirect effects on aquatic habitat should therefore be minor with little impact to aquatic species." The Bonneville cutthroat trout section of the aquatic resources section of Table 2.2.1 on page 2-23 of the DEIS cites sections DEIS 3.3.4.3 for a summary statement of "may impact individuals, but is unlikely to cause a trend toward federal listing or a loss of viability". This section has a concluding statement of the effects on Bonneville cutthroat trout as follows: "There would be no direct and potentially minor indirect or cumulative effects on Bonneville cutthroat trout and their habitat" and cites DEIS 3.3.4.1. We believe that the project will help restore the timber stands in the treatment areas to a more healthy state. Also see Response to Comment 1-3.
1	5	Preservation / Conservation Organization, Salt Lake City, Utah	Use of the WEPP model has not shown to have been appropriately applied to this particular sale. Use of the WEPP model is usually only appropriate when the sample size of the area in question is small. The timber sale in this case is 1,686 acres with between 500-1,500 even aged patch cuts, which means that the area analyzed under WEPP may be too large.	Soils	Assumptions and methodologies for the use of the FSWEPP model are disclosed in DEIS section 3.2.1. This section clearly states that modeling runs (i.e. samples) were made for each cutting block. None of the cutting blocks sampled exceeds 169 acres in size, which seems to qualify as "small" for the purposes of use of the FSWEPP model. Furthermore, none of the FSWEPP documentation we have reviewed indicates a limitation to usage of model for watersheds of this size.
1	6	Preservation / Conservation Organization, Salt Lake City, Utah	The WEPP model is inadequate in measuring sediment contribution from road usage, which is likely to be an issue for this sale. The Forest has not disclosed the predicted impacts that may occur from expanded and continued use of forest roads.	Soils	Limitations and user requirements for the FSWEPP model are contained in the documentation references for the model. A source for review of these topics is included in the Soils Technical Report for this project. FS WEPP was specifically developed to allow for the prediction of erosion from forest roads. The model allows the user to select for the various road surface conditions which might result from expanded and continuous use of

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					roads. A reference for this information has been added to section 3.2.1 in the FEIS.
1	10	Preservation / Conservation Organization, Salt Lake City, Utah	The figure of 13% of the activity area experiencing detrimental disturbance does not seem to account for any disturbance based on the proposed prescribed fire or the cumulative impacts of other prescribed fires.	Soils	Only severe burning of soils is considered to be a detrimental soil disturbance. Because of the controlled nature of prescriptive fire uses, severe fire burning will not occur. Therefore, prescribed fire use in the project area will have very small effects (less than 1% of any activity area), either directly or cumulatively, on the soil resource. This is disclosed in DEIS sections 3.1.4.01, 3.2.4.02, and 3.2.4.2
1	7	Preservation / Conservation Organization, Salt Lake City, Utah	Increased sedimentation will likely fill in dams at a faster rate that will cause beavers to move up and down the stream channel. DEIS, p.3-93.	Soils	The full statement contains three sentences describing a hypothetical effect that is not expected to occur: "Under these two alternatives, a potential effect on beavers would be an increase in sediment into streams. Large quantities of sediment would likely fill in dams at a faster rate causing beavers to move up or down the stream channel. The amount of sediment entering the stream is not expected to increase significantly (See Water Resources Section 3.1)". The second sentence in the effects on beavers of Alternatives 2 and 3 under FEIS 3.6.4.4 has been changed to clarify this.
1	3	Preservation / Conservation Organization, Salt Lake City, Utah	Please provide scientific validation for the proposition that RHCAs in this case will prevent harm to stream habitats so that watershed health is at least maintained.	Aquatics	Some documents that support the effectiveness of RHCAs include: Seyedbagheri (1996): Idaho Forestry best management practices: Compilation of research on their effectiveness. Environmental Protection Agency. (2005): National management measures to control nonpoint source pollution from forestry. Daniels, B, D. McAvoy, M. Kuhnz, and R. Gropp. (2004). Managing forests for water quality: streamside management zones. Utah State University Extension. NR/FF/008. Also see Response to Comment 1-4.
7	6	Individual, Las Cruces, New Mexico	Provide a thorough discussion of how this project would move the area toward the "Properly Functioning Condition".	PFC/ Vegetation	The emphasis of this project is to move forest vegetation toward properly functioning condition. FEIS Section 1.1 describes properly functioning conditions and desired

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					future vegetation conditions and FEIS Section 3.4 discusses how the proposed action and alternatives would move toward properly functioning condition. Some revisions have been made from the DEIS to clarify effects of the proposed action and alternatives.
2	3	Preservation / Conservation Organization, Hyrum, Utah	It is noted that this project will not meet PFC, that PFC is a long time endeavor, and that if approached from a timber sale perspective, it will require multiple entries and roads over a long period of time, thus enhancing the environmental impacts and disturbing ecological process that, in fact, contribute to and define PFC.	PFC/ Vegetation	Thank you for your general comment.
2	4	Preservation / Conservation Organization, Hyrum, Utah	The DEIS notes this project establishes no precedent for future timber entries and none are planned. This reveals that PFC is not the driving factor, the project is nothing but get-out-the-cut forestry.	PFC/ Vegetation	Reasonably foreseeable future timber or vegetation management activities are limited to those that have been scheduled in the outyear planning process. Future entries for vegetation management in this landscape will be needed but have not yet been scheduled.
2	5	Preservation / Conservation Organization, Hyrum, Utah	PFC is clearly a landscape/regional concept. The DEIS' attempts to get around this by noting that neither of the two timber sale alternatives reach or can reach PFC but that both alternatives move individual stands toward PFC and thus the entire area ever-so-slightly toward PFC, although it is not attainable. To argue PFC is meaningful in a regional/landscape context, recognizing this timber sale project cannot attain PFC, and then abuse the concept by analyzing PFC at a timber stand level is just plain devious.	PFC/ Vegetation	Management actions at the stand level contribute to changes over time at the landscape level. No single prescription is applicable across the diversity of forest types and conditions contained within a landscape. The cumulative effects of stand level prescriptions with different forest types and stand conditions results in effects at the landscape level. Diversity of conditions at different scales within a landscape is desirable to attain PFC at the landscape level. Prescriptions at the stand level for this analysis are tailored to provide this diversity at appropriate scales for the forest types being considered. The level of treatment that would be required to achieve PFC in this one entry would have undesirable adverse effects on the resource values inherent in the landscape (See DEIS 3.4.4).
2	6	Preservation / Conservation Organization,	Simply removing old trees from a stand of timber does not in the slightest reflect, mimic	PFC/ Vegetation	Natural disturbances such as fire, windthrow, insects, and diseases historically provided the process for

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		Hyrum, Utah	or move an area toward PFC. Timber harvesting in no way reflects the natural process inherent in a forest ecosystem as it is affected by insects, wind, fire….whatever the case may be. PFC is not going to be reached by timber harvesting.		regeneration and maintainenance of species and age class diversity of vegetation. Fire was the primary causal agent. Wildland fire use is not permitted on this landscape. Prescribed fire is proposed where it can be safely and effectively applied. Timber harvest can replace fire as a disturbance agent. The effects are not the same but they are similar in removing older forest to make room for regeneration of seral forest species in patch sizes similar to those that would have been created by fire. Mitigation measures and Forest Plan Standards and Guidelines ensure that adverse effects of timber harvesting do not preclude movement toward properly functioning conditions. A single entry will not achieve PFC but will bring the landscape closer to PFC. (See Response to Comment 2-5 and DEIS 3.4.4).
2	7	Preservation / Conservation Organization, Hyrum, Utah	The only West Bear landscape type at "high risk" according to the PFC assessment is seral aspen. Seral aspen in an ecological context is not at risk since it is seral. Allowing a forest system to function properly will move aspen, so to speak, through the system and because of its very nature seral aspen will change in place, vigor, denisties—all dependent upon climatic variations and a host of long recognized inherent stochastic events—fire, wind, insects, disease. As noted, the reason seral aspen is at "high risk" isn't a function of natural ecosystem driven actions, but Forest Service management practices including fire suppression. Continuing those practices will make PFC even more unreachable. The problem is the Forest Service has not allowed fires to burn with the forest system behavior.	PFC/ Vegetation	Thank you for your comment. See Response to Comment 2-8.
2	11	Preservation / Conservation	The DEIS doesn't acknowledge that the No	PFC/ Vegetation	Fire suppression would continue under the No Action Alternative due

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		Organization, Hyrum, Utah	Action alternative will move the landscape toward PFC at least as fast and certainly more efficiently with meaningful ecological integrity far more akin to the desired condition/goals stated in the Forest Plan.		to concerns for private property. One of the primary causal factors for creating and maintaining properly functioning conditions on this landscape historically was fire. Without disturbance processes such as timber harvest to replace fire, this landscape would not move toward a properly functioning condition. It is possible that a wildfire could escape suppression or that wildland fire use could be permitted in the future, but these events are not predictable and cannot be relied on to move the landscape toward a properly functioning condition (See DEIS 3.4.4.1).
2	12	Preservation / Conservation Organization, Hyrum, Utah	While PFC is the driving force behind the purpose and need, timber sale alternatives can't bring it to bear, and the No Action alternative prohibits it that wildland fire isn't allowed out of false-policy fiat based on fear.	PFC/ Vegetation	Thank you for your comment. See Responses to Comments 2-5, 2-6, and 2-8.
1	1	Preservation / Conservation Organization, Salt Lake City, Utah	There is no scientific evidence to substantiate the claim that logging effectively reduces current and future infestations of bark beetles.	Vegetation	Schmid and Frye (1976) developed a risk rating system for spruce bark beetles. Many of the spruce stands proposed for management are classified as high risk to spruce beetles due to average basal areas exceeding 150 ft^2 and average diameters over 16.0" dbh (DEIS Sec. 3.4.3.7). The proposed action would reduce the risk in these stands to moderate (DEIS Sec. 3.4.4.2). Some additions to the FEIS have been made to clarify this.
1	11, 12	Preservation / Conservation Organization, Salt Lake City, Utah	In the FEIS we recommend that the Forest utilize a more scientifically credible method for evaluation of old forest designation than the trees per acre (TPA) and age apparently used in this evaluation. Ronald Hamilton's *Characteristics of Old-Growth Forests in the Intermountain Region* (1993) contains recommendations for measuring standing and down dead trees. Hamilton's study noted that a minimum of trees per acre, age, and dbh need to	Vegetation	The Standard for old forest in the Wasatch-Cache Forest Plan is to maintain at least 20 percent of each forested cover type by ecological section with old forest landscape structure with patch sizes of at least 10 acres. The Forest Plan FEIS defines old conifer forest as trees greater than 150 years old. Since FIA data shows that all of the conifer types have much more than 20% old forest , there is no need to gather additional data at this time.

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			be measured to determine old growth. In this case, dbh has admittedly not been measured, which should also be done before the EIS is finalized.		
1	15	Preservation / Conservation Organization, Salt Lake City, Utah	The ambiguous term of "old forest" is undefined and does not enable objective identification of old growth.	Vegetation	Old forest is a size class based on age for modeling purposes in the Forest Plan FEIS and for conifers is defined as 150 years old (DEIS Sec. 3.4.3.4.
2	10	Preservation / Conservation Organization, Hyrum, Utah	The discontinuous nature of these forests dampens the threat of forest insects. Some stands will be affected and others won't whereas in a continuous forest, the entire structure of the forest can be impacted. Of course, in neither case is that a real problem. Beetles affecting spruce and pine along with other inherent factors will bring the forest(s) into functioning properly within a timeframe that the inherent nature of the landscape can tolerate without further exacerbating the integrity of the forest. The No Action alternative fails in its analysis to acknowledge this and consistently suggests PFC will not be met without timber sales.	Vegetation	Large patches of spruce were infested in Meadow Creek and Humpy Creek that are discontinuous from larger continuous forest to the east and south in the early 1990s. This infestation was successfully suppressed by timber harvest and a beetle trap tree program (DEIS 3.4.3.7) before it could spread into continuous stands to the east and south. Fire suppression would continue under the No Action alternative because wildland fire use is not an acceptable practice within the analysis area due to proximity of private lands. Without fire as a primary disturbance factor, it is unlikely that the landscape would move toward properly functioning condition.
2	13, 14	Preservation / Conservation Organization, Hyrum, Utah	The life of logging itself is well over a decade in time, followed by 10-30 years before various vegetation components are in place, with well over a century required for these forest patches to begin to approach the age and complexity they now show. An anthropogenic second growth "old forest" never achieves the structural and functional complexity of a "natural" old/ancient forest system.	Vegetation	Much of the complexity, inlcuding down and standing dead trees, would be maintained in the matrix between the patch cuts (about 80% of group selection treatment area). Some of the matrix would be thinned, but only where spruce exceeds 120 ft^2 basal area. The patches are small and similar to disturbances from fire, windthrow, or endemic beetle attacks. A managed forest will have different conditions than an unmanaged forest, but group selection harvesting can maintain many of the attributes of an unmanaged forest.
3	3	Individual, Evanston, Wyoming	How many years will it take before the land regenrates for plants and animals to begin habitation after you burn it down?	Vegetation	The areas proposed for prescribed burning are a mixture of aspen and conifers. The burns are expected to occur in a mosaic pattern with many of the mature aspen retained. Some

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					species of wildlife that prefer young aspen cover types may increase immediately while others may decrease for 10 to 80 years within the sites that burn. Mature aspen/conifer types surround the area proposed for burning and will continue to provide habitat for the species that prefer that type. See EIS Section 3.6.3.5.
5	3	Individual, Forest Lake, Minnesota	To protect the important wildlife corridor values, please harvest only in the suitable timber base.	Vegetation	Suitable lands are those which have a primary objective of producing wood products on a regulated basis, and volume resulting from those lands comprises the allowable sale quantity (ASQ). Volume may be produced from other MPCs that allow harvest, but that volume is not produced on a regulated basis, is in addition to the ASQ and, with the ASQ, contributes to the total sale program quantity (TSPQ). All proposed harvest units are within MPCs that allow harvest. Forest Plan modeling of timber outputs did include volume from non-suited lands, as discussed in the FEIS pages 3-332 to 3-346, Appendix B, p.B1-15, and displayed in Table B-5 on page B1-26. Wildlife corridors were identified and are being maintained in the EIS (Sec 3.6.3.7 and 3.6.4.7)
5	4	Individual, Forest Lake, Minnesota	To protect the important wildlife corridor values, please use small, uneven aged harvesting techniques.	Vegetation	Small, uneven aged harvesting techniques are planned in the spruce-fir and mixed conifer cover types (EIS Sec. 2.1). Wildlife corridors exist on all sides of the proposed prescribed fire in the aspen/conifer type where more frequent large stand replacing fires occurred historically.
7	3	Individual, Las Cruces, New Mexico	I suggest that the Forest Service confine vegetative manipulation to lands identified as suitable for timber harvest in the Forest Plan.	Vegetation	Thank you for your comment. See Response to Comment 5-3.
8	1	Individual, Salt Lake City, Utah	Confine vegetative manipulation to lands identified as suitable for timber harvest in the Forest Plan.	Vegetation	Thank you for your comment. See Response to Comment 5-3.
8	2	Individual, Salt Lake City, Utah	Harvest should be limited to one acre harvesting units.	Vegetation	Thank you for your comment. See Response to Comment 5-4.
10	2, 3,	Utah Farm	We support harvest of dead	Vegetation	Thank you for your general

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	4, 5	Bureau Federation	timber and thinning, including prescribed burning for wildfire hazard reduction and renewable wood products. Logging can be used to improve aspen stands important to watersheds and wildlife habitat. We support controlling damage from bark beetles and other pests to help assure forests remain productive and in properly functioning condition. We support management decisions that work to develop and keep healthy populations of representative timber species.		comment.
1	2	Preservation / Conservation Organization, Salt Lake City, Utah	The Forest should consider moving the area towards properly functioning condition through burning instead of commercial logging.	Fire and Fuels	Thank you for your comment. See Response to Comment 2-1.
2	8	Preservation / Conservation Organization, Hyrum, Utah	Because of the discontinuous nature of the forests and the high elevation of this area, wildland fire is manageable and, along with prescribed burning, the landscape can be allowed to function properly.	Fire and Fuels	Spot fires from the main East Fork fire lit fuels up to ½ mile ahead of the fire front and across wide wet meadows in late June. The forest cover and elevations east of Whitney Reservoir are similar to that burned in the East Fork fire. The forest cover west of Whitney Reservoir is composed of large and small patches of forest with large meadows intermingled. Fires burning in the forested portions of the Meadow Creek and Humpy Creek drainages under windy conditions could easily follow prevailing winds to the northeast in the forest patches with the same orientation and across the National Forest Boundary (EIS Map #10). It is not practical to have a wildland fire use prescription for the small remaining area to the west of Whitney Reservoir. Private property and a large number of homes are located within about the same distance to the northeast of the West Bear area as the East Fork Fire burned in the first 3 days of the fire. A new residential area is being developed directly adjacent to the northeast corner of the analysis area.
4	5	Individual,	There is no danger of wildfire	Fire and	Thank you for your comment. See

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		Hyrum, Utah	harming private property. That is an excuse to cut under-story and harvest timer. Whatever happened to prescribed burning for problem areas?	Fuels	Response to Comment 2-1.
5	2	Individual, Forest Lake, Minnesota	This landscape is more threatened by the proposed action than from any wildfire threat since the West Bear landscape is composed of discontinuous forest stands being broken by massive sagebrush/grass/form meadows and parklands with elevations of 9,000 – 10,000 feet. This is simply not high wildfire risk country.	Fire and Fuels	Thank you for your comment. See Response to Comment 2-8.
5	6	Individual, Forest Lake, Minnesota	The primary emphasis should be on utilizing prescribed and wildland fire to mimic natural ecological processes.	Fire and Fuels	Thank you for your comment. See Response to Comment 2-1.
3	1	Individual, Evanston, Wyoming	The proposed prescribed burning will not benefit the forest or its inhabitants; plant, wildlife, or people using the forest for recreation, grazing, timber, mining, or other uses. Who will benefit from this project?	Fire and Fuels / Vegetation	A forest-wide assessment concluded that aspen communities as well as conifer, sagebrush and several other vegetation types are currently outside the historic range of variation, primarily related to the absence of naturally occurring fire (See DEIS 1.1 and Photo 1.1.1). Prescribed fire mimics many of the effects of naturally occurring fires (See DEIS 1.5.1.2 and 3.4.3.2). Maintening a diverse landscape including aspen would benefit people recreating on the forest that enjoy the visual and physical diverstiy provided by aspen (See DEIS 3.7 and 3.8.4.4). Removal of merchantable timber prior to presribed burning would benefit local industry and employment (See DEIS 3.9.4). The understory plant growth that developes following prescribed burning provides forage for wildlife and domestic livestock (See DEIS 3.6.4.6). Diversity of habitat provided by aspen intermingled with conifer is important for wildlife (See DEIS 3.6.4.5). Mining opporunities are generally not affected by surface vegetation treatments.
10	7	Utah Farm Bureau Federation	We support practices that prevent giant sterile clear cuts, the loss of multiple use, the	General	Thank you for your general comment.

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			loss of quantity and quality watersheds, prevention of mudslides and erosion, and prevention of tremendous losses of timber due to fire, diseases, insects and other pests.		
10	9	Utah Farm Bureau Federation	We also want to reaffirm the longstanding support of the American Farm Bureau Federation for timber harvests in general. Quoting from our national policy book: "We support a timber sales program that does not reduce the allowable cut of timber, but continues to provide an adequate source of raw material for timber-dependent communities and industry and to support each state's timber economy. We support offering sufficent timber for sale to give the small operator (small enough to be below bonding limits) an opportunity to bid on the timber."	Financial Efficiency	The allowable sales quanitity is determined in the Forest Planning process. The West Bear Vegetation Management Project would provide timber products as described under DEIS Table 2.1.1 with sale size varying from fairly small (1140 ccf or 600 mbf) to fairly large (5580 ccf or 2800 mbf). Almost all timber sales now have bonding requirements to ensure performance of contract requirements. The only exceptions are small sales of firewood or products that have existing access and very little potential for environmental damage.
2	23	Preservation / Conservation Organization, Hyrum, Utah	Socio-economic analysis should have been done rather than just financial efficiency analysis.	Financial Efficiency	Large scale socio-economic analysis is more appropriately conducted at the forest scale. We have completed the required financial efficiency analysis for the project and presented the results in the DEIS 3.9. Assumptions and methodology of this analysis are described under DEIS 3.9.1.
10	1	Utah Farm Bureau Federation	We support sound harvesting of mature to over mature timber to provide economic benefits of wood products and employment opportunities in local communities as well as our national economy.	Financial Efficiency	Thank you for your general comment.
3	2	Individual, Evanston, Wyoming	The prescribed burning will result in reduced air quality in surrounding areas.	Air Quality	Burning would be done in compliance with State of Utah Air Quality guidelines and smoke management plans, and under conditions that would disperse smoke and minimize drift into nearby communitites. Considering the short time of bunrng, the limited area, and burning only under appropriate conditions, the effects on air quality are expected to be minimal (See DEIS

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					3.03 – Air Quality).
2	15	Preservation / Conservation Organization, Hyrum, Utah	The impacts analyses are written as if in a point-in-time. On the other hand, the harvesting, road building, and use of roads will exist for years and years of continuous points-in-time. This analysis is simply not captured in an attempt to rationalize and justify the project. There is no substance in the context of a deep spatial/temporal review.	Cumulative Effects	All temporary and intermttent service roads would be closed after harvest (See EIS 2.1). A statement on the expected length of time that individual temporary and intermittent roads would be open for harvest operations and prescribed burning has been added to the FEIS under 2.1. Effects of harvesting, road building, and use of roads will be ongoing over a period of years. However, these effects will occur at different points in time on different parts of the landscape (See DEIS Table 3.8.4). The nature of timber sale operations affected by market, weather, and individual contractor schedules precludes modeling of exactly when effects will occur. Assumptions can be made, however, that effects will occur over one or more years in any one location. Table 3.6.18 has been added to the FEIS and displays effects of log haul over time in the anlaysis area.
2	16	Preservation / Conservation Organization, Hyrum, Utah	Discussion of cumulative impacts/effects is simply, again, listed and denoted rather than actually analyzed. The temporal component is actually longer than the proejct life because the earlier activities were in place and disrupting habitat, corridors and behavior long before this project will be initiated.	Cumulative Effects	Thank you for your comment. See additional effects analysis in the FEIS Sec. 3.6.4.
2	17	Preservation / Conservation Organization, Hyrum, Utah	Cumulative effects of continuous temporal summer and winter recreation use and traffic on roads were not addressed.	Cumulative Effects	Thank you for your comment. See additional effects analysis in the FEIS Sec. 3.6.4.
5	1	Individual, Forest Lake, Minnesota	I am concerned about roads that will be in place for a decade.	Cumulative Effects	No temporary roads or intermittent service roads are likely to be open for more than three years. See Response to Comment 2-15.
4	2	Individual, Hyrum, Utah	Building more roads into the forest will merely allow for further devastating invasion by errant ATVs.	Cumulative Effects / Roads Analysis	Thank you for your comment. See Response to Comment 7-5.
10	7	Utah Farm Bureau	We support practices that prevent giant sterile clear cuts,	General	Thank you for your general comment.

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		Federation	the loss of multiple use, the loss of quantity and quality watersheds, prevention of mudslides and erosion, and prevention of tremendous losses of timber due to fire, diseases, insects and other pests.		
2	1	Preservation / Conservation Organization, Hyrum, Utah	A non-timber sale alternative focusing on prescribed fire and natural processes should have been considered.	Alternatives	Similar alternatives (See EIS Sec. 2.1.6 - Alternatives 4 and 5) were considered but eliminated from detailed study because wildland fire use is not an acceptable practice within the analysis area due to proximity of private lands. Prescribed fire is proposed under Alternative 2 where it can be used to meet objectives and is being facilitated by timber harvest to create fuels ahead of the prescribed fire (See EIS Sec. 2.1.2.1 – Aspen/Conifer treatment). Prescribed fire without timber harvest is proposed under Alternative 3 in areas where it is feasible (See EIS 2.1.3.1 – Aspen/Conifer treatment).
2	2	Preservation / Conservation Organization, Hyrum, Utah	A no roads alternative should have been considered.	Alternatives	Effects of roads are adequately disclosed by comparative analysis of Alternative 1 (No Action) and Alternative 3 (Reduced Roads). A Decision to implement an alternative with no road construction would be within the decision space of the Responsible Official.
2	9	Preservation / Conservation Organization, Hyrum, Utah	If timber harvesting is still seen as a factor, harvesting should occur as prescribed in small one acre patches utilizing no road construction.	Alternatives	Harvesting prescriptions include the following under Alternative 2 (See DEIS Table 2.1.1): • Spruce-fir type: ¼ to ½ acre patch cuts. • Mixed conifer type: ¼ to 2 acre patch cuts. Most of the patches in the mixed conifer type would be less than 1 acre because patches up to 2 acres would only be harvested where lodgepole pine dominates. Lodgepole pine are less shade tolerant than spruce and fir and require more sunlight for growth. • Aspen/Conifer type: Timber harvest followed by prescribed burning would result in mosaics of

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					aspen/conifer regeneration with irregular patch sizes usually exceeding 5 acres to mimic historical patch sizes. Several units where burning is not feasible would have mechanical treatments creating patches of 5 acres or less. Aspen are not shade tolerant. Timber harvest in the spruce-fir and mixed conifer types under alternative 3 are similar. Also see Response to Comments 2-2, 7-5 and 10-6.
4	1	Individual, Hyrum, Utah	A no action alternative should have been offered and I would have spoken in favor of that choice.	Alternatives	The No Action alternative is included and analysed. (See DEIS 2.1.1, DEIS Table 2.2.1, and DEIS Chapter 3.)
7	4	Individual, Las Cruces, New Mexico	Harvest should be limited to one acre harvesting units.	Alternatives	Thank you for your comment. See Response to Comment 2-9
7	5	Individual, Las Cruces, New Mexico	Harvest should be done only from existing roads with absolutely no new road construction. Even temporary roads often turn out to be permanent, with a lack of Forest Service follow-up and effective road closure.	Alternatives	Some temporary roads in the past have not had effective closures. However, the current policy of recontouring, placing rocks or logs, and seeding are effective methods of ensuring that roads are recognized as being closed and of preventing use (See DEIS 2.1.2, 2.1.3 and Table 2.1.7 – Recreation)
8	3	Individual, Salt Lake City, Utah	Close the project area to snowmobiling and ATV traffic during the life of the project in order to protect lynx habitat.	Alternatives	Timber harvest would not be allowed during the peak snowmobile season so there are no cumulative effects from this activity (See DEIS Table 2.1.7 – Wildlife Resources). ATV traffic on the Evanston and Mountain View Districts is limited to open designated routes only. Studies suggest that lynx can tolerate daily human use and presence in an area. (See DEIS 3.6.4.1, USDA FS 2005d and USDA FS 2005e)
8	4	Individual, Salt Lake City, Utah	Harvest only from existing roads—do not allow new temporary or intermittent road construction to protect wildlife and watersheds.	Alternatives	Thank you for your comment. See Response to Comments 2-2, 7-5 and 10-6.
10	8	Utah Farm Bureau Federation	We support the Forest Service preferred alternative that includes timber harvest and the plan to regenerate aspen on 1686 acres in the West Bear drainage.	Alternatives	Thank you for your general comment.
8	4	Individual,	Harvest only from existing	Alternatives	Thank you for your comment. See

Let-ter #	Com-ment #	Name	Summarized Comment	Category	Response to Comment
		Salt Lake City, Utah	roads—do not allow new temporary or intermittent road construction to protect wildlife and watersheds.		Response to Comments 2-2, 7-5 and 10-6.
10	8	Utah Farm Bureau Federation	We support the Forest Service preferred alternative that includes timber harvest and the plan to regenerate aspen on 1686 acres in the West Bear drainage.	Alternatives	Thank you for your general comment.

Agency Comments and Forest Service Responses

B.2 Agency Comments and Forest Service Responses

B 2.1 U.S. Department of Interior

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Denver Federal Center, Building 56, Room 1003
Post Office Box 25007 (D-108)
Denver, Colorado 80225-0007

TAKE PRIDE IN AMERICA

September 1, 2005

ER 05/646

Stephen Ryberg, District Ranger
USDA Forest Service
Attention: West Bear Vegetation Management Project
Evanston Ranger District
P.O. Box 1880
Evanston, Wyoming 82930

Dear Mr. Ryberg:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the West Bear Vegetation Management Project, Wasatch-Cache National Forest, Evanston Ranger District, Summit County, and offers the following comments.

General Comments

We appreciate the early coordination with the U.S. Fish and Wildlife Service (USFWS) relative to this project and acknowledge the efforts by the Forest Service to minimize impacts to fish and wildlife resources. USFWS personnel attended a field review of the project area with Forest Service staff on August 19, 2004.

The West Bear Vegetation Management Project maintains compliance with the Lynx Conservation Assessment and Strategy Standards (LCAS) by not changing more than 15 percent of lynx habitat within an LAU to an unsuitable condition within a 10-year period, by limiting disturbance within an LAU to less than 30 percent at any one time, and by ensuring denning habitat comprises at least 10 percent of an LAU. Management actions over the last 10 years within the West Bear Ecosystem Management analysis area (LAU 36) have resulted in a 0.8 percent reduction in suitable habitat and the area currently contains 3.8 percent unsuitable habitat and approximately 55 precent denning habitat. Alternative 2 (Proposed Action) would result in 10.7 percent unsuitable habitat and Alternative 3 (Reduced Roads) would result in 9.9 percent unsuitable habitat.

Surveys should be completed to assess the abundance of sensitive species prior to the initiation of project work, as well as the design of buffered treatment areas and post project monitoring. Survey results should be used to assist treatment designs and plan timing of harvest activities. For example, vegetation treatments should be timed to avoid nesting and breeding seasons for goshawks and other migratory birds. Vegetation treatments from early spring through late summer (April - August) would have the highest potential for deleterious effects to migratory birds;

Forest Service Response to USDI Comment Letter, Page 1

We appreciate the efforts the people at the Salt Lake Office of the U.S. Fish and Wildlife Service have made to visit our proposed projects in the field and to provide timely comments and responses.

Sensitive species surveys have been completed within the analysis area. A management requirement has been added to Table 2.1.7 requiring that additional surveys be conducted prior to activities and that mitigation, buffers and/or modificaiton of units would be implemented if these surveys detect sensitive species activity.

including physical destruction of active nests, eggs, and nestlings. Actual nesting months are species-specific and should be more clearly defined following species survey efforts, or based on known forest species distribution information.

Increased roads and logging activities will have negative impacts to the environment and wildlife. Roads increase habitat fragmentation, noise disturbance, soil compaction, and stream sedimentation, as well as create barriers to wildlife movement. The Forest Service's efforts to avoid road construction with Alternative 3 (Reduced Roads) could reduce potential effects to aquatic species in the Humpy Creek Drainage.

Noxious weeds will have greater potential to invade with increased road traffic and soil disturbance. Therefore, we support the Forest Service's use of practices to minimize the potential for introduction of nonnative species and the DEIS listed measures to avoid and/or control invasive plant species. We recommend the use of native seed for any revegetation activities.

Specific Comments

Chapter 3, Page 35, 3rd paragraph. "Native cutthroat trout have been found in Humpy Creek so although the management prescription for the Humpy Creek streamside area is 6.1 under the Forest plan, the RHCA width is 300 feet on either side of the fish bearing stream and the emphasis for management should be aquatic habitat." This sentence should be clarified in the final EIS (FEIS) as to what the management prescription under 6.1 is compared to the 300 foot proposed width and why this is significant.

Chapter 3, Page 35, Alternative 2, Discussion. An explanation is needed on the types of "best management practices" that will be used in the harvest operation. Also a clarification is needed on why there will be no effect on riparian and stream channel shading, but minor direct and indirect effects on aquatic habitat.

Chapter 3, Page 37, Section 3.3.4.3. The Bonneville cutthroat trout determination indicates that individuals may be impacted, but the project is not likely to cause a loss of viability to the forest population. We recommend this analysis address impacts to individual populations within each drainage due to the potential for unique characteristics within specific populations.

Chapter 3, Page 38, Section 3.3.4.5. Clarification is needed on what mitigation measures are being referred to for the Management Indicator Species.

Chapter 3, Page 56, Section 3.4.4.5 The DEIS concludes that habitat for the Bald Eagle and Canada Lynx is available within the West Bear Ecosystem Management analysis area. Therefore the following sentence is incorrect, "Alternatives 2 and 3 would have no effects on threatened and endangered species because no known populations exist within the analysis area."

Chapter 3, Page 66. The DEIS concludes that habitat for the Bald Eagle and Canada Lynx is available within the West Bear Ecosystem Management analysis area. Therefore, the FEIS should provide effect determinations and rationale similar to that provided for other species on Page 69.

Chapter 3, Page 66, Table 3.6.1. There are now 8 (not 5) known bald eagle nest locations in Utah. The first sentence on Page 67 should also be corrected.

Forest Service Response to USDI Comment Letter, Page 2

All of the new roads proposed under Alternatives 2 and 3 will be open to vehicular use only during the timber harvest operations. Temporary and intermittent service roads will be closed to all vehicular traffic use (public and administrative) within a short period of time, reducing the affects of these roads. Statements clarifying this have been added to FEIS Sec. 2.1.2.2 and 2.1.3.2. The west half of the West Bear drainage area is naturally fragmented with patches of Spruce/fir, aspen and islands of sagebrush across the landscape. Short-term displacement of wildlife is expected from the activities. Larger patches of continuous vegetation have been maintained to provide corridor travel east of Whitney Reservoir. Descriptions of these corridors have been added to FEIS Sections 3.6.4.02 and 3.6.4.7.

Wasatch-Cache Native Grass Seed Mixes would be used in all areas except where it has been determined there is a high possibility that weeds may be more competitive. Other Wasatch-Cache Grass Seed mixes may be used in these locations. (DEIS Table 2.1.7 under Vegetation)

Forest Service Response to Specific Comments

The management emphasis for Management Prescription Categories (MPC) 3.1A, Aquatic Habitat, and 6.1, Non-Forest Ecosystem Integrity are described under DEIS Sec. 1.5.1.5. The northwest side of the Whitney area was assigned an MPC of 6.1 rather than 5.1 because of the high percentage of the area that is in non-forest. However, there are substantial forested areas intermingled within the area. The 5.1 and 6.1 emphasis is essentially identical, but 5.1 is assigned to predominantly forested land while 6.1 is assigned to areas with substantial amounts of non-forest land. MPC 3.1a was assinged to all streams containing native cutthroat trout and spotted frogs under the Forest Plan Revision and automatically requires a RHCA minimum width of 300 feet. Since native Bonneville cutthroat trout have been identified in Humpy Creek, the sale design requirements along Humpy Creek are the same as those for MPC 3.1a, even though it is mapped as MPC 6.1. Text in FEIS Sec. 3.3.4.1 has been revised to clarify this.

Types of “best management practices (BMPs)” to be emphasized are described at various locations throughout the DEIS, including DEIS Table 2.1.7, Table 2.1.8, DEIS Sec. 3.1.4.02, 3.1.4.2, and 3.3.4.1. The W-C Revised Forest Plan utilized the State of Utah non-point source management plan. This document is 129 pages of fairly detailed descriptions of BMPs. It is no longer available online, but a replacement document titled Utah’s Forest Water Quality Guidelines: A Technical Manual for Landowners, Loggers & Resource Managers is available online at: http://extension.usu.edu/forestry/Management/UtFWQGuide/Assets/PDFDocs/UFWQGtech.pdf. See also reponse to comments 1-3 and 1-4. The management requirements and mitigating measures in Tables 2.1.7 and 2.1.8 incorporate the applciable BMPs and are at least as stringent as Utah State and are frequently more so such as in protection and width of RHCAs vs State Streamside Management Zones. The minor direct and indirect impacts will come as culverts are installed and removed that will cross over some of the side tributaries.

Units in the Humpy Creek Drainage were determined to have the greatest potential for adverse effects to the aquatic species and those were determined to be minor (DEIS Sec 3.3.4.1). Clarifications were made in the FEIS in this section. Site specific review, analysis, and adoption of mitigating measures to protect other streams and their aquatic populations were performed (FEIS Tables 2.1.7. and 2.1.8) so there is no need to have separate determinations of tributaries to the West Fork of the Bear River.

A citation of EIS Mitigation Tables 2.1.7 and 2.1.8 have been added to FEIS Sec. 3.3.4.5.

Chapter 3, page 56 refers to the Threatened, Endangered and Sensitive Plant species. The word "Plant" has been inserted into the title (3.4.4.5) to clarify to which affected enviroment the analysis refers.

Effects detemrinations have been added to FEIS Section 3.6.4.1. FEIS Table 3.6.1 has been updated and the information added to the analysis in the FEIS.

Chapter 3, Page 82, Alternative 2 (Proposed Action) and Alternative 3 (Reduced Roads).This section states, "potential nesting and roosting trees will be removed and the proposed project could displace bald eagles," however it then concludes that, "there are no effects to bald eagles." Removal of nesting and roosting trees and displacing bald eagles could impact the species. Further analysis and explanation are needed in the FEIS.

Chapter 3, Page 90, Northern Goshawk. A plan for snag and green tree retention and specific buffers and project clearance surveys is lacking in the document. Partners in Flight recommends that snags should be retained in clumps, rather than as individual trees. The Utah Northern Goshawk Project recommends retaining a minimum of 200-300 snags per 100 acres, depending on vegetation type.

Chapter 3, Page 96, Grazing Section The DEIS states that "some browsing of aspen regeneration would occur within the treatment areas that could affect riparian corridor diversity and continuity." There is one monitoring study established within the analysis area to determine greenline seral status. We recommend establishing additional study areas and control sites in order to assess impacts of the vegetation management project. This will allow the Forest Service to modify their practices based on the reaction of the plant community and soils on the treated site relative to the reference or control site. We further recommend that detailed baseline conditions be documented before treatment (multiple years is preferred) in both the treatment area and the control area in order to compare pre- and post-treatment condition. If post-treatment monitoring indicates that impacts from grazing prevent aspen regeneration, the grazing regime should be adjusted.

Chapter 3, Page 108, Section 3.3.3. We could not find any discussion on how Off-Highway Vehicle trails and roads would be managed in a treatment area (nonmotorized trails as well). Much of this infrastructure currently poses erosion and weed challenges. The use of trails and roads inside of a burn/treated area would further increase the likelihood of weed introduction/spread and accelerate soil erosion. We recommend that roads and trails be closed in and around a treatment area until success criteria for the treatment are established and met (similar to our recommendation for livestock grazing).

Appendix A, Maps. Color map copies would be easier to interpret.

We appreciate the opportunity to provide these comments. If you need further assistance, please contact Kate Schwager, Fish and Wildlife Biologist, USFWS Utah Field Office at (801) 975-3330, extension 132.

Sincerely,

Robert F. Stewart

Robert F. Stewart
Regional Environmental Officer

Forest Service Response to USDI Comment Letter, Page 3

Text in FEIS Sec. 3.6.4.1 has been changed to clarify that any effects on bald eagles would be insignificant.

DEIS Table 1.5.2 displays minimum snags and down woody material retention under Revised Forest Plan Guideline G16. DEIS Table 2.1.7 includes a rrequirement where applicable under Wildlife Management Direction and Mitigation to retain snags and down woody material listed in the Revised Forest Plan. All conifer types have a minimum retention of 30 trees per 10 acres (equal to 300 trees per 100 acres) with varying minimum diameters depending on species. The aspen stands scheduled for prescribed burning probably do not currently contain 200 snags per 10 acres but will following the prescribed burn.

The W-C Forest must prioritize monitoring based on budget and need considerations. There are a number of study sites spread across the north slope of the Uintas that include monitoring for aspen regeneration, greenline transects, and upland range conditions. FEIS Sec.s 3.6.4.1 and 3.6.4.7 have been updated with recent studies and clarification of results of studies. Additional greenline transects and photo points were established in Meadow Creek and theWest Fork Bear drainage in 2005 and 2006. These 5 studies are representative of the majority of the stream banks within the analysis area (Zobell 2005a) and with 92 to 99 % late seral species, more than meet the Forest Plan Guideline of 70% late seral species. The District Rangeland Management Specialist monitors grazing activity as time permits during the grazing season and adjusts grazing regimes as needed. The grazing report for the West Bear Analysis Area includes a detailed description of why the Rangeland Management Specialist believes aspen regeneration concurrent with grazing has not been a problem on the north slope of the Uinta Mountains. These include instructions to permittees, deferred rotation systems (no season-long grazing in any one area), and no spring grazing before green-up or late fall grazing.

Off road vehicle travel is allowed only on designated open routes under the Mountain View and Evanston Districts Travel Plan. There are no designated motorized trails near proposed treatment units in the West Bear analysis area. All of the roads that are open to passenger vehicles, except for the first two miles of the main Whitney Road, are open to ATV's. Many of the treatment areas in the Humpy Creek, Meadow Creek, and Reservoir East areas are behind closed gates that will remain closed to public use during the harvest operations. There are some mapping errors on DEIS Maps 2, 3, 14 and 15. The gate symbol was not included in the map legend for Maps 2 and 3. Roads behind these gates have yearlong public use closures. Maps 14 and 15 show all roads as open roads in the map legend. These mapping errors have been corrected in the FEIS. Many of these roads are behind gates and are closed to public use. The legends on these maps have been corrected in the FEIS. Open roads adjacent to the remaining treatment areas are primary recreation access routes that need to be kept open for recreational use. All of the proposed intermittent service roads and many of the proposed temporary roads are tributary to roads that are behind closed gates and will not be open to public use. Temporary roads that are not needed for prescribed burning would be obliterated immediately following log haul. Temporary roads that are needed for prescribed burning would be closed immediately following the prescribed fire. Additional text has been added to FEIS Sec.s 2.1.2.2 and 2.1.3.2 to clarify this.

We agree that color coded maps would be better. We have used cross hatching because color copies of 11x17 maps cost $2.00 per copy. We are considering the use of color coding at least on the electronic copies for our next EIS. We have improved the clarity on the existing maps.

We appreciate the opportunity to improve analysis and clarify the documentation in the FEIS that your comments have provided.

B.2.1 U.S. Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET- SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
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Ref: EPR-N

Larry Johnson
Environmental Planner
Wasatch-Cache National Forest
P.O. Box 1880
Evanston, WY 82931

Re: West Bear Vegetation Management - Draft EIS

Dear Mr. Johnson:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the *West Bear Vegetation Management Draft Environmental Impact Statement* (DEIS) in the Wasatch-Cache National Forest. With this project the US Forest Service (USFS) proposes to utilize timber harvest (*i.e.* group selection cuts, patch cuts and removal of encroaching conifer) and use prescribed burns to move stands toward desired future conditions. The project includes the construction of up to 7.8 miles of temporary road (obliterated and re-contoured post-project), 0.9 miles of intermittent system road. The project will relocate up to 0.6 miles of existing road to mitigate existing sediment issues in the project area. Thank you for discussing the project and EPA's concerns with Phil Strobel, our lead reviewer for this project, and thank you for considering our delayed written comments.

Our review found the EIS focuses on relevant quantitative information and comparative analyses that, for the most part, produce a clear picture of the project and its likely impacts. For example, we found Section 1.5 "Relationship to the Revised Forest Plan" to be particularly helpful to understanding this project. In the EISs we review, this section is often not included or it lacks sufficient detail. In this case, many questions we typically have with vegetation management projects were addressed by this section. Most public and agency reviewers do not have a copy of the Forest Plan at their side when reviewing a site-specific project. By including the applicable goals, objectives, standards, guidelines and desired future conditions, this EIS provides a reader with a clear understanding of the project rationale and how it fits with the Forest Plan. Also, by providing a thorough description of the management prescriptions and management area setting, the reader can better understand the context in which the project is proposed. We hope this section can be an example for future EISs to follow.

Forest Service Response to EPA Comment Letter, Page 1

Thank you for your comments.

Our review found the document contains quantitative data for most resources and is generally well sourced to scientific literature. The EIS is clearly written, well organized and informative. As an example, the water resource analysis includes a detailed description of the water resources in the analysis area, the hydrologic character of the watersheds, the status of riparian vegetation, and a detailed listing of the treatment units and their relationship to aquatic resources. The EIS also describes wetland features and flood plains in the area. One area in the water resource section could use some additional information. The EIS indicates that recent surveys of the streams are meeting all designated beneficial uses. We recommend the FEIS also include a summary and trend assessment of the water quality, sediment load, and spawning gravel condition in the streams.

Management Actions and Mitigation

The DEIS indicates that the project area has "some habitat impacts from historic timber harvest and grazing" (p. 3-33). We see this project as a providing potential mitigation opportunities for these past impacts. We encourage the USFS to pursue available opportunities to correct or improve habitat conditions through this project. The DEIS cites a number of potential opportunities to mitigate some impacts from this project by repairing damages from past projects. As examples, Alternative 2 relocates three sections of problem road and installs fish-passable culverts (3-35). Alternative 3 eliminates the ford on Meadow Creek. We encourage the USFS to implement all of these mitigation measures regardless of which alternative is selected.

It was not clear in the DEIS whether any road construction or other soil disturbance is expected in steep, erosive and unstable slopes and in riparian areas, wetlands, floodplains, wet meadows. We recommend a sentence be added to the Final EIS indicating whether the project complies with Forest Soils Guideline G9.

Under Alternative 2, the north part of Unit 11 has "seeps that surface creating moist soil conditions." This area is not treated in Alternative 3. EPA recommends the Decision for this project either not include this area, or develop mitigation specific to the area to protect the function of the seeps and protect the wet soils against compaction.

Under the pending Decision for this project, we recommend the 0.6 miles of road relocation occur regardless of which alternative is selected. The DEIS documents the existence of sediment problems with these road segments, and given the expected additional soil impacts and sediment load from project activities and significance of the resource (including native Bonneville cutthroat trout), these problems should be corrected under all alternatives.

Spruce/Fir

While we found the linkage to the forest plan and to the project purpose and need to be fairly clear in most vegetation types, our review raises several questions regarding the proposed treatment in spruce/fir. We raise these questions to assure that the soil, wildlife and water quality impacts associated with treatment are warranted, supported by policy and the Forest Plan, and justified in the Final EIS.

Forest Service Response to EPA Comment Letter, Page 2

A summary and trend assessment of water quality and sediment load has been included in FEIS Sec. 3.1.3.2. No data is known to have been collected on spawning gravel condition in this analysis area.

Two of the three road segments to be relocated under Alternative 2 would not be used for timber access under Alternative 3, so they cannot be relocated under the timber sale contract. However, the Decision could include all of the 0.6 miles of road relocation, regardless of the alternative selected. Alternative sources of funding for this work could be sought if the alternative selected does not provide funding.

We agree with your comment that Forest Plan Guideline 9 was not specifically discussed in the DEIS, and have added text to FEIS Sec. 3.2.4.1 to clarify this.

Direction to maintain a 50 foot buffer around wet seeps in the north end of unit 11 has been added to FEIS Sec. 2.1.5 (Site Specific Management Direction).

Although no funding for this work is currently available under alternatives 1 or 3, the Decision could include the entire 0.6 miles of road relocation, regardless of the alternative selected.

The stated need for this proposal is based in part on a forest-wide assessment that concluded that conifer communities (and other vegetation communities) are "currently outside the historic range of variation, primarily related to the absence of naturally occurring fire" (p. 1-1). We note that approximately 35% of the proposed harvest area in the project is in spruce-fir (Alt. 2 p. 2-5). While we understand that on a watershed level, vegetation may be outside of historic conditions, we found no supporting information in the DEIS that the spruce-fir component specifically is currently outside the historic average fire return interval or other issues related to historic range of variability. Additionally, the EIS states, "None of the harvest units proposed under this (preferred) alternative have been previously harvested" (p.3-22). The FEIS should specify whether the spruce-fir component with this vegetation type (SPFI1) is outside the historic range of variability for average fire return interval, stand structure or for other disturbance intervals.

The DEIS does make a supported case that there could be a lack of small openings in the spruce fir community in the project area due to fire suppression.

While the Purpose and Need (Sec. 1.1) does not specifically state that reducing beetle risk is one of the needs in this area, the Desired Vegetation Conditions analysis (p. 1-20) indicates that beetle risk reduction is the "objective" of the spruce-fir harvest. Further, the Desired Vegetation Conditions analysis indicates the statement, "harvest is spruce/fir stands would simulate natural disturbance, with the objective being to reduce insect hazard." The FEIS should include a discussion on why a treatment designed to simulate natural disturbance is needed in order to reduce the potential for a natural disturbance. An actual natural disturbance could also meet some of the project objectives including increased age diversity, reducing the old forest component, and reducing stand densities. It is therefore not clear in the DEIS that some of the proposed spruce/fir treatments meet the purpose and need for action. This should be clarified in the Final EIS.

It is not clear in the EIS why there is a need to correct cases where fir is increasing at the expense of spruce (p. 1-20). We understand that spruce has a higher timber value, but it does not appear that the management areas in this project are part of the core timber production areas on the Forest. If there is an ecological reason for inhibiting the succession of spruce to fir, it would be helpful to include a description in the FEIS. The DEIS (p. 3-41) indicates that only 2 of 13 stands of spruce fir are not meeting the Forest Plan guidance on properly functioning condition in the overstory (PFC is >40% spruce). Only when the understory trees and seedlings are included can the PFC be described as a concern. Based on our understanding of spruce/fir succession, it seems likely that the natural condition of a mature-age spruce/fir stand would predominantly have fir in the understory. The future condition of these stands would depend on what specific disturbance happens next. If we understand the science correctly, it is not necessarily the case that these stands will all progress to fir domination. In any case, without a spruce beetle epidemic the succession to fir to the point where PFC is no longer met would seem likely to take decades. While we understand the justification for creating small openings in these stands to simulate small, lightning strike-induced fires, we do not fully understand the rationale for the other treatments in this forest type or whether the adverse impacts from thinning treatments are supported by the benefits of vegetation management.

Forest Service Response to EPA Comment Letter, Page 3

A statement has been added to FEIS Sec.1.1: "Spruce fir stands are probably not outside the range of variation since they have an extended fire return interval that is longer than the fire interval for other conifer types. However, it is less certain that spruce-fir at the landscape level has a distribution of age classes that is representative of historical ranges." Text has been added in FEIS Sec. 3.4.3.1 to better describe the stand level versus landscape level of departure from properly functioning condition.

Along with moving the forested portions of this landscape toward properly function condition, part of the Purpose and Need (DEIS Sec.1.1) is the production of commodities such as wood products. Forest Wide Desired Future Condtions (DEIS Sec.1.5.1.1) include contributing to community resiliency by providing sustainable and predictable levels of forest products including sawlogs. Where natural disturbances are either absent (due to fire suppression or other necessary management) or undesirable (large wildfires that may threaten private property or large scale beetle epidemics in areas with human uses dependent on healthy forest), management that moves the forest toward desired future vegetation conditions and produces commodities at a sustainable level using silvicultural management is responsive to Forest Plan direction. Small scale natural disturbances (windthrow pockets and endemic beetle pockets are acceptable and potentially desirable in spruce-fir. However, as large areas become susceptible to spruce beetles, windthrow and endemic beetle populations can lead to epidemic beetle outbreaks. In one 20,000 acre area on the Manti-La Sal National Forest, 73 percent of the spurce over 5 inches in diamter were killed in an epidemic (DEIS Sec. 3.4.3.7). This is not desirable in the short term in an area being managed for multiple uses. The proposed action for this project would not eliminate spruce beetle infestations. It would be the first group selection entry in a series of entries over a long period of time (150 years or more). As more entries are made the risk of a beetle epidemic removing a majority of the spruce will be reduced. Text has been added for spruce/fir under FEIS Sections 1.1 and 3.4.4.2 to clarify this relationship.

Text in the FEIS Sec. 3.4 has been revised to better reflect the various opinions and research on succession in spruce-fir stands.

The description of Alt. 2 indicates that 478 acres of the spruce/fir treatments (603 gross acres) would thin dense groups of mature spruce. The environmental consequences discussion on movement toward properly functioning condition (p. 3-53) does not indicate how this treatment would affect the Forest composition objective of moving stands toward increased spruce dominance related to the PFC of stands having less than 40% spruce (p. 1-19).

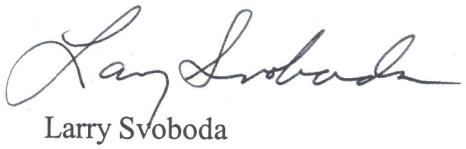
The DEIS (pp. 1-20 and 1-21) states that with this project, "spruce beetle [and mountain pine beetle] occurrence would be limited to endemic activity in the future forest." We are not aware of any science that supports this conclusion for the proposed management actions in this project. We recommend revising these statements to indicate limiting spruce beetles to endemic status is a project goal or vision, rather than an achievable result of this management activity.

EPA Rating

Based on the potential for impacts to aquatic and terrestrial resources, and on the need for additional information or mitigation to assess whether this project will adequately protect those resources, EPA has issued a rating of **EC-2 (Environmental Concerns - Insufficient Information)**. The "EC" rating indicates that the EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative, or application of mitigation measures or actions that can reduce these impacts. The "2" indicates that EPA has identified additional information, data, analyses or discussion should be included in the Final EIS. A full description of EPA's EIS rating system is enclosed.

We appreciate the opportunity to participate in this project and we will contact you to discuss these comments further. We find this to be largely a sound project. If our comments are well-addressed in the FEIS, or the project is modified regarding thinning in spruce/fir, and if mitigation is fully implemented we are confident the final decision can satisfy our concerns. If you have any questions or would like to discuss our comments, please contact me (303-312-6004) or Phil Strobel (303-312-6704) of my staff.

Sincerely,



Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection
and Remediation

Enclosure

Forest Service Response to EPA Comment Letter, Page 3

Spruce trees within dense groups of mature spruce-fir are the most susceptible to bark beetles. Thinning of these groups is not intended to increase percentage of spruce in the stand. The thinning will retain the trees with the best health and vigor (other than trees that have wildlife cavities). However, where there are mixed subalpine fir and spruce, the thinning will be biased to cutting subalpine fir and retaining spruce given equal health and vigor. In patches that contain less than 40% spruce by basal area, it is unlikely that many, if any spruce would be removed. Any thinning in these patches would remove only subalpine fir or occassionally individual spruce in dense clumps of spruce. The thinning is intended to reduce the likelihood of those remaining spruce being lost to a bark beetle infestation and to allow time for regeneration and growth of spruce seedlings in openings created in this and subsequent group selection harvests. See DEIS Sec 3.4.4.2. Planting of spruce in the openings created by the proposed action will increase the percentage composition of spruce in various age classes overall. The text under 2.1.2.1 and 2.1.3.1 and under 3.4.4.1 has been revised in the FEIS.

The referenced statements (pp. 1-20 and 1-21) are under the heading of "Desired Future Condition". We acknowledge that a bark beetle infestation could still occur following this proposed action (DEIS Section 3.4.4.1, Alternatives 2 and 3, but science supports reduction in bark beetle infestations following treatments that reduce stand density and increase age and size class diversity. The proposed action begins both of those in this landscape. Future treatments are anticipated to be needed to reach the desired future condition of limiting bark beetle infestations to an endemic level. Full implementation of an uneven-aged silvicultural system using group selection management takes a number of treatments over time (Possibly 4 or 5 entries over 150 years). The text cited has been revised to more accurately portray this.

We appreciate your thorough review of the DEIS and the thoughtful comments that have helped us to improve the analysis and clarify the documentation in the FEIS.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.