

TERROR CREEK APPLIED SILVICULTURAL ASSESSMENT: RESPONSE TO COMMENTS ON THE PROPOSED ACTION

INTRODUCTION AND SUMMARY

The proposed Terror Creek Applied Silvicultural Assessment was provided to the public and other agencies for comment from February 5, 2008 through March 7, 2008. As part of the public involvement process, the agency published a Legal Notice “Scoping/Opportunity to Comment” in the Delta County Independent on February 6, 2008.

A total of four comment letters were received during the public comment period. Table 1 lists each respondent, the organization or organizations that he or she represents, and the identification number that was assigned to each letter for tracking. This document responds to the comments received.

Table 1. Agencies, Individuals, and Organizations Providing Comments on the Environmental Assessment for the Terror Creek Applied Silvicultural Assessment

Respondent	Organization (if applicable)	Letter Number
Ryan Bidwell	Colorado Wild	1
Eric Sorenson	Delta Timber Company	2
Robert Peters/Andrea Robinsong	Western Slope Environmental Resource Council/Western Colorado Congress	3
John Mathewson	Terror Creek and Reservoir Company	4

COMMENTS AND RESPONSES

Each comment received has been reviewed and analyzed. Summaries of similar comments have been compiled and are presented under each of the headings below. Comments are identified with a letter identification number and comment number. For example 1-1 is comment letter number one and comment number one. A response is provided after each comment summary. The full text of comments are located in the project record.

Purpose and Need

1. Comments (1-1, 1-2, 2-6, 3-1, 4-2): We are in agreement with the purpose and need for this proposal and support the research approach to addressing SAD.

Response: The Responsible Official will consider these opinions of the purpose and need when reaching a final decision.

Alternatives

1. Comment (1-3): The Forest should experiment with fire as a management tool (alternative) to maintain aspen on the landscape. Prescribed fire would be an economically and environmentally preferred alternative.

Response: Using prescribed fire would not meet the purpose and need of this project which is to conduct an applied silvicultural assessment to determine aspen sprouting response and survival following clearcut harvesting of aspen stands with varying levels of crown dieback and mortality attributed to SAD. The intent of the study is not to compare sprouting responses between silvicultural management tools like clearcut harvesting versus prescribed fire. The harvest technique of clearcutting is being used as the management tool to stimulate aspen sprouting because it is operationally feasible and past experience and literature indicates that relatively healthy aspen stands will profusely sprout following harvest. The problem being analyzed in the study is how unhealthy aspen stands affected with SAD will regenerate following clearcut harvesting.

The Forest agrees that the use of prescribed fire to regenerate declining aspen stands should be explored but under a separate project which looks at the operational feasibility of this management tool. Some of the operational limits with using prescribed fire are related to the understory fuels complex and local weather conditions. For example, the understory vegetation (grasses, shrubs, forbs) stays green throughout the Forest's spring and early summer burning windows; during the summer, aspen sites receive a significant amount of rain from monsoon weather patterns which rejuvenates the understory vegetation; and, in late fall, when understory vegetation finally cures out, many sites begin to receive moisture in the form of snow.

Roadless Rule

1. Comment (1-4): The proposed logging is inconsistent with the purpose for which the timber cutting exceptions to the 2001 Roadless Area Conservation Rule (RACR) were developed.

“Such management activities are expected to be rare and to focus on small diameter trees. Thinning of small diameter trees, for example, that became established as the result of missed fire return intervals due to fire suppression and the condition of which greatly increases the likelihood of uncharacteristic wildfire effects would be permissible. . . .the intent of the rule is to limit the cutting, sale, or removal of timber to those areas that have become overgrown with small diameter trees.”

The proposed harvest is inconsistent with the cutting exceptions included in the RACR at 36 CFR 294.13(b). This is because:

- i. The proposed cutting is not of small diameter trees nor is it proposed for wildlife habitat improvement or to restore ecosystems to conditions expected under natural disturbance regimes;

- ii. The proposed cutting is not incidental to another action that is not prohibited by the RACR; and
- iii. The proposed cutting is not for personal or administrative use.

The GMUG can only authorize cutting within the Priest Mountain IRA to the extent that it is consistent with exception at 36 CFR 294.13(b)(4):

- iv. Roadless characteristics have been substantially altered in a portion of an inventoried roadless area due to the construction of a classified road and subsequent timber harvest. Both the road construction and subsequent timber harvest must have occurred after the area was designated an inventoried roadless area and prior to January 12, 2001. Timber may be cut, sold or removed only in the substantially altered portion of the inventoried roadless area.

Response: Timber harvesting in an IRA is required to meet the circumstances described under 36 CFR 294 paragraph 13(b) and only one of the circumstances described in paragraphs 36 CFR 294 13(b)(1) through (b)(4) rather than all four of the circumstances.

The proposed project is consistent with the 2001 RACR because the cutting and removal of designated timber is expected to be infrequent (36 CFR 294 13(b)) and the cutting and removal of timber will only occur in the substantially altered portion of the Priest Mountain IRA (36 CFR 294 13(b)(4)).

- 2. Comment (1-5): It is our position that the unharvested areas of the Priest Mountain IRA, particularly those that abut the current Roadless area identified in the GMUG's 2005 inventory, are likely to continue to possess at least some roadless characteristics. These include but are not limited to the following characteristics identified at 36 CFR 294.11:
 - i. High quality or undisturbed soil, water, and air;
 - ii. Sources of public drinking water;
 - iii. Diversity of plant and animal communities;
 - iv. Habitat for threatened, endangered, proposed, candidate and sensitive species and for those species dependent on large, relatively undisturbed areas of land;
 - v. Primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation;
 - vi. Reference landscapes;
 - vii. Naturally appearing landscapes with high scenic quality;
 - viii. Traditional cultural properties and sacred sites;
 - ix. Other locally identified unique characteristics.

It does not appear that the GMUG has completed an analysis or issued a decision with respect to the area's roadless characteristics. Thus, in the absence of a previous GMUG decision that determined the areas in question to be lacking roadless characteristics, we believe that such a decision would have to be made prior to approval of the proposed project.

Response: The RACR, 36 CFR 294.14(c) specifies that this subpart (the Rule) does not revoke, suspend or modify any project or activity decision made prior to January 12, 2001. Prior to the 2001 RACR, the GMUG issued two NEPA decisions where it was determined that the Terror Creek (also referred to as Cunningham Creek) area of the Priest Mountain IRA had been substantially modified. These decisions are the 1991 Terror Creek Second Decade Vegetation Treatment Decision Notice and Finding of No Significant Impact and the 1993 Oil and Gas Leasing Final Environmental Impact Statement Record of Decision.

In addition to these two decisions, the GMUG has recently analyzed its inventory of roadless/undeveloped lands as a part of the Forest Plan Revision. This roadless analysis indicates that 14,193 acres within the Priest Mountain IRA have been altered from road construction, timber harvest, water developments and water transmission lines. This altered area primarily lies within the Terror Creek project area.

An additional roadless analysis was completed for the Terror Creek applied silvicultural assessment area that compared the roadless characteristics listed in 36 CFR 294.11 to the existing resource conditions in the project area (appendix A). This analysis is consistent with the forest-wide roadless analysis and confirms the previous decisions that determined that Terror Creek area has been substantially modified.

3. Comment (1-6): The RACR identified that any timber harvest in Inventoried Roadless Areas that was allowed pursuant to the exception in CFR 294.13 would be infrequent in nature. The GMUG appears to have been conducting harvesting in the Priest Mountain IRA within each of the last three decades (80s, 90s, 00s). This frequency of harvest is frequent by any definition of the term. Additional harvest in the Priest Mountain IRA can not be termed "infrequent".

Response: Since the 1979 inventory of roadless lands, 537,478 acres of the Forest's 1,530,700 acres of inventoried roadless areas have been designated as Wilderness or received special management designations. The remaining lands were reviewed during the development of the 1983 GMUG Forest Plan, amended in 1991. Lands not recommended for Wilderness were made available for multiple uses such as (but not limited to) grazing, timber harvest, oil and gas exploration and motorized recreation.

Prior to 2001, timber management activities in the Terror Creek portion of the Priest Mountain IRA have been frequent as provided for under the Forest Plan. In the 1980's aspen harvesting was fairly limited (392 acres) to commercial firewood, personal-use firewood and cultural treatments. In the

1990's, the Terror Creek Second Decade Vegetation Treatment Decision Notice approved the harvest of 1,268 acres and 18.4 miles of road construction. (Approximately 629 acres and 10.8 miles of road construction were within the IRA.) In January of 2001, the RACR established a nationwide prohibition, with exceptions, of timber harvesting and road construction in inventoried roadless areas. The Forest is in compliance with the RACR and has no plans to conduct scheduled, frequent timber management activities in any inventoried roadless area, including Terror Creek. The applied silvicultural assessment is a one time project to assess aspen sprouting response and survival following clearcut harvesting of aspen stands with varying levels of crown dieback and mortality attributed to SAD. The reason the Terror Creek area was selected for the study is explained below in Comment 6.

4. Comment (1-8): Road reconstruction is prohibited by RACR (36 CFR 294.12(a), with exceptions, none of which apply to the Terror Creek Project. The GMUG should disclose whether the proposed action would require road reconstruction.

Response: No roads will be constructed or reconstructed in the Priest Mountain IRA to access treatment units. The requirements of 36 CFR 294.12(a) are met.

5. Comment (3-2): We generally oppose timber cutting or other development in roadless areas. However, we believe that the urgent need for SAD research justifies this one-time project in an area already substantially disturbed by past timber sales.

Response: As previously mentioned, timber cutting and development is restricted in inventoried roadless areas including in areas substantially altered like Terror Creek. The applied silvicultural assessment is the only project planned for the area and is expressly designed to conduct research on the impacts of SAD on aspen regeneration.

6. Comment (3-3): We believe the Terror Creek area is a good experimental location because it contains an expanse of aspen stands with SAD large enough to contain the needed experimental plots. Although we prefer that the plots were outside Priest Mountain IRA, the maps provided with the Notice show that, in order to coincide with SAD locations, many plots must be located within the roadless area.

Response: Insect and Disease aerial survey data indicates that SAD is affecting vast areas of aspen located across the Forest. The reason the Terror Creek area was selected for the applied silvicultural assessment was:

- i. The presence of large continuous areas affected by SAD
- ii. The presence of aspen stands with varying levels of SAD impacts
- iii. The presence of an existing transportation system to facilitate an economical harvest; and,

- iv. A 20 year history of successful aspen management indicating that in the past aspen stands and site conditions were fully capable of regenerating new aspen stands following clearcut harvesting.

NEPA

1. Comment (1-7): We disagree with the GMUG's assertion that a Categorical Exclusion can be used to approve this proposed action because of the presence extraordinary circumstances such as federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species. The presence of extraordinary circumstances, combined with the likely cause-effect relationships requires the Forest Service to prepare an environmental assessment (EA).

Response: FSH 1909.15_30.3.2 provides direction in determining whether extraordinary circumstances related to the proposed Terror Creek applied silvicultural assessment warrants further analysis and documentation in an EA. The mere presence of one or more of specified resource conditions, like threatened or endangered species or habitat, does not preclude use of a categorical exclusion. It is (1) the existence of a cause-effect relationship between a proposed action and the potential effect on these resource conditions and (2) if such a relationship exists, the degree of the potential effects of a proposed action on these resource conditions that determines whether extraordinary circumstances exist.

The Biological Assessment and Biological Evaluations analyze the potential effects of the proposed action on threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species. In many circumstances a cause-effect relationship exists but the biologists have determined that the degree of the potential effects are minor (implementation of the project "may affect, but is not likely to adversely affect" the Canada lynx and "may impact individuals or habitat, but will not likely contribute to a trend towards federal listing" for pygmy shrew, American marten, Northern goshawk, flammulated owl, olive-sided flycatcher, purple martin, boreal toad, Northern leopard frog, and Colorado River cutthroat trout). Based on the wildlife analysis, and other resource analyses like inventoried roadless areas and cultural resources, the Responsible Official has determined that extraordinary circumstances do not exist and a CE is appropriate level of NEPA documentation.

Soil Compaction and Surface Disturbance

1. Comment (1-9): The GMUG should conduct soil compaction surveys to determine whether the sum of all detrimentally compacted soils exceed Forest Plan and Watershed Conservation Practices Handbook standards. The GMUG should also assess whether and to what degree the proposed action will result in further soil compaction in excess of these standards. Similarly, the GMUG

should assess the degree to which past and proposed logging is in compliance with Forest Plan and WCPH standards for cumulative surface disturbance.

Response: The WCPH standard (FSH 2409.25_14.1 – Management Measure (13)) is to limit the sum of detrimentally compacted, eroded, and displaced soil to no more than 15% of any activity area. For this project and other timber sales the “activity area” is defined as a timber sale cutting unit (FSH 2409.25_05 – Definitions). The proposed cutting units have not experienced previous harvest activities so the soils have not been impacted by heavy mechanized equipment and there is no cumulative impact to soils from compaction or displacement.

In previously harvested aspen sites, heavily impacted landings and skid trails generally do not produce any aspen sprouts because the soils in these areas have been detrimentally compacted. The pattern of landings and skid trails and unregenerated areas is easily detected through photo interpretation and supported by regeneration field surveys. Review of some previously harvested aspen sites indicates that the amount of area estimated to be heavily impacted from landings and skid trails ranged from 4.6% to 12% . This is below our current soil quality standard of no more than 15% of a treatment area to be detrimentally impacted. We feel it is reasonable to assume that, with careful sale layout and administration, the proposed harvest activities will result in similar, if not less detrimental impact to the soil.

Fencing

1. Comment (1-10): We are supportive of the proposal to install fencing around harvest units to achieve the project’s research objectives. Does the GMUG have the funds available for this fencing or does it expect KV funds to be sufficient to cover this cost?

Response: The value of timber proposed for harvest will not be sufficient to generate KV funds to cover the cost of fencing. The Forest expects funding to be available through other sources like reforestation funds, wildlife habitat funds or partnership grants.

2. Comment (1-11): It might be interesting from a research perspective to include grazing as another study variable, as many believe that post-harvest grazing has a profound impact on regeneration success.

Response: The effects of post-harvest grazing on aspen survival would not meet the purpose and need for this project which is to determine aspen sprouting response and survival following clearcut harvesting of aspen stands with varying levels of crown dieback and mortality attributed to SAD.

3. Comment (2-4): I question the need for temporary big game fences for the purpose of sucker survival. Observations of pervious adjacent logging units shows that regeneration has been very successful without these measures in the past.

Response: Previous harvest units were not fenced to control big game and they did successfully regenerate with good survival rates. These previous harvests were conducted in stands that were relatively healthy and root systems sprouted with more than enough sprouts to withstand the impacts of big-game browsing. In stands impacted by SAD, the root systems may not sprout following harvest or the number of sprouts may be significantly less than what typically sprouts following a disturbance. In stands with high amounts of crown dieback or mortality there may not be enough sprouts produced to withstand the impacts of big-game browsing therefore there is a need to control big game.

Cumulative Effects

1. Comment (1-12): The EA must consider cumulative effects, especially cumulative impacts due to the heavy aspen harvesting that has occurred in the project area.

Response: Resource reports have considered the cumulative effects of past aspen harvesting within the project area. No significant cumulative effects have been identified. These reports are located in the project record.

Monitoring

1. Comment (1-13): We would like an opportunity to review and comment on the GMUG's proposed monitoring protocol.

Response: The proposed monitoring protocol is detailed in the study plan for the applied silvicultural assessment. The study plan will be mailed to interested parties.

2. Comment (3-6): We wish to help with the project however we can, perhaps by finding volunteers to help carry out the research.

Response: Community involvement in the applied silvicultural assessment would be very desirable. As the study is implemented and monitored interested parties will be contacted for potential involvement.

HFRA Sec. 404

1. Comment (1-15): The Silvicultural Assessment must include a peer review process as described at Section 404(b)(3). We would like to be included in the list of referees. We would also request that the GMUG share responses it receives for peer reviewers.

Response: The applied silvicultural assessment is being developed as a research study. Existing peer review processes (FSM 4072.3) are being used for the research study plan. Dr. Dale Bartos, with the USFS Rocky Mountain Research Station (RMRS) has initiated the peer review process with the following scientists: Thomas Martin, Intermountain Regional Silviculturist; Laurie Porth, RMRS Statistician; Dr. Russ Graham, RMRS Research Silviculturist; Dr. Jim Long, Utah State University Professor of Silviculture, and Dr. Ward McGaughey, RMRS Research Silviculturist. In addition to

these reviewers, Dr. Wayne Shepperd and Dr. F.W. Smith with Colorado State University cooperated in the development of the study plan. Comments on the study plan are available for the public to review and are located in the project record.

2. Comment (3-4): We recognize the need for rapid approval of this project in order that the experimental treatments can be carried out before aspen death in the area is so advanced that the experiment becomes meaningless.

Response: Due to rapidly declining aspen stands, the Forest is using the authorities under the Healthy Forest Restoration Act, Title IV – Insect Infestation and Related Diseases to develop an accelerated applied research study.

Design Criteria

1. Comment (2-1): There is no scientific justification given for the design criteria that states “Logging operations would be prohibited from April 1 to June 15”. The desired result of harvesting the sale within one to two years will require a minimum of operating restrictions. If ground conditions would permit operating earlier than June 15 without resource damage, then this additional operating period is critical to improving the changes of a successful and meaningful study.

Response: The time period from April 1 to June 15 coincides with some portion of the nesting period for many species of birds including Forest Management Indicator Species (red-naped sapsucker, Merriam’s wild turkey and Northern goshawk) and Region 2 Sensitive Species (purple martin, olive-sided flycatcher, and flammulated owls). This timing restriction reduces the potential for nest disturbance for these species. This timing restriction also reduces disturbance during elk calving.

2. Comment (2-2): We are in agreement with operating procedures to improve safety such as posting signs, clearing snowberms and plowing turnouts. However we are concerned with hauling and snowplowing restrictions that shorten the operating season. The cumulative prohibitions of haul days results in the loss of 28 days of potential hauling each season.

Response: Winter recreation use along the lower portion of the Stevens Gulch road is generally low to moderate throughout most of the winter season except over Thanksgiving weekend, Christmas through New Years Day and the annual Snowmobile Poker Run weekend in February. During these heavy traffic periods, signing alone would not be adequate to provide for safety. The loss of operating days will be accounted for in the timber sale appraisal and contract. By agreement, it is possible that these timing restrictions could be waived if snow levels are low and associated winter recreation use is low.

3. Comment (4-1): The logging of this project must be done in a manner that it does not adversely affect the operation of the Terror Creek ditch. We feel that the logging company that is granted the contract to log the various assessment areas should be responsible for clearing (or paying for clearance or damage)

any trees and debris falling or block our ditch or damage to our ditch that result from their logging operations. This responsibility should extend for a reasonable length of time after the completion of their operations.

Response: The timber sale contract will contain contract provision B6.66 Protection of Improvement which specifies that the purchaser protect improvements such as ditches. Ditches and other improvements in the sale area will be shown on the Sale Area Map. The Forest Service can not hold the purchaser responsible for damage that occurs to ditches after the timber sale contract has closed.

Merchantability/Sale Viability

1. Comment (2-3): Requiring the removal of standing dead aspen (five years or less) without regard to merchantability will result in this being a service contract. Required removal of such material will need to be appraised and scrutiny should be used to evaluate alternative (more economically viable) solutions. The utilization standards will need to be altered to provide for economical of dead timber.

Response: The Terror Creek applied silvicultural assessment has the potential to answer a number of questions pertaining to SAD. The ability to market timber harvested during this study (and beyond) is very important to the Forest. The Forest has discussed merchantability specifications of dead aspen with the Regional office and with industry representatives. To date, the Region has not given approval for such a change. The region has given approval for applying an appraisal adjustment that will consider the deterioration of dead and dying aspen. The Forest also has the latitude to consider and apply an increased breakage factor to the smaller diameter material during cruising or volume determination. These are known adjustments available for use and will be developed in consultation with Regional measurement specialists. Discussions on the need for additional allowances will continue during field preparation and assembly of the contract. The option of using an Integrated Resources Service Contract (stewardship contract) rather than a standard timber sale contract will also be evaluated during the appraisal process. Potential sources of funding for such an option are unknown at this time.

2. Comment (2-5): I recommend that the timber sale contract have contract term adjustment for other aspen timber sale operations that may have to be halted in order to perform the terms of this contract.

Response: The harvesting of treatment units needs to occur in timely manner to meet the study plan objectives and to improve the utilization of designated timber before mortality and associated deterioration increases. The timber sale will be advertised “in urgent need of removal”. When this is done, contract term adjustment may be granted on other Forest sales to the purchaser of this sale.

3. Comment (1-14): We have questions about the merchantability of dead and dying aspen. Monitoring and documentation of some sort should continue through the milling process.

Response: As previously mentioned, the merchantability of dead and dying aspen from the Terror Creek project is very important to the Forest. There is much to be learned about SAD and its potential effects on the wood properties of aspen. The Forest is interested in monitoring and documenting the recovery of material through the milling process and would be very interested in an opportunity to accomplish that objective through the Terror Creek project.