



# Grand Mesa, Uncompahgre & Gunnison (GMUG) National Forests

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## Spruce Beetle Epidemic and Aspen Decline Management Response (SBEADMR) Project

### Questions and Answers July 2014

**Q. Is the Forest Service utilizing a collaborative process to plan and implement the project?**

A. Typically collaborative processes include multiple interested persons representing diverse interests, and the process must be transparent and inclusive. The collaborative process employs a variety of formats. In some cases it begins with the formulation of the proposal before the federal agency begins formal public scoping on a project. In other cases, collaboration occurs as the project progresses through the NEPA process and is used to refine information considered, identify additional science, provide enhanced review of documentation and considerations and build better tools to use in the analysis based on a broader audience input and suggestions.

Due to the urgency related to the amount and scale of spruce beetle infestation and aspen decline on the GMUG, the Forest Service decided to utilize a traditional NEPA approach where public comment is sought through scoping. In the case of the SBEADMR project, a Notice of Intent (NOI) was published in July 2013. Public comments received through formal scoping and an additional public meeting held in December 2013 was used to develop a no action and 3 action alternatives. A second public meeting was held on May 13, 2014, at which additional public comment was sought on the proposed alternatives, science being used to date and an implementation strategy utilizing concepts of adaptive management. The Public Lands Partnership (PLP) is facilitating additional public involvement/collaboration on the project and will continue to do so over the next several months.

**Q. Why is there urgency to complete analysis on a large-scale landscape to manage spruce-fir and aspen?**

A. To date, the GMUG has experienced substantial mortality resulting from Engelmann spruce beetle infestation (est. 250,000 acres) and Sudden Aspen Decline (est. 230,000 acres). Mortality resulting from spruce beetle has significantly increased since 2012 and is expected to continue to increase in coming years. Aspen decline has stabilized since 2010 but stands already affected continue to decline. Dead and dying trees pose a significant risk to public safety (hazard trees and potentially increased fire risk) and are only viable as a timber product for an estimated 5-10 year period of time. In healthier spruce-fir and aspen stands the goal is to use silvicultural prescription and prescribed fire to increase stand vigor, promote regeneration and create multiple age classes of trees.

**Q. What is the Public Lands Partnership?**

A. Public Lands Partnership (PLP) was formed in 1992 as an informal forum to address public land issues in west central Colorado. PLP members, who include citizens, local governments, land management agency personnel, businesses, loggers, ranchers and conservationists, continue to come together to accomplish their mission of: “influencing the management of public lands in ways that

enhance and help maintain diverse, healthy and viable economies, environments and communities in west central Colorado.”

The PLP is a forum for community-based collaboration and has shown that involvement of community interests, resources, knowledge and values has improved management decisions. In a region where much of the land is public and managed by federal agencies (on average 70% is public land), PLP works collaboratively with all who are interested, including a range of community interests, state and local environmental groups, the Western Area Power Association (WAPA), and the land management agencies, including the USFS, BLM, and the CDOW, among other partners. The PLP has been successful in bringing different interests, from ATV recreationists to environmentalists to the table and involving them in civic dialogue.

**Q. What is being done to ensure other affected parties are aware and extended the opportunity to collaborate in this process/analysis?**

A. The Forest Service has and will continue to encourage affected parties to comment on the project . One mechanism is the use of websites where various products and questions and answers are posted for public review and comment.. The comment link is:

[http://www.fs.usda.gov/goto/SBEADMR\\_comments](http://www.fs.usda.gov/goto/SBEADMR_comments)

The site provides draft products produced to date, as well as, fostering suggestions/comments for the improvement of the overall process. Additional documents will be posted there over the life of the project. The Forest Service hopes to notify interested individuals as new/additional documents are posted.

Comments/suggestions may also be sent hard copy form to:

Attn: SBEADMR Project c/o Lee Ann Loupe, 2250 Highway 50 Delta, CO 81416.

All documents, including scientific articles related to the project, are also posted on the website at the project link below:

<http://www.fs.usda.gov/goto/SBEADMR>

The Forest Service held two workshop/public meetings to date and provided several presentations to interested groups and stakeholders to date. The Forest Service will also host a science workshop and a field trip in late August 2014.

Additionally, Forest Service representatives are available to meet with individuals and groups upon request to help facilitate a better understanding of the project. Please contact Clay Speas (970) 874-6677 or email [cspeas@fs.fed.us](mailto:cspeas@fs.fed.us) with any questions and/or for additional information.

**Q. How is current science being incorporated into the analysis?**

A. An Enterprise Team made up of various specialists was hired to complete the analysis and write the Environmental Impact Statement (EIS). The Team is composed of Forest Service professionals with advanced degrees in areas of wildlife, fisheries, archeology, landscape architecture, engineering, watershed science and land resource planning. Per Forest Service Policy, these specialists are preparing reports addressing potential

effects of each of the alternatives and methods/approaches that will be used to minimize or eliminate potential effects. Specialists are required to use best available science (peer reviewed publications, internal Forest Service reports and professional judgment) when completing their reports. Reports also document compliance with Forest Service Policy and applicable law and regulation. Completed reports include a bibliography of all referenced publications used in the analysis. All environmental documents are being reviewed by staff on the GMUG NF. Final reports become part of the official record for the project.

**Q. What are the objectives of the SBEADMR project?**

**A.**

1. Remove hazardous trees along roads, trails, power lines, campgrounds, within ski areas and other permitted areas. Remove hazard trees in the wildland urban interface.
2. In spruce-fir, focus on suitable timber lands to salvage timber, treat fuels and reforest acres.
3. In healthier (live) spruce-fir stands, utilize individual tree selection and group selection prescriptions to increase stand vigor, promote regeneration and create multiple-age classes of trees.
4. Regenerate aspen stands to create healthy clones. Aspen treatments will focus on stands affected by Sudden Aspen Decline.

Opportunity areas where treatment “could” occur of the life of the project have been identified for each of the three action alternatives and are driven by emphasis areas for management within a given alternative. Alternative 3 for example, the emphasis is public safety so areas on the GMUG having a cover type composed of spruce, aspen or spruce/aspen that pose a risk to infra-structure from dead or dying trees or within wildland urban interface (increased fire risk) have been identified for potential treatment. Of the total “opportunity acres” being analyzed in the Environmental Impact Statement (EIS) the GMUG only anticipates completing mechanical treatments on 60,000 acres and 40,000 to 60,000 acres of fire or non-mechanical treatment over the 10-year life of the project. Maximum acres treated will largely be driven by personnel and budget constraints in the Forest Service.

**Q. The Forest Service uses terms like “recovery”, “resiliency” and “human safety”. What do these mean in context of the proposed action?**

**A.**

**Recovery** – 1) removal of dead and dying trees for economic benefit to local communities; 2) re-planting of trees where seed sources are lacking, or not replanting where the goal is to allow natural succession (e.g. aspen) to occur on the landscape.

**Resiliency** – treatments in live stands to increase age class and species diversity to create multi-storied stand conditions in spruce-fir and healthy clones of aspen.

**Public safety** – 1) removal of dead and dying trees near people or infra-structure (e.g. trails, campgrounds, roads, utilities, ski areas, etc.); 2) reduce the amount of fuel available to wildfire especially in the wildland urban interface (WUI).

**Q. What activities are common to each of the action alternatives?**

**A. Activities Common to All Action Alternatives**

## ***Adaptive Management Strategy***

This project uses progressive management in an adaptive and integrated approach to where and what actions will be applied to the landscape. This is in part, due to the rapidly changing landscape caused by the severity of the spruce beetle infestation and sudden aspen decline conditions. The analysis defines opportunity areas that are available for treatment and establishes priorities for treatment. Due to the scale of the epidemic and the magnitude of affected and potentially affected acres across all terrains of the forest, the Forest Service cannot treat all affected acres. Likewise, the Forest Service cannot and does not presume to stop the infestation or rate of decline in spruce stands. Treatments in aspen stands where mortality from Sudden Aspen Decline (SAD) is less than 50% have been successful regenerated when cut. Potential treatment areas are prioritized with human safety as the first priority, followed by recovery and where feasible, resiliency.

Various tools are being developed as part of the Environmental Impact Statement (EIS) for use by Forest Service professionals during project design and implementation. These tools will define the range of opportunities, alternative treatments and prescribe activities/design features for implementation and ensure commitments in the ROD and other legal and policy requirements of the Forest Service are followed. Tools include:

- Guidelines for selection of priority treatment areas – public safety, presence of an existing transportation system that could be utilized to complete treatments, areas where multiple resource benefits could be accomplished, etc.
- Silvicultural prescription matrix – treatment prescriptions that are tied to spruce-fir and aspen stand conditions. More specific prescription will be written by certified silviculturalists during project development.
- Project Design Features – practices to be applied to a project to minimize or avoid undesirable impacts to vegetation, soils, water, wildlife and cultural resources.
- Project Design Checklist – tracking tool to document that all required surveys and compliance checks for an individual project have been completed. The checklist will also identify design features that will be applied to a particular project. For example, the presence of a Northern goshawk nest in a possible treatment area will trigger avoidance/protective measures as specified in the design features of the EIS.

Monitoring and project reviews will result in completion of a findings report to be reviewed by Forest Service managers and the general public. The findings report will be the mechanism whereby Forest Service managers may modify future on-the-ground actions to further minimize environmental impacts or achieve desired outcomes. The findings report is also the mechanism where new or up-dated science may be incorporated into project design. Public participation in project reviews will be encouraged.

## ***Fire Use***

Prescribed fire is available for use Forest-wide (outside of Wilderness) in aspen stands and conifer stands containing aspen where prescribed fire would regenerate aspen and to reduce or eliminate activity fuels. Lightning caused wildfires may be managed to achieve multiple objectives, including aspen regeneration (2006 Fire Use Forest Plan Amendment).

## ***Protection of People and Community Infrastructure***

All action alternatives would work toward ensuring that people, communities, and infrastructure are:

- Protected from the hazards of falling bark beetle-killed trees, by mitigating hazard trees.
- Subject to reduced risk from elevated wildfire potential after beetle infestations.

**Roads and Road Construction**

Primarily the existing road network would be used to access the proposed treatments and to remove forest products. Additional access would be supplemented with temporary road and/or designed (specified) road construction as needed to accomplish project objectives.

Temporary roads are used for short-term project access where minimal resource concerns exist. Where access is needed and adjacent resource concerns exist (e.g. at perennial and intermittent stream crossings, where potential for high soil erosion exists, on steeper side slopes, etc.), designed or specified (“spec”) roads may be constructed.

The management of project roads will be addressed through the use of design features. Most roads constructed under any action alternative will be decommissioned upon completion of the project (including all post-sale activities which may take up to 10-years). However, some designed roads may remain if certain conditions are met but will be administratively closed to public (Level 1 maintenance). The needs for maintaining roads to Forest Service standards (road surfacing, drainage, etc.) of the road infrastructure will also be addressed per Forest Service Policy.

National Forest System designed/specified roads are broken down by operational maintenance level, which describe the standard to which the road is managed.

Road Maintenance Level	Description
1	Closed except for intermittent service use
2	High-clearance vehicles, discourage passenger cars
3	Low-speed, single-lane with turnouts, low priority for comfort
4	Moderate degree of user comfort; double- or single-lane, aggregate
5	High degree of user comfort; double-lane, paved

**Q. Where would treatments to protect people and infrastructure occur?**

A. Treatments to protect people, communities, and infrastructure could occur in and around:

- 3300 miles of roads (within a 300 foot opportunity area on either side of the road). Only trees that pose a hazard to the road will be removed.
- Campgrounds and other administrative facilities (approximately 160 facilities).
- Within ski areas boundaries (an estimated 12,000 acres within Telluride, Crested Butte and Powderhorn ski areas).
- Within Western Area Power Administration (WAPA) and Tri-State power transmission lines rights-of-way and border zones.
- Communication, water, pipeline, and other utility corridors.

- Other developed and dispersed recreation sites.
- Other inventoried infra-structure that could be at risk from falling trees.
- Treatments in and around the wildland-urban interface (WUI), generally within one mile of any communities, administrative sites, developed (recreation) sites and within ski area boundaries to reduce potential fire risk.

**Q. What would occur under the No Action Alternative?**

A.

**Alternative 1 – No Action**

Under the No Action Alternative, no treatments would take place within the project area. This alternative represents no attempt to actively respond to the action-oriented issues or the purpose and need identified in the Notice of Intent. There would be no effort to modify existing conditions, unless authorized by other decisions.

**Q. What would occur under the three Action Alternatives?**

A.

**Alternative 2 - Proposed Action**

Alternative 2 utilizes the adaptive implementation strategy to design, implement and monitor vegetation management activities on a landscape scale based on the conditions at the time of treatment. Treatments include recovery (salvage logging with re-planting when necessary), resiliency treatments in green stands (spruce - group selection and single tree removal and aspen – coppice cuts to stimulate aspen regeneration) and non-mechanical (hand felling and prescribed fire) methods could be used. Approximately 70,000-120,000 acres could be treated over the ten year span of the project.

- Approximately 4,000-6,000 acres of commercial harvest treatments of aspen, spruce and aspen /spruce mix would likely occur annually or a total 40,000-60,000 acres over the ten year span of the project.
- 3,000-6,000 acres of non-commercial mechanical, hand treatments and prescribed burning, or a combination would also likely occur annually, or 30,000 to 60,000 acres over ten years.
- The total Alternative 2 opportunity area is 575,567 acres where commercial, non-commercial mechanical, hand and prescribed fire treatments could be implemented outside of Wilderness, Colorado Roadless, or other designated areas (broken down: 255,171 acres of aspen, 173,066 acres of spruce and 147,330 acres of aspen/spruce mix). Aspen/spruce mix stands may include other conifer tree species besides Engelmann spruce and sub-alpine fir which is commonly referred to as “mixed” stands.
- Given the current location and progress of the spruce bark beetle epidemic, this alternative assumes treatments for the Gunnison Basin will be 80% recovery (generally salvage) and 20% resiliency (generally uneven-aged and sanitation harvest) and on the Grand Mesa and Uncompahgre Plateau treatments, it will be closer to an even split between recovery and resiliency objectives.

## **Spruce-fir Recovery and Resiliency**

- Mechanical treatments would occur on lands tentatively suitable for timber production within the twenty-four focus Lynx Analysis Units. These encompass approximately 80% of spruce-fir tentatively suited for timber production across the Forest. Treatments will be completed consistent with the *Southern Rockies Lynx Amendment(SRLA)*.
- Spruce-fir recovery would be met through removal of dead and dying trees followed by tree planting where adequate natural seed sources are lacking and as funds are available to do so.
- Recovery treatments could also include sanitation and salvage treatments to remove pockets of dead and dying trees to reduce the threat of beetle infestation to surrounding healthy stands.
- Resiliency would be met by removal of single trees or group selections of live and dead/dying trees where bark beetle impacts are light or in areas yet unaffected by beetles with the goal of promoting multiple age classes.

## **Aspen Recovery and Resiliency**

- Commercial mechanical treatments would focus on lands tentatively suitable for timber production forest-wide.
- Non-commercial mechanical treatments would focus on lands not tentatively suitable for timber production but management is needed to achieve aspen resiliency goals.
- Prescribed fire treatments would occur in aspen or any conifer vegetation type with an aspen component with the goal of reducing the amount of fuels and stimulating additional aspen on the landscape.
- Prescribed fire could occur in conjunction with mechanical treatment if reducing fuel loading prior to the use of fire was needed.

## **Alternative 3**

### ***Public Health and Safety Focus***

Alternative 3 utilizes the adaptive implementation strategy to design, implement and monitor vegetation management activities; however, it shifts the focus of treatments almost entirely to protecting safety of people and community infrastructure. This alternative was developed to address public comments that stated the spruce bark beetle infestation and SAD are natural processes, no landscape scale treatments are needed and treatments should focus on public health and safety purposes.

- Mechanical treatments would be limited to lands in and around the wildland-urban interface (WUI), generally within one mile of any communities, administrative sites, developed (recreation) sites and within ski area boundaries. Dead, dying and hazard trees would be treated for both the falling hazard and to eliminate elevated fire hazard. Mechanical commercial tree harvest would occur on lands tentatively suitable for commercial timber production.
- Dead and dying trees that pose a risk to infrastructure if they were to fall.
  - 3300 miles of roads (within a 300 foot opportunity area on either side of the road).  
Only trees that pose a hazard to the road will be removed.

- Campgrounds and other administrative facilities (approximately 160 facilities).
  - Within ski areas boundaries (an estimated 12,000 acres within Telluride, Crested Butte and Powderhorn ski areas).
  - Within Western Area Power Administration (WAPA) and Tri-State power transmission lines rights-of-way and border zones.
  - Communication, water, pipeline, and other utility corridors.
  - Other developed and dispersed recreation sites.
  - Other inventoried infra-structure that could be at risk from falling trees.
- Spruce Treatments - Commercial mechanical logging to treat infested dead or dying spruce-fir and non-commercial mechanical treatments would occur as described in Alternative 2 except, only within WUI and to protect infrastructure resources.
  - Aspen treatments would be the same as in Alternative 2, except limited to the WUI and to protect infrastructure resources.
  - The total Alternative 3 opportunity area covers 296,396 acres (broken down: 157,057 acres of aspen, 70,141 acres of spruce and 69,198 acres of aspen / spruce mix). About 70,636 acres of aspen, 38,201 acres of spruce, and 34,867 acres of aspen / spruce mix are classified as Land Tentatively Suited for Timber Production where commercial timber harvest could occur.
  - Approximately 70,000-120,000 acres would likely be treated over the ten year span of the project. Approximately 4,000-6,000 acres of commercial harvest treatments of aspen, spruce and aspen / spruce mix would likely occur annually or a total 40,000-60,000 acres over the ten year span of the project. Another 3,000-6,000 acres of non-commercial mechanical, hand treatments and prescribed burning, or a combination would also likely occur annually.

## **Alternative 4**

### ***Spruce-Fir Salvage Only***

Alternative 4 utilizes the adaptive implementation strategy to design, implement and monitor vegetation management activities shifting the focus of the project away from spruce-fir resiliency treatments. This alternative addresses comments that stated that resiliency treatments in spruce-fir are ineffective. In this alternative, spruce-fir stands that have been affected by spruce bark beetle would be treated for recovery purposes. This would limit treatments to salvage of dead and dying spruce-fir on slopes equal-to or less-than 40 percent grade. Commercial harvest will be limited to areas identified as tentatively suitable for timber production. No resiliency treatments would occur to create multi-storied stand conditions in spruce-fir. Aspen Treatments would be the same as described in Alternative 2.

- The total Alternative 4 opportunity area covers 664,485 acres (broken down: 255,173 acres of aspen, 243,896 acres of spruce and 165,418 acres of aspen / spruce mix). About 138,984 acres of aspen, 125,216 acres of spruce, and 73,701 acres of aspen / spruce mix are classified as Land Tentatively Suited for Timber Production where commercial timber harvest could occur.
- Approximately 70,000-120,000 acres would likely be treated over the ten year span of the project. Approximately 4,000-6,000 acres of commercial harvest treatments of aspen, spruce

and aspen / spruce mix would likely occur annually or a total 40,000-60,000 acres over the ten year span of the project. Another 3,000-6,000 acres of non-commercial mechanical, hand treatments and prescribed burning, or a combination would also likely occur annually.

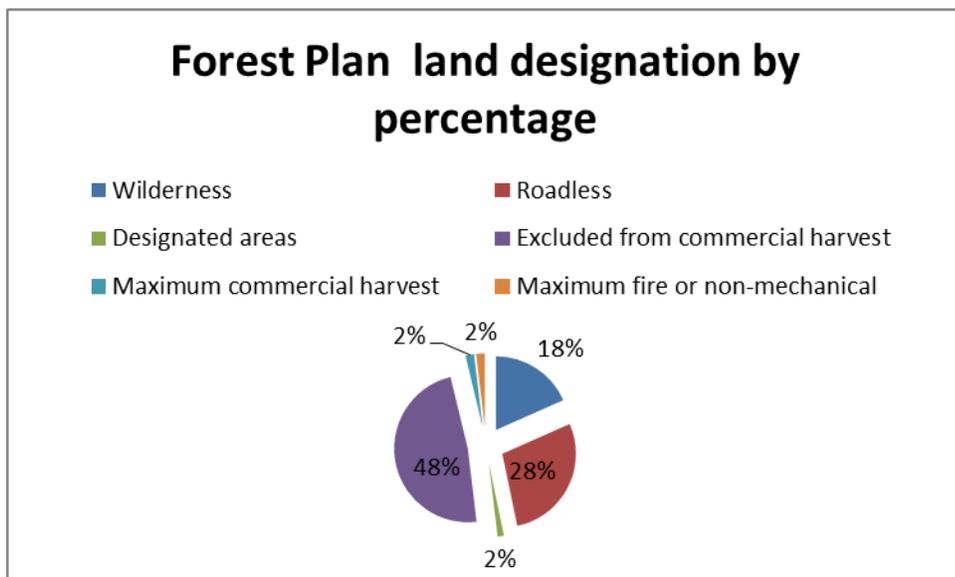
## Summary of Alternatives

	<b>ALTERNATIVES</b>			
<b>Treatment Activity</b>	<b>1 – No Action</b>	<b>2 - Proposed</b>	<b>3 – Public Safety</b>	<b>4 – Salvage harvest only</b>
<b>Public Safety Opportunity Areas</b>				
<b>Infra-structure treatments (roads, communication sites, power lines, dispersed recreation sites)</b>	NA	254,181 acres	254,181 acres	254,181 acres
<b>Hazard tree removal – typically trees will only be removed if they pose a hazard to the road or other infra-structure (e.g. 1.2 times tree height).</b>		3,300 miles (treated within 300 feet of roads – 600 ft. total)	3,300 miles (treated within 300 feet of roads – 600 ft. total)	3,300 miles (treated within 300 feet of roads – 600 ft. total)
<b>Electrical power and above ground telephone lines</b>		117 miles	117 miles	117 miles
<b>Vegetation Treatment Opportunity Areas</b>				
<b>Mechanical (commercial and non-commercial) on slopes less than 40%.</b>	NA	510,000 acres	262,000 acres	599,000 acres
<b>Commercial Mechanical (Forest Plan - tentatively suitable for timber production)</b>	NA	296,000 acres (180,000 spruce-fir and 116,000 acres aspen).	144,000 acres (73,000 spruce-fir and 71,000 acres aspen)	327,000 acres (211,000 spruce-fir and 116,000 acres aspen)
<b>Fire or non-commercial treatments</b>	NA	66,000 acres (22,000 spruce-fir and aspen 44,000)	34,000 acres (7,000 spruce-fir and 27,000 aspen)	66,000 acres (22,000 spruce-fir and aspen 44,000)
<b>Roads</b>				

<b>Specified Road Construction</b>		60	10	60
<b>Temporary Road Construction</b>		260	70	260
<b>Road reconstruction (existing system roads to be reconstructed to meet standards for logging truck activity)</b>		260	260	260
<b>Road maintenance</b>		440 miles	640 miles	440 miles

**Q. How much of the GMUG National Forests could be directly affected by the project?**

A. The Forest is approximately 3.2 million acres in size. Wilderness encompasses 584,000 acres, Colorado Roadless is 901,000 acres, special designated areas are 44,000 acres and 1,529,000 acres excludes commercial timber harvest for various reasons. Due to Agency constraints, budget and staffing, the Forest Service anticipates treating 60,000 acres mechanically and 40,000 to 60,000 acres with the use on non-mechanical or fire over the life of the project. This represents approximately 4% (2% commercial mechanical and 2% fire or non-mechanical) of the total land base of the GMUG (see figure below). A high percentage of the commercial mechanical treatment is expected to be associated with infra-structure protection (roads, transmission lines, ski areas and other permitted areas).



**Q. How much of the commercial mechanical harvest would be salvage versus resiliency treatments?**

A. The exact amount of salvage versus resiliency treatments with a commercial timber sale will be driven by on-the-ground conditions as projects are implemented. While SAD has stabilized over recent years, tree mortality resulting from spruce beetle is increasing. For analysis purposes, the GMUG is assuming 80% of the treatments on the Gunnison Ranger District and 50% of the treatments on the Grand Mesa, Uncompahgre Plateau and the Norwood Ranger District will be salvage. The remaining percentages on these units will be resiliency treatments, primarily in aspen. All commercial timber harvest will occur on lands that are tentatively suitable for timber production as specified in the GMUG Forest Plan.

**Q. Why is the Forest focusing on tentatively suitable timber lands as a driver for timber production?**

A. According to the National Forest Management Act (NFMA) Regulations timber production and commercial harvest generally may only take place on lands classified as suitable lands (36 CFR 219.14). Pages B-7 to B-10 of the GMUG NF Forest Plan describes the process used to identify lands not suitable for timber production. Factors used to identify areas not suitable for timber production include low productivity sites, steep slopes (>40%), where irreversible damage could occur, and areas visually sensitive. During project reconnaissance and layout, Forest Service personnel make a final determination based upon these factors and other considerations for resource protection. While these lands are identified as potentially suitable for timber production, activities are to be conducted to meet other appropriate Forest Plan direction and the agency is required to use best available science when planning and implementing management activities. NFMA regulations also provide direction regarding resource protection and re-establishment of trees within 5-years of harvest.

**Q. A large amount of Canada lynx habitat is proposed for treatment. How will impacts to lynx be addressed?**

A. In 2010, Region 2 of the Forest Service completed the *Southern Rockies Lynx Amendment* (SRLA) addressing the effects of various management activities on Canada lynx and its habitat. This document amended all Forest Plans in Colorado. The SRLA established management direction and impact limits for management activities, including timber management. All applicable management direction from the SRLA is being incorporated into action alternatives being analyzed in the EIS and will be required at the time of project layout and implementation. Canada lynx as well as all other threatened, endangered and sensitive species and Management Indicator Species are being addressed by the wildlife biologist on the analysis team. The Fish and Wildlife Service has been collaborating on the development of the project proposal and mechanism for annual reporting. All aspects of the project will conform to requirements of the SRLA.

**Q. How will other wildlife species concerns be analyzed and addressed in the EIS?**

A. Per Forest Service Policy, the wildlife biologist and botanist on the team are preparing a specialists report addressing management consideration and potential impacts of the various management alternatives to wildlife, fish and plant resources. At a minimum, species addressed are Management Indicator Species (common trout, cutthroat, brewer's sparrow, Northern Goshawk, red-napped sapsucker, American martin, and Rocky Mountain elk), Forest Service sensitive species (33 - mammals, birds, reptiles, amphibians, and fish) and over 50 sensitive plants. The analysis is also addressing one "proposed" bird species (Gunnison sage-grouse) and its proposed critical habitat a threatened mammal (Canada lynx) and a threatened fish (greenback cutthroat trout). Any impact to threatened or endangered species or proposed critical habitat will require consultation with Fish and Wildlife Service. All action alternatives are being designed to meet Forest Plan direction.

Prior to project implementation, all required surveys for these species will be completed and the data will be used to design the project to minimize impacts and in some cases to enhance habitats for various wildlife species. Design features will be applied to a specific project area to minimize impacts to wildlife or plants and meet Forest Plan standards and guidelines.

**Q. What purpose would “recovery and resiliency treatments” in spruce-fir and aspen serve?**

**A.**

**Spruce-fir:**

*Recovery* – Removal of dead and dying trees for protection of public safety and economic benefit to local communities through utilization of wood products. Where natural regeneration of stand is unlikely to occur, replant to establish tree cover.

*Resiliency* - Treatments in green (living) stands would increase diversity of age class and tree species on the landscape. Resiliency treatments will also promote multi-aged stands in accordance with the SRLA.

**Aspen:**

*Recovery* – removal of dead and dying trees for protection of public safety and economic benefit to local communities through utilization of wood products.

*Resiliency* – cutting of aspen or aspen/spruce stands to promote re-generation of young aspen on the landscape. Stands having less than 50% mortality from SAD will be targeted for treatment. Broadcast burning will be used to promote aspen on the landscape.

**Q. How is Climate Change being addressed in this EIS?**

**A.** On 16 January 2009, the Washington Office of the USDA Forest Service released guidance to Forest Service units regarding the incorporation of climate change science into project level EPA documents (Climate Change Considerations in Project Level NEPA Analysis, January 13, 2009 - USDA 2009).

1. Climate change analysis includes the effects of agency action on global climate change and the effects of climate change on a proposed project.
2. The Agency may propose projects to increase the adaptive capacity of ecosystems it manages, mitigate climate change effects on those ecosystems, or to sequester carbon.
3. It is not currently feasible to quantify the indirect effects of individual or multiple projects on global climate change and therefore determining significant effects of those projects or project alternatives on global climate change cannot be made at any scale.
4. Some project proposals may present choices based on quantifiable differences in carbon storage and GHG emissions between alternatives.

Potential impact of future fire management prescribed burning to Green House Gases (GHGs) is being addressed in the EIS. In order to estimate emissions from prescribed burning two models are used. Both the Piled Fuels Biomass and Emissions Calculator, and FOFEM (First Order Fire Effects Model) estimate NAAQS criteria pollutants and GHG emissions.