



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
764 Horizon Drive, Building B
Grand Junction, Colorado 81506-3946

IN REPLY REFER TO:

BO ES/LK-6-CO-08-F-024-GJ014

ES/CO: FS/GMUG/Gunnison RD; BLM/GFO

TAILS 06E24100-2013-F-0203/65413-2009-B-0008

November 22, 2013

Scott Armentrout, Forest Supervisor
Grand Mesa, Uncompahgre,
and Gunnison National Forests
2250 Highway 50
Delta, Colorado 81416

Subject: Section 7 Consultation for the LaGarita Timber Sale Project

Dear Mr. Armentrout:

This responds to your June 17, 2013, letter to the Fish and Wildlife Service (Service) requesting formal Section 7 consultation on effects of the subject project to species and habitats listed under the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.; [Act]). The project described in your letter and the accompanying biological assessment (BA), occurs on the Grand Mesa, Uncompahgre and Gunnison National Forests (GMUG), and the Bureau of Land Management Gunnison Field Office (BLM) (collectively Action Agencies). As stated in your letter, Mr. Brian St. George, Field Office Supervisor for the Gunnison Field Office, delegated authority to you to initiate Section 7 consultation on his behalf. Therefore, this document satisfies the Section 7 requirement for both agencies regarding the subject action. We received your request on June 18, 2013.

The Action Agencies determined that one federally listed species, and one species proposed for listing affected by the proposed action.

We agree with your determination that the proposed action may affect, and is likely to adversely affect Canada lynx (*Lynx canadensis*) (lynx). The effects of the proposed action tier to the analysis of effects contained in our programmatic biological opinion (PBO) for the Southern Rockies Lynx Amendment (SRLA). Section 7 (a) (4) of the Act requires conferencing with the Service when a proposed action is likely to jeopardize the continued existence of a proposed species or destroy or adversely modify proposed critical habitat. Because the BA concluded that the proposed action is not likely to jeopardize the continued existence of North American wolverine (*Gulo gulo luscus*), and we did not propose critical habitat for this species, conferencing is not required.

On August 20, 2008, the Service issued the PBO (ES/LK-6-CO-08-F-024) on the effects of the SRLA on the Distinct Population Segment of lynx in the contiguous United States, in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The analysis presented in the PBO was programmatic in scope and was identified as the “first-tier” of a tiered consultation framework, with the review of subsequent projects that may affect lynx as being the second-tier of consultation. Second-tier biological opinions (BOs) will be issued, as appropriate, in cases where proposed actions that are likely to cause adverse effects to lynx that were not fully analyzed in the first-tier (i.e., programmatic) BO.

In the SRLA Record of Decision, dated October 2008, a limited range of fuel reduction or timber management activities conducted within the wildland urban interface (WUI), and other limited vegetation management activities for other resource benefits, fell under exemptions or exceptions of SRLA standards VEG S1, S2, S5, and S6. In our first-tier BO, a “worst case” scenario approach was used to aggregate the effects of activities relying on exemptions or exceptions to SRLA standards over a 15-year period. We were able to provide a programmatic level incidental take statement for these activities, because the Forest Service provided explicit estimates of the number of acres of habitat impacted under the exceptions and exemptions to SRLA standards. We used the estimate of the acres treated during the 15-year period as a surrogate to quantify incidental take. We recognized that individual projects relying on exemptions or exceptions to SRLA standards could result in a range of effects including, insignificant and/or discountable effects, adverse effects, and take. In our first-tier BO, we concluded that the additive effects of projects using exemptions and exceptions would result in take of lynx at the programmatic level, but that adverse effects and take would not automatically result from individual projects under the SRLA. The reporting requirements contained in our first-tier BO ensures that the aggregation of individual project impacts would not “add-up” to levels that exceed the amount of incidental take we anticipated in the first-tier incidental take statement.

The BLM, specifically the Gunnison Field Office, is not restricted by the SRLA standards. However, for this proposed action the BLM, in coordination with the Forest Service, designed the project on its lands consistent with the SRLA standards. Therefore, the effects of the BLM’s portion of this proposed action are consistent with the effects of the Forest Service’s action. Since the BLM delegated authority to the Forest Service for the project, the effects of their action also tier to the SRLA PBO. The BLM is not subject to the reporting requirements of the SRLA PBO, but will maintain a record of the action in their files.

Proposed Action

The proposed action falls within a 220,540 acre planning area in Saguache and Hinsdale Counties, Colorado (BA Figure 1), and consists of salvage harvest of dead and dying spruce trees, aspen coppice cutting (clear cuts), road maintenance and construction and re-construction of temporary roads, additional travel management adjustments, gravel pit development, and hazard tree removal within the action area.

Within the planning area, the Forest Service proposed approximately 6,466 acres of vegetation management, and the BLM proposed approximately 916 acres of vegetation management.

Interrelated/interdependent activities associated with the proposed salvage, aspen coppice cutting, and hazard tree removal, include road and transportation actions and gravel pit developments. Road and transportation activities include use of 65.2 miles of existing county and major forest roads within the planning area, pre-haul maintenance and use of 22.4 miles of the existing road system, maintenance and minor reconstruction of 8.5 miles of existing system roads, maintenance and major reconstruction of 1.9 miles of existing system roads, and 23 miles of temporary haul roads. Of the total miles of roads (98.1 miles), approximately 18.9 miles consist of administratively closed (level 1) roads used for timber hauling, but are closed to public access. These roads will remain closed to the public upon completion of project activities.

Gravel pit development consists of two existing pits, as described in the BA. The pits are already disturbed sites and will not result in additional vegetation removal. Both gravel pits will be decommissioned and rehabilitated upon completion of project activities.

Conservation Measures

Conservation measures - are actions to benefit or promote the recovery of listed species that are included by the Federal agency as an integral part of the proposed action. These actions will be taken by the Federal agency or applicant, and serve to minimize or compensate for, project effects on the species under review. These may include actions taken prior to the initiation of consultation, or actions which the Federal agency or applicant have committed to complete in a BA or similar document.

The proposed action includes a number of design criteria (conservation measures) to minimize effects to various resources. The proposed action includes the following conservation measures to minimize effects of the action on lynx.

- Maintain screening cover consisting of live trees, snags, and coarse woody debris (including jack-strawed piles) for lynx and other wildlife on strategically located portions of the landscape (where feasible) between cutting units, roads, and meadows. This screening cover should be comprised of tree retention strips a minimum of 200 feet wide unless topographic breaks occur between cutting units, roads, or meadow openings. This will be especially important along State Highway 149 within the lynx linkage.
- In units on Slumgullion Pass and around Mill Creek, adjust salvage prescription to create irregular shaped tree retention strips within units and across State Highway 149, to promote conifer regeneration, and maintain habitat connectivity within the lynx linkage.
- Areas supporting live advanced regeneration will be avoided during unit layout.
- Locate skid-trails and landings to minimize impacts to advanced regeneration. Skid-trails will be at least 100 feet apart (except where then converge at landings).
- Landings, temporary roads, and main skid-trails will be evaluated after completion of operations to determine if detrimental soil compaction has occurred. Upon review by a Specialist, detrimental soil compacted areas will be subsoil ripped to reduce soil compaction.

Environmental Baseline

The environmental baseline consists of the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process (50 CFR § 402.02).

The environmental baseline for lynx is partially evaluated, among other things, against vegetation standard one (VEG S1) of the SRLA. We use this standard as a means for determining whether the lynx analysis unit (LAU) contains sufficient lynx habitat in a suitable condition to support survival (feeding) and reproduction of lynx. Our current understanding of lynx home ranges suggests that at least 70 percent of the lynx habitat within a LAU should be in a suitable (functioning) condition, and the suitable habitat supports a high density of snowshoe hare (*Lepus americanus*) to support a resident lynx year-round. In addition to VEG S1, other natural and man-caused factors may reduce prey abundance within the action area. These impacts include bark beetle infestations, or vegetation management activities. Bark beetle infestations, depending on the intensity and geographic extent, and vegetation management may affect mature cone-bearing trees, which may reduce the abundance of red squirrels (*Sciurus vulgaris*). Vegetation management removes the structural and foraging components of lynx habitat at varying scales, reducing the carrying capacity of the habitat for lynx prey. In combination, bark beetle activity and past vegetation management may significantly reduce prey abundance within a LAU, potentially reducing productivity of a lynx occupying a home range.

The action area for the proposed action consists of the Cebolla, Cathedral, Los Pinos and Stewart Creek LAUs on Forest Service lands, and the Cebolla Creek, Lake Fork Gunnison, and Whitecross Mountain LAUs on BLM lands (BA Figure 4). The action area also contains a portion of the Slumgullion/Spring Creek Pass lynx landscape linkage (Linkage), where the Linkage falls within the Cebolla LAU (BA Figure 4). Human uses within the action area include hunting, fishing, dispersed camping, off-highway vehicles (OHV) riding, driving for pleasure/sight-seeing, wildlife viewing, hiking, horseback riding, picnicking, firewood gathering, snow shoeing, cross-country skiing, snowmobiling, use of all-terrain vehicles on roads, public and private land livestock grazing, and vegetation management. Existing developments include developed campgrounds, picnic or day use areas, restrooms, trailheads, historic buildings, signs, roads, utility lines and modern houses (developed on private land).

Lynx Habitat

Table 1, provides the environmental baseline habitat statistics for the action area LAUs. As displayed in the table, all action LAUs meet the minimum habitat requirements, as stated above, to support lynx survival and recovery. However, Figure 3 in the BA displays a high incidence of spruce bark-beetle activity within the action area. Loss of mature cone-bearing spruce trees, due to bark-beetle activity at large spatial scales, may significantly reduce red squirrel density, the lynx's primary alternative prey. Little research has addressed how red squirrels respond to insect infestation (Koprowski et al. 2005). However, research that has been conducted, concluded that red squirrel populations declined significantly in areas with >40 percent mortality of spruce trees

due to beetle infestations in Alaska (Matsouka et al. 2001, and Colorado Yeager and Riordan, 1953; cited in Koprowski et al. 2005). When snowshoe hare densities decline, lynx rely heavily on red squirrels for survival, but a diet of red squirrels alone may not be adequate to ensure lynx reproduction and survival of kittens (Koehler 1990, cited in Ruediger et al. 2000). During snowshoe hare population lows, and if their main alternative prey is not available, or is at very low densities resulting from mature spruce mortality, lynx may not produce kittens, may expand or abandon their home range in search of prey in order to survive, or starve to death. Other areas currently having sparse understory may become relatively non-functional habitat for some time, which lynx may traverse to access higher quality habitat where prey may be more abundant. Reduced foraging and denning habitat in the spruce zone negatively influences the ability of lynx to maintain a home range within the LAU and connected LAUs over the moderate term, including the life of the project (30 years), until adequate forested cover redevelops.

The Forest has implemented actions using exemptions and/or exceptions to SRLA standards. To date, the GMUG has not implemented any actions requiring exception to VEG S5. As stated in the BA, the GMUG has counted 1,119 acres against their forest-wide cap of 7,071 acres of treatment using exceptions to VEG S6.

Table 1. Environmental Baseline Statistics of Lynx Habitat in the Action Area LAUs.

| LAU | Suitable (All Federal and Non-Federal Lands) | Unsuitable (All Federal and Non-Federal Lands) | Suitable Habitat (Non-Federal Lands) | Total Lynx Habitat | Non-Habitat | Total LAU |
|---------------------------|--|--|--------------------------------------|------------------------|------------------------|-----------|
| | Acres (% of Total Lynx Habitat) | Acres (% of Total Lynx Habitat) | Acres (% of Suitable) | Acres (% of Total LAU) | Acres (% of Total LAU) | Acres |
| Cebolla (USFS) | 42,099 (99.5%) | 204 (0.5%) | 115 (0.3%) | 42,303 (62.5%) | 25,391 (37.5%) | 67,694 |
| Cathedral (USFS) | 21,414 (99.9%) | 17.9 (0.1%) | 229 (1.1%) | 21,432 (55.2%) | 17,397 (44.8%) | 38,829 |
| Los Pinos (USFS) | 24,265 (97.4%) | 642 (2.6%) | 72 (0.3%) | 24,907 (69.9%) | 10,710 (30.1%) | 35,617 |
| Stewart Creek (USFS) | 32,170 (97.5%) | 810 (2.5%) | 52 (0.2%) | 32,980 (57.9%) | 24,022 (42.1%) | 57,002 |
| Cebolla Creek (BLM) | 64,853 (100%) | 0 | 4,412 (6.8%) | 64,853 (41.8%) | 90,212 (58.2%) | 155,065 |
| Lake Fork Gunnison (BLM) | 48,657 (100%) | 0 | 10,871 (22.3%) | 48,657 (40.5%) | 71,560 (59.5%) | 120,216 |
| Whitecross Mountain (BLM) | 40,343 (100%) | 0 | 2,946 (7.3%) | 40,343 (44.1%) | 51,065 (55.9%) | 91,499 |

The action area LAUs do not appear to be significantly affected by past management activities given the low incidence of stand initiation structural stage (SISS) conditions within the respective LAUs. It is not clear to what extent the spruce bark-beetle epidemic has affect lynx habitat within the action area LAUs. However, an impact to overstory trees is unlikely to negatively affect young trees in the understory that provides habitat for snowshoe hare and lynx. We believe that the baseline conditions within the all action LAUs likely support survival and reproduction of lynx.

Roads

Table 2 provides baseline conditions for length of roads and road density within each LAU. Road densities are below recommendations (i.e. two miles per square mile) provided in the Lynx conservation assessment and strategy (Ruediger et al. 2000). Road density is used as a metric to gauge the level of habitat fragmentation within LAUs. Traffic volume on roads has the potential to negatively influence movement of wildlife when the volume reaches approximately 2,000 vehicles per day (VPD) (annual average daily traffic). None of the major forest roads reach this level of use. In addition, the BA reports that existing traffic volume on State Highway 149, likely the busiest road within the action area, has a reported traffic volume of 570 VPD.

Table 2. Environmental Baseline of road miles and road densities in the Action Area LAUs and LLA

| LAU/LLA | Road Length (miles) | Road Density (mi/mi ²) |
|--|---------------------|------------------------------------|
| Cathedral (61 mi ²) | 16.5 | 0.27 |
| Cebolla (106 mi ²) | 59.9 | 0.57 |
| Los Pinos (56 mi ²) | 84 | 1.5 |
| Stewart Creek (89 mi ²) | 109 | 1.2 |
| Cebolla Creek (242 mi ²) | 229 | 0.9 |
| Lake Fork Gunnison (188 mi ²) | 188 | 0.7 |
| Whitecross Mountain (143 mi ²) | 143 | 0.5 |
| <i>Action Area Total (885 mi²)</i> | 819.1 | 0.93 |
| Slumgullion/Spring Creek Pass LLA (9.4 mi ² ; contained w/in Cebolla LAU) | 19.6 | 2 |

Snow Compaction

Snow compaction routes within the GMUG portion of the action area consist of 19 routes in the Cebolla LAU (59.7 miles), one route in the Cathedral LAU (1.5 miles), and one route in the Los Pinos LAU (12.2 miles) for a total of 73.4 miles. No snow compaction routes are delineated for the Stewart Creek LAU. The snow compaction width averages approximately 10 feet, for a total of 89 acres of snow compaction in the USFS LAUs from linear routes. No snow compaction routes are delineated for the BLM LAUs. However, we estimate that within the La Garita Spruce Beetle Response planning area boundaries, there are 8.4 miles of snow compaction routes within BLM's Cebolla Creek LAU since National Forest System Road 788 (a known snow compaction route) crosses the southern end of this LAU.

Concentrated snowmobile use areas, often called "play areas" are documented within the Cebolla LAU totaling 4,282 acres. One area of concentrated snowmobile use is known within the Whitecross Mountain BLM LAU totaling 885 acres. Snow compaction play areas occur on Mesa Seco; in the vicinity of Deer Lakes Campground; within the southern portion of the Linkage along State Highway 149; between State Highway 149 and Cebolla Creek; and along the Continental Divide on Jarosa Mesa and Rambouillet Park. Table 3, quantifies the amount of snow compaction by LAU.

Table 3. Environmental baseline for snow compaction.

| LAU/LLA | Snow Compaction Acres | % of LAU/LLA |
|---|-----------------------|--------------|
| Cathedral | 1.8 | 0.005 |
| Cebolla | 4,354 | 6.4 |
| Los Pinos | 14.8 | 0.04 |
| Stewart Creek | 0 | 0 |
| Lake Fork Gunnison | 0 | 0 |
| Cebolla Creek | 10.2 | 0.007 |
| Whitecross Mountain | 885 | 0.97 |
| <i>Total</i> | <i>5,256</i> | <i>0.93</i> |
| Slumgullion/Spring Creek Pass LLA (contained w/in Cebolla LAU) | 1,311 | 21.9 |

Effects of the Action

The effects of the proposed action tier to the effects analysis contained in the first-tier BO, and falls into two categories. Category 1 includes project components that are within the scope of the SRLA, requires use of an exemption and/or exception to SRLA standards, and the effects are consistent with those anticipated, analyzed, and quantified in the first-tier BO. Category 2 includes project components that are permissible under the SRLA, but do not require exemptions or exceptions to SRLA standards. We analyzed the effects of category 2 project components in the first-tier BO, but they do not require reporting under the first-tier BO. As stated above, the BLM is not subject to the SRLA standards and is not required to report treated acres under the first-tier BO. However, the effects of the BLM's project activities do not differ from the effects under the SRLA.

The Forest Service portion of the proposed action requires use of exemptions or exceptions to Forest Plan standards for implementation. Salvage harvest activities where VEG S6 applies will result in reduction in snowshoe hare habitat of 997 acres, increasing the total acres used under the Forest's cap to 2,116 acres, leaving 4,955 acres available for future exceptions to VEG S6. The BA calculated that the BLM portion of the project would change all treated lynx habitat to the SISS condition.

Conversion of suitable habitat to the SISS condition within the individual LAUs will not exceed five percent (Table 4), which is within Forest Plan standard VEG S1, and Lynx Conservation Assessment and Strategy (Ruediger et al. 2000) recommendations. Aspen treatment areas should recover quickly, providing forage for snowshoe hares within approximately 5-10 years.

Table 4.

| Acres of lynx habitat converted to stand initiation structural stage (unsuitable) condition by proposed action | | |
|--|---------------|---|
| LAU | Acres to SISS | Percent of lynx habitat in SISS (total LAU acres in SISS) |
| Cebolla (FS) | 506 ac | 1.7 (710) |
| Cathedral (FS) | 51.6 | 0.3 (69) |
| Los Pinos (FS) | 400 | 4.2 (1,042) |
| Stewart Creek (FS) | 377.5 | 3.6 (1,187) |
| Cebolla Creek (BLM) | 565 | 0.87 (565) |
| Lake Fork Gunnison (BLM) | 101.3 | 0.21 (101.3) |
| Whitecross Mountain (BLM) | 247 | 0.61 (247) |

Past management actions have not resulted in SISS conditions within the LAUs within the last 10 years. The proposed action will increase SISS conditions under VEG S2, but will not exceed Forest Plan standard VEG S2.

The proposed action will result in the presence of humans within or near functional lynx habitat. We do not consider human presence within lynx habitat detrimental to lynx. However, lynx are likely to avoid most human activity, because they are generally crepuscular to nocturnal in their activity. However, it is possible that a lynx could be disturbed when activities occur near where they are resting or possibly hunting, but we conclude that this effect is insignificant and discountable.

The BA anticipates a minimal increase in vehicular traffic associated with the proposed action. We do not anticipate that the increased traffic results is a measureable effect to lynx. The BA describes the possibility that a lynx could be struck by a vehicle associated with the proposed action. However, we conclude that, while possible, it is extremely unlikely to occur and considered a discountable effect.

We do not anticipate detrimental effects to lynx resulting from increased snow compaction within the action area LAUs. In addition, these effects are temporary in nature, and are unlikely to result in a measureable effect to a lynx occupying the action area.

The proposed action includes conservation measures, described above, that serve to minimize the effects of the proposed action. The conservation measures will guide project activities to avoid areas of dense understory development, providing foraging opportunities for lynx, and allow the forest to fully regenerate more quickly. In addition, the measures will ensure that habitat connectivity is maintained within and between the LAUs by providing vegetated travel corridors preferred by lynx. Post-harvest soil treatment will allow for dense regeneration on skid trails and landings. Without breaking up of compacted soils, these areas may not provide dense regeneration of trees that support higher densities of prey for lynx.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this BO. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. The BA documented that there are no State, private or Tribal actions within the action area that are reasonably certain to occur.

Conclusion

The proposed action will affect lynx within the LAUs as described above. The species response to vegetation management activities is consistent with the effects analyzed in the first-tier BO. We believe that the effects of the proposed action will not result in take of lynx beyond what we quantified in the first-tier BO.

The incidental take statement in the first-tier BO required the Forest Service to prepare and maintain an up-to-date record documenting the following: 1) contract year, (2) the amount of lynx foraging habitat impacted, (3) the size of the units treated, and (4) the location in which harvest or pre-commercial thinning of lynx foraging habitat occurred. The Forest Service must submit an updated record with this information with each second tier review and submit a final record to the Service's Colorado Field Office by April 1 of each year for the preceding fiscal year. We look forward to receiving your report.

The Service bases our conclusions on the information and analyses contained in the project BA, and our August 20, 2008, BO (BO # ES/LK-6-CO-08-F-024GJ), and the information we relied upon to develop the opinion.

As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take anticipated in the first-tier BO is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in the first-tier opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the first-tier opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease, pending reinitiation.

We appreciate your efforts to ensure the conservation of threatened and endangered species. If you have questions or comments related to this issue, please contact Mr. Kurt Broderdorp at (970) 243-2778, extension 24.

Sincerely,



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Western Colorado Supervisor

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Literature Cited

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