



United States Department of the Interior



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May 17, 2013

Mr. Thomas Haines, District Ranger
Salem Ranger District
Mark Twain National Forest
1301 S. Main
Salem, Missouri 65560

COPY

Dear Mr. Haines:

This letter is in response to your April 18, 2013, request for site-specific review, pursuant to section 7 of the Endangered Species Act of 1973, as amended, on the proposed Bunker Area Derecho Fuels Project on the Salem Ranger District (District) in Dent, Reynolds, and Shannon counties, Missouri. On September 16, 2005, the U.S. Fish and Wildlife Service (Service) issued a Programmatic Biological Opinion (Programmatic BO) for the Mark Twain National Forest (MTNF) 2005 Forest Plan (Forest Plan). This Programmatic BO established a two-tiered consultation process for Forest Plan activities, with the issuance of the programmatic opinion being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations. When it is determined that a site-specific project is likely to adversely affect federally listed species, the Service will produce a "tiered" biological opinion.

In issuance of the Programmatic BO (Tier 1 biological opinion), the Service evaluated the effects of all U.S. Forest Service actions outlined in the Forest Plan for the MTNF. The Programmatic BO evaluated the effects of Forest Service management program activities, including timber management and prescribed burning, on the bald eagle (*Haliaeetus leucocephalus*), Gray bat (*Myotis grisescens*), Hine's emerald dragonfly (*Somatochlora hineana*), Indiana bat (*Myotis sodalis*), Mead's milkweed (*Asclepias meadii*), Pink mucket pearlymussel (*Lampsilis abrupta*), Running buffalo clover (*Trifolium stoloniferum*), Scaleshell mussel (*Leptodea leptodon*), Topeka shiner (*Notropis topeka*), Tumbling Creek cavesnail (*Antrobia culveri*), and Virginia sneezeweed (*Helenium virginicum*). We concurred with your programmatic determinations of "no effect" for Virginia sneezeweed, running buffalo clover, and Topeka shiner. We concurred with your programmatic determinations of "may affect, not likely to adversely affect" for the Hine's emerald dragonfly, Tumbling Creek cavesnail, pink mucket, scaleshell, bald eagle, and gray bat. We also concurred with your programmatic determination of "may affect, likely to adversely affect" for Mead's milkweed and Indiana bat.

In June 2009, the Service provided MTNF with an amended Programmatic BO that addressed running buffalo clover and updated the status of the species for the Indiana bat.

Your request for Service review of the proposed activities associated with the Bunker Area Derecho Fuels Project is a Tier 2 consultation. We have reviewed the information contained in

the Bunker Area Derecho Fuels Project Biological Evaluation (BE), submitted by your office on April 18, 2013, describing the potential effects of the proposed project on the above federally listed species. **We concur with your determination that the only species that may occur within the project area are gray bats, Indiana bats, and Hine's emerald dragonfly. Critical habitat for Hine's emerald dragonfly also exists in the project area.**

Description of the Proposed Action

The Salem District is proposing to treat approximately 22,887 acres of forest in the Bunker Area Derecho Fuels Project area to reduce the amount and continuity of existing fuels. The overall purpose of the project is to 1) decrease wildland fire risk to the community of Bunker and surrounding Wildland Urban Interface (WUI) areas by removing, reducing, and/or rearranging hazardous fuels, 2) provide accessibility for safe wildland firefighting, and 3) recover at least a fraction of the economic value of the storm damaged timber in the project area. Project activities will include mechanical fuel reduction, fuel breaks, and prescribed burning.

Mechanical treatments – Approximately 4,453 acres of the project area will undergo mechanical treatments to remove downed storm-damaged tree boles. Standing dead hazard trees would be removed on skid trails, temporary roads, and log landings.

Fuel breaks – Fuel breaks are proposed on approximately 4,856 acres in prescribed burn treatment areas. These fuel breaks will be located on ridgetops, adjacent and anchoring to the existing roadside salvage fuel breaks along the forest system road corridors. Fuel continuity will be broken up on 87 acres by removing downed tree boles and tops and on 4,769 acres by removing down tree boles. Standing dead trees would be removed within these fuel breaks on 4,856 acres.

Prescribed burning – The proposed action includes 18,434 acres of prescribed burn treatments within the project area. This acreage is included in eleven different prescribed burn units throughout the project area. Some units already have been analyzed in previous Biological Evaluations (BE) and NEPA documents in the last decade.

The current BE for the Bunker Area Derecho Fuels Project analyzes:

- Three new units: Hodge Hollow, Grasshopper Hollow, and Swiney (4,680 ac.)
- Mechanical fuels treatments (fuels breaks) proposed within all the above prescribed burn boundaries (4,856 ac)
- Mechanical fuel treatment proposed outside of the above prescribed burn boundaries (4,453 ac)

No adverse effects are anticipated for gray bats based on the following considerations outlined on pages 30-32 of the BE: 1) there would be minimal activities in the riparian corridors where they could travel and forage, 2) mechanical fuels treatment activities in the uplands would occur during the day when they are not foraging, 3) none of the activities proposed would be expected to affect the quality or amount of cave habitat for this species, 4) no soil movement is expected to occur at rates that would adversely affect the water quality of adjacent streams, and therefore, the aquatic insect prey base for gray bats, 5) gray bats can continue to use existing roads and trails for travel and foraging corridors, and 6) prescribed burns could occur overnight and could cause some disturbance to foraging bats, but they can avoid these areas temporarily and forage along other riparian areas. **The Service concurs with the determination of “may affect, not likely to adversely affect” for the gray bat.**

No adverse effect on Hine's emerald dragonfly and no adverse modification of critical habitat is anticipated based on the following considerations outlined on pages 32-35 of the BE: 1) occupied critical habitat for this species occurs within the project area, but this habitat would be protected from soil disturbing activities with a 500' buffer on the upstream side and 300' on the lateral and downstream sides, 2) no prescribed burning would be done between April and November where occupied critical habitat occurs, 3) other activities proposed would be expected to have either no adverse effect on occupied critical habitat or would have a beneficial effect on occupied critical habitat (e.g. prescribed burning), and 4) indirect effects to habitat would be prevented by following Forest Plan Standards and Guidelines. **The Service concurs with the determination of "may affect, not likely to adversely affect" for the Hine's emerald dragonfly and "no adverse modification" of critical habitat.**

As described in the Service's Programmatic BO, and based on the site-specific biological assessment, adverse effects are likely to occur to the Indiana bat. The following tiered biological opinion is based on those adverse effects.

Tiered Biological Opinion

The following tiered biological opinion is based on likely adverse effects to the Indiana bat from activities associated with the Bunker Area Derecho Fuels Project. In conducting our evaluation of the potential impacts of the project on Indiana bats, our review focused on determining whether: (1) this proposed project falls within the scope of the Programmatic BO issued for the MTNF's Forest Plan; (2) effects of this proposed action are consistent with those anticipated in the Tier 1 Programmatic BO; and (3) the appropriate implementing terms and conditions associated with the reasonable and prudent measures identified in the Tier 1 biological opinion are adhered to. This Tier 2 Biological Opinion also identifies the incidental take anticipated with the Bunker Area Derecho Fuels Project. It conforms to the Service's Programmatic BO (page 14) pertaining to individual projects the Service reviews following the issuance of the Programmatic BO.

Status of the Species

Species description, life history, population dynamics, status and distribution for the Indiana bat range-wide and for Missouri are fully described on pages 23-32 of the 2005 Programmatic BO and the 2009 amendment to the Programmatic BO and are hereby incorporated by reference.

Since development of the 2009 amendment to the Programmatic BO, White-nose syndrome (WNS) has been confirmed in bats in Missouri in four locations (Fig. 1). Spread of the fungus into Missouri, combined with the documented deaths of Indiana bats in other locations from WNS, further threatens the species with extinction.

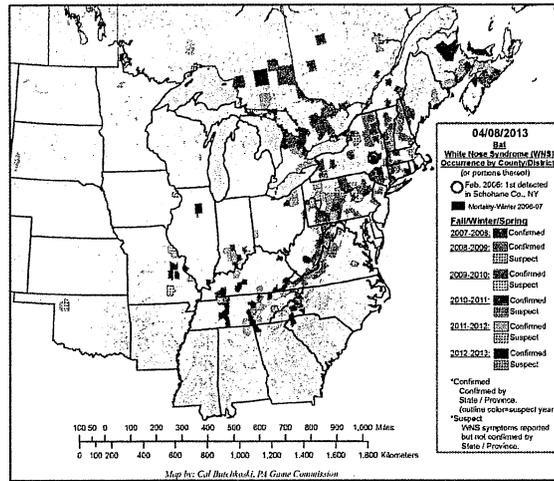


Figure 1. Documented occurrence of White Nose Syndrome (WNS) as of April 8, 2013. Map courtesy of Cal Butchkiski.

Environmental Baseline

The environmental baseline for the MTNF was established and fully described in detail on pages 12-13 and 34-45 of the Service's 2005 Programmatic BO. Since issuance of the Service's Programmatic BO, the environmental baseline on the MTNF changed only slightly.

In the early spring 2006, several tornadoes have destroyed towns and forest land within the 29 county area of the MTNF. Approximately 3,000 acres of the MTNF was affected by these events, though the entire 3,000 acres was not entirely destroyed (Jody Eberly, MTNF pers. comm.). In 2008, wind storms affected approximately 50 acres of forest land on the MTNF.

Status of the Species with the Project Area

There are no Indiana bat records within the project area. The closest hibernaculum is located approximately 7 miles north and 8 miles southwest of the project area. Some documented caves occur with/near the project area, but those caves are not known to support Indiana bats. The closest record of a male capture is approximately two miles north of the project area and a male roost tree was documented 5 miles north of the project area.

The closest record of a reproductively active female Indiana bat capture is approximately 10 miles north of the project area, where one female was captured in 2004 and two were captured in 2005. No maternity colonies or roost trees were located as a result of the 2004 capture, however, five maternity roost trees were located in 2005. Exit counts indicated that there were possibly two maternity colonies with a total of at least 49 bats. An Area of Use (AOU) was developed and approved by the Service for the maternity colonies associated with these trees. No Indiana bats have been captured within the AOU since 2005. The project is approximately 7 miles south of the AOU boundary.

Effects of the Action

Based on our analysis of information provided in your April 18, 2013 BE for the Bunker Area Derecho Fuels Project, we have determined that the potential effects of the proposed action are

consistent with those addressed in the Programmatic BO and are hereby incorporated by reference.

No Indiana bats have been documented in the immediate project vicinity. However, a limited amount of suitable roosting habitat exists within the project area and Indiana bats may occur in the project area during the summer and during migration. The May 2009 storm altered foraging and roosting habitat. The Derecho reduced the canopy to a level that is less conducive to foraging in the majority of the project area. Additionally, only a small number of potential maternity trees remain, but because of the large-scale impact the storm had on available habitat, the trees that remain throughout the project area could be especially valuable to the local bat population.

Approximately 4,856 acres of salvage timber harvest will occur over the 4-year life of the project, as well as 20.94 miles and 208 acres of hazard tree removal for firelines or skid trails, temporary roads, and log landings, respectively. No direct effects are expected to occur from prescribed burning during hibernation. Direct effects could occur to the Indiana bat if an occupied roost tree is removed during the maternity period or fall swarming period. In most instances, an Indiana bat would rouse and fly the roost tree it was occupying was cut knocked down. However, it is possible that individuals could be injured or killed if they do not rouse in time to fly away or if they are non-volant. In addition, returning bats are likely to expend energy locating replacement roost trees if roosts trees used in previous years are removed. An analysis of the likelihood of roost trees being occupied can be found on pages 57 of the Programmatic BO. Project activities could also result in indirect effects to the Indiana bat from a temporary reduction in the species' foraging habitat or the temporary loss of roosting habitat.

A complete discussion of these effects can be found in the "Effects of the Action" section, on pages 45-64 of the Service's September 16, 2005 Programmatic BO.

Conclusion

The actions and effects associated with the proposed Bunker Area Derecho Fuels Project are consistent with these identified and discussed in the Service's Programmatic BO. After reviewing the size and scope of the project, the environmental baseline, the status of Indiana bat, and its potential occurrence within the project area, the effects of the action; and any cumulative effects, **it is the Service's biological opinion that this action is not likely to jeopardize the continued existence of the Indiana bat.**

Incidental Take Statement

The Service anticipates that the proposed actions associated with the Bunker Area Derecho Fuels Project will result in the incidental take of Indiana bat habitat as outlined in Table 1. The type and amount of anticipated incidental take is consistent with that described in the Programmatic BO and does not cause the total annual level of incidental take in the Programmatic BO (page 67-69) to be exceeded.

Table 1. Anticipated incidental take associated with the Bunker Area Derecho Fuels Project.

| Activity | Acres Affected in the Proposed Project Area FY13-FY16 | Cumulative Acres Affected in FY13 To Date | Total Annual Anticipated Level of Incidental Take in the 2005 Programmatic BO |
|---|---|---|---|
| Salvage timber harvest | 4,856 ac | 4,754 ac* | 15,000 ac |
| Hazard tree removal – firelines | 20.94 mi | 52.1 mi* | 240 mi |
| Hazard tree removal – skid trails, temp roads, log landings | 208 ac | 97.8 ac* | 800 ac |

*Provided in the BE; does not include the acres/miles to be affected in the proposed project area.

The Forest Service must implement all pertinent reasonable and prudent measures and implementing terms and conditions stipulated in the Programmatic BO to minimize the impact of the anticipated incidental take of Indiana bats, and to be exempt from the take prohibitions of section 9 of the Act. We have determined that no new reasonable and prudent measures, beyond those specified in the Programmatic BO, are needed to minimize the impact of incidental take anticipated for the Bunker Area Derecho Fuels Project.

This fulfills your consultation requirements for this action. Should the proposed project be modified or if the level of take identified above is exceeded, reinitiation of consultation as outlined in 50 CFR 402.16, is required.

We appreciate your efforts to ensure that this project is consistent with all provisions outlined in the Programmatic BO. If you have any questions regarding our response or if you need additional information, please contact Shauna Marquardt at 573-234-2132 x 174.

Sincerely,



Amy Salveter
Field Supervisor

cc: USFS, Mark Twain National Forest, Wildlife, Rolla, MO (Theresa Davidson)