United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
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In Reply Refer To:
FWS/R2/OKES/
21440-2008-B-0004

March 13, 2008

Allan H. Fetter
US Nuclear Regulatory Commission
Environmental Review Branch
Mail Stop T-8 F5
Washington, DC 20555-0001

Dear Mr. Fetter:

Thank you for your December 12, 2007, request for section 7 consultation and your request for comments on the submitted September 2007 Draft Environmental Impact Statement (DEIS) regarding the reclamation of the Sequoyah Fuels Corporation site near Gore, Sequoyah County, Oklahoma. Our comments are submitted in accordance with section 7 of the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and National Environmental Policy Act (NEPA).

The endangered American burying beetle (ABB) *Nicrophorus americanus* historically occurred and/or is believed to currently persist in and/or around the project area. In addition, adjacent counties have historic and current records of the ABB. The current distribution of the ABB is available from our ABB website at <http://www.fws.gov/southwest/es/oklahoma/beetle1.htm>. The presence of the ABB is closely associated with carrion availability. Consequently, the ABB has been found in a variety of habitats (U.S. Fish and Wildlife Service 1991, Creighton *et al.* 1993). The ABB is closely tied to soil, spending between 7 and 10 months in the soil during the winter inactivity and spring reproduction.

On February 27, 2008, the U.S. Fish and Wildlife Service (Service) met with you and Sequoyah Fuels representatives to discuss the reclamation proposal and to inspect the site. Based on the information provided during the meeting and site visit, suitable habitat and soil for the ABB is present in the proposed project area. Further, since ABBs have been captured in or near your project site, the proposed project will involve ground disturbance, and ABBs inhabit the soil for the majority of their life cycle, the ABB could be adversely impacted by the proposed project. Enclosed is the 'Conservation Approaches for the American Burying Beetle' detailing the options available for incorporation into your project design and development to avoid or minimize adverse impacts to the ABB. These are the options the Service presented at our

meeting. Please review and incorporate the appropriate guidelines into your project design. To finalize the section 7 consultation, updated consultation correspondence reflecting the ABB Conservation Measures that will be implemented, must be submitted to our office and a response from us must be received.

The MBTA provides protection to migratory birds (any bird listed in 50 CFR 10.13) throughout the U.S., Canada, and Mexico. Under the MBTA, taking, killing, and possession of migratory birds, and their eggs, young, or active nest is prohibited unless authorized by permit from the Secretary of the Interior. Permits authorizing incidental take are not issued. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Oklahoma occurs from the beginning of March through the end of July. Since numerous migratory birds inhabit the project area and could be taken through project actions, the Service recommends implementing construction activities that could destroy migratory birds, their eggs or nest, between the first of August and the end of February. In addition, the Service requests mitigation for the loss of habitat for migratory birds, the ABB, and other fish and wildlife resources, as authorized under NEPA.

We appreciate the opportunity to review your proposed project and provide comments. Please include the project number at the top, left of the front page. This correspondence is valid for one year from the above date. If you have any questions, please contact Hayley Dikeman at 918-382-4519.

Sincerely,

Kenneth D. Frazier
Assistant Field Supervisor

Enclosure

References

Creighton, J.C., M.V. Lomolino, and G.D. Schnell. 1993. Survey methods for the American burying beetle (*Nicrophorus americanus*) In Oklahoma and Arkansas. Oklahoma Biological Survey, Norman, Oklahoma.

U.S. Fish and Wildlife Service. 1991. American Burying Beetle (*Nicrophorus americanus*) Recovery Plan. Newton Corner, Massachusetts. 80 pp.

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Conservation Approach for the American Burying Beetle (ABB) In Counties[1] Lacking or with Limited Recent Survey Data[2]

Updated March 2008

The ABB once occurred throughout the eastern United States. Today the ABB's range is restricted to less than approximately 10 percent of its former range. The historic and current ranges of the ABB, and other related ABB life history information can be obtained from our ABB web site: < http://www.fws.gov/southwest/es/oklahoma/beetle1.htm>.

The ABB is nocturnal (*i.e.*, active only at night), has a life span of about one year, feeds and breeds on carrion, and is considered a feeding habitat generalist. American burying beetles enter an inactive period, spent underground, when nighttime ambient low temperatures are consistently (*i.e.*, at least 5 consecutive days) 60°F or below. In Oklahoma, this typically occurs from September 20 through May 20. Once nighttime low temperatures are consistently above 60°F, ABBs emerge and become active. The active period in Oklahoma typically occurs from May 20 through September 20.

The ABB has been captured via baited pitfall traps in a variety of habitats including grasslands, grazed pasture, bottomland forest, riparian zones, and oak-hickory forest (Creighton *et al.* 1993; Lomolino and Creighton 1996; Lomolino *et al.* 1995; NatureServe Explorer 2003; and U.S. Fish and Wildlife Service 1991). Although ABBs are known to occupy numerous habitat types, they exhibit close associations with carrion and soil during feeding and reproduction. While ABBs are able to utilize any carcass for feeding, they require specific sized carrion for reproduction (Bedick *et al.* 1999).

The appropriate size of carrion needed for reproduction is 100-200 grams (approximately the size of a cotton rat). Availability of suitably sized carrion in a given area is suspected to be a major factor influencing habitat selection by ABBs (U.S. Fish and Wildlife Service 1991). American burying beetles have been recorded detecting carrion from a distance of 2 miles and moving an average distance of approximately 0.5 miles per night (Creighton and Schnell 1998).

Soil conditions where the species occurs must be conducive to excavation by ABBs (Anderson 1982, Lomolino and Creighton 1996). Soil related activities include burial of carcasses for egg deposition, development of young in the soil from egg through pupal stages, parental care of developing young underground, and retreat of adults underground to overwinter. Soils in the vicinity of ABB captures range from sandy and silt loams in the western part of their range to glacial marine deposits in the eastern part of their range (U.S. Fish and Wildlife Service 1991). The adults also typically reside in the duff or bury themselves in the soil during daylight hours of their active season (May 20 to September 20).

Because the ABB may be present in your project area, the Oklahoma Ecological Services Field Office recommends that one of the following Conservation Approaches be implemented to avoid or minimize impacts to the ABB.

Conservation Approach 1

Conduct ABB surveys to more precisely determine presence or absence and capture rate of the ABB within your immediate project area. The ABB survey protocol we recommend is the "U.S. Fish and Wildlife Service American Burying Beetle *Nicrophorus americanus* Survey Guidance In Oklahoma", which can be downloaded from our ABB website. A valid section 10 permit from the U.S. Fish and Wildlife Service (Service) is required for anyone conducting such surveys. A list of current permit holders and related information also can be obtained from our ABB website. All surveys must be conducted during the ABB's active period and take place no earlier than one year prior to initiating ground disturbing activities; otherwise, another survey may be necessary. All survey results, positive or negative, must be submitted in writing to this office for review prior to initiating any ground disturbing activities.

If survey results are negative (*i.e.*, no ABBs were captured at your project site), and you have received concurrence from the Service, the project can proceed immediately. Conversely, if survey results are positive, or ABBs are definitely known to occur in proximity to the project area based on other data, ABBs potentially could be impacted by your proposed project. One of the following Avoidance Measures must then be implemented to avoid and/or address adverse impacts and unauthorized take of the ABB. Because ABBs enter an inactive period underground when nighttime low temperatures are consistently below 60°F, the timing of project ground disturbance is crucial in relation to the selection of the appropriate Avoidance Measure and influences how effectively the available Avoidance Measures achieve conservation goals and

comply with the Endangered Species Act of 1973, as amended (ESA).

Avoidance Measure 1

Unauthorized take and most adverse impacts to the ABB can be avoided for most projects by removing the ABB from the project area by using one of the protocols below. Implementing either of these protocols ensures that further section 7 consultation will not be required unless your project plans change, or if additional information on the distribution of listed or proposed species becomes available.

> *Bait Away Protocol* – Involves distributing the appropriate bait outside of the proposed disturbance area to lure ABBs a sufficient distance away from the areas to be disturbed.
>
> *Trap and Relocation Protocol* – Involves trapping ABB within the area to be disturbed and then relocating any captured ABBs to a suitable relocation site.

The Service's current "Bait Away" and "Trap and Relocation Protocols" can be downloaded from our ABB website. Both of these measures must be implemented during the ABB's active period and in accordance with the Service's recommended protocols. If the time frame for project ground disturbance is not planned to occur during the ABB's active period, ground disturbance may have to be postponed until onset of the next active period. Where construction during the ABB's active period is not possible, but project planning occurs during the ABB's active period, ground disturbance can proceed during the inactive period provided baiting away or trapping and relocating is successfully conducted just prior to the onset of the inactive period corresponding with project ground disturbance.

Like surveys, trapping and relocating ABBs must be conducted under the authority of an appropriate section 10 permit from the Service. Any relocation site must be coordinated with this office. Although a section 10 permit from the Service is not currently required to conduct baiting away activities, a permit for such activities could be required in the future. The Service does prefer a section 10 permitted biologist, or at a minimum a wildlife biologist, conduct such activities. A "Relocation Data Form" or a "Bait Away Form" must be submitted to this office within 30 days following cessation of relocation or bait away efforts, respectively. Section 7 consultation is not considered complete until the proper form is submitted. These forms can be downloaded from our above mentioned ABB website.

Avoidance Measure 2
If ground disturbance cannot be postponed until the ABB's active period, or baiting away or trapping and relocating at the site just prior to the onset of the ABB's inactive period is not possible, then additional consultation with the Service is necessary to minimize and/or mitigate adverse impacts to the ABB. At this point formal consultation in accordance with section 7 should be initiated with this office.

Section 7(a)(2) of the ESA requires federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any federally-listed threatened or endangered species, or result in adverse modification or destruction of designated critical habitat. Critical habitat has not been designated for the ABB, so this is not an issue. When the federal action agency determines that its action "may affect" a federally-listed threatened or endangered species or designated critical habitat, the agency is required to enter into formal consultation with the Service. A request from the federal action agency initiating formal consultation must be made in writing to this office. The federal agency, or their designated non-federal representative, will need to prepare a biological assessment for submission to the Service for review. At a minimum the biological assessment should include: a detailed project description; project schedule (including date for initiating ground disturbance); implementation methods; disturbance type, amount, and duration; and current habitat and land use of the project site. More detailed information on the section 7 consultation process is available at the Service's website < http://www.fws.gov/southwest/es/oklahoma/sect7.htm>.

Conservation Approach 2
Provide habitat mitigation for the ABB due to the temporary or permanent loss of ABB habitat instead of conducting surveys, and baiting away or trapping and relocation through formal consultation. This Conservation Approach can avoid any potential delays in project implementation due to the ABB. In addition, this approach provides long-term conservation benefit for the ABB.

The prevailing theory on the ABB's decline is the loss, degradation, and fragmentation of habitat, and the resulting decrease of prey and increased competition for prey from such habitat alterations (USFWS 1991, Sikes and Raithel 2002). Consequently, the Service has identified priority ABB habitat conservation areas in Oklahoma. The determination of these priority sites

was based on the areas being: large tracts of unfragmented land, managed for natural resource conservation, held in perpetuity, and known to contain ABBs. Further the Service has coordinated with The Nature Conservancy to establish an ABB Conservation Fund Account. This account is held by TNC and is strictly utilized for the acquisition of ABB habitat in priority areas and study of the ABB's life history and ecology.

Contributions can be made to this account as habitat mitigation for impacts to ABB habitat from proposed projects. Further consultation with the Service is needed to determine eligibility for this Conservation Approach and to address take of ABBs from the proposed project. Please contact Hayley Dikeman with our office for additional information.

Conclusion

Due to the large number of projects we review, incomplete requests can significantly delay our evaluation of your project. A list of information generally required by the Service to fully evaluate such requests may be obtained from our website at < http://www.fws.gov/ southwest/es/oklahoma/sect7.htm >. In addition, for projects within the historic range of the ABB, a completed "ABB Project Evaluation Form" should be submitted to this office for review. This form will allow staff to more accurately determine the potential impacts of the proposed project. This evaluation form also is available on our ABB web site.

References

Anderson, R. S. 1982. On the declining abundance of *Nicrophorus americanus* Olivier (Coleoptera: Silphidae) in eastern North America. Coleop. Bulletin 36: 362-365.

Bedick, J.C., B.C. Ratcliffe, W.W. Hoback, and L.G. Higley. 1999. Distribution, ecology and population dynamics of the ABB in south-central Nebraska. Journal of Insect Conservation 3:171-181.

Creighton, J.C. and G.D. Schnell. 1998. Short-term movement patterns of the American burying beetle (*Nicrophorus americanus*). Biological Conservation 86:281-287.

Creighton, J.C., M.V. Lomolino, and G.D. Schnell. 1993. Survey methods for the American burying beetle (*Nicrophorus americanus*) In Oklahoma and Arkansas. Oklahoma Biological Survey, Norman, Oklahoma.

Lomolino, M., and C. Creighton. 1996. Habitat selection, breeding success and conservation of the endangered American burying beetle (*Nicrophorus americanus*). Biological Conservation 77:235-241.

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Conservation Biology 9:605-614.

NatureServe Explorer: An online encyclopedia of life [web application]. 2003. Version 1.6 . Arlington, Virginia, USA: NatureServe. Available: http://www.natureserve.org/explorer.

Sikes, D.S. and Christopher J. Raithel. 2002. A review of hypotheses of decline of the endangered American burying beetle (Silphidae: *Nicrophorus americanus* Olivier). Journal of Insect Conservation 6:103-113.

U.S. Fish and Wildlife Service. 1991. American Burying Beetle (*Nicrophorus americanus*) Recovery Plan. Newton Corner, Massachusetts. 80 pp.

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[1]Adair, Atoka, Bryan, Cherokee, Choctaw, Coal, Craig, Creek, Delaware, Hughes, Johnston, Marshal, Mayes, McIntosh, Muskogee, Nowata, Okfuskee, Okmulgee, Osage, Ottawa, Pawnee, Pontotoc, Pushmataha, Rogers, Seminole, Sequoyah, Tulsa, Wagoner, and Washington counties

[2]Recent is defined as no older than five years from current date.