

APPENDIX A

CONSTRUCTION BEST MANAGEMENT PRACTICES FOR MINIMIZING IMPACTS TO THE AMERICAN BURYING BEETLE

Construction Best Management Practices (BMPs) for Minimizing Impacts to the American Burying Beetle (ABB)

Source: Final Biological Opinion issued to Tulsa District Corps of Engineers by U.S. Fish and Wildlife Service (June 28, 2005)

The following description of construction BMPs for minimizing adverse effects to the ABB is included in the proposed action:

1. The Proponent will evaluate the likelihood of ABBs in the project area by reviewing the Service's county lists of Threatened & Endangered species at:
<<http://ifw2es.fws.gov/Oklahoma/ctylist.htm>>
2. If the project site is in a county where the ABB *is not* listed, the Proponent will proceed without further precautions with regard to the ABB.
3. If the project site is in a county where the ABB is listed, the Proponent will evaluate the project area for ABB habitat. If the project site is confined to one or more of the following habitats, the Proponent will conclude that the habitat is not suitable for the ABB and proceed without further precautions with regard to the ABB.
 - Land that has already been developed and no longer exhibits surficial topsoil or leaf litter.
 - Land that is tilled on at least an annual basis.
 - Soil that is greater than 70% sand.
 - Soil that is greater than 70% clay.
 - Land where greater than 80% of the soil surface is comprised of rock.
 - Land where greater than 80% of the subsurface soil structure within the top 4 inches is comprised of rock.
 - Land that meets the US Army Corps of Engineers definition of wetland. (However, projects developed in this type of habitat will need to be reviewed by the Corps to ensure compliance with section 404 of the Clean Water Act.)
4. Projects in areas that exhibit suitable habitat for the ABB, *i.e.*, do not exhibit the above characteristics, will be evaluated by the Proponent for the presence/absence of the ABB in the immediate project area. This will be done by reviewing the Service's database of ABB surveys at: <<http://ifw2es.fws.gov/oklahoma/beetle1.htm>>.
5. If a nearby ABB survey (within a five-mile radius of the proposed construction site) is found, the Proponent will apply the survey results to the project site. If both positive and negative surveys are found to be applicable, positive surveys will always be applied over negative surveys.
6. If applicable survey results are negative for ABB occurrences, the Proponent will proceed with the project without further precautions with regard to the ABB.
7. If applicable survey results are positive for the ABB, the Proponent will proceed with the project as follows:

- Whenever possible, the Proponent will postpone construction until the active season of the ABB, *i.e.*, between May 20 and September 20, when nighttime temperatures average above 60°F. The Proponent will begin construction only after implementing the Service's current Baiting Away protocol or current Trapping and Relocating protocol whichever is determined more appropriate.
8. If there are no existing surveys applicable to the proposed construction site and the construction will occur during (or can be postponed until) the active season of the ABB, the Proponent will do either of the following:
 - Assume ABBs are present and utilize the Service's current Baiting Away protocol to proceed with the project.
 - Conduct an ABB survey of the project area.
 9. If an ABB survey of the project area is negative, the project will proceed without further precautions with regard to the ABB.
 10. If an ABB survey of the project area is positive, the Service's current Baiting Away protocol or current Trapping and Relocating protocol will be utilized and then the project will proceed.