

American Burying Beetle (ABB) Best Management Practices to Minimize Soil Disturbance Impacts

Oklahoma Ecological Services Field Office

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1. Minimize soil disturbance and clearing of vegetation at work areas. Use smaller equipment or hand cutting techniques that leave the root zone intact and reduce soil compaction relative to heavy equipment.
2. Minimize the use of artificial lighting. In situations where night construction work is necessary, shield direct light down to the work area and prevent light from projecting upwards, thus minimizing the potential to attract insects, including ABBs. LED lights are recommended because they generate less heat.
3. In heavily disturbed areas, return surface soils to approximate pre-construction conditions. Prior to the topsoil replacement, rip (i.e., mechanically turn soil with a plow or ripping device) the impacted area. Rip and disk at a time when the soil is dry enough for normal tillage operations to occur on undisturbed farmlands adjacent to the areas to be ripped. This soil de-compaction treatment should reduce soil compaction.
4. Install appropriate erosion controls, including such items as straw bales, biologs, silt fence, and similar materials.
5. Implement Pollution Prevention Requirements as required for Storm Water Discharge Permits. Additionally, fuel all equipment outside of ABB habitat (that is, outside of undisturbed native vegetation) and store all fuel and chemicals outside of ABB habitat.
6. Restore disturbed areas using approved native seed mixes appropriate for the site.
7. Educate all workers operating in the project areas about ABB habitat and the responsibility of all workers to avoid and minimize impacts. Require all workers to report any ABB sightings to the project manager or environmental inspector, and remove all food wastes or dead animals from the project site each day. Provide each worker a full color picture of the ABB and post signs at all project access points with reminders to follow special restrictions in the area.