

### **Species Protective Measures for Gray Bats**

The following avoidance and minimization measures should be implemented to minimize adverse effects of the project to Gray Bats.

- Survey the project area for karst features, mines or underground passages that provide complete darkness prior to construction and notify the Arkansas Ecological Services Field Office of all features that could provide suitable habitat for Gray Bats. The Field Office can be reached at (501) 513-4470.
- No blasting shall occur within 1 mile of an occupied cave where bats are present.

**In addition to the above conditions, the Service recommends the following:**

- Cave entrance and structure should not be obstructed or modified.
- Establish a natural area of 300 feet or greater around any cave, sinkhole, losing stream, or spring found during the survey (or during any aspect of project implementation). The Service should be contacted for further evaluation to determine if caves are used by federally listed species.
- If caves or other openings are encountered during construction, the Service requests that work efforts cease within 300 feet of the opening. The opening should be adequately marked and protected from work activities, and the Service should be contacted immediately. No fill materials should be placed into the opening until Service or Service approved personnel have the opportunity to inventory the site.
- If a cave or fracture is breached or surface water is rerouted into a karst feature, all activities should cease and the Service should be contacted to assess the situation and provide further consultation before proceeding.
- Prescribed fire should be planned so that smoke does not enter occupied caves while bats are present.