Species Protective Measures for Northern Long-eared Bats

The following species protective measures shall be implemented to minimize adverse effects of the project to Northern Long-eared Bats.

- Survey the project area for karst features, mines or underground passages that provide complete darkness (large culverts, covered canals, etc.) prior to construction and notify the Arkansas Ecological Services Field Office of all such features. The Field Office can be reached at (501) 513-4470.
- No tree removal or prescribed burning shall occur within 150 feet of known roost trees.
- No tree removal shall occur within 0.25 miles of a northern long-eared bat hibernaculum at any time of year.

In addition to the above conditions, the U.S. Fish and Wildlife Service (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.
- When possible and not a hazard, retain Shagbark Hickories, snags, and other trees that have exfoliating or scaling bark, cracks, or cavities that could provide bat habitat.