

## Northern Long-Eared Bat (NLEB) Conservation Recommendations

Provided in the Programmatic Biological Opinion on Final 4(d) Rule for NLEB and Activities  
Excepted from Take Prohibitions dated January 5, 2016

1. Perform NLEB surveys according to the most recent Range-wide Indiana Bat/NLEB Summer Survey Guidelines.
2. Apply additional voluntary conservation measures, where appropriate, to reduce the impacts of activities on NLEBs. Conservation measures include:
  - a. Conduct tree removal activities outside of the NLEB pup season (June 1 to July 31) and/or the active season (April 1 to October 31). This will minimize impacts to pups at roosts not yet identified.
  - b. Avoid clearing suitable spring staging and fall swarming habitat within a 5-mile radius of known or assumed NLEB hibernacula during the staging and swarming seasons (April 1 to May 15 and August 15 to November 14, respectively).
  - c. Manage forests to ensure a continual supply of snags and other suitable maternity roost trees.
  - d. Conduct prescribed burns outside of the pup season (June 1 to July 31) and/or the active season (April 1 to October 31). Avoid high-intensity burns (causing tree scorch higher than NLEB roosting heights) during the summer maternity season to minimize direct impacts to NLEB.
  - e. Perform any bridge repair, retrofit, maintenance, and/or rehabilitation work outside of the NLEB active season (April 1 to October 31) in areas where NLEB are known to roost on bridges or where such use is likely.
  - f. Do not use military smoke and obscurants within forested suitable NLEB habitat during the pup season (June 1 to July 31) and/or the active season (April 1 to October 31).
  - g. Minimize use of herbicides and pesticides. If necessary, spot treatment is preferred over aerial application.
  - h. Evaluate the use of outdoor lighting during the active season and seek to minimize light pollution by angling lights downward or via other light minimization measures.
  - i. Participate in actions to manage and reduce the impacts of white-nose syndrome on NLEB. Actions needed to investigate and manage white-nose syndrome are described in a national plan the Service developed in coordination with other state and federal agencies (Service 2011). That plan can be found at <[www.whitenosesyndrome.org](http://www.whitenosesyndrome.org)>.

U.S. Fish and Wildlife Service. 2011. A National Plan for Assisting States, Federal Agencies, and Tribes in Managing White-Nose Syndrome in Bats. U.S. Fish and Wildlife Service, Hadley, MA. 18pp.