

Subject: Review and Documentation of New Information (FSH 1909.15 Sec 18.1)

INTRODUCTION

On May 18, 2004, a contractor for the US Army Corps of Engineers captured two pregnant female Indiana bats in mist nets near Lake Wappapello, as part of a biological inventory of Corps lands. These two bats were fitted with radios, and followed with telemetry equipment for the following six nights. Four roost trees were located by radio-tracking. Two of these are on Corps lands, one is on National Forest land, and the other is on the boundary between National Forest land and private land. All roost trees are within about 2.5 miles of the capture location.

On May 23, 2004, Forest Service personnel tracked one of the females to the roost tree on National Forest lands. On May 26, 2004, North Central Research personnel observed that tree starting just before dusk, and saw 22 bats that flew from the tree to begin their nightly foraging. On May 27, 2004, North Central Research personnel observed this tree, as well as one of the roost trees on Corps land simultaneously. At about 8:15 pm, 7 bats emerged from the tree. On June 2, 2004, biologists Megan York and Angie Trombley of the Poplar Bluff district observed the MTNF roost tree. At approximately 8:20 pm, 30 bats emerged from the tree.

This information indicates that there is a maternity colony of the federally endangered Indiana bats using this area to have and raise their young. The capture site and documented roost trees for reproductively active females on the Poplar Bluff District are approximately 30 miles from the Eastwood 2 project area.

RELATIONSHIP OF NEW INFORMATION TO IMPACTS ALREADY ANALYZED

The RONI regarding continued implementation of the Forest Plan in light of this new information is hereby incorporated by reference to this site-specific RONI.

The Forest Service prepared a Biological Evaluation (BE) for the Eastwood 2 project area, which determined that there would be no additional affects to Indiana bats that had not already been analyzed in the programmatic BA and addressed in the programmatic BO. This determination was based on a review of documented occurrences of Indiana bat in Missouri, on habitat preferences of males and females, and on current habitat conditions in the Eastwood 2 project area.

The analysis for Eastwood 2 started with the assumption that Indiana bats could be present anywhere in the project area where there was appropriate habitat (Programmatic BA page 3 Ibat). The analysis reviewed all pertinent information on both summer and winter habitat preferences of Indiana bat males, non-reproductive females, and reproductively active females, as well as what information is known about migration pathways and patterns.. The analysis also reviewed all previously documented hibernacula, maternity colony sites, and capture sites of males and/or reproductively active females. The analysis then compared this information to the current habitat conditions available within the Eastwood 2 project area.

The analysis concluded that Indiana bats were unlikely to use the Eastwood 2 project area for several reasons:

- the Eastwood 2 project area was 14 miles from the nearest hibernaculum,
- the nearest hibernaculum only had 1 Indiana bat at the last survey,
- therefore making it unlikely that males would be in the area except possibly during migration.
- documented occurrences of reproductively active females and maternity colonies were 80 and 100 miles from the project area respectively,
- the majority of known maternity colonies in Missouri and the Midwest are associated with riparian habitat in prairie landscapes, floodplain habitat along the Mississippi River, and highly fragmented landscapes with a majority of openland interspersed with small to medium-sized forest patches or woodlands,
- the Eastwood 2 project area has no floodplain or riparian habitat, although the Current River is nearby,
- the Eastwood 2 project area is in a landscape that is heavily forested with some private openlands nearby,
- therefore, making it unlikely that females would find suitable habitat in the project area.

On August 27, 2001 the USFWS issued a tiered BO for the Eastwood 2 project, stating that they “concur with your conclusion that there are no additional effects to federally listed species associated with the Eastwood 2 Project beyond those that were previously disclosed and discussed in the Service’s Programmatic BO of June 23, 1999.” and that “it is the Service’s biological opinion that this action is not likely to jeopardize the continued existence of the Indiana bat.” They further state that “This fulfills your consultation requirement for this action. Should the proposed project be modified or if the level of take identified above is exceeded, reinitiation of consultation as outlined in 50 CFR 402.16, is required.”

The project has not been modified and the anticipated level of take has not changed. Nor has any information indicated a change in status of the species within the project area. Therefore, reinitiation of consultation is not required.

DETERMINATION OF THE IMPORTANCE OF NEW INFORMATION

The discovery of a maternity colony on National Forest lands south of the Missouri River was unexpected, but not unanticipated.

The programmatic BA stated that “it is possible that reproductive activity could occur on some parts of the forest, particularly near the Missouri River and its tributaries.” and that “there are about 450,000 acres or 30% of Mark Twain National Forest which meet these conditions” (i.e. riparian corridors and uplands within 1 kilometer of permanent streams (page 13 Ibat).

The programmatic BO states that “Unglaciaded portions of the Midwest (southern Missouri...)... and most of the eastern and southern portions of the species’ range appear to have fewer maternity colonies per unit area of forest. However, such

conclusions may be premature, given the lack of search effort in these areas.” (BO page 52).

The Eastwood 2 Biological Evaluation identified the nearest documented locations of maternity colonies (about 100 miles) and capture sites of reproductively active females (about 80 miles). It also identified recent surveys within 1-3 miles of the project area that had captured no Indiana bats in one summer of mist-netting and acoustic detection. *NOTE: A second summer of mist-netting in that same project area adjacent to Eastwood 2 also resulted in no capture of Indiana bats.* The Eastwood 2 BE stated that there was no riparian or floodplain habitat within the project area and the project area is within a large forested area, and therefore, maternity colonies were unlikely. While maternity colonies have been found in “uplands”, these are usually not far from permanent streams or rivers (BE page 20).

The maternity colony discovered on the Poplar Bluff District is about 30-35 miles from the Eastwood 2 project area. The latest scientific information about maternity colony movements suggests that roost trees are normally located in fairly close proximity, although some colonies have trees located as much as 5 miles apart; and that the pregnant and later, lactating females forage in areas within 2-5 miles of the roost tree(s). Therefore, the bats in this colony would not be using the Eastwood 2 project area for roosting or foraging, except possibly during migration.

However, the Eastwood 2 Project area is located about 1 mile at its closest from the Current River, well within the range of reproductively active female documented roosting and foraging distances. Surveys in 2001 and 2002 within 1 mile of Eastwood 2 suggest that there are no Indiana bats in the vicinity.

The LandType Associations where Eastwood 2 and the newly discovered maternity colony are found are different. This means their ecological position on the landscape is different. Eastwood 2 is located in the Current River Hills Oak-Pine Woodland/Forest Hills. This landtype association is located near, but outside of areas of alluvium (floodplain or riparian). The new maternity colony is located in the Wappapello Oak-Pine Woodland/Forest Hills. That landtype association is located on and adjacent to large areas of alluvium. It is also 30 miles from the Mississippi Lowlands.

The aerial signature of the two areas is not much different. Both show large forested blocks with large open areas along the privately owned bottomlands. The Eastwood 2 project area is about 1 mile from the Current River at its closest, and the new maternity roost is about 2 miles from the north arm of Lake Wappapello.

After careful review of the information presented, I have determined that the Eastwood 2 analysis adequately considered the potential for having maternity colonies of Indiana bat within the project area with the information available at the time. However, the new information puts the nearest documented maternity colony 50 miles closer to the project area, and indicates a need to reevaluate that potential.

While I am still convinced biologically that the Eastwood 2 project area does not fit the landscape, nor site-specific habitat needs of maternity colonies of Indiana bats, the new information requires re-evaluation of the potential for Indiana bats to be in the Eastwood 2 project area in summer.

Therefore, it is my recommendation that:

- 1) both the Eastwood 2 project area and the nearby Current River bottomlands (or small streams running into the Current River) be mist-netted and acoustically monitored between June 10, 2004 and August 15, 2004.
- 2) the District Wildlife biologist and Silviculturist review stand information for Eastwood 2 and determine if there are stands with characteristics common to known maternity sites (i.e. large dead trees overtopping the canopy or in open/semi-open positions; stand age greater than 70 years old, average diameter of 12" or greater, basal area of less than 70%; site index relatively high, and within 1 mile of a permanent stream or river),
- 3) if such stands exist, conduct a field check to determine if conditions on the ground match the data, and
- 4) for those stands that match the profile, conduct acoustic monitoring between May 15 and August 15 to check for presence of Indiana bats.

FINDINGS:

Implementation of recommendations above:

- 1) From June 15 – June 17, 2004, 3 sites within the Eastwood 2 Project area, 1 site along Big Barren Creek and 5 sites along the Current River bottomlands were mist-netted by personnel from North Central Research Station. In addition, Anabat acoustic detectors were set out at or near all mist-net locations. 90 net-hours of mist-netting were completed. During this effort, no Indiana bats of either sex were captured.
- 2) From June 16-June 18, 2004 stand data for the Eastwood 2 project area was reviewed. Nineteen stands met the following characteristics: a) Site index ≥ 65 , b) Age 70 years or greater and c) Average diameter ≥ 12 inches. District personnel reviewed those 19 stands to determine which were within 1 mile of a permanent stream or river. None of the stands met that criteria. Only one stand was closer than 2 miles to the river. All the remaining stands were from 2.25 – 4.75 miles from the river.
- 3) On June 23, 2004, District Silviculturist Don Fish and Wildlife Biologist Keith Kelley field checked 7 of the 9 stands in #2 above that were scheduled for treatment as a result of the Eastwood 2 Decision Notice to determine if the stand data accurately reflected actual ground conditions. These were also the stands that were closest to permanent running water (i.e. the Current River), but they were still more than 2 miles from the river. Results of this visit showed that CDS data is substantially accurate, but that actual site indexes taken on June 23, 2004 were slightly higher in general than the CDS data showed. In addition, although large live trees were dominant in some of the stands, there was a distinct absence of large snags in all the stands examined. One of the stands had already been harvested, and one other stand was in the process of being harvested.
- 4) Due to the distance from water, the absence of large snags, and the negative results of June 2004 mist-netting, no further surveys are necessary in this project area.

There are five timber sales within the Eastwood 2 project area. As of June 10, 2004, one sale is completed and closed (Eastwood Post). One sale is completed and awaiting closure (Rocket City). One sale is about 70% completed, and cutting on one unit (43 acres) is currently taking place (Bottleneck). One sale (Big Bopper) has two

units open (21 acres) with a third unit to be opened soon (16 acres). The remainder of the Big Bopper sale (181 acres) is not open. The final sale (Carnival) has recently started with one unit completed. One unit of that sale is currently open for harvest, but wet ground is delaying activity for about 3 weeks. That unit is about 42 acres, so 106 acres is currently available for harvest activity, which is about 2% of the 4879 acre Eastwood 2 Project Area.

Each regeneration cutting unit has reserve trees, including dead trees, marked for retention throughout the unit. Each cut tree marking unit has only those trees to be removed marked and all other trees, including dead trees, would be retained in the cutting unit. Considering the small amount of area affected and the presence of reserve trees, including snags, in all harvest units, the potential for cutting a suitable maternity tree is very low. In addition, mist-netting within the project area in June 2004 found no Indiana bats. Considering all these factors, the active timber sales can continue with minimal risk of incidental take occurring.

CONCLUSION:

Because the finding of Indiana bat maternity colonies was anticipated and discussed in the programmatic BA/BO, protection measures were identified in the programmatic BO. Summer mist-netting surveys found no Indiana bats in the Eastwood 2 Project Area of adjacent Current River bottomland. The known status of the species within the Eastwood 2 Project Area is the same now as it was when the Biological Evaluation was prepared for this project.

Field review of apparently similar habitat in Eastwood 2 found that a) there are not an abundance of suitable large snags for maternity roost trees, and b) the area is over 2 miles from the confluence of a small stream and the Current River; thereby making the apparently similar habitat not the same as the area where the maternity roost tree is located. There has been no change in habitat suitability or availability within the Eastwood 2 Project Area since the decision to implement the project was made.

Should maternity roost trees be discovered at some time in the future in Eastwood 2 as a result of summer surveying or other methods, the mandatory RPM/TC would be carried out as prescribed in the BO. Until such time as new information regarding the presence of Indiana bats in the Eastwood 2 project area is gained, reinitiation of formal consultation with FWS is not necessary or required to address the new information regarding a maternity colony at Poplar Bluff.

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6/28/04
Date

Approved by: /s/Jerry Bird
Jerry Bird, District Ranger

07/08/04
Date