

Allen Nicholas, Supervisor, Shawnee National Forest
ATTN: ALHI-Shawnee NF Land Exchange Proposal
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January 30, 2012

Dear Supervisor Nicholas:

Thank you for the opportunity to comment on the scoping notice for “A Land-for-Land Exchange between American Land Holdings of Illinois, LLC and the Shawnee National Forest.” These comments are presented on behalf of the Sierra Club and the Center for Biological Diversity.

The Forest Service needs to:

- immediately notify American Land Holdings of Illinois, LLC (“Peabody”) that pursuant to 36 C.F.R. § 254.3(a) the Forest Service is “withdraw[ing] from and terminat[ing] [the] exchange proposal.”
- ensure that the endangered Indiana and gray bats using the site are adequately protected-- particularly if Peabody tries to obtain permits for a strip mine on private land near the bats.
- explore acquiring the Lusk Creek Wilderness tract.

While we can understand why the Forest Service may have considered the proposed land exchange before the bat surveys found an Indiana bat maternity colony and gray bats foraging on the tract that Peabody wants to strip mine, as soon as these endangered bats were discovered onsite the Forest Service had a mandatory duty to terminate the exchange discussions pursuant to 36 C.F.R. § 254.3(a).¹ Forest Service regulations state, “The authorized officer shall consider only those exchange proposals that are consistent with land and resource management plans (36 C.F.R. part 219).” 36 C.F.R. § 254.3(f). Prior to the discovery of Indiana and gray bats the Forest Service could perhaps argue the exchange was consistent with the Forest Plan. However, as will be explained below, now that the site is known to be occupied endangered species habitat there are several provisions of the Forest Plan that this exchange is no longer consistent with. As soon as the bats were discovered, the Forest Plan’s requirements to protect them kicked in and terminated the Forest Service’s authority to explore this exchange.

Notwithstanding the Forest Plan consistency issues, as soon as the bats were discovered, the Forest Service should have told Peabody it was time to cut their losses. The Forest Service should have explained to Peabody that now that an Indiana bat maternity colony and gray bat foraging area has been found on the site, the Endangered Species Act does not allow this exchange. The Forest Service should have informed Peabody that the agency’s duty to “conserve” and give “top priority” to the protection and recovery of the Indiana and gray bats using the site forecloses the ability of the Forest Service to exchange the land so that it can be strip mined.

Earlier this month, the USFWS issued new Indiana bat population numbers and a press release explaining how White Nose Syndrome (WNS) has had much more devastating impacts than

¹ While the Forest Service has told us they are dealing with the bats on a different tract, at the bare minimum, the bat issue should have been resolved before starting scoping.

previously thought. As will be explained below, 70% of the Indiana bat population in the Northeast has been lost to WNS since 2007. This includes one state losing 99% of its Indiana bat population between 2009 and 2011. USFWS's press release stated, "U.S. Fish and Wildlife Service biologists and partners estimate that at least 5.7 million to 6.7 million bats have now died from white-nose syndrome. Biologists expect the disease to continue to spread. White-nose syndrome (WNS) is decimating bat populations across eastern North America, with mortality rates reaching up to 100 percent at many sites." The USFWS's National WNS Plan identifies WNS as a serious threat to the survival of the Indiana and gray bats and identifies "conservation measures" needed to assure the survival of the Indiana and gray bats. The USFWS stated, "Until the threat of WNS has passed or has been mitigated, best practices are needed for the maintenance and recovery of bat populations of greatest conservation concern." The USFWS identified "Protect or restore summer and winter habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS" as one of the conservation measures/best practices needed for the survival of endangered bats. Plan at 15-16. Prior to the discovery of WNS, the Forest Plan ROD acknowledged, "The US Fish and Wildlife Service biological opinion of the 2006 Plan indicates that the Plan would not jeopardize the continued existence of the species, largely because the ecological conditions envisioned in the Plan and supported by its standards and guidelines will protect [Indiana] bats and their habitat." ROD at 13-14. (Emphasis added.) Yet now in the context of WNS, instead of "Protect[ing]. . . summer . . . habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS," the Forest Service is proposing to trade it away so it can be strip mined. As will be explained below, this violates the ESA and jeopardizes the continued existence of the Indiana bat.

If the Forest Service continues to violate 36 C.F.R. § 254.3(f) by further considering this proposed land exchange, the following issues need to be addressed:

I. The Endangered Species Act ("ESA")

A. The Land Exchange Violates the ESA's Conserve & Top Priority Duties

The Supreme Court has explained:

The purposes of the [ESA] included the conservation of the species and of the ecosystems upon which they depend, and *every agency of government is committed to see that those purposes are carried out. . . . [T]he agencies of Government can no longer plead that they can do nothing about it. They can, and they must. The law is clear.* 119 Cong.Rec. 42913 (1973). (Emphasis added) . . . The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost. This is reflected not only in the stated policies of the Act, but in literally every section of the statute. All persons, including federal agencies, are specifically instructed not to "take" endangered species, meaning that no one is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" such life forms. 16 U.S.C. §§ 1532(14), 1538(a)(1)(B) (1976 ed.). Agencies in particular are directed by §§ 2(c) and 3(2) of the Act to "use . . . *all methods* and procedures which are necessary" to preserve endangered species. 16 U.S.C. §§ 1531(c), 1532(2) (1976 ed.) (emphasis added). In addition, the legislative history undergirding § 7 reveals an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species. The pointed omission of the type of qualifying language previously included in endangered species legislation reveals a conscious decision by Congress to give endangered species priority over the "primary missions" of federal agencies.

Tennessee Valley Authority v. Hill, 437 U.S. 153, 184-85 (1978).

Twice courts have applied the Forest Service's duty to conserve and give top priority to occupied Indiana bat habitat: *Bensman v. United States Forest Service*, 984 F.Supp. 1242 (W.D.Mo. (1997)) and *House v. United States Forest Service*, 974 F.Supp. 1022 (E.D.Ky. 1997):

Thus the Court concludes that defendants are bound by the ESA and their own Forest Plan, to place the Indiana bat, an endangered species, at the top of its priority list. It will become apparent to the reader of this Opinion and Order that defendants have failed to comply with its affirmative duty by placing the sale of 199 acres worth of trees before the protection of an endangered species.

House at 1028.

The Court finds that protection of the Indiana bat's habitat far outweighs the factors endorsed by the Forest Service.

Bensman at 1247.

In both cases, the Forest Service argued that the proposed timber sales did not violate their duty to conserve and give top priority to the Indiana bat. The Forest Service argued they were complying with the ESA because they would preserve all known roost trees and leave most of the trees. Both courts, however, held that even if all known roosts are preserved and most trees are left, the timber sale would still harm the Indiana bats and this violated the duty to conserve the bats and improperly gave priority to logging over the Indiana bat. Here, there can be no doubt that removing known maternity roosts and all the trees and converting it to a strip mine violates the ESA.² By approving the proposed land exchange, the Forest Service would be giving priority to a strip mine over the Indiana and gray bats, in violation of the ESA. Likewise, by approving the proposed land exchange, the Forest Service would not be "conserving" the Indiana and gray bats, as required by the ESA. It is also important to note the Shawnee Forest Plan Record of Decision ("ROD") states, "The selected alternative gives priority to the conservation and recovery of threatened and endangered species." ROD at 38.

Section 2 of the ESA states: "all Federal departments and agencies shall seek to conserve endangered and threatened species and shall use their authorities in furtherance of the purpose of this Act." 16 USC § 1531(c). The ESA defines "conserve" as "mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." 16 USC § 1532(2). As will be explained below, White Nose Syndrome is threatening the survival of the Indiana and gray bats. The USFWS's National Plan for Assisting States, Federal Agencies, and Tribes in Managing White-Nose Syndrome in Bats May 2011³ identifies WNS as a serious threat to the survival of the Indiana and gray bats. In response to WNS, the USFWS identifies "conservation measures" needed to assure the survival of the Indiana and gray bats. The USFWS stated, "Until the threat of WNS has passed or has been mitigated, best practices are needed for the maintenance and recovery of bat populations of greatest conservation concern." The USFWS identified "Protect or restore summer and winter habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS" as one of the conservation measures/best practices. Plan at 15-16. Therefore, this

² While early on the Forest Service was clear the land would be converted to a strip mine, the Forest Service has recently indicated that it is not certain this parcel would be strip mined. Notwithstanding how unlikely this is (what else would Peabody want the land for?), Peabody does not have the duty to conserve and give top priority to the survival and recovery of the Indiana and gray bats on the site. Therefore, while Indiana and gray bats are facing the gravest threat ever to their survival as a species, the exchange would remove significant protection to occupied habitat.

³<http://www.fws.gov/WhiteNoseSyndrome/pdf/WNSnationalplanMay2011.pdf>

land exchange would violate the Forest Service's duty and highest priority to "protect * * * summer * * * habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS." Trading occupied maternity and foraging habitat so it can be strip mined violates the ESA.

B. The Proposed Land Exchange Jeopardizes the Continued Existence of the Indiana Bat

The Forest Service must insure, in consultation with USFWS, that any proposed action is not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of their critical habitat. 16 U.S.C. § 1536(a)(2). USFWS Regulations state:

"Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.
50 C.F.R. § 402.02.

The USFWS's Section 7 Handbook has these definitions:

Recovery: improvement in the status of a listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act. Said another way, recovery is the process by which species' ecosystems are restored and/or threats to the species are removed so self-sustaining and self-regulating populations of listed species can be supported as persistent members of native biotic communities.

Survival: the species' persistence, as listed or as a recovery unit, beyond the conditions leading to its endangerment, with sufficient resilience to allow recovery from endangerment. Said another way, survival is the condition in which a species continues to exist into the future while retaining the potential for recovery. This condition is characterized by a species with a sufficiently large population, represented by all necessary age classes, genetic heterogeneity, and number of sexually mature individuals producing viable offspring, which exists in an environment providing all requirements for completion of the species' entire life cycle, including reproduction, sustenance, and shelter.

Section 7 Handbook at 4-36 to 37.

The Section 7 Handbook continues:

In determining whether an action is likely to jeopardize the continued existence of a species, the action is viewed against the aggregate effects of everything that has led to the species' current status and, for non-Federal activities, those things likely to affect the species in the future. At this point, the biologist sums up the previous analyses done to determine (1) the status of the species, (2) the environmental baseline, (3) all effects of the proposed action, and (4) the cumulative effects of other anticipated actions.

The final analysis then looks at whether, given the aggregate effects, the species can be expected to both survive and recover, as those terms are defined above. For the jeopardy analysis, this survival is framed in terms of the species' reproduction, numbers, and distribution in the wild.

Section 7 Handbook at 37.

The proposed land exchange (and any request for a take permit) must be addressed in the context of the serious threat posed by WNS. Since the USFWS has identified “Protect or restore summer and winter habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS” as needed to ensure survival of species such as the Indiana bat, jeopardy is the proper finding for the land exchange. Prior to the discovery of WNS, the Forest Plan ROD acknowledged, “The US Fish and Wildlife Service biological opinion of the 2006 Plan indicates that the Plan would not jeopardize the continued existence of the species, largely because the ecological conditions envisioned in the Plan and supported by its standards and guidelines will protect [Indiana] bats and their habitat.” ROD at 13-14 (emphasis added.) The Forest Plan non-jeopardy opinion was based upon an increase in Indiana bat (“IB”) population for the previous four years and that IB were not facing a dire threat to their survival as a species. See USFWS Biological Opinion at 50. Thus, the USFWS found that since the IB population was increasing, the IB could absorb the take the Biological Opinion authorized. Additionally, as will be explained below, the non jeopardy opinion was based on Shawnee telling the USFWS a land exchange of occupied IB habitat to someone who would not protect the bats would not occur. Therefore, a jeopardy determination is the right call.

Since the Forest Plan Biological Opinion and Incidental Take Statement do not cover exchanging public land with an Indiana bat maternity colony to a company that wants to turn it into a strip mine,⁴ the USFWS’s new Biological Opinion will have to consider all the other Incidental Take that has already been authorized. Even if the loss of this maternity colony itself would not jeopardize the Indiana bat, all the cumulative effects of all the other Incidental Takes already authorized jeopardizes the Indiana bat.

C. The Forest Service Must Formally Consult with USFWS Pursuant to Section 7 of the ESA Regarding the Proposed Action

Section 7 of the ESA requires each federal agency to consult with USFWS in order to insure that any proposed action is not likely to jeopardize the continued existence of a threatened or endangered species, or result in the destruction or adverse modification of its critical habitat. 16 U.S.C. § 1536(a)(2). To facilitate compliance with Section 7, the agency must first inquire with USFWS whether any listed or proposed species may be present in the area of a proposed action. 16 U.S.C. § 1536(c)(1). When a listed or proposed species may be present in an area where an action is proposed, the action agency must prepare a “biological assessment” to determine whether the species or their critical habitat may be affected by the action. *Id.* If the agency determines that an action it proposes to take may affect any listed species or critical habitat, it must engage in formal consultation with USFWS, which concludes with preparation of a biological opinion by USFWS. 50 C.F.R. § 402.14. The scope of consultation under the ESA must be on the entire agency action, and agency action is defined broadly. *Conner v. Burford*, 836 F.2d 1521, 1534 (9th Cir. 1988).

For the proposed land exchange, it has already been determined that endangered species are present in the area of the lands to be exchanged. Moreover, a strip mine would clearly result in adverse impacts to these endangered species and their habitat. Thus, the Forest Service must formally consult with USFWS prior to determining whether to proceed with the proposed land exchange. 16 U.S.C. § 1536(a)(2).

⁴ Or a party that does not have the duty to conserve and give top priority to the species.

D. The Section 7 Consultation on the Shawnee Forest Plan Is Legally Inadequate to Allow the Proposed Land Exchange.

When the Forest Service developed the Shawnee Forest Plan and conducted Section 7 consultation with USFWS, the Forest Service was absolutely clear this kind of exchange would not be allowed:

12. Land-Ownership Adjustment

All Alternatives

Land-ownership adjustment has had, and should continue to have, minimal beneficial, indirect effects on each of the threatened and endangered species. No known habitats would be sold or exchanged to any entity or agency not responsible for the protection of the species or their habitat, and habitats for some of the species could be acquired and given protection on the Forest.

Forest Plan EIS at 190.

Populations of species federally-listed as endangered or threatened, listed as sensitive by the Regional Forester, and whose viability is at risk will be maintained or improved through protection and management of their special habitat requirements.

Forest Plan ROD at 12.

Conservation and recovery of the endangered Indiana bat was a major component of Forest Plan revision. Some are concerned that any vegetation management, prescribed fire and other management activities could somehow harm the Indiana bat. Based on the analysis of the environmental effects of the selected alternative, I am confident that implementation of the 2006 Forest Plan will have a generally beneficial effect on Indiana bat habitat. The Forest considered plan direction on other national forests and the range-wide status of the Indiana bat populations. The US Fish and Wildlife Service biological opinion of the 2006 Plan indicates that the Plan would not jeopardize the continued existence of the species, largely because the ecological conditions envisioned in the Plan and supported by its standards and guidelines will protect the bats and their habitat.

Forest Plan ROD at 13-14. (Emphasis added.)

Consolidating NFS land ownership through land purchase or exchange helps improve the efficiency of Forest Service management. Land acquisition also brings unique ecosystems into public land ownership and provides a way to acquire habitat for endangered and threatened species. However, land exchange may affect federally listed species if suitable habitat removed from public ownership is not off- set by acquisition of other suitable habitat. It is Forest Service policy to not exchange lands with known occurrences of federally listed species.

Forest Plan Biological Assessment at 42.⁵

⁵ While this quote is from the Mead's Milkweed section, its statement of Forest Service Policy clearly would apply to the Indiana and gray bats. The BA's Indiana bat analysis has a section called, "Land Ownership and Adjustment." This section, however, does not actually address land exchanges. The section however states, "No known roost trees would be affected." BA at 71. Table 7-Summary of Effects of the Revised Forest Plan on Indiana Bats states "Lands Mgmt" will have beneficial effects on Foraging, Maternity Roosts, and Summer Roosts. BA at 77. The cumulative effects analysis states, "Tree roosting habitats would be maintained or improved as the majority of the Forest continues to age in next 20 years and snags and den trees are maintained or improved through management and implementation of standards and guidelines." BA at 88. For

The USFWS's Biological Opinion on the Shawnee Forest Plan also indicates a belief that land exchanges such as this are not allowed by the Forest Plan:

Land Ownership Adjustment

The goal of land ownership adjustment is the consolidation of ownership, control access, increase management efficiency, and enhance the protection and management of area values. According to the revised plan, forest lands with federal listed species would only be exchanged with other federal agencies that have management responsibilities for those species. Therefore, no adverse effects are anticipated from land ownership adjustments.

USFWS Forest Plan Biological Opinion at 42.

We are aware this statement is in the Mead's Milkweed section of the Biological Opinion. However, the only logical explanation and the only explanation that avoids finding that the Biological Opinion is legally inadequate is that this statement also applies to the Indiana bat. First, as explained elsewhere, the Forest Plan, EIS, Plan BA, and ROD are all clear that the Forest Service would never exchange occupied endangered species habitat to allow or facilitate a strip mine. Additionally, the Biological Opinion uses "federal listed species" instead of "Mead's Milkweed." The Indiana bat section of the Biological Opinion follows the Mead's Milkweed section. The Land Ownership and Adjustment section for the Indiana bat does not mention or address land exchanges. See BO at 79. An exchange of occupied habitat to a private party would drastically reduce the protection for the species on the site (even if it was not strip mined) because only Federal agencies have a duty to conserve and give top priority to listed species. Therefore, the effects of land exchanges of occupied habitat to an entity other than a Federal agency would have to be addressed in the Biological Opinion. The logical conclusion is the section on Mead's Milkweed applies to all listed species. The Biological Opinion has statements such as "Protecting the known roosts, maintaining additional suitable roosts in perpetuity and maintaining small canopy gaps and/or opening the mid-story will benefit known maternity colonies on the SNF" (BO at 82.) that indicate the USFWS believes all known roosts would be protected (i.e., not exchanged to a private party that wants to strip mine the roost). Most importantly, if this quote does not apply to the Indiana bat, the Biological Opinion is legally inadequate as it would have failed to "evaluate the effects of the action and cumulative effects on the listed species." 50 C.F.R. § 402.14 (g)(3).

Thus, it is clear that neither the Forest Plan nor the Section 7 consultation on the Forest Plan is legally adequate to allow this proposed land exchange. Certainly, before the Forest Service could consider a proposal to trade a site where endangered species are known to be present, to a party that is not bound by Sections 2 and 7 of the ESA and plans to strip mine the occupied habitat, the Forest Service would first need to reopen the Forest Plan and redo Section 7 consultation on the Forest Plan. Yet the scoping notice does not mention these quotes or explain how the Forest Service proposes to deal with informing the public and USFWS that an exchange such as this would never happen under the Forest Plan. At a minimum, a supplemental EIS under NEPA, amendment of the Forest Plan

the Gray bat, the BA does not specifically address exchanges, but it indicates "Lands Management * * * would ensure that lands would not be lost as habitat by development." BA at 92. The BA also addresses the cave these gray bats are likely roosting in, "The species does roost in a cave on private lands adjacent to the Forest. However, none of our actions on National Forest would directly affect the species at that location." BA at 93. Table 8-Summary of Effects of the Revised Forest Plan on Gray Bats indicate lands management will have no effect on gray bat roosting habitat. The BA also concludes, "the implementation of the Plan would result cumulatively in some small positive effects on * * * potential foraging habitat for the species." BA at 96.

under the NFMA, and reinitiated consultation on the Forest Plan under the ESA, would all be required before the Forest Service could proceed with this proposed land exchanged.

However, it is not as simple as trying to reopen the Forest Plan to allow the exchange. As will be shown below, this exchange violates multiple provisions of the Forest Plan. Forest Service Regulations state, "The authorized officer shall consider only those exchange proposals that are consistent with land and resource management plans (36 CFR part 219)." 36 C.F.R. § 254.3(f). Therefore, the Forest Service is acting illegally just considering this proposed land exchange. More importantly, it would be illegal for the Forest Service to attempt to amend the Forest Plan to allow the exchange as part of the exchange proposal. Thus the Forest Service has a legal duty to **immediately** terminate this proposal pursuant to 36 C.F.R. § 254.3(a).

E. The Surveys Are Only Adequate to Show Presence.

While we agree the bat surveys⁶ were sufficient to determine that the site is occupied maternity habitat and that Indiana and gray bats are present, that is all it is sufficient for. We suspect the surveys just found the tip of the iceberg and there is much more endangered bat usage than was detected in the survey. While the surveys are sufficient to show this trade would violate the ESA, the analysis cannot assume that this is the only endangered species usage. Indeed, the survey itself is clear that it is not sufficient to determine the extent of the usage, "The purpose of these surveys was to *determine presence/likely absence* of Indiana bats, gray bats, and any RFSS species within potential summer roosting habitat located within areas affected by the proposed landswap." Final Report at 1 (emphasis added). The latest USFWS survey guidelines in the most recent version of the Recovery Plan state, "A typical mist-net survey is an attempt to determine presence or probable absence of the species; it does not provide sufficient data to determine population size or structure." 2007 Draft Revised Recovery Plan at 252.

We also wish to point out that all the mist nets were in the uplands. When we hiked the site, the bottomlands appeared to be the best bat habitat. The Forest Service has acknowledged, "Studies and surveys on or within the Forest since 1992 indicate that bottomland hardwood forests are preferred maternity roosting habitat (Carter et. al. 2002), * * *" Forest Plan BA at 12. The Biological Assessment also states:

It appears from the studies and surveys for Indiana bats on the Forest since 1992 (Carroll 2001, Carter 2003) including mist net surveys from at least 36 different locations on the Forest that summer maternity roosting and foraging habitat is confined primarily to bottomland hardwood areas with excessive amounts of mature, hardwood tree mortality that are the indirect result of being heavily affected by past and present, prolonged flooding.
Forest Plan BA at 54.

There were lots of big trees with shaggy bark and the area regularly flooded. There were two anabat sites in the bottoms next to the Saline River and Indiana and gray bats were detected. However, the best bat habitat was out of the range of the anabat detectors.⁷ We are enclosing a picture that was

⁶ Mist Net and Acoustic Survey of Federally-Listed and Regional Forester Sensitive Bat Species for the Proposed American Land Holdings of Illinois Landswap, prepared by Eco-Tech Consultants, August 2011

⁷ The report does not indicate the range of the detector or what direction the microphone was pointed. Shawnee has not yet answered our questions about the range of the detector. We found:

taken with a GPS (which means the latitude and longitude/camera direction are embedded in the picture) that shows the quality of the habitat that was not checked. We also note there were plenty of sites where mist nets could have been placed in the bottoms. Clearly, the best habitat for maternity roosts has not yet been checked.

Additionally, three nights of emergence counts is not sufficient to determine if the roosts are primary or alternative roosts-particularly considering the surveys were not sufficient to identify all the roosts. The primary roost could be down in the bottoms and the three identified roosts could all be alternative roosts. The data sheets indicate the weather was similar on all nights. This would make it less likely there was a switch between primary and alternative roosts on these nights.

In cases such as this where there is inadequate data to determine the extent of the Indiana and gray bat usage, the ESA requires the benefit of the doubt be given to the species. *cf.* “The Services are then expected to provide the benefit of the doubt to the species concerned with respect to such gaps in the information base (H.R. Conf. Rep. No. 697, 96th Cong., 2nd Sess. 12 (1979)).” USFWS Section 7 Handbook at 1-7; *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988) *quoting* H.R.Conf.Rep. No. 96-697, 96th Cong., 1st Sess. 12, reprinted in 1979 U.S.Code Cong. & Admin.News 2572, 2576. Therefore, unless there is sufficient survey work to determine the extent of the endangered bat usage, all analysis must give the benefit of the doubt to the bats and assume all the habitat is being used and is critical to the bats survival. The Forest Service cannot act as if the endangered species usage discovered so far is all the usage. The analysis must assume there are more maternity roosts that would be destroyed if this trade goes through.

Additionally, one of the reasons why we have tried to get a map of the mine’s footprint is so we can see what other public lands could harbor endangered bats that a strip mine on adjacent private land would incidentally take. A strip mine next to occupied maternity habitat would certainly result in incidental take. For example, even if this exchange went through, the strip mine would likely result in incidental take of at least the maternity roost on the nearby public land.

F. The Forest Service Must Reinitiate Consultation on the Shawnee Forest Plan Pursuant to Section 7 of the ESA

The Forest Service must reinitiate consultation on the Shawnee Forest Plan regarding impacts to both the Indiana bat and gray bat. USFWS Regulations state:

Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If the amount or extent of taking specified in the incidental take statement is exceeded; (b) If new information

The detecting distance of the Anabat (or any other bat detector for that matter), is affected by a number of factors, the most important one being the species of bat. Bats with high frequency, quiet or directional calls (such as horseshoes or long eared bats) may only be detected at distances of typically less than 5 metres. Bats with low frequency and loud calls such as Noctules and Serotines may be detected as far away as 100m or more. The detection range is therefore dependent on the sound characteristics of the call rather than the detector, although the most receptive zone of the Anabat is within a 90 degree cone in front of the microphone.”

<http://www.anabattraining.co.uk/technical-support/frequently-asked-questions/>

Since Indiana and gray bats are in the mid range, it would appear the best habitat was out of the range of the detector. More importantly, the microphone certainly pointed towards the Saline River, not the bottoms.

reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) If a new species is listed or critical habitat designated that may be affected by the identified action.
50 C.F.R. § 402.16.

1. *Allowing Land Exchanges Where Endangered Species Are Present*

The Forest Service must reinitiate formal consultation for multiple reasons. First, in order to approve this land exchange, the Forest Plan would have to be modified to allow an exchange such as this. The record is absolutely clear, the Biological Opinion and Incidental Take Statement are based on the Forest Service's representation that an exchange like this is not allowed under the Forest Plan:

Consolidating NFS land ownership through land purchase or exchange helps improve the efficiency of Forest Service management. Land acquisition also brings unique ecosystems into public land ownership and provides a way to acquire habitat for endangered and threatened species. However, land exchange may affect federally listed species if suitable habitat removed from public ownership is not off- set by acquisition of other suitable habitat. It is Forest Service policy to not exchange lands with known occurrences of federally listed species.
Forest Plan Biological Assessment at 42.⁸

The Forest will continue to be proactive in the management of winter and summer habitats for the species and to work in partnership to recover the Indiana bat on the Forest and in Southern Illinois with the Illinois Department of Natural Resources, Southern Illinois University, Unimin Specialty Mineral Company, and U. S. Fish and Wildlife Service.
Forest Plan BA at 7.

Land Ownership Adjustment

The goal of land ownership adjustment is the consolidation of ownership, control access, increase management efficiency, and enhance the protection and management of area values. According to the revised plan, forest lands with federal listed species would only be exchanged with other federal agencies that have management responsibilities for those species. Therefore, no adverse effects are anticipated from land ownership adjustments.
USFWS Forest Plan BO at 42.⁹

Clearly, the existing Forest Plan Biological Opinion and Incidental Take Statement are not sufficient to cover the Forest Service trading occupied maternity and feeding habitat to Peabody to convert it into a strip mine. This statement makes it clear the USFWS issued the Biological Opinion based on the belief that any occupied endangered species habitat would remain in ownership of an entity subject to Section 3 and 7 of the ESA. It is important to note one of the terms and conditions of the Incidental Take Permit is:

During site specific project planning, the effects of management on suitable roosting and foraging habitat in the 5-mile radius around known hibernacula and maternity

⁸ See, also footnote 5.

⁹ See, discussion above about this being in the Mead's Milkweed section.

colonies must be considered and such habitat must be maintained or enhanced in that area.

USFWS BO at 88.

Certainly, if the Forest Service had indicated that occupied maternity habitat might be exchanged with a company that strip mines, or the Forest Service reinitiates consultation to modify the Forest Plan to allow occupied maternity habitat to be exchanged to a coal company, the USFWS would include a term and condition that would not allow a known maternity colony or foraging area to be converted into a strip mine. Likewise, if the Forest Service had disclosed occupied Endangered Species habitat could be exchanged to a non Federal entity, the term and condition would certainly have been applied to land exchanges. Therefore, the criteria of “If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion” is clearly met.

2. *The Presence of the Endangered Gray Bat*

While the USFWS Plan Biological Opinion cover letter states, “We concur with your assessment that the proposed Revised Forest Plan is not likely to adversely affect the gray bat,” that determination was based on the assumption that the endangered gray bat is not present on the Shawnee National Forest. The new finding and determination that the gray bat is present on the Shawnee National Forest - within the area of the proposed land exchange - constitutes new information that triggers the need to reinitiate consultation on the Shawnee Forest Plan. 50 C.F.R. § 402.16. Additionally, the Shawnee National Forest recently acquired a gray bat hibernation cave. Now that the Forest Service is proposing to exchange gray bat foraging habitat and possibly roosting habitat (as explained elsewhere, since the benefit of the doubt must be given to the gray bat, until the roost is found, the analysis must assume it would be converted into a strip mine) to be strip mined, the implementation of the Forest Plan is clearly “likely to adversely affect” the gray bat and formal consultation is required.

The Plan BA states:

Whitaker (1975) found gray bats using Cave Springs Cave, a cave on private land in Hardin County. There is also a historical record of gray bats in Griffith Cave also private and in Hardin County (Whitaker 1975). Gardner et al. (1991) resurveyed Cave Springs Cave and found it to have declined significantly as a gray bat maternal and male roost. Carroll (2001) and Carter (2003) have recently (1999-2001 and 2002) sampled all likely Indiana bat roosting and Indiana and gray bat foraging habitats across the Forest utilizing mist netting as part of a study with the Shawnee National Forest. No gray bats were found during this mist netting study. At best, gray bats are uncommon in Southern Illinois and on the Shawnee National Forest.

Plan BA at 89.

Therefore, the August 2011 Mist Net and Acoustic Survey for the proposed land exchange is new information on gray bat usage on the Shawnee National Forest. This is the first time they have been found foraging in Gallatin County. While it is likely the bats are roosting in Cave Springs Cave, this is not known for sure.

The Biological Assessment states:

Continued implementation of the Forest Plan and projects predicated upon it have a MAY AFFECT, NOT LIKELY TO ADVERSELY AFFECT determination on gray bat habitat and populations.

Rationale:

Gray bat populations have increased 30 to 40 percent across its range since the mid 1970's (USDA Forest Service 1998). There are indications that gray bat has good potential for recovery (Evans and Drilling 1992b). There are very few, current records of gray bat on or near the Shawnee National Forest. There will be no conversion of forested riparian corridors to other uses. Some currently non-forested riparian corridors will be planted to bottomland hardwood trees or allowed to succeed naturally to a forested condition. Forested corridors from known caves to foraging areas are provided. Riparian foraging areas are primarily forested and will be allowed to age naturally, with natural disturbances determining future forest structure. Some floodplain wetlands would be improved or restored and could provide additional, potential foraging habitats for the species.
Plan BA at 96. (Emphasis added.)

Therefore, the “not likely to adversely affect” determination was based on the likely absence of gray bats on the Shawnee National Forest and the habitat gray bats would use would be protected. We also note the Forest Service does not have an Incidental Take Permit for the gray bat. Therefore, Shawnee personnel could face criminal prosecution if anything is done that “takes” the gray bat. 16 U.S.C. §§ 1538, 1540.

If the Forest Service enters into formal consultation with USFWS concerning potential impacts to endangered gray bats, as required by Section 7 of the ESA, it is likely that a term and condition would be included in the Incidental Take Statement that the Forest Service protect and maintain in Federal ownership all land within the range of the gray bats in Cave Springs Cave along the Ohio and Saline Rivers. Similarly, a likely Conservation Measure would be for the Forest Service to acquire more land along the Saline and Ohio Rivers.

3. *White Nose Syndrome*

White Nose Syndrome (WNS) also constitutes new information that requires reinitiating formal consultation on the Shawnee Forest Plan under the ESA. 50 C.F.R. § 402.16. All that must be shown is that the new information on WNS “may affect” the Indiana and/or gray bats “in a manner or to an extent not previously considered.” Section 10 of the ESA only allows an Incidental Take Permit if “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.” 16 U.S.C. § 1539. WNS is new information relevant to this requirement. It is much easier to proclaim that a project is not reducing the likelihood of survival when an endangered species’ population is stable or increasing than when an endangered species is facing the greatest threat ever to its survival. WNS adds an entirely new wrinkle in determining whether the Indiana bat and/or gray bat can survive any additional harm or killing through implementation of the Forest Plan. WNS, coupled with incidental taking and killing of Indiana bats and/or gray bats, may well be the straw that breaks the camel’s back and tilts these endangered species toward extinction.

For the Indiana bat, the USFWS Forest Plan Biological Opinion states:

Until the last four years, the range-wide Indiana bat population had been in decline. Although changes in survey protocols (frequency of surveys, change in personnel) have

occurred and we are unable to calculate variance, for the first time in 60 years, the population numbers during the last four years show an increase (see Table 22). Prior to this, Indiana bat winter surveys conducted every 10 years showed a decline in the population. The estimated population in 1960/70 was 883,300 bats; 678,750 bats in 1980; 473,550 bats in 1990; 382,350 in 2000 bats (Clawson 2002). The newer data includes populations in newly discovered hibernacula, as well as population increases or decreases in long known hibernacula.

USFWS BO at 50.

The Biological Opinion then goes on to discuss threats to the Indiana bat. However, WNS is not mentioned - as it was not yet discovered.

When WNS was discovered, it was identified as a dire threat to the survival to all bats. For example, Indiana Bat Recovery Team member Dr. Virgil Brack wrote:

The White Nose Syndrome (“WNS;” aka “White Death”) scares the hell out of us. It has the potential to be the single most devastating impact on bats in North America that we have seen in recorded history, with the possible exception of the settling of this land by Europeans and subsequent habitat destruction. It is possible that this could be to bats what the chestnut blight and Dutch elm disease were to well chestnut trees and elm trees.

The most recent population numbers for Indiana bats shows 70% of the Indiana bat population in the Northeast (the 3 states hardest hit by WNS) has been lost to WNS since 2007.¹⁰ More alarmingly, 99% of the Indiana bat population in New Jersey was lost between 2009 and 2011. Vermont lost over 95% of its Indiana bat population in this period. Pennsylvania, which WNS hit more recently, lost 50% of its Indiana bat population between 2009 and 2011. On January 17, 2012, the USFWS issued a press release that stated:

On the verge of another season of winter hibernating bat surveys, U.S. Fish and Wildlife Service biologists and partners estimate that at least 5.7 million to 6.7 million bats have now died from white-nose syndrome. Biologists expect the disease to continue to spread.

White-nose syndrome (WNS) is decimating bat populations across eastern North America, with mortality rates reaching up to 100 percent at many sites. First documented in New York in 2006, the disease has spread quickly into 16 states and four Canadian provinces. * * *

“This startling new information illustrates the severity of the threat that white-nose syndrome poses for bats, as well as the scope of the problem facing our nation. Bats provide tremendous value to the U.S. economy as natural pest control for American farms and forests every year, while playing an essential role in helping to control insects that can spread disease to people,” said Fish and Wildlife Service Director Dan Ashe. “We are working closely with our partners to understand the spread of this deadly disease and minimize its impacts to affected bat species.” * * *

“White-nose syndrome has spread quickly through bat populations in eastern North America, and has caused significant mortality in many colonies,” said National WNS

¹⁰<http://www.fws.gov/midwest/endangered/mammals/inba/pdf/2011inbaPopEstimate04Jan12.pdf>

Coordinator, Dr. Jeremy Coleman, “Many bats were lost before we were able to establish pre-white-nose syndrome population estimates.” * * *

http://www.fws.gov/WhiteNoseSyndrome/pdf/WNS_Mortality_2012_NR_FINAL.pdf

The National Plan for Assisting States, Federal Agencies, and Tribes in Managing White-Nose Syndrome in Bats May 2011¹¹ states:

White-nose syndrome (WNS) is a disease responsible for unprecedented mortality in hibernating bats in the northeastern U.S. This previously unrecognized disease has spread very rapidly since its discovery in January 2007, and poses a considerable threat to hibernating bats throughout North America.

WNS Plan at 1.

More than half of the 45 species of bats that occur in the U.S. rely on hibernation as a primary strategy for surviving the winter, when insect prey are not available. All four endangered species and subspecies of hibernating bats in the continental U.S. rely on undisturbed caves or mines for successful hibernation, and are at potential risk from WNS. Three of these species (Indiana, gray, and Virginia big-eared bat [*Corynorhinus townsendii virginianus*]) are currently within the affected area, and the remaining subspecies (Ozark big-eared bat [*C. t. ingens*]) will likely be at risk soon. Although the potential for WNS to continue to spread is currently unknown, the implications of its undermining the survival strategy of so many bat species are considerable.

WNS Plan at 2.

Goal 2: Communicate about WNS as an unprecedented wildlife disease event resulting in devastating consequences, spreading at an alarming rate, and with no obvious means of curtailment.

WNS Plan at 8.

G. Conservation and Recovery (of Affected Bat Species):

G.1. Overview

Populations of several species of bats are declining because of WNS. Because species affected by WNS range across State and international boundaries, conservation and recovery efforts need to be closely coordinated to be effective. Monitoring WNS-affected bat populations is necessary to determine which species may be most at risk of local extirpations and extinction due to WNS, and where conservation and management activities would be most effective. Coordination will be critical to this effort as dramatic losses from WNS, and possibly other sources, can rapidly affect the conservation status of impacted populations. Population monitoring differs from WNS surveillance in that it concerns the status of entire species or genetically important populations, rather than the distribution and dynamics of the disease. Until the threat of WNS has passed or has been mitigated, best practices are needed for the maintenance and recovery of bat populations of greatest conservation concern.

WNS Plan at 15.

Goal 3: Determine best practices for maintaining and recovering populations Actions: *

* * (4) Protect or restore summer and winter habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS.

WNS Plan at 15-16.

¹¹<http://www.fws.gov/WhiteNoseSyndrome/pdf/WNSnationalplanMay2011.pdf>

Clearly, WNS constitutes new information concerning the threats to the survival to the Indiana bat and gray bat. For the gray bat, as mentioned, impacts are not even considered in the Forest Plan Biological Opinion. And for the Indiana bat, the Forest Plan Biological Opinion and Incidental Take Statement are based on the assumption that Indiana bat populations are increasing and are not facing a dire threat to the survival of the species. Certainly, WNS presents new information on how much harm Indiana bats can absorb and still recover. The Biological Opinion and Incidental Take Statement must be reconsidered and revised to “Protect or restore summer and winter habitat to ensure that quality habitat is available for bat populations before and after exposure to WNS.”

WNS, which has been spreading rapidly from its epicenter in upstate New York since 2006, was first documented last winter at hibernacula in Indiana and Kentucky. The western Kentucky WNS site and the southern Indiana WNS sites are all within 200 miles or less of the Shawnee National Forest. This distance is certainly within the known migratory range of Indiana bats (documented at 325 miles from hibernacula) (Gardner and Cook 2002), as well as gray bats (documented traveling over 300 miles from summer to winter sites) (Tuttle 1976). Bats summering on the Shawnee National Forest may very well hibernate in areas already affected by WNS, and this winter, those bat populations are possibly already beginning to suffer the direct effects of this devastating disease. Given the proximity to WNS-affected sites in neighboring states, it is also quite possible that WNS will soon be documented in Illinois.

4. *New Information from the Surveys*

Finding Indiana bat maternity roosts in the uplands also constitutes new information that requires formal consultation. The Plan Biological Assessment states, “Riparian and bottomland forests are the only habitats where Indiana bat maternity colonies have been located on the Shawnee National Forest to date (Gardner *et al.* 1991 and Carter 2003).” Plan BA at 46. The Biological Assessment also states, “It also appears from these surveys and studies that upland hardwood forests across the Shawnee at present are not providing high quality or abundant maternity roosting habitat for Indiana bats.” BA at 54. Therefore, finding maternity roosts in uplands is new information requiring reinitiation of consultation. The Biological Assessment further states, “Summer Roosts - Summering bats are known to roost in shagbark hickory, white oak (*Quercus alba*), red oak (*Q. rubra*), pin oak (*Q. palustris*), post oak (*Q. stellata*), slippery elm (*Ulmus rubra*), bitternut hickory (*C. cordiformis*), sassafras (*Sassafras albidum*), and sugar maple (*Acer saccharum*), among others (Gardner *et al.* 1991, Carter 2003).” Therefore, a roost in a Cherrybark Oak is also new information. Additionally, this was the first maternity colony discovered in the Eastern Shawnee.

G. *The Forest Service May Not Conduct Site-Specific Section 7 Consultation on the Proposed Land Exchange Until the Forest Service First Reinitiates and Completes Consultation on the Shawnee Forest Plan*

The USFWS’s Forest Plan Biological Opinion states:

TIERED CONSULTATION APPROACH

To assess the landscape effects of the proposed actions and to facilitate the Shawnee National Forest’s (SNF) section 7(a) (2) responsibilities, a tiered programmatic consultation approach will be implemented. The Tier I level is the review of how the overall goals and prescribed management in the 2006 Forest Plan will impact listed species over the life of the plan. The Tier 1 review will also assess the effects of the management activities (i.e., harvest, burning, etc.) the SNF will utilize to implement the

plan on listed species. This programmatic biological opinion constitutes the Tier I level review.

The Tier 2 level is the review of how the site specific future actions will affect listed species. As individual projects are proposed under the 2006 Forest Plan, the SNF will do the following: * * *

- Site-specific biological assessments (or biological evaluations) will be submitted to the Service. Site-specific biological assessments will tier to the programmatic documents. * * *

- Site-specific biological assessments will contain a statement indicating that the site-specific project is fully compliant with the Tier 1 Programmatic Biological Opinion. * * *

The Service will review the information provided by the SNF for each site-specific project. We will (1) confirm the species that may be affected, (2) assess how the action may affect the species, including ensuring that the level of effect is commensurate with the effects contemplated in the Program-level biological opinion, * * *
BO at 4.

As explained above, neither the Forest Plan BA nor the USFWS Biological Opinion addressed exchanging occupied endangered species habitat to a party that does not have the duty to conserve and give top priority to the species. Therefore, before the Forest Service and USFWS can conduct Tier 2 level review, the Forest Service must first reinitiate formal consultation on the Shawnee Forest Plan. The BA and Biological Opinion will have to be revised to address trading occupied endangered species habitat to a non-Federal entity. Since the Forest Plan Biological Opinion was based on the USFWS's belief that "forest lands with federal listed species would only be exchanged with other federal agencies," this exchange does not comply with the Forest Plan Biological Opinion. Plan BO at 42.¹² Likewise, since the Biological Opinion stated, "no adverse effects are anticipated from land ownership adjustments," (*Id.*) the exchange is not "commensurate with the effects contemplated in the Program-level biological opinion." *See, also* 50 C.F.R. § 402.14 (k)(2).

Additionally, since there was no formal consultation on the endangered gray bat at the time the Shawnee Forest Plan was adopted, there is no programmatic Biological Opinion that addresses potential impacts to the gray bat. As a result, for the endangered gray bat the Forest Service and USFWS are unable to tier their required Section 7 consultation for the proposed land exchange to a programmatic biological opinion. Moreover, since the Forest Plan Biological Opinion does not address any adverse effects to the gray bat and the proposed land exchange would likely adversely effect the gray bat, the level of effect from the land exchange is plainly not "commensurate with the effects contemplated in the Program-level biological opinion."

We also note the Forest Plan Biological Opinion requires the Tier 2 BA to include a statement that identifies all applicable standards and guidelines. BO at 42. Therefore, the site-specific BA will need to identify all the standards and guidelines of the Forest Plan that this exchange violates. We list several examples below.

¹² See the discussion above concerning this statement being in the Mead's Milkweed section.

II. The Weeks Act

While not disclosed in the proposed action, the Forest Service has indicated that the lands on the Shawnee National Forest that would be exchanged were acquired pursuant to the Weeks Act. The basic assumption should therefore be that these lands are to be “permanently reserved, held, and administered as national forest lands.” 16 U.S.C. § 521. Any land exchange concerning these lands is limited to only where the public interest would benefit and where an equal value of lands are exchanged. 16 U.S.C. § 516. Based on the very little information that is provided in the proposed action, there is no way for the public to know whether these limitations are being properly considered and addressed.

For land exchanges involving lands acquired under the Weeks Act, land acquisitions of \$150,000 or more in value must be submitted to Congress for oversight review. 16 U.S.C. § 521b; 36 C.F.R. § 244.3(k). The Secretary of Agriculture must prepare a detailed report of the facts concerning the proposed exchange, including the guidelines used to determine that the lands should be acquired, the location and size of the land, and the purchase price and criteria used to determine such price. 16 U.S.C. § 521b. Such a report must be submitted to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate. *Id.* Because the lands at issue here are worth well more than \$150,000, and involve lands acquired under the Weeks Act, the Forest Service must clarify that these requirements apply and will be followed.

Additional requirements for land exchanges involving lands that were acquired pursuant to the Weeks Act are set forth in the Forest Service Manual, Chapter 5430. The non-Federal lands that would be acquired through the exchange must be located within the exterior boundary of National Forest or within an area approved for acquisition by the Secretary of Agriculture; the non-Federal lands must be within the watershed of a navigable stream and must be valuable chiefly for the regulation of the flow of that stream or for the production of timber; the acquisition must have the consent of the State Legislature; the Secretary of Agriculture must approve exchanges of \$250,000 or more, and exchanges of \$150,000 or more must be submitted to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition and Forestry; and the requirements of FLPMA including equal value all apply. FSM § 5430.11(2).

Moreover, as further set forth in the Forest Service Manual, for Weeks Act land exchanges valued at \$150,000 or more, the Forest Service Director of Lands, Washington Office, must review the proposed exchange to ensure compliance with all applicable laws, regulations, and policies, and prepare a report on such land exchanges before submission for Congressional oversight. FSM § 5430.41c(2). Additionally, for Weeks Act land exchanges valued at \$250,000 or more, the Director of Lands must ensure compliance with applicable laws, regulations and policies and prepare a report before submission for approval by the Secretary of Agriculture and subsequent Congressional oversight. *Id.*

The scoping notice suggests Shawnee is not aware the Secretary of Agriculture must approve the exchange:

Given the purpose and need, the deciding official (Forest Supervisor Hurston A. Nicholas) will review the proposed action and other alternatives to decide whether to implement the land exchange as proposed or with modifications.
Scoping Notice at 4.

The Forest Service must fully disclose how all of these procedures and requirements for Weeks Act land exchanges would be met for the proposed land exchange.

Last, in assessing the mandatory no action alternative, the Forest Service must consider and disclose that an open pit strip mine would not be allowed on these lands if they are not exchanged due to Weeks Act protections. These lands were acquired by the Forest Service because they were deemed “necessary to the regulation of the flow of navigable streams or for the production of timber.” 16 U.S.C. § 515. The purpose of the Weeks Act is as follows:

The general purpose of this law is to secure the maintenance of a perpetual growth of forest on the watersheds of navigable streams where such growth will materially aid in preventing floods, in improving low waters, in preventing erosion of steep slopes and the silting of the river channels, and thereby improve the flow of water for navigation. While the improvement of the flow of navigable streams is the fundamental purpose, other benefits incidental in character but nevertheless important will be kept in view. Among these are (1) protection against disastrous erosion of the soil on mountain slopes and against the destruction of the soil and soil cover by forest fires; (2) preservation of water powers, since, like navigation, they depend for their value upon the evenness of streamflow; (3) preservation of the purity and regularity of flow of the mountain streams, with a view to their use for the water supply of towns and cities; (4) preservation of a timber supply to meet the needs of the industries of the country; (5) preservation of the beauty and attractiveness of the uplands for the recreation and pleasure of the people.

Henry S. Graves, forester, U.S. Forest Service, Public Law No. 435, H.R. 11798.

The Secretary of the Interior may therefore only allow mineral development on Weeks Act lands when he is advised by the Secretary of Agriculture that such development will not interfere with the primary purposes for which the land was acquired (the regulation of the flow of navigable streams and the production of timber), and only in accordance with conditions that are necessary to protect such purposes. See Federal Hardrock Mineral Prospecting Permits Draft EIS, Superior National Forest, March 2011, p. 13. More specifically, in light of these purposes, the Forest Service has determined that “large open pit mines may not meet the intent under the Act and consent to a lease application may not be given by the Forest Service to the BLM.” *Id.*, pp. 13-14.

The analysis needs to disclose the bottoms of the tract regularly floods and contains forested wetlands. The tract is 7 miles up the Saline River from the Ohio River.

The Forest Service must openly disclose these protections and restrictions on the Weeks Act lands at issue in the event the lands are not exchanged.

III. Forest Service Regulations and the National Forest Management Act

Pursuant to its own regulations governing land exchanges, the Forest Service can proceed with a land exchange only after it makes a determination that the public interest will be well served. 36 C.F.R. § 254.3. The Forest Service must consider a number of factors when considering the public interest, including the opportunity to secure important objectives such as the “protection of fish and wildlife habitats.” *Id.* at § 254.3(b)(1). Additionally, in order to determine that a proposed land exchange will serve the public interest, the Forest Service must find that the resource values and public objectives served by the non-Federal lands to be acquired must equal or exceed the resource values and the public objectives served by the Federal lands to be conveyed. *Id.* at § 254.3(b)(2)(i). The intended use of the conveyed Federal land must also not substantially conflict with the management objectives on adjacent Federal lands. *Id.* at § 254.3(b)(2)(ii). And the Forest Service’s

findings and rationale for these required determinations must be documented and made part of the administrative record. *Id.* at § 254.3(b)(3).

Here, none of these factors have been considered by the Forest Service within the proposed action. Moreover, had the factors been considered, the Forest Service would find that exchanging these particular Federal lands would not be in the public interest due to the presence of endangered species. According to the Mist Net and Acoustic Survey of Federally-Listed and Regional Forester Sensitive Bat Species for the Proposed American Land Holdings of Illinois Landswap, prepared by Eco-Tech Consultants, August 2011, two federal endangered bat species were found onsite - the Indiana bat and the gray bat. “The results of this survey indicate that Indiana bats are present within the proposed landswap and the surrounding areas,” and “[o]ne roost tree was located within the boundaries of the proposed landswap.”

The public interest is firmly on the side of protecting endangered species. The Supreme Court has examined the language, history, and structure of the ESA and concluded beyond doubt “that Congress intended endangered species to be afforded the highest of priorities.” *TVA v. Hill*, 437 U.S. 153, 174 (1978) (“[T]he interest of the . . . public in the survival and flourishing of . . . endangered species . . . is extremely strong,” and Congress enacted the ESA “in recognition of this compelling public interest not only to the American public but to the international community, and not only to present generations but to future generations to come.” *Natural Resources Defense Council v. Evans*, 364 F. Supp. 2d 1083, 1141 (N.D. Cal. 2003). In *Bensman v. United States Forest Service*, 984 F.Supp. 1242 (W.D.Mo. (1997)) and *House v. United States Forest Service*, 974 F.Supp. 1022 (E.D.Ky. 1997) the courts found the Forest Service violated the ESA by giving priority to a timber sale over the Indiana bat. The protection of endangered species onsite thus far outweighs Peabody’s desire for a surface coal mine.

The Forest Service’s regulations also state, “The authorized officer shall consider only those exchange proposals that are consistent with land and resource management plans (36 CFR part 219).” 36 C.F.R. § 254.3(f). Similarly, the National Forest Management Act requires that site-specific projects such as the proposed land exchange must be consistent with the applicable Forest Plan. 16 U.S.C. § 1604(i). Since the land exchange is not consistent with multiple provisions of the Shawnee Forest Plan, the Forest Service is currently acting illegally in considering this proposal. Here are some examples of provisions of the Forest Plan the exchange is not consistent with:¹³

Populations of species of concern—those federally-listed as endangered or threatened, listed as sensitive by the Regional Forester, or whose viability is under stress—will be maintained or improved through protection and management of their special habitat requirements.

Forest Plan at 13 (emphasis added.)

Species that are endangered, threatened or sensitive, or whose viability is of special concern will be given necessary protection and special management to ensure their continued existence.

Forest Plan at 25.

FW26.2 (S) Federally Listed Threatened and Endangered Species Some species occurring on the Forest are federally listed as threatened or endangered and must be

¹³ Shawnee has suggested the exchange must only be consistent with S&Gs. However, the regulation states, “consistent with land and resource management plans” and therefore includes the entire plan.

protected and/or managed in accordance with their recovery plans as issued by the US Fish and Wildlife Service.
Forest Plan at 42.

Through implementation of the Plan, the Forest will provide the public a variety of resource uses, recreational experiences, and services, while protecting physical and biological resources. The Forest will remain biologically diverse, serving as a touchstone for the large-scale ecosystem-conservation practices of an interconnected network of wildlands throughout the Midwest. It will offer a diversity of forest, openland and aquatic habitats that support sustainable populations of native plants and animals, particularly endangered, threatened and sensitive species.
Forest Plan at 5 (emphasis added.)

Land-for-land exchanges will be considered when they meet the priorities for land ownership adjustment.
Forest Plan at 24.

Land adjustments should be guided by the following priorities:

1. Land needed to carry out programs specified, prescribed, or endorsed by acts of congress or department policy (e.g., wilderness);
Forest Plan at 49.¹⁴

Appendix H of the Forest Plan also has multiple requirements to protect Indiana bat roosts such as:

During site-specific project planning, the effects of management on suitable roosting and foraging habitat within a five-mile radius of known hibernacula and maternity colonies must be considered, and such habitat must be maintained or enhanced in that area.
Forest Plan at 290.

Retain a forested corridor between caves or abandoned mines utilized by bats and foraging areas (e.g., stream or reservoir).
Forest Plan at 286.

Within five miles of known roosts or hibernacula, known roost-trees will not be removed through harvesting.¹⁵
Forest Plan at 287.

Clearly, this exchange is neither consent with several provisions of the Plan nor the spirit of the Plan.

Furthermore, as explained above, when the Forest Service adopted the Forest Plan, prepared the Forest Plan EIS, and consulted on the Forest Plan with USFWS under Section 7 of the ESA, the Forest Service was absolutely clear it would not consider an exchange such as this (i.e., exchange

¹⁴ Conserving endangered species is the “top priority” prescribed by Congress. The land Peabody wants is needed to carry out the top priority of conserving the Indiana and gray bats. Therefore, trading the land to Peabody does not “meet the priorities for land ownership adjustment.” Just as these requirements prohibit the Forest Service from trading part of a designated Wilderness to a non Federal entity, they also prohibit trading occupied endangered species habitat to a non Federal entity.

¹⁵ While “harvesting” is not defined, the clear intent would be violated by removing the roost to put in a strip mine.

occupied endangered species habitat to an entity that is not required to “conserve” and give “top priority” to the protection and recovery of the species and which intends to strip mine the site).

The Forest Service’s regulations also require that the lands to be exchanged must be of equal value, based on the market value as determined through appraisal. 36 C.F.R. § 254.3(c). The proposed action provides no information regarding the market value of the lands to be exchanged, and there is no disclosure as to whether appraisals have been completed. The public is thus left with no information to assess whether the Forest Service would obtain equal value for this proposed exchange.

The Forest Service must also undertake an environmental analysis of the proposed land exchange, in accordance with NEPA, and to consider timely written comments. 36 C.F.R. § 254.3(g). As explained below, NEPA requires that the Forest Service prepare a comprehensive and detailed “environmental impact statement” (“EIS”) prior to determining whether or not to move forward with this land exchange proposal.

Importantly, in any proposed land exchange, the Forest Service is required to “reserve such rights or retain such interests as are needed to protect the public interest or shall otherwise restrict the use of Federal lands to be exchanged, as appropriate.” 36 C.F.R. § 254.3(h). The subsequent use of the exchanged lands are then “subject to any restrictions imposed by the conveyance documents and all laws, regulations, and zoning authorities of State and local governing bodies.” *Id.* Here, in the event the land is exchanged, the Forest Service at the very least would need to impose mandatory restrictions and protections in order to insure adequate protection for the endangered bats and other wildlife that are onsite. Such restrictions would presumably not allow the planned strip mining to proceed, thereby prohibiting the very purpose for the exchange. Thus again the exchange of these lands is not in the public interest and may not occur.

The Forest Service must comply with specified appraisal standards, as set forth in its own regulations governing land exchanges. 36 C.F.R. § 254.9. For instance, in estimating market value, the appraisal must consider the contributory value of any interest in the land such as minerals. *Id.* Here, the Federal land at issue is desired by Peabody because of its subsurface coal, and thus the market value of this coal must obviously be included in any appraisal of the land.

The Forest Service may also only exchange lands which are of “approximately” equal value if it first determines that (1) the exchange is in the public interest and the consummation of the proposed exchange will be expedited, (2) the value of the lands to be conveyed out of Federal ownership is not more than \$150,000, (3) the lands are substantially similar in location, acreage, use and physical attributes, and (4) there are no significant elements requiring complex analysis. 36 C.F.R. § 254.11. Here, none of these conditions is met, as the exchange is not in the public interest due to the resulting destruction of endangered species habitat, the value of the lands exceeds \$150,000, the lands are not substantially similar, and there are elements requiring complex analysis such as the proposed strip mining of the subsurface coal.

Additionally, when the Forest Service makes its decision on the proposed land exchange, it must provide public notice as set forth in its regulations, and must also provide for a 45-day administrative appeal period as provided under 36 C.F.R. part 215. 36 C.F.R. § 254.13.

Last, the Forest Service may not use its authorities for the conveyance of small tracts of lands, as the value of the Federal lands at issue again exceeds \$150,000. 36 C.F.R. § 254.35.

IV. The National Environmental Policy Act (“NEPA”)

NEPA ensures that federal agencies will have available and carefully consider detailed information concerning environmental impacts, and guarantees that the relevant information will be made available to the public and other agencies that may also play a role in the both the decisionmaking process and implementation of that decision. *Robertson v. Methow Valley Citizens*, 490 U.S. 332, 349 (1989). Amazingly, the Forest Service has indicated it does not intend to prepare an EIS. The proposed action raises numerous NEPA issues, including but not limited to the need to prepare an “environmental impact statement” (“EIS”), the need to consider a reasonable range of alternatives, and the need to consider connected and cumulative actions.

A. An EIS Must be Prepared for the Proposed Action

NEPA requires federal agencies to prepare an environmental impact statement (“EIS”) for proposed actions that may significantly affect the quality of the environment. 42 U.S.C. § 4332(C). The proposed land exchange would result in significant environmental impacts, requiring an EIS.

The CEQ NEPA regulations identify a number of “significance factors” that federal agencies must consider in determining whether there may be significant impacts that would trigger the need for an EIS. 40 C.F.R. § 1508.27(b). A number of these factors would be triggered by the proposed action, requiring that an EIS be prepared.

First, there is no question that the proposed action “may adversely affect” endangered species and their habitat. 40 C.F.R. § 1508.27(b)(9). As stated, according to the Mist Net and Acoustic Survey of Federally-Listed and Regional Forester Sensitive Bat Species for the Proposed American Land Holdings of Illinois Landswap, prepared by Eco-Tech Consultants, August 2011, there are two federal endangered bat species onsite - the Indiana bat and the gray bat. “The results of this survey indicate that Indiana bats are present within the proposed landswap and the surrounding areas,” and “[o]ne roost trees was located within the boundaries of the proposed landswap.” The proposed action states that Peabody intends to implement a surface coal mine on these lands, which may obviously “adversely affect” the endangered bats that reside onsite. Because the land exchange may adversely affect endangered bats, an EIS is required. 40 C.F.R. § 1508.27(b)(9); *House v. U.S. Forest Service*, 974 F. Supp. 1022, 1036 (E.D. Ky. 1997); *Bensman v. U.S. Forest Service*, 984 F. Supp. 1242, 1250 (W.D. Mo. 1997).

The federal lands that would be exchanged, and subsequently strip-mined for coal, also include unique characteristics that again require that an EIS is prepared. 40 C.F.R. § 1508.27(b)(3). For instance, the proposed action discloses that the parcel includes lands adjoining the Saline River, as well as forested wetlands.

The proposed exchange of federal lands to Peabody, to facilitate a coal strip-mine, is also certain to be highly controversial, thus again triggering the need for an EIS. 40 C.F.R. § 1508.27(b)(4). Because of the direct relationship between the mining and burning of coal and global climate change, strip-mining for coal has become controversial even on private lands. National Forests are widely seen as critically important habitat for threatened and endangered species which will serve as a refuge for imperiled species during this time of unprecedented climate change. Thus, the exchange of national forest lands on the Shawnee National Forest to Peabody for the expressed purpose of a surface coal mine will undoubtedly prove to be highly controversial, requiring an EIS.

The environmental impacts of the proposal are also likely to be highly uncertain and involve unknown risks, due primarily to the uncertainty surrounding endangered bats in light of the massive

die-off and adverse impacts of white-nose syndrome on numerous bat species. 40 C.F.R. § 1508.27(b)(5). The disease has killed as many as seven million bats in North America over the past six years according to recent estimates. White-nose syndrome was first discovered in upstate New York in 2006 and has spread from Nova Scotia to Tennessee, infecting bat colonies in 16 states and four provinces. The disease outbreak has become the worst wildlife disease epidemic in North America's history, and yet it is still largely unknown how the disease spreads. As the USFWS has explained, "WNS [is] as an unprecedented wildlife disease event resulting in devastating consequences, spreading at an alarming rate, and with no obvious means of curtailment." USFWS WNS Plan at 8.

The proposed land exchange is also directly related to other actions that are likely to cumulatively result in significant impacts on the environment, including the coal strip-mine being proposed by Peabody. Because the overall cumulative impacts of the land exchange along with the coal strip-mine would result in significant environmental impacts, an EIS is again required. 40 C.F.R. § 1508.27(b)(7).

The Indiana and gray bats are both Endangered Species under the Illinois Endangered Species Act. Ill. Admin. Code tit. 17, § 1010.10. An EIS is also required because the exchange threatens a violation of the Illinois ESA. 40 C.F.R. § 1508.27(b)(10).

B. A Reasonable Range of Alternatives Must be Considered

NEPA also requires federal agencies to study, develop, and describe appropriate alternatives to any proposal that involves unresolved conflicts concerning alternative uses of available resources. 42 U.S.C. § 4332(E). Agencies must rigorously explore and objectively evaluate all reasonable alternatives, including the "no action" alternative. 40 C.F.R. § 1502.14. The proposed action indicates that a "purchase alternative" will be considered, which we believe is mandatory under NEPA. See *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 814 (9th Cir. 1999) (finding that Forest Service should have included an alternative to a proposed land exchange that considered purchasing the land outright with funds from the Federal Land and Water Conservation Fund). However, funds for land acquisition are very limited. While the Lusk Creek Wilderness tract is worthy of spending limited funds, so far we have not seen any information that indicates the other two tracts are worthy of purchase. Therefore, we request the range of alternatives includes an additional alternative that rejects the exchange and only purchases the Lusk Creek Wilderness tract. One of the tracts is also in the Middle Mississippi River National Wildlife Refuge purchase boundary. The Forest Service should check with the USFWS to see if they are interested in purchasing that tract.

The analysis needs to consider the Cherrybark Oak stand. Our understanding is this is the oldest and highest quality Cherrybark Oak Stand in Shawnee. The area should be investigated as a possible Natural Area. The presence of the Indiana and gray bats should also be considered as a basis to designate the area a Natural Area. An alternative to change the Management Area (MA) for the tract (or part of it) to 8.1 needs to be developed. Furthermore, since the site is now known occupied endangered species habitat, this tract and the nearby Forest Service tracts need to be taken out of the Minimum Management MA. The EIS needs to develop an alternative to change the management area of all the Forest Service land in the area.

The Forest Service must also include and meaningfully consider an alternative that would place deed restrictions on the land that would be traded to Peabody, in order to provide necessary protections for endangered bats and other resources. As recognized in *Muckleshoot Indian Tribe*, 177 F.3d at 813-14, the Forest Service's regulations require the agency to reserve such rights as needed to protect the public interest. 36 C.F.R. § 254.3(h). The Forest Service must therefore include, as an

alternative, the detailed consideration of a land exchange that would include mandatory deed restrictions that would fully protect the public's interest in the federal lands that are being exchanged. *Muckleshoot Indian Tribe*, 177 F.3d at 814.

C. The Forest Service Must Identify the Proper Scope for the Analysis

In determining the appropriate scope for an EIS, the NEPA regulations require that connected, cumulative and similar actions are considered together in a single EIS. 40 C.F.R. § 1508.25; *see also* 40 C.F.R. § 1502.4. Actions are connected if they will not proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for their justification. 40 C.F.R. § 1508.25(a)(1). As described in the proposed action, Peabody desires to acquire the Federal parcel in order to develop a surface coal mine. The proposed land exchange and the surface coal mine are connected actions that must be considered together in a single EIS. 40 C.F.R. § 1508.25(a)(1).¹⁶

Cumulative actions are those that will have cumulatively significant impacts and should therefore be discussed in the same EIS. 40 C.F.R. § 1508.25(a)(2). The proposed land exchange and the subsequent surface coal mine would result in cumulatively significant impacts which again must be analyzed and disclosed together within a single EIS. Additionally, similar actions are those which when viewed together have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. 40 C.F.R. § 1508.25(a)(3). Here, the proposed land exchange and the subsequent surface coal mine would occur in the very same location, providing considerable similarity and thereby again requiring that their impacts be considered together, in a single EIS.

D. Indirect Impacts Must be Assessed and Disclosed

An EIS must assess and disclose the “environmental consequences” of a proposed action, which includes the “indirect effects.” 40 C.F.R. § 1502.16. Indirect effects are those “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8. A reasonably foreseeable indirect effect of the proposed land exchange is that the Forest Service parcel to be exchanged would lose current protections that may allow the proposed strip coal mine to proceed. As it currently stands, the Forest Service parcel is subject to all of the procedural and substantive protections of the ESA, including the Forest Service’s obligation to give top priority to the endangered species onsite, and to consult with FWS in order to insure that any proposed action is not likely to jeopardize the continued existence of endangered species. If the land is transferred to a private party such as Peabody, however, this parcel would lose its Section 7 protections and only be subject to the Section 9 take prohibition. The EIS must fully and openly disclose this decrease in ESA protections should this parcel be exchanged.

E. Cumulative Impacts Must be Assessed and Disclosed

Regardless as to whether the Forest Service determines that the proposed land exchange and coal mine are connected, cumulative, or similar actions, the Forest Service still must consider and disclose the cumulative impacts of the proposed land exchange. *See* 40 C.F.R. § 1508.27(b)(7). “NEPA requires that where ‘several actions have a cumulative . . . environmental effect, this consequence must be considered in an EIS.’” *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1378 (9th Cir. 1998), *quoting City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312

¹⁶ Moreover, this includes any infrastructure that would be needed for the proposed strip mine, including new roads, rail lines, power lines, and waste ponds.

(9th Cir. 1990). Cumulative impact is defined as the impact on the environment resulting from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions regardless as to what agency or person undertakes such other actions. 40 C.F.R. § 1508.7. The intended coal mine is a reasonably foreseeable future action, and thus again must be considered along with the proposed land exchange in a cumulative impacts analysis.

Importantly, in order to “consider” cumulative effects, quantified, detailed information is required. *Neighbors of Cuddy Mountain*, 137 F.3d at 1379. “Without such information, neither the courts nor the public, in reviewing the Forest Service’s decisions, can be assured that the Forest Service provided the hard look that it is required to provide.” *Id.* “General statements about ‘possible’ effects and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided.” *Id.* at 1380. Nor is it appropriate to defer consideration of cumulative impacts to a future date, as NEPA requires consideration of potential impacts *before* the action takes place. *Id.*; *see also* (“NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken” 40 CFR § 1500.1(b).)

Additionally, plans for the surface coal mine do not need to be finalized before they are reasonably foreseeable. *Northern Plains Resource Council v. Surface Transportation Board*, 2011 U.S. App. LEXIS 25959, * 21 (9th Cir., Dec. 29, 2011). Indeed, NEPA requires that an EIS engage in reasonable forecasting, and speculation is “implicit in NEPA. *Id.* Agencies therefore cannot shirk their responsibilities under NEPA by simply labeling any and all discussion of future environmental effects as “crystal ball inquiry.” *Id.* at * 21-22.

F. Impacts to Wildlife Must be Considered

NEPA requires consideration of direct, indirect, and cumulative impacts, which for the proposed land exchange must include potential impacts to wildlife. This must include detailed analysis and consideration of the potential impacts on species designated by the Forest Service as sensitive and “management indicator species,” as well as species listed under the Endangered Species Act as threatened or endangered.

Additionally, the analysis of the potential impacts of the proposed action on the various bat species that may be found within the action area - including the endangered Indiana bat - must take into consideration the major decline in numerous bat species as result of white-nose syndrome.

G. Impacts to Wetlands and Water Quality Must be Considered

According to the proposed action, the western edge of the Federal parcel that would be exchanged adjoins the Saline River, and includes forested wetlands. Because the intended purpose of the exchange is to facilitate a strip coal mine on these lands, the EIS must analyze and disclose the potential impacts to wetlands and water quality resulting from the proposed mine. Impacts to water quality must include consideration of the potential for acid mine drainage resulting from the proposed coal mine.

H. Climate Change Impacts and Greenhouse Gas Emissions Must be Considered

Former Forest Service Chief Abigail R. Kimbell characterized the agency’s response to the challenges presented by climate change as “one of the most urgent tasks facing the Forest Service” and stressed that “as a science-based organization, we need to be aware of this information and to

consider it any time we make a decision regarding resource management, technical assistance, business operations, or any other aspect of our mission.” Climate change research is summarized in reports by the United Nations Intergovernmental Panel on Climate Change (IPCC), US Climate Change Science Program’s Science Synthesis and Assessment Products and the US Global Change Research Program. These reports conclude that climate is already changing; that the change will accelerate, and that human greenhouse gas emissions, primarily carbon dioxide emissions, are the main source of accelerated climate change.

The proposed action makes clear that the land exchange is being proposed in order to facilitate an open-pit coal mine by Peabody. As explained, the land exchange and coal mine are connected actions that must be considered together. Regardless, the Forest Service must consider the direct, indirect, and cumulative impacts of the proposed land exchange, which by definition must include the reasonably foreseeable impacts of the surface coal mine on the lands that would be exchanged. See 40 C.F.R. § 1508.7 (cumulative impact defined as the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions); *id.* at 1508.8 (defining indirect effects as effects that are caused by the action that are later in time or farther removed in distance, but are still reasonably foreseeable).

In order to properly consider the reasonably foreseeable impacts of the surface coal mine, the entire life-cycle of the mined coal must be considered, including the mining, transportation, processing, and burning of the coal. This assessment of the life-cycle of the mined coal must include consideration of the reasonably foreseeable greenhouse gas emissions, as “the impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” *Center for Biological Diversity v. National Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008).

In considering the greenhouse gas emissions concerning the mining of the coal, on the lands that are proposed to be exchanged, the analysis must include consideration of methane, which is produced during the process of coal formation, and released into the atmosphere when coal is mined. See *WildEarth Guardians v. U.S. Forest Service*, 2011 U.S. Dist. LEXIS 126358 (D. Col.) (where Forest Service prepared an EIS which “analyzed emissions data from the existing mine operations and made calculations regarding the expected annual release of methane into the atmosphere during the life of the project,” and “disclosed how much this would increase Colorado’s total greenhouse gases from fossil fuel sources and discussed the data in the context of methane emissions from all coal mines in the United States”). Methane is a potent greenhouse gas, estimated to account for 18% of the overall climate change effect triggered by human activities. According to the Intergovernmental Panel on Climate Change, methane has a global warming potential of 21 times that of carbon dioxide over a 100 year timeline. In addition to the release of methane, the Forest Service must also consider the clearing of trees, plants and topsoil to access the coal, which will also contribute to the overall greenhouse gas emissions during the mining stage.

Once the coal is mined, it is reasonably foreseeable that Peabody will transport the coal to coal-fired power plants in the region. This transport will further contribute to the greenhouse gas emissions resulting from the land exchange and coal mine.

The most significant greenhouse gas emissions will come from the coal-fired power plants that burn the coal, as coal-fired power plants are responsible for one-third of the nation’s carbon dioxide emissions, making coal the single largest contributor to global climate change. According to a recent EPA report, power plants released 72 percent of the greenhouse gases that were reported to EPA during 2010.

I. The EIS Must Provide the Public With Objective, Hard Data and Analysis

The Forest Service cannot rely on general, conclusory statements, without providing the public with supporting hard data and analysis. As the courts have explained, “[a]llowing the Forest Service to rely on expert opinion without hard data either vitiates a plaintiff’s ability to challenge an agency action or results in the courts second guessing an agency’s scientific conclusions. As both of these results are unacceptable, we conclude that NEPA requires that the public receive the underlying environmental data from which a Forest Service expert derived her opinion.” *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150 (9th Cir. 1998); *see also* 40 C.F.R. § 1502.24 (agencies must insure the scientific integrity of the discussions and analysis in a NEPA analysis).

J. The EIS Must Fully Disclose Mitigation Measures

The EIS must disclose all mitigation measures for each of the included alternatives, including an assessment of their likely effectiveness. Agencies must use all practicable means to restore and enhance the quality of the environment and to avoid or minimize any possible adverse effects of their actions on the environment. 40 C.F.R. § 1500.2(f); *see also id.*, § 1502.14(f) (requiring alternatives section to include all appropriate mitigation measures; *id.* at § 1502.16(h) (requiring the environmental consequences section to include a discussion of the means to mitigate adverse environmental impacts). Mitigation includes avoiding the adverse impacts altogether, minimizing impacts by limiting the degree or magnitude of the action, rectifying the impact by repairing, rehabilitating, or restoring the affected environment, reducing or eliminating the impact over time, and compensating for the impact by replacing or providing substitute resources or environments. 40 C.F.R. § 1508.20.

K. Site and roost fidelity

The EIS must address Indiana and gray bat fidelity to sites and specific trees. The analysis cannot just contend the bats can go find another location. This is particularly true in the face of WNS.

Behavior - Site fidelity, the tendency for individuals to return repeatedly to the same area, is well documented for Indiana bats. This applies to both hibernacula and summer range. * * * They may use the same roost trees in successive years as long as they remain standing (Brady et al. 1983, Gardner et al. 1991) and are known to move from one roost tree to another if the previously used tree is no longer useable (Gardner et al. 1991).
Plan BA at 49.

Working in Illinois, Gardner, et al. (1991), raised concerns that disturbing roosts may cause bats to expend additional energy searching for new roosts at a time when the bats energies should be used for rearing young. They found a high degree of within-season site fidelity to specific trees by individual bats.
Plan BA at 41.

Gray bats roosting and foraging habitats are considered to be uncommon on the Shawnee (Gardner, pers. Communication 1992). * * * Optimum foraging habitat for gray bats is considered to be forests along the banks of perennial streams and lakes. They sometimes use intermittent streams. They also occasionally forage in bottomland hardwood forests having little understory vegetation. * * * Behavior - Site fidelity, the tendency for individuals to return repeatedly to the same area, is well documented for gray bats. This applies to both hibernacula and summer range (Brady et al. 1982).
Plan BA at 83-4.

Site Fidelity

Data indicate that Indiana bats exhibit site fidelity to their traditional summer maternity and foraging areas (Humphrey et al. 1977, Gardner et al. 1991a/b, Gardner et al. 1996, Callahan et al. 1997, Butchkoski and Hassinger 2002, Kurta and Murray 2002). Gumbert et al. (2002) found both roost tree and roost site fidelity. Specific roost trees may be used repeatedly by a colony for several years until the trees are no longer available or suitable; but the colony will continue to use the general area for years. One prevailing belief is that in addition to providing a variety of thermal conditions, Indiana bats may frequently use other roost trees to locate future roost sites for when their existing roosting trees become unsuitable.

Gardner et al. (1991a/b) and Sparks et al. (2004) observed that females returned to their foraging areas between years. A long term study of Indiana bats at the Indianapolis Airport showed these bats foraged in the same general areas from 1997 to 2004 (Sparks et al., in press).

USFWS Forest Plan BO at 48.

The 2007 Draft Revised Recovery Plan states:

Site Fidelity

Research indicates that Indiana bats exhibit site fidelity to their traditional summer maternity areas. Numerous studies have documented female Indiana bats annually returning to the same home range to establish maternity colonies (Humphrey et al. 1977; Gardner et al. 1991a, 1991b; Gardner et al. 1996; Callahan et al. 1997; Whitaker and Sparks 2003; Whitaker et al. 2004). While use of new roosts that become available within established home ranges has been documented, pioneering of new maternity colonies has not been documented. We presume that the species is capable of forming new maternity colonies, but neither the mechanism nor circumstances under which the Indiana bat pioneers maternity colonies has been documented.

Roost trees, although ephemeral in nature, may be occupied by a colony for a number of years until they are no longer available or suitable. Roost tree reoccupation of 2 to 6 years has been documented in a number of studies (Gardner et al. 1991b; Whitaker et al. 2004; Barclay and Kurta in press; K. Watrous, University of Vermont, pers. comm., 2005).

Maternity colonies of Indiana bats also appear to be faithful to their foraging areas within and between years (Cope et al. 1974; Humphrey et al. 1977; Gardner et al. 1991a, 1991b; Murray and Kurta 2004; Sparks et al. 2005b). Available data also suggest that individual Indiana bats are faithful to their foraging areas between years. Gardner et al. (1991a, 1991b) observed that 49 individual females returned to the same foraging areas year after year, irrespective of whether they were captured as juveniles and recaptured and tracked as adults or captured as adults and then followed. In Indiana, one female Indiana bat was radiotracked in two different years and both roosting and foraging habits were found to be remarkably consistent between years (Sparks et al. 2005b). In Michigan, Murray and Kurta (2002, 2004) recaptured 41 percent (12 of 29) of banded females when mist netting at the same area in subsequent years. Further studies of this

colony reported use of a wooded fenceline as a commuting corridor for at least nine years (Kurta 2005, Winhold et al. 2005).
Draft Recovery Plan at 48-49.

As we have previously pointed out, Dr. John Whitaker, an Indiana bat researcher has stated:

I do not know why this is hard for anybody to understand, but here goes.

Indiana bats return to the same primary roost tree year after year, probably as long as the tree is still inhabitable. Since they will try to return to it, we should not cut it down. Worse yet, when this method is used, we try to cut all the possible roost trees. Then where do the bats go? I suspect that if they return, pregnant, and find nowhere to go, I suspect that they disperse in all directions and probably many die. This approach would be like burning your home when you are not there, but it is more complicated than that, because there are a number of individual bats that arrive at different times and must congregate, rather than just one family out of a home. How do they get back together? I suspect they often don't.

It is true that trees occasionally fall down etc., and the bats then have to move, which is the reasoning those folks use that want to cut roost trees. The bats usually move to another primary tree they already know about, thus cutting ONE roost tree may not hurt the bat population, provided they can congregate at another primary tree. However, when the approach is to try to cut all the roost trees, then where do the bats go?

It is my belief that if we are going to try to protect Indiana bats in summer, that we should -protect their summer habitat, Roost trees are the most important part of their summer habitat, so we should certainly protect them. I can not understand at all why anybody tolerates the idea of cutting roost trees.

They ejected big brown bats from a church in Vevay, Indiana a few years ago. Many of them showed up in other colonies, but there were bats all over town, and many of them ended up dead! I suspect the same would happen to Indiana bats.

If we are really going to do what is right for Indiana bats in summer, we should save their habitat, including their roost trees. If we are going to cut their potential roost trees, perhaps we should just kill the bats in the first place! Sorry, but that is the way I feel. I do not understand why the Forest Service and other agencies can not understand this.

Hope this helps.
John Whitaker

L. Ohio River Floodplain

An EIS must accurately describe the environment of the area to be affected by the proposal under consideration. 40 C.F.R. § 1502.15. For the proposed land exchange, the Scoping Notice states:

The Federal parcel involved in this exchange proposal is located primarily within the Minimum Management Management Area (MA) identified in the Shawnee Forest Plan. The Minimum Management MA generally provides for the protection and maintenance of environmental values, but directs that management activities and investments be at a

minimum level. Additionally, the Minimum Management MA directs that unconsolidated lands within this management area are generally the highest priority for exchange. While the parcel also includes a small area, (~29 acres) managed within the Mississippi and Ohio Rivers Floodplain Management Area, approximately 93 percent of the parcel falls within the Minimum Management MA.
Scoping Notice at 2.

While this appears to be an accurate representation of where the MA boundaries are drawn on the Forest Plan map, it would appear the map is in error. It would appear about half the tract is actually in the floodplain of the Ohio River. If you look at the site in GoogleEarth, the May 29, 2011, photos show about half the tract flooded by the Ohio River. When we visited the site in December a large percentage of the bottoms were flooded-apparently backing up from the Ohio River. We noticed the bottoms were not infested with honeysuckle. Since flooding kills honeysuckle, it suggests this tract floods often. USGS National Elevation Grid data also suggests much more of the tract is in the Ohio River floodplain. FEMA's map shows half the tract in the Special Flood Hazard Area. At the open house, the Forest Supervisor pointed out last year the tract was flooded back to the bluff line. The Forest Service needs to survey the site to establish how much of the tract is actually in the floodplain of the Ohio River. One of the justifications for the exchange is most of the land is in the Minimum Management MA. If most of the area is actually in the Mississippi and Ohio Rivers Floodplain Management Area, that would have a major bearing on the tract's suitability to be traded.

The Forest Service needs to develop an alternative to classify more of the tract in the Mississippi and Ohio Rivers Floodplain Management Area. About half the tract regularly floods and contains forested wetlands. Therefore, it is suitable for this management prescription. Since the gray bats are likely coming from Cave Springs Cave on the Ohio River, the alternative should also identify acquiring additional land along the Ohio and Saline Rivers as priorities for acquisition.

We note the Forest Plan addresses the Ohio River floodplain:

The area has been identified by the Central Hardwoods Joint Venture as a wetland focus area in the Central Hardwoods Bird Conservation Region.
Forest Plan at 73.

Even if the bottoms are not in the Ohio River floodplain, about half the tract is in the Saline River Floodplain. As such, Executive Order No. 11988 applies.

M. Forest Plan SEIS

The CEQ NEPA Regulations require federal agencies to prepare a supplemental environmental impact statement ("SEIS") if there are "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9. The Forest Service NEPA Handbook states:

If new information or changed circumstances relating to the environmental impacts of a proposed action come to the attention of the responsible official after a decision has been made and prior to completion of the approved program or project, the responsible official should review the information carefully to determine its importance. Consideration should be given to whether or not the new information or changed circumstances are within the scope and range of effects considered in the original analysis.

FSH 1901.15 § 18.1

In Section I.F. above, titled “The Forest Service Must Reinitiate Consultation on the Shawnee Forest Plan Pursuant to Section 7 of the ESA,” we document and explain that there are significant new circumstances and information concerning the potential impacts to endangered bats that was not addressed at the time the Shawnee Forest Plan was revised, including but not limited to the devastating spread of WNS. For the same reasons that the Forest Service is required to reinitiate consultation with USFWS pursuant to Section 7 of the ESA concerning the continuing impacts of implementation of the Shawnee Forest Plan on endangered species, the Forest Service is also required to prepare an SEIS on the Shawnee Forest Plan, pursuant to NEPA. 40 C.F.R. § 1502.9.

V. Inadequate Scoping Notice

The December 2011 scoping notice is inadequate for a number of reasons. As a result, if the Forest Service does not terminate the land exchange, a new scoping period is needed.

First, the scoping notice fails to adequately describe the tract Peabody wants by not disclosing that it is currently occupied by endangered Indiana and gray bats. Ron Scott explained, “As far as the bat survey goes, there was no reason for us to discuss this in scoping since the protection of the Indiana bat is an issue we would include in the environmental analysis in any case.” January 10, 2012 Email. This is by far the most important issue related to this exchange. As was explained above, finding these endangered species on-site makes it illegal to exchange the land or even consider this exchange. The Forest Service clearly needed to disclose this.

Second, the scoping notice does not disclose the footprint of the proposed strip mine. As explained above, NEPA requires the strip mine to be considered in an EIS for the exchange as it is a connected and cumulative action. Based on the scoping notice, we are not able to adequately comment on the strip mine. For example, we need to know its footprint to know what other areas could have Indiana bat issues. On January 10, 2012, Ron Scott emailed us, “We do not have a map that shows what private land Peabody has for the mine. As far as the environmental analysis goes, we only need to know where Peabody is planning to mine, with or without the land exchange. I am preparing and will send you a copy of the map of the mine-plan limits of disturbance that Peabody has shared with us in a separate email.” However, on January 13, 2012, Ron Scott emailed us:

Contrary to my previous email on the subject, at this time I will be unable to send you a map depicting the overall surface mine plan. American Land Holdings of Illinois/Peabody Energy have indicated that the information is currently preliminary in nature, subject to change and proprietary at this time. Accordingly, they do not wish for the information to be shared until the EA is published for public comment. They will be providing us with updated, current spatial information regarding the mine plan and disturbance limits that will be used when we are doing the environmental analysis of the proposed land exchange, which will be reflected in the EA. However, that information is not available right now.

If this is the case, then the Forest Service should not have started scoping until Peabody is prepared to release the footprint of the strip mine. As the original email stated, this information is needed. The public cannot adequately comment until the footprint is revealed.

We have also submitted a FOIA Request seeking more information on if Peabody intends to strip mine this tract. We have not yet received a response. When we obtain this additional information, we may have more comments.

VI. The Illinois ESA

The Indiana and gray bats are both endangered species under the Illinois Endangered Species Act. The analysis needs to address even if the Federal ESA would allow converting maternity habitat to a strip mine (which it does not), state law would prohibit converting the maternity colony into a strip mine. For example, 17 Ill. Adm. Code 1080.10 requires:

B) plans for management of the area affected by the proposed action that will enable continued use of the area by endangered or threatened species;

There is no way a strip mine would enable this tract to continue to be used by the Indiana bat for maternity roosting. One of the reasons why we are stressing the surveys are not adequate to show the extent of the endangered species use, is to prevent any argument that the entire tract is not being used by the Indiana bat. The analysis needs to make it clear to Peabody that even if the land trade would go through, both the Federal and Illinois Endangered Species Act will stop this site from being strip mined.

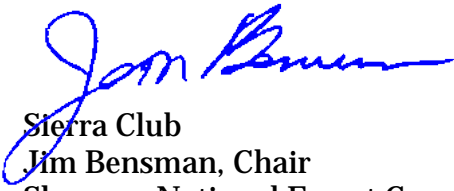
VII. Deed Restrictions

We have asked the Forest Service if there are any deed restrictions on the tract Peabody wants to acquire. We are still waiting for a response. This needs to be addressed.

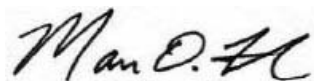
Conclusion

We again thank you for the opportunity to comment, and ask that you please keep the Sierra Club and Center for Biological Diversity fully informed in the event the Forest Service decides to proceed with consideration of this proposal.

Respectfully Submitted,



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