

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2005-00207

INFORMATION REQUEST RESPONSE

INTERVENORS CARROLL & DORIS TICHENOR'S FIRST DATA REQUEST
DATED 8/3/05

ITEM 2

RESPONSIBLE PARTY: Mary Jane Warner/Joe Settles

REQUEST: Any studies, evaluations, discussions, and/or communications, including any environmental impact statement or environmental assessment, produced by or on behalf of any federal or state agency or by EKPC, evaluating the environmental impacts of the proposed transmission facilities and alternatives and all related documents.

RESPONSE: Exhibit 2-1 contains all such information.



GILPIN GROUP

Environmental Consulting and Planning

March 25, 2005

2087 Ketchner Road
Wellsville, New York 14895
Phone: (585) 593-5696
E-mail: Gilpin@eznet.net

Stephanie A. Strength
Environmental Protection Specialist
USDA/Rural Utilities Service
1400 Independence Avenue, SW
South Agriculture Building, Mail Stop 1571
Washington, D.C. 20250-1571

Dear Stephanie:

During our recent trip to Washington, Joe Settles of East Kentucky Power Cooperative (EKPC) and I greatly appreciated you, Dennis and Bard taking the time to meet for the purpose of discussing the proposed EKPC/Warren RECC 161 kilovolt (kV) Transmission Projects. As agreed during our meeting, EKPC will be submitting an Environmental Report (ER) for *Project Area II* (normally categorically excluded type project) and separate ER's for *Project Areas III & IV*, incorporating sufficient detail to enable adoption by the Rural Utilities Service (RUS) as Environmental Assessments (EA). As discussed during the meeting, should the alignment of the proposed transmission line within *Project Area I* be 25 miles or less EKPC will be submitting an ER for a normally categorically excluded type project, otherwise an ER with sufficient detail for an EA will be submitted. This assumes that Bard has sufficient detail in an existing Construction Work Plan, or EKPC supplies information, to demonstrate that the projects can be treated separately from an environmental perspective.

Should you have any questions regarding the subject projects, please do not hesitate to contact either Joe Settles or myself. It was very nice meeting you. Good luck at the new job.

Sincerely,

Gary W. Gilpin
Environmental Scientist/Owner

cc: Joseph Settles, EKPC
Dennis Rankin, RUS

1983-2005

22

YEARS OF SERVICE

From: Strength, Stephanie - Washington, DC [Stephanie.Strength@wdc.usda.gov]
Sent: Tuesday, June 28, 2005 2:22 PM
To: Joe Settles; Geneva Flannery
Subject: CWP

The CWP information that I need pertains to all the items of the "Refined Project List for Proposed Facilities Necessary for Service to WRECC".

Please add a column (delete the recently added column titled "project area") and title the new column "Env. Class." or something along those lines. For each line, spell out the anticipated environmental classification [i.e., if Aberdeen 161 kV Trans. Sub is the addition of 2 breakers within the current substation, write Cat. Ex. or 1794.21(b)(4)].

The CWP ER should have general project descriptions (i.e., lump all like projects together and explain the environmental impacts "work will be inside existing substation"). Give project descriptions for projects requiring environmental documentation (such as voltage and length of a line, existing ROW, then environmental classification "EA" "ER" "EA w/scoping).

Please let me know if you have any questions.

Sincerely,

Stephanie A. Strength
Environmental Protection Specialist/RD
1400 Independence Ave. SW Room # 224
Washington, DC 20250-1571

(202) 720-0468

-----Original Message-----

From: Strength, Stephanie -RUS
Sent: Wednesday, June 15, 2005 1:02 PM
To: 'joe.settles@ekpc.coop'
Subject: RE: Project

Joe,

My e-mail is finally up and running. Please see my response embedded in the text below.

Stephanie A. Strength
Environmental Protection Specialist, EES
USDA/Rural Development

202-720-0468
Stephanie.Strength@usda.gov

-----Original Message-----

From: joe.settles@ekpc.coop%inter2 [mailto:joe.settles@ekpc.coop]

Sent: Tuesday, June 07, 2005 1:23 PM
To: Strength, Stephanie -RUS
Cc: Rankin, Dennis -RUS; brian.gasdorf@ekpc.coop%inter2;
chris.carpenter@ekpc.coop%inter2; jeff.hohman@ekpc.coop%inter2;
josh.young@ekpc.coop%inter2; missy.toncray@ekpc.coop%inter2;
seth.bishop@ekpc.coop%inter2
Subject: Project

Stephanie,

I hope your training sessions are going well. I was told the best way to contact you this week would be by email. I have a couple of projects I need to discuss with you.

The items I would like to discuss relate to:

- The level of environmental review that will be required for the 4 projects associated with connection with Warren RECC. I spoke with Bard Jackson yesterday, and he stated that he has reviewed the work plan and sent his assessment to you.

All four can be treated as separate EA's

The CWP Amendment needs further environmental information prior to my approval. Typically a list of the projects is provided with a short descriptor (you have provided size, length, and location so this is satisfied). The missing piece is EKPC's suggested environmental classifications (CE w/out ER, ER, EA, EA w/scoping, etc.). Include any specific information that may lead to a downgraded classification (rebuild, no new disturbance, etc.). Please modify your "refined project list" to include this information. You can e-mail it directly to me and that will aid in speeding my approval along.

- We caught an Indiana bat on the Little Mount project in Spencer County. It is an exciting find for that area of KY. We put a transmitter on the bat and tracked it to its roost tree. In the ER, EKPC agreed to survey for this species if we wished to clear trees for the project between March 31 and October 15. We are working with the US Fish and Wildlife Service to protect the bat. We have submitted a draft Biological Assessment to their office and they are reviewing it.

Please keep me in the loop on this activity. I need a copy of the BA.

- Roswell Harris complaint letter - I spoke with Dennis yesterday, and I have received a copy of the complaint filed to your office. We are putting together some information for you and Dennis.

I will look over the response you e-mailed to me and get back to you on this item.

- Lastly, - We never received final approval from your office concerning the 138kV Cranston-Rowan Transmission project. The Daniel Boone National Forest (DBNF) was the lead agency on that project, and they performed an environmental assessment. We submitted the FONSI and EA to Larry Wolfe. The EA was appealed by Heartwood. Once the appeal was filed, Larry stated that he would not issue RUS approval for the project until the appeal was resolved. The FONSI was upheld in the appeal process, and the DBNF is supposed to issue the special use permit by

June 16th. Have you received the necessary information from the DBNF?

I received this information from Tom a couple weeks ago. I will review it Friday. Is there an urgency with this item that I should review it sooner?

When would be a good time to set up a call to discuss these projects? I will be available Thursday afternoon and Friday morning this week (9th and 10th). Next week I will make myself available to your schedule on Monday, Tuesday morning, Thursday, and Friday (13, 14th, 16, and 17th

My schedule for the next few weeks is thus:

June 16-17 (7:30-5:00)

June 21-24 (7:30-5:00)

June 27-28 (7:30-5:00)

Then I am out of the office until July 11.

I look forward to hearing from you.
Joe

Joe Settles
Supervisor, Natural Resources
and Environmental Communications
East KY Power Cooperative
4775 Lexington Road
Winchester, KY 40391
Work: 859-745-9256
Mobile: 859-771-3303
Fax: 859-744-6008
Email: joe.settles@ekpc.coop

RE June Meeting CWP Oak Ridge.txt
From: Strength, Stephanie -RUS [Stephanie.Strength@usda.gov]
Sent: Friday, June 03, 2005 8:30 AM
To: Joe Settles
Subject: RE: June Meeting, CWP, Oak Ridge

I spoke with Bard (Engineering) and the original interpretation of the projects as individual and independent may not be correct. We may be looking at lumping the projects as one. I will let you know as soon as I have further information.

Stephanie A. Strength
Environmental Protection Specialist, EES
USDA/Rural Development

202-720-0468
Stephanie.Strength@usda.gov

-----Original Message-----

From: joe.settles@ekpc.coop%inter2 [mailto:joe.settles@ekpc.coop]
Sent: Friday, June 03, 2005 6:52 AM
To: Strength, Stephanie -RUS
Cc: geneva.flannery@ekpc.coop%inter2
Subject: RE: June Meeting, CWP, Oak Ridge

Thanks for the help. I will be looking for the letter. Right now I am moving forward with the 3 EA's and 1 environmental report for the projects associated with the addition of Warren RECC. You should already have the workplan for those projects. Let me know if you have any questions related to the workplan.

Thanks,
Joe

-----Original Message-----

From: Strength, Stephanie -RUS [mailto:Stephanie.Strength@usda.gov]
Sent: Thursday, June 02, 2005 2:12 PM
To: Joe Settles
Subject: RE: June Meeting, CWP, Oak Ridge

Thanks Joe, I have sent the approval letter for Oak Ridge downstairs. You should receive it shortly.

Stephanie A. Strength
Environmental Protection Specialist, EES
USDA/Rural Development

202-720-0468
Stephanie.Strength@usda.gov

-----Original Message-----

From: joe.settles@ekpc.coop%inter2 [mailto:joe.settles@ekpc.coop]
Sent: Wednesday, June 01, 2005 4:19 PM
To: Strength, Stephanie -RUS
Cc: bruce.murrey@ekpc.coop%inter2; bob.hughes@ekpc.coop%inter2
Subject: RE: June Meeting, CWP, Oak Ridge

Stephanie,

Paul Atchison
Copy to Shea Kamber
JUL 29 2005 + Joe
Sittles



United States Department of Agriculture
Rural Development

Rural Business—Cooperative Service • Rural Housing Service • Rural Utilities Service
Washington, DC 20250

Mr. Roy M. Palk
President and Chief Executive Officer
East Kentucky Power Cooperative, Inc.
P.O. Box 707
Winchester, Kentucky 40392-0707

Dear Mr. Palk:

The Rural Utilities Service (RUS) has reviewed and hereby approves your **Work Plan (WP) Amendment** for facilities to necessary for service to Warren Rural Electric Cooperative Corporation (WRECC), submitted in a letter from Mr. Paul Atchison dated May 2, 2005.

The project description in the Amendment was also reviewed by RUS' Engineering & Environmental Staff who determined that the 161 kV loop from the Barron Substation to Big River Electric Corporation's Wilson Substation will require an Environmental Assessment (EA). Recognizing that East Kentucky Power Cooperative (EKPC) desires to construct this 161 kV loop in sections, and to begin construction soon in order to serve WRECC in April 2008, RUS will accept the EA in sections. RUS approval of each sectional EA will allow construction to begin on that section (and remain eligible for RUS financing) before the EA is completed for the entire loop. However, RUS will not agree to finance individual sections of the loop until the EA is complete for the whole loop.

If you should have any questions regarding this approval, please contact Bard Jackson at (202) 720-1406.

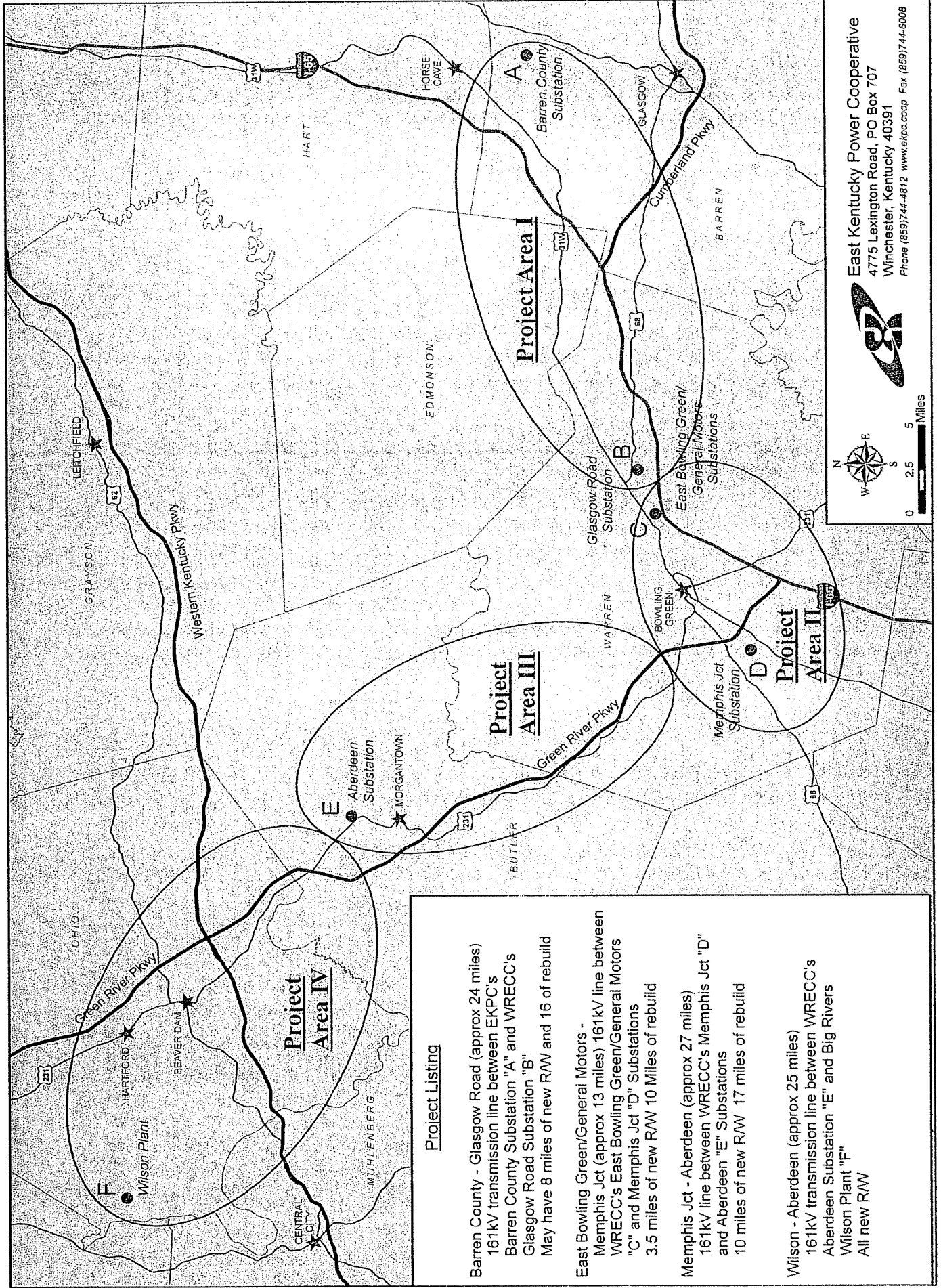
Sincerely,

A handwritten signature in black ink, appearing to read "Steven M. Slovkosky".

STEVEN M. SLOVKOSKY
Chief, Power Delivery Engineering Branch
Power Supply Division

AUG 4 - 2005

EKPC/Warren REC Transmission Projects



From: Mindi_Brady@fws.gov
Sent: Thursday, November 04, 2004 5:12 PM
To: Joe Settles
Subject: Re: Recovery plan

Hey Joe,
Glad to hear you were able to get the info ya'll needed. I talked a little w/ Bob Currie, about the project. As far as the buffer between a cave and the powerline, he said that .25 mile was a good starting place, however, it would depend on what type of cave it was, how many individuals were using it, etc.... So, I guess once ya'll get this planned a little more, we'll have a better idea of what we'll be dealing with. I'm assuming this powerline is one of the big ones with the towers that are set in the ground a good bit?
Hope you have a good weekend,
-Mindi

"Joe Settles"
<joe.settles@ekpc.coop>

11/04/2004 03:01 PM

To: "Mindi Brady (E-mail)"
<mindibrady@fws.gov>
cc:
Subject: Recovery plan

Mindi,

I just wanted to say thanks for the recovery plan. It landed on my desk today. Also, I wanted to let you know that the KSNPC provided us with the data we needed. You have been very helpful throughout the process, and let us know if we can help you with anything.
Joe

Joe Settles
Biologist
East Kentucky Power Cooperative
4775 Lexington Rd.
Winchester, KY 40391
Phone (859) 744-4812
Fax (859) 744-6008
Please note my email address has changed to:
joe.settles@ekpc.coop

July 11, 2005

Mr. Lee Andrews
U.S. Fish and Wildlife Service
Frankfort Field Office
3761 Georgetown Rd.
Frankfort, KY 40601

Dear Lee,

Enclosed is information concerning the Indiana Bat (*Myotis sodalis*) mist-netting survey plan for the following project being considered by East Kentucky Power Cooperative (EKPC):

General Motors – Memphis Junction 161 kV Transmission Line

The project is approximately 10 miles in length and is located in Warren County in western Kentucky (See overview map). The line begins at the East Bowling Green/General Motors Substation northeast of Bowling Green and travels west along the northern edge of the city. It then turns southwest after the third Barren River crossing and extends to just east of Blue Level. At this point, the line travels south and ends at the Memphis Junction Substation, located southwest of Memphis Junction. The majority of the project involves rebuilding an existing line to increase it from 69 kV to 161 kV. A portion of the line, running from the second Barren River crossing to the Jennings Creek crossing, will be new line that parallels an existing line. Another section, extending from Blue Level south to the Memphis Junction Substation, will be new transmission line.

The parallel and rebuild sections of the line will require extensions of the current rights-of-ways (ROWs), with a maximum of 70 additional feet for the parallel section and 30 additional feet (15 on each side) for the rebuild section. The extension of the existing ROWs will require the clearing of some trees and could potentially affect the Indiana bat. Therefore, a mist-netting survey plan is being created to address this issue.

EKPC biologists surveyed the 10 miles of existing powerline ROW and concluded that approximately 2 miles are bordered by wooded areas. EKPC biologists classified the wooded areas into one of three categories: good, marginal, and poor. These categories are described as:

Good – the wooded areas provide adequate foraging habitat, potential roost trees, and are connected to other sections of habitat of the same quality.

Marginal – the wooded areas provide some opportunities for foraging, but the majority of the area has a thick understory. The trees in this designation are fairly young in age with little development of cavities, crevices, and exfoliating bark providing limited roosting opportunities for Indiana bats.

Poor – the wooded areas provide very little opportunity for foraging. The wooded areas have a dense understory, trees are very young, and the area resembles the late stages of old field succession. Potential roost sites are very limited and it is estimated that no potential roost trees occur in this habitat type.

The section of the line with the most wooded area begins west of the Natcher Parkway and extends southwest to KY 432. This section of the line is being rebuilt, but the current ROW is wide enough to accommodate the upgrade. Therefore, this section will not require any additional clearing of trees.

The remaining portion of the line contains less than 1 mile of wooded habitat. Two small, wooded areas contain woods that may provide habitat suitable for the Indiana bat. These areas are marked on the enclosed maps and described below.

- 1) **Barren River crossing (Map 1).** This site has good woods along both sides of the river, with wooded roads running parallel to the river on the north side. We propose one mist-netting site here over the river and along the roads.
- 2) **Jennings Creek crossing (Map 2).** This area contains good woods along the banks of the creek, with a larger area of woods located adjacent to the south side of the creek. One mist-netting site is proposed for this area over the creek.

Please review this proposal for a mist netting survey for the Indiana Bat. After surveying the project area, we feel this proposal is more than adequate to determine the presence/probable absence of this species in the project area. Once the survey has been completed, a detailed report of our results will be submitted to your office for comment. We are also in the process of surveying the project area for other federally threatened and endangered species that may occur there. We are surveying the area for species such as Price's potato-bean, Eggert's sunflower, and gray bats. We will submit the results of these surveys as well with the mist netting report.

I would appreciate your comments on this proposal for mist-netting as soon as possible. If you have any questions concerning this or any of our projects please feel free to contact me at your convenience. Thank you for taking the time to address our concerns.

Sincerely,

Joe Settles
Supervisor
Natural Resources and Environmental Communications

July 11, 2005

Mr. Lee Andrews
U.S. Fish and Wildlife Service
Frankfort Field Office
3761 Georgetown Rd.
Frankfort, KY 40601

Dear Lee,

Enclosed is information concerning the Indiana Bat (*Myotis sodalis*) mist-netting survey plan for the following project being considered by East Kentucky Power Cooperative (EKPC):

Memphis Junction – Aberdeen 161 kV Transmission Line

The project is approximately 24 miles in length and is located in Warren and Butler Counties in western Kentucky (See overview map). The line begins southwest of Bowling Green, then travels around the western edge of the city and parallels US 231 northwest to Morgantown. A topographic map showing the project area is enclosed.

The portion of the line from Bowling Green to approximately $\frac{3}{4}$ mile north of the Natcher Parkway will be a new 161 kV line and will require a 100-foot wide right-of-way (ROW). The remainder of the project involves rebuilding an existing line to increase capacity from 69 kV to 161 kV. Because the existing line currently has a 70-foot wide ROW, only 15 additional feet will need to be cleared on either side of the ROW. The creation of the new ROW and the extension of the existing ROW will require the clearing of some trees and could potentially affect the Indiana bat. Therefore, a mist netting survey plan is being created to address this issue.

EKPC biologists surveyed the 24 miles of existing powerline ROW and concluded that approximately 12.5 miles are bordered by wooded areas. EKPC biologists classified the wooded areas into one of three categories: good, marginal, and poor. These categories are described as:

Good – the wooded areas provide adequate foraging habitat, potential roost trees, and are connected to other sections of habitat of the same quality.

Marginal – the wooded areas provide some opportunities for foraging, but the majority of the area has a thick understory. The trees in this designation are fairly young in age with little development of cavities, crevices, and exfoliating bark providing limited roosting opportunities for Indiana bats.

Poor – the wooded areas provide very little opportunity for foraging. The wooded areas have a dense understory, trees are very young, and the area resembles the late stages of old field succession. Potential roost sites are very limited and it is estimated that no potential roost trees occur in this habitat type.

Based on these classifications, the project contains approximately 6.75 miles of good wooded areas, 4.75 miles of marginal wooded areas, and 1 mile of poor wooded area. Some of the good and marginal areas may provide possible Indiana bat habitat and could make good potential mist netting sites. These areas are marked on the enclosed maps and are described below.

- 1) **Salt Lick Creek corridor (Map 1).** This area of the project follows the Salt Lick Creek corridor and appears to have marginal woods. The creek corridor may provide a viable mist-netting site, and one site is proposed for this area.
- 2) **Wooded area south of the Gasper River (Map 2).** This area contained good woods with nearly continuous canopy cover and had a fairly minimal understory in most places. Suitable roost trees were present and a few trails cutting into the woods from the ROW may provide mist netting sites. We propose one mist-netting site in this area.
- 3) **Clifty Creek and tributaries (Map 3).** These streams provide a good corridor for mist netting and are enclosed by good wooded areas. There are also a couple of wooded road corridors in the area that are suitable for mist netting. We propose two mist-netting sites here.
- 4) **Wooded area north and south of Little Muddy Creek (Map 4).** This area provided some good wooded areas mixed in with pasture and crop fields. A network of wooded trails near the creek crossing may provide good mist netting sites, but access is limited. One site is proposed for netting this area.
- 5) **Sportsman Club Rd. off KY 1328, east of Morgantown (Map 6).** The road runs through an area of good woods and ends at a lake. We have netted two nights here along the road and caught two Northern bats (*Myotis septentrionalis*) and one Big brown bat (*Eptesicus fuscus*).

- 6) **Wooded area north of KY 1328 and southeast of KY 70 (Map 6).** This area is primarily marginal woods, with a fairly good canopy and some understory. There may be some trails through the woods that could provide a good mist-netting site. We propose one site here.

These six areas represent the best potential habitat for the Indiana bat that was observed along the project area. Other wooded areas were isolated fragments of wooded habitat surrounded by agricultural, commercial, or residential land. A few of the areas that appear to be wooded on the topographic maps have been cleared or altered since the maps were last revised.

Please review this proposal for a mist netting survey for the Indiana Bat. After surveying the project area, we feel this proposal is more than adequate to determine the presence/probable absence of this species in the project area. Once the survey has been completed, a detailed report of our results will be submitted to your office for comment. We are also in the process of surveying the project area for other federally threatened and endangered species that may occur there. We are surveying the area for species such as Price's potato-bean, Eggert's sunflower, and gray bats. We will submit the results of these surveys as well with the mist netting report.

I would appreciate your comments on this mist-netting plan as soon as possible. If you have any questions concerning this or any of our projects please feel free to contact me at your convenience. Thank you for taking the time to address our concerns.

Sincerely,

Joe Settles
Supervisor
Natural Resources and Environmental Communications

July 11, 2005

Mr. Lee Andrews
U.S. Fish and Wildlife Service
Frankfort Field Office
3761 Georgetown Rd.
Frankfort, KY 40601

Dear Lee,

Enclosed is information concerning the Indiana Bat (*Myotis sodalis*) mist-netting survey plan for the following project being considered by East Kentucky Power Cooperative (EKPC):

Barren County-Oakland-Magna 161 kV Transmission Line

The project is approximately 29 miles in length and is located in Warren and Barren Counties in western Kentucky (See overview map). The first section of the project is new transmission line that begins at the existing Barren County Substation, located west of Griderville just north of KY 70, and travels southwest to Apple Grove. The next section involves a rebuild of an existing line from 69 kV to 161 kV. It heads southwest from Apple Grove, then turns west after crossing Sinking Creek towards Oakland, and then travels southwest towards Loving. At this point, a new transmission line will parallel an existing line, then a new section of line will lead north into the Glasgow Road Substation.

The parallel and rebuild sections of the line will require extensions of the current rights-of-way (ROWs), with a maximum of 70 additional feet for the parallel section and 30 additional feet (15 on each side) for the rebuild section. The new section of the line will require the creation of a 100-foot ROW. The extension and creation of these ROWs will require the clearing of some trees and could potentially affect the Indiana bat.

EKPC biologists surveyed the 29-mile proposed line and determined that approximately 2 miles of the route travels through wooded areas. EKPC biologists classified the wooded areas into one of three categories: good, marginal, and poor. These categories are described as:

Good – the wooded areas provide adequate foraging habitat, potential roost trees, and are connected to other sections of habitat of the same quality.

Marginal – the wooded areas provide some opportunities for foraging, but the majority of the area has a thick understory. The trees in this designation are fairly young in age with little development of cavities, crevices, and exfoliating bark providing limited roosting opportunities for Indiana bats.

Poor – the wooded areas provide very little opportunity for foraging. The wooded areas have a dense understory, trees are very young, and the area resembles the late stages of old field succession. Potential roost sites are very limited and it is estimated that no potential roost trees occur in this habitat type.

Based on these categories, the only area deemed to contain good or marginal woods was:

- 1) **Flint Knob (Map 2).** This site has good/marginal woods, but is not connected to any other wooded habitat. There is a road that appears to traverse the knob and may provide a mist-netting site. We propose one mist-netting site here

The remainder of the line crosses land that had been affected by anthropogenic forces, such as crop fields, pasture, and commercial and residential developments, and does not appear to contain habitat suitable for the Indiana bat.

Please review this proposal for a mist netting survey for the Indiana Bat. After surveying the project area, we feel this proposal is more than adequate to determine the presence/probable absence of this species in the project area. Once the survey has been completed, a detailed report of our results will be submitted to your office for comment. We are also in the process of surveying the project area for other federally threatened and endangered species that may occur there. We are surveying the area for species such as Price's potato-bean, Eggert's sunflower, and gray bats. We will submit the results of these surveys as well with the mist netting report.

I would appreciate your comments on this mist-netting proposal as soon as possible. If you have any questions concerning this or any of our projects please feel free to contact me at your convenience. Thank you for taking the time to address our concerns.

Sincerely,

Joe Settles
Supervisor
Natural Resources and Environmental Communications

Barren - Oakland Project.txt

From: Mindi_Brady@fws.gov
Sent: Tuesday, July 26, 2005 12:58 PM
To: Joe Settles
Subject: Barren - Oakland Project

Joe,

Attached is the Barren County-Oakland-Magna Line topo map and aerial photo with the proposed line marked on it. Each blue dot represents places we think should be mistnetted. We know that bats in Indiana have been documented flying wooded fence rows in areas where there are significant woodlots at either end of the fence row, so that is why we marked the spots that we did. I know that our aerial photos are about 10 years old and those woods may not be there now. If that's the case please let us know. We felt like the one site was not enough survey work for that line, especially since Mammoth Cave and Jesse James Cave etc... are just a few miles north of that area. Also, did you say that they would be doing Eggert's sunflower surveys as well? Please take a look at the maps that are attached and let me know what you think. There are both topo maps and aeriels..

(See attached file: barren oakland topo 1 and 2.jpg) (See attached file: barren oakland 3 and 4 topo.jpg) (See attached file: barren oakland aerial 1 and 2.jpg) (See attached file: barren oakland aerial 3.jpg)

(See attached file: barren oakland aerial site 4.jpg)

Thanks,

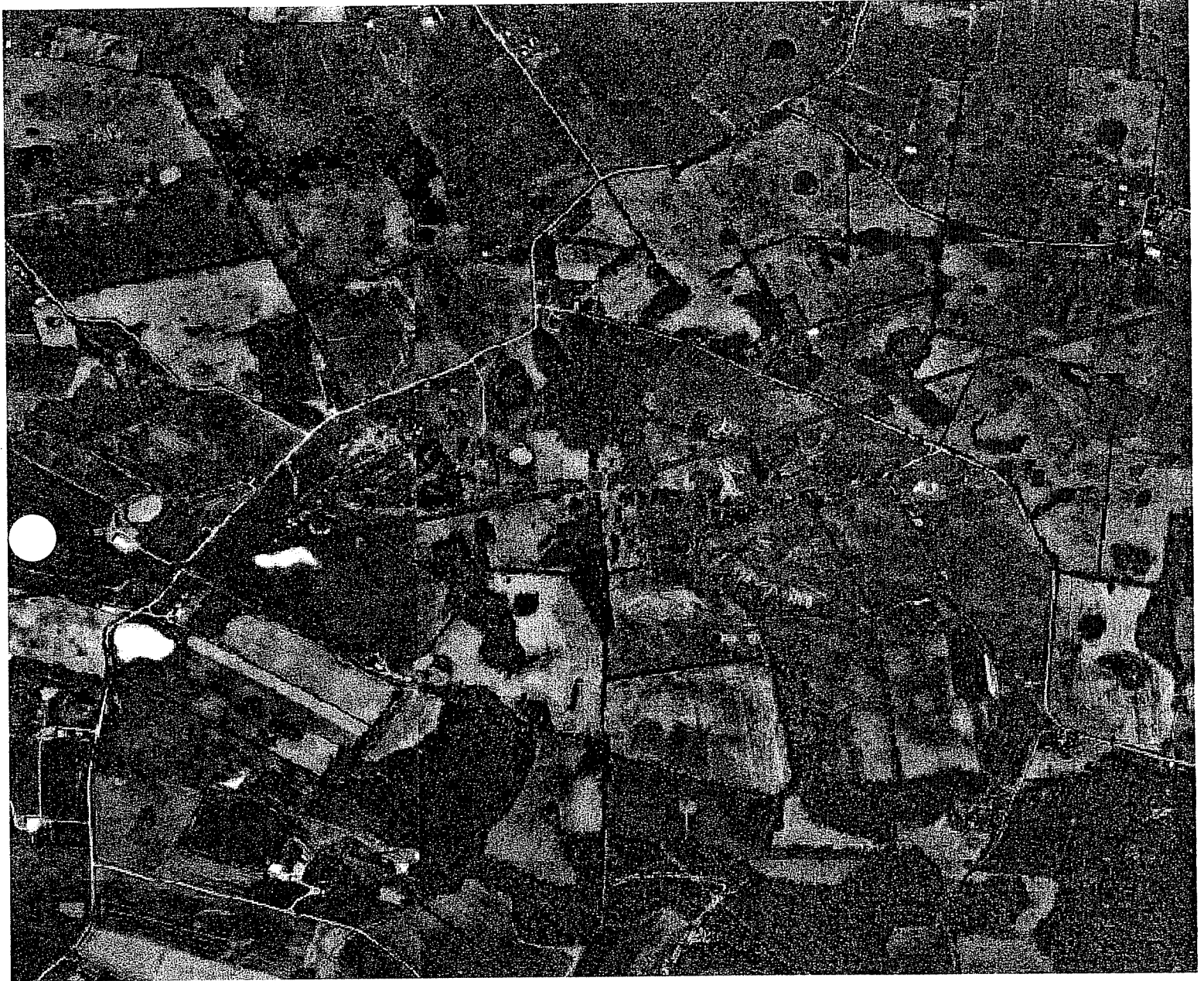
Mindi Brady
Fish & Wildlife Biologist

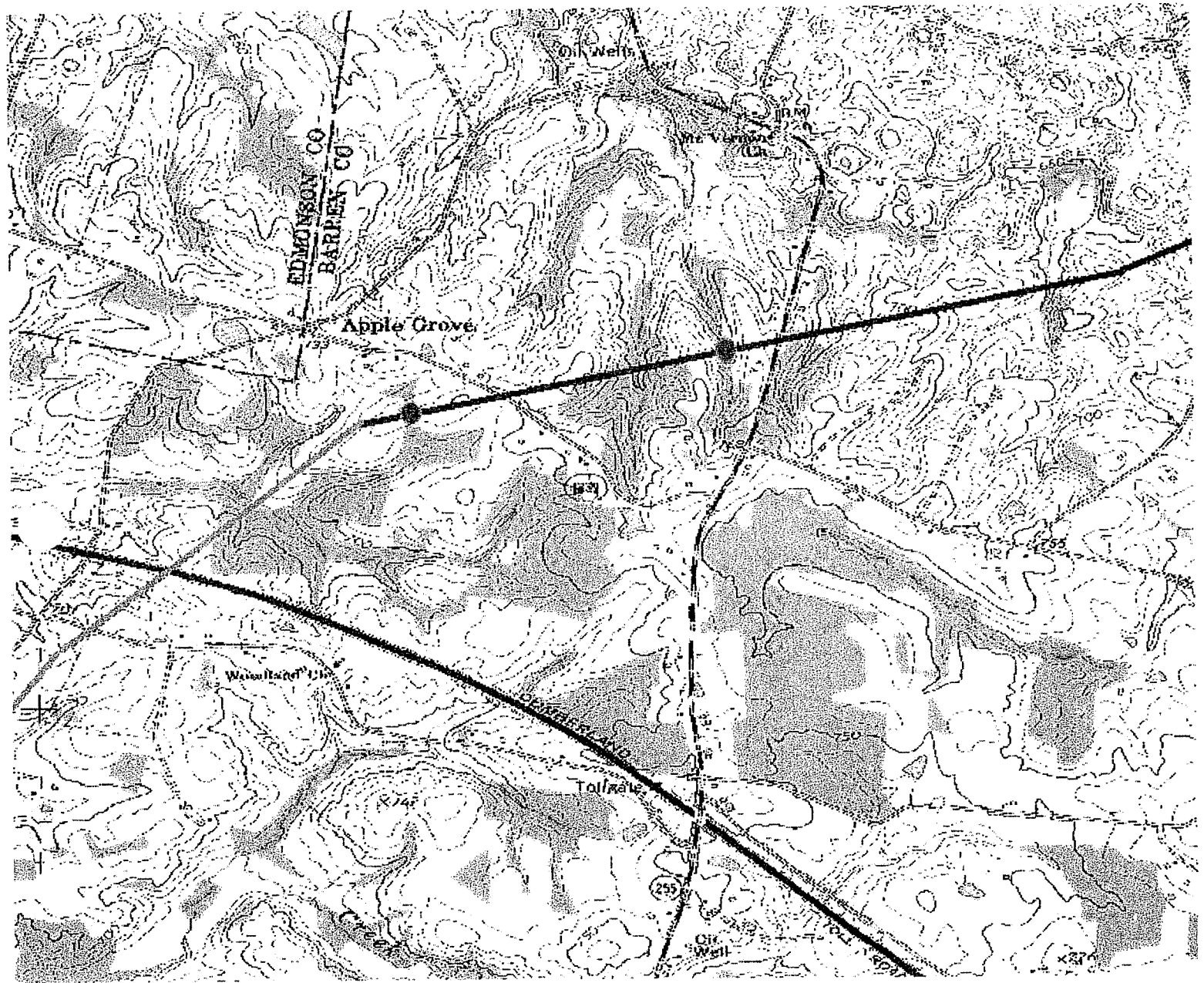
US Fish & Wildlife Service
Kentucky Field Office
3761 Georgetown Rd.
Frankfort, KY 40601
502/695-0468 extn. 229
502/695-1024 fax
Mindi_Brady@fws.gov
<http://frankfort.fws.gov>











July 12, 2005

Mr. Lee Andrews
U.S. Fish and Wildlife Service
Frankfort Field Office
3761 Georgetown Rd.
Frankfort, KY 40601

Dear Lee,

Enclosed is information concerning the Indiana Bat (*Myotis sodalis*) mist-netting survey plan for the following project being considered by East Kentucky Power Cooperative (EKPC):

Wilson - Aberdeen 161 kV Transmission Line

The project is approximately 26.8 miles in length and is located in Butler and Ohio Counties in western Kentucky. The line begins at Big Rivers Energy's substation at the D. B. Wilson Power Station located on the east side of the Green River near Point Pleasant, KY. A topographic map showing the project area is enclosed. Of the 26.8 miles of transmission line associated with this project 22.7 will require new right-of-way (ROW) and 4.1 will parallel existing ROW. The portions of the ROW that are new will require the cutting of trees within a 100-ft wide corridor, while the paralleling sections will require the additional clearing of 70 ft. worth of woody-stemmed vegetation. The majority of this project area, approximately 75%, is located on land that has been previously altered/mined by Peabody Development Company. Although a large portion of the project area has been strip-mined, most of this activity took place during the 1960's and 1970's, leaving 30-40+ years for the area to become reforested. Therefore, a mist netting survey plan is being created to address this issue.

EKPC biologists surveyed the 26.8 miles of the proposed powerline ROW and concluded that approximately 45% of the project area is wooded. EKPC biologists classified the wooded areas into one of three categories: good, marginal, and poor. These categories are described as:

Good – the wooded areas provide adequate foraging habitat, potential roost trees, and are connected to other sections of habitat of the same quality.

Marginal – the wooded areas provide some opportunities for foraging, but the majority of the area has a thick understory. The trees in this designation are fairly young in age with little development of cavities, crevices, and exfoliating bark providing limited roosting opportunities for Indiana bats.

Poor – the wooded areas provide very little opportunity for foraging. The wooded areas have a dense understory, trees are very young, and the area resembles the late stages of old field succession. Potential roost sites are very limited and it is estimated that no potential roost trees occur in this habitat type.

Based on these categories, the project contains approximately 1.0 mile of good wooded areas, 7.5 miles of marginal wooded areas, and 3.5 miles of poor wooded area. Some of the good and marginal areas provide possible Indiana bat habitat and could make good potential mist netting sites. These areas are marked on the enclosed map and are described below.

- 1) **Wooded area north of Wallace Loop.** This area of the project has been previously altered by strip mining activities, but regrowth of trees provides some marginal habitat. Multiple OHV trails provide a suitable mist-netting site, and one site is proposed for this area.
- 2) **Wooded area south of Seaboard Railroad and east of Lone Star Rd/Peabody Haul Rd.** This area contained small tracts of good woods with nearly continuous canopy cover and had a fairly minimal understory in most places. Suitable roost trees were present and a road corridor through the woods provides a mist netting site. We propose one mist-netting site in this area.
- 3) **Maddox Cemetery Rd.** This road provides a wooded corridor through a reforested area. The habitat in the surrounding area is marginal/poor, being heavily disturbed by mining activity, but the corridor is suitable for mist netting. We propose a mist-netting site along this road.
- 4) **Unnamed Cemetery Rd southeast of Happy Hollow Rd, paralleling the Western Kentucky Parkway.** This area provided some good wooded areas mixed in with a small opening around the cemetery. The wooded road corridor and an OHV trail extension of the road provide possible mist net locations. We propose a mist-netting site along this road.

- 5) **Sailing Lane wooded corridor.** This road through marginal habitat that has been recently altered by mining activity provides a good corridor and canopy closure for mist netting. We propose a mist-netting site along this road.
- 6) **Jeep trail junction with existing powerline ROW south of Sailing Lane.** This site provides a series of large road ruts along a jeep trail and OHV trails that traverse the existing powerline. The habitat in the area is marginal but the road ruts provide potential mist netting sites. We propose a mist-netting site in this area.
- 7) **Wooded area south of jeep trail and west of KY 369.** This area provides a large tract of marginal woods with multiple OHV trails and suitable mist netting sites. We propose a mist-netting site in this area.
- 8) **Lewis Creek corridor and surrounding woods.** This area provides good woods and is relatively undisturbed when compared to much of the surrounding area. Lewis Creek, an unnamed gravel road, and an OHV trail all provide suitable corridors and good canopy closure for mist netting. This site is approximately 1.0 mile from the proposed corridor, however this is some of the best habitat EKPC biologist were able to find within the project area. We propose a mist-netting site in this area.
- 9) **Woodland pond located east of KY 369 and south of Western Kentucky Parkway.** This area provides a small woodland pond and an OHV trail suitable for a mist-netting site. The habitat in the area is marginal, having been previously altered by mining activity. This site is approximately 1.0 mile from the proposed corridor, however this is best mist netting locations EKPC biologist were able to find within the project area. We propose a mist-netting site in this area.
- 10) **Wooded area east of Cool Springs Rd and south of Jones Lane.** This area provides a large tract of woods that would be classified as marginal/poor. The area has been heavily altered by mining activity but does provide multiple corridors for mist netting on OHV trails. We propose a mist-netting site in this area.
- 11) **Wooded areas along Eden School Rd.** This section of the proposed ROW would be a paralleling section, however this would still require the removal of woody-stemmed vegetation. The woods in this area are marginal and broken up by open fields. A couple of small ponds and several road corridors in the area provide suitable net sites. We propose a mist-netting site in this area.

These areas represent the best available habitat for the Indiana bat that was observed along the project area. Other wooded areas were located on previously altered/mined land, isolated fragments of wooded habitat surrounded by agriculture, Green River floodplain, or residential land. A few of the areas that appear to be wooded on the topographic maps have been mined or altered since the maps were last revised, and no longer provide suitable Indiana bat habitat.

Please review this proposal for a mist netting survey for the Indiana Bat. After surveying the project area, we feel this proposal is more than adequate to determine the presence/probable absence of this species in the project area. Once the survey has been completed, a detailed report of our results will be submitted to your office for comment. We are also in the process of surveying the project area for other federally threatened and endangered species that may occur there. We are surveying the area for species such as Price's potato-bean, Eggert's sunflower, and gray bats. We will submit the results of these surveys as well with the mist netting report.

I would appreciate your comments on this mist-netting plan as soon as possible. If you have any questions concerning this or any of our projects please feel free to contact me at your convenience. Thank you for taking the time to address our concerns.

Sincerely,

Joe Settles
Supervisor
Natural Resources and Environmental Communications

Joe Settles

From: Jeff Hohman
sent: Monday, August 08, 2005 7:27 AM
To: 'Mindi_Brady@fws.gov'; Joe Settles
Cc: Lee_Andrews@FWS.GOV
Subject: RE: Netting Indiana bats on fence rows

Mindi,

As you requested, we netted the fence rows but did not get a sodalis. I was just wondering what the recommendation would have been if we had. Is there a habitat priority list that you use to determine course of action? Would you all have preferred that we move the line to a more wooded area if the fence row was being used as a corridor? I was just wondering what the next step would have been had we captured a rogue Indiana.

Also I was wondering what the recommendations of this project would have been if we had already undergone Formal Consultation?

EKPC certainly wants to do the best thing for the bat and for our members. Many of our members are low income or seniors on a fixed income. We are trying to contain our costs to keep our power rates from going through the roof. I really would appreciate any guidance from USF&W that would help us make both good scientific and fiscally responsible decisions concerning future projects. We are currently submitting our budget for 2006. This information is very timely and important.

Thanks for your time and input.

Jeff

-----Original Message-----

From: Mindi_Brady@fws.gov [mailto:Mindi_Brady@fws.gov]
Sent: Monday, August 01, 2005 10:22 AM
To: Joe Settles
Cc: Lee_Andrews@FWS.GOV; Jeff Hohman
Subject: Re: Netting Indiana bats on fence rows

Hey Joe,

We reviewed the Powell-Taylor Substation and Tap, Wilson Aberdeen Transmission line, and the General Motors-Memphis Junction Line Survey plans and have no objections to these survey plans as proposed. Also, according to our phone conversation, the amount of good or marginal habitat that will be surveyed for the Memphis Junction-Aberdeen line is both rebuild and new line. Therefore, we agree that the proposed 7 sites for mistnetting is sufficient. Please let us know in the future how many miles of new line will be surveyed and how many miles of rebuild will be surveyed for Indiana bats.

Below is an email from Dr. Dale Sparks from Indiana State University regarding Indiana bats and fence rows. As you can see from his email,

Indiana bats have been documented using several types of fence rows which have contained large mature trees, bush honey suckle or a single row of trees to commute between aggregates of woodlots in Indiana. Based on his data, we believe that Indiana bats may use fence row corridors to travel from woodlot to woodlot in Kentucky as well. This does not mean that every fence row is a travel corridor for Indiana bats. However, if a fence row serves as a travel corridor between two wooded areas which may provide suitable roosting or foraging habitat, then it would be reasonable to assume that that area would be a suitable survey site. We are concerned that clearing a 100-foot right-of-way through the middle of a travel corridor or foraging corridor may alter the behavior or ultimately "harass" the bat. Harassment, which is a form of "take" (ESA section 3(19)) is defined as the intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. We are suggesting that East Kentucky Power Cooperative (EKPC) consider netting such areas in order to determine presence or absence of Indiana bats and provide insight regarding the possibility of "harassment", specifically for the Barren County-Oakland-Magna 161 kV Transmission Line. We recommend that EKPC consider incorporating net sites in the vicinity of aggregates of woodlots containing potential habitat and associated fence rows that act as travel corridors and connect forested areas which may provide suitable foraging or roosting habitat for bats into future survey plans.

We appreciate the opportunity to provide comments on these projects. If you have any questions, please call or email.

anks,

Mindi Brady
Fish & Wildlife Biologist

US Fish & Wildlife Service
Kentucky Field Office
3761 Georgetown Rd.
Frankfort, KY 40601
502/695-0468 extn. 229
502/695-1024 fax
Mindi_Brady@fws.gov
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----- Forwarded by Mindi Brady/R4/FWS/DOI on 07/28/2005 02:49 PM -----

"Dale Sparks"
<lssparks@isugw.
indstate.edu>

To

07/27/2005 05:36
PM

<Mindi_Brady@fws.gov>

cc

Subject

Re: Netting Indiana bats on fence
rows

Mindi:

I have tried trapping IN bats along fence rows with only limited success, although I know Al Kurta and John Bowles have had pretty good success at times. My data is actually from radio-tagged bats that we tracked using fence rows to commute. Most of the fence rows contained large, mature trees, although some were simply giant stands of bush honeysuckle. Some were only 1 tree wide (think Bourbon Co Ky), while several were about 50m deep (small woodlots).

I think the issue with fence rows is not so much one of potential roosting habitat (although I have had some bats doing exactly that), as it is of the bats using them as commuting corridors. If there is a major roost present AND that roost is connected to nearby foraging areas by fencerows, then they are really important. If not, then they are probably foraging habitat at best. I will be in the field for another week or so, but I can be reached via cell phone at 812-249-0896. I am usually available in the afternoons.

Dale W. Sparks, Ph. D.
Assistant Curator of Vertebrates
Department of Ecology and Organismal Biology
Indiana State University
Terre Haute, IN 47809

(812)-237-2394 (Office)
(217)-826-5622 (Home)

>>> <Mindi_Brady@fws.gov> 07/27/05 2:25 PM >>>
Mr. Sparks,

I work for the USFWS in the Kentucky Field Office with Mike Armstrong. He was at a meeting with you earlier this year at NCTC and said that you had indicated that Indiana bats had been documented flying along fence rows between woodlots. I am working on several transmission line projects where there are opportunities to net some fence rows. I was wondering what type of fence rows were surveyed when Indiana bats were captured. Did they have

large mature trees (potential roost trees) growing on them or were they the typical fence rows you may see with sporadic cedar trees here and there?

How wide were the fence rows? As you can see, I have lots of questions.

Any information you could provide to me would be wonderful. I need to tell

this transmission line company something very soon as the summer mistnetting season is coming to a close. The fence rows in question would

be part of a 100 foot corridor for a transmission line. Thanks so much for

any help you can provide....and, Mike said to tell you hello.

Thanks again,

Mindi Brady
Fish & Wildlife Biologist

US Fish & Wildlife Service
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Joe Settles

From: Joe Settles
Sent: Thursday, August 25, 2005 9:07 AM
To: 'Mindi_Brady@fws.gov'
Subject: RE: Removal of Eggert's sunflower from the Federal List of Endangered and Threatened Species

Mindi,

Thanks for the update. That is actually what we have been looking for the last few days. We hadn't found any. Most of the area we have been looking at has been stripped or is being farmed. Not too pretty.
Joe

-----Original Message-----

From: Mindi_Brady@fws.gov [mailto:Mindi_Brady@fws.gov]
Sent: Wednesday, August 24, 2005 1:10 PM
To: Drice@jjg.com; Joe Settles; Sam.J.Patterson@txgt.com; pcroghan@NiSource.com; Don.Curry@ElPaso.com; gilpin@eznet.net; bnorris@duo-county.com; gfister@thirdrockconsultants.com; mike@theengrs.com
Cc: Lee Andrews@fws.gov; Mike_Floyd@fws.gov
Subject: Removal of Eggert's sunflower from the Federal List of Endangered and Threatened Species

Hello All,

The U.S. Fish and Wildlife Service (Service) is removing Eggert's sunflower (*Helianthus eggertii*) from the Federal List of Endangered and Threatened Species under the authority of the Endangered Species Act (Act) of 1973, as amended. Attached below is the August 18, 2005, Federal Register containing the final rule. Removal of Eggert's sunflower from the List of Endangered and Threatened Wildlife and Plants relieves Federal agencies from the need to consult with us to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of this species. The final rule is effective September 19, 2005. Therefore, surveys for Eggert's sunflower do not need to be performed if project implementation of construction activities will be accomplished after September 19, 2005. If you have any questions or if we can provide additional information please call or email.

(See attached file: Eggerts Sunflower Final Delisting Rule.pdf)

Thanks,

Mindi Brady
Fish & Wildlife Biologist

US Fish & Wildlife Service

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EAST KENTUCKY POWER COOPERATIVE

September 2, 2005

Mr. Lee Andrews
U.S. Fish and Wildlife Service
Frankfort Field Office
3761 Georgetown Rd.
Frankfort, KY 40601

Dear Lee:

Enclosed is information concerning the environmental impact for the following project being considered by East Kentucky Power:

General Motors – Memphis Junction 161 kV Transmission Line

I am enclosing a set of topographic maps that outline the project area. A survey of the project area was conducted to determine the presence/absence of any rare, threatened, or endangered species. Our survey work was focused on the following federally threatened or endangered species that occur or historically occurred near the proposed project:

Myotis sodalis – Indiana bat
Myotis grisescens – Gray Myotis
Apios priceana – Price's Potato-bean
Helianthus eggertii – Eggert's Sunflower

A mist netting survey was conducted to determine the bat species that are found in the proposed project area. A report detailing the mist netting efforts is enclosed for your review. Also included in the report is a description of the proposed project and the habitat encountered in the area.

No Indiana bats were captured in the project area. Therefore, Indiana bats should not be adversely affected by the proposed project.

Gray bats were captured during our survey efforts. In order to assess impacts on the roosting habitat for gray bats, the project corridor was surveyed for the presence of caves or sinkholes that may serve as roosting habitat for this species. Although the project area is a well-documented karst region, no caves or sinkholes are located in the proposed powerline that provide roosting habitat for this species. A few sinkholes and caves were

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Kentucky 40392-0707 <http://www.ekpc.com>

encountered near the proposed powerline and investigated for use by bat species. None of the sinkholes/caves encountered appeared to provide suitable roosting habitat for gray bats.

All of these karst features investigated were either filled in by soil and other debris, showed signs of flooding, or did not show any signs of bat activity. Some landowners were also questioned concerning the possibility of caves in the area, and none of the landowners knew of any caves within the project corridor. Therefore, gray bats should not be adversely affected by the proposed project.

The proposed project was also surveyed to determine the presence or absence of Eggert's Sunflower and Price's Potato-bean. Neither species was discovered during the survey of the proposed project area.

We do not expect any adverse effects on threatened or endangered species from implementation of this proposed action. I would appreciate your comments regarding this project as soon as possible. Thank you for taking the time to address our concerns, and we appreciate your efforts in this matter.

Sincerely,



Joe Settles
Supervisor, Natural Resources
And Environmental Communications

**Mist Netting Survey for the Federally Endangered
Indiana Bat (*Myotis sodalis*) along the Proposed General
Motors-Memphis Junction 161 kV Transmission Line
Warren County, KY**

Prepared for:

U.S. Fish and Wildlife Service
Kentucky Field Office
Frankfort, KY

Prepared by:

East Kentucky Power Cooperative
Natural Resources and Environmental Communications
Winchester, KY

August 2005

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INTRODUCTION

In April 2008, Warren Rural Electric Cooperative Corporation (RECC), located in Bowling Green, KY, will join East Kentucky Power Cooperative (EKPC) as a member electric distribution cooperative. Warren RECC currently receives its electricity from Tennessee Valley Authority (TVA) and is not connected to the EKPC power grid. Therefore, transmission lines must be constructed and rebuilt to tie Warren RECC into the power grid and allow them to receive electricity from EKPC.

One of these transmission lines is a proposed 161 kilovolt (kV) transmission line in Warren County, KY (Figure 1). The line begins at the East Bowling Green/General Motors substation northeast of Bowling Green and ends at the Memphis Junction substation, located southwest of Memphis Junction. The proposed transmission line would cross the Bristow, Bowling Green North, Bowling Green South, and Rockfield USGS 7.5 minute topographic quadrangles.

Because the proposed transmission project will require the clearing of some trees, the Indiana Bat Revised Recovery Plan (USFWS 1999) (Appendix IV) requires that a mist netting survey be conducted for the endangered Indiana bat (*Myotis sodalis*). The clearing of trees during the summer months raises questions and concerns for the welfare of the Indiana bat and its summer habitat. In accordance with United States Fish and Wildlife Service (USFWS) guidelines, a mist-netting proposal was prepared and submitted to the Frankfort Field Office on 11 July 2005. The USFWS reviewed this proposal, and in an email dated 1 August 2005, stated that the survey plan was adequate to determine presence or probable absences of the Indiana Bat within the proposed project area. A copy of this proposal can be found in Appendix V.

After receiving concurrence on the mist-netting proposal from USFWS, EKPC conducted a mist-netting survey according to the Indiana Bat Revised Recovery Plan (USFWS 1999), to determine the presence or probable absence of the Indiana bat along the proposed corridor.

SPECIES STATUS

Distribution

Miller and Allen (1928) described a new species to science, the Indiana bat (*Myotis sodalis*), in 1928, and this species formally attained endangered species status March 11, 1967. Its distribution is in the eastern United States, from Oklahoma, Iowa, and Wisconsin east to Vermont, and south to northwestern Florida (Barbour and Davis 1969). In Kentucky, the Indiana bat's wintering distribution is fairly well documented and includes several caves throughout the karst regions of the state (Palmer-Ball et al. 1988). Kentucky contains three Priority One hibernacula (Priority One hibernacula are hibernation sites with a recorded population >30,000 bats since 1960) and houses a significant portion of the total population of Indiana bats (USFWS 1999).

For the proposed project, the closest known hibernacula are located in Warren and Barren Counties. In Warren County, a cave in the Bowling Green North Quadrangle and another in the Smiths Grove Quadrangle have historically contained small numbers of hibernating Indiana bats. The Barren County record is from Indian Cave along KY 70 near Mammoth Cave National Park. This cave once had about two-dozen Indiana bats hibernating in it and has been gated, but since then no bats have been found using the cave. Neither of these caves will be affected by the proposed transmission line.

Life History

Indiana bats use caves and abandoned mine portals as hibernacula. After hibernation, females leave the hibernacula and typically fly north and northwest to nursery sites to raise their young. Although some males may leave with the females, others stay near or in the hibernacula throughout the summer months (Barbour and Davis 1969). After leaving the hibernacula, Indiana bats are known to roost under the exfoliating bark of dead and live trees (MacGregor et al. 1999), and they have been documented using tree cavities as well (Garner et al. 1991).

It has also been shown that Indiana bats exhibit fidelity for summer roost trees (Garner and Gardner 1992). Early studies indicated that floodplain forests were the significant habitat for Indiana bats (Humphrey et al. 1977), but recent studies indicate that this species uses both upland and riparian habitats (MacGregor et al. 1999, Garner et al. 1991). Most known maternity roosts have been located in wooded areas with a semi-open canopy or along forest edges. Maternity colonies are initially composed of 50-100 females, each of which bears one young in May or June. Maternity colonies typically roost under the exfoliating bark of dead or live trees, but they have also been found to use cavities as temporary roosts (Callahan 1993, Garner et al. 1991).

The closest maternity roost record to the project area is located in Edmonson County, in the proximity of Mammoth Cave National Park, approximately 23 km from the nearest point of the proposed corridor. A maternity roost is also documented for Logan County, but it is attributed to a single juvenile male that was caught there during the maternity season. Indiana bats have also been recorded in Warren County, as well as the adjacent counties of Barren, Allen, and Hart. The summer distribution of this species in Kentucky is not well known, but expanded mist netting efforts by numerous biologists are increasing this knowledge base.

PROJECT DESCRIPTION AND LOCATION

The proposed transmission line would be located in Warren County, KY and would be approximately 24.5 km (15.21 miles) in length (Figure 1). Construction of the new line would involve the rebuilding of a 8.3 km (5.17 mile) section of existing double circuit 69 kV transmission line and a 5.5 km (3.39 mile) section of existing single circuit 69 kV transmission line, both supported by single wood pole structures on existing 100 ft wide rights-of-way (ROWs). The existing lines within these two sections would be dismantled

and replaced by the proposed new transmission line. The proposed new line would be located on the existing 100 ft wide ROWs within these two sections and would not require any additional ROW width. The balance of the proposed new line would be new construction, 3.9 km (2.41 miles) of which would require a new 100 ft wide ROW and would parallel an existing electric transmission line, and 6.8 km (4.24 miles) of which would require a new 100 foot wide ROW, 50 feet of which would be shared with another proposed new electric transmission line. The ROW for the proposed transmission line would encompass approximately 184.4 acres of land, of which 118.4 acres would utilize existing ROWs.

The proposed line would begin at the East Bowling Green/ General Motors Substation northeast of Bowling Green and travel west along the northern edge of the city (Figure 1). It would then turn southwest after the third Barren River crossing and extend to just east of Blue Level. At this point, the line would travel south and end at the Memphis Junction Substation, located southwest of Memphis Junction.

The project area lies in the Mississippian Plateaus region in south-central Kentucky, and is characterized by gently rolling hills, sinkholes and isolated knobs (McGrain and Currens 1978). The forest in this area is primarily made up of second and third-growth oak-hickory forest, with shagbark hickory (*Carya ovata*), white oak (*Quercus alba*), southern red oak (*Quercus falcata*), sugar maple (*Acer saccharum*), and tulip poplar (*Liriodendron tulipifera*) as the dominant species.

For the proposed project, approximately 3.3 km (2.1 miles) contains forested area. These forested areas consist of small patches of woods on ridge tops or along the Barren River and its tributaries. The upland forests are typical of second and third-growth oak-hickory forests and the riparian zones contain species commonly present in bottomland hardwood forests. Common tree species in the riparian areas are sycamore (*Platanus occidentalis*), box elder (*Acer negundo*), hackberry (*Celtis occidentalis*), and silver maple (*Acer saccharinum*). The rest of the proposed corridor is primarily used for agricultural, residential, and commercial purposes.

Because the proposed corridor extends through forested areas, the cutting of trees and other vegetation will be required. EKPC has determined that clearing would be required on approximately 17 percent of the proposed route for the new electric line. The proposed ROW would be cut through a combination of manual and mechanical means, and would be maintained through a combination of manual and mechanical cutting along with the ground application of approved herbicides.

The new transmission line would be supported by 195 single, H-frame double, and H-frame triple Corten tubular steel pole structures that would range in height from 95 to 100 feet aboveground. The average span between support structures would be 600 feet. The proposed new transmission line would be constructed to double circuit specifications but would be operated as a single circuit line until the electric load in the area warrants operation of the second circuit. Access for the construction of the proposed transmission

line would maximize the use of existing public and private roads in the project area. Some temporary roads would be required for construction of the proposed line.

METHODS

Sampling for bats took place on 18, 20, and 21 July 2005 and was conducted by EKPC biologists Joe Settles, Josh Young, Seth Bishop, and Missy Toncray, and private contractors Jill Baldwin and Rhonda Smith. The two net sites that were surveyed were the same mist net sites that were selected in the mist-netting proposal submitted to USFWS. In accordance with the mist-netting guidelines listed in the Indiana Bat Revised Recovery Plan (USFWS 1999), sampling at each site consisted of a minimum of two net locations, which were tended from dusk until five hours after sunset.

Both net sites were located either on streams or along riparian zones. Net Site 1 was located on Jennings Creek east of the KY 2665 bridge (Figure 2). The creek at this point was approximately 30-40 ft wide and was bordered on both sides by riparian zones consisting primarily of sycamore (*Platanus occidentalis*) and box elder (*Acer negundo*). At points where these trees provided good canopy closure over the creek, two 30 ft mist nets were erected. This site was located on the Bowling Green North USGS 7.5 minute topographic quadrangle, with a GPS location of 36.99995 N – 86.48525 W.

Net Site 2 was located north of US 31W near the KY 3225 junction, on a private road running parallel to the south side of the Barren River (Figure 2). The road was wooded and ranged from 20-30 ft wide. A 20 ft and a 30 ft mist net were each placed along the road in areas where good canopy coverage was provided by such tree species as sycamore (*Platanus occidentalis*), box elder (*Acer negundo*), and hackberry (*Celtis occidentalis*). This site was also located on the Bowling Green North USGS 7.5 minute topographic quadrangle, with a GPS location of 37.01281 N – 86.41054 W.

Data recorded for bats caught included species, sex, age (adult or juvenile), reproductive condition, forearm length, and weight. Captured bats were banded with numbered aluminum bands (provided by the Kentucky Department of Fish and Wildlife Resources) and released at the capture site.

RESULTS

During the mist netting survey, 32 bats were captured consisting of four species: the red bat (*Lasiurus borealis*), big brown bat (*Eptesicus fuscus*), gray bat (*Myotis grisescens*), and eastern pipistrelle (*Pipistrellus subflavus*) (Table 1). Of the 32 total bats captured, there were 5 red bats, 18 big brown bats, 6 gray bats, and 3 eastern pipistrelles (Table 1). Both sites had equal species diversity with 3 species each (Table 1). The greatest number of bats was recorded at Site 2, with 24 total individuals captured on 20 and 21 July (Table 1).

Of the six gray bats that were captured at Net Site 1, four were adults, including a post-lactating female (Appendix 1). The other adult bats were all males, two of which were in

breeding condition with testes descended. A juvenile female was also caught at Net Site 1.

DISCUSSION

The results of this mist netting survey show that no Indiana bats were captured, indicating absence of the species in the vicinity of the proposed powerline corridor. Therefore, the proposed powerline corridor should not adversely affect the Indiana bat or its summer habitat.

Although no Indiana bats were captured during the mist-netting survey, six federally endangered gray bats were captured at Net Site 1. Gray bats are locally abundant in this area of Kentucky and are known to roost in caves year-round (Barbour and Davis 1974). Since one of these bats was a post-lactating female and another was a juvenile female, a maternity cave may be present in the area. However, the project corridor was surveyed for the presence of caves or sinkholes that may serve as roosting habitat for this species. Although the project area is a well-documented karst region, no caves or sinkholes are located in the proposed powerline. A few sinkholes were encountered near the proposed powerline, but all were either filled in by soil and other debris or did not show any signs of bat activity. Some landowners were also questioned concerning the possibility of caves in the area, and none of the landowners knew of any caves within the project corridor. Therefore, gray bats should not be adversely affected by the proposed project.

DETERMINATION OF EFFECTS ON THE INDIANA BAT

No effect

Not likely to adversely affect

Likely to adversely affect

DETERMINATION OF EFFECTS ON THE GRAY BAT

No effect

Not likely to adversely affect

Likely to adversely affect

Literature Cited

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Table 1. Total bats captured at each net site by species during mist netting for EKPC's proposed General Motors-Memphis Junction transmission line project between 18 July and 21 July 2005

| | Site 1 | Site 2 | Total Captures/Sp. |
|--------------------------------|----------|-----------|--------------------|
| <i>Lasiurus borealis</i> | 1 | 4 | 5 |
| <i>Eptesicus fuscus</i> | 0 | 18 | 18 |
| <i>Myotis grisescens</i> | 6 | 0 | 6 |
| <i>Pipistrellus subflavus</i> | 1 | 2 | 3 |
| Total Captures/Net Site | 8 | 24 | 32 |

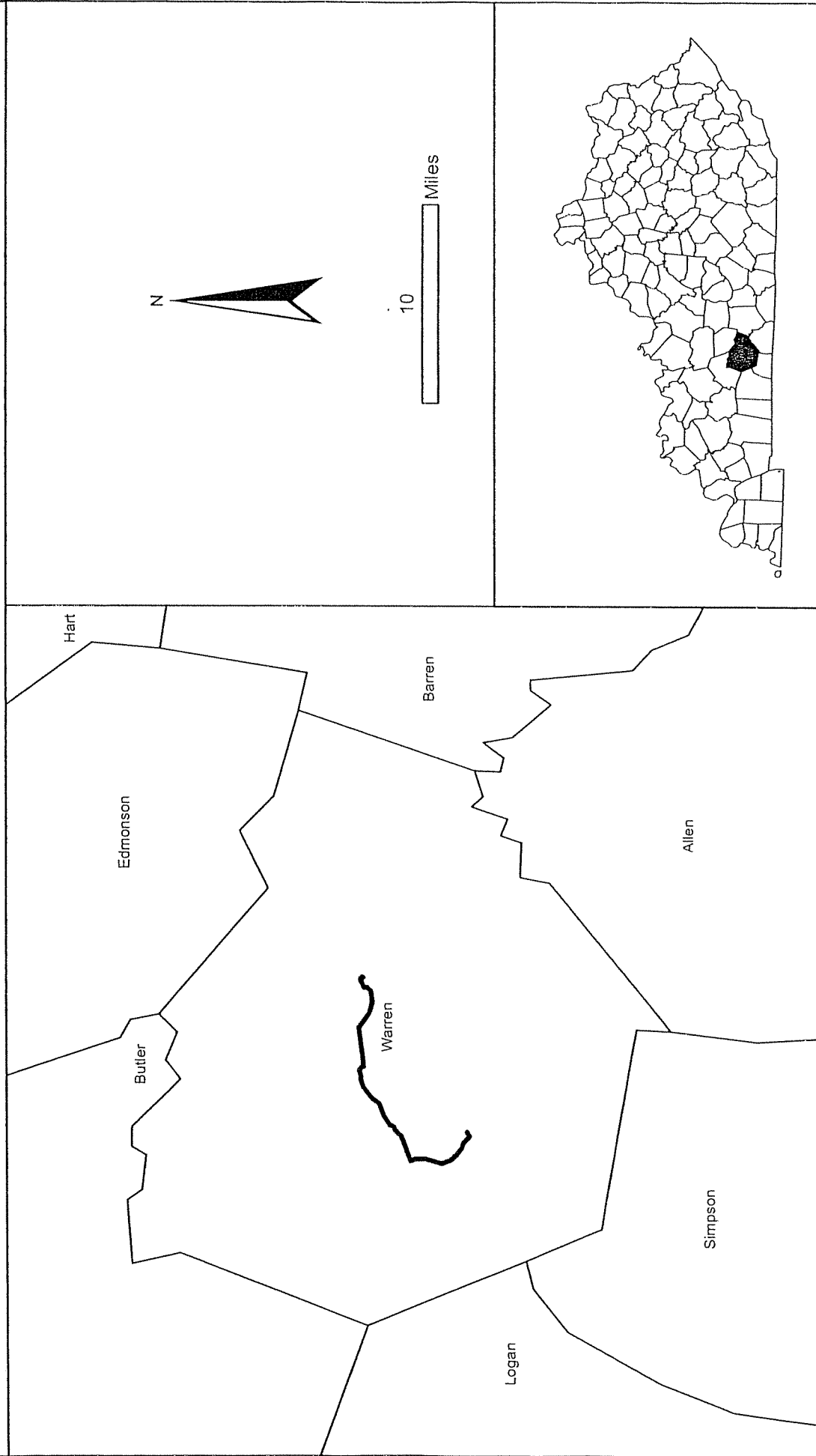
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Figure 2. Proposed route for the General Motors-Memphis Junction transmission line, Warren County, KY.....13

Figure 3. Mist net sites surveyed between 18 July and 21 July 2005 for the proposed General Motors-Memphis Junction transmission line, Warren County, KY.....14

Figure 1. Location for the General Motors-Memphis Junction transmission line, Warren County, KY



| | | |
|---|--|---|
| <p>Proposed Transmission Line Route</p> | <p>GM - Memphis Jct Proposed 161kV Transmission Line Warren County, KY Project No. 21392</p> |  <p>EAST KENTUCKY POWER COOPERATIVE P.O. Box 707 Winchester, KY 40392-0707</p> |
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