

Appendix A – Correspondence

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TENNESSEE HISTORICAL COMMISSION
2941 LEBANON ROAD
NASHVILLE, TENNESSEE 37243-0442
OFFICE: (615) 532-1550
www.tnhistoricalcommission.org

January 30, 2014

Mr. Clinton Jones
Tennessee Valley Authority
400 West Summit Hill Drive
WT11D
Knoxville, Tennessee 37902-1499

RE: TVA, PHASE I ARCHAEOLOGICAL ASSESSMENT, 161-KV DELIVERY POINT,
SOUTH PITTSBURG, MARION COUNTY,

Dear Mr. Jones:

At your request, our office has reviewed the above-referenced archaeological survey report in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). Based on the information provided, we concur that the project area contains archaeological resources potentially eligible for listing in the National Register of Historic Places. Sites 40MI161 and 40MI310 should either be avoided by all ground-disturbing activities, or subjected to Phase II archaeological investigation. We further concur that the portion of site 40mi312 within the project area of potential effect is not eligible for the National Register. Sites 40MI306, 40MI307, 40MI308, 40MI309, and site 40MI311 are also not National Register eligible.

Upon receipt of the Phase II testing report or avoidance strategy, we will complete our review of this undertaking as expeditiously as possible. Please submit a minimum of two copies of each final report to this office in accordance with the Tennessee Historical Commission Review and Compliance Section Reporting Standards and Guidelines. Complete and/or updated Tennessee Site Survey Forms should be submitted to the Tennessee Division of Archaeology. Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met. Please inform this office if this project is canceled or not permitted or funded by the federal agency. Questions and comments may be directed to Jennifer M. Barnett (615) 741-1588, ext. 105.

Your cooperation is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Patrick McIntyre, Jr.", is written over a faint, larger version of the same signature.

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

April 16, 2014

Mr. E. Patrick McIntyre, Jr.
Executive Director
Tennessee Historical Commission
2941 Lebanon Road
Nashville, Tennessee 37243-0442

Dear Mr. McIntyre:

TENNESSEE VALLEY AUTHORITY (TVA), SOUTH PITTSBURG 161-kV TRANSMISSION LINE, AVOIDANCE MEASURES FOR POTENTIALLY ELIGIBLE SITES 40MI161 AND 40MI310, MARION COUNTY, TENNESSEE

We have received your letter dated January 30, 2014, regarding TVA's findings and determinations related to the Phase I archaeological survey of a proposed new 161-kV transmission line near South Pittsburg, Tennessee. Our offices agree that two archaeological sites within the project corridor, 40MI161 and 40MI310, are potentially eligible for listing in the National Register of Historic Places (NRHP). In our January 14, 2014 letter to you, we stated that TVA's undertaking would not be able to avoid either site, and that we intended to conduct additional investigations at both sites. However, TVA now plans to avoid direct impacts to both sites from TL construction. Here, we outline measures that TVA will use to avoid project effects to 40MI161 and 40MI310.

Site 40MI161 is near a location where TVA's Transmission Line (TL) Design group had initially proposed for the placement of a steel tower. Based on the results of the Phase I archaeological survey, TVA modified the design and now proposes to place the tower further east, outside the boundary of 40MI161 (Figure 1) in an area that produced negative shovel test results. Proposed access routes to the tower will avoid the site, and no vegetation will be cut within the site boundary or on the riverbank adjacent to the site. To avoid potential adverse effects to any NRHP-eligible archaeological sites that might be within the planned access, TVA would deploy wetland mats within the access road during construction. Should it be necessary to cut vegetation on the riverbank in the future in order to meet clearance requirements of the North American Electrical Reliability Corporation, TVA would cut the vegetation using methods that avoid ground disturbance and will stabilize the river bank to prevent erosion that could affect the site.

Similarly, TVA's original plans called for the erection of TL structures (single steel poles) at two locations within the boundary of potentially eligible site 40MI310. Based on the results of the Phase I archaeological survey, TVA modified the design and now proposes to place both structures outside the boundary of 40MI310 in locations that produced negative shovel test results (Figure 2). Access for construction would be outside the site area via AR 04, as shown

Mr. E. Patrick McIntyre, Jr.
Page Two
April 16, 2014

in Figure 2. No vegetation would be cut within the site boundary. For future maintenance activities, TVA's access to Structure 621 would also be along AR 04 outside of the site boundary.

TVA would record the above conditions in notes that are used by TL Design, TL Construction, and TL Maintenance in order to ensure that they are carried out. In addition, work crews would be informed that if any artifacts (e.g., pottery, stone tools) or bone are inadvertently discovered during construction activities, they are to stop work immediately and contact TVA archaeologists. In the case of an inadvertent discovery, TVA would contact your office and federally-recognized Indian tribes and would comply with all relevant statues and regulations before proceeding with the work.

With these avoidance measures in place, TVA finds that the proposed new 161-kV TL would not adversely affect potentially eligible sites 40MI161 and 40MI310. Therefore, no additional investigations are necessary at either site.

By this letter we are seeking your agreement with the proposed avoidance conditions at sites 40MI161 and 40MI310.

Should you have any questions or comments, please contact Richard Yarnell in Knoxville at wryarnel@tva.gov or (865) 632-3463.

Sincerely,



Clinton E. Jones, Manager
Biological and Cultural Compliance, Environment
WT 11B-K

SCC:CSD

Enclosures

cc (Enclosures):

Ms. Jennifer Barnett
Tennessee Division of Archaeology
1216 Foster Avenue, Cole Bldg. #3
Nashville, Tennessee 37210



TENNESSEE HISTORICAL COMMISSION
2541 LEBANON ROAD
NASHVILLE, TENNESSEE 37243-0442
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April 24, 2014

Mr. Clinton Jones
Tennessee Valley Authority
400 West Summit Hill Drive
WT11D
Knoxville, Tennessee 37902-1499

RE: TVA, 161-KV DELIVERY POINT, SOUTH PITTSBURG, MARION COUNTY

Dear Mr. Jones:

Pursuant to your request, this office has reviewed additional documentation concerning the above-referenced undertaking received Thursday, April 17, 2014. This is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 38 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Considering the additional available information, we concur that the project as currently proposed will not adversely affect any property that is eligible for listing in the National Register of Historic Places. Therefore, this office has no objection to the implementation of this project. Please direct questions and comments to Jennifer M. Barnett (615) 741-1588, ext. 105. We appreciate your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "E. Patrick McIntyre, Jr.".

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

May 15, 2014

Ms. Mary Jennings
Field Supervisor
U. S. Fish and Wildlife Service
446 Neal Street
Cookeville, Tennessee 38501

Dear Ms. Jennings:

REQUEST FOR CONCURRENCE: TENNESSEE VALLEY AUTHORITY (TVA), SOUTH PITTSBURG 161-KV TRANSMISSION LINE, MARION COUNTY, TENNESSEE

In order to supply power to a substation being built by Sequatchie Valley Electric Cooperative, TVA is proposing to build a new transmission line between the new substation and the existing TVA Nickajack-Jasper-Raccoon Mountain 161-kV transmission line. Eleven access roads have been identified for use in building this transmission line. The proposed transmission line is approximately 4 miles long, spanning the Tennessee River in Marion County, Tennessee. The right-of-way would be 100 feet wide, occupying approximately 49 acres. Most of the ROW would cross existing agricultural fields and cattle pasture. However some sections would require clearing of forested areas (Figure 1).

Review of the TVA Regional Natural Heritage database and the U.S. Fish and Wildlife Service ECOS website indicated 17 species listed as endangered, threatened, a candidate for listing, or under review for listing under the Endangered Species Act occur in Marion County, Tennessee or within 10 miles of the project area. These include, one fish (snail darter), one insect (Owen Spring limnephilid caddis fly), five mussels (dromedary pearl mussel, fanshell, pale lilliput, pink mucket, spectaclecase), four plants (American hart's-tongue fern, Price's potato-bean, large-flowered skullcap, monkey-face orchid), two snails (Anthony's river snail, royal marstonia) and three mammals (gray bat, Indiana bat, northern long-eared bat) that have the potential to occur within Marion County based on historic range, proximity to known occurrence records, biological characteristics and/or physiographic characteristics. See accompanying Table 1 for listing of species potentially occurring within the project action area. Additionally, bald eagle, protected under the Bald and Golden Eagle Protection Act (BGEPA), is known to occur in the vicinity of the project action area.

Field reviews were conducted in October 2013 and April 2014 to determine whether suitable habitat for federally listed species occurs within the project action area. The closest bald eagle record is an active nest approximately 1.26 miles from the proposed project footprint. This nest would not be impacted by the proposed actions. The proposed transmission line crosses the Tennessee River, though no work would occur within the river channel. Best Management Practices (BMPs) would be utilized in streamside management zones (SMZs) of perennial streams, intermittent streams and wet-weather conveyances found within the project footprint in order to minimize disturbance in riparian areas, and erosion and sediment inputs to streams or other surface waters within the project action area. Use of these BMP's would ensure that

Ms. Mary Jennings
Page Two
May 15, 2014

proposed project activities would have no effect on federally listed aquatic species. No federally listed plant species or their habitats were identified in the project action area during these field surveys. Federally listed plant species would not be impacted by the proposed actions. TVA has determined that the proposed transmission line and access road construction would have no effect on snail darter, Owen Spring limnephilid caddis fly, dromedary pearlymussel, fanshell, pale lilliput, pink mucket, spectaclecase, American hart's-tongue fern, Price's potato-bean, large-flowered skullcap, monkey-face orchid, Anthony's river snail, and royal marstonia.

TVA biologists conducted habitat suitability assessments for Indiana and northern long-eared bat within the proposed project area (ROW and 11 planned access roads) in October 2013 and April 2014. Habitat assessments focused on presence of live and dead trees greater than or equal to three inches in diameter, with exfoliating bark, cavities, and solar exposure. Potentially suitable roosting habitat was found in one section of forest along the proposed ROW and along access road #4. Approximately 2.1 acres of suitable summer roosting habitat for northern long-eared and Indiana bat could be removed during construction of the ROW and access roads (Figure 2). The area of suitable habitat along the ROW is 1.99 acres in size. It has a strong white oak component within the array of hardwood canopy species and many snags with suitable exfoliating bark. Twenty-three live white-oaks (8-30 inches diameter at breast height (dbh)), and nine snags (5-24 inches dbh) were found in this area. The understory is open due to the presence of grazing cattle. The area of suitable habitat along access road #4 totals 0.11 acre in size. The 50-foot wide access road would remove nine snags (7-22 inches dbh) within a forested wetland (Figures 3-4, Summer_Habitat_Assessment_Forms.pdf, Site1_Photos.pdf, Site2_Photos.pdf).

Winter hibernacula for Indiana, northern long-eared and gray bat would not be impacted by the proposed project. No caves are reported from the project area and none were observed during field review of the project footprint. A bridge over the Tennessee River exists 125 feet from access road #6, and 525 feet from a proposed transmission line structure. Ground disturbance caused by bushhogging the access road, and construction of the structure would not impact Indiana or northern long-eared bats potentially roosting under the bridge. Forested areas, wetlands, streams and the Tennessee River offer suitable foraging habitat and sources of water for all three bat species within the project footprint. Vegetation clearing would remove foraging habitat for Indiana bat and northern long-eared bat species, however similar habitat is plentiful in the area. The Tennessee River would not be directly affected by project activities, thus there would be no impacts to foraging habitat over this body of water. Streams and wetlands within the project area would still retain water and provide habitat for emerging insects following project activities, therefore these areas would continue to provide foraging habitat for bats.

Historical records document the occurrence of Indiana bats in Nickajack Cave (3.6 miles away). Nickajack Cave is listed as a historical hibernaculum for Indiana bat, and a Priority 2 cave for Indiana bat in the Indiana Bat Draft Recovery Plan: First Revision April 2007. The closest caves currently occupied by Indiana bats are Case Cave 15.5 miles away (Dade County, Georgia) and Nitre Cave 18.5 miles away (Jackson County, Alabama). Additionally, records from a bat blitz performed by the Alabama Bat Working Group from October 7-11, 2013 include one Indiana bat captured at a cave entrance, approximately 21.6 miles away from the project area (Figure 5).

There are no known records of northern long-eared hibernacula from Marion County, Tennessee. The closest known winter hibernaculum for this species is from Armstrong Cave, 102.5 miles away,

Ms. Mary Jennings
Page Three
May 15, 2014

in Lawrence, Alabama. Bat Blitzes held by the Alabama Bat Working Group also reported summer survey captures of northern long-eared bats here in August 2008. However the closest known northern long-eared record is from a bat blitz at Big Coon Cave approximately 19.1 miles away in Jackson County, Alabama (Figure 6).

Records document the occurrence of six gray bat hibernacula in Marion County, Tennessee. One additional hibernaculum is within 10 miles of the project area in Jackson County, Alabama. The closest hibernaculum is identified as Priority 1 hibernaculum for the gray bat in the Gray Bat Recovery Plan --Nickajack Cave (3.6 miles away). In addition, mist net surveys performed at a TVA facility approximately 7 miles away in Alabama, along the Tennessee River, captured one post-lactating female gray bat over a pond in August of 2013 (Figures 7).

Gray bat foraging habitat in the proposed project area would be temporarily impacted during the proposed project activities. However these impacts are temporary, and there is an abundance of similarly suitable foraging habitat in the surrounding landscape. TVA biologists have determined that the proposed activities may effect but are not likely to adversely affect gray bat. The number of suitable summer roost trees within the proposed project area and surrounding areas has led TVA biologists to determine that this area could present suitable summer roosting habitat for Indiana and northern long-eared bats. TVA proposes removal of these trees between November 15 and March 31 to remove any potential for direct effects to Indiana and northern long-eared bats. Due to the relatively small areas of impact, the isolation of the patches across the landscape, and the abundance of similar habitat in the surrounding area, TVA has determined that any indirect or cumulative effects to Indiana bat resulting from this action would be discountable. TVA has determined that the construction of this transmission line and associated access roads may effect, but would not likely adversely affect Indiana bat nor would the actions jeopardize the existence of the northern long-eared bat.

To offset any potential impacts to Indiana bat due to loss of habitat, TVA proposes that a Memorandum of Agreement be entered into by TVA and the US Fish and Wildlife Service with a contribution of \$7980 to Tennessee's Indiana Bat Conservation Fund to promote the conservation and recovery of Indiana bat.

TVA respectfully requests concurrence with this determination. If you have any questions regarding this project, please contact Liz Burton at 865-632-4011.

Sincerely,



John T. Baxter, Jr., Manager
Natural Resources Compliance Programs
Environment

Enclosures



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

May 27, 2014

Mr. E. Patrick McIntyre, Jr.
Executive Director
Tennessee Historical Commission
2941 Lebanon Road
Nashville, Tennessee 37243-0442

Dear Mr. McIntyre:

**TENNESSEE VALLEY AUTHORITY (TVA), SOUTH PITTSBURG 161-KV DELIVERY POINT
ACCESS ROADS, MARION COUNTY, TENNESSEE**

Earlier this year we consulted with your office concerning TVA's proposal to construct a new 161-kV transmission line (TL), to supply Sequatchie Valley Electric Cooperative's planned new 161-kV substation in South Pittsburg, Tennessee. Our offices agreed that no historic properties would be adversely affected, given TVA's plans to avoid archaeological sites 40MI161 and 40MI310 (both of which we agree are potentially eligible for listing in the National Register of Historic Places (NRHP)). Subsequently, TVA proposed the access roads that would be used during construction and maintenance of the proposed new TL. In this letter, we address the potential of these access roads to affect NRHP-listed or eligible archaeological sites.

TVA expanded the area of potential effects (APE) for archaeological resources for the proposed undertaking to include approximately 2.5 miles of access roads for the proposed South Pittsburg TL (labeled AR02-AR12). TVA finds that the access roads would not affect historic architectural properties because they would not result in permanent changes to the setting, and because TVA has previously found, in consultation with your office, that the APE contains no architectural properties listed or eligible for listing in the NRHP.

TVA contracted with Tennessee Valley Archaeological Research (TVAR) to perform a Phase I archaeological survey of the access roads portion of the APE. Enclosed are two copies of the draft report titled, *A Phase I Archaeological Survey of Tennessee Valley Authority's Proposed Access Roads Associated with the South Pittsburg 161-kV Transmission Line in Marion County, Tennessee*, along with three CDs containing digital copies of the report.

TVAR's background study, conducted prior to the field study, indicated the presence of two previously recorded archaeological sites in the APE: 40MI94 and 40MI157. Site 40MI94 was recommended eligible for listing in the NRHP by DuVall and Associates after a survey performed for the Tennessee Department of Transportation in 1978; it was revised by the University of Alabama in 1987. TVAR's investigations at 40MI157 identified numerous artifacts and shell, and indicated the possible presence of buried features. TVAR recommends the site is potentially eligible for listing in the NRHP. In addition, TVAR identified archaeological deposits just north of the existing boundary for 40MI157. TVAR recommended that these deposits represent a previously unknown portion of the site, and revised the site form to include those deposits.

Mr. E. Patrick McIntyre, Jr.
 Page 2
 May 27, 2014

The survey also identified three previously unrecorded archaeological sites: 40MI313, 40MI314, and 40MI315. TVAR recommends that sites 40MI313 and 40MI314 are ineligible for the NRHP, and recommends that 40MI315 is potentially eligible for the NRHP based on the site’s research potential.

TVA has reviewed the enclosed letter report and agrees with the findings and recommendations of the authors. TVA finds that AR02 has the potential to cause adverse effects to potentially eligible site 40MI157. In order to avoid effects to this site TVA has relocated AR02 further to the east. The new location of AR02 is included in the current APE. The survey identified archaeological deposits that are part of previously recorded site 40MI117 within the relocated AR02, and TVAR recommended that the site is potentially eligible for listing in the NRHP. However, TVAR recommends that the planned access road will not have an adverse effect on the site, and TVA agrees. TVAR found that the portion of 40MI94 affected by TVA’s proposed access road AR06 has been impacted by modern activities and lacks intact archaeological deposits. TVAR recommends that TVA’s use of AR06 will not adversely affect 40MI94. TVA also finds that AR07 has the potential to cause adverse effects to potentially eligible site 40MI315. In order to avoid effects to that site, TVA has removed AR07 and adjacent access road AR08 from the project. For construction and maintenance access to this portion of the proposed TL, TVA’s access will be from Rivers Landing Road and along the TL corridor. This route was included in TVAR’s earlier archaeological survey of the TL corridor, which identified site 40MI311. TVA and your office have agreed that 40MI311 is ineligible for the NRHP.. Therefore, with these project changes, TVA finds that the access roads would have no effects on any archaeological site listed or eligible for listing in the NRHP.

Table. Summary of Survey Findings, NRHP eligibility recommendations, and avoidance measures

| Access Rd | Site | NRHP recommendation | Avoidance |
|----------------|---------|--|--|
| AR01 | None | | |
| AR02-original | 40MI157 | Potentially eligible | Relocated AR02 |
| AR02-original | 40MI313 | Ineligible | N/A (but AR02 is relocated) |
| AR02-relocated | 40MI117 | Portion within AR02 is ineligible | N/A |
| AR03 | None | | |
| AR04 | None | | |
| AR05 | None | | |
| AR06 | 40MI94 | Portion within AR06 will not be affected | N/A |
| AR07 | 40MI315 | Potentially eligible | Deleted AR07 and will access structures along TL ROW |
| AR07 | 40MI314 | Ineligible | N/A (but AR07 is deleted) |
| AR08 | None | | |
| AR09 | None | | |
| AR10 | None | | |
| AR11 | None | | |
| AR12 | None | | |

Pursuant to 36 CFR Part 800.4(d)(1), we are seeking your concurrence with TVA’s findings and determinations, and with TVA’s proposal to avoid sites 40MI157 and 40MI315 through changes in project design.

Mr. E. Patrick McIntyre, Jr.
Page 3
May 27, 2014

Pursuant to 36 CFR Part 800.3(f)(2), TVA is consulting with federally-recognized Indian tribes regarding historic properties within the proposed project's APE that may be of religious and cultural significance and are eligible for the NRHP.

Should you have any questions or comments, please contact Richard Yarnell in Knoxville at wryarnell@tva.gov or (865) 632-3463.

Sincerely,



Clinton E. Jones
Senior Manager
Biological and Cultural Compliance
Environmental Permits and Compliance
WT 11B-K

Enclosures

cc (Enclosures):

Ms. Jennifer Barnett
Tennessee Division of Archaeology
1216 Foster Avenue, Cole Building, #3
Nashville, Tennessee 37210

Brenda E. Brickhouse, BR 4A-C
Todd C. Liskey, MR 4G-C
Wilbourne C. Markham, Jr., MR 4G-C
Khurshid K. Mehta, WT 6A-K
Paul J. Pearman, MR 4K-C
William E. Wasdin, BR 4A-C
W. Richard Yarnell, WT 11D-K
EDMS, WT 11B-K



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

May 30, 2014

To Those Listed:

TENNESSEE VALLEY AUTHORITY (TVA), SOUTH PITTSBURG 161-KV DELIVERY POINT ACCESS ROADS, MARION COUNTY, TENNESSEE

Earlier this year we consulted with your office concerning TVA's proposal to construct a new 161-kV transmission line (TL), to supply Sequatchie Valley Electric Cooperative's planned new 161-kV substation in South Pittsburg, Tennessee. All consulting parties agreed that no historic properties would be adversely affected, given TVA's plans to avoid archaeological sites 40MI161 and 40MI310 (both of which we agree are potentially eligible for listing in the National Register of Historic Places (NRHP)). Subsequently, TVA proposed the access roads that would be used during construction and maintenance of the proposed new TL. In this letter, we address the potential of these access roads to affect NRHP-listed or eligible archaeological sites.

TVA expanded the area of potential effects (APE) for archaeological resources for the proposed undertaking to include approximately 2.5 miles of access roads for the proposed South Pittsburg TL (labeled AR02-AR12). TVA finds that the access roads would not affect historic architectural properties because they would not result in permanent changes to the setting, and because TVA has previously found, in consultation with the State Historic Preservation Officer, that the APE contains no architectural properties listed or eligible for listing in the NRHP.

TVA contracted with Tennessee Valley Archaeological Research (TVAR) to perform a Phase I archaeological survey of the access roads portion of the APE. Please find a copy of the draft report titled, *A Phase I Archaeological Survey of Tennessee Valley Authority's Proposed Access Roads Associated with the South Pittsburg 161-kV Transmission Line in Marion County, Tennessee* at this link: [REDACTED].

TVAR's background study, conducted prior to the field study, indicated the presence of two previously recorded archaeological sites in the APE: 40MI94 and 40MI157. Site 40MI94 was recommended eligible for listing in the NRHP by DuVall and Associates after a survey performed for the Tennessee Department of Transportation in 1978; it was revised by the University of Alabama in 1987. TVAR's investigations at 40MI157 identified numerous artifacts and shell, and indicated the possible presence of buried features. TVAR recommends the site is potentially eligible for listing in the NRHP. In addition, TVAR identified archaeological deposits just north of the existing boundary for 40MI157. TVAR recommended that these deposits represent a previously unknown portion of the site, and revised the site form to include those deposits.

The survey also identified three previously unrecorded archaeological sites: 40MI313, 40MI314,

(The online link for the archaeological survey has been redacted for the protection of archeological resources.)

To Those Listed
 Page Two
 May 30, 2014

and 40MI315. TVAR recommends that sites 40MI313 and 40MI314 are ineligible for the NRHP, and recommends that 40MI315 is potentially eligible for the NRHP based on the site's research potential.

TVA has reviewed the enclosed letter report and agrees with the findings and recommendations of the authors. TVA finds that AR02 has the potential to cause adverse effects to potentially eligible site 40MI157. In order to avoid effects to this site, TVA has relocated AR02 further to the east. The new location of AR02 is included in the current APE. The survey identified archaeological deposits that are part of previously recorded site 40MI117 within the relocated AR02. However, TVAR recommends that the portion of the site affected by the relocated AR02 is ineligible for listing in the NRHP, and TVA agrees. TVAR found that the portion of 40MI94 affected by TVA's proposed access road AR06 has been impacted by modern activities and lacks intact archaeological deposits. TVAR recommends that TVA's use of AR06 will not adversely affect 40MI94. TVA also finds that AR07 has the potential to cause adverse effects to potentially eligible site 40MI315. In order to avoid effects to that site, TVA has removed AR07 and adjacent access road AR08 from the project. For construction and maintenance access to this portion of the proposed TL, TVA's access will be from Rivers Landing Road and along the TL corridor. This route was included in TVAR's earlier archaeological survey of the TL corridor and did not yield cultural material. Therefore, with these project changes, TVA finds that the access roads would have no effects on any archaeological site listed or eligible for listing in the NRHP.

Table. Summary of Survey Findings, NRHP eligibility recommendations, and avoidance measures.

| Access Rd | Site | NRHP recommendation | Avoidance |
|----------------|---------|--|--|
| AR01 | None | | |
| AR02-original | 40MI157 | Potentially eligible | Relocated AR02 |
| AR02-original | 40MI313 | Ineligible | N/A (but AR02 is relocated) |
| AR02-relocated | 40MI117 | Portion within AR02 is ineligible | N/A |
| AR03 | None | | |
| AR04 | None | | |
| AR05 | None | | |
| AR06 | 40MI94 | Portion within AR06 will not be affected | N/A |
| AR07 | 40MI315 | Potentially eligible | Deleted AR07 and will access structures along TL ROW |
| AR07 | 40MI314 | Ineligible | N/A (but AR07 is deleted) |
| AR08 | None | | |
| AR09 | None | | |
| AR10 | None | | |
| AR11 | None | | |
| AR12 | None | | |

To Those Listed
Page Three
May 30, 2014

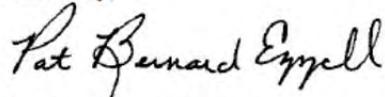
(Pursuant to 36 CFR Part 800.4(d)(1), we are seeking your concurrence with TVA's findings and determinations, and with TVA's proposal to avoid sites 40MI157 and 40MI315 through changes in project design.

Pursuant to 36 CFR Part 800.3(f)(2), TVA is consulting with the following federally recognized Indian tribes regarding historic properties within the proposed project's APE that may be of religious and cultural significance and are eligible for listing in the NRHP: Cherokee Nation, Eastern Band of Cherokee Indians, United Keetoowah Band of Cherokee Indians in Oklahoma, The Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Alabama-Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Kialegee Tribal Town, Thlopthlocco Tribal Town, Absentee Shawnee Tribe of Oklahoma, Eastern Shawnee Tribe of Oklahoma, and the Shawnee Tribe.

By this letter, TVA is providing notification of these findings and is seeking your comments regarding this undertaking and any properties that may be of religious and cultural significance and may be eligible for the NRHP pursuant to 36CFR §§ 800.2 (c)(2)(ii), 800.3 (f)(2), and 800.4 (a)(4)(b).

Please respond by June 30, 2014, if you have any comments on the proposed undertaking. If you have any questions, please contact me at (865) 632-6461 or by email at pbezzell@tva.gov.

Sincerely,



Patricia Bernard Ezzell
Senior Program Manager
Tribal Relations and Corporate Historian
WT 7D-K

PBE:CSD
Enclosures

South Pittsburg 161-kV Delivery Point

IDENTICAL LETTERS MAILED TO THE FOLLOWING ON MAY 30, 2014:

Dr. Richard Allen
Policy Analyst
Cherokee Nation
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Governor Bill Anoatubby
The Chickasaw Nation
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Mr. Joseph Blanchard
Tribal Historic Preservation Officer
Absentee Shawnee Tribe of Oklahoma
2025 S. Gordon Cooper
Shawnee, Oklahoma 74801

Mr. Pare Bowlegs
Cultural Preservation Coordinator
Alabama Quassarte Tribal Town
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Wetumka, Oklahoma 74883

Ms. LaDonna Brown
Tribal Historic Preservation Officer
Department of Homeland Affairs
The Chickasaw Nation
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Ada, Oklahoma 72821-1548

Mr. Ace Buckner
Cultural Resources Director
Kialegee Tribal Town
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Wetumka, Oklahoma 74883

cc: Ms. Kara Gann
Assistant Cultural Resources Director
Kialegee Tribal Town
Post Office Box 332
Wetumka, Oklahoma 74883

Mr. Bryant Celestine
Tribal Historic Preservation Officer
Alabama-Coushatta Tribe of Texas
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Mr. Charles Coleman

NAGPRA Representative
Thlopthlocco Tribal Town
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Mr. Steve Daugherty
Cultural Preservation Director
Eastern Shawnee Tribe of Oklahoma
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Seneca, Missouri 64865

Ms. Robin DuShane
Tribal Historic Preservation Officer
Eastern Shawnee Tribe of Oklahoma
127 West Oneida
Seneca, Missouri 64865

Ms. Dee Gardner
NAGPRA/Cell Tower Coordinator
Eastern Shawnee Tribe of Oklahoma
127 West Oneida
Seneca, Missouri 64865

Mr. Tyler Howe
Historic Preservation Specialist
Eastern Band of Cherokee Indians
Post Office Box 45
Cherokee, North Carolina 28719

cc: Mr. Russell Townsend
Tribal Historic Preservation Office
Eastern Band of Cherokee Indians
Post Office Box 455
Cherokee, North Carolina 28719

Ms. Miranda Panther
NAGPRA Coordinator
Eastern Band of Cherokee Indians
Post Office Box 455
Cherokee, North Carolina 28719

Ms. Johnnie Jacobs
Manager
Cultural Preservation Department
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, Oklahoma 74447

cc: Mr. Jeff Fife
Assistant to the Second Chief
Muscogee (Creek) Nation

South Pittsburg 161-kV Delivery Point

P.O. Box 580
Okmulgee, Oklahoma 74447

Ms. Odette Freeman
Assistant Manager
Cultural Preservation Department
Muscogee (Creek) Nation
Post Office Box 580
Okmulgee, Oklahoma 74447

Mr. David Proctor
Cultural Advisor
Cultural Preservation Department
Muscogee (Creek) Nation
Post Office Box 580
Okmulgee, Oklahoma 74447

Ms. Kim Jumper
Tribal Historic Preservation Officer
Shawnee Tribe
Post Office Box 189
Miami, Oklahoma 74355

cc: Jodi Hayes
NAGPRA Representative
Shawnee Tribe
PO Box 189
Miami, OK 74355

Mrs. Lisa C. LaRue-Baker
Acting Tribal Historic Preservation Officer
United Keetoowah Band
of Cherokee Indians in Oklahoma
Post Office Box 746
Tahlequah, Oklahoma 74464

Mr. Kirk Perry
Administrator
Department of Homeland Affairs
The Chickasaw Nation
Post Office Box 1548
Ada, Oklahoma 72821-1548

cc: Ms. Virginia (Gingy) Nail
Assistant Tribal Historic Preservation Officer
Department of Homeland Affairs
The Chickasaw Nation
Post Office Box 1548
Ada, Oklahoma 72821-1548

Ms. Amber Jarrett

Preservation & Repatriation Manager
Department of Homeland Affairs
The Chickasaw Nation
Ada, OK 74821-1548

Mr. Emman Spain
Deputy Tribal Historic Preservation Officer
Cultural Preservation Department
Muscogee (Creek) Nation
Post Office Box 580
Okmulgee, Oklahoma 74447



TENNESSEE HISTORICAL COMMISSION
2941 LEBANON ROAD
NASHVILLE, TENNESSEE 37243-0442
OFFICE: (615) 532-1550
www.tnhistoricalcommission.org

June 10, 2014

Mr. Clinton Jones
Tennessee Valley Authority
400 West Summit Hill Drive
WT11D
Knoxville, Tennessee 37902-1499

RE: TVA, ARCHAEOLOGICAL ASSESSMENT, 161-KV DELIVERY POINT ACCESS ROADS,
SOUTH PITTSBURG, MARION COUNTY, TN

Dear Mr. Jones:

At your request, our office has reviewed the above-referenced archaeological survey report in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). Based on the information provided, we concur that the project area contains archaeological resources potentially eligible for listing in the National Register of Historic Places.

We agree that the proposed avoidance and minimization measures adequately address any potential affects to historic properties within the area of potential effect (APE). Therefore, we concur that the project, as currently planned, will not affect any archaeological resources within the APE.

If project plans are changed or archaeological remains are discovered during construction, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act.

Your cooperation is appreciated.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

July 2, 2014

Ms. Mary Jennings
Field Supervisor
U. S. Fish and Wildlife Service
446 Neal Street
Cookeville, Tennessee 38501

Dear Ms. Jennings:

REQUEST FOR CONCURRENCE: TENNESSEE VALLEY AUTHORITY (TVA), SOUTH PITTSBURG 161-KV TRANSMISSION LINE, MARION COUNTY, TENNESSEE

In order to supply power to a substation being built by Sequatchie Valley Electric Cooperative, TVA is proposing to build a new transmission line between the new substation and the existing TVA Nickajack-Jasper-Raccoon Mountain 161-kV transmission line. Eleven access roads have been identified for use in building this transmission line. The proposed transmission line is approximately four miles long, spanning the Tennessee River in Marion County, Tennessee. The right-of-way would be 100 feet wide, occupying approximately 49 acres. Most of the ROW would cross existing agricultural fields and cattle pasture. However some sections would require clearing of forested areas (Figure 1).

Review of the TVA Regional Natural Heritage database and the U.S. Fish and Wildlife Service ECOS website indicated 17 species listed as endangered, threatened, a candidate for listing, or under review for listing under the Endangered Species Act occur in Marion County, Tennessee or within 10 miles of the project area. These include, one fish (snail darter), one insect (Owen Spring limnephilid caddis fly), five mussels (dromedary pearl mussel, fanshell, pale lilliput, pink mucket, spectaclecase), four plants (American hart's-tongue fern, Price's potato-bean, large-flowered skullcap, monkey-face orchid), two snails (Anthony's river snail, royal marstonia) and three mammals (gray bat, Indiana bat, northern long-eared bat) that have the potential to occur within Marion County based on historic range, proximity to known occurrence records, biological characteristics and/or physiographic characteristics. See accompanying Table 1 for listing of species potentially occurring within the project action area. Additionally, bald eagle, protected under the Bald and Golden Eagle Protection Act (BGEPA), is known to occur in the vicinity of the project action area.

Field reviews were conducted in October 2013 and April 2014 to determine whether suitable habitat for federally listed species occurs within the project action area. The closest bald eagle record is an active nest approximately 1.26 miles from the proposed project footprint. This nest would not be impacted by the proposed actions. The proposed transmission line crosses the Tennessee River, though no work would occur within the river channel. Best Management Practices (BMPs) would be utilized in streamside management zones (SMZs) of perennial streams, intermittent streams and wet-weather conveyances found within the project footprint in order to minimize disturbance in riparian areas, and erosion and sediment inputs to streams or other surface waters within the project action area. Use of these BMP's would ensure that

Ms. Mary Jennings
Page Two
July 2, 2014

proposed project activities would have no effect on federally listed aquatic species. No federally listed plant species or their habitats were identified in the project action area during these field surveys. Federally listed plant species would not be impacted by the proposed actions. TVA has determined that the proposed transmission line and access road construction would have no effect on snail darter, Owen Spring limnephilid caddis fly, dromedary pearlymussel, fanshell, pale lilliput, pink mucket, spectaclecase, American hart's-tongue fern, Price's potato-bean, large-flowered skullcap, monkey-face orchid, Anthony's river snail, and royal marstonia.

TVA biologists conducted habitat suitability assessments for Indiana and northern long-eared bat within the proposed project area (ROW and 11 planned access roads) in October 2013 and April 2014. Habitat assessments focused on presence of live and dead trees greater than or equal to three inches in diameter, with exfoliating bark, cavities, and solar exposure. Potentially suitable roosting habitat was found in one section of forest along the proposed ROW and along access road #4. Approximately 2.1 acres of suitable summer roosting habitat for northern long-eared and Indiana bat could be removed during construction of the ROW and access roads (Figure 2). The area of suitable habitat along the ROW is 1.99 acres in size. It has a strong white oak component within the array of hardwood canopy species and many snags with suitable exfoliating bark. Twenty-three live white-oaks (8-30 inches diameter at breast height (dbh)), and nine snags (5-24 inches dbh) were found in this area. The understory is open due to the presence of grazing cattle. The area of suitable habitat along access road #4 totals 0.11 acre in size. The 50 foot wide access road would remove nine snags (7-22 inches dbh) within a forested wetland (Figures 3-4, Summer_Habitat_Assessment_Forms.pdf, Site1_Photos.pdf, Site2_Photos.pdf).

Winter hibernacula for Indiana, northern long-eared and gray bat would not be impacted by the proposed project. No caves are reported from the project area and none were observed during field review of the project footprint. A bridge over the Tennessee River exists 125 feet from access road #6, and 525 feet from a proposed transmission line structure. Ground disturbance caused by bush-hogging the access road, and construction of the structure would not impact Indiana or northern long-eared bats potentially roosting under the bridge. Forested areas, wetlands, streams and the Tennessee River offer suitable foraging habitat and sources of water for all three bat species within the project footprint. Vegetation clearing would remove foraging habitat for Indiana bat and northern long-eared bat species, however similar habitat is plentiful in the area. The Tennessee River would not be directly affected by project activities, thus there would be no impacts to foraging habitat over this body of water. Streams and wetlands within the project area would still retain water and provide habitat for emerging insects following project activities, therefore these areas would continue to provide foraging habitat for bats.

Historical records document the occurrence of Indiana bats in Nickajack Cave (3.6 miles away). Nickajack Cave is listed as a historical hibernaculum for Indiana bat, and a Priority 2 cave for Indiana bat in the Indiana Bat Draft Recovery Plan: First Revision April 2007. The closest caves currently occupied by Indiana bats are Case Cave 15.5 miles away (Dade County, Georgia) and Nitre Cave 18.5 miles away (Jackson County, Alabama). Additionally, records from a bat blitz performed by the Alabama Bat Working Group from October 7-11, 2013 include one Indiana bat captured at a cave entrance, approximately 21.6 miles away from the project area (Figure 5).

There are no known records of northern long-eared hibernacula from Marion County, Tennessee. The closest known winter hibernaculum for this species is from Armstrong Cave, 102.5 miles away,

Ms. Mary Jennings
Page Three
July 2, 2014

in Lawrence, Alabama. “Bat Blitzes” held by the Alabama Bat Working Group also reported summer survey captures of northern long-eared bats here in August 2008. However the closest known northern long-eared record is from a bat blitz at Big Coon Cave approximately 19.1 miles away in Jackson County, Alabama (Figure 6).

Records document the occurrence of six gray bat hibernacula in Marion County, Tennessee. One additional hibernaculum is within 10 miles of the project area in Jackson County, Alabama. The closest hibernaculum is identified as Priority 1 hibernaculum for the gray bat in the Gray Bat Recovery Plan --Nickajack Cave (3.6 miles away). In addition, mist net surveys performed at a TVA facility approximately 7 miles away in Alabama, along the Tennessee River, captured one post-lactating female gray bat over a pond in August of 2013 (Figures 7).

Gray bat foraging habitat in the proposed project area would be temporarily impacted during the proposed project activities. However these impacts are temporary, and there is an abundance of similarly suitable foraging habitat in the surrounding landscape. TVA biologists have determined that the proposed activities may effect but are not likely to adversely affect gray bat. The number of suitable summer roost trees within the proposed project area and surrounding areas has led TVA biologists to determine that this area could present suitable summer roosting habitat for Indiana and northern long-eared bats. TVA proposes removal of these trees between November 15 and March 31 to remove any potential for direct effects to Indiana and northern long-eared bats. Due to the relatively small areas of impact, the isolation of the patches across the landscape, and the abundance of similar habitat in the surrounding area, TVA has determined that any indirect or cumulative effects to Indiana bat resulting from this action would be discountable. TVA has determined that the construction of this transmission line and associated access roads may effect, but would not likely adversely affect Indiana bat nor would the actions jeopardize the existence of the northern long-eared bat.

To offset any potential impacts to Indiana bat due to loss of habitat, TVA proposes that a Memorandum of Agreement (MOA) be entered into by TVA and the US Fish and Wildlife Service with a contribution of \$7980 to Tennessee’s Indiana Bat Conservation Fund to promote the conservation and recovery of Indiana bat. It is our understanding that with a signed MOA, TVA’s obligations regarding ESA compliance would be fulfilled.

If you have any questions regarding this project, please contact Liz Burton at 865-632-4011.

Sincerely,



John T. Baxter, Jr., Manager
Natural Resources Compliance Programs
Environment

ECB:CSD
Enclosures

**INDIANA BAT CONSERVATION
MEMORANDUM OF AGREEMENT
BETWEEN THE
U.S. FISH AND WILDLIFE SERVICE
AND
TENNESSEE VALLEY AUTHORITY**

This Memorandum of Agreement (MOA) is entered into by the United States Department of the Interior, U.S. Fish and Wildlife Service (Service) and Tennessee Valley Authority (TVA) to promote the survival and recovery of the Indiana bat (*Myotis sodalis*), a federally listed endangered species. Together, the Service and TVA are referred to as "Cooperators."

Section 1: PURPOSE AND OBJECTIVES

The Indiana bat is a federally listed endangered species native to a large portion of the eastern United States and the State of Tennessee. This MOA will implement recovery-focused conservation measures that will be undertaken by the Cooperators and afford a measurable conservation benefit for the Indiana bat as set forth in the Tennessee Field Office of the Service's Interim Indiana Bat Mitigation Guidance for the State of Tennessee, hereby incorporated by reference. These measures will be implemented in association with the proposed project as detailed in section 4 of this MOA. All measures will be implemented according to the terms of this MOA. The Cooperators understand and intend that the benefits resulting from this MOA may also provide conservation benefits for other federal protected species and native fish and wildlife.

Section 2: AUTHORITY

This MOA is hereby entered into under the authorities of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) (ESA), Fish and Wildlife Act of 1956 (16 U.S.C. 742a. *et seq.*), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*). Section 5 of the ESA provides that, "The Secretary...shall establish and implement a program to conserve fish, wildlife, and plants, including those which are listed as endangered species or threatened species..." and "shall utilize land acquisition and other authority under the Fish and Wildlife Act, as amended, and the Migratory Bird Conservation Act, as appropriate". Section 7(a) (1) of the ESA further directs Federal agencies to "utilize their authorities in furtherance of the purposes of this Act [ESA] by carrying out programs for the conservation of endangered species and threatened species." The Fish and Wildlife Act of 1956 provides that the Secretary shall "...take such steps as may be required for the development, advancement, management, conservation, and protection of fish and wildlife resources...." Finally, the Fish and Wildlife Coordination Act states that the Secretary is authorized "to provide assistance to, and cooperate with, Federal, State, and public

or private agencies and organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat...”

The authorization for any incidental take of the Indiana bat, as defined in section 9 of the ESA, and resulting from impacts that may be associated with the qualified project, as defined in section 4 of this MOA, is provided through the Service's incidental take statement and July 30, 2014, intra-Service biological opinion, which is incorporated herein by this reference. This biological opinion covers the Service's development of this MOA for the Indiana bat, which is based on implementation of the Interim Indiana Bat Mitigation Guidance and provides incidental take of Indiana bats in the form of potential roosting structures (i.e., trees or snags) on up to 2.1 acres of property.

Section 3: STATEMENT OF MUTUAL INTEREST

The mission of the Service is to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. The Service's major responsibilities are for endangered and threatened species, migratory birds, marine mammals, and freshwater and anadromous fish. The Service recognizes the ability and interest of TVA to contribute to the conservation and recovery of the Indiana bat, and recognizes TVA as a partner in the recovery of the species and conservation of its habitat. TVA recognizes the Service's mission and its interest in developing partnerships to protect, restore, and manage important habitats on private and public lands for federal listed species. The Cooperators understand that the collaboration for this MOA is voluntary.

Section 4: PROJECT DESCRIPTION

Tennessee Valley Authority is proposing to build a new transmission line between the new substation and the existing TVA Nickajack-Jasper-Raccoon Mountain 161-kV transmission line. Eleven access roads have been identified for use in building this transmission line. The proposed transmission line is approximately four miles long, spanning the Tennessee River in Marion County, Tennessee. The right-of-way would be 100 feet wide, occupying approximately 49 acres.

The proposed project would result in the direct loss of potential bat roosting structures within a 2.1-acre area, which involve one Indiana bat habitat type as depicted in Table 1 below.

Table 1

| <u>Habitat Type</u> | <u>Forested Acreage Removed</u> |
|---------------------|---------------------------------|
| Potential Habitat | 2.1 acres |

These Indiana bat habitat impacts are the impacts that are covered by this agreement and that were evaluated by the Service to assess the direct, indirect, and cumulative effects of the proposed project on Indiana bats.

Section 5: EFFECTIVE DATE AND TERMS OF AGREEMENT

This MOA is valid for TVA consideration for 90 days from the date of the Service's signature below, shall be deemed effective on the last date signed below, and shall remain in effect until all terms of the agreement have been fulfilled, except as modified in Section 8 hereof. TVA has determined that the removal of all Indiana bat habitat will occur during the timeframe when the Indiana bat is not anticipated to be present (i.e., when habitat is unoccupied), which is between the dates of October 15 and March 31 for this project. The Indiana Bat Conservation Fund contribution amount that is identified in section 6.4 of the MOA is based on the assumption that all removal of suitable roosting trees and snags associated with the project will be conducted during the unoccupied timeframe. Structures that are not suitable for bat roosting may be removed any time of year. If the timeframe or other aspects of the project are to be revised, then TVA must coordinate with the Service to determine if additional modification of this agreement is necessary. If found necessary, TVA will seek such modification.

Section 6: SPECIFIC OBLIGATIONS OF THE COOPERATORS

TVA and the Service agree to fulfill the following conditions to minimize the potential level of take of the Indiana bat, compensate for adverse effects on the Indiana bat that may result from construction of the project, and promote future conservation and recovery of the Indiana bat:

- 6.1 The Service will take the necessary steps to ensure that the project covered under this MOA meets federal requirements for compliance with the National Environmental Policy Act (NEPA) and ESA. If TVA has NEPA requirements beyond the scope of this MOA, TVA or other Federal action agency are responsible for those additional requirements.

With regard to the ESA, the Biological Opinion authorizes incidental take of Indiana bats associated with forested habitat removal. As such, paragraphs 6.3 and 6.4 are incorporated to ensure compliance with the Reasonable and Prudent Measures and Terms and Conditions of the biological opinion. TVA acknowledges that any divergence from these measures and conditions may result in a violation of section 9 of the ESA.

- 6.2 TVA will take any necessary steps to ensure that the project covered under this MOA meets federal requirements for compliance with the National Historic Preservation Act (NHPA).

- 6.3 The project proposed by TVA, as described in Section 4, will result in the incidental take of Indiana bats in the form of habitat loss totaling not more than 2.1 acres of potential Indiana bat roosting structures. TVA may remove this habitat during the unoccupied time as stated in Section 5.
- 6.4 TVA shall contribute \$7,980.00 to the Indiana Bat Conservation Fund (IBCF) administered by the Kentucky Natural Lands Trust (KNLT). This contribution is based on 2.1 acres of potential Indiana bat summer habitat using the process identified in the Tennessee Field Office of the Service's Interim Indiana Bat Mitigation Guidance. Funds shall be provided to KNLT within thirty (30) days of the last signature of this MOA. Within seven (7) business days, TVA shall provide the Service with a copy of the check or transaction receipt of payment that shows the date and amount of the deposit.

In summary, this MOA provides recovery based conservation benefits for the Indiana bat in the form of contributions to the IBCF which, in turn, will fund Indiana bat habitat protection, conservation, restoration and/or priority monitoring and research projects for the Indiana bat.

Section 7: COOPERATION

Representatives of both the Service and TVA acknowledge that it is their desire to facilitate the processes set forth in this MOA by open communication and cooperation. Both parties agree to exercise their rights and obligations under this MOA in good faith. If at any time representatives of TVA have questions regarding this MOA or the guidance, the Service agrees to make itself available for consultation in a timely fashion.

Section 8: MODIFICATION OR TERMINATION

Modifications to this MOA may be proposed by either party in writing and will become effective upon being reduced to a written instrument and being signed by duly authorized representatives of the Cooperators. Failure to fulfill the provisions, as specified, within paragraph 6.4 will result in automatic termination of this MOA.

Section 9: OTHER PROVISIONS

- 9.1 The Cooperators hereto agree that they shall be liable for the negligent or wrongful acts or omissions of their employees, agents, and assigns only to the extent liable under applicable law. Nothing in this MOA shall be interpreted or construed as constituting a waiver by any party of sovereign immunity or statutory limitation on liability.

- 9.2 Each provision of this MOA shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of the MOA shall be prohibited or invalid under application of law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this MOA.
- 9.3 No provision of this MOA shall be interpreted as or constitute a commitment or requirement that either party take actions in contravention of applicable laws, either substantive or procedural.
- 9.4 Nothing in the MOA shall be interpreted as or constitute a commitment or requirement that the Service obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. §1341, or any other law or regulation.
- 9.5 Third Parties Not to Benefit: This MOA does not grant rights or benefits of any nature to any party not named or identified in this MOA.
- 9.6 Merger: This MOA contains the sole and entire MOA of the parties. No oral representations of any nature form the basis of or may amend this MOA. This MOA may be extended, renewed, or amended only when agreed to in writing by the parties.
- 9.7 Waiver: Failure to enforce any provision of this agreement by either party shall not constitute waiver of that provision, nor a waiver of a claim for subsequent breach of the same type, nor a waiver of any other term of this agreement. The waiver of any provision must be expressed and evidenced in writing.
- 9.8 Assignment: No part of this agreement shall be assigned to any other party.

Section 10: NOTICES AND AUTHORIZED REPRESENTATIVES

Notices shall be made in writing to the persons at the addresses listed below and may be given by personal delivery, mail or by telecopy (fax) to the duly authorized representatives listed below. If there are changes in a party's representative, each party shall notify the other party, in writing, within thirty (30) days of the change in their representative/s.

U.S. Fish and Wildlife Service
Mary E. Jennings
Field Office Supervisor
446 Neal Street
Cookeville, Tennessee 38501
931-525-4973 (telephone)
931-528-7075 (fax)

Tennessee Valley Authority
Forest Wilkinson Rogers, Jr.
1101 Market Street MR 5K-C
Chattanooga, Tennessee 37402-2801
423-751-6591 (telephone)
Email: fwrogers@tva.gov

Each party hereby indicates its acceptance of the terms of the MOA as outlined herein by its signature below. The parties hereto have executed this MOA as of the last written date below:

**U.S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE**

BY: Peggy W. Shute *Peggy W. Shute for Mary E. Jennings*

TITLE: Assistant Field Supervisor

DATE: 7/31/14

TENNESSEE VALLEY AUTHORITY

BY: *Forest W. Rogers*

TITLE: Forest W. Rogers, VP, Const. & Maint.

DATE: 8/8/14



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

Forest W. Rogers, Jr.
Vice President, Transmission
Construction & Maintenance

August 8, 2014

Kentucky Natural Lands Trust
c/o Hugh Archer, Executive Director
433 Chestnut Street
Berea, Kentucky 40403

Dear Mr. Archer:

**TENNESSEE VALLEY AUTHORITY (TVA) – SOUTH PITTSBURG 161-KV TRANSMISSION
LINE – MITIGATION FOR IMPACTS TO INDIANA BAT HABITAT**

By way of this letter and enclosed check, TVA agrees to pay the amount of \$7,980 to the Kentucky Natural Lands Trust (KNLT). As described in the enclosed Memorandum of Agreement, this contribution is to mitigate impacts to Indiana bat habitat associated with TVA's South Pittsburg 161-kV Transmission Line project in Marion County, Tennessee.

Please provide me a copy of the receipt for this transaction agreement for our files. If you have any questions or need additional information to support this request, please contact Todd Liskey at (423) 751-7631 or by e-mail at tcliskey@tva.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Forest W. Rogers, Jr.", written in a cursive style.

Forest Wilkinson Rogers, Jr.
Vice President, Transmission
Construction and Maintenance

Masters, Anita E

From: Liskey, Todd C
Sent: Monday, August 11, 2014 7:24 AM
To: Masters, Anita E
Subject: FW: South Pittsburgh TL MOA ready for signature

Anita – FYI.

From: Burton, Elizabeth Carrie
Sent: Friday, August 08, 2014 5:26 PM
To: Liskey, Todd C; Williamson, James F Jr
Cc: Baxter, John Tracy
Subject: FW: South Pittsburgh TL MOA ready for signature

See below for final email from USFWS indicating we have fulfilled our ESA obligations for South Pittsburg. The EA can be revised to indicate this communication was received on Aug 8, 2014.

Thanks,

Liz Burton

Terrestrial Zoologist
Biological Permitting and Compliance
Tennessee Valley Authority
400 W Summit Hill Dr, WT 11C-K
865-632-4011

From: David Pelren [mailto:david_pelren@fws.gov]
Sent: Friday, August 08, 2014 1:22 PM
To: Burton, Elizabeth Carrie
Cc: Sarah Sorenson
Subject: RE: South Pittsburgh TL MOA ready for signature

Liz –

Thank you for providing a copy of the signed memorandum of agreement (MOA) for the South Pittsburgh transmission line project and a copy of the associated check. These actions resulted in fulfillment of the requirements of the Endangered Species Act (the Act) of 1973, as amended, for the project. We believe that the project plans adequately address potential direct, indirect, and cumulative effects upon the Indiana bat and other threatened and endangered species. Therefore, it is appropriate to initiate tree-clearing activity in accordance with the timeframe specified in the MOA (i.e. on October 15 for clearing of suitable Indiana bat roosting structure). Obligations under the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

South Pittsburg 161-kV Delivery Point

Be aware that the northern long-eared bat will likely be listed as threatened or endangered on or before April 2, 2015. If clearing of suitable northern long-eared bat roosting habitat will continue for this project after March 31, 2015, then you should coordinate with the Fish and Wildlife Service to determine the most appropriate means of addressing potential impacts to the species.

Thank you for working with us to address concerns about impacts to the Indiana bat and its habitats. Feel free to contact me with any questions.

David Pelren
Fish and Wildlife Biologist
Ecological Services
U.S. Fish and Wildlife Service
446 Neal St.
Cookeville, TN 38501
office phone: 931-525-4974
cell phone: 931-261-5844

From: Burton, Elizabeth Carrie [mailto:ecburton@tva.gov]
Sent: Friday, August 08, 2014 11:22 AM
To: David Pelren (david_pelren@fws.gov)
Cc: Baxter, John Tracy
Subject: FW: South Pittsburgh TL MOA ready for signature

Hi Dave,

Please see the attached signed MOA and copy of the check as requested. I believe the next step is to receive notification from your office that all our ESA obligations have been met.

Thank you!

Liz Burton
Terrestrial Zoologist
Biological Permitting and Compliance
Tennessee Valley Authority
400 W Summit Hill Dr, WT 11C-K
865-632-4011

From: Liskey, Todd C
Sent: Friday, August 08, 2014 11:45 AM
To: Burton, Elizabeth Carrie; Baxter, John Tracy
Subject: RE: South Pittsburgh TL MOA ready for signature

Liz,

Here is the signed MOA and copy of the check.

Todd

From: Burton, Elizabeth Carrie
Sent: Thursday, July 31, 2014 3:55 PM
To: Liskey, Todd C; Baxter, John Tracy
Subject: FW: South Pittsburgh TL MOA ready for signature

From: David Pelren [mailto:david_pelren@fws.gov]
Sent: Thursday, July 31, 2014 3:49 PM
To: Burton, Elizabeth Carrie
Cc: Peggy Shute; Sarah Sorenson
Subject: South Pittsburgh TL MOA ready for signature

Liz –

Our office's acting supervisor has signed the memorandum of agreement (MOA) for the TVA project involving a connecting line between a new substation and the Nickajack-Jasper-Raccoon Mountain 161-kV line. The signed copy is attached to this email for signature by Mr. Rogers. Upon his signature, please send the MOA to me. Upon provision of funds to the Kentucky Natural Lands Trust (as described below) and final signature of the MOA and providing it to me, we will consider all requirements pursuant to the Endangered Species Act to be fulfilled for this project.

A check in the amount of \$7,980.00 will need to be made out to the Kentucky Natural Lands Trust (KNLT), and they would appreciate notation of "IBCF" and the Fish and Wildlife Service's TAILS number (14-CPA-0497) on the memo line of the check. It would be helpful if you would provide a copy of the check to me. The check should be sent to KNLT, c/o Hugh Archer, Executive Director, 433 Chestnut Street, Berea, Kentucky 40403.

Feel free to contact me with any questions.

David Pelren
Fish and Wildlife Biologist
Ecological Services
U.S. Fish and Wildlife Service
446 Neal St.
Cookeville, TN 38501
office phone: 931-525-4974
cell phone: 931-261-5844

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