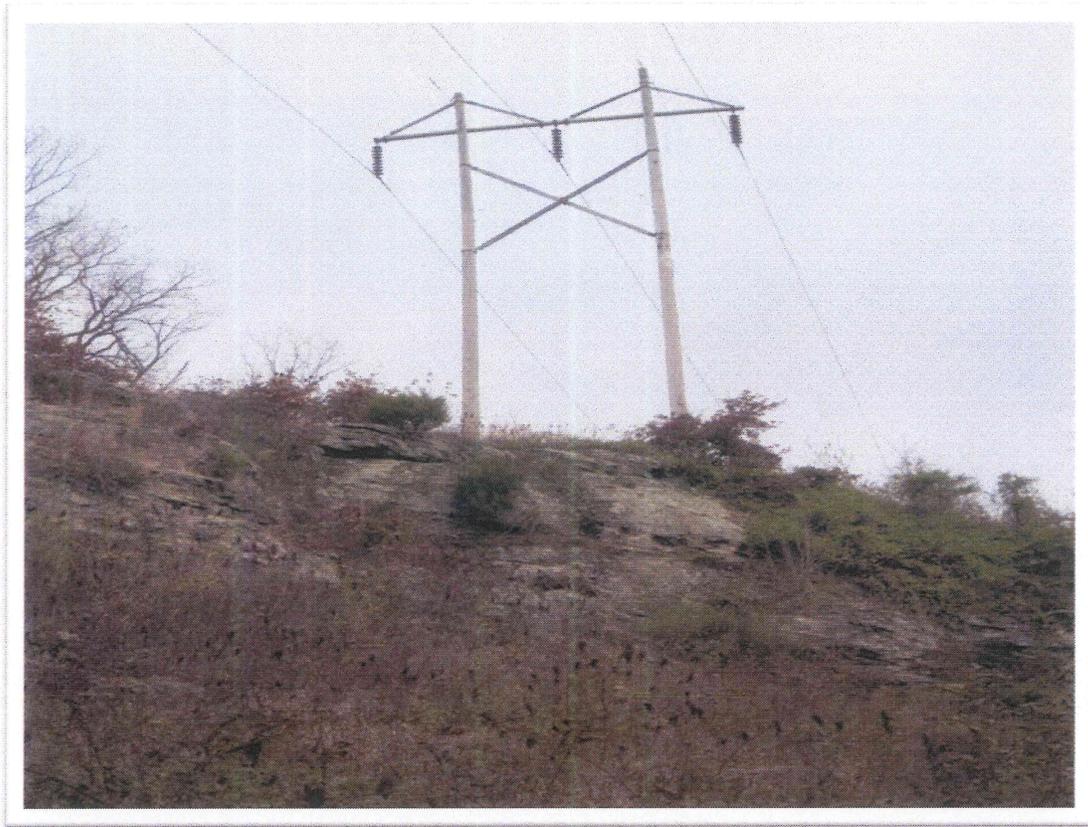




United States Department of Agriculture

Ameren Powerline Reconstruction Project Grand Tower–Makanda North Line Decision Notice



**Grand Tower–Makanda North Line in Township (T) 10 South (S), Range (R) 4 West,
Sections 12, 13; T10S, R3 West, Sections 7, 8, 9, 12, 13, 14, 15, 16, 17, 23, 26, 27;
T10S, R2 West, Sections 7, 8, 9, 10, 11, 15, 16, 17, 18**



Forest Service

Shawnee
National Forest

May
2015

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Ameren Powerline Reconstruction Project
Decision Notice
Shawnee National Forest
May 2015

Responsible Official:

Tim Pohlman, District Ranger
Hidden Springs and Mississippi Bluffs Ranger Districts

Contact Person:

Robert Monroe, District Recreation Program Manager
602 N. First Street, Vienna, IL 62995. (618) 658-1308
robertmonroe@fs.fed.us

Grand Tower–Makanda North Line in Township (T) 10 South (S), Range (R) 4 West, Sections 12, 13; T10S, R3 West, Sections 7, 8, 9, 12, 13, 14, 15, 16, 17, 23, 26, 27; T10S, R2 West, Sections 7, 8, 9, 10, 11, 15, 16, 17, 18

This document and supporting documents can be found on the [Shawnee National Forest Website](#).

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Background

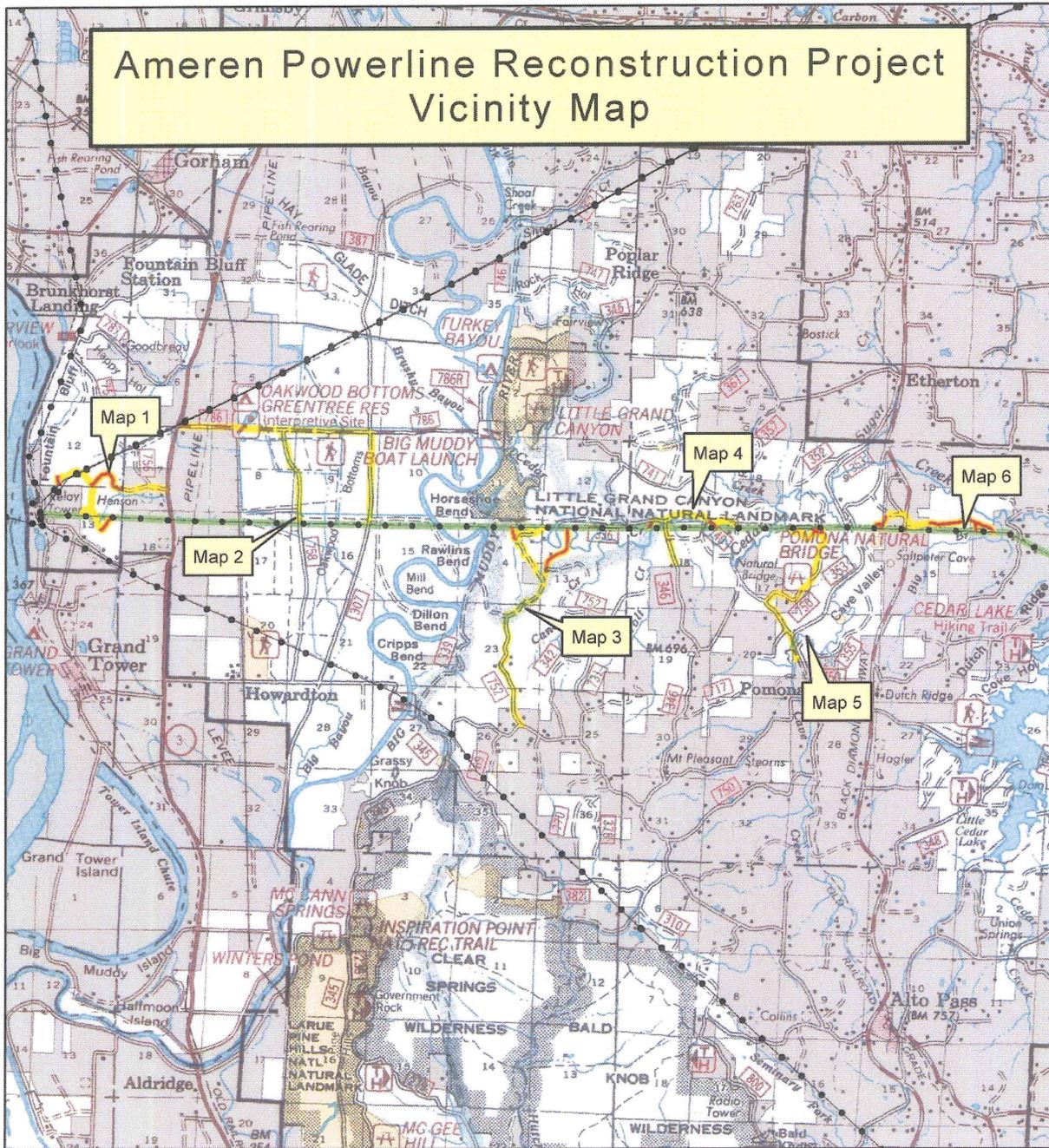
Ameren Illinois Company is a regulated electric and gas delivery company based in Collinsville, Illinois. Their parent company is Ameren Corporation located in St. Louis, Missouri. As a delivery company, Ameren is in the business of energy distribution. It serves about 1.2 million electric and 806,000 natural-gas customers in more than 1,200 communities within a 43,700-square-mile territory. Their complex delivery system includes about 4,500 miles of transmission lines and 45,400 miles of distribution lines. They also have natural gas transmission and distribution mains, and underground natural gas storage fields.

Ameren Services (Ameren), a group within Ameren Illinois Company, identified a need to respond to a number of the North American Reliability Corporation (NERC) concerns, including the amount of ground clearance of powerlines along Ameren's Grand Tower–Makanda, North Line. As part of Ameren's response plan to NERC Alert FAC-008, a survey of existing ground clearances for the Grand Tower–Makanda, North Line was completed in 2012. The engineering evaluation of the survey data identified the need for a higher capacity conductor and greater clearances to meet National Electric Safety Code (NESC) requirements at the rating necessary to support reliability of the Bulk Electric System. In addition, these improvements are necessary to comply with NERC planning standards as determined by Transmission Planning studies.

To address NERC's concerns, Ameren approached the USDA Forest Service, Shawnee National Forest (SNF), and requested to reconstruct the existing utility line (also referred to as the powerline) that crosses National Forest System (NFS) lands and private lands (Figure 1). To accommodate this request, the Forest Service would need to replace an existing special use permit (SUP) with a new land use authorization (LUA) issued to Ameren Illinois Company, the applicant. This new permit would ensure that all operation and maintenance activities associated with the powerline are in compliance with regulation (USFS Special Uses Handbook 2709.11 and USFS Manual 2700). An Operation and Maintenance (O&M) Plan would be included with the permit to provide the necessary oversight of project construction and future operation and maintenance of the utility line and right-of-way (ROW).

To process this special use request, an interdisciplinary team (IDT) of Forest Service resource specialists completed the environmental analysis and prepared an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations, and other relevant federal and state laws and regulations. The Ameren Powerline Reconstruction Project Final EA was the basis for my decision.

The project area is the Grand Tower–Makanda North electric powerline right-of-way as it lies on NFS lands, and includes adjacent NFS and private lands impacted by the decision (Figure 1). It lies in Township 10 South, Range 4 West, Sections 12, 13; Township 10 South, Range 3 West, Sections 7, 8, 9, 12, 13, 14, 15, 16, 17, 23, 26, 27; and Township 10 South, Range 2 West, Sections 7, 8, 9, 10, 11, 15, 16, 17, and 18. The Grand Tower–Makanda North Line consists of about 16.9 miles of 138,000 volt circuit extending from the Grand Tower Switchyard to the Makanda, North Substation. Approximately 9 miles of this powerline is in an existing special use permitted right-of-way within the Shawnee National Forest.



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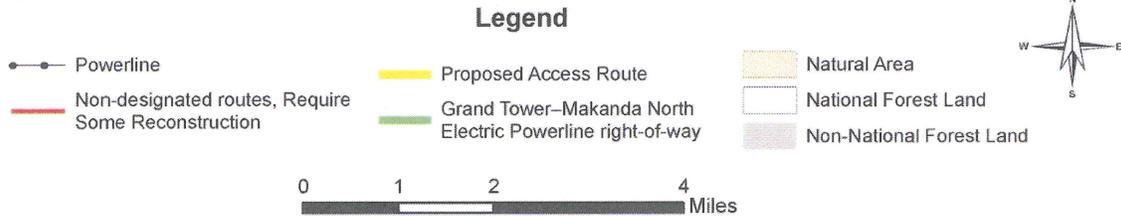


Figure 1. Ameren project vicinity map

Decision

My decision incorporates by reference the Ameren Powerline Reconstruction Project Final Environmental Assessment of May, 2015. Based upon my review of this EA and all supporting material in the project record, I have decided to implement Alternative 2, the Proposed Action.

Ameren will replace the existing powerline conductor with a higher capacity conductor (type 556 ACSS). Approximately 145 existing wooden H-frame structures supporting the powerline, within the ROW, will be replaced with taller structures to obtain adequate ground clearance at the required line rating. Once the poles are installed, the existing wires will be replaced with new wire.

To replace the powerline structures, Ameren will need to access each of the 145 pole locations with, at a minimum, a pole carrier, a drilling truck and two bucket or crane trucks. Most of this access will be gained by driving these vehicles in the existing powerline ROW from one pole location to the next. However, different access routes will be needed where terrain features prevent access along the ROW. A number of existing access routes to the ROW are currently available; no new access routes will be constructed. Nearly all the access routes will require some level of improvements such as spot graveling, cutting back encroaching vegetation (including tree cutting), blading-out existing ruts, installing additional erosion control features, and widening the road bed to support the width of Ameren's work vehicles. Area maps 1 through 6 (Appendix B, attached separately) show the access routes that will be used to reach the ROW, and the level of work needed to prepare these routes for use by the necessary equipment.

Lastly, the Forest will issue a new special use permit to Ameren Illinois Company to authorize the continued use and occupancy of NFS lands administered by the SNF for the purpose of operating and maintaining approximately 9 miles of the Grand Tower–Makanda North Line electric powerline right-of-way. An Operations and Maintenance plan developed as part of the permit will contain specific terms and conditions for authorized activities in the ROW. Forest Plan direction and standards and guidelines will guide implementation. Design criteria (Appendix A) were also developed to further address concerns regarding access routes and ROW use and maintenance; threatened, endangered, and sensitive species and habitat protection; heritage resources protection; erosion control needs for protecting soil, water, and wetlands; invasive species management; and the timing of authorized activities. The special use permit will be issued under the authority granted by Federal Land Policy and Management Act, as amended October 21, 1976, to the applicant, Ameren Illinois Company, for a term of 20 years.

As part of my decision, and for project implementation, Ameren must abide by all state laws. Also, since some access routes will cross private land to reach the ROW corridor, Ameren will be responsible for maintaining the necessary rights-of-way or access permission from these private landowners. Should Ameren's ability to gain access across these private lands change in the future, new analysis would be required to determine what routes will be used as substitutes.

This decision includes my finding of no significant impact (FONSI) in regards to all effects that will result from implementation of the Proposed Action. The FONSI may be found in the EA beginning on page 50.

Decision Rationale

I feel strongly that the new SUP issued to Ameren Illinois Company, the applicant, will allow us to improve our oversight of the improvements to the powerline as well as the continued operation and maintenance of the ROW granted to Ameren. It will enable Ameren to continue to operate a power transmission line within this corridor, thereby enhancing the quality of life and creating economic opportunity in southern Illinois. It will allow for necessary improvements while enabling definitive control over the routes that will be used throughout the life of the permit for access to the ROW; only those routes designated in this analysis will be

used by Ameren for future access. It will define the routes by which Ameren will access the powerline for routine or emergency repairs in the future. As a user of NFS lands for a specific purpose, Ameren must abide by all terms and conditions of the SUP and its O&M plan. A new SUP, with an updated O&M plan, will greatly enhance the SNF's oversight of this permitted use and will reduce impacts to adjacent SNF resources.

Other Alternatives

I also considered the No Action alternative. Under this alternative, the powerline (conductor and wires) and its support structures would not be replaced, nor would a new special use permit be issued. Those structures reaching, or near to reaching, their end-of-life would not be replaced with structures of adequate height and strength; therefore, improvements to the transmission lines identified in the NERC report as necessary for long-term operation of the powerline would not be completed at this time. Fire danger associated with low-hanging powerlines would continue to exist. No access routes would be improved or managed in accordance with best management practices. Current Forest Plan management direction for the project area would continue. Ongoing maintenance, including road maintenance and mowing of the right-of-way, would continue according to the existing special use permit.

I did not feel compelled to select the No Action alternative. There was very little public concern expressed. Three comments were received during scoping and no comments were received during the comment period for the Preliminary EA. All issues raised during scoping and concerns brought forward by the Forest Service IDT will be addressed by careful implementation of design criteria, specifically developed to minimize or eliminate adverse impacts, and Forest Plan standard and guides. We found that no potential serious and unacceptable significant resource effects would occur from implementation of the Proposed Action, and therefore, I am confident in my selection of this alternative.

At some point, Ameren must address the concerns of NERC. Should I have determined that serious resource effects would result from implementation of the Proposed Action, then No Action would have been the appropriate course of action. Ameren would then need to address the conditions or environmental effects that resulted in my no action decision, and another NEPA process (or a supplemental to this process) would have been necessary.

No Action implies that the existing SUP for Ameren's use of the ROW will remain in effect. There is a need to update this SUP, and my decision will facilitate that and thus, will greatly enhance the SNF's oversight of this permitted use.

Public Involvement

In April, 2014, the Forest mailed notice to about 265 individuals and governmental and non-governmental organizations regarding the proposed Ameren Powerline Reconstruction Project and asked for comments on the proposal. The scoping letter, attachments and maps were posted on the Forest's website. The proposal has also been listed on the SNF's Schedule of Proposed Actions (SOPA), available on the Forest's website.

Three scoping responses were received and analyzed by the IDT to identify issues. One letter, from the State of Illinois Department of Natural Resources (IDNR), raised a number of concerns. A letter from the Illinois Nature Preserves Commission encouraged the Forest to support the recommendations put forth by IDNR. A third anonymous comment simply offered a suggestion to consider improving habitat for butterflies while performing work on access roads and the powerline ROW. I, as Responsible Official, and members of the IDT have dialogued and worked with the State of Illinois on their concerns throughout the analysis.

The IDT identified six key issues during public scoping. They primarily captured concerns about threatened, endangered, and sensitive species as noted by the IDNR. These issues focused the environmental effects analysis on the relevant resources of concern. All issues have been addressed by incorporating design criteria

(see Appendix A, Design Criteria). These design criteria are mandatory, and will be implemented along with Forest Plan standards and guidelines.

The Preliminary EA for Public Comment was released in November, 2014. A formal 30-day comment period for that EA ran from November 14 through December 15, 2014. No public comments were received, thus, no further issues were developed.

Findings Required By Law and Regulation

This section provides my findings associated with the Ameren Powerline Reconstruction Project in regards to compliance with appropriate laws and regulations.

National Forest Management Act Compliance

Forest Plan Consistency; 16 U.S.C. 1604(i) (Sec. 6, NFMA)

The National Forest Management Act (NFMA) requires the development of long-range land and resource management plans, and that all site-specific project activities be consistent with direction in the plans. The SNF Land and Resource Management Plan (Forest Plan) was completed and approved in 2006 as required by NFMA. The Forest Plan provides the direction for all resource management activities on the SNF

As required by NFMA Section 1604(i), I find my decision to be consistent with the Forest Plan including goals, objectives, desired future conditions, and Forest-wide and Management Area Standards and Guidelines. Implementation of the project will be consistent with management area direction for the Even-aged Hardwood Forest, Oakwood Bottoms Greentree Reservoir, Mississippi and Ohio Floodplain, Candidate Wild and Scenic River, Natural Area, Mature Hardwood Forest, Cave Valley and Heritage Resource Significant Site management areas (MAs). This decision tiers to the Record of Decision for the Forest Plan Final Environmental Impact Statement (FEIS) dated March 2006. All of the expected impacts from this project are consistent with, and within the range of, the impacts disclosed in the Forest Plan FEIS.

My decision is based on the best available science, including a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk. No scientific information presented to the agency by the public was overlooked or ignored.

Lands Suitable for Harvest; 16 U.S.C. 1604(k) (Sec. 6, NFMA) and Appropriateness of Even-Aged Timber Management; 16 U.S.C. 1604(f) (Sec. 6, NFMA)

The tree cutting necessary for the Ameren project is unrelated to lands suitable for timber production. The tree cutting will only be done to improve access routes needed to allow vehicles to reach the ROW. There will be no commercial harvesting and no direct vegetation management for timber purposes. Hence, a determination of the appropriateness of even-aged timber management is not needed.

Endangered Species Act Compliance; 16 U.S.C. 1531-1536, 1538-1540

The Endangered Species Act requires that federal activities do not jeopardize the continued existence of any species federally listed or proposed as threatened or endangered, or result in adverse modification to such species' designated critical habitat. In accordance with Section 7(c) of this Act, a report of the listed and proposed, threatened, or endangered species that may be present in the project area was reviewed.

As required by the Endangered Species Act, a Biological Evaluation (BE) for animals and plants was completed for proposed, threatened or endangered species for the Ameren Powerline Reconstruction Project. This BE was signed by the U.S. Fish and Wildlife Service on January 12, 2015; they concurred with our

determination of effects for all threatened and endangered plants and animals as displayed in our biological evaluation of the proposal. This document is available in the project record.

Animals:

The BE and EA looked at five federally listed or proposed as threatened or endangered species. It was determined that there will be No Effect to pallid Sturgeon. It was also determined that the selected activities May Affect, Not Likely to Adversely Affect the Indiana bat, gray bat, northern long-eared bat, and least tern (Final EA, p. 32).

Plants:

Mead's milkweed (*Asclepias meadii*) is the only plant species federally listed (threatened) and known to occur on the Forest; however, it was not found in any areas where activities are proposed. Therefore, implementation of my decision will have no effect on any proposed, threatened or endangered plant species or their critical habitat (Final EA, p. 39).

With application of Forest Plan standards and guidelines and careful implementation of design criteria described in Appendix A of this document (see below), there will be no adverse impacts to threatened and endangered animals and plants.

Regional Forester's Sensitive Species

Forest Service Manual (FSM) 2670 direction requires analysis of potential impacts to sensitive species, those species for which the Regional Forester has identified that population viability is a concern. These species are listed as Regional Forester's Sensitive Species (RFSS). The EA evaluated 38 animal species, including a number of bat species and the timber rattlesnake. Determinations ranged from No Effect to May Impact Individuals, but is Not Likely to Cause a Trend toward Federal Listing or a Loss of Viability (Final EA, pp. 32-34).

A total of 83 RFSS plants were evaluated. A specialist report included in the project record, entitled Biological Evaluation, Regional Forester's Sensitive Plant Species fully details the evaluations. Species that are potentially affected by my decision are described in the Final EA on pages 39 to 41. Design criteria (Appendix A, Botany section) including surveying for, marking locations, and avoidance will minimize or eliminate adverse impacts. Any impacts to these populations will not cause a loss of viability to these species that would lead to a trend toward federal listing.

With application of Forest Plan standards and guidelines and careful implementation of design criteria described in Appendix A of this document, there will be no adverse impacts to RFSS.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires public involvement and consideration of potential environmental effects. The entirety of documentation for this decision supports compliance with this Act including Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR 1500-1508).

Clean Water Act

The intent of the Clean Water Act is to restore and maintain the integrity of waters. The Forest Service complies with this Act through Forest Plan Standards and Guidelines, specific project design criteria, and mitigation measures to ensure protection of soil and water resources (Final EA, Soil and Water Resources, pp. 46-49; Appendix A below, Soil and Water Resources section).

National Historic Preservation Act; Archeological Resources Protection Act; and Native American Graves Protection and Repatriation Act

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. It also requires federal agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment.

The Archeological Resources Protection Act covers the discovery and protection of historic properties (prehistoric and historic) that are excavated or discovered in federal lands. It affords lawful protection of archaeological resources and sites that are on public and Indian lands.

The Native American Graves Protection and Repatriation Act addresses the discovery and protection of Native American human remains and objects that are excavated or discovered on federal lands. It encourages avoidance of archaeological sites that contain burials or portions of sites that contain graves through “in situ” preservation, but may encompass other actions to preserve these remains and items.

The Ameren Powerline Reconstruction Project is in compliance with these Acts. A detailed survey of the project area has been completed. A letter of concurrence regarding our initial recommendations for all 19 historic properties was received from the State Historic Preservation Officer (SHPO) on November 2, 2014 stated that they have no objection to the “undertaking proceeding as planned.” During these initial surveys, one site was found that is potentially eligible for inclusion on the NRHP and cannot be avoided during project implementation. An evaluation of the site against the NRHP criteria was completed. The Forest Service analysis of the material recovered from the site evaluation excavations determined that the site is not eligible for inclusion on the NRHP. The report for this completed site evaluation will be forwarded to the SHPO for further concurrence; until concurrence is received from the SHPO, no earth-disturbing activities will occur at the site (Final EA, pp. 42-44).

With final SHPO concurrence, and the application of Forest Plan standards and guidelines and design criteria (Appendix A, Heritage Resources section), there will be no adverse impacts to any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register; to historic properties; or to archaeological sites.

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act institutes a National Wild and Scenic Rivers System that includes selected rivers which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. It provides for them to be preserved in a free-flowing condition, and that they and their immediate environments will be protected for the benefit and enjoyment of present and future generations.

The Ameren Powerline Reconstruction Project is in compliance with this Act. Some segments of the Big Muddy River are located within the Candidate Wild and Scenic River MA. Forest Plan standards and guidelines, design criteria, and the Storm Water Pollution Prevention Plan provided by Ameren will eliminate or reduce the impacts, and thus not jeopardize the Big Muddy’s status of the river as a Candidate Wild and Scenic River.

Wetlands (Executive Order 11990)

Executive Order 11990 directs the agency to avoid to the extent possible the adverse impacts associated with the destruction or modification of wetlands, and to avoid support of new construction in wetlands wherever there is a practical alternative.

The Ameren Powerline Reconstruction Project is in compliance with this Executive Order. Wetland areas and the effects of the selected activities on wetlands are described in the Final EA in various locations within the Wildlife and Aquatic Resources section (beginning on p. 13) and the Soil and Water Resources section (beginning on p. 44). With application of Forest Plan standards and guidelines and careful implementation of design criteria described in Appendix A of this document (see below, Wildlife and Aquatic Resources and Soil and Water Resources sections), there will be no adverse impacts to wetlands.

Floodplains (Executive Order 11988)

Executive Order 11988 directs the agency to avoid to the extent possible the adverse impacts associated with the occupancy and modification of floodplains, and to avoid support of floodplain development wherever there is a practical alternative.

The Ameren Powerline Reconstruction Project is in compliance with this Executive Order. I have identified 12 locations susceptible to flooding and difficult to reach for maintenance where “hybrid” (concrete base, steel top) poles and a polymer slurry drilling method must be used in place of wooden poles to minimize impacts (see Final EA, pp. 6-7). With application of Forest Plan standards and guidelines and careful implementation of design criteria described in Appendix A of this document (see below, Soil and Water Resources section), there will be no adverse impacts to floodplains.

Environmental Justice (Executive Order 12898)

Executive Order 12898 requires federal agencies to respond to the issue of environmental justice by identifying and addressing disproportionately high and adverse human activities on minority and low income populations. Ethnic minorities are defined as African Americans, American Indian and Alaska Native, Asian, Hispanic or Latino, and Native Hawaiian and other Pacific Islanders. Low income persons are defined as people with incomes below the federal poverty level, which is currently defined as \$23,850.00 for a family of four.

According to “Social Assessment of the Shawnee National Forest” completed in 2003, several key characteristics distinguish southern Illinois from the rest of the state. Perhaps the most striking is the level of poverty in the region. Southern Illinois, still recovering from job losses due to coal mine closings, had relatively high rates of unemployment in 2000; Jackson and Massac counties had the lowest rates in the region. The area is also characterized by low population density and declining population.

Although the area is marked by high unemployment, high poverty rates, and lower than average minority numbers, my decision is limited to NFS lands, and potential effects resulting from the selected activities will not affect residents bordering NFS lands, including minority or low-income populations. The project design criteria (see Appendix A, below) and implementation of Forest Plan standards and guides will ensure that the proposed activities will have little or no effect on neighboring private property or on the health and safety of forest visitors or on the health of minorities or low-income individuals. This decision is not expected to adversely impact minority or low-income populations.

Other Relevant Laws

I have considered other relevant laws and regulations that this decision may affect. I have fully considered the effects of this decision on the public, as well as the public’s issues and concerns brought forward during the public comment periods and feel that these issues have been adequately addressed in the Final EA, its appendices, and in this Decision Notice. I have determined that my decision to implement the Proposed Action alternative of the Ameren Powerline Reconstruction Project meets all applicable laws, regulations, and policies, as well as Forest Service direction and guidance as outlined in the Forest Service Manuals and Handbooks.

Additional Information

Implementation Date

The objections period to the draft decision notice, pursuant to 36 CFR 218, Subparts A and B, ended on April 22, 2015. There were no objections filed. Implementation of the Ameren Powerline Reconstruction Project may begin once this final decision notice is signed.

Responsible Official And Contact

I, Timothy Pohlman, District Ranger, am the Responsible Official for the Ameren Powerline Reconstruction Project. Feel free to contact me regarding my decision. For general information about the project, please contact Robert Monroe, District Recreation Program Manager, 602 N. First Street, Vienna, IL 62995; (618) 658-1308; robertmonroe@fs.fed.us (email).

The detailed planning record for the Ameren Powerline Reconstruction Project is available for public review at the Shawnee National Forest Supervisor's Office, 50 Highway 145 South, Harrisburg, Illinois.

 5/20/15

TIMOTHY POHLMAN
Forest District Ranger
Shawnee National Forest

Date

Appendix A – Design Criteria

The following measures are summarized from discussion in Chapter 3 of the EA and are presented by resource area:

Access Routes and Transportation System

Note: Please see other resources areas for other specific measures that apply to access routes.

- Traffic control measures will be used as appropriate to provide for user and construction staff safety. Signing shall be in accordance with the Manual on Uniform Traffic Control Devices.
- Applicable National and State best management practices, Forest Plan standards and guidelines, and project design criteria will be used during implementation to minimize adverse effects to access routes related to soil compaction, erosion, and runoff.
 - ◆ Forest Service National BMPs: http://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf
 - ◆ Illinois BMPs: http://web.extension.illinois.edu/forestry/timber_harvest/forestry_bmps.html

Heritage and Cultural Resources

- Monitor to determine the effects, if any, of increased public use in regards to five potentially affected sites. If monitoring determines that sites are being affected by public users, the travel ways will be modified to avoid the impact.
- In consultation with the State Historic Preservation Officer, a section 106 evaluation was completed for the one site that cannot be avoided during project implementation to determine its eligibility for inclusion on the National Register of Historic Places (NRHP). It was determined that the site is not eligible for inclusion. A report is being prepared and will be forwarded to SHPO for concurrence. If SHPO concurs, no further mitigation will be needed. If SHPO determines that the site does have the ability to contribute meaningful information about the prehistory of the area, further excavation and mitigation may be necessary to protect the archaeological material from potentially damaging project work activities. Mitigation will relocate the power pole to a different location on the ROW. No earth-disturbing work will occur until SHPO makes its final determination for this site.

Botany

- Ensure that the long-term viability of rare plant resources is not threatened by mechanical treatments. Where threatened, endangered, or sensitive species cannot adapt to the mechanical disturbance or will have negative impacts to known populations, plants will be protected through the use of barriers and avoidance during project implementation.
- Ameren officials will work with the Forest Service Botanist to provide barriers to one population of *Dodecatheon frenchii* (French's shooting star) and one population of *cv Matelea obliqua* (Climbing milkweed) to avoid damaging or destroying these populations along FR 741A. Sites will be monitored to ensure avoidance.
- Follow Forest Plan standards and guides pertaining to washing equipment to prevent spread of NNIS.

Soil and Water Resources

- Operate equipment only when soils are dry enough, or frozen enough during winter season, to support equipment. Operations should cease before rutting becomes excessive (greater than about 8 inches in depth). Postpone work until ground conditions improve or temporary measures such as matting are implemented to reduce impacts.
- Use of heavy equipment in wet areas should be avoided to the extent possible, as stated above, to avoid excessive rutting. These wet areas are most likely associated with structure numbers 21 through 45; 53, 57, 58, 60 through 63; 65 through 69; 75 through 78; 85, and 86. Postpone work in such areas until ground conditions improve. As necessary, use construction matting and low ground pressure equipment to minimize impacts.
- Areas of exposed soil shall be leveled, seeded with a Forest Service-approved seed mix, and mulched. Seeding, seeding mixtures, and fertilizer requirements are specified in the SNF Forest Plan on pages 208-212. Ameren and its agents shall work closely with the Forest Service to ensure that correct seeding protocols are followed. Any alternative seed mixtures or protocols, including native plant seed mixtures provided by IDNR, which could include seeds favorable to pollinators, shall be approved by the Forest Service before use.
- Seeding and mulching shall be employed to establish ground cover according to Forest Service specifications to reduce erosion and provide cover over disturbed areas while plants are germinating.
- To the extent possible, avoid equipment maintenance and fueling in areas with hydric soil. Hydric soils are associated with structure locations 21 through 45, 66, 67, 75, 77, 78, and 85.
- All refueling operations shall use the following guidelines from the Illinois BMP manual. Ameren shall include the following direction in their Spill Prevention Plan. The Plan will be incorporated into the special use permit O&M plan:

Handling fuels, lubricants, and waste in the field:

- ◆ Maintain equipment regularly. Check hoses and fittings daily to prevent leaks or spills.
- ◆ Designate specific areas for equipment maintenance and fueling. Locate these areas on level terrain, a minimum of 100 feet from all streams and lakes.
- ◆ Collect all waste lubricants, containers and trash. Store them in leak-proof containers until they can be transported off-site for recycling, reuse, or disposal at an approved site. Note that it is illegal to dump fuel, lubricants, and used oil on the roads, land, or waters in Illinois.
- ◆ Separate all fluids and materials and keep in different labeled containers to avoid creating "hazardous waste" and expensive waste disposal.

Spills:

- ◆ Equipment should be properly maintained to prevent spills.
- ◆ Maintain a spill-containment and cleanup kit appropriate for the materials on the operation. At a minimum, a kit for petroleum products should include:
 - Plugs and clamps to control a hydraulic line break.
 - A container to catch leaking fluid.
 - A shovel to be used to construct any necessary containment structures.
 - Absorbent material such as sawdust to absorb fluid, especially useful in the winter when soil is frozen.

If a spill should occur, do the following in order:

- ◆ Protect yourself and others. Wear protective clothing and equipment appropriate for any hazardous materials on the operation. Avoid coming in contact with any toxic drift or fumes that may be released.
- ◆ Stop the leak and attempt to control the spill.
- ◆ Attempt to contain the spill and keep it from spreading. Shovel a dike around the spill. Use absorbent material, such as sawdust or loose soil, to soak up fluid. Place a bucket under a hydraulic hose break. Prevent the spill from flowing into lakes or streams.
- ◆ Isolate the spill material.
- Keep construction equipment out of stream channels and employ crane mats, temporary bridges or equivalent for perennial or intermittent streams. Minimize the number of stream crossings and make crossings at right angles to stream channels. Forest Service specialists will work with Ameren and its agents to identify appropriate stream crossings.
- Silt fencing, fiber rolls, and/or wattles shall be used as needed to reduce sedimentation and erosion at stream crossings.
- Work on levees shall be monitored. Rock shall be placed in extremely soft areas. Repairs shall be made during replacement activities and permanent repairs shall take place once the work has been completed.
- Water bars shall be constructed for erosion protection for outflows from road drainage structures to minimize erosion and disperse the water. Use the table below as a guide.
- Grade of road distance between water bars:

(Percent)	(Feet)
1	400
2	250
5	130
10	80
15	50
20	45
25+	40

- Soil or other material stockpiles shall not be kept less than 25 feet from roadways, ditches, creeks, streams, sinkholes, and wetlands.

Site restoration design features for soil and water resources:

- Unless otherwise directed in the Storm Water Pollution Prevention Plan (SWPPP), final grading shall be completed and broadcast temporary (annual) seed and permanent (perennial) seed shall be applied as soon as possible after the large disturbance activities are complete.
- Final seeding will include the preparation of a proper seedbed. The site will be tilled two to four inches depth of loose friable soil. As needed, the soil may be tested to determine the best procedure and materials. Seeding, seeding mixtures, and fertilizer will be done as directed in the SNF Forest Plan on pages 208-212.

Wildlife and Aquatic Species

While the following measures are designed to reduce impacts, harm or harassment to individuals may still occur and implementation does not exempt Ameren from compliance with state laws and regulations. Also, the Illinois DNR may pose additional conditions to which Ameren must comply.

Forest Dwelling Bats:

- All standing or leaning dead or alive trees greater than five inches diameter at breast height (dbh) that are suitable bat roost trees will be retained unless removal is necessary for human safety or to accomplish project objectives (e.g. new road construction). If a suitable bat roost tree must be cut, it will not be removed between April 1 and November 15 unless it is evaluated and/or surveyed to confirm non-use by roosting bats and documented in a biological evaluation. The evaluation and determination of non-use by roosting bats must be conducted by a person able to demonstrate to the Forest Service that they have the necessary skills and experience to evaluate suitable Indiana bat roost trees and to conduct appropriate surveys.
- Suitable bat roost trees are defined as follows: standing or leaning hardwood or conifer trees that are alive or dead, greater than five inches dbh and have any of the following features: broken tops greater than five inches dbh, dead trunks greater than five inches dbh in multi-trunked trees, dead limbs greater than five inches dbh, sloughing bark, cavities, cracks, splits, crevices, or knot holes.

Timber Rattlesnake:

- When soil conditions are such that rutting can be minimized, construction should occur during the denning season, or between November 15 and April 1. When construction for pole replacement occurs outside this period, the following shall be implemented:
 - ◆ A team of qualified individuals shall be used to identify and relocate snakes that are found within or immediately adjacent to work locations. Crews shall check for snakes daily as they move in and out of work locations or more often if moving from one location to the next.
 - ◆ Equipment operators and drivers shall be on the lookout for rattlesnakes on the road as they travel to and from the ROW. Retain a driving speed of 15 mph or less and move snakes if necessary.
 - ◆ Crews and equipment must remain on access roads within the ROW corridor when moving from pole to pole to minimize the likelihood of snakes being run over.
- In order to reduce the likelihood that a snake will be harmed during maintenance and mowing of the ROW, activities shall be conducted as follows:
 - ◆ Within core habitat or lands with documented foraging, (see Figure A- 1), use of mechanized equipment will be restricted to the denning period, which is November 15 and April 1.
 - ◆ Outside of core/foraging habitat, (see Figure A- 1), use of mechanized equipment will only occur between October 16 and April 30.
- Equipment suitable for wet conditions will be utilized when necessary. During emergency maintenance operations, attempt, as practical, to relocate individual snakes that would be endangered by emergency repairs.

Bald Eagle:

- Disturbance is prohibited within 300 feet of each occupied eagle nest and consultation with the Fish and Wildlife Service is required prior to removal of inactive nests.
- Significant changes in the landscape are prohibited within 600 feet of an occupied eagle nest.
- Management activities that could result in adverse disturbance to nesting birds shall be restricted within 1,300 feet of an eagle nest during the nesting period.
- There are no known nests within 1,320 feet of proposed activities. Should a new nest be identified, the USFWS shall be contacted and restrictions or mitigations identified if necessary.