



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 20, 2012

Mr. Tom Melius
Midwest Regional Director
U.S. Fish and Wildlife Service
1 Federal Drive
Ft. Snelling, MN 55111

SUBJECT: REQUEST FOR CONCURRENCE WITH LIST OF FEDERALLY PROTECTED SPECIES AND HABITATS FOR THE PROPOSED CALLAWAY PLANT LICENSE RENEWAL

Dear Mr. Melius:

The U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing an application to renew the operating license for the Callaway Plant, Unit 1 (Callaway) located in Fulton, Missouri. Union Electric Company, a subsidiary of Ameren Corporation and doing business as Ameren Missouri (Ameren), submitted its application for renewal to the NRC in a letter dated December 19, 2011, pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54). If approved, the license renewal would authorize Ameren to operate Callaway for an additional 20 years beyond the current licensing period, which expires October 24, 2024.

Ameren corresponded with the U.S. Fish and Wildlife Service (FWS) concerning Federally protected species under the Endangered Species Act of 1973, as amended (ESA) in April 2010 (Enclosure 1) while it was in the process of compiling its license renewal application. In your June 2010 response (Enclosure 2), you indicated that the proposed license renewal is unlikely to adversely affect any Federally listed species and that the FWS has no major concerns with the potential effects of continued operation of Callaway.

The purpose of this letter is to seek updated information, if applicable, to aid the NRC staff's assessment of potential impacts to Federally listed species that could result from the proposed license renewal.

Project Description

The proposed license renewal would include continued operation and maintenance of the Callaway plant and four transmission lines. Ameren does not plan to construct any new buildings, transmission lines, or undertake any other land-clearing or ground-disturbing activities as part of the license renewal.

Callaway lies approximately 10 miles southeast of Fulton, Missouri, and 80 miles west of the St. Louis metropolitan area. The Callaway site is 7,354 acres and lies in a predominantly rural area. Power generating facilities, including the containment building, a natural draft cooling tower, a switchyard, a retention pond, a water treatment plant, and other associated buildings and infrastructure occupy 512 acres (see Enclosure 3). The Missouri Department of Conservation (MDC) manages 6,300 acres of the site as the Reform Conservation Area, much of which is open to the public for hiking, birding, hunting, and fishing. The MDC also manages

this area to conserve natural habitats and remove invasive plant species. The remaining site land consists of deciduous forest, grassland/pasture, and cropland.

Callaway is a single-unit pressurized water reactor plant that uses a closed-cycle cooling water system. Callaway withdraws about 14,000 to 17,000 gallons per minute of water from the Missouri River for cooling purposes. Water travels through pipes approximately five miles north from the Missouri River to the plant. The cooling water intake system includes vertical traveling screens and fish escape openings in the side walls, but no fish-return system. Heated water is discharged to a natural draft cooling tower, and water that does not evaporate returns to the Missouri River as blowdown.

Ameren constructed four transmission lines to connect Callaway to the power grid (see Enclosure 4). Montgomery lines #1 and #2 extend northeast for 23.2 miles to a substation near Florence, Missouri. The Bland line extends 31.5 miles southeast to a substation north of Owensville, Missouri. The Loose Creek line extends 23.3 miles southwest to a substation near Loose Creek, Missouri. The transmission line corridors pass through land that is primarily forested and farmland.

Federally Listed Species

To ensure compliance with the ESA, the NRC staff will consider effects of the proposed license renewal on Federally listed species and document its analysis in an environmental impact statement.

During its preliminary review, the NRC identified 11 Federally listed species that may occur in the vicinity of Callaway. In addition to those species identified by Ameren in its 2010 correspondence with FWS, the NRC identified three mussel species that the FWS has recently listed that occur in the vicinity of Callaway: sheepsnose (*Plethobasus cyphus*), snuffbox (*Epioblasma triquetra*), and spectaclecase (*Cumberlandia monodonta*). The NRC did not identify any designated critical habitat on the Callaway site or along the associated transmission line corridors. The NRC also did not identify any proposed species or proposed critical habitat in the vicinity of Callaway. Enclosure 5 is a table of Federally listed species.

Conclusion

The NRC requests your concurrence with its table of Federally listed species per 50 CFR 402.12(d). The NRC also requests any additional information that you may have on Federally listed species and designated critical habitats that might aid the staff in its review.

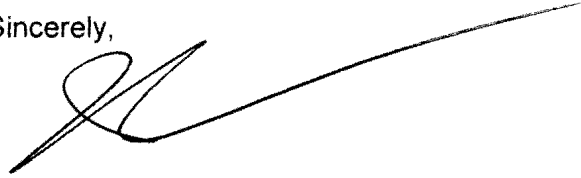
The Callaway license renewal application is available on the internet at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/callaway.html>. If you have any questions or require additional information regarding the project, please contact Carmen Fells, Project Manager, by phone at 301-415-6337 or by e-mail at Carmen.Fells@nrc.gov. For questions specific to Federally protected species or the ecology review, please contact Briana Balsam, Biologist, by phone at 301-415-1042 or by e-mail at Briana.Balsam@nrc.gov.

T. Melius

- 3 -

I have also sent a copy of this letter to Ms. Amy Salveter, Field Supervisor, FWS Columbia Missouri Field Office. I understand that Ms. Salveter replaced Mr. Charlie Scott, who was Ameren's main point of contact related to threatened and endangered species during Ameren's preparation of its license renewal application in 2010.

Sincerely,

A handwritten signature in black ink, appearing to be 'J. Susco', with a long horizontal line extending to the right.

Jeremy J. Susco, Acting Chief
Environmental Review and
Guidance Update Branch
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures:
As stated

cc w/encls: Listserv

Ameren Services

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April 16, 2010

Charlie Scott, Field Supervisor
U.S. Fish and Wildlife Service
Columbia Missouri Field Office
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057



RE: Callaway Unit 1 License Renewal--Request for Information on Threatened or Endangered Species

Dear Mr. Scott:

In late fall 2011, AmerenUE plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating license for Callaway Unit 1 in Callaway County, Missouri. The existing operating license for Callaway Unit 1 was initially issued for a 40-year term that will expire in 2024. License renewal would extend the operating period for the plant by 20 years beyond the expiration of the existing license.

The NRC requires each applicant for renewal of an operating license to submit an Environmental Report describing potential environmental impacts from license renewal and from operation during the renewal term. Accordingly, the NRC requires [10 CFR 51.53(c)(3)(ii)(E)] that the Environmental Report for each license renewal application assess impacts to threatened and endangered species in accordance with the Endangered Species Act. The NRC will use this assessment in its review of the project pursuant to the National Environmental Policy Act (NEPA) and to determine the appropriate level of consultation (informal or formal) under Section 7 of the Endangered Species act.

We are contacting you now in order to obtain input regarding issues of concern to your office and to identify any information your staff believes would be helpful to expedite the Section 7 consultation.

Callaway Unit 1 is located in Callaway County (Figures 1 and 2), approximately five miles north of the Missouri River. The 7,350-acre site lies in a largely rural area dominated by deciduous forests, grassland/pasture, and cropland. Approximately 512 acres of the site property consists of the power generating facilities and associated infrastructure. Most of the remaining land consists of deciduous forest (approximately 47%), grassland/pasture (approximately 30%),

» subsidiary of Ameren Corporation

Enclosure 1

and cropland (13%) (Figure 3). Much of the Callaway site (approximately 6,300 acres) is managed by the Missouri Department of Conservation as the Reform Conservation Area. Most of the managed land is open to the public for multiple uses, including hiking, birding, hunting, and fishing. The MDC also manages this area by conserving natural habitats and removing invasive exotic plant species.

The transmission lines built to connect Callaway Unit 1 to the grid are approximately 72 miles in length and occupy three main corridors (Figure 4): identified here as Northern (2 lines combined in one corridor), Southwestern, and Southeastern (Figure 4). The two southerly corridors depart the site as a combined corridor that crosses the Missouri River prior to splitting into two divergent corridors. For the most part, all corridors pass through deciduous forests, agricultural lands and pasture/rangeland. No lands designated by the USFWS as "critical habitat" for endangered or threatened species are crossed by these corridors, nor do they cross any state or federal parks, wildlife refuges or preserves, or wildlife management areas, other than the Reform Conservation Area within the Callaway site.

Based on a review of information on the Missouri Department of Conservation (MDC) and U.S. Fish and Wildlife Service (USFWS) websites (county lists of threatened and endangered species) and previous on-site surveys, AmerenUE believes that only one special-status species, the federally-protected bald eagle, occurs on the Callaway site. The bald eagle is occasionally observed on the Callaway site, typically near the Missouri River, and nesting by the species has been documented in the four counties containing the site and its transmission lines. Two bat species, gray and Indiana bats, are federally endangered and occur in the four counties. Neither species has been observed on Callaway property, although a gray bat has been documented in a cave along an off-site segment of Auxvasse Creek. Three federally-listed fish species occur or have occurred in the four counties associated with the site/transmission corridors. The pallid sturgeon has been documented on occasion in the Missouri River near the Callaway Plant outfall. Topeka shiners were found in nearby Auxvasse Creek in 1945, but have not been found there since that time. Niangua darters are restricted to the Osage River watershed (Osage County, crossed by transmission corridor). Also, three species of federally-listed mussels may occur in the Missouri River and/or associated tributaries (Table 1), but none has been collected near Callaway property. Several other federal and state-protected plants and animals are listed for the counties containing Callaway and its associated transmission corridors (see Table 1).

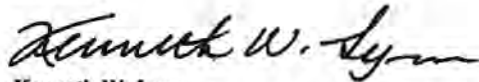
AmerenUE does not expect Callaway Unit 1 operations during the license renewal term to adversely affect threatened or endangered species because license renewal will not alter existing operations. No expansion of existing facilities is planned, and no structural modifications or refurbishment activities have been identified that are necessary to support license renewal. Maintenance activities during the license renewal term would be restricted to previously disturbed areas. The company associated with transmission line maintenance and transmission corridor management has established procedures that involve minimal disturbance of land,

wetlands, and streams and thus are unlikely to adversely affect any threatened or endangered species.

After your review of the information provided in this letter, we would appreciate your sending a letter detailing any concerns you may have about any listed species or critical habitat in the area of the Callaway Unit 1 site and the associated transmission corridors, or alternatively, confirming our conclusion that operation of Callaway Unit 1 over the license renewal term would have no effect on any threatened or endangered species, if possible, no later than June 10, 2010. AmerenUE will include copies of this letter and your response in the Environmental Report that will be submitted to the NRC as part of the Callaway Unit 1 license renewal application.

Please do not hesitate to contact me if there are questions or you need additional information to complete a review of the proposed action. Thank you in advance for your assistance.

Sincerely,



Kenneth W. Lynn
Consulting Environmental Scientist

Attachments: Table 1, Figures 1, 2, 3 and 4

Table 1. Protected species in the counties containing the Callaway Plant and its associated transmission lines.

Group		Federal/State Status ¹ By County			
Common Name	Scientific Name	Callaway	Montgomery	Osage	Gasconade
Amphibian					
Eastern Hellbender	<i>Cryptobranchus alleganiensis</i>	-/-	-/E	-/E	-/E
Bird					
Northern Harrier	<i>Circus cyaneus</i>	-/E	-/E	/E	-/E
Bald Eagle	<i>Haliaeetus leucocephalus</i>	P ² /-	-/-	P ² /-	-/-
Fish					
Lake Sturgeon	<i>Acipenser fulvescens</i>	-/E	-/E	-/E	-/E
Crystal Darter	<i>Crystallaria asprella</i>	-/-	-/-	-/-	-/E
Niangua Darter	<i>Etheostoma nianguae</i>	-/-	-/-	E/E	-/-
Topeka Shiner	<i>Notropis topeka</i>	T/-	-/-	-/-	-/-
Flathead Chub	<i>Platygobio gracilis</i>	-/E	-/E	-/E	-/E
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	E/E	E/E	E/E	E/E
Mammals					
Gray Bat	<i>Myotis grisescens</i>	E/E	-/-	E/E	E/E
Indiana Bat	<i>Myotis sodalis</i>	E/E	E/E	-/-	E/E
Mollusks					
Spectaclecase	<i>Cumberlandia monodonta</i>	-/-	-/-	C/-	C/-
Elephantear	<i>Elliptio crassidens</i>	-/-	-/-	-/E	-/E
Ebonyshell	<i>Fusconaia ebera</i>	-/-	-/-	-/E	-/E
Pink Mucket	<i>Lampsilis abrupta</i>	-/-	-/-	E/E	E/E
Scaleshell	<i>Leptodea leptodon</i>	-/-	-/-	E/E	E/E
Plants					
Running Buffalo Clover	<i>Trifolium stoloniferum</i>	E/E	E/E	-/-	-/-

¹ Federal/State protected status: E = listed as endangered under federal/state law within this county, T = threatened, C = candidate species, and "-" = not listed.

² P: bald eagles are no longer protected under the Endangered Species Act, but still receive federal protection under the Bald and Golden Eagle Protection Act.

Figure 1: 50-Miles Radius Surrounding the Callaway Plant Site



Figure 2: Callaway Plant Site Boundary

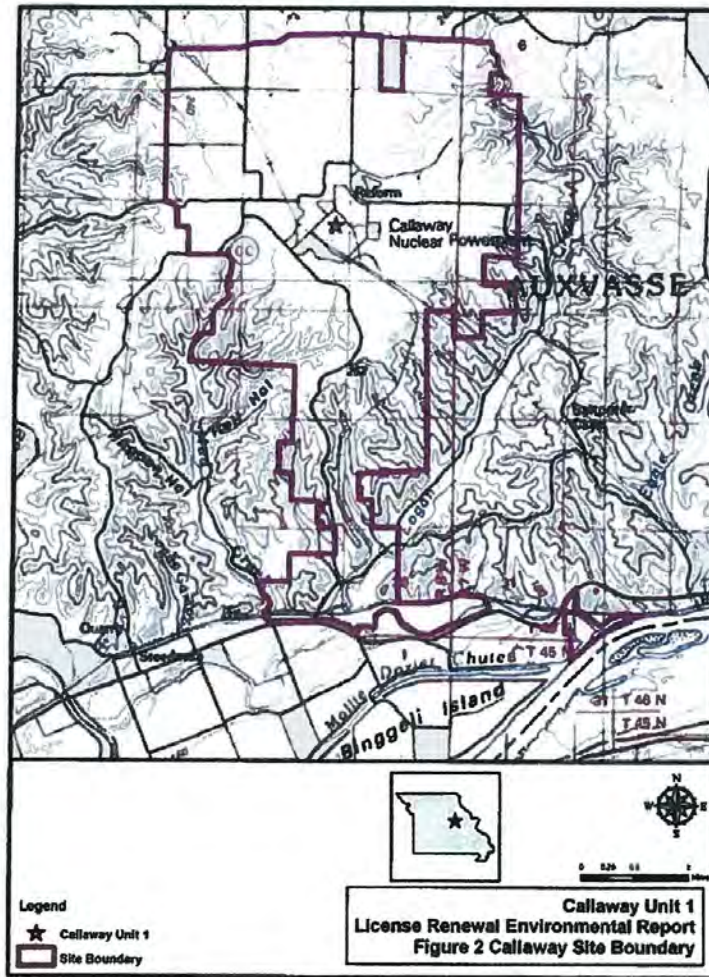


Figure 3: Callaway Plant Site Land Cover

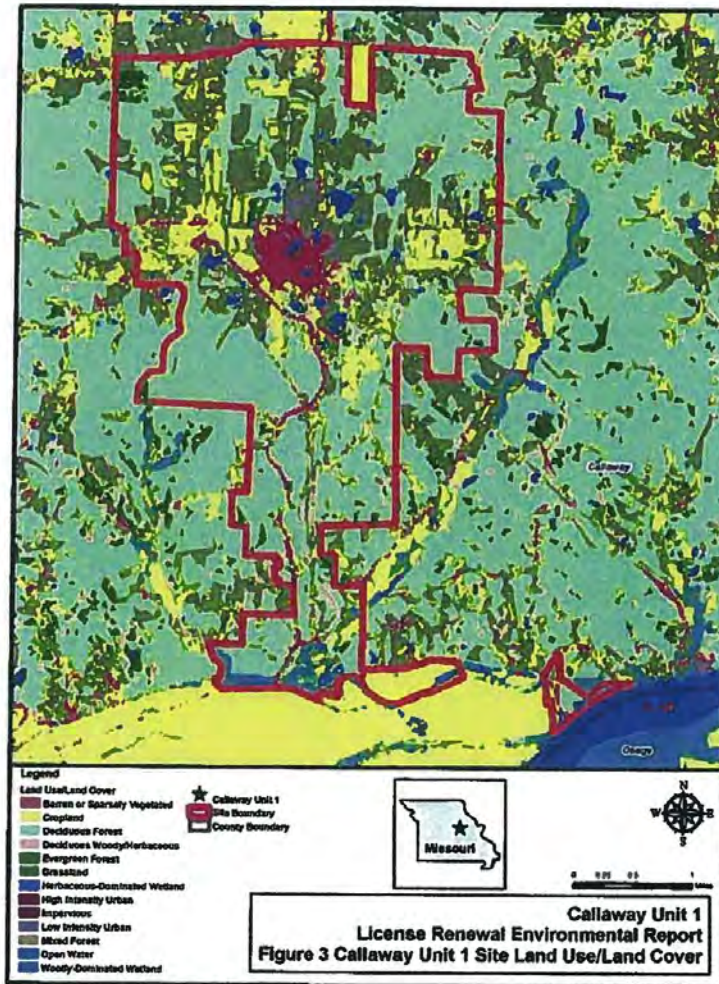
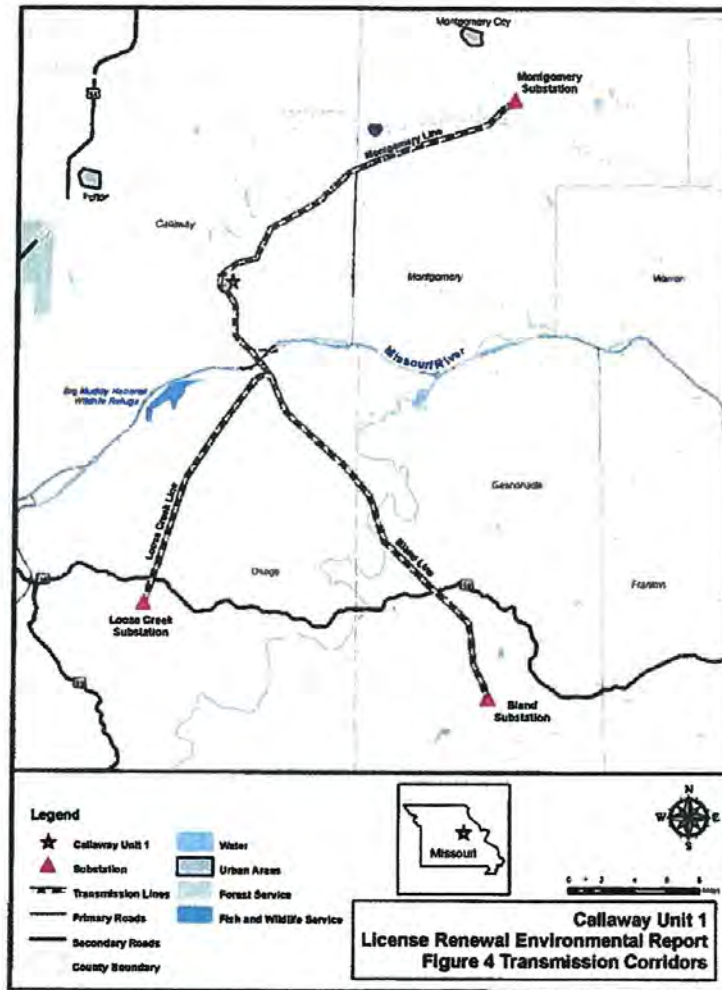


Figure 4: Callaway Plant Site Transmission Corridors



bcc: A. J. Burgess
JCP/BFH/KWL
FILE: WQ-3.1.1



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Columbia Ecological Services Field Office
101 Park DeVille Drive, Suite A
Columbia, Missouri 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

June 14, 2010



RECEIVED
JUN 17 2010
ENVIRONMENTAL SERVICES

Kenneth W. Lynn
Consulting Environmental Scientist
AmerenUE
PO Box 66149
St. Louis, Missouri 63166-6149

Dear Mr. Lynn:

This is in response to your April 16, 2010, letter pertaining to the Callaway Unit 1 license renewal process. In late Fall 2011, AmerenUE plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating license for the Callaway Unit 1 in Callaway County, Missouri. Your letter specifically requested information from the U.S. Fish and Wildlife Service (Service) pertaining to species listed under the Endangered Species Act that may occur on the project site. This information will be used by NRC and AmerenUE in the environmental assessment of the license renewal, including consultation under section 7(a)(2) of the Endangered Species Act.

The Callaway Unit 1 site encompasses 7,350 acres of which 512 acres is occupied by the power generating facilities and associated infrastructure. The Missouri Department of Conservation manages 6,300 acres of the site as the Reform Conservation Area. The site is predominately rural lands composed of deciduous forests, grassland/pasture, and cropland.

During the term of the license renewal, there are no plans to expand beyond existing facilities and no structural modifications or refurbishment activities have been identified. Maintenance activities would be restricted to previously disturbed areas.

We have reviewed the information in your letter relating to threatened and endangered species. Based on this information you state that continued operation of the facility under the term of the license renewal is unlikely to adversely affect any threatened or endangered species. The Service has no major concerns with the effects of continued operation of the Callaway Unit 1 on federally listed species and concurs with your assessment that adverse effects are unlikely to occur.

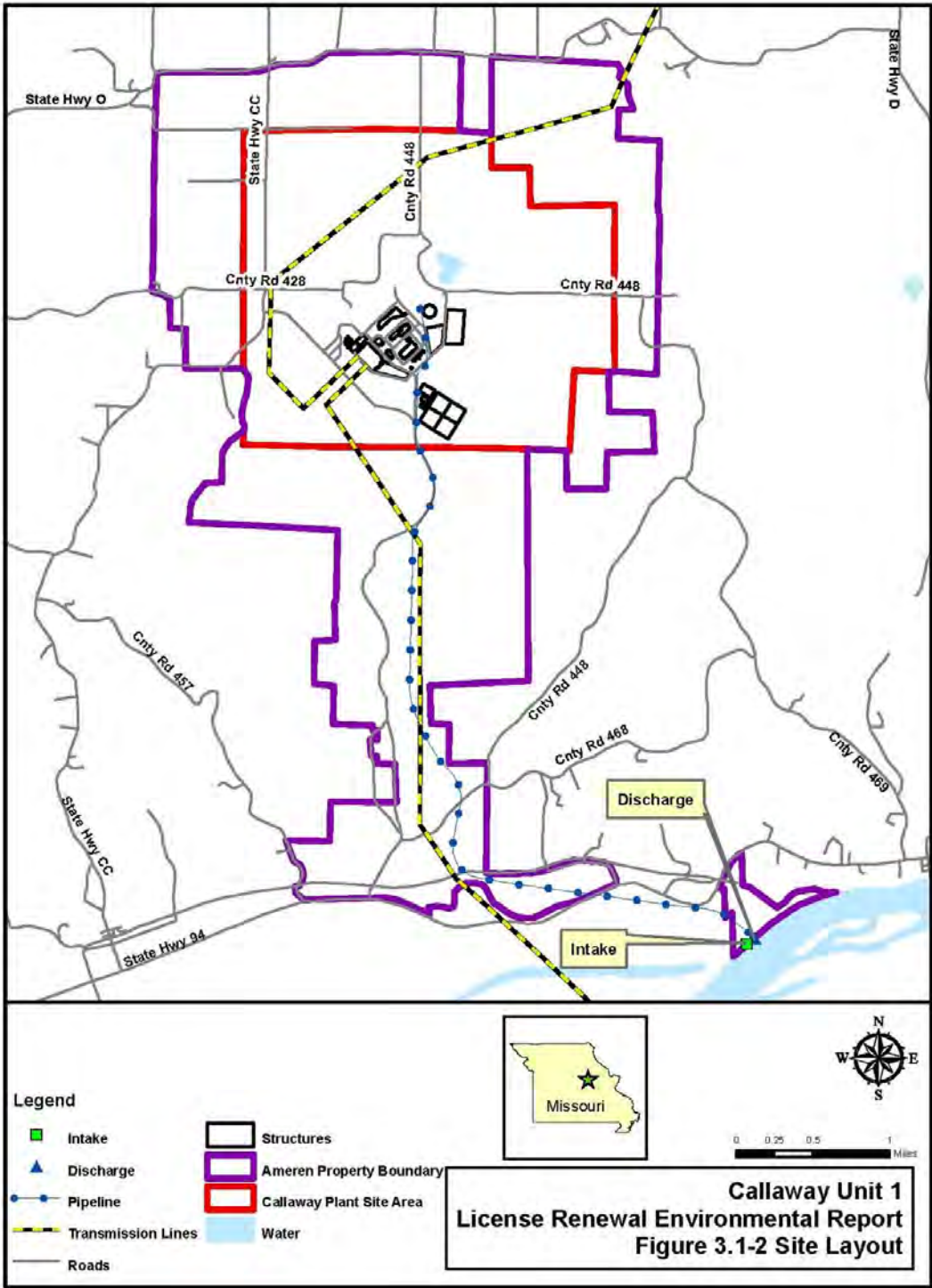
Enclosure 2

We appreciate the opportunity to review this action. Please contact us if you have any questions or require additional assistance.

Sincerely,

A handwritten signature in blue ink that reads "Charles M. Scott". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Charles M. Scott
Field Supervisor



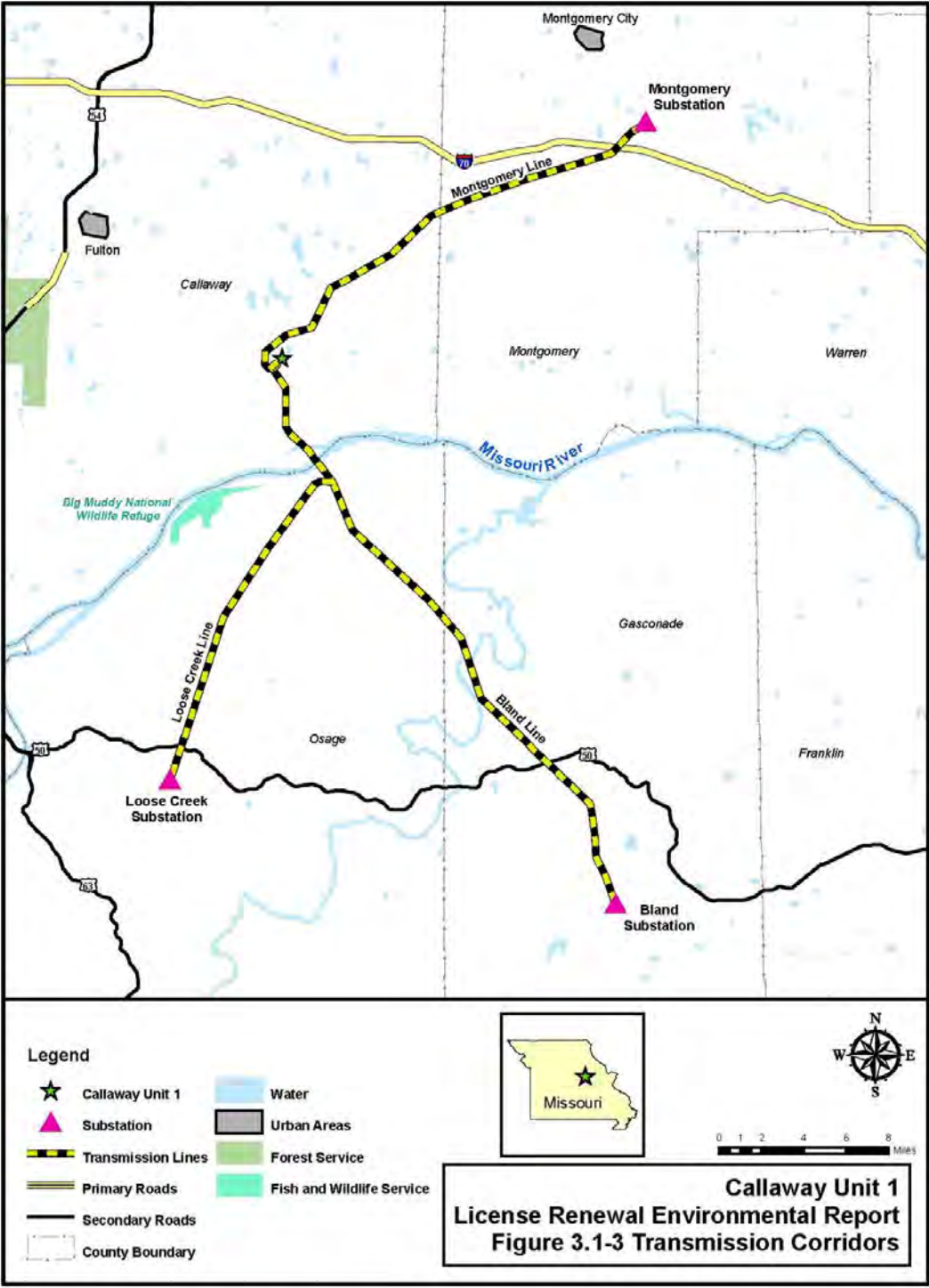


Table of Federally Listed Species in the Vicinity of the Callaway Plant

Species	Federal Status^(a)	Habitat	County(ies) of Occurrence^(b)
Gray bat (<i>Myotis grisescens</i>)	E	Caves	Callaway, Gasconade, Osage
Indiana bat (<i>Myotis sodalis</i>)	E	Hibernacula = caves and mines; Maternity and foraging habitat = small stream corridors with well developed riparian woods; upland forests	Callaway, Gasconade, Montgomery
Niangua darter (<i>Etheostoma nianguae</i>)	T	Rivers	Osage
Pallid sturgeon (<i>Scaphirhynchus albus</i>)	E	Mississippi and Missouri Rivers	Callaway, Gasconade, Montgomery, Osage
Pink mucket (<i>Lampsilis abrupta</i>)	E	Rivers	Gasconade, Osage
Running buffalo clover (<i>Trifolium stolonifereum</i>)	E	Disturbed bottomland meadows	Callaway, Montgomery
Scaleshell (<i>Leptodea leptodon</i>)	E	Gasconade River	Gasconade, Osage
Snuffbox (<i>Epioblasma triquetra</i>)	E	Small- to medium-sized creeks with a swift current	Gasconade
Spectaclecase (<i>Cumberlandia monodonta</i>)	E	Gasconade River	Gasconade, Osage
Topeka shiner (<i>Notropis topeka</i>)	E	Small, perennial prairie streams in pools containing clear, clean water and gravel, rock, or sand bottoms	Callaway

^(a) E=endangered; T=threatened

^(b) Callaway is located in Callaway County. The transmission lines associated with Callaway traverse Callaway, Gasconade, Montgomery, and Osage Counties.

Table Sources:

[FWS] U.S. Fish and Wildlife Service. "Missouri County Distribution of Federally-listed Threatened, Endangered, Proposed, and Candidate Species." Updated March 2012. Available at <<http://www.fws.gov/midwest/endangered/section7/spranges/missouri-cty.html>> (accessed 4 April 2012).

[MDC] Missouri Department of Conservation. Natural Heritage Program Search for Callaway, Gasconade, Montgomery, and Osage Counties. Available at <<http://mdc.mo.gov/landwater-care/heritage-program>> (accessed 4 April 2012).

T. Melius

- 3 -

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Sincerely,

/RA/

Jeremy J. Susco, Acting Chief
Environmental Review and
Guidance Update Branch
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures:
As stated

cc w/encls: Listserv

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OFFICIAL RECORD COPY

Letter to T. Melius from J. Susco dated April 20, 2012.

**SUBJECT: REQUEST FOR CONCURRENCE WITH LIST OF FEDERALLY PROTECTED
 SPECIES AND HABITATS FOR THE PROPOSED CALLAWAY PLANT
 LICENSE RENEWAL**

DISTRIBUTION:

HARD COPY:

Amy Salveter
Field Supervisor
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PUBLIC

RidsNrrDir Resource

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