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April 10, 2020

VIA ELECTRONIC FILING

Project No. 2628-065
R.L. Harris Hydroelectric Project
Transmittal of the Draft Threatened and Endangered Species Desktop Assessment

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street N.
Washington, DC 20426

Dear Secretary Bose,

Alabama Power Company (Alabama Power) is the Federal Energy Regulatory Commission (FERC or Commission) licensee for the R.L. Harris Hydroelectric Project (Harris Project) (FERC No. 2628-065). On April 12, 2019, FERC issued its Study Plan Determination[1] (SPD) for the Harris Project, approving Alabama Power's ten relicensing studies with FERC modifications. On May 13, 2019, Alabama Power filed Final Study Plans to incorporate FERC's modifications and posted the Final Study Plans on the Harris relicensing website at www.harrisrelicensing.com. In the Final Study Plans, Alabama Power proposed a schedule for each study that included filing a voluntary Progress Update in October 2019 and October 2020. Alabama Power filed the first of two Progress Updates on October 31, 2019.[2]

Pursuant to the Commission's Integrated Licensing Process (ILP) and 18 CFR § 5.15(c), Alabama Power filed its Harris Project Initial Study Report (ISR) on April 10,2020. Concurrently, and consistent with FERC's April 12, 2019 SPD, Alabama Power is filing the Draft Threatened and Endangered Species Desktop Assessment (Draft Assessment) (Attachment 1). This filing also includes the stakeholder consultation for this study beginning May 2019 through March 2020 (Attachment 2). Stakeholders have until June 11, 2020 to submit their comments to Alabama Power on the Draft Assessment. Comments should be sent directly to harrisrelicensing@southernco.com.

Stakeholders may access the ISR, this Draft Assessment, and other study reports on FERC's website (http://www.ferc.gov) by going to the "eLibrary" link and entering the docket number (P-2628). The ISR and study reports are also available on the Project relicensing website at https://harrisrelicensing.com.

[1] Accession Number 20190412-3000

[2] Accession Number 20191030-5053

If there are any questions concerning this filing, please contact me at arsegars@southernco.com or 205-257-2251.

Sincerely,

Angie Anderegg
Harris Relicensing Project Manager

Attachment 1 – Draft Threatened and Endangered Species Desktop Assessment
Attachment 2 –Threatened and Endangered Species Consultation Record (May 2019-March 2020)

cc: Harris Stakeholder List

Attachment 1
Draft Threatened and Endangered Species Desktop Assessment

HARRIS DAM
RELICENSING

THREATENED AND ENDANGERED SPECIES DESKTOP ASSESSMENT

R. L. HARRIS HYDROELECTRIC PROJECT

FERC NO. 2628

Prepared by:

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

Alabama Power

FEBRUARY 2020

THREATENED AND
ENDANGERED SPECIES DESKTOP ASESSMENT

R. L. HARRIS HYDROELECTRIC PROJECT
FERC NO. 2628

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

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FERC NO. 2628

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

1.0 INTRODUCTION

Alabama Power Company (Alabama Power) owns and operates the R.L. Harris Project (FERC Project No. 2628) (Harris Project), licensed by the Federal Energy Regulatory Commission (FERC or Commission). Alabama Power Company (Alabama Power) is relicensing the 135-megawatt (MW) Harris Project, and the existing license expires in 2023. The Harris Project consists of a dam, spillway, powerhouse, and those lands and waters necessary for the operation of the hydroelectric project and enhancement and protection of environmental resources. These structures, lands, and water are enclosed within the FERC Project Boundary. Under the existing Harris Project license, the FERC Project Boundary encloses two distinct geographic areas, described below.

Harris Reservoir is the 9,870-acre reservoir (Harris Reservoir) created by the R.L. Harris Dam (Harris Dam). Harris Reservoir is located on the Tallapoosa River, near Lineville, Alabama. The lands adjoining the reservoir total approximately 7,392 acres and are included in the FERC Project Boundary (Figure 1-1). This includes land to 795 feet mean sea level (msl)[1], as well as natural undeveloped areas, hunting lands, prohibited access areas, recreational areas, and all islands.

[1] Also includes a scenic easement (to 800 feet msl or 50 horizontal feet from 793 feet msl, whichever is less, but never less than 795 feet msl).

The Harris Project also contains 15,063 acres of land within the James D. Martin-Skyline Wildlife Management Area (Skyline WMA) located in Jackson County, Alabama (Figure 1-2). These lands are located approximately 110 miles north of Harris Reservoir and were acquired and incorporated into the FERC Project Boundary as part of the FERC-approved Harris Project Wildlife Mitigative Plan and Wildlife Management Plan. These lands are leased to, and managed by, the State of Alabama for wildlife management and public hunting and are part of the Skyline WMA (ADCNR 2016b).

For the purposes of this study, "Lake Harris" refers to the 9,870-acre reservoir, adjacent 7,392 acres of Project land, and the dam, spillway, and powerhouse. "Skyline" refers to the 15,063 acres of Project land within the Skyline WMA in Jackson County. "Harris Project" refers to all the lands, waters, and structures enclosed within the FERC Project Boundary, which includes both Lake Harris and Skyline. Harris Reservoir refers to the 9,870-acre reservoir only; Harris Dam refers to the dam, spillway, and powerhouse. The Project Area refers to the land and water in the Project Boundary and immediate geographic area adjacent to the Project Boundary (Alabama Power Company 2018).

Lake Harris and Skyline are located within two river basins: the Tallapoosa and Tennessee River Basins, respectively. The only waterbody managed by Alabama Power as part of their FERC license for the Harris Project is the Harris Reservoir.

1.1 STUDY BACKGROUND

During the October 19, 2017 issue identification workshop, representatives from the United States Fish and Wildlife Service (USFWS) and Alabama Department of Conservation and Natural Resources (ADCNR) noted that there may be species of federally protected bats using Project lands around the Harris Project. The USFWS also noted that there may be some aquatic species of concern in the Project Area (areas adjacent to the Project Boundary that could be influenced by Project operations). The USFWS and ADCNR requested that potential impacts to threatened or endangered species currently in the Harris Project Boundary be evaluated during the relicensing process.

During preparation of the Harris Pre-Application Document (PAD), research identified several federally protected species that are present in the counties where the Harris Project is located (Table 2-1). On November 13, 2018, Alabama Power filed ten proposed study plans, including a study plan for threatened and endangered (T&E) species at the Harris Project. FERC issued a Study Plan Determination on April 12, 2019, which included FERC staff recommendations. Alabama Power incorporated FERC's recommendations and filed the Final Study Plans with FERC on May 13, 2019.

Alabama Power formed the Harris Action Team (HAT) 3 to specifically address fish and wildlife issues, including threatened and endangered species, at the Harris Project. Alabama Power held a HAT 3 meeting on August 27, 2019 to discuss the T&E species study plan. Alabama Power noted that the first phase of the T&E study would be a desktop analysis that involves developing GIS overlays of habitat information and maps to determine possible areas in the FERC-approved geographic scope where T&E species may occur. In fall 2019, Alabama Power and the USFWS conducted a field reconnaissance to look for target mussel species and their habitat. Additional fieldwork is planned for May 2020.

This draft desktop assessment is one portion of the FERC-approved T&E species study plan. The goals of this desktop assessment are to determine the probability of populations of currently listed T&E species and/or their critical habitat occurring within the Harris Project Boundary or Project Area. Alabama Power will develop GIS overlays of habitat information and maps for this assessment and use this information to determine if further evaluation of any identified species and their habitat is warranted. The final T&E Species Study Report will include this desktop analysis along with the results of the field investigation, among other information, as described in the FERC-approved T&E species study plan.

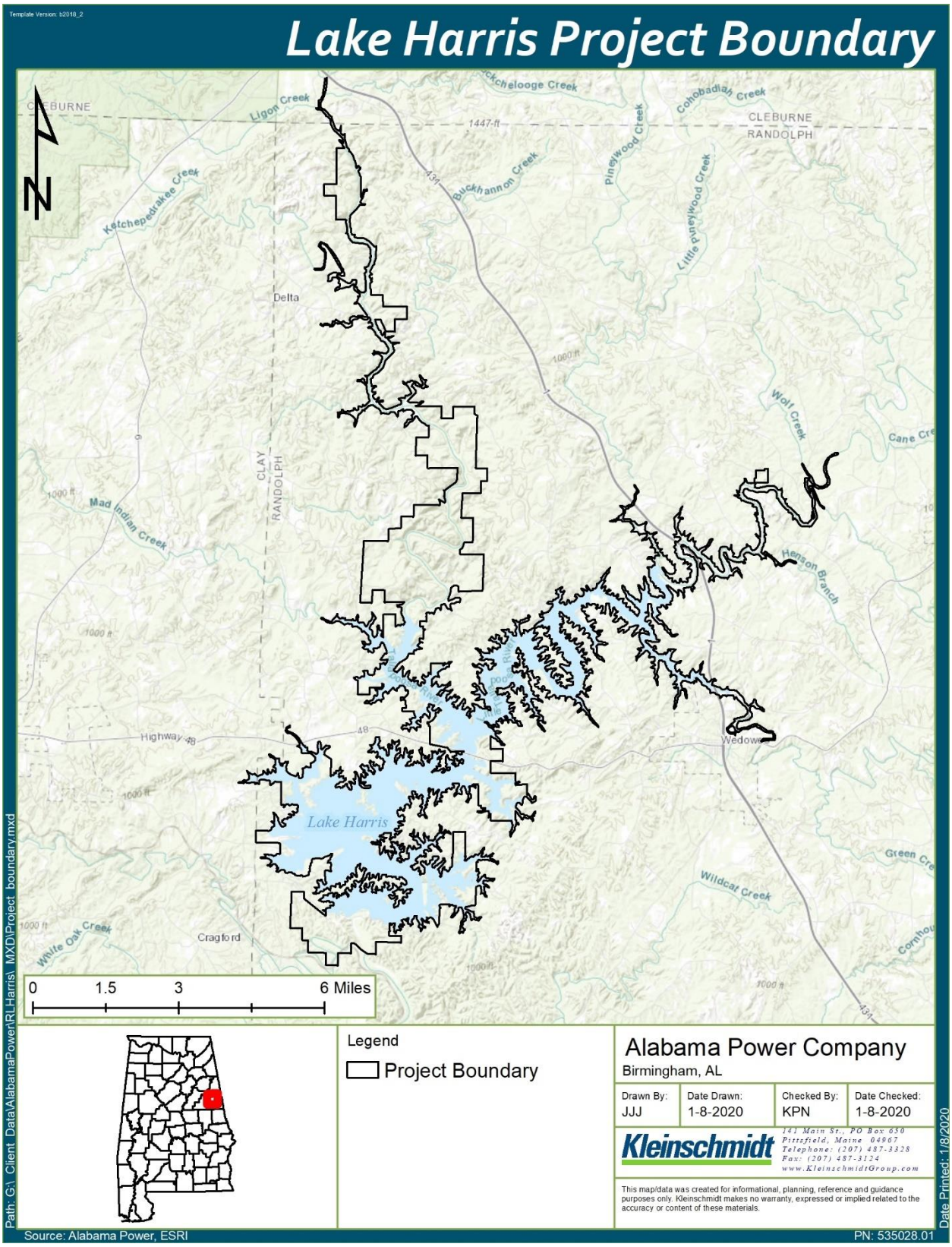


FIGURE 1-1 LAKE HARRIS PROJECT BOUNDARY

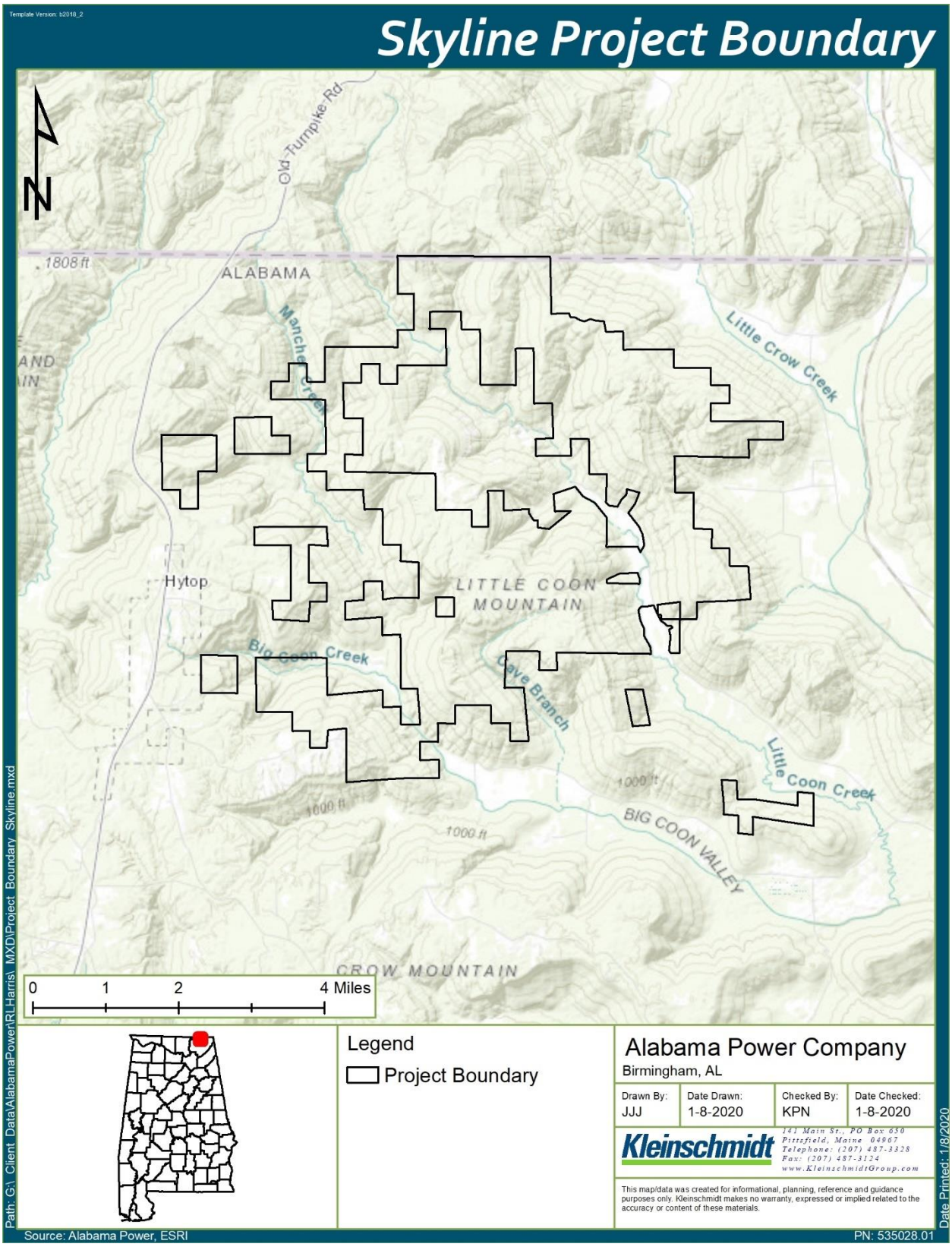


FIGURE 1-2 SKYLINE PROJECT BOUNDARY

TABLE 1-1 FEDERALLY THREATENED AND ENDANGERED SPECIES POTENTIALLY OCCURRING IN ALABAMA COUNTIES IN THE R.L. HARRIS PROJECT VICINITY

SCIENTIFIC NAME	COMMON NAME	FEDERAL STATUS[1]	STATE PROTECTED	COUNTY(IES) OF OCCURRENCE	OCCURRENCE	DOCUMENTED HISTORIC RANGE IN AL
Picoides borealis	Red-Cockaded Woodpecker	E	Yes	Clay & Randolph		Statewide in appropriate habitat
Notropis albizonatus	Palezone Shiner	E	Yes	Jackson		Tennessee River system
Erimonax monachus	Spotfin Chub	T	Yes	Jackson		Tennessee River system
Hamiota altilis	Finelined Pocketbook	T		Cleburne	Yes	Coosa, Tallapoosa, Cahaba River systems
Lampsilis virescens	Alabama Lampmussel	E		Jackson		Tennessee River system
Villosa trabalis	Cumberland Bean	E		Jackson		Tennessee River system
Fusconaia cuneolus	Finerayed Pigtoe	E		Jackson		Tennessee River system
Toxolasma cylindrellus	Pale Lilliput	E		Jackson		Tennessee River system
Quadrula cylindrica	Rabbitsfoot	T		Jackson		Tennessee River system
Fusconaia cuneolus	Shiny Pigtoe	E		Jackson		Tennessee River system
Epioblasma triquetra	Snuffbox	E		Jackson		Tennessee River system
Pleurobema georgianum	Southern Pigtoe	E		Clay & Cleburne		Coosa River system
Pleuronaia dolabelloides	Slabside Pearlymussel	E		Jackson		Tennessee River system
Myotis sodalis	Indiana Bat	E	Yes	Clay, Cleburne, Randolph, Chambers, Tallapoosa, & Jackson	Yes	Statewide in appropriate habitat
Myotis septentrionalis	Northern Long-eared Bat	T	Yes	Clay, Cleburne, Randolph, Chambers, Tallapoosa, & Jackson	Yes	Piedmont and Cumberland regions
Myotis grisescens	Gray Bat	E	Yes	Jackson	Yes	Statewide in appropriate habitat
Amphianthus pusillus	Little Amphianthus	T		Randolph, Chambers, & Tallapoosa	Yes	Piedmont region (Bridges 1988)
Platanthera integrilabia	White Fringeless Orchid	T		Clay, Cleburne, Jackson, Chambers, & Tallapoosa		Talladega National Forest
Apios priceana	Price's Potato-bean	T		Jackson	Yes	Statewide in appropriate habitat
Clematis morefieldii	Morefield's Leather Flower	E		Jackson		Northern regions of state (USFWS 2007)

Source: Mirarchi et.al. 2004, USFWS 2016a, USFWS 2016b, Williams et.al. 2008, FERC 2018; [1] E = Federally listed as Endangered, T = Federally listed as Threatened

2.0 METHODS

Information presented in the Results section (Section 3.0) was obtained and summarized from a variety of sources, including scientific literature, gray literature, and resource agency websites/databases. Major sources of information included the following:

- USFWS Recovery Plans and 5-year reviews,
- Federal Register Listings and Critical Habitat Designations, and
- USFWS Environmental Conservation Online System (ECOS).

Maps depicting current species ranges and critical habitats (Appendix B) were developed using Geographic Information System (GIS) data available on the USFWS' ECOS online system.

3.0 RESULTS

The species described in Sections 3.1 – 3.20 potentially occur or may have designated habitat in the Lake Harris Project Vicinity and the Skyline Project Vicinity, which includes Clay, Randolph, Cleburne, Tallapoosa, and Chambers counties, and Jackson county, respectively. These species may also occur in other counties in Alabama; however, this assessment focuses on those counties where the Harris Project is located.

3.1 RED-COCKADED WOODPECKER

Source: US Fish and Wildlife Service. 2019. Red-Cockaded Woodpecker. [Online] URL: https://www.fws.gov/rcwrecovery/rcw.html

The red-cockaded woodpecker is a federally listed endangered species that potentially occurs in Clay and Randolph counties (USFWS 2016e, Appendix B). This woodpecker requires open pine woodlands and savannahs with large old pines for nesting and roosting habitat. Large old pines, preferably longleaf pine, are required as cavity trees. The excavated cavities within inactive heartwood are free of resin, which can entrap the birds (USFWS 2016e). The resin that comes out of the tree (from outer vascular tissue) after excavation may provide protection for woodpeckers against climbing snakes or other predators. The cavity trees are located in open stands with little or no hardwood mid-story and few or no over-story hardwoods. The woodpeckers require abundant native bunchgrass and groundcovers suitable for foraging within their habitat (USFWS 2016e). The two primary factors threatening the red-cockaded woodpecker are habitat loss and habitat degradation (USFWS 2006).

The USFWS has both a Recovery Plan (USFWS 2003) and a Five-year Review (USFWS 2006) for the red-cockaded woodpecker. There are no published reports of red-cockaded woodpeckers occurring within the Project Boundary at Lake Harris. The Project Boundary at Lake Harris contains 3,068 acres of coniferous forest; however, the land use data is not specific enough to determine if these forests contain the more specific habitat characteristics to be suitable for red-cockaded woodpecker (Appendix B, Figure 3.1-1 and 3.1-2).

3.2 PALEZONE SHINER

Source: Wikipedia. 2018. Palezone Shiner. [Online] URL: https://en.wikipedia.org/wiki/Palezone_shiner

The Palezone Shiner was listed as endangered in 1993. The Palezone Shiner is a small, slender minnow species with a pointed snout and large eyes. It has a small, dark, wedge-shaped spot at the base of the caudal fin and may exhibit a light yellow color at the base of its pectoral fins during breeding. Historically, this species was found in the Tennessee and Cumberland River systems; however, the only know extant populations occur in the Paint Rock River (Tennessee River tributary), and the Little South Fork of the Cumberland River (Appendix B, Figure 3.2). Palezone Shiner are found in runs and pools of large creeks and small rivers with clean bedrock, cobble, gravel, and sand. Spawning likely occurs between May and July, peaking in June. Limited distribution make this species vulnerable to extinction.

The USFWS has both a Recovery Plan (USFWS 1997a) and Five-Year Review (USFWS 2014) for the Palezone Shiner. No populations were identified within the Project Boundary at Lake Harris; however, habitat range for this species is located immediately to the west of Skyline (Appendix B, Figure 3.2).

3.3 SPOTFIN CHUB

Source: National Park Service. 2015. Threatened and Endangered Species of Abrams Creek. Gatlinburg, TN. [Online] URL:https://www.nps.gov/grsm/learn/nature/threatened-species-abrams.htm

The Spotfin Chub was listed as threatened in 1977. The Spotfin Chub is an elongate minnow species with dusky green coloration above the lateral line and silver below. Breeding males develop a metallic blue coloration and white fin margins. Historically, this species is endemic to upland habitats in the Tennessee River drainage including parts of Alabama (Appendix B, Figure 3.3); however, it is presumed to be extirpated in Alabama and Georgia. Spotfin Chub are found in clear, large creeks and medium-sized rivers with moderate current over bedrock and gravel substrates. Spawning probably occurs between May and August. Threats to this species include habitat loss and degradation.

The USFWS has both a Recovery Plan (USFWS 1983) and Five-Year Review (USFWS 2019a) for the Spotfin Chub. No populations were identified within the Project Boundary at Lake Harris; however, habitat range for this species is located immediately to the west of Skyline (Appendix B, Figure 3.1-2).

3.4 FINELINED POCKETBOOK MUSSEL

Source: International Union for Conservation of Nature and Natural Resources. 2019. Finelined Pocketbook. [Online] URL: https://www.iucnredlist.org/species/11250/502085

The finelined pocketbook mussel is a threatened mussel with a species range within the Project Boundary at Lake Harris (Appendix B, Figure 3.4). The finelined pocketbook is a suboval shaped mussel that has a maximum length of approximately 3⅜ inches (Mirarchi et al. 2004). This mussel lives in large to small streams in habitats above the fall line having stable sand/gravel/cobble substrates and moderate to swift currents. Historically, this mussel was found in the Alabama, Tombigbee, Black Warrior, Cahaba, Tallapoosa, and Coosa Rivers, and their tributaries (USFWS 2004, Appendix B, Figure 3.4). Regarding reproduction, the finelined pocketbook mussel releases glochidia as a super-conglutinate from March through June, and confirmed host species include blackspotted topminnow, redeye bass, spotted bass, largemouth bass, and green sunfish (Mirarchi et al. 2004). Reasons for the decline and status of the species include habitat modification, sedimentation, eutrophication, and water quality degradation (USFWS 2000).

The USFWS has both a Recovery Plan (USFWS 2000) and a Five-Year Review (USFWS 2008) for the finelined pocketbook. Critical habitat was designated for this species in 2004 (USFWS 2004). The Lake Harris Project Area does not encompass critical habitat areas identified by the USFWS; however, critical habitat for this species is located immediately upstream of Lake Harris (USFWS 2004, Appendix B, Figure 3.4). No populations were identified within the Project Boundary at Lake Harris, but future surveys have been proposed by Alabama Power.

3.5 ALABAMA LAMPMUSSEL

Source: Alabama Department of Conservation and Natural Resources. 2019. Outdoor Alabama. Montgomery, AL. [Online] URL: https://www.outdooralabama.com/lampsilis/alabama-lampmussel

The Alabama lampmussel was listed as endangered in 1976 (Mirarchi et al. 2004) and is found in shoals in small to medium rivers (Parmalee and Bogan 1998). The Alabama lampmussel is endemic to the Tennessee River system and historically occurred from its headwaters downstream to Muscle Shoals (Ortmann 1925, Parmalee and Bogan 1998). Now, it is only known to occur in upper reaches of the Paint Rock River system, Jackson County, Alabama (Ahlstedt 1995, Appendix B, Figure 3.5). The Alabama lampmussel has a moderately thin shell with a maximum length of 2 ¾ inches, elliptical to long ovate in outline, and somewhat inflated. Although unknown, this species is thought to be a long-term brooder (Mirarchi et al. 2004). This species is imperiled due to severely restricted distribution, rarity, and vulnerability to habitat degradation (Mirarchi et al. 2004).

The USFWS has both a Recovery Plan (USFWS 1985) and Five-Year Review (USFWS 2012) for the Alabama lampmussel. There are no published reports of Alabama lampmussel occurrences within the Project Boundary at Skyline.

3.6 CUMBERLAND BEAN

Source: US Fish and Wildlife Service. 2017. Raleigh Ecological Services Field Office. [Online] URL: https://www.fws.gov/raleigh/species/es_cumberland_bean.html

The USFWS listed the Cumberland bean as endangered in 1976 (USFWS 2016c). This species can be found in swift riffles of small rivers and streams with gravel or mixture of sand and gravel substrate (Parmalee and Bogan 1998). This species is endemic to the upper Cumberland River system in Kentucky and the Tennessee River system from headwaters downstream to Muscle Shoals, Alabama (Appendix B, Figure 3.6). The Cumberland bean has not been reported in Alabama since impoundment of the Tennessee River and is considered extirpated (Parmalee and Bogan 1998, Mirarchi 2004). This species has a solid, elongated shell with a maximum length of 2 1/8 inches. Females grow slightly larger than males (Mirarchi et al.

2004). Host fish for the Cumberland bean glochidia include barcheek, fantail, Johnny, rainbow, snub-nose, dirty, striped, and stripetail darters (Parmalee and Bogan 1998). Fragmentation is the leading cause of the decline for this species. Limited distribution and rarity make it vulnerable to extinction (Mirarchi et al. 2004).

The USFWS has both a Recovery Plan (USFWS 1984a) and Five-Year Review (USFWS 2010) for the Cumberland bean. There are no published reports of Cumberland bean occurrences within the Project Boundary at Skyline.

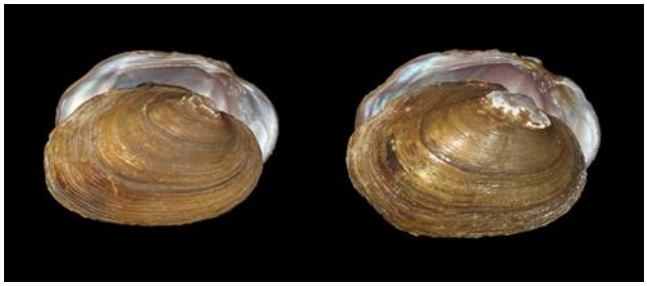
3.7 FINE-RAYED PIGTOE MUSSEL

Source: IUCN Red List. iNaturalist. [Online] URL: https://www.inaturalist.org/taxa/101102-Fusconaia-cuneolus

The USFWS listed the fine-rayed pigtoe mussel as endangered in 1976. This species lives in the shoal habitat of medium to large rivers. Typically, the fine-rayed pigtoe lives in stable, mixed substrate, with particle sizes ranging from sand to cobble (Neves 1991). Endemic to the Tennessee River system, this species historically occurred from the Virginia headwaters, downstream to Muscle Shoals, Alabama, and in some tributaries (Parmalee and Bogan 1998, Appendix B, Figure 3.7). This species was extirpated from Tennessee River proper (Garner and McGregor 2001). A population in Paint Rock River, Jackson County, Alabama (Ahlstedt 1995), appears to be the only extant population in Alabama. The fine-rayed pigtoe mussel shell is solid, somewhat inflated, with a maximum length of 3 1/8 inches, subtriangular to rhomboidal in outline (Mirarchi 2004). This species is a short-term brooder, spawning in May, with females gravid until late July (Ortmann 1925, Bruenderman and Neves 1993). This mussel distributes glochidia; hosts include river chub, central stoneroller, fathead minnow, mottled sculpin, and whitetail, white, telescope, and Tennessee shiners (Bruenderman and Neves 1993). Decline in this species is attributed to limited distribution, specialized habitat requirements, and declining population (Mirarchi et al. 2004).

The USFWS has both a Recovery Plan (USFWS 1984b) and Five-Year Review (USFWS 2013a) for the fine-rayed pigtoe. There are no published reports of fine-rayed pigtoe occurrences within the Project Boundary at Skyline.

3.8 PALE LILLIPUT MUSSEL



Source: Alabama Department of Conservation and Natural Resources. 2019. Outdoor Alabama. Montgomery, AL. [Online] URL: https://www.outdooralabama.com/toxolasma/pale-lilliput

The USFWS listed the pale lilliput mussel as endangered in 1976. This species is found in large creeks and small rivers, typically in gravel and in moderate current (Parmalee and Bogan 1998). This species was thought to be eliminated, except in Paint Rock River system, Jackson County, Alabama, where it is rare (Ahlstedt 1995, Appendix B, Figure 3.8). The shell is moderately solid with a maximum length of 1 3/8 inches, elongate and elliptical in outline, and inflated in some older species (Mirarchi et al. 2004). It is thought to be a long-term brooder; however, the host is unknown (Mirarchi et al. 2004). The pale lilliput mussel is vulnerable to extinction due to extremely limited distribution, rarity, and susceptibility to habitat degradation (Mirarchi et al. 2004).

The USFWS has both a Recovery Plan and a Five-Year Review for the pale lilliput (USFWS 1984c, USFWS 2011). There are no published reports of pale lilliput occurrences within the Project Boundary at Skyline.

3.9 RABBITSFOOT MUSSEL

Source: US Fish and Wildlife Service. 2019. US Fish and Wildlife Service Midwest Region. Bloomington, MN. [Online] URL: https://www.fws.gov/midwest/endangered/clams/rabbitsfoot/index.html

The USFWS listed the rabbitsfoot mussel as threatened in 2013 (USFWS 2015). The rabbitsfoot mussel is found in creeks and small rivers along margins of riffles and runs. In lotic reaches of larger rivers, this species may be found at depths greater than 19 ¾ feet, as well as upon marginal shelves in shallower waters (Mirarchi et al. 2004). In Alabama, extant populations are known to exist only in the Paint Rock River system, Jackson County, Alabama (Ahlstedt 1995), and a short reach of Bear Creek, Colbert County (Mirarchi et al. 2004, Appendix B, Figure 3.9). This species has a solid shell with a maximum length of 4 ¾ inches, elongated and rhomboidal to

rectangular in outline. The rabbitsfoot mussel is a short-term brooder. Widespread distribution reductions, rarity, and declining population trends make it vulnerable to extirpation (Mirarchi et al. 2004).

The USFWS designated critical habitat for the rabbitsfoot in 2015 (USFWS 2015). In April 2019, the USFWS initiated the five-year review of the rabbitsfoot. There are no published reports of rabbitsfoot occurrences within the Project Boundary at Skyline.

3.10 SNUFFBOX MUSSEL

The USFWS listed the snuffbox mussel as endangered in 2012. It is found in large creeks to large rivers, generally in gravel and sand substrate in shoal and riffle habitats. Individual mussels often are completely buried or with only their posterior slopes exposed (Parmalee and Bogan 1998). In Alabama, the snuffbox mussel once occurred in the Tennessee River and several of its tributaries. However, the snuffbox mussel is assumed to persist only in Paint Rock River system, Jackson County (Mirarchi et al. 2004, Appendix B, Figure 3.10). The snuffbox mussel is a long-term brooder with gravid females observed from September to May, with glochidial discharge in late May (Ortmann 1919). Hosts include logperch, Roanoke darter, and banded and black sculpins (Yeager and Saylor 1995). Long-term survival of this species is questionable; distribution-wide decline makes the snuffbox mussel vulnerable to extirpation (Mirarchi et al. 2004).

Source: US Fish and Wildlife Service. 2019. US Fish and Wildlife Service Midwest Region. Bloomington, MN. [Online] URL: https://www.fws.gov/midwest/endangered/clams/snuffbox/index.html

The snuffbox mussel does not have a Recovery Plan, Five-Year Review, or designated critical habitat at this time. There are no published reports of snuffbox mussel occurrences within the Project Boundary at Skyline.

3.11 SHINY PIGTOE MUSSEL

Source: US Fish and Wildlife Service. 2019. US Fish and Environmental Conservation Online System. [Online] URL: https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=F00Q

The USFWS listed the shiny pigtoe mussel as endangered in 1976 (Mirarchi et al. 2004). The shiny pigtoe mussel lives in shoal and riffle habitat of medium to large rivers. Endemic to the Tennessee River system, this mussel historically occurred from the headwaters downstream to Muscle Shoals, Alabama, and in some of its large tributaries (Parmalee and Bogan 1998). Although this mussel was extirpated from the Tennessee River proper (Garner and McGregor 2001), it still occurs in several tributaries, including Paint Rock River, Jackson County, Alabama (Ahlstedt 1995, Appendix B, Figure 3.11). The shiny pigtoe mussel has a solid and somewhat inflated shell with a maximum length of 3 1/8 inches, subtriangular in outline, with anterior margin broadly rounded and somewhat obliquely truncate above, and posterior margin nearly straight but obliquely angled; doral and ventral margins nearly straight (Mirarchi et al. 2004). This species is a short-term brooder, spawning from late May to early June and gravid from mid-May to mid-July (Ortmann 1921; Kitchel 1985). Glochidia use fish in the family Cyprinidae (including telescope, warpaint, and common shiners) as hosts (Kitchel 1985). This species is imperiled due to restricted distribution, specialized habitat requirements, and declining population trends (Mirarchi et al. 2004).

The USFWS has both a 1984 Recovery Plan (USFWS 1984b) and a Five-Year Review (USFWS 2013a) for the shiny pigtoe. There are no published reports of shiny pigtoe occurrences within the Project Boundary at Skyline.

3.12 SOUTHERN PIGTOE

Source: US Fish and Wildlife Service. 2015. Georgia Ecological Services Field Offices. [Online] URL: https://www.fws.gov/athens/endangered/teinverts.html

The southern pigtoe is an endangered mussel found in Clay and Cleburne Counties. The southern pigtoe is an elliptical to oval shaped mussel that has a maximum length of approximately 2.5 inches (USFWS 2019b). This mussel lives in medium streams to large rivers in habitats having sand/gravel substrates and moderate to swift currents. Historically, this mussel was found in Alabama, Georgia, and Tennessee and is endemic to the Coosa River system (USFWS 2019b, Mirarchi 2004, Appendix B Figure 3.12-1and Figure 3.12-2). Regarding reproduction, the finelined pocketbook mussel releases glochidia during spring and early summer, and confirmed host species include Alabama shiner, blacktail shiner, and tricolor shiner (USFWS 2019b). Reasons for the decline and status of the species include habitat modification, sedimentation, eutrophication, and water quality degradation (USFWS 2000).

The USFWS has a Five-Year Review (USFWS 2019b) for the southern pigtoe. Critical habitat was designated for this species in 2004, which includes 973 miles of stream channel in Alabama, Mississippi, Tennessee, and Virginia. Approximately 2 percent of this critical habitat is located in a watershed to the west of the Project Boundary at Skyline (USFWS 2004, Appendix B, Figure 3.12-1). The Lake Harris Project Area does not encompass critical habitat areas identified by the USFWS (USFWS 2004); no populations were identified within the Project Boundary at Lake Harris (Appendix B, Figure 3.12-2).

3.13 SLABSIDE PEARLYMUSSEL

Source: Wikipedia. 2019. Pleuronaia dolabelloides. [Online] URL: https://en.wikipedia.org/wiki/Pleuronaia_dolabelloides

The USFWS listed the slabside pearlymussel as endangered with designated critical habitat in 2013 (USFWS 2016d). The slabside pearlymussel historically occurred in Alabama in the Tennessee River and several of its tributaries. This species is subtriangular in shape, reaches an average length of 3.5inches, and has dense, moderately inflated valves and a white nacre. This species typically inhabits large creeks and rivers in shallow riffles comprised of sand, gravel, and cobble substrates with moderate current. The slabside pearlymussel is a short-term, summer brooder that is known to use several species in the shiner family as glochidial hosts (USFWS 2013b). The U.S. Department of Interior designated 13 critical habitat units encompassing approximately 970 miles of stream channel in Alabama, Mississippi, Tennessee, and Virginia for the slabside pearlymussel. In Jackson County, the designated critical habitat includes the Paint Rock River, Larkin Fork, Estill Fork, and Hurricane Creek (Appendix B, Figure 3.13). Decline of this species is attributed primarily to habitat loss and degredation associated with impoundments, gravel and coal mining, sedimentation, water pollution, and stream channel alterations (USFWS 2013b).

There is no Recovery Plan or 5-year Review for the slabside pearlymussel. There are no published reports of slabside pearlymussel occurrences within the Project Boundary at Skyline.

3.14 INDIANA BAT

The USFWS listed the Indiana bat as an endangered species in 1976. Habitat conducive to the Indiana bat is located in the central to north and eastern portions of Alabama (Appendix B, Figures 3.14-1 to 3.14-3). This species hibernates in caves, mostly in tight clusters. In the summer, females form small maternity colonies in tree hollows and behind loose bark. A single pup is born in June or early July and weaned in 25-35 days. The diet of this species includes small, soft-bodied insects, including moths, flies, and beetles (Mirarchi et al. 2004). The Indiana bat is vulnerable to extinction due to habitat loss and White Nose Syndrome, a fungal disease.

Source: US Fish and Wildlife Service. 2019. US Fish and Wildlife Service Midwest Region. Bloomington, MN. [Online] URL: https://www.fws.gov/midwest/endangered/permits/hcp/FowlerRidge/

The USFWS has a 2007 Draft Recovery Plan (USFWS 2007b) for the Indiana bat, as well as a 1977 final correction and augmentation of critical habitat (USFWS 1977). While the Lake Harris and Skyline Project Boundaries fall within the range of the Indiana bat, there have been no reports of overwintering or summer roosting occurrences at either location. A large portion (66.5 percent) of the Harris Project is comprised of forested cover that likely provides some suitable summer roosting habitat for the Indiana bat (Appendix B, Figure 3.14-1 & 3.14-3). In addition, Skyline has 10,782 acres of karst geology conducive to cave formation; however, no known hibernacula have been reported (Appendix B, Figure 3.14-2).

3.15 NORTHERN LONG-EARED BAT

Source: US Fish and Wildlife Service. 2019. US Fish and Wildlife Service Midwest Region. Bloomington, MN. [Online] URL: https://www.fws.gov/Midwest/endangered/mammals/nleb/nlebFactSheet.html

The USFWS listed the northern long-eared bat as threatened on April 2, 2015, with a final rule published in the Federal Register on January 14, 2016. On April 27, 2016, the USFWS determined that the designation of critical habitat for the species was not prudent; therefore, critical habitat has not been established for the northern long-eared bat (USFWS 2016f). The northern long-eared bat may be found statewide; however, there is only low occurrence, if at all, in southwestern region of Alabama (Mirarchi et al. 2004). The northern long-eared bat feeds on invertebrates and is known to glean prey from vegetation and water surfaces. The northern long-eared bat winters in groups in underground caves and cave like structures but in the summers, it roosts singularly or in small colonies in cavities, under bark, or in hollows of live and dead trees typically greater than 3 inches in diameter. Suitable roosting trees possess exfoliating bark, cavities, or cracks (USFWS 2016f). The northern long-eared bat has a single pup born in late spring or early summer with the offspring weaned approximately one month after birth (Mirarchi et al. 2004). The primary threat to the northern long-eared bat is White Nose Syndrome, a fungal disease (USFWS 2016f).

The USFWS does not have a Recovery Plan, Five-Year Review, or designated critical habitat for the northern long-eared bat. While the Lake Harris and Skyline Project Boundaries fall within the range of the northern long-eared bat, there have been no reports of overwintering or summer roosting occurrences at either location. A large portion (66.5 percent) of the Harris Project is comprised of forested cover that likely provides some suitable summer roosting habitat for the northern long-eared bat (Appendix B, Figure 3.15-1 & 3.15-3). In addition, Skyline has 10,782 acres of karst geology conducive to cave formation; however, no known hibernacula have been reported (Appendix B, Figure 3.15-2).

3.16 GRAY BAT

Source: US Fish and Wildlife Service. 2019. US Fish and Wildlife Service Midwest Region. Bloomington, MN. [Online] URL: https://www.fws.gov/midwest/endangered/mammals/grbat_fc.html

The gray bat was listed as endangered on April 28, 1976. The gray bat is distinguished from other bats by the uni-colored fur on its back. This species molts in the summer, when its dark gray fur turns to a chestnut brown (USFWS 1997b). This species can be found in caves year-round, using them both in the summer roosting and winter hibernating periods (Appendix B, Figure 3.16-1 and 3.16-2). Typically, these caves are scattered along rivers or lakes where the gray bat feeds on flying aquatic and terrestrial insects (USFWS 1997b). Breeding takes place in the fall, with a single pup born in late May or early June (Mirarchi et al. 2004, USFWS 1997b). According to its Five-Year Review, the main threat to gray bat populations is human disturbance in unprotected caves (USFWS 2009).

The USFWS has both a Recovery Plan (USFWS 1982) and Five-Year Review (USFWS 2009) for the gray bat. While Skyline falls within the range of the gray bat, there have been no reports of overwintering or summer roosting occurrences within the Project Boundary at Skyline (Appendix B, Figure 3.16-1). This bat uses caves for both winter hibernaculum and summer roosting habitat. Skyline has approximately 10,782 acres of karst geology, but no known hibernacula have been reported (Appendix B, Figure 3.16-1). Lands within the Project Boundary at Lake Harris lacks this karst geology and is not expected to have cave hibernacula.

3.17 LITTLE AMPHIANTHUS

Source: US Fish and Wildlife Service. 2015. Georgia Ecological Services Field Offices. Athens, GA; Townsend, GA, Ft. Benning, GA. [Online] URL: https://www.fws.gov/athens/endangered/teplants.html

The little amphianthus was listed as threatened in 1988 under the ESA. Historically, this species is known from 57 sites in Georgia, Alabama, and South Carolina. In Alabama, limited populations occur in Randolph (two sites) and Chambers (one site) counties (Figure 3.17, Appendix B). This species is a small, aquatic annual herb with floating and submerged leaves. The tiny white to pale purple flowers are found among both the floating and submerged leaves. An ephemeral species, the entire life cycle of this plant may be completed within three to four weeks in the spring. This species has a very specific habitat that is restricted to vernal pools on granite outcrops in the southeastern Piedmont. Optimal habitat has been described as a shallow, flat-bottomed pool with a rock rim (NatureServe 2015a). In 1993, the USFWS prepared a recovery plan (USFWS 1993b) which identified threats to the species including: quarrying activities; conversion of habitat to pasture for farm animals; dumping of waste material; vehicular traffic including off-road vehicles, motorbikes, automobiles, and logging equipment; recreation impacts including foot traffic, littering, or vandalism; and, insufficient regulations. Little amphianthus will be considered for delisting when 20 viable, geographically separate populations (at least two in Alabama) have been permanently protected. A population is considered viable when it has the reproductive fitness to maintain itself.

A five-year review conducted in 2007 by the USFWS concluded that the population of little amphianthus is declining (USFWS 2007a). Surveys found that 44 of the 65 original populations are still known to be intact. Since the recovery plan has been implemented, sixteen (25 percent) of the populations have been extirpated, and four populations have become tremendously degraded, and are at risk of being extirpated (USFWS 2007a). One occurrence was reported within the Project Boundary at Lake Harris, specifically in Flat Rock Park on March 17, 1995 (ALNHP 2019) but subsequent surveys have not detected the plant and it is assumed extirpated from the site. There are 138.4 acres of granite geology occurring within the western edge of the

Project Boundary at Lake Harris (Figure 3.17, Appendix B). Vernal pools were not identified due to a lack of available data. Desktop resources like the National Wetland Inventory do not provide accurate enough detail to identify vernal pools.

3.18 WHITE FRINGELESS ORCHID

The white fringeless orchid was listed as threatened under the ESA in September of 2016 (USFWS 2016a). Two extant populations have been identified in Clay and Cleburne in Talladega National Forest (Appendix B, Figure 3.18-2). This species is a slender, erect, perennial herb that grows in colonies. The fragrant, white flowers grow in a loose, round to elongated, terminal clusters with 6 to 15 flowers in each cluster. The stem is light green, smooth, and can grow up to 3.6 inches. The orchid blooms from late July to early September with fruits maturing in October. White fringeless orchid typically occurs in wet, flat, or boggy areas with acidic muck or sand. This plant prefers partially shaded areas at the head of streams or seepage slopes. The primary threat to this species is the destruction and alteration of its habitat including excessive shading, soil disturbance, altered hydrology, and the spread of invasive species. Other threats include unauthorized collection for recreational or commercial purposes, herbivory, and small population sizes (Federal Register 2016). A recovery plan has not been completed for this species. There are no published reports of white fringeless orchid occurrences within the Project Boundary at Lake Harris or Skyline (Appendix B, Figures 3.18-1 and 3.18-2). Although this species uses wetland habitats, the National Wetland Inventory is not detailed enough to identify wetlands containing the plant's unique habitat characteristics.

White fringeless orchid. Credit - USFWS

Source: US Fish and Wildlife Service. 2016. Tennessee Ecological Services Field Office. [Online] URL: https://www.fws.gov/cookeville/Whitefringelessrchid.html

3.19 PRICE'S POTATO BEAN

Source: US Fish and Wildlife Service. 2019. US Fish and Wildlife Service Midwest Region. Bloomington, MN. [Online] URL: https://www.fws.gov/midwest/endangered/plants/pricesp.html

Price's potato bean was listed as threatened in 1990. A member of the pea family (Fabaceae), this species' historic range included Alabama, Illinois, Kentucky, Mississippi, and Tennessee. Price's potato bean is a twining, herbaceous, perennial vine that grows from a tuber and has greenish-white or brownish-pink flowers. This species is found in open, bottom areas near or along the banks of streams and rivers, sometimes near the base of limestone bluffs (Appendix B, Figure 3.19). Since publication of this species' recovery plan (1993), many new populations have been discovered. Twenty of the 25 populations included in the recovery plan are still extant and apparently stable (USFWS 2016g). According to the five-year review, there are currently 16 extant populations of Price's potato bean in Alabama distributed among nine counties: Autauga (2), Butler (1), Dallas (2), Jackson (2), Lawrence (1), Madison (5), Marshall (1), Monroe (1), and Wilcox (1). The populations in Jackson County occur on Sauta Cave National Wildlife Refuge, and near Little Coon Creek in the Skyline WMA (Appendix B, Figure 3.19). According to its 5-year review, 7 of the 15 populations of Price's potato bean in Alabama face one or more of the following threats; incompatible logging, excessive shading by canopy trees, road and right-of-way interference, and competition with non-native, invasive species (USFWS 2016g).

3.20 MOREFIELD'S LEATHER FLOWER

Morefield's leather flower, a perennial vine in the buttercup family (Ranunculaceae), was listed as endangered in 1992. This species has urn-shaped flowers that are pinkish in color and typically present from May to July. Morefield's leather flower typically occurs near seeps and springs in rocky limestone woods on south and southwest facing slopes of mountains (Appendix B, Figure 3.20). According to the five-year review, there are currently 10 extant populations in Alabama in the counties of Madison and

Source: The Encyclopedia of Alabama. 2019. Alabama Humanities Foundation. [Online] URL: http://www.encyclopediaofalabama.org/article/h-4073

Jackson (USFWS 2018, Appendix B, Figure 3.20). Populations are imperiled by residential development, logging, and/or roadway interference (USFWS 2018). There are no published reports of Morefield's leather flower within the Project Boundary at Skyline.

4.0 DISCUSSION AND CONCLUSIONS

The Alabama counties in the vicinity of the Harris Project is located overlap with the habitat range, critical habitat, and extant populations of 20 federal and state protected T&E species (Appendix B). Nine of these species have habitat ranges intersecting with the Project Boundaries, five of which have a range occurring in the Project Boundary at Skyline, and six of which have a range occurring in the Project Boundary at Lake Harris (Table 4-1 and Appendix B). Additionally, the USFWS has designated critical habitats for 6 of the 20 total species identified (finelined pocketbook, Indiana bat, rabbitsfoot, slabside pearlymussel, southern pigtoe, and spotfin chub). In addition to critical habitat ranges, specific extant populations were identified for 10 species. Seven of the ten listed mussels (Alabama lampmussel, fine-rayed pigtoe, pale lilliput, rabbitsfoot, snuffbox, shiny pigtoe, and slabside pearlymussel), and one of the two listed fish (palezone shiner) have extant populations in the Paint Rock River, which is located 3.9 linear miles from the closest Project boundary at Skyline. The desktop review of federally listed species and their habitats identified potential habitat for three bat species, two mussels species, two plant species, and a bird that may have habitat within the Project Boundary at Lake Harris and Skyline.

4.1 BIRDS

The red-cockaded woodpecker likely does not occur within Skyline WMA; however, the species range does overlap with the Project Boundary at Lake Harris and includes a few areas of coniferous forests. The red-cockaded woodpecker prefers pine savannah habitat; but it is unlikely that suitable habitat for red-cockaded woodpecker exists within the Project Boundary at Lake Harris.

4.2 BATS

All three bat species potentially use the Skyline WMA year-round because of the presence of potentially suitable habitat. The Indiana bat and northern long-eared bat could potentially use the forests within the Project Boundary at Lake Harris during the summer months. Alabama Power uses best management practices for timber harvest which is protective of these bats. Details about these management practices would be provided in a future management plan.

4.3 MUSSELS

The two mussel species that have been documented to occur in counties that overlap with the Project Boundary at Lake Harris are found in the Tallapoosa River watershed. Critical habitat for the finelined pocketbook abuts the Project boundary at Lake Harris at Hwy 431 (Appendix B, Figure 3.4). Alabama Power is working with the USFWS to complete a field survey to determine if these mussels or their habitats are located within the Project Boundary at Lake Harris.

4.4 PLANTS

The little amphianthus was found within the Project Boundary at Lake Harris at Flat Rock Park in 1995. Subsequent surveys in Fall 2018, Spring 2019, and Fall 2019 did not detect the species. In addition, granite rock geology that could contain outcroppings for little amphianthus habitat have been identified in the Project Area.

One extant population of Price's potato bean intersects the Project Boundary at Skyline; it comprises 11 percent of the extant population occurring in Little Coon Creek; however, 89 percent of this one population occurs outside the Project Boundary at Skyline.

The habitat range of the white fringeless orchid overlaps the Project Boundary at Lake Harris and Skyline. However, the known extant populations in Clay and Cleburne counties are within Talladega National Forest, and the status of a third population in Jackson County is uncertain (USFWS 2016a).

Table 4-1 provides a summary of the T&E species and their habitat occurrence relative to the Project Boundaries at Lake Harris and Skyline.

TABLE 4-1 HABITAT RANGES OF LISTED THREATENED AND ENDANGERED SPECIES THAT INTERSECT THE R.L. HARRIS PROJECT BOUNDARY

SPECIES	HABITAT OCCURRENCE	
	Skyline	*Lake Harris*
Fine-lined pocketbook		✓
Southern pigtoe		✓
Gray bat	✓	
Indiana bat	✓	✓
Northern long-eared bat	✓	✓
Little amphianthus		✓
Price's potato bean	✓	
Red-cockaded woodpecker		✓
White fringeless orchid	✓	✓

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APPENDIX A
ACRONYMS AND ABBREVIATIONS

ACRONYMS AND ABBREVIATIONS

A

A&I	Agricultural and Industrial
ACFWRU	Alabama Cooperative Fish and Wildlife Research Unit
ACF	Apalachicola-Chattahoochee-Flint (River Basin)
ACT	Alabama-Coosa-Tallapoosa (River Basin)
ADCNR	Alabama Department of Conservation and Natural Resources
ADECA	Alabama Department of Economic and Community Affairs
ADEM	Alabama Department of Environmental Management
ADROP	Alabama-ACT Drought Response Operations Plan
AHC	Alabama Historical Commission
Alabama Power	Alabama Power Company
AMP	Adaptive Management Plan
ALNHP	Alabama Natural Heritage Program
APE	Area of Potential Effects
ARA	Alabama Rivers Alliance
ASSF	Alabama State Site File
ATV	All-Terrain Vehicle
AWIC	Alabama Water Improvement Commission
AWW	Alabama Water Watch

B

BA	Biological Assessment
B.A.S.S.	Bass Anglers Sportsmen Society
BCC	Birds of Conservation Concern
BLM	U.S. Bureau of Land Management
BOD	Biological Oxygen Demand

C

°C	Degrees Celsius or Centrigrade
CEII	Critical Energy Infrastructure Information
CFR	Code of Federal Regulation
cfs	Cubic Feet per Second
cfu	Colony Forming Unit
CLEAR	Community Livability for the East Alabama Region
CPUE	Catch-per-unit-effort
CWA	Clean Water Act

D

DEM	Digital Elevation Model
DIL	Drought Intensity Level
DO	Dissolved Oxygen
dsf	day-second-feet

E

EAP	Emergency Action Plan
ECOS	Environmental Conservation Online System
EFDC	Environmental Fluid Dynamics Code
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act

F

°F	Degrees Fahrenheit
ft	Feet
F&W	Fish and Wildlife
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FNU	Formazin Nephelometric Unit
FOIA	Freedom of Information Act
FPA	Federal Power Act

G

GCN	Greatest Conservation Need
GIS	Geographic Information System
GNSS	Global Navigation Satellite System
GPS	Global Positioning Systems
GSA	Geological Survey of Alabama

H

Harris Project	R.L. Harris Hydroelectric Project
HAT	Harris Action Team
HEC	Hydrologic Engineering Center
HEC-DSSVue	HEC-Data Storage System and Viewer
HEC-FFA	HEC-Flood Frequency Analysis
HEC-RAS	HEC-River Analysis System
HEC-ResSim	HEC-Reservoir System Simulation Model
HEC-SSP	HEC-Statistical Software Package

HDSS	High Definition Stream Survey
hp	Horsepower
HPMP	Historic Properties Management Plan
HPUE	Harvest-per-unit-effort
HSB	Horseshoe Bend National Military Park

I

IBI	Index of Biological Integrity
IDP	Inadvertent Discovery Plan
IIC	Intercompany Interchange Contract
IVM	Integrated Vegetation Management
ILP	Integrated Licensing Process
IPaC	Information Planning and Conservation
ISR	Initial Study Report

J

JTU	Jackson Turbidity Units

K

kV	Kilovolt
kva	Kilovolt-amp
kHz	Kilohertz

L

LIDAR	Light Detection and Ranging
LWF	Limited Warm-water Fishery
LWPOA	Lake Wedowee Property Owners' Association

M

m	Meter
m^3	Cubic Meter
M&I	Municipal and Industrial
mg/L	Milligrams per liter
ml	Milliliter
mgd	Million Gallons per Day
µg/L	Microgram per liter
µs/cm	Microsiemens per centimeter
mi^2	Square Miles
MOU	Memorandum of Understanding

MPN	Most Probable Number
MRLC	Multi-Resolution Land Characteristics
msl	Mean Sea Level
MW	Megawatt
MWh	Megawatt Hour

N

n	Number of Samples
NEPA	National Environmental Policy Act
NGO	Non-governmental Organization
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTU	Nephelometric Turbidity Unit
NWI	National Wetlands Inventory

O

OAR	Office of Archaeological Resources
OAW	Outstanding Alabama Water
ORV	Off-road Vehicle
OWR	Office of Water Resources

P

PA	Programmatic Agreement
PAD	Pre-Application Document
PDF	Portable Document Format
pH	Potential of Hydrogen
PID	Preliminary Information Document
PLP	Preliminary Licensing Proposal
Project	R.L. Harris Hydroelectric Project
PUB	Palustrine Unconsolidated Bottom
PURPA	Public Utility Regulatory Policies Act
PWC	Personal Watercraft
PWS	Public Water Supply

Q

QA/QC	Quality Assurance/Quality Control

R

RM	River Mile
RTE	Rare, Threatened and Endangered
RV	Recreational Vehicle

S

S	Swimming
SCORP	State Comprehensive Outdoor Recreation Plan
SCP	Shoreline Compliance Program
SD1	Scoping Document 1
SH	Shellfish Harvesting
SHPO	State Historic Preservation Office
Skyline WMA	James D. Martin-Skyline Wildlife Management Area
SMP	Shoreline Management Plan
SU	Standard Units

T

T&E	Threatened and Endangered
TCP	Traditional Cultural Properties
TMDL	Total Maximum Daily Load
TNC	The Nature Conservancy
TRB	Tallapoosa River Basin
TSI	Trophic State Index
TSS	Total Suspended Soils
TVA	Tennessee Valley Authority

U

USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

W

WCM	Water Control Manual
WMA	Wildlife Management Area
WMP	Wildlife Management Plan
WQC	Water Quality Certification

APPENDIX B
SPECIES HABITAT RANGE MAPS

Red-cockaded Woodpecker Habitat Range

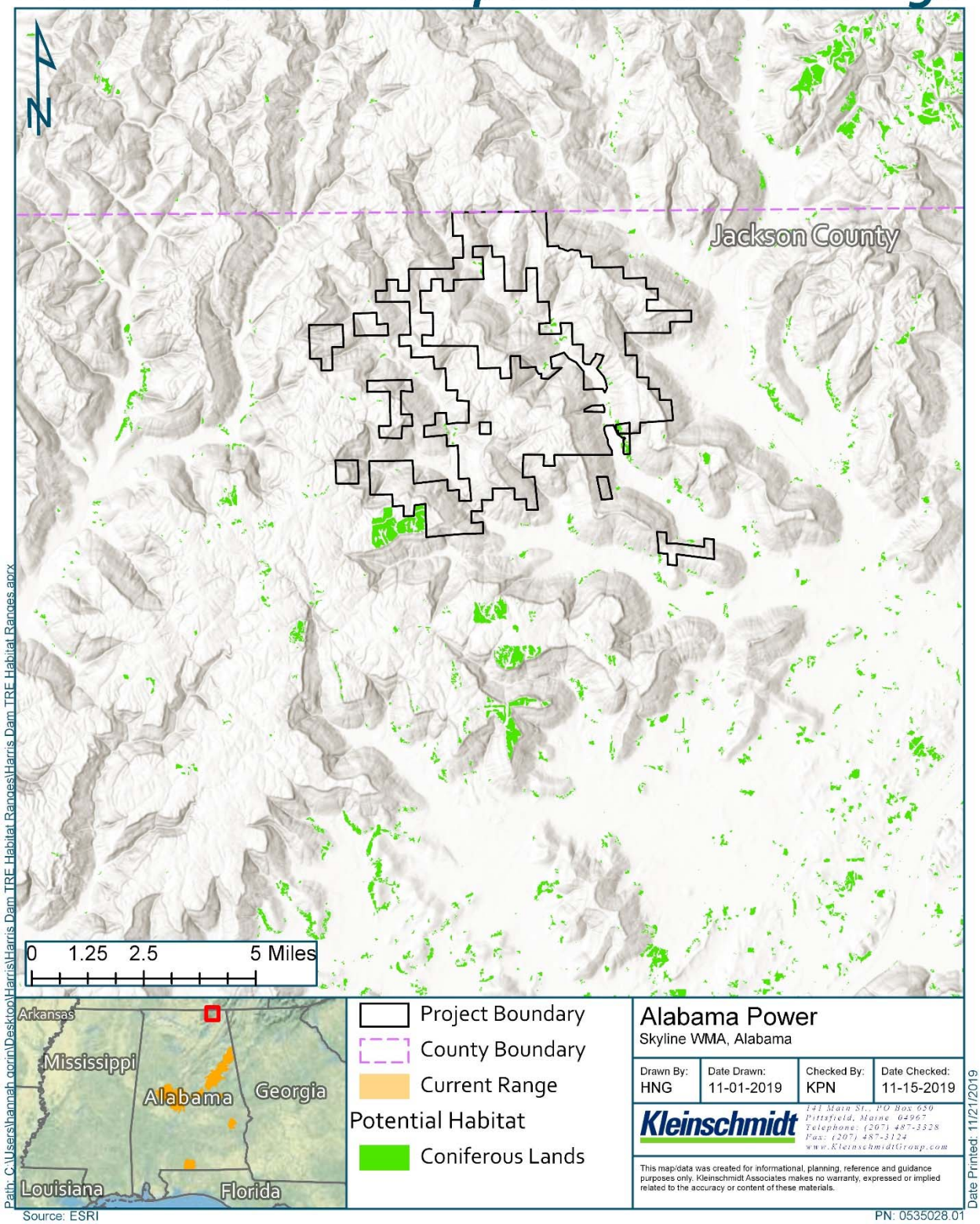


Figure 3.1-1

Red-cockaded Woodpecker Habitat Range

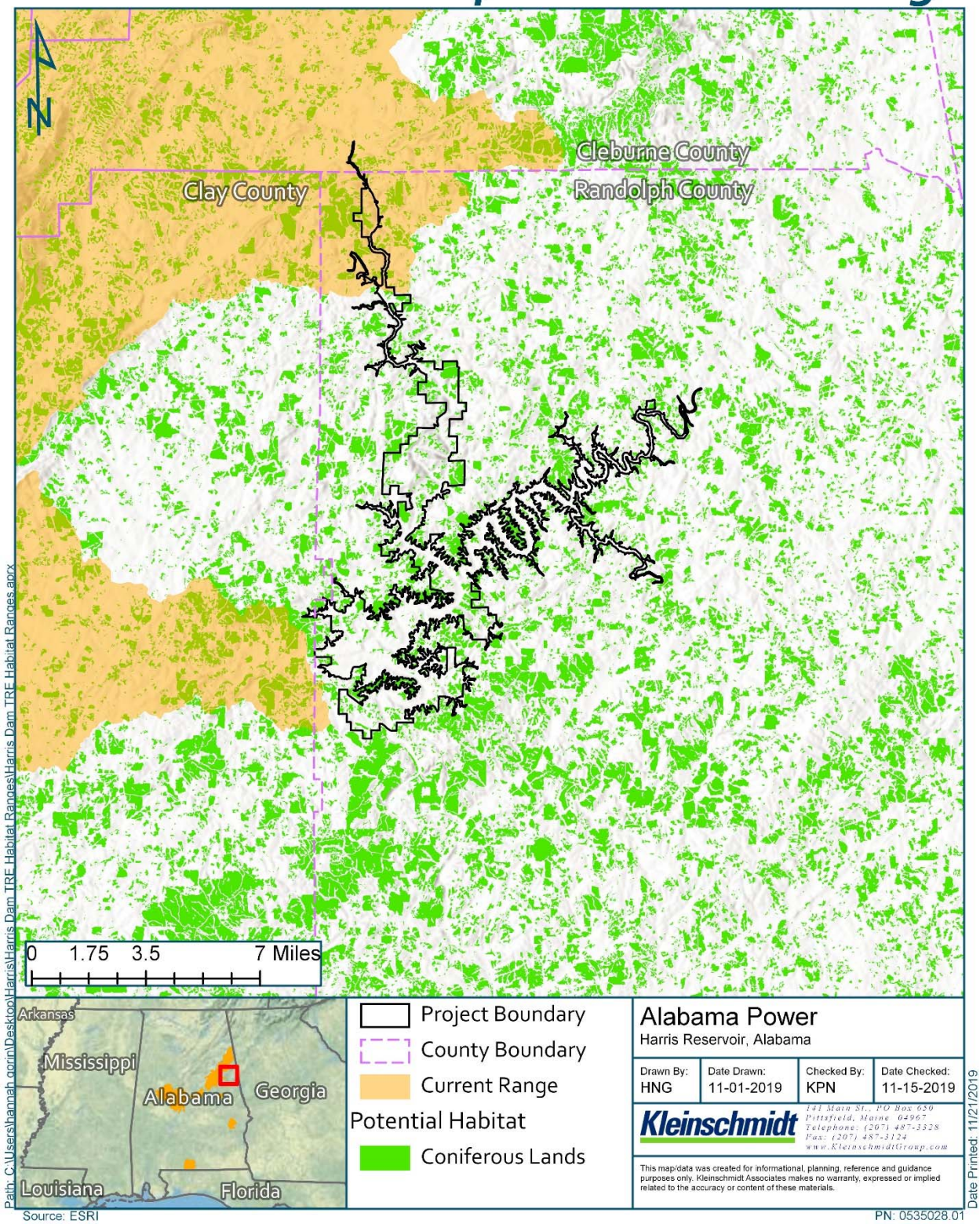
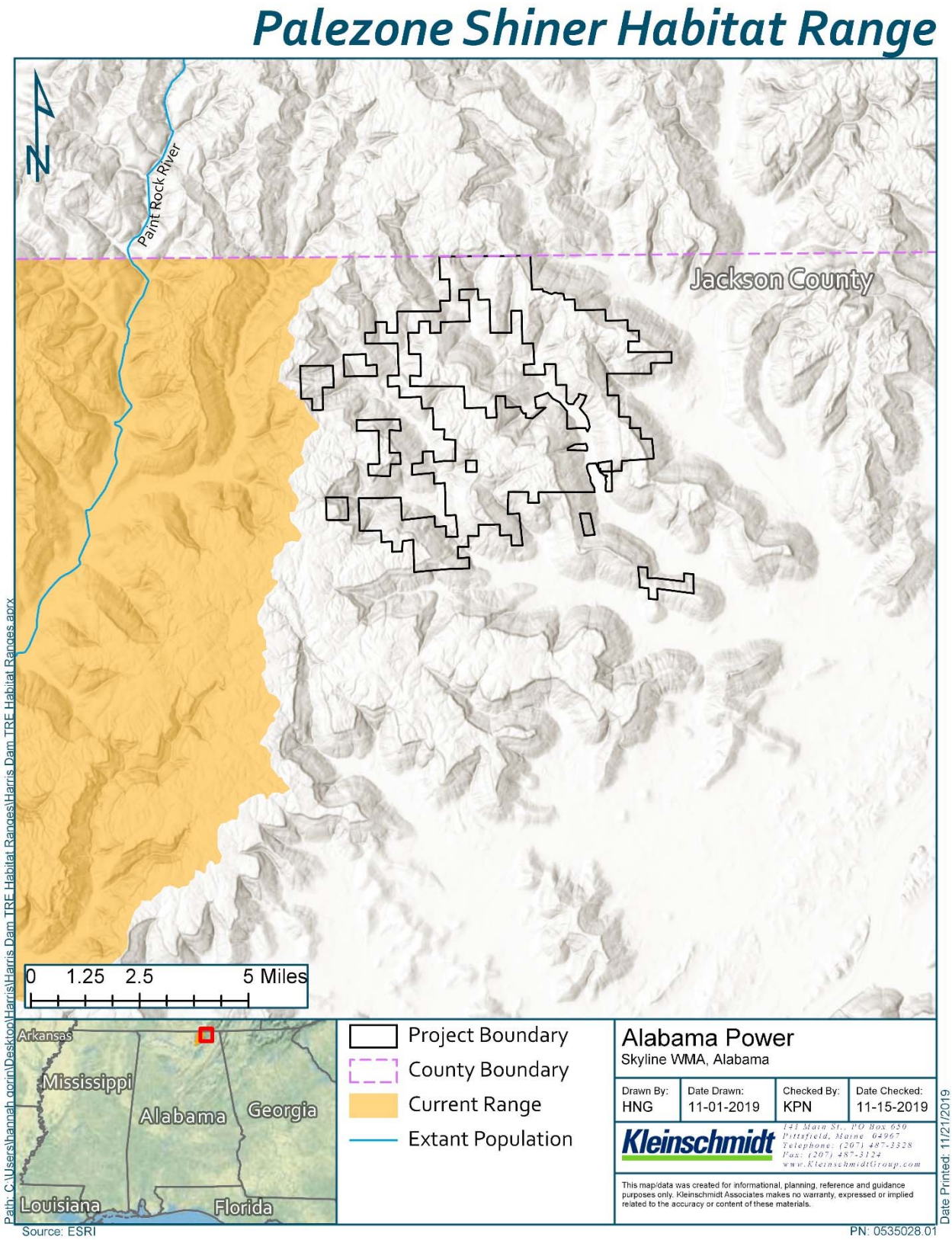


Figure 3.1-2


Palezone Shiner Habitat Range
Paint Rock River
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Extant Population
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
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PN: 0535028.01

Figure 3.2-1

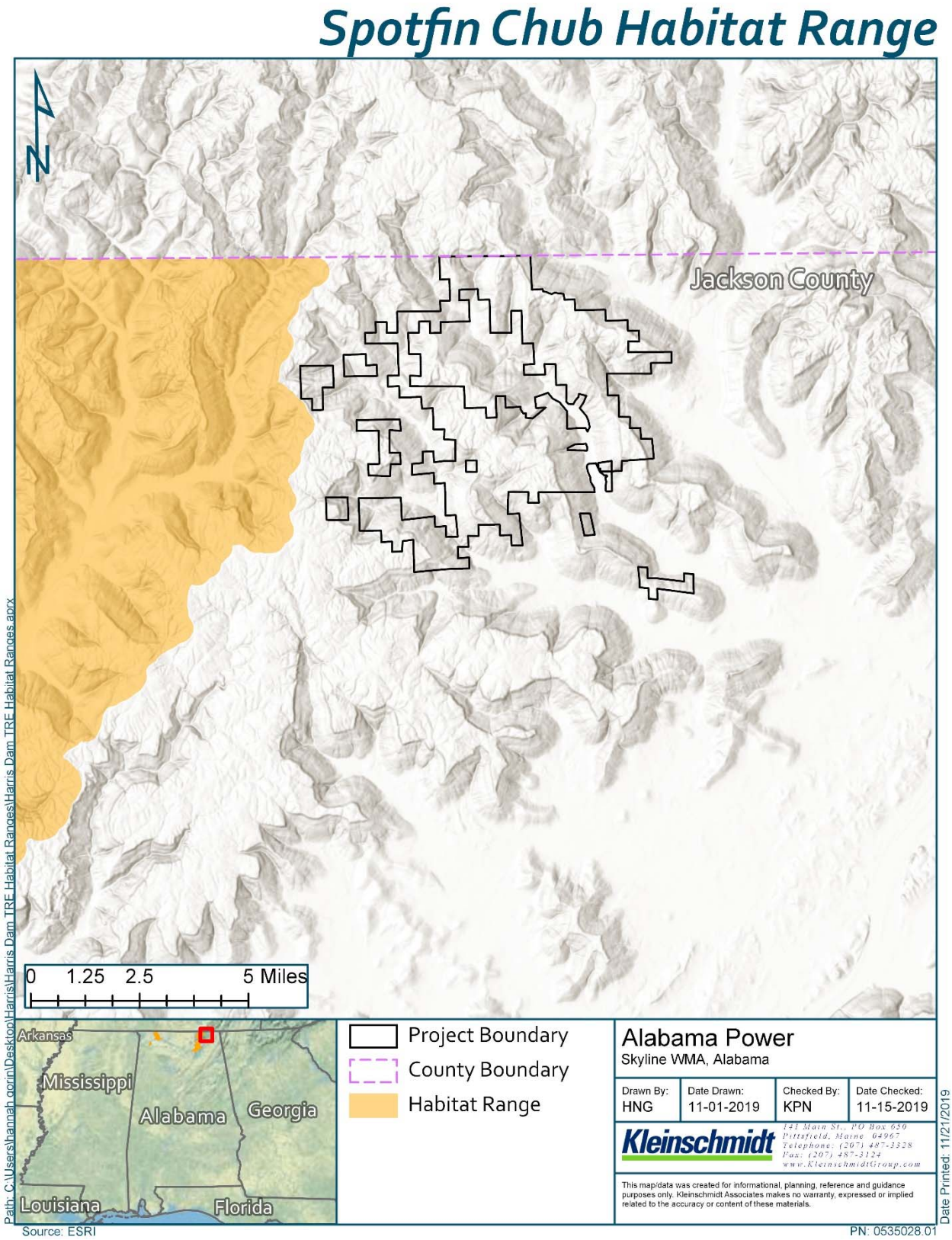
Spotfin Chub Habitat Range
N
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Habitat Range
Alabama Power
Skyline WMA, Alabama
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Figure 3.3.1

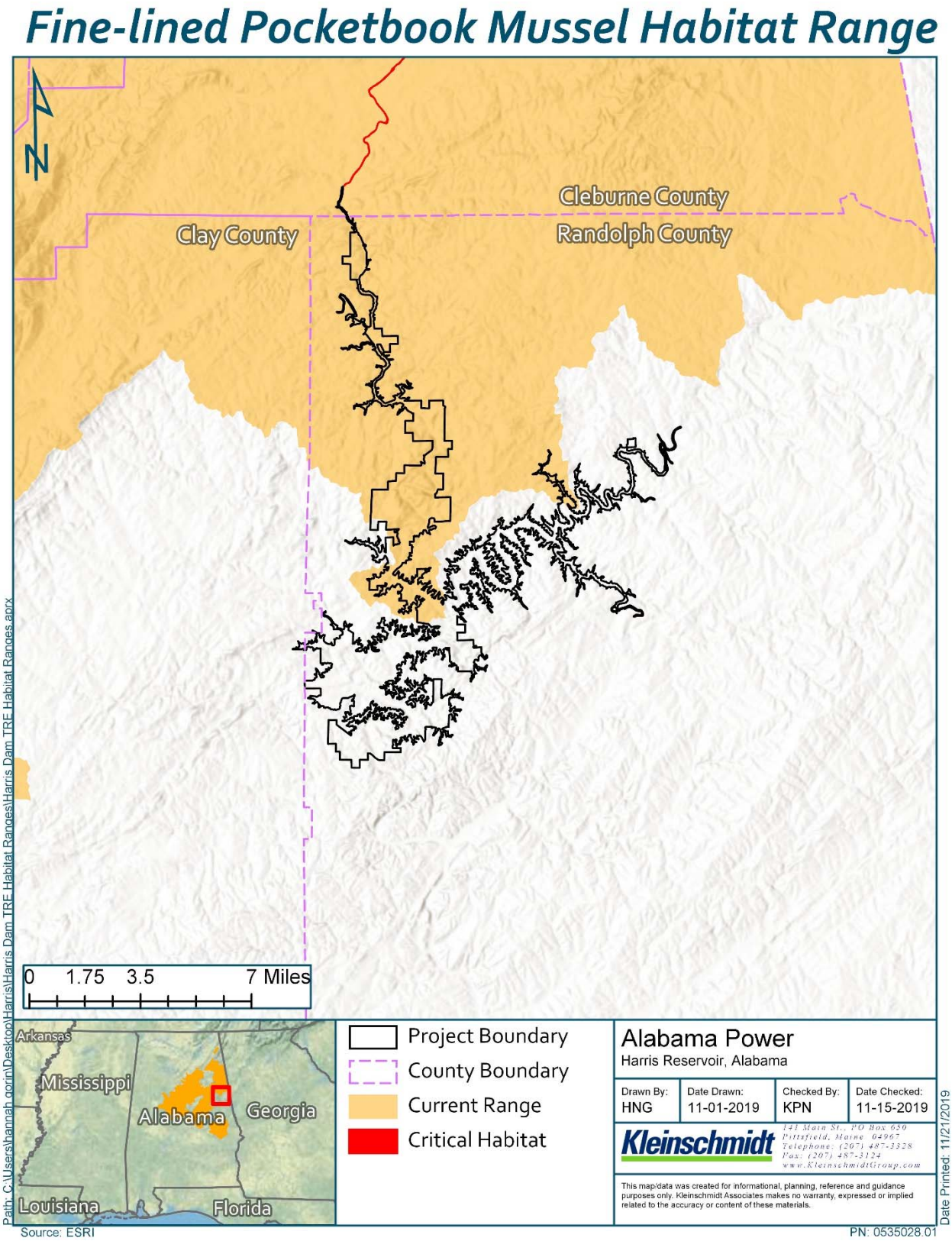
Fine-lined Pocketbook Mussel Habitat Range
N
Cleburne County
Randolph County
Clay County
0 1.75 3.5 7 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Critical Habitat
Alabama Power
Harris Reservoir, Alabama
Drawn By: HNG
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Figure 3.4-1

Alabama Lampmussel Habitat Range

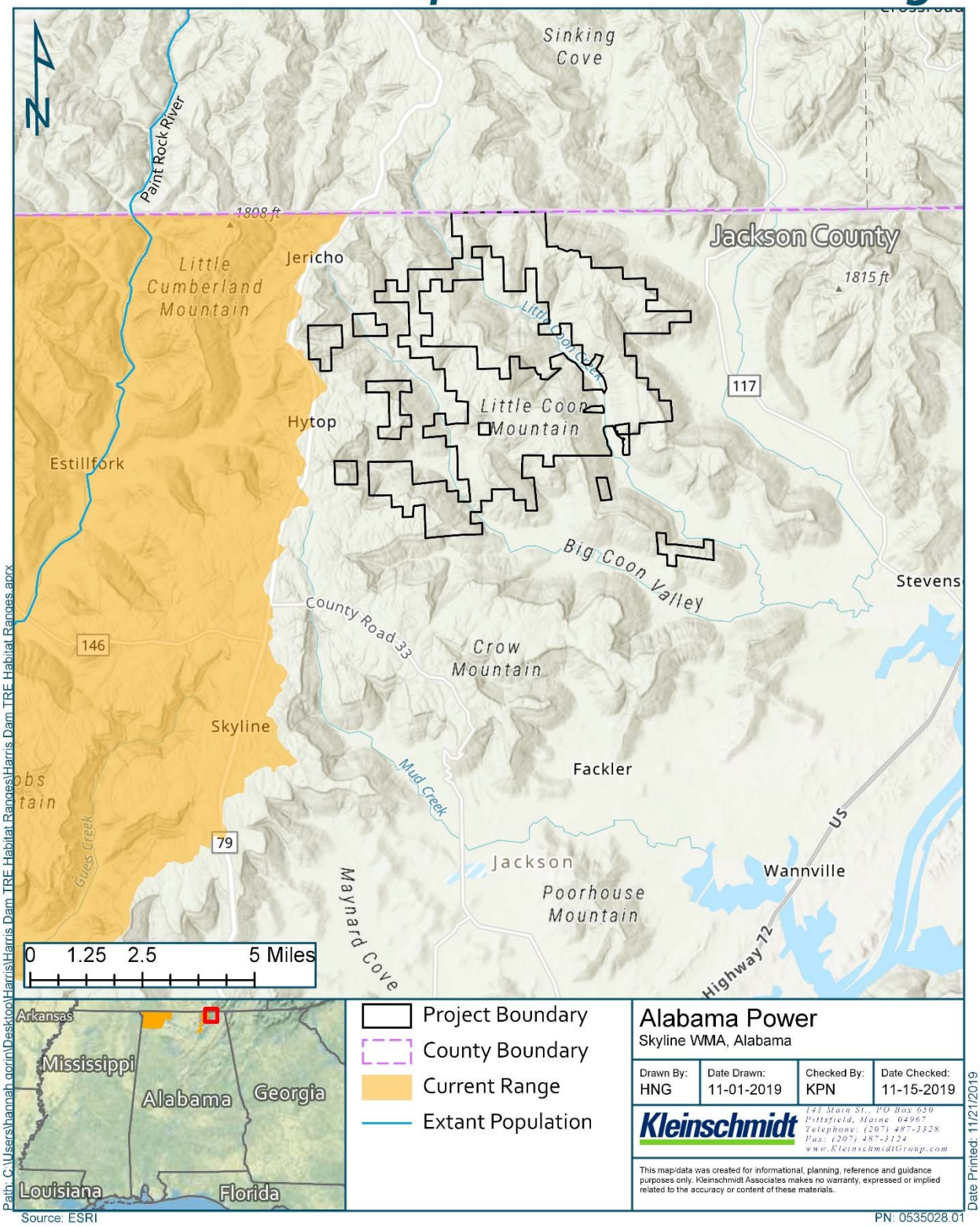

Figure 3.5-1

Cumberland Bean Habitat Range

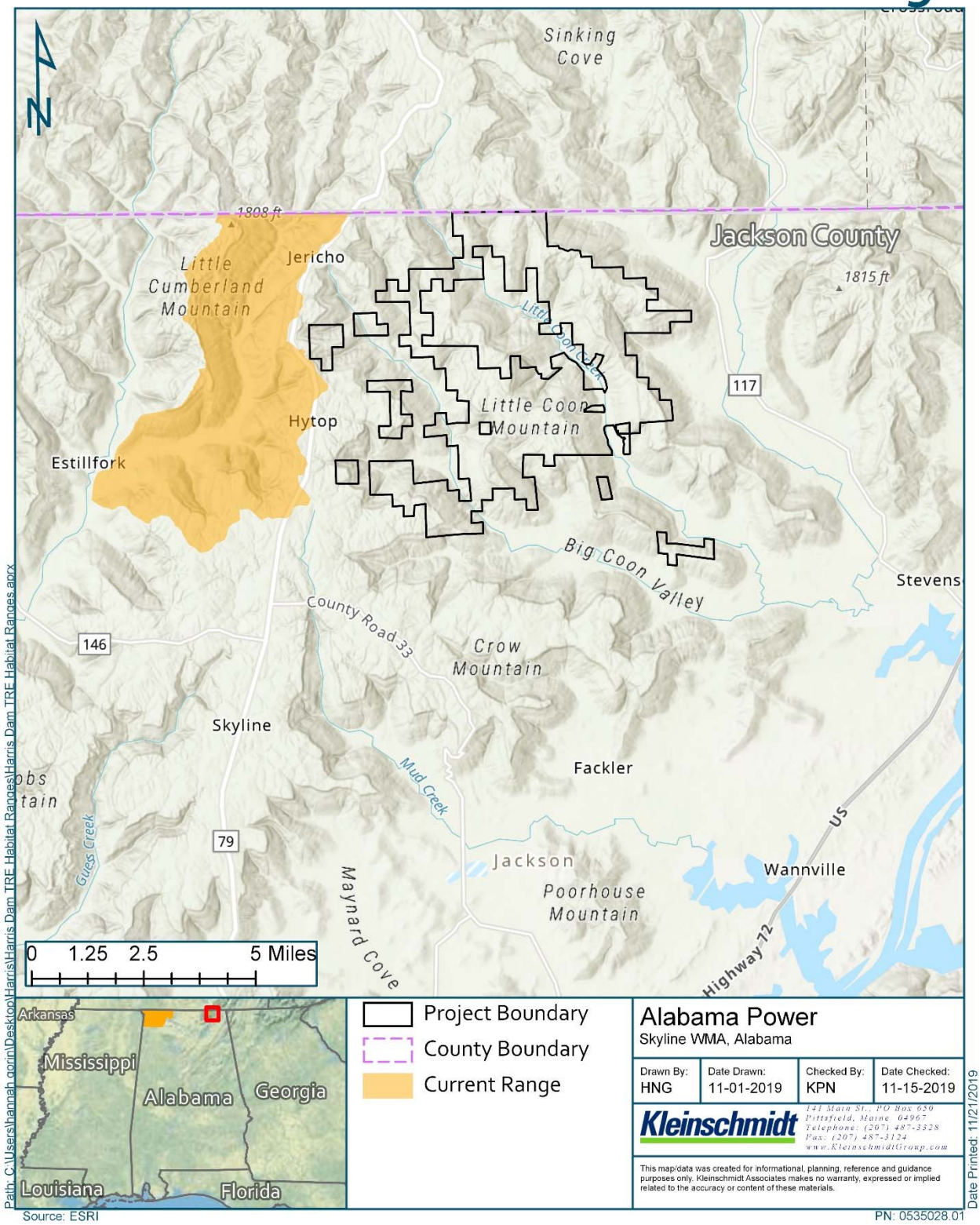

Figure 3.6-1

Finerayed Pigtoe Habitat Range

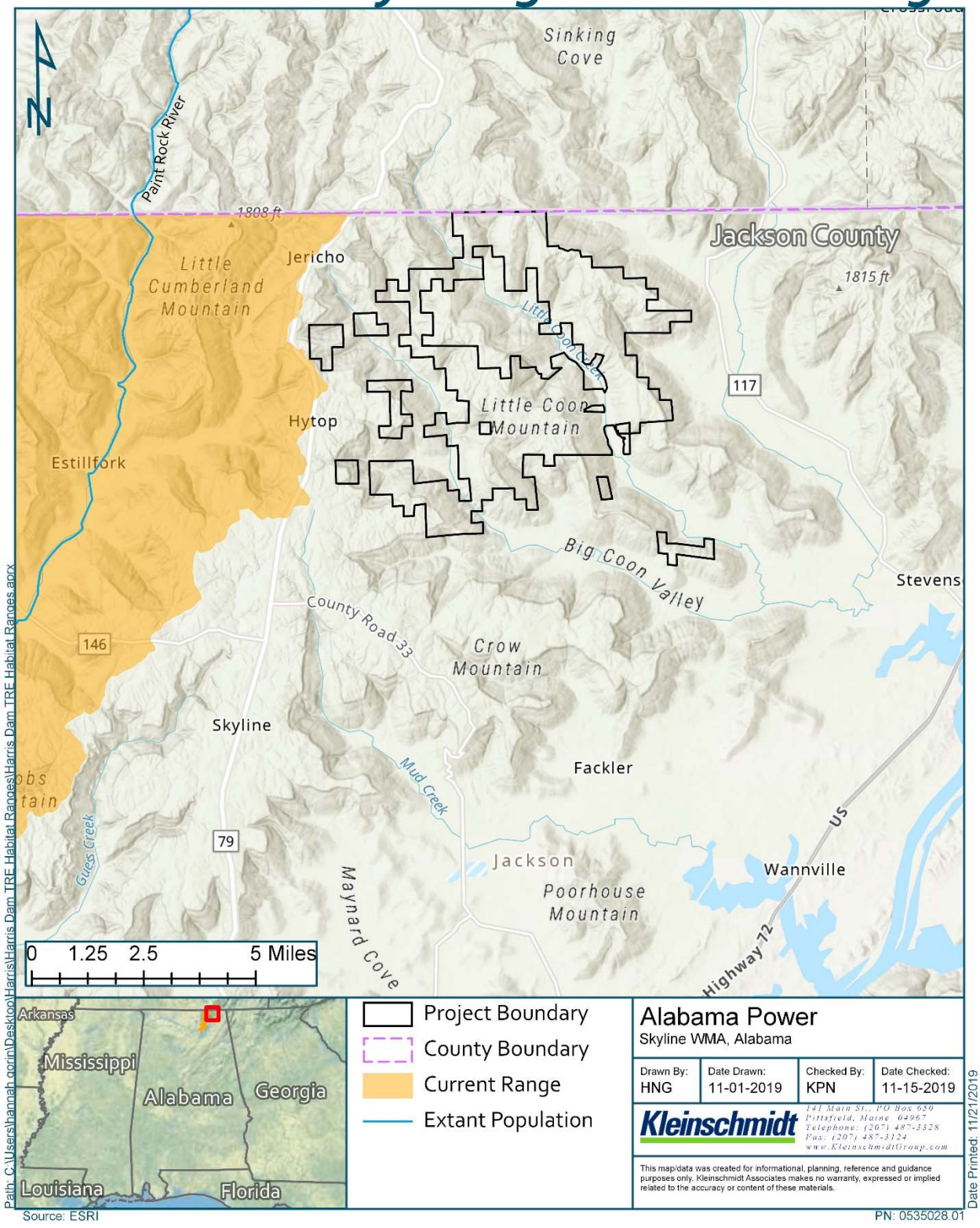

Figure 3.7-1

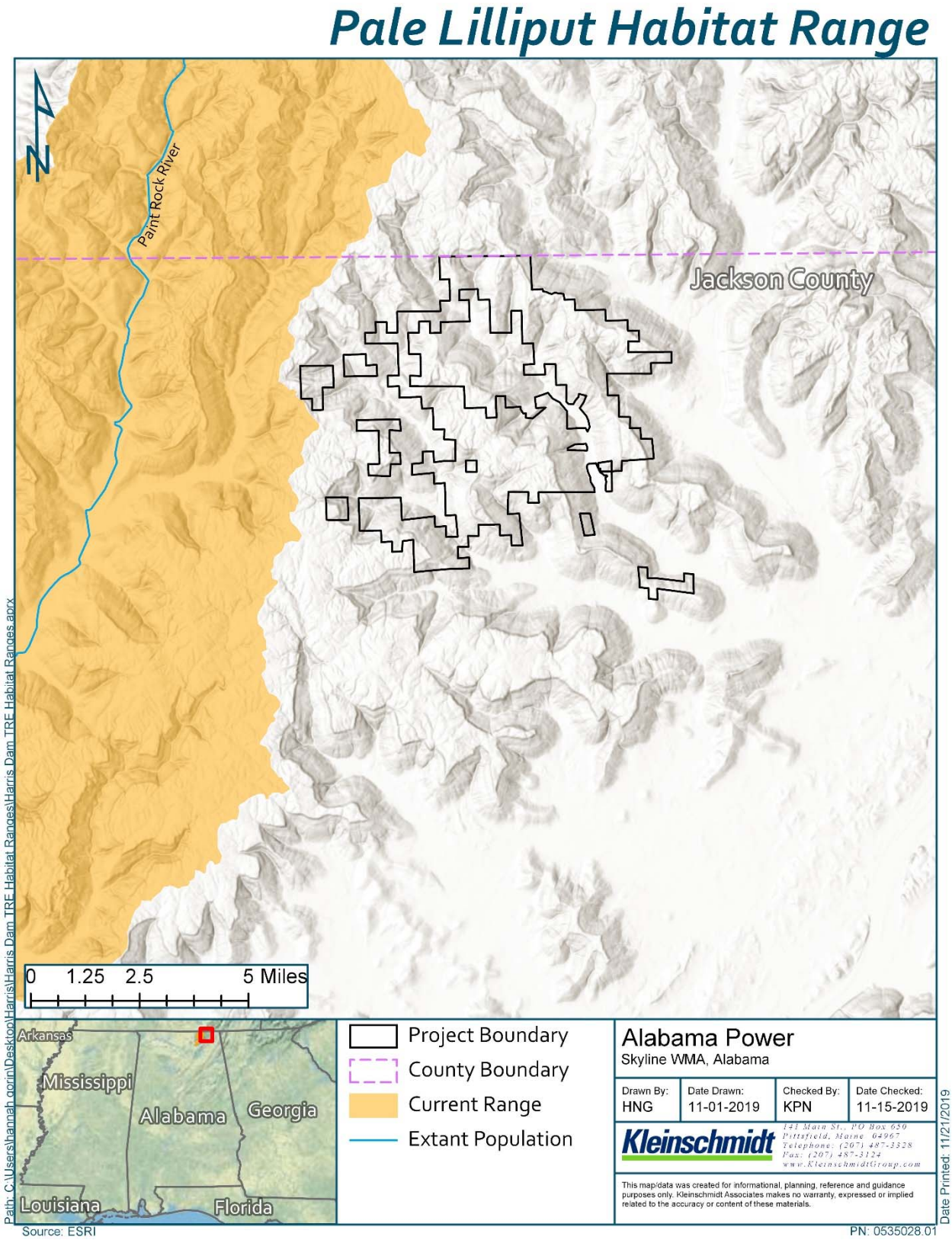
Pale Lilliput Habitat Range
Paint Rock River
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Extant Population
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
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Figure 3.8-1

Rabbitsfoot Habitat Range

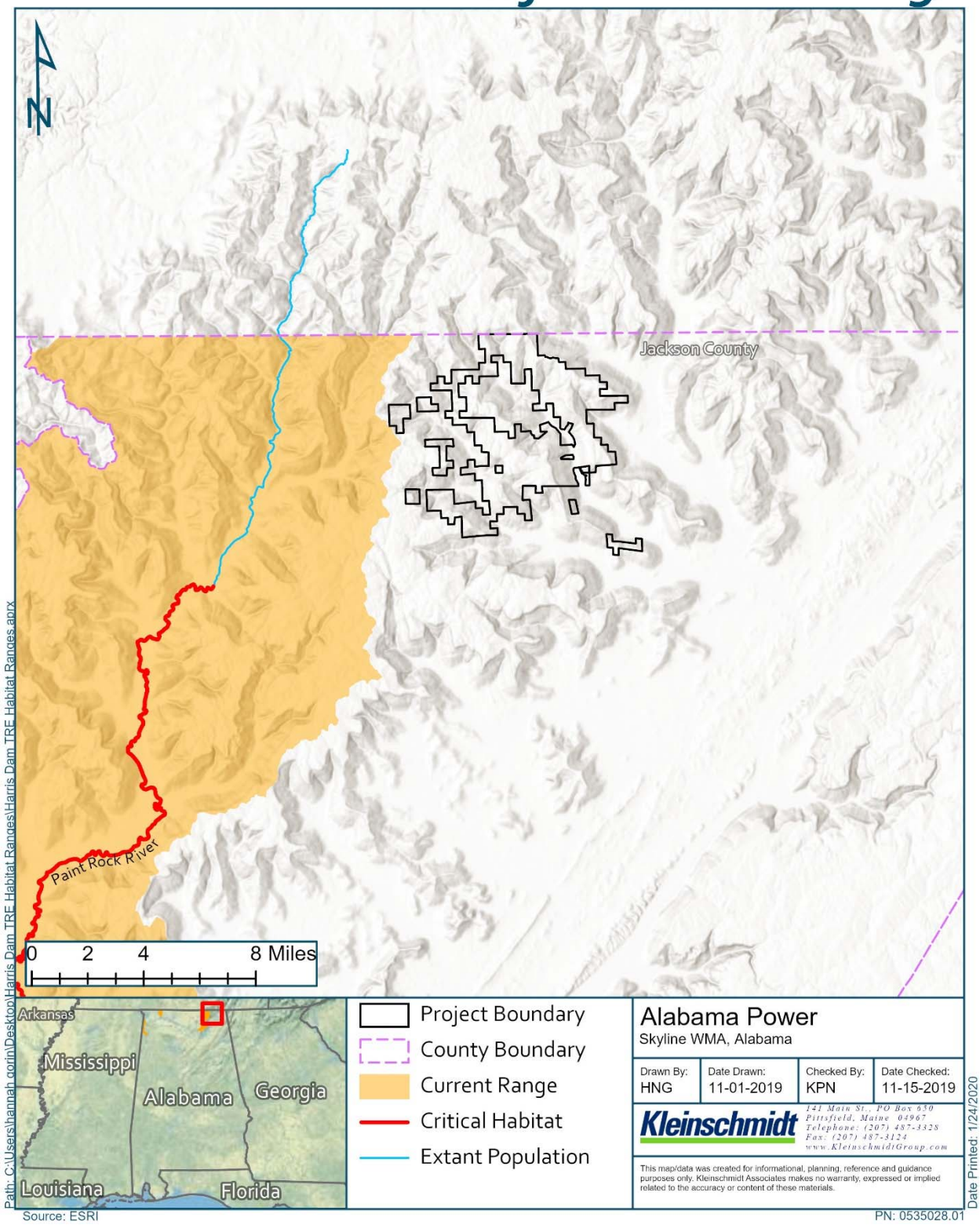
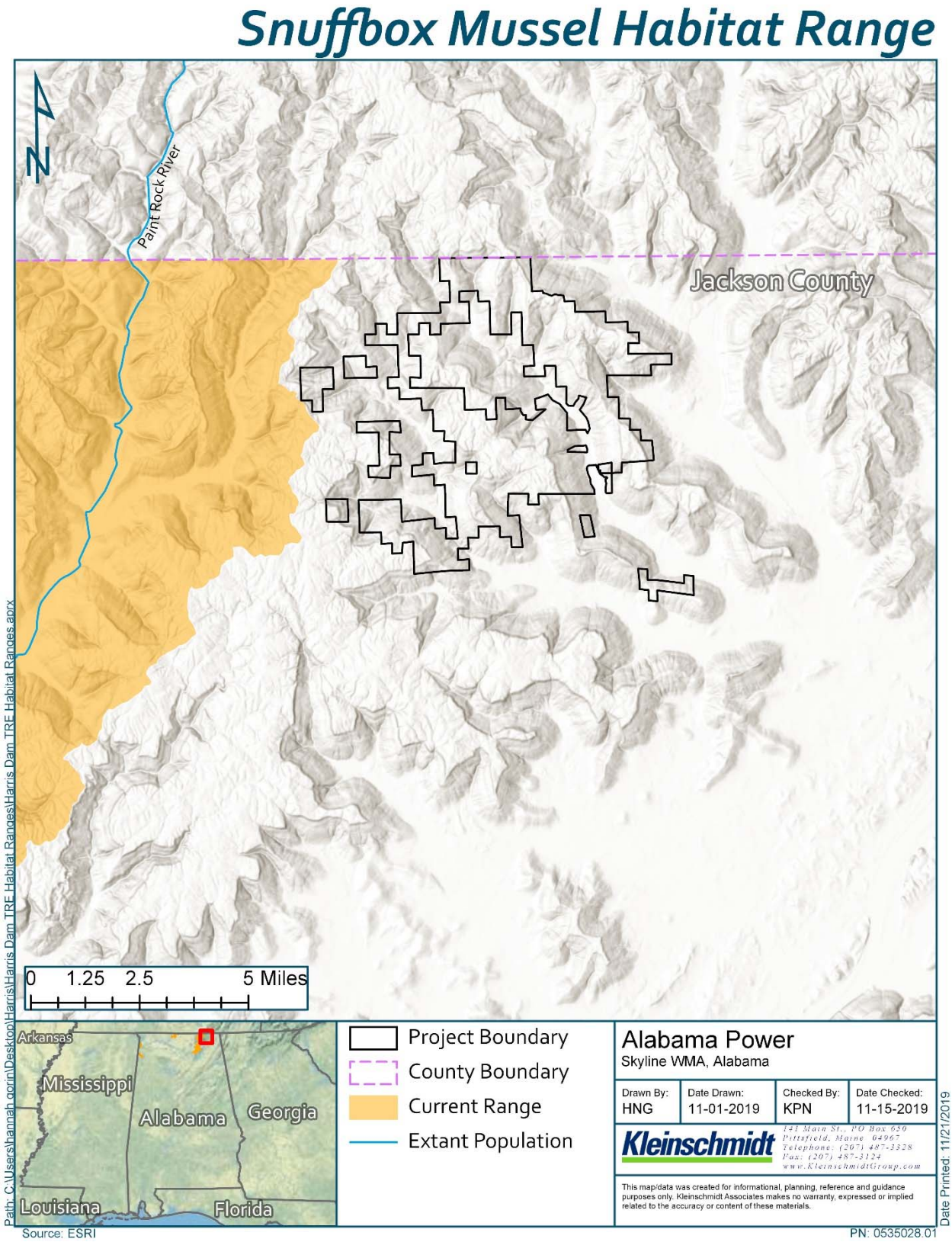


Figure 3.9-1


Snuffbox Mussel Habitat Range
Paint Rock River
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Extant Population
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
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Date Checked: 11-15-2019
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Figure 3.10-1

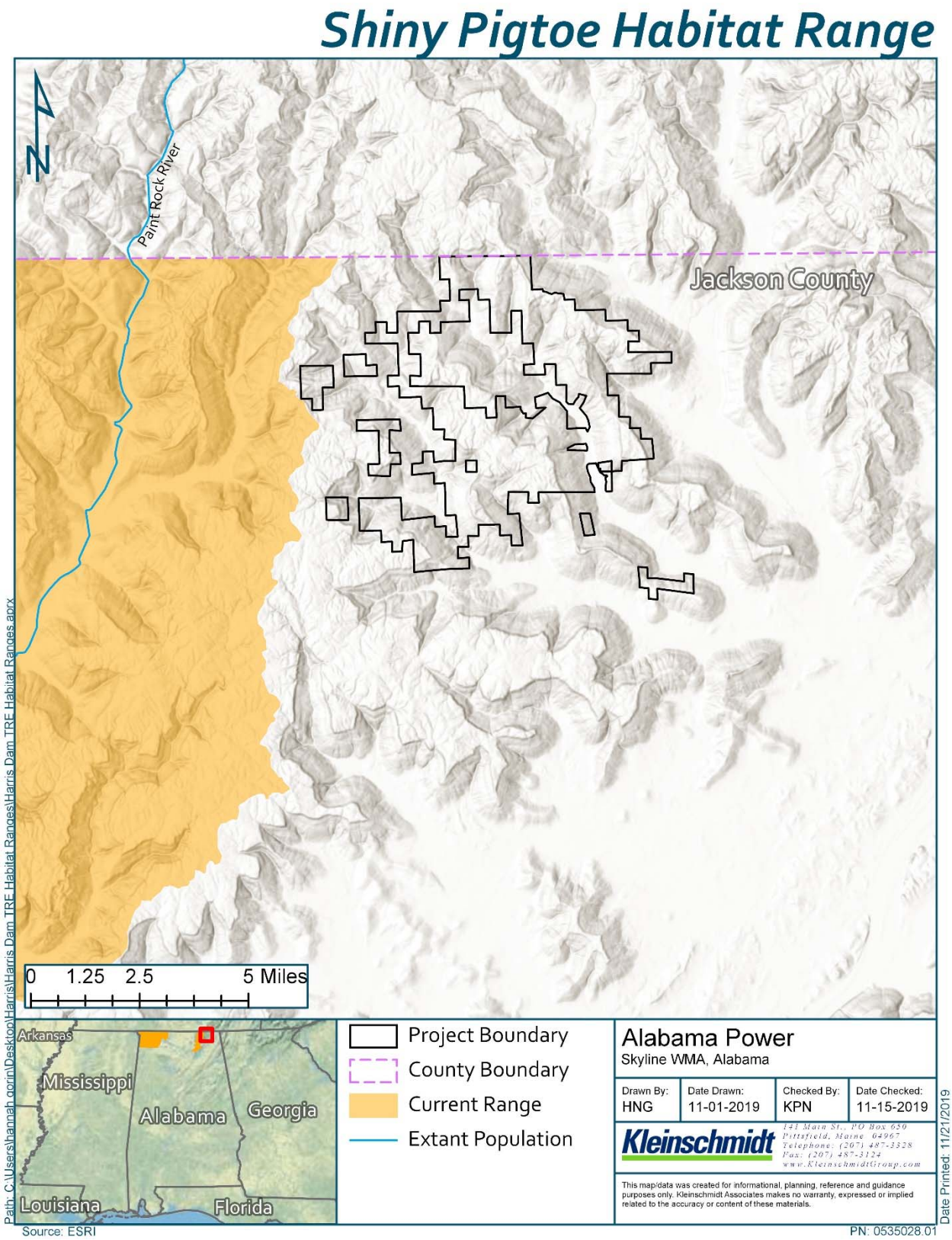
Shiny Pigtoe Habitat Range
Paint Rock River
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Extant Population
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
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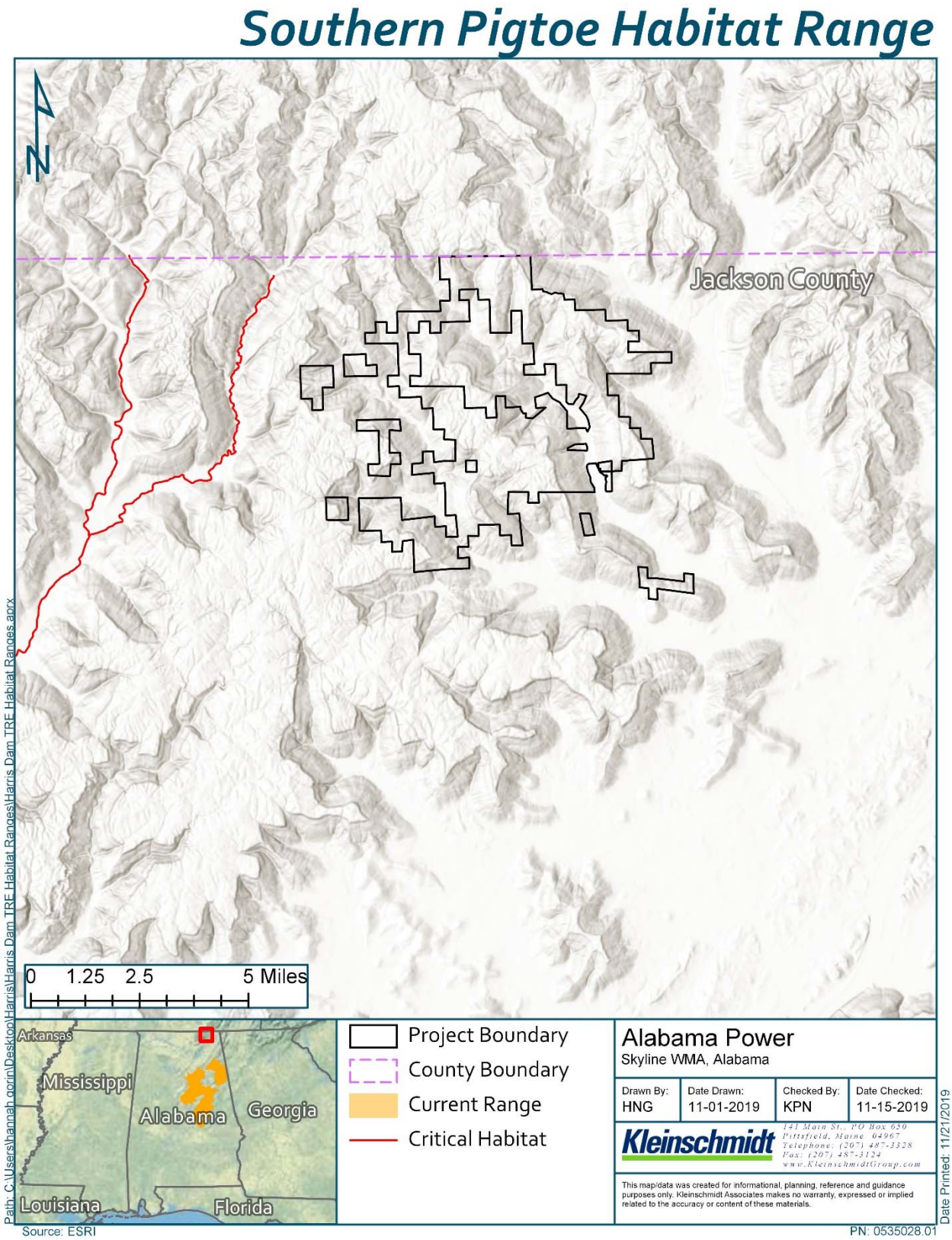
Figure 3.11-1


Southern Pigtoe Habitat Range
N
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Critical Habitat
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
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PN: 0535028.01

Figure 3.12-1

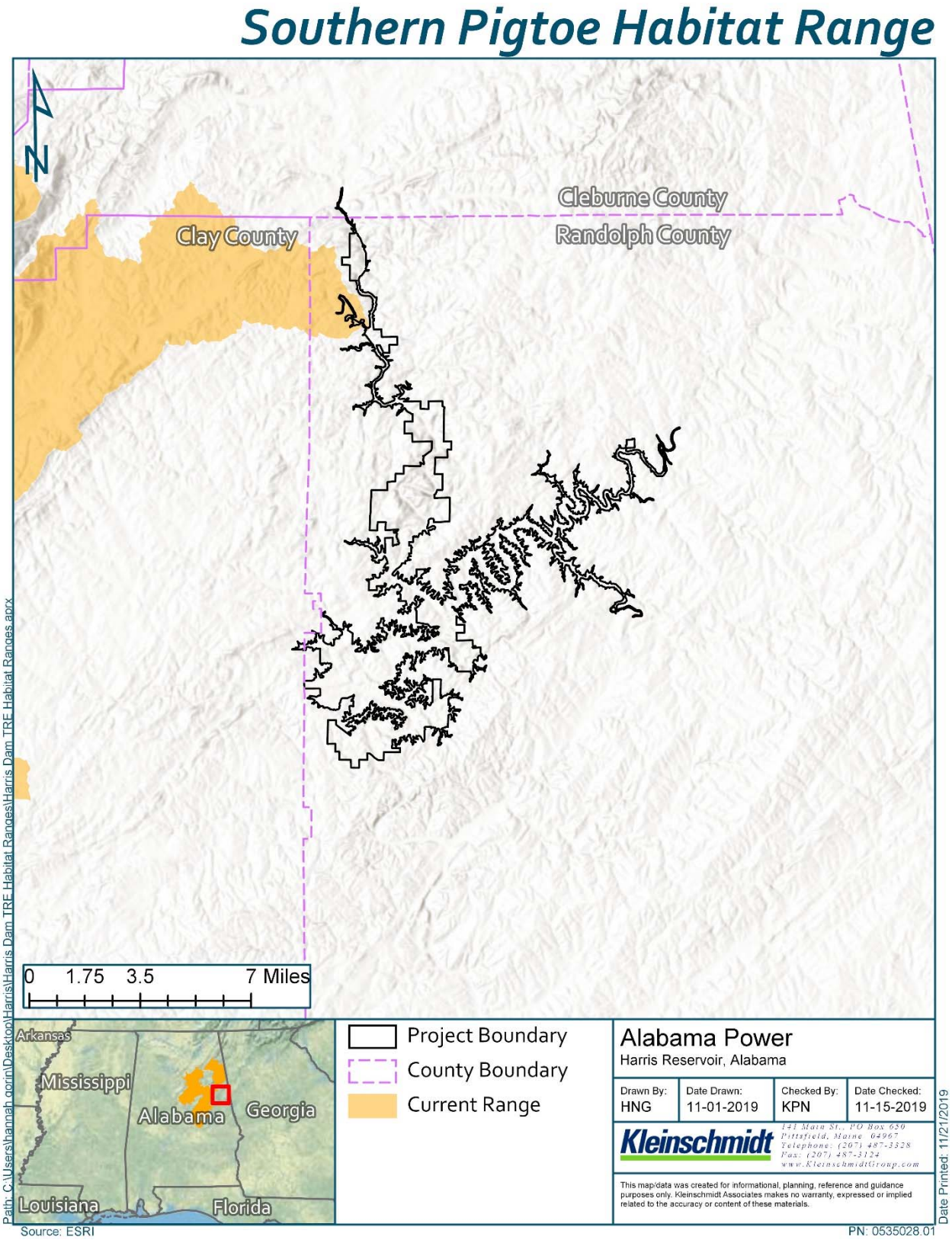
Southern Pigtoe Habitat Range
N
Cleburne County
Randolph County
Clay County
0 1.75 3.5 7 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Alabama Power
Harris Reservoir, Alabama
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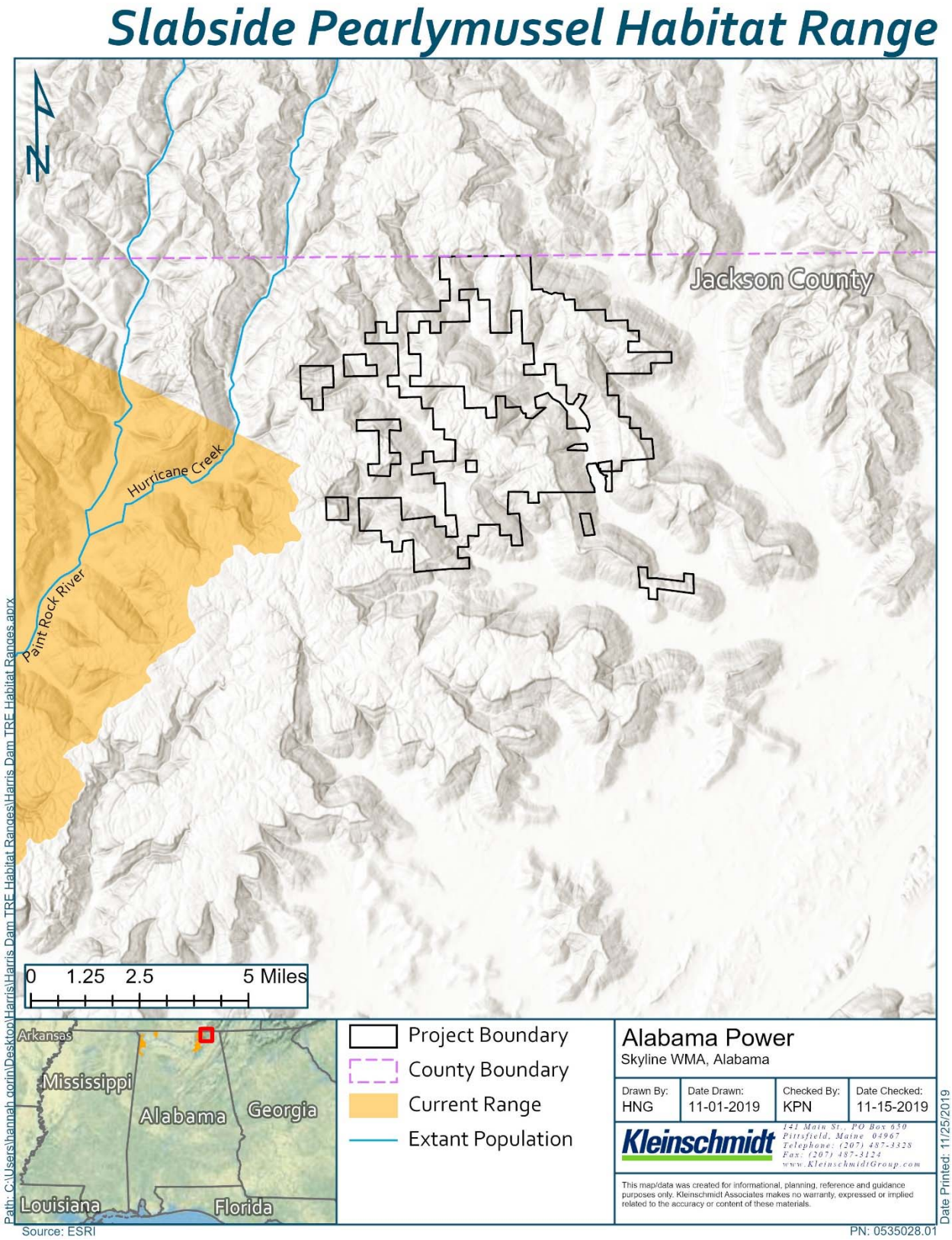
Figure 3.12-2


Slabside Pearlymussel Habitat Range
N
Jackson County
Hurricane Creek
Paint Rock River
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Extant Population
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
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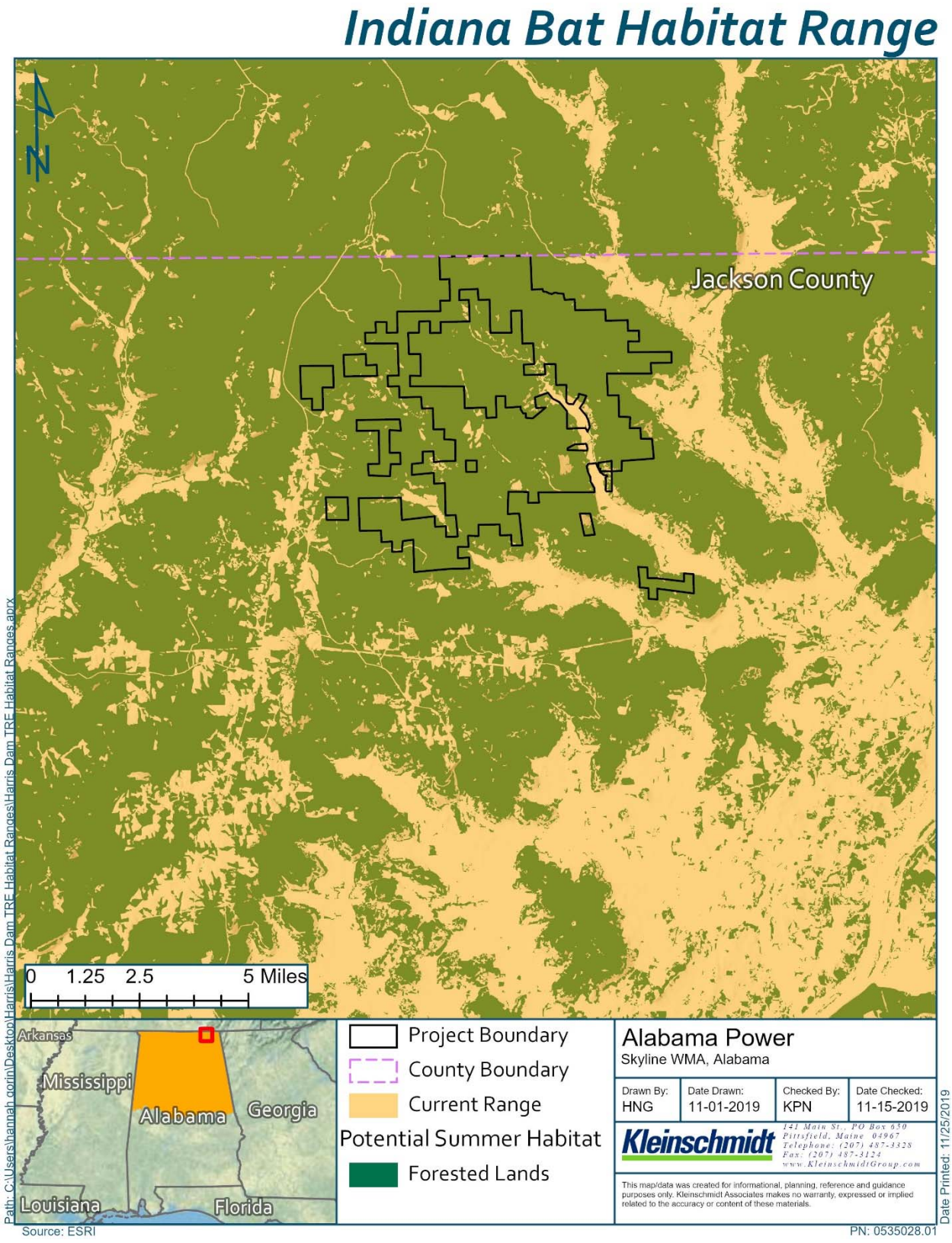
Source: ESRI
PN: 0535028.01

Figure 3.13-1


Indiana Bat Habitat Range
N
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Potential Summer Habitat
Forested Lands
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
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Source: ESRI
PN: 0535028.01

Figure 3.14-1

Indiana Bat Habitat Range

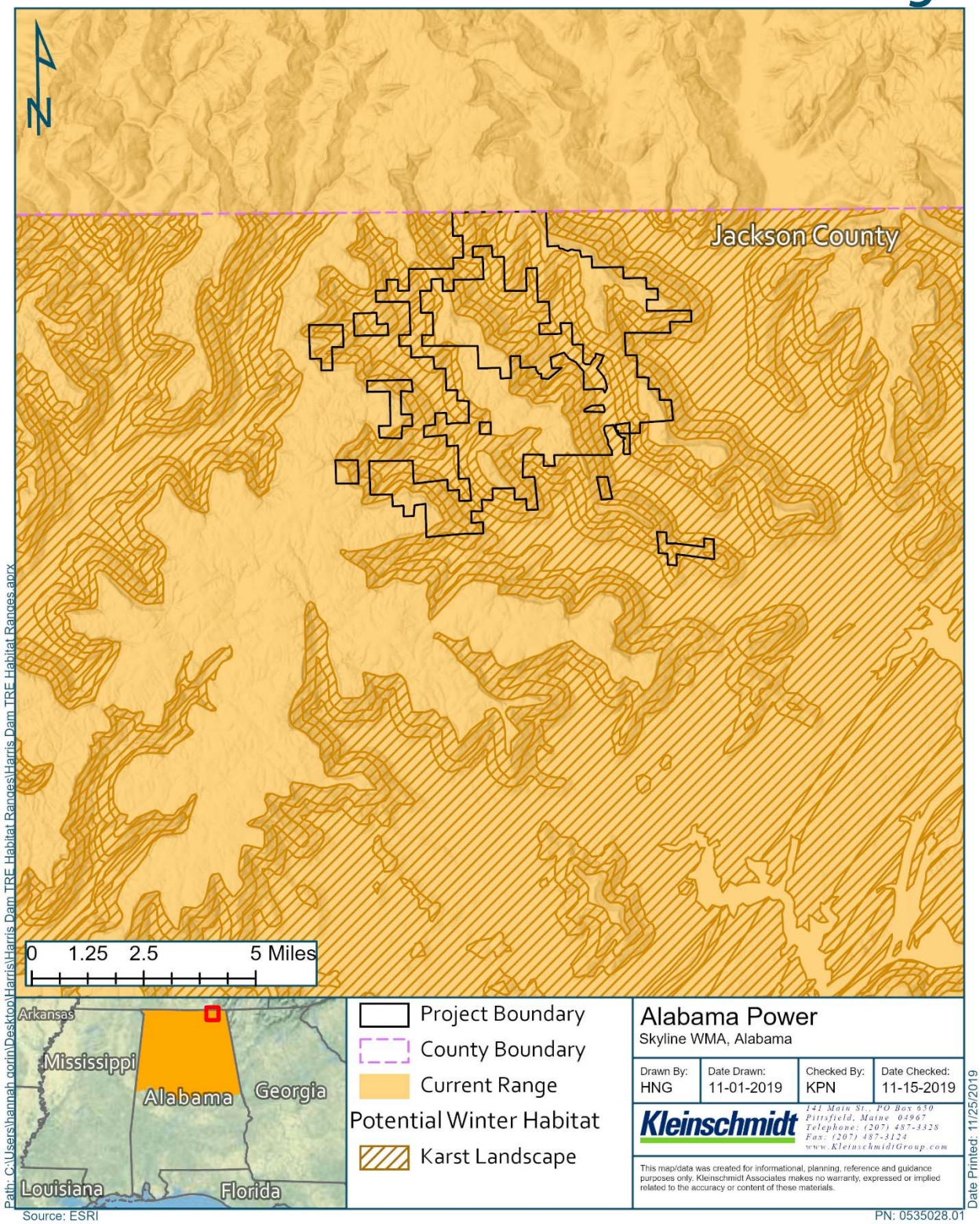

Figure 3.14-2

Indiana Bat Habitat Range

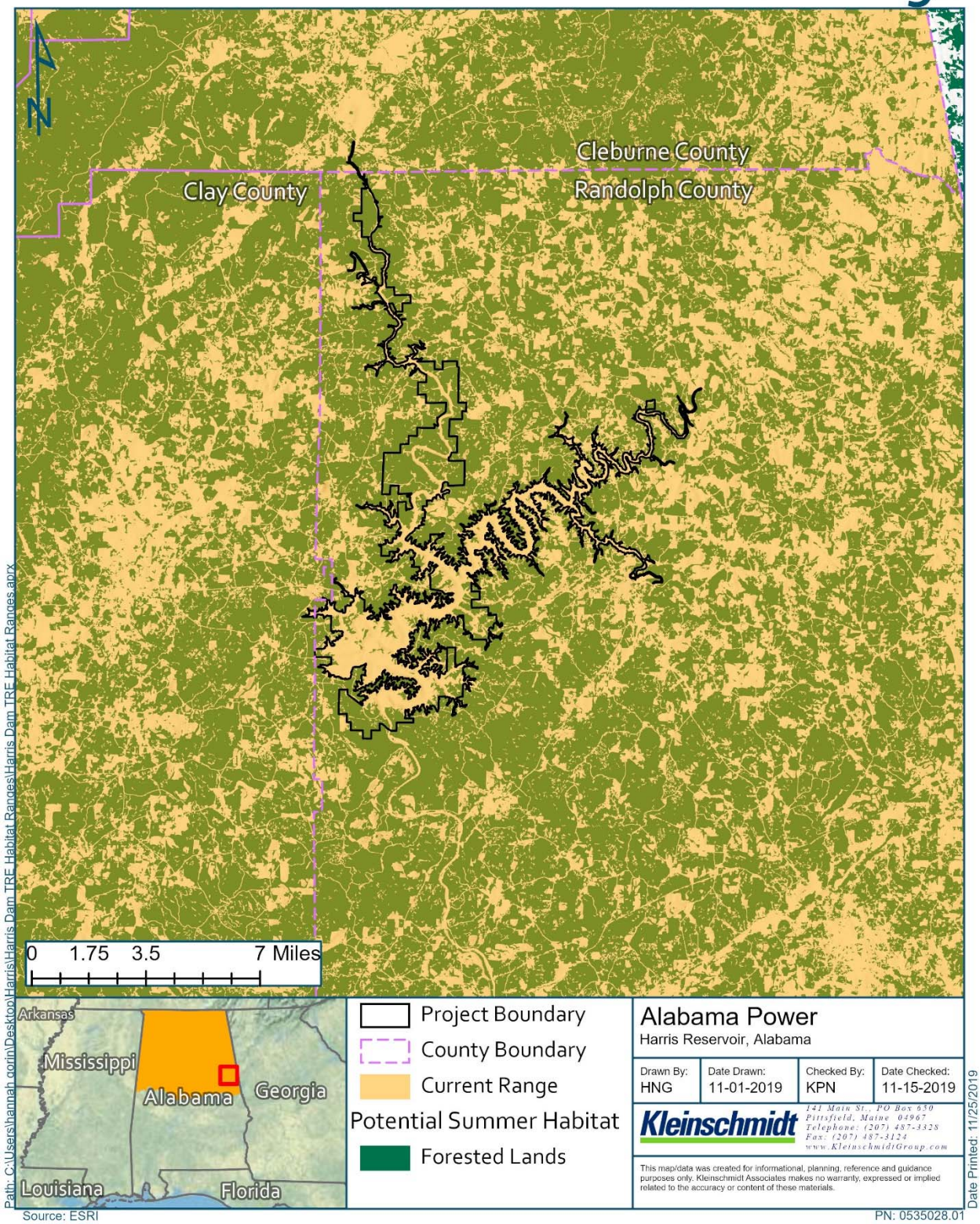

Figure 3.14-3

Northern Long-eared Bat Habitat Range

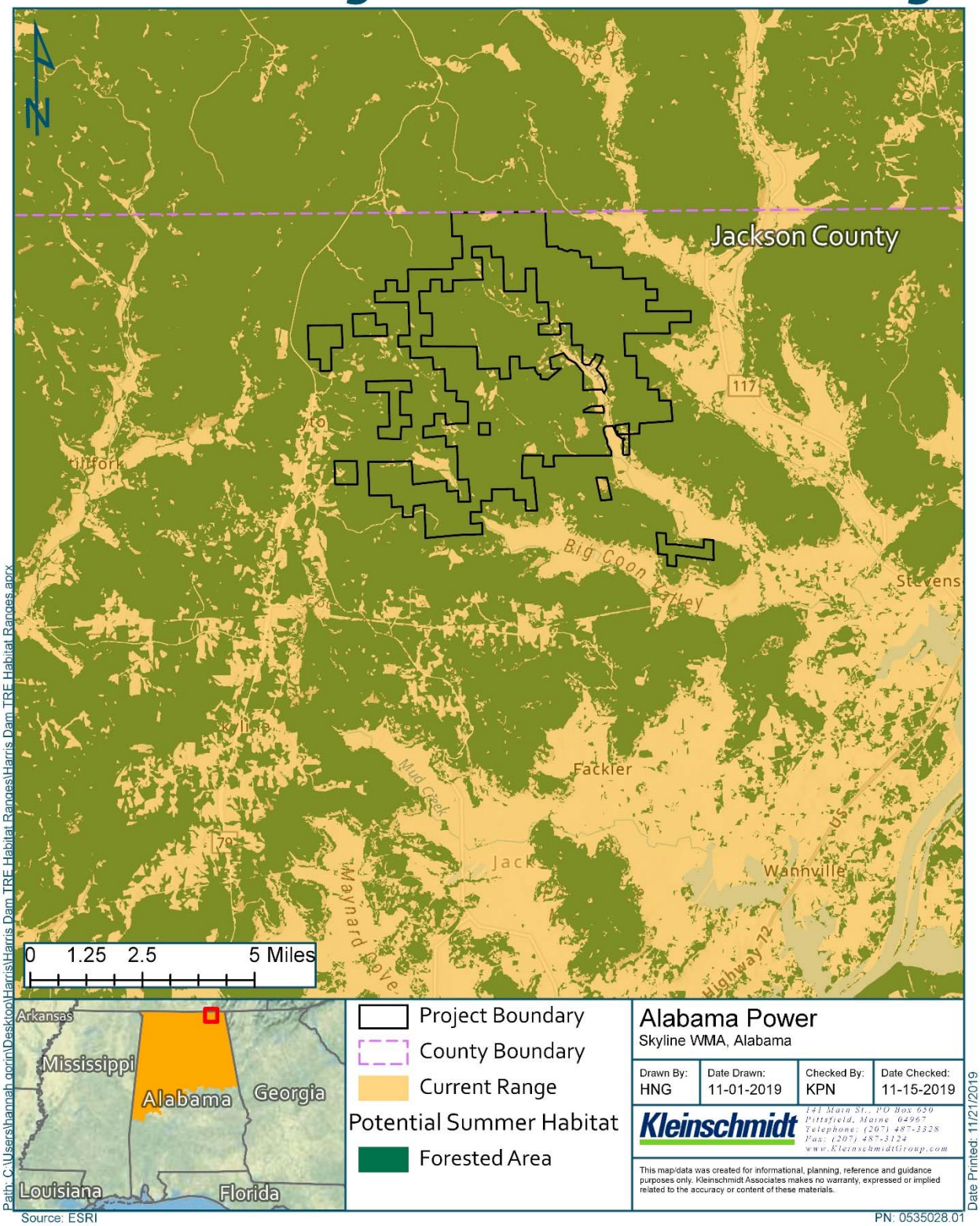

Figure 3.15-1

Northern Long-eared Bat Habitat Range

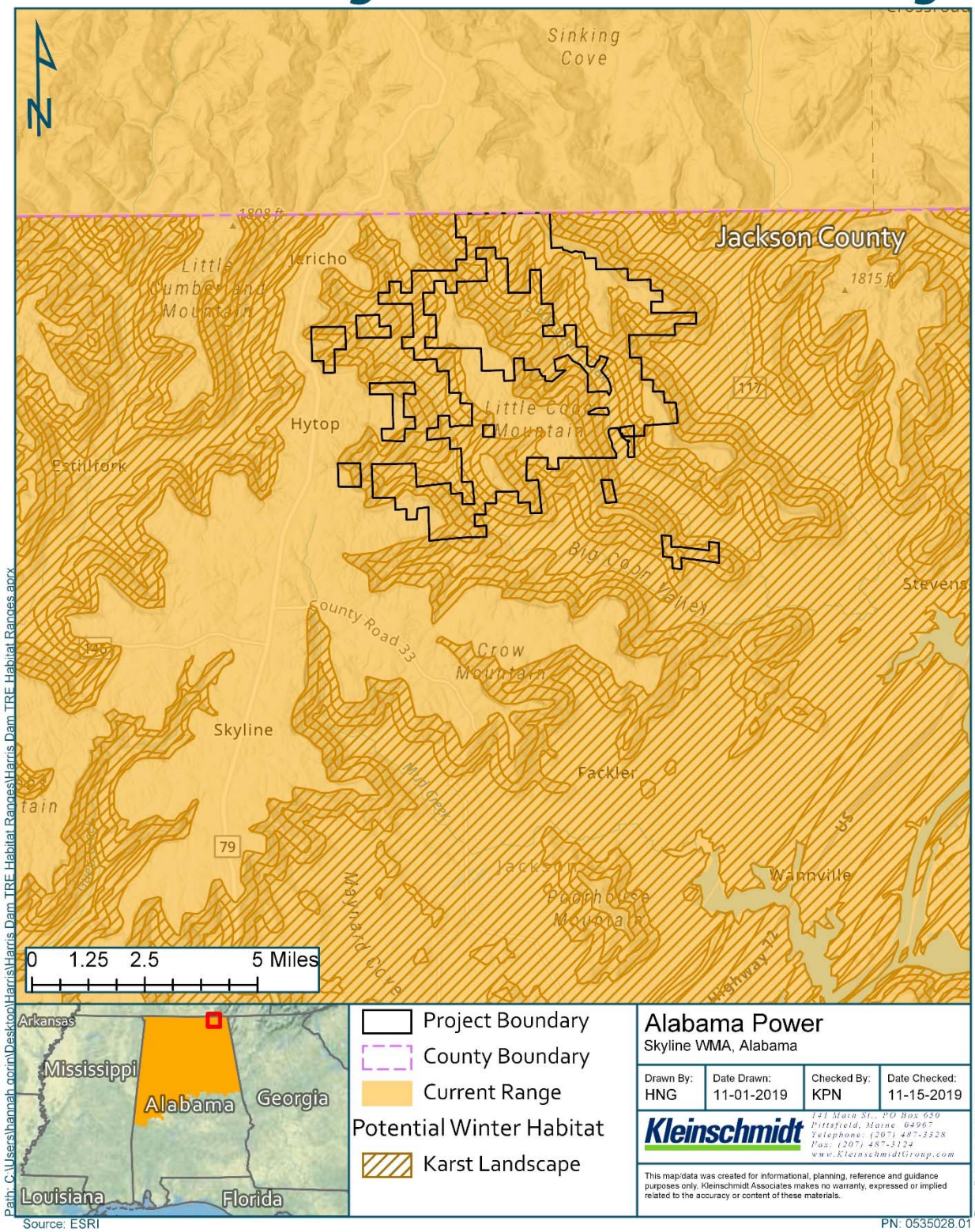

Figure 3.15-2

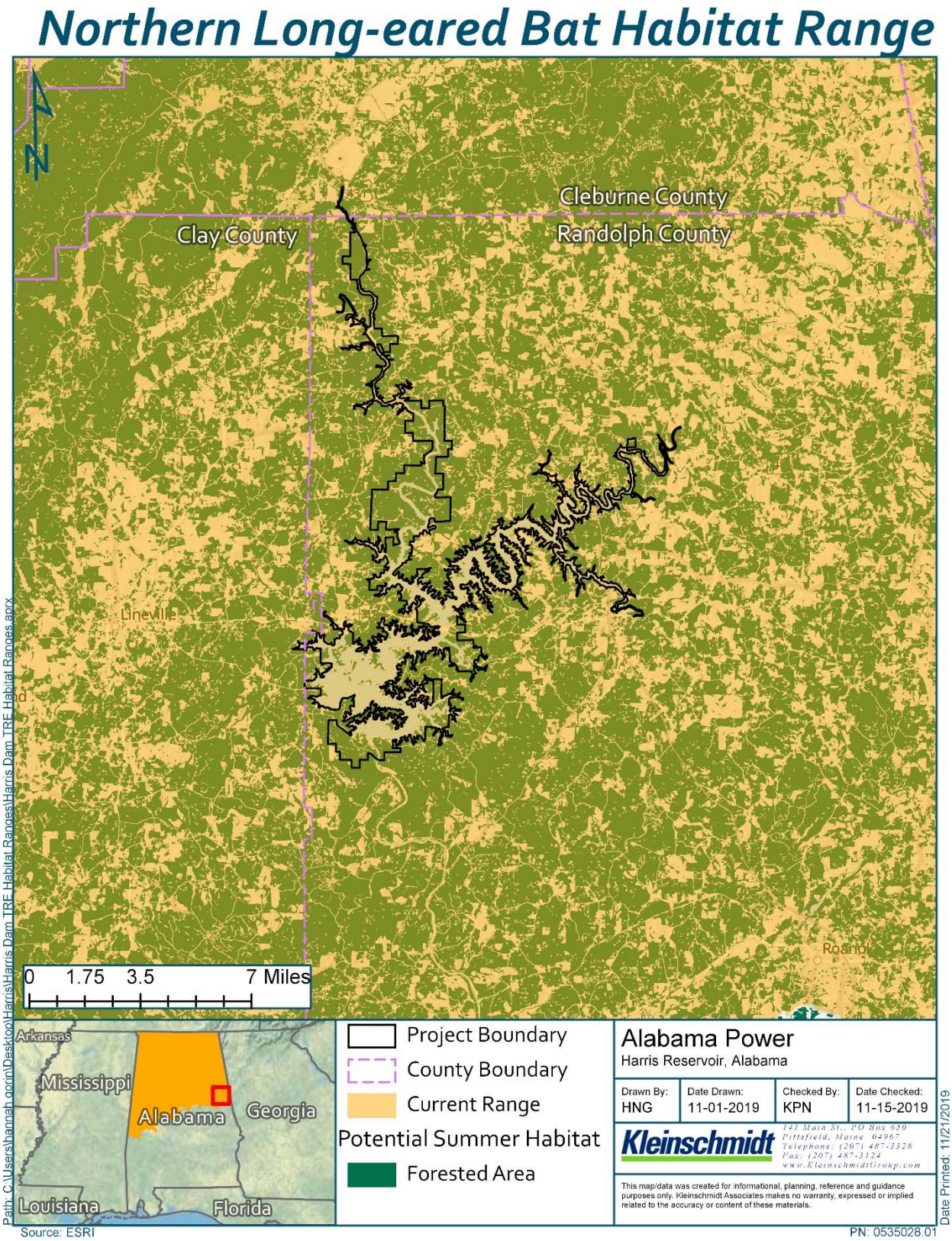
Northern Long-eared Bat Habitat Range
N
Cleburne County
Randolph County
Clay County
Lineville
Roanoke
0 1.75 3.5 7 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Potential Summer Habitat
Forested Area
Alabama Power
Harris Reservoir, Alabama
Drawn By: HNG
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Figure 3.15-3

Gray Bat Habitat Range

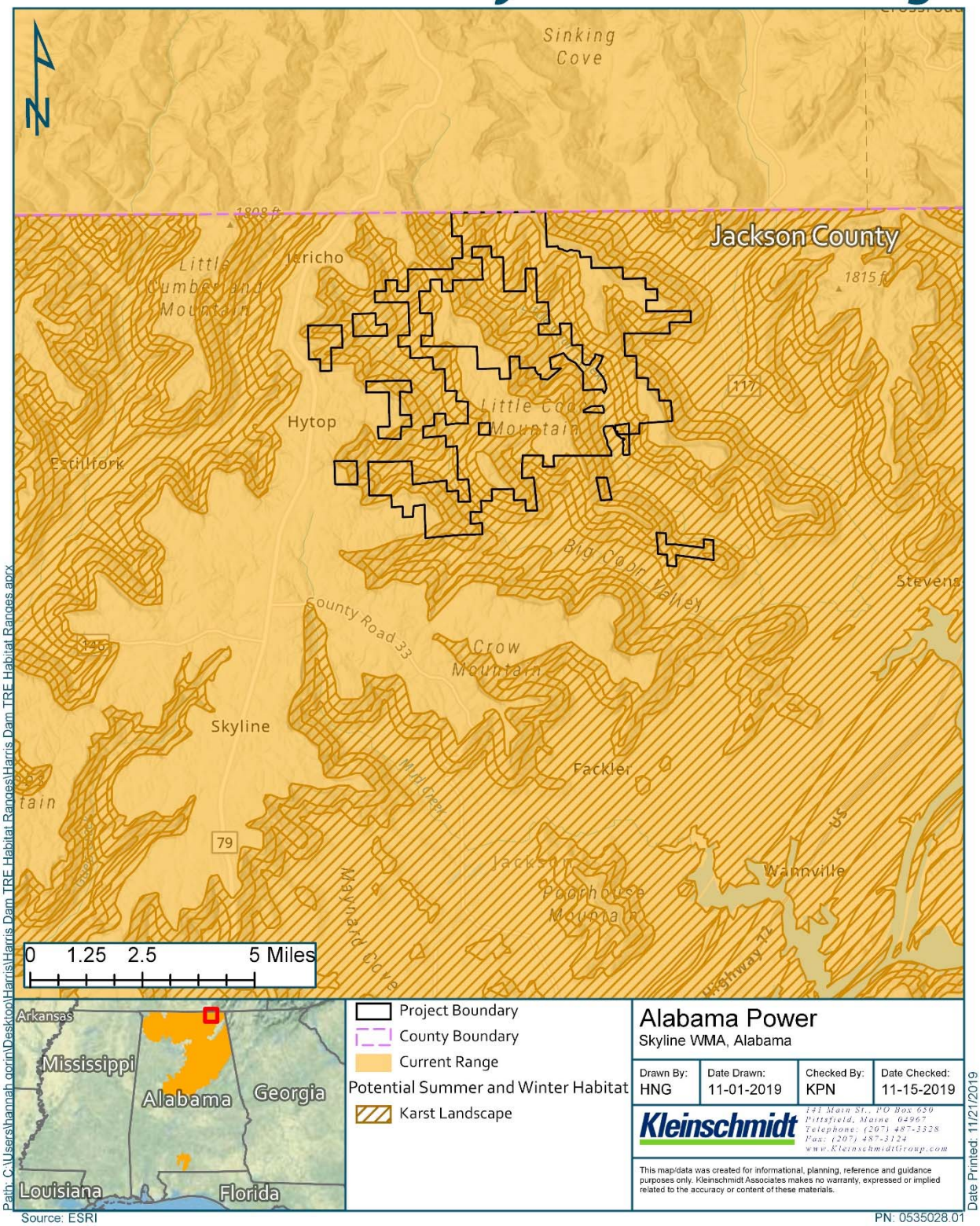
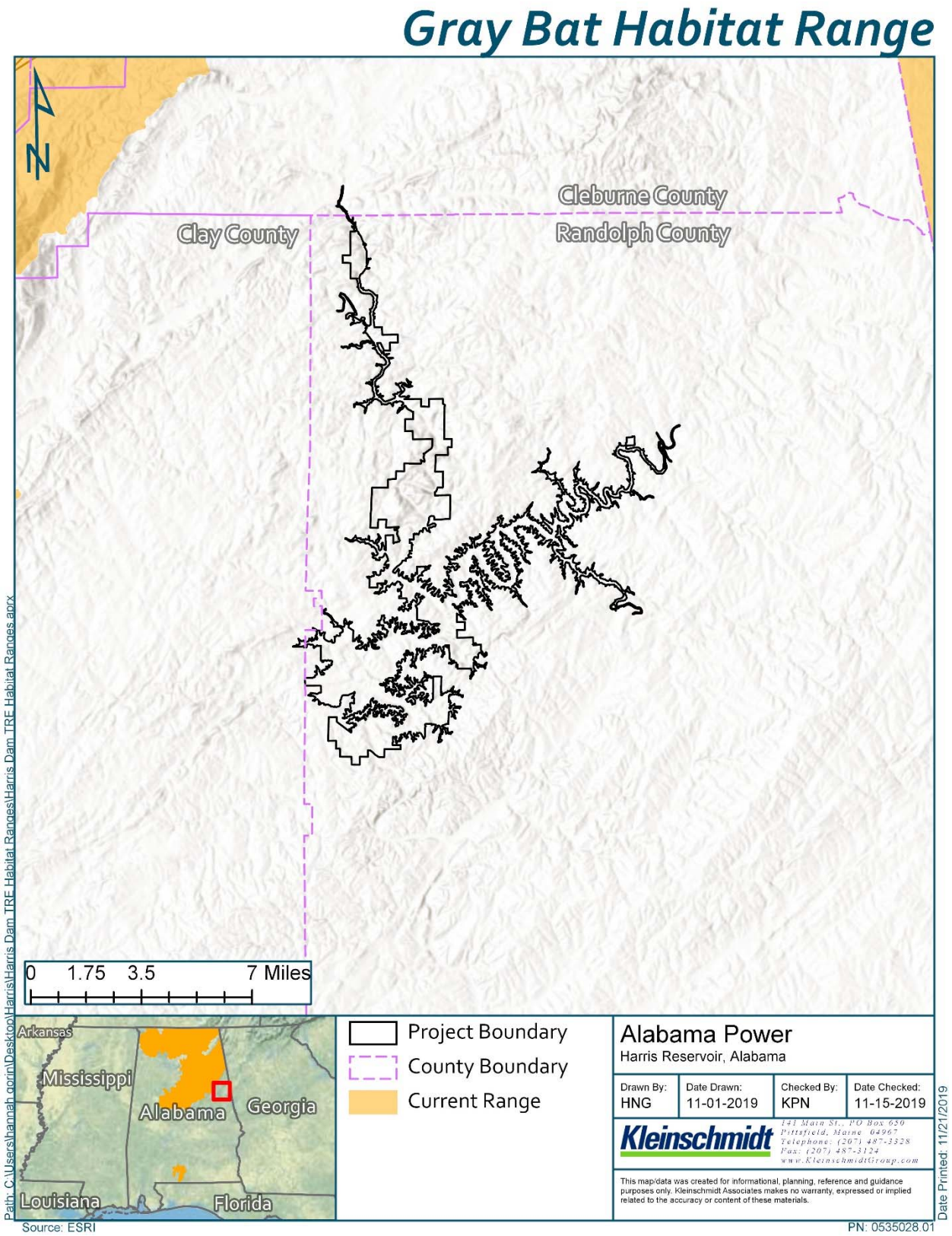


Figure 3.16-1


Gray Bat Habitat Range
N
Cleburne County
Randolph County
Clay County
0 1.75 3.5 7 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Alabama Power
Harris Reservoir, Alabama
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PN: 0535028.01

Figure 3.16-2

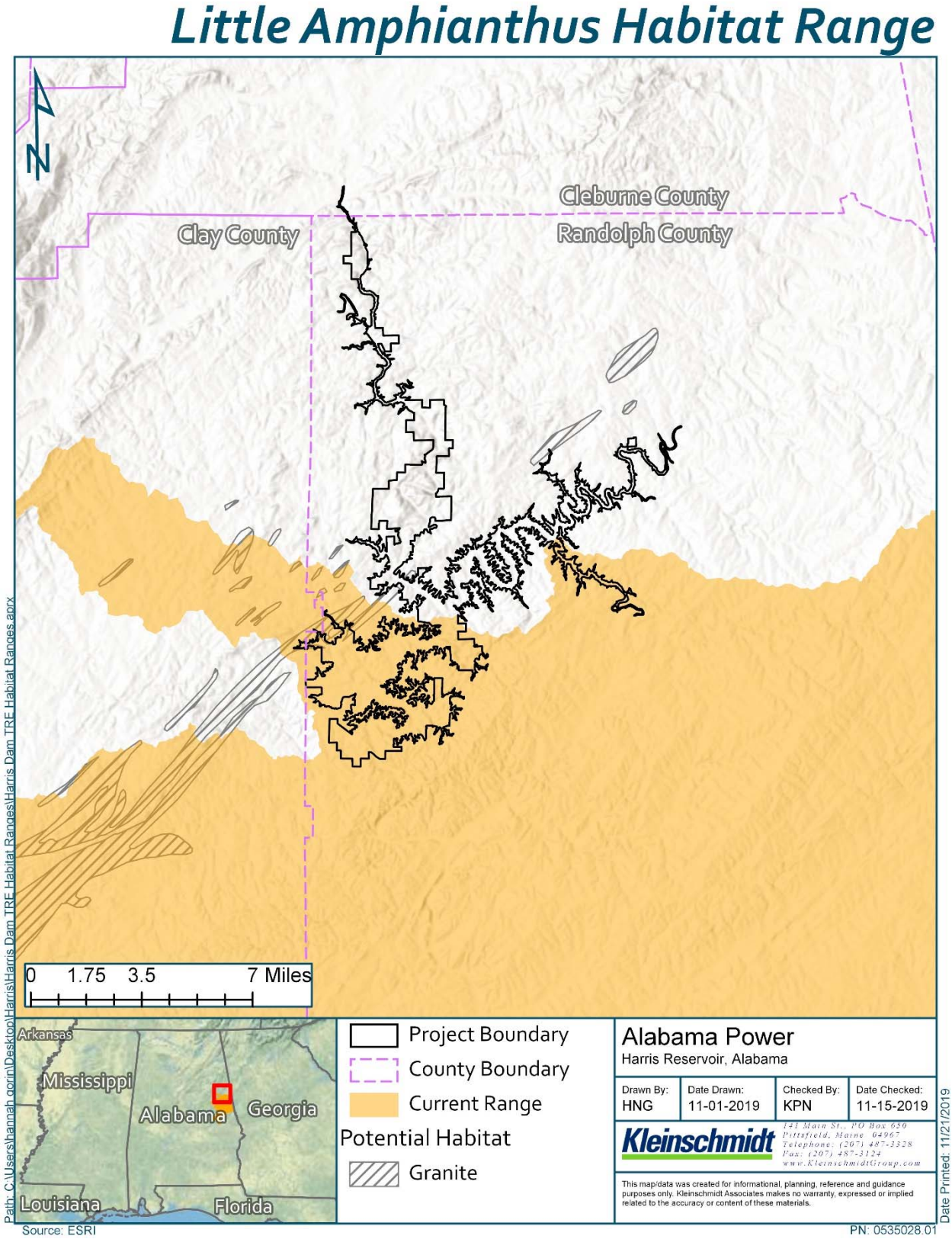
Little Amphianthus Habitat Range
N
Cleburne County
Randolph County
Clay County
0 1.75 3.5 7 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Potential Habitat
Granite
Alabama Power
Harris Reservoir, Alabama
Drawn By: HNG
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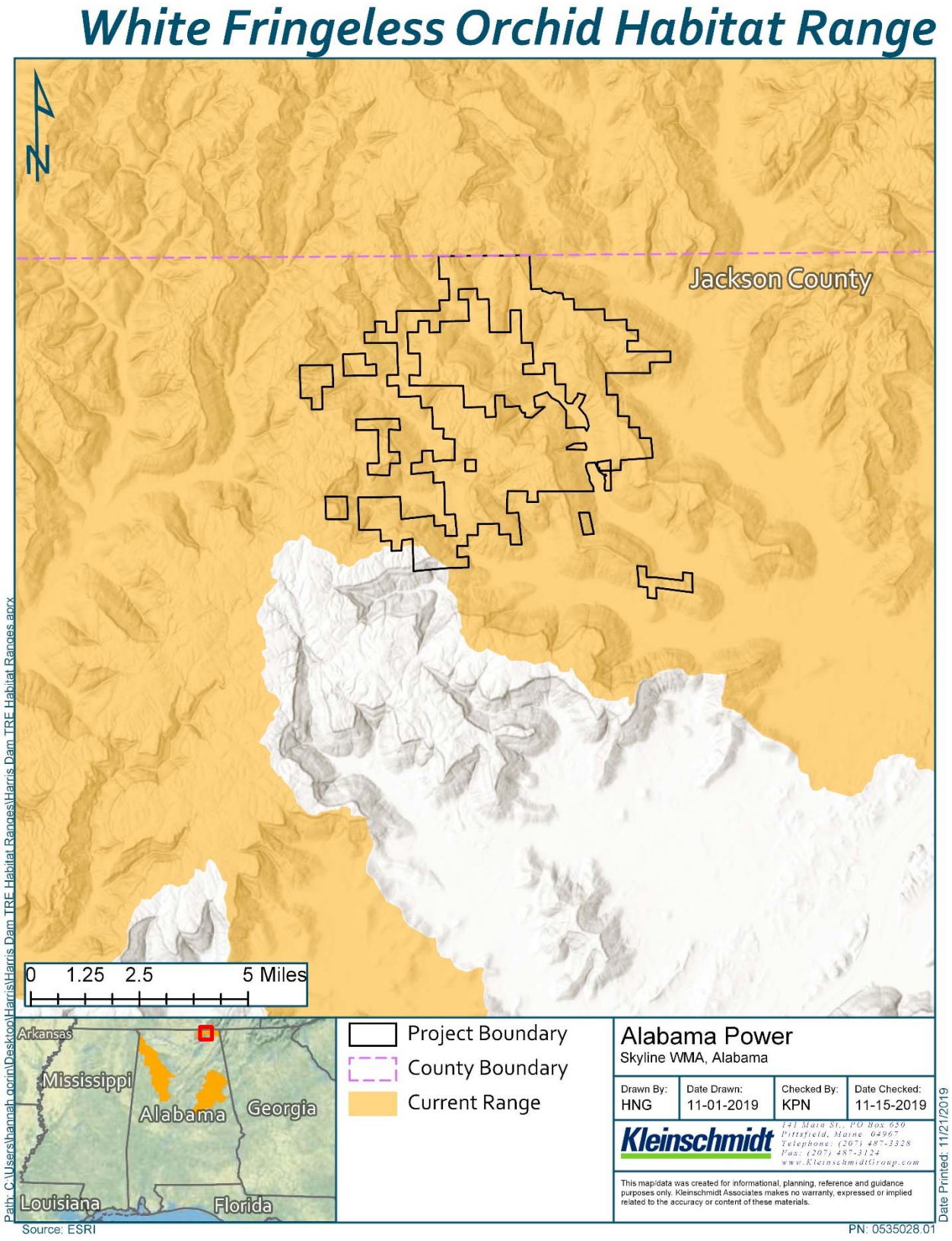
Figure 3.17-1


White Fringeless Orchid Habitat Range
N
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
Kleinschmidt
141 Main St., PO Box 650
Pittsfield, Maine 04967
Telephone: (207) 487-3328
Fax: (207) 487-3124
www.KleinschmidtGroup.com
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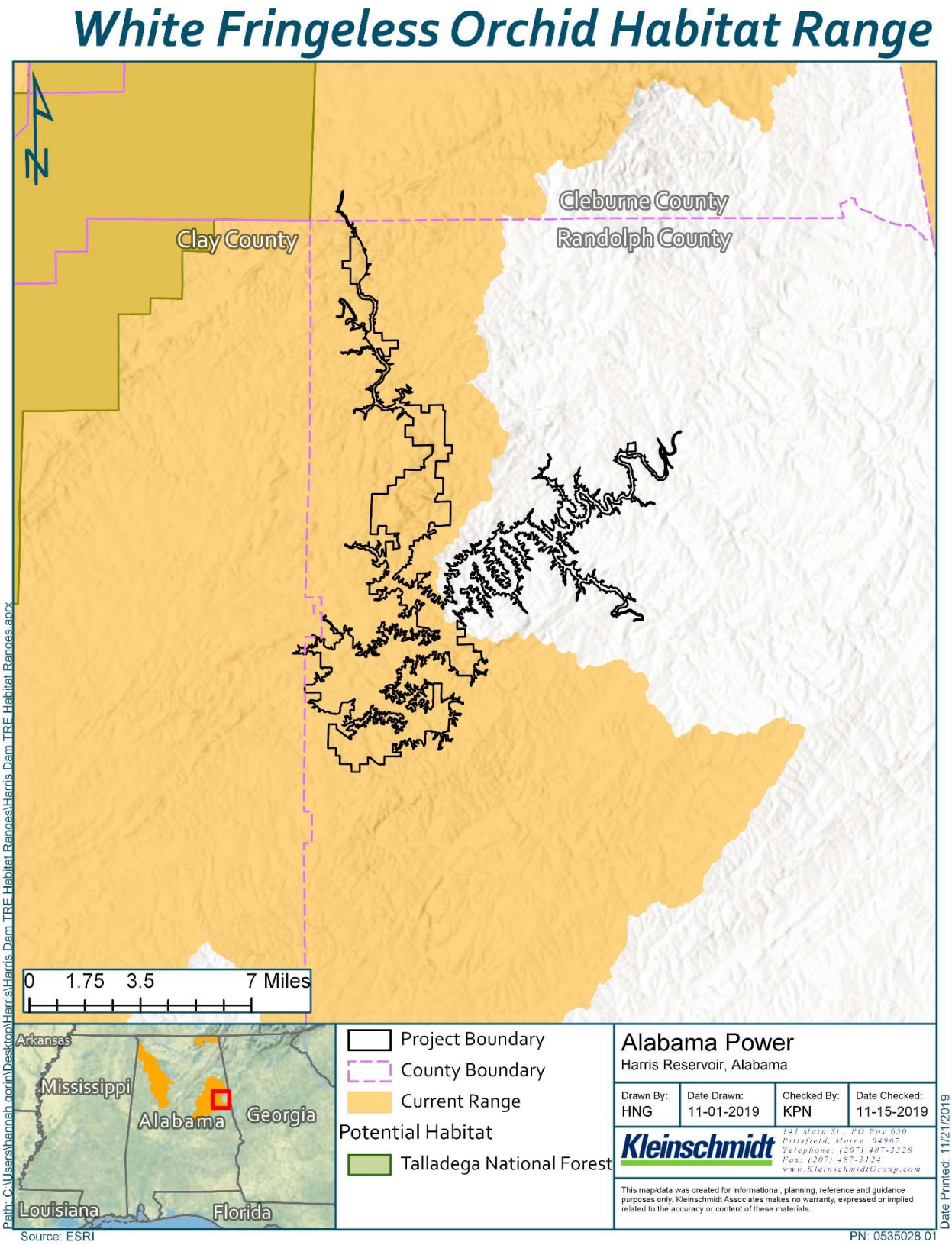
Date Printed: 11/21/2019
Path: C:\Users\hannah.gorin\Desktop\Harris\Harris Dam TRE Habitat Ranges\Harris Dam TRE Habitat Ranges.aprx
Source: ESRI
PN: 0535028.01

Figure 3.18-1


White Fringeless Orchid Habitat Range
Cleburne County
Randolph County
Clay County
0 1.75 3.5 7 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Potential Habitat
Talladega National Forest
Alabama Power
Harris Reservoir, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
Kleinschmidt
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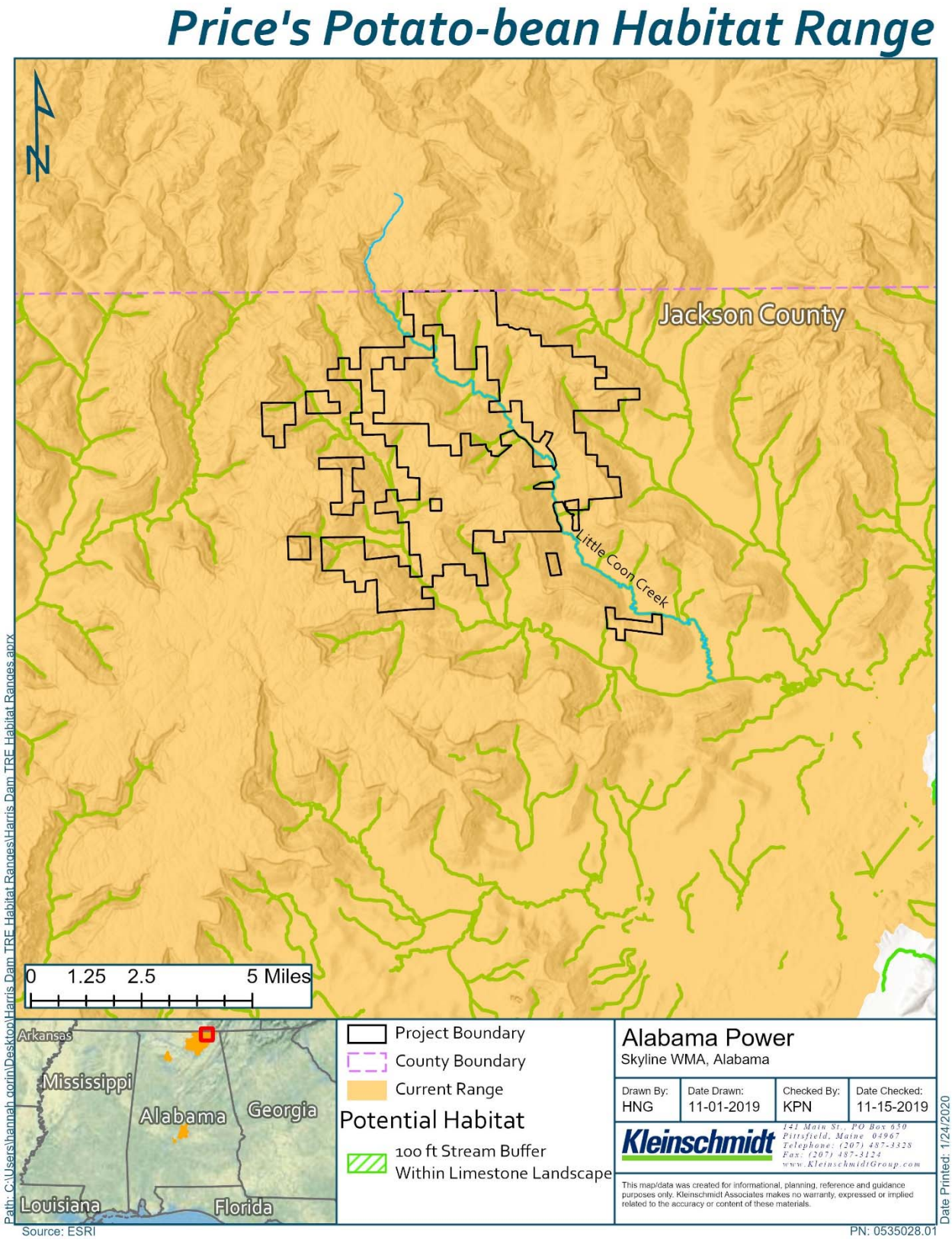
Date Printed: 11/21/2019
Path: C:\Users\hannah.gorin\Desktop\Harris\Harris Dam TRE Habitat Ranges\Harris Dam TRE Habitat Ranges.aprx
Source: ESRI
PN: 0535028.01

Figure 3.18-2


Price's Potato-bean Habitat Range
N
Jackson County
Little Coon Creek
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Potential Habitat
100 ft Stream Buffer
Within Limestone Landscape
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
Kleinschmidt
141 Main St., PO Box 650
Pittsfield, Maine 04967
Telephone: (207) 487-3328
Fax: (207) 487-3124
www.KleinschmidtGroup.com
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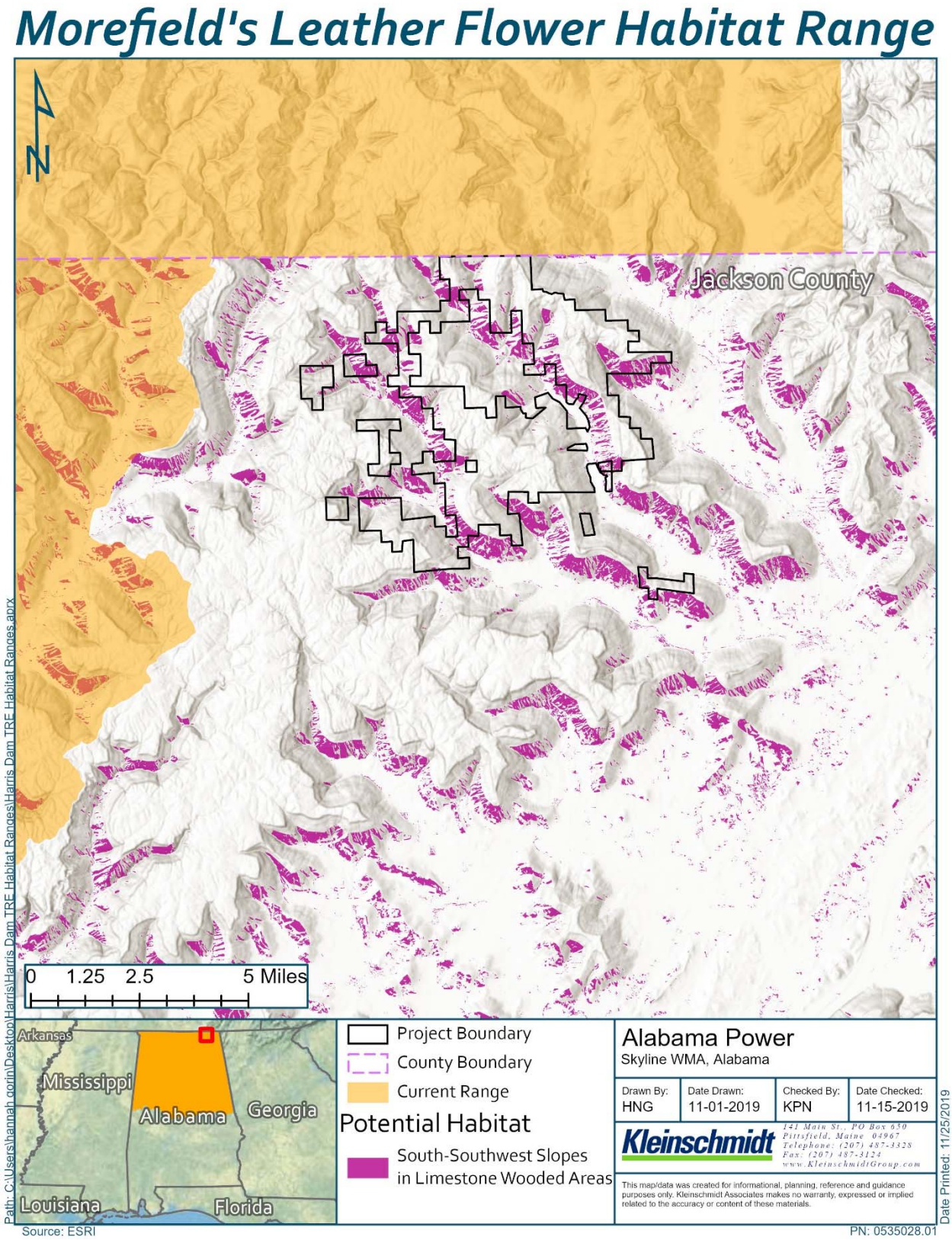
Date Printed: 1/24/2020
Path: C:\Users\hannah.gorin\Desktop\Harris Dam TRE Habitat Ranges\Harris Dam TRE Habitat Ranges.aprx
Source: ESRI
PN: 0535028.01

Figure 3.19-1


Morefield's Leather Flower Habitat Range
N
Jackson County
0 1.25 2.5 5 Miles
Arkansas
Mississippi
Alabama
Georgia
Louisiana
Florida
Project Boundary
County Boundary
Current Range
Potential Habitat
South-Southwest Slopes in Limestone Wooded Areas
Alabama Power
Skyline WMA, Alabama
Drawn By: HNG
Date Drawn: 11-01-2019
Checked By: KPN
Date Checked: 11-15-2019
Kleinschmidt
141 Main St., PO Box 650 Pittsfield, Maine 04967
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Date Printed: 11/25/2019
Path: C:\Users\hannah.gorin\Desktop\Harris\Harris Dam TRE Habitat Ranges\Harris Dam TRE Habitat Ranges.aprx
Source: ESRI
PN: 0535028.01

Figure 3.20-1

Attachment 2
Threatened and Endangered Species Consultation Record
(May 2019-March 2020)

HAT 3 meeting - T&E study plan

APC Harris Relicensing

Mon 7/22/2019 3:09 PM

To:'harrisrelicensing@southernco.com' <harrisrelicensing@southernco.com>;

Bcc:amy.silvano@dcnr.alabama.gov <amy.silvano@dcnr.alabama.gov>; chris.greene@dcnr.alabama.gov <chris.greene@dcnr.alabama.gov>; damon.abernethy@dcnr.alabama.gov <damon.abernethy@dcnr.alabama.gov>; evan.lawrence@dcnr.alabama.gov <evan.lawrence@dcnr.alabama.gov>; keith.henderson@dcnr.alabama.gov <keith.henderson@dcnr.alabama.gov>; mike.holley@dcnr.alabama.gov <mike.holley@dcnr.alabama.gov>; nick.nichols@dcnr.alabama.gov <nick.nichols@dcnr.alabama.gov>; stan.cook@dcnr.alabama.gov <stan.cook@dcnr.alabama.gov>; steve.bryant@dcnr.alabama.gov <steve.bryant@dcnr.alabama.gov>; taconya.goar@dcnr.alabama.gov <taconya.goar@dcnr.alabama.gov>; ken.wills@jcdh.org <ken.wills@jcdh.org>; arsegars@southernco.com <arsegars@southernco.com>; ammcvica@southernco.com <ammcvica@southernco.com>; dkanders@southernco.com <dkanders@southernco.com>; jcarlee@southernco.com <jcarlee@southernco.com>; jefbaker@southernco.com <jefbaker@southernco.com>; kechandl@southernco.com <kechandl@southernco.com>; tlmills@southernco.com <tlmills@southernco.com>; cggoodma@southernco.com <cggoodma@southernco.com>; clowry@alabamarivers.org <clowry@alabamarivers.org>; cchaffin@alabamarivers.org <cchaffin@alabamarivers.org>; gjobsis@americanrivers.org <gjobsis@americanrivers.org>; devridr@auburn.edu <devridr@auburn.edu>; irwiner@auburn.edu <irwiner@auburn.edu>; kmo0025@auburn.edu <kmo0025@auburn.edu>; wrighr2@aces.edu <wrighr2@aces.edu>; jhancock@balch.com <jhancock@balch.com>; lgallen@balch.com <lgallen@balch.com>; chrisoberholster@birminghamaudubon.org <chrisoberholster@birminghamaudubon.org>; sarah.salazar@ferc.gov <sarah.salazar@ferc.gov>; allan.creamer@ferc.gov <allan.creamer@ferc.gov>; rachel.mcnamara@ferc.gov <rachel.mcnamara@ferc.gov>; monte.terhaar@ferc.gov <monte.terhaar@ferc.gov>; amanda.fleming@kleinschmidtgroup.com <amanda.fleming@kleinschmidtgroup.com>; colin.dinken@kleinschmidtgroup.com <colin.dinken@kleinschmidtgroup.com>; henry.mealing@kleinschmidtgroup.com <henry.mealing@kleinschmidtgroup.com>; jason.moak@kleinschmidtgroup.com <jason.moak@kleinschmidtgroup.com>; kate.cosnahan@kleinschmidtgroup.com <kate.cosnahan@kleinschmidtgroup.com>; kelly.schaeffer@kleinschmidtgroup.com <kelly.schaeffer@kleinschmidtgroup.com>; sforehand@russelllands.com <sforehand@russelllands.com>; lgarland68@aol.com <lgarland68@aol.com>; pace.wilber@noaa.gov <pace.wilber@noaa.gov>; mitchell.reid@tnc.org <mitchell.reid@tnc.org>; donnamat@aol.com <donnamat@aol.com>; trayjim@bellsouth.net <trayjim@bellsouth.net>; mhpwedowee@gmail.com <mhpwedowee@gmail.com>; straylor426@bellsouth.net <straylor426@bellsouth.net>; triciastearns@gmail.com <triciastearns@gmail.com>; wmcampbell218@gmail.com <wmcampbell218@gmail.com>; holliman.daniel@epa.gov <holliman.daniel@epa.gov>; decker.chris@epa.gov <decker.chris@epa.gov>; bill_pearson@fws.gov <bill_pearson@fws.gov>; evan_collins@fws.gov <evan_collins@fws.gov>; jeff_powell@fws.gov <jeff_powell@fws.gov>; jennifer_grunewald@fws.gov <jennifer_grunewald@fws.gov>; jeff_duncan@nps.gov <jeff_duncan@nps.gov>;

HAT 3,

We will have a HAT 3 meeting on August 27th from 10:00 am – 2:00 pm at the Wendell Mitchell Conference Center at Lurleen B. Wallace Community College in Greenville (750 Greenville By-Pass, Greenville, AL 36037). The purpose of this meeting is to discuss the GIS overlays and map and the need for field verification for the T&E Study Plan. Please RSVP by August 20th if you plan to attend.

Thanks,

Angie Anderegg

Hydro Services
(205)257-2251
arsegars@southernco.com

HAT 3 meeting - T&E Study Plan

APC Harris Relicensing

Thu 8/8/2019 5:31 PM

To: 'harrisrelicensing@southernco.com' <harrisrelicensing@southernco.com>
Bcc amy.silvano@dcnr.alabama.gov <amy.silvano@dcnr.alabama.gov>; chris.greene@dcnr.alabama.gov <chris.greene@dcnr.alabama.gov>; damon.abernethy@dcnr.alabama.gov <damon.abernethy@dcnr.alabama.gov>; evan.lawrence@dcnr.alabama.gov <evan.lawrence@dcnr.alabama.gov>; keith.henderson@dcnr.alabama.gov <keith.henderson@dcnr.alabama.gov>; mike.holley@dcnr.alabama.gov <mike.holley@dcnr.alabama.gov>; nick.nichols@dcnr.alabama.gov <nick.nichols@dcnr.alabama.gov>; stan.cook@dcnr.alabama.gov <stan.cook@dcnr.alabama.gov>; steve.bryant@dcnr.alabama.gov <steve.bryant@dcnr.alabama.gov>; taconya.goar@dcnr.alabama.gov <taconya.goar@dcnr.alabama.gov>; ken.wills@jcdh.org <ken.wills@jcdh.org>; arsegars@southernco.com <arsegars@southernco.com>; ammcvica@southernco.com <ammcvica@southernco.com>; dkanders@southernco.com <dkanders@southernco.com>; jcarlee@southernco.com <jcarlee@southernco.com>; jefbaker@southernco.com <jefbaker@southernco.com>; kechandl@southernco.com <kechandl@southernco.com>; tlmills@southernco.com <tlmills@southernco.com>; cggoodma@southernco.com <cggoodma@southernco.com>; clowry@alabamarivers.org <clowry@alabamarivers.org>; cchaffin@alabamarivers.org <cchaffin@alabamarivers.org>; gjobsis@americanrivers.org <gjobsis@americanrivers.org>; devridr@auburn.edu <devridr@auburn.edu>; irwiner@auburn.edu <irwiner@auburn.edu>; kmo0025@auburn.edu <kmo0025@auburn.edu>; wrighr2@aces.edu <wrighr2@aces.edu>; jhancock@balch.com <jhancock@balch.com>; lgallen@balch.com <lgallen@balch.com>; chrisoberholster@birminghamaudubon.org <chrisoberholster@birminghamaudubon.org>; sarah.salazar@ferc.gov <sarah.salazar@ferc.gov>; allan.creamer@ferc.gov <allan.creamer@ferc.gov>; rachel.mcnamara@ferc.gov <rachel.mcnamara@ferc.gov>; monte.terhaar@ferc.gov <monte.terhaar@ferc.gov>; amanda.fleming@kleinschmidtgroup.com <amanda.fleming@kleinschmidtgroup.com>; colin.dinken@kleinschmidtgroup.com <colin.dinken@kleinschmidtgroup.com>; henry.mealing@kleinschmidtgroup.com <henry.mealing@kleinschmidtgroup.com>; jason.moak@kleinschmidtgroup.com <jason.moak@kleinschmidtgroup.com>; kate.cosnahan@kleinschmidtgroup.com <kate.cosnahan@kleinschmidtgroup.com>; kelly.schaeffer@kleinschmidtgroup.com <kelly.schaeffer@kleinschmidtgroup.com>; sforehand@russelllands.com <sforehand@russelllands.com>; lgarland68@aol.com <lgarland68@aol.com>; pace.wilber@noaa.gov <pace.wilber@noaa.gov>; mitchell.reid@tnc.org <mitchell.reid@tnc.org>; donnamat@aol.com <donnamat@aol.com>; trayjim@bellsouth.net <trayjim@bellsouth.net>; mhpwedowee@gmail.com <mhpwedowee@gmail.com>; straylor426@bellsouth.net <straylor426@bellsouth.net>; triciastearns@gmail.com <triciastearns@gmail.com>; wmcampbell218@gmail.com <wmcampbell218@gmail.com>; holliman.daniel@epa.gov <holliman.daniel@epa.gov>; decker.chris@epa.gov <decker.chris@epa.gov>; bill_pearson@fws.gov <bill_pearson@fws.gov>; evan_collins@fws.gov <evan_collins@fws.gov>; jeff_powell@fws.gov <jeff_powell@fws.gov>; jennifer_grunewald@fws.gov <jennifer_grunewald@fws.gov>; jeff_duncan@nps.gov <jeff_duncan@nps.gov>

HAT 3,

Below is call in information if you would prefer to call in for the August 27th meeting. If you plan to attend in person, please RSVP by August 20th so we can get an accurate headcount for lunch.

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

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Thanks,

APC Harris Relicensing

From: APC Harris Relicensing
Sent: Friday, August 9, 2019 8:50 AM
To: Sarah Salazar; APC Harris Relicensing
Cc: Allan Creamer; Rachel McNamara; Monte Terhaar (CTR); Kyrstin Wallach; Stephen Bowler
Subject: RE: HAT 3 meeting - T&E Study Plan

Hi Sarah,

It will be great to have you guys on the phone. The Skype info is in the email below. We will be looking at a Powerpoint and Google Maps, so it would be ideal for you to pull it up on your computer screen as well as be on the phone.

Thanks!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Sarah Salazar <Sarah.Salazar@ferc.gov>
Sent: Thursday, August 8, 2019 12:49 PM
To: APC Harris Relicensing <g2apchr@southernco.com>
Cc: Allan Creamer <Allan.Creamer@ferc.gov>; Rachel McNamara <Rachel.McNamara@ferc.gov>; Monte Terhaar (CTR) <Monte.Terhaar@ferc.gov>; Kyrstin Wallach <Kyrstin.Wallach@ferc.gov>; Stephen Bowler <Stephen.Bowler@ferc.gov>
Subject: RE: HAT 3 meeting - T&E Study Plan

Good afternoon Angie,

Could you send the call-in information to the FERC staff when you have it? We won't be able to attend in person, but some of us plan to participate by phone.

Thanks in advance,

Sarah L. Salazar ✧ *Environmental Biologist* ✧ *Federal Energy Regulatory Commission* ✧ *888 First St, NE, Washington, DC 20426* ✧ *(202) 502-6863*

From: APC Harris Relicensing [mailto:g2apchr@southernco.com]
Sent: Thursday, August 08, 2019 1:32 PM
To: APC Harris Relicensing <g2apchr@southernco.com>
Subject: HAT 3 meeting - T&E Study Plan

HAT 3,

Below is call in information if you would prefer to call in for the August 27th meeting. If you plan to attend in person, please RSVP by August 20th so we can get an accurate headcount for lunch.

Thanks,

Angie Anderegg

Hydro Services
(205)257-2251
arsegars@southernco.com

.....

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Trouble Joining? Try Skype Web App [meet.lync.com]

Join by phone

Toll number: +1 (207) 248-8024,,55915081# (Dial-in Number) English (United States)

Find a local number [dialin.lync.com]

Conference ID: 55915081

Forgot your dial-in PIN? [mysettings.lync.com] | Help [go.microsoft.com]

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Thanks,

APC Harris Relicensing

From: Anderegg, Angela Segars
Sent: Wednesday, August 21, 2019 9:13 AM
To: Clark, Maria
Subject: RE: HAT 3 meeting - T&E study plan
Attachments: HAT 3 meeting - T&E Study Plan

Hi Maria,

Attached is the email that went out to HAT 3 with the call in info for August 27th.

Thanks!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Clark, Maria <Clark.Maria@epa.gov>
Sent: Wednesday, August 21, 2019 8:04 AM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Clark, Maria <Clark.Maria@epa.gov>
Subject: RE: HAT 3 meeting - T&E study plan
Importance: High

Good morning Angie!

Any news regarding this request? Thank you so much!!
Maria

From: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Sent: Thursday, July 25, 2019 12:39 PM
To: Clark, Maria <Clark.Maria@epa.gov>
Subject: RE: HAT 3 meeting - T&E study plan

Hi Maria,

We're reaching out to the conference center on the best option for calling in. I'll send out info when we hear back.

Thanks!

Angie Anderegg
Hydro Services
(205)257-2251

arsegars@southernco.com

From: Clark, Maria <Clark.Maria@epa.gov>
Sent: Tuesday, July 23, 2019 2:32 PM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Subject: FW: HAT 3 meeting - T&E study plan
Importance: High

Dear Angie,

How are you? I can't believe the summer is almost gone.

Is there any chance to connect via internet and/or phone to attend this meeting?

Thank you!

Maria R. Clark
NEPA Section - Region 4
Strategic Programs Office
U.S. Environmental Protection Agency
61 Forsyth, Street South West
Atlanta, GA 30303
404-562-9513

From: APC Harris Relicensing <g2apchr@southernco.com>
Sent: Monday, July 22, 2019 11:10 AM
To: APC Harris Relicensing <g2apchr@southernco.com>
Subject: HAT 3 meeting - T&E study plan

HAT 3,

We will have a HAT 3 meeting on August 27th from 10:00 am – 2:00 pm at the Wendell Mitchell Conference Center at Lurleen B. Wallace Community College in Greenville (750 Greenville By-Pass, Greenville, AL 36037). The purpose of this meeting is to discuss the GIS overlays and map and the need for field verification for the T&E Study Plan. Please RSVP by August 20th if you plan to attend.

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

RE: HAT 3 meeting - T&E Study Plan

APC Harris Relicensing

Mon 8/26/2019 5:14 PM

To: APC Harris Relicensing <g2apchr@southernco.com>
Bcc amy.silvano@dcnr.alabama.gov <amy.silvano@dcnr.alabama.gov>; chris.greene@dcnr.alabama.gov <chris.greene@dcnr.alabama.gov>; damon.abernethy@dcnr.alabama.gov <damon.abernethy@dcnr.alabama.gov>; evan.lawrence@dcnr.alabama.gov <evan.lawrence@dcnr.alabama.gov>; keith.henderson@dcnr.alabama.gov <keith.henderson@dcnr.alabama.gov>; mike.holley@dcnr.alabama.gov <mike.holley@dcnr.alabama.gov>; nick.nichols@dcnr.alabama.gov <nick.nichols@dcnr.alabama.gov>; stan.cook@dcnr.alabama.gov <stan.cook@dcnr.alabama.gov>; steve.bryant@dcnr.alabama.gov <steve.bryant@dcnr.alabama.gov>; taconya.goar@dcnr.alabama.gov <taconya.goar@dcnr.alabama.gov>; ken.wills@jcdh.org <ken.wills@jcdh.org>; Anderegg, Angela Segars <ARSEGARS@southernco.com>; McVicar, Ashley M <AMMcVica@southernco.com>; Anderson, Dave <DKANDERS@SOUTHERNCO.COM>; Carlee, Jason <JCARLEE@southernco.com>; Baker, Jeffery L. <JEFBAKER@southernco.com>; Chandler, Keith Edward <KECHANDL@SOUTHERNCO.COM>; Mills, Tina L. <tlmills@southernco.com>; cggoodma@southernco.com <cggoodma@southernco.com>; clowry@alabamarivers.org <clowry@alabamarivers.org>; cchaffin@alabamarivers.org <cchaffin@alabamarivers.org>; gjobsis@americanrivers.org <gjobsis@americanrivers.org>; devridr@auburn.edu <devridr@auburn.edu>; irwiner@auburn.edu <irwiner@auburn.edu>; kmo0025@auburn.edu <kmo0025@auburn.edu>; wrighr2@aces.edu <wrighr2@aces.edu>; Hancock, Jim (Balch) <jhancock@balch.com>; Allen, Leslie G. (Balch) <lgallen@balch.com>; chrisoberholster@birminghamaudubon.org <chrisoberholster@birminghamaudubon.org>; sarah.salazar@ferc.gov <sarah.salazar@ferc.gov>; allan.creamer@ferc.gov <allan.creamer@ferc.gov>; rachel.mcnamara@ferc.gov <rachel.mcnamara@ferc.gov>; monte.terhaar@ferc.gov <monte.terhaar@ferc.gov>; amanda.fleming@kleinschmidtgroup.com <amanda.fleming@kleinschmidtgroup.com>; colin.dinken@kleinschmidtgroup.com <colin.dinken@kleinschmidtgroup.com>; henry.mealing@kleinschmidtgroup.com <henry.mealing@kleinschmidtgroup.com>; jason.moak@kleinschmidtgroup.com <jason.moak@kleinschmidtgroup.com>; kate.cosnahan@kleinschmidtgroup.com <kate.cosnahan@kleinschmidtgroup.com>; kelly.schaeffer@kleinschmidtgroup.com <kelly.schaeffer@kleinschmidtgroup.com>; sforehand@russelllands.com <sforehand@russelllands.com>; lgarland68@aol.com <lgarland68@aol.com>; pace.wilber@noaa.gov <pace.wilber@noaa.gov>; mitchell.reid@tnc.org <mitchell.reid@tnc.org>; donnamat@aol.com <donnamat@aol.com>; trayjim@bellsouth.net <trayjim@bellsouth.net>; mhpwedowee@gmail.com <mhpwedowee@gmail.com>; straylor426@bellsouth.net <straylor426@bellsouth.net>; triciastearns@gmail.com <triciastearns@gmail.com>; wmcampbell218@gmail.com <wmcampbell218@gmail.com>; holliman.daniel@epa.gov <holliman.daniel@epa.gov>; decker.chris@epa.gov <decker.chris@epa.gov>; bill_pearson@fws.gov <bill_pearson@fws.gov>; evan_collins@fws.gov <evan_collins@fws.gov>; jeff_powell@fws.gov <jeff_powell@fws.gov>; jennifer_grunewald@fws.gov <jennifer_grunewald@fws.gov>; jeff_duncan@nps.gov <jeff_duncan@nps.gov>

1 attachments (950 KB)

2019-8-27 HAT 3 T&E Meeting.pdf;

HAT 3,

In case you plan on calling in tomorrow and end up having technical difficulties, attached is the agenda and presentation we will be using.

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251

arsegars@southernco.com

From: APC Harris Relicensing
Sent: Thursday, August 8, 2019 12:32 PM
To: 'harrisrelicensing@southernco.com' <harrisrelicensing@southernco.com>
Subject: HAT 3 meeting - T&E Study Plan

HAT 3,

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Thanks,

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

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HAT 3,

We will have a HAT 3 meeting on August 27th from 10:00 am – 2:00 pm at the Wendell Mitchell Conference Center at Lurleen B. Wallace Community College in Greenville (750 Greenville By-Pass, Greenville, AL 36037). The purpose of this meeting is to discuss the GIS overlays and map and the need for field verification for the T&E Study Plan. Please RSVP by August 20th if you plan to attend.

Thanks,

Meeting Summary
HAT 3 Meeting
August 27, 2019
10:00 am to 12:00 pm
Wendell Mitchell Conference Center, Greenville, AL

Participants:
Angie Anderegg - Alabama Power
Jeff Baker - Alabama Power
Jason Carlee - Alabama Power
Curt Chaffin - Alabama Rivers Alliance (ARA)
Kristie Coffman - Alabama Cooperative Fish and Wildlife Research Unit
Evan Collins - United States Fish and Wildlife Service (USFWS)
Colin Dinken - Kleinschmidt
Taconya Goar - Alabama Department of Conservation of Natural Resources (ADCNR)
Elise Irwin - USGS Alabama Cooperative Fish and Wildlife Research Unit (ACFWRU)
Jason Moak - Kleinschmidt

By Phone:
Dave Anderson - Alabama Power
Chris Goodman - Stakeholder
Donna Matthews - Stakeholder
Ashley McVicar - Alabama Power
Sarah Salazar - Federal Energy Regulatory Commission (FERC)

Action Items:

- Prepare draft meeting notes and distribute to HAT 3 members (will also be available on the Harris Relicensing website – Alabama Power
- Determine the need, extent, and timing of surveys for finelined pocketbook in Tallapoosa River near HWY 431 - Alabama Power and USFWS
- Review existing information on southern pigtoe and Morefield's leather flower to determine if further analysis is warranted - USFWS
- Determine if there is existing data for fish/mussel communities at Little Coon Creek – Alabama Power
- Determine the need, extent, and timing of surveys to assess aquatic habitat in Little Coon Creek – Alabama Power and USFWS

Meeting Summary:

Angie Anderegg (Alabama Power) opened the meeting by explaining where we are in the R.L. Harris Project (Harris Project) relicensing process. Alabama Power filed a revised Study Plan on March 13, 2019, and FERC issued its study plan determination on April 12, 2019. Since the study plan approval, Alabama Power started several studies and will host additional Harris Action Team (HAT) meetings to provide progress updates on the various resource studies.

Jason M. (Kleinschmidt) reviewed the goal, geographic scope, and methods of the Threatened and Endangered (T&E) Species Study Plan. Jason M. then reviewed the study schedule and upcoming October Progress Update. Alabama Power plans to distribute a draft T&E Study Report in February 2020 and file the Initial Study Report with FERC in April 2020. Harris Action Team meetings will be held subsequently as needed, and Alabama Power will file with FERC, an additional Progress Update in October 2020, and an Updated Study Report in April 2021.

At present, there are no listed species known to occur within the Harris Project Boundary. Jason M. reviewed the list of federally threatened and endangered species potentially occurring in Alabama counties within the Harris Project, beginning with the Red-cockaded woodpecker (RCW). Jeff Baker (Alabama Power) reported no RCW habitat has been observed in the Harris Project Boundary during bald eagle surveys and no RCWs have been observed to date.

Curt Chaffin (Alabama Rivers Alliance) mentioned the June 2019 removal of the Howle and Turner Dam on the Tallapoosa River upstream of Lake Harris and asked if there was any chance the removal could affect critical habitat for the finelined pocketbook. Evan Collins (USFWS) replied that given the proximity of the finelined pocketbook's critical habitat to the Project Boundary, some investigation could be warranted. Jason asked where in the mainstem the species occurred, and Evan said he could send Alabama Power a map and that he would not be surprised if finelined pocketbook occurred near the Harris Project Boundary (around HWY 431). Sarah Salazar (FERC) suggested that any mussel assessments should also consider fish species that serve as hosts for mussel larvae.

Jason M. noted that the Southern Pigtoe is endemic to the Coosa River and may have never existed in the Tallapoosa basin, which may warrant removal from further consideration. Sarah noted that Alabama Power should document USFWS concurrence with any decision to remove from consideration any species on the official list.

Jason M. reviewed the Indiana Bat, Northern Long-eared Bat and Gray Bat. He noted that the Alabama Natural Heritage Program did not report any occurrences of these bat species in the Harris Project Boundary. Evan stated it is likely that all three bat species occur at Skyline. Jason Carlee (Alabama Power) confirmed that timber harvest activities follow appropriate Best Management Practices (BMPs), including leaving snag tree and preferred habitat trees and delaying timber harvest during sensitive time periods. Some forestry BMPs have been expanded but have not been incorporated into the existing license. Sarah noted that it appears that all project counties occur within the White Nose Syndrome Zone.

Jason M. reviewed threatened and endangered plants, beginning with Little Amphianthus (Pool Sprite). One occurrence was reported within the Harris Project Boundary in Flat Rock Park in March 17, 1995. The group discussed the possibility of changing the land use classification of some lands from Recreation to Natural/Undeveloped and noted that surveys at Flat Rock Park occurred in Fall 2018 and Spring 2019. An additional survey is scheduled for Fall 2019. Taconya Goar (ADCNR) asked Alabama Power to clarify what it means to reclassify land as Natural/Undeveloped. Angie commented that the 20-acre parcel of land where the botanical inventory is taking place is currently classified as Recreation. The American Glade Conservation Coalition (AGCC) has recommended that Alabama Power reclassify the 20-acres to provide additional protection for the rare habitat types present there. Jeff Baker (Alabama Power) mentioned the BioBlitz held at that site in Fall 2018. Evan asked if the AGCC were looking for

suitable habitat in addition to the species themselves. Jason Carlee noted that the ongoing survey efforts will document both the species and habitats currently present on the parcel.

Jason M. reviewed the White Fringeless Orchid and stated that Alabama Power may use Geographic Information System (GIS) data to determine if habitat requirements align with potential habitat available within the Project Boundary. Jason M. reviewed the Price's Potato-bean and stated that Alabama Power may further investigate this species since it is known to be present within the Skyline Wildlife Management Area. Jason M. also reviewed the Morefield's Leather Flower. Sarah asked if there would be a complete set of maps for the Project Update and stated that Morefield's Leather Flower is not in the Information for Planning and Consultation (IPaC) species list. Angie asked why this species wasn't in the IPaC or Natural Heritage Program list but is in the Study Plan. Evan commented that the IPaC data is on a finer scale than a county and that he would look through USFWS data.

Evan commented on some of the different requirements of certain mussel species and fish: the *Notropis* species (Palezone Shiner) may be present in some of the lower reaches of Tennessee River tributaries. Jeff offered to make an inquiry with ADEM to determine if/where they have performed fish surveys on Little Coon Creek at Skyline. Evan suggested that Little Coon Creek would need to be investigated further to determine the type and extent of available habitat and whether it is suitable for aquatic species listed in the study plan.

Jason M. reiterated the need to investigate the likelihood of some of the study plan species occurring within the Harris Project. Jason C. pointed out that most of the field verification work could be performed fairly quickly. Evan will take a closer look at the distributions of some plant species such as Morefield's Leather Flower to see if they should remain in the Study Plan. Evan asked how the habitat assessment was going to be performed. Jason M. replied that Alabama Power is consulting with subject matter experts that are familiar with these areas and looking at the possibility of field surveys for confirmation. Jason C. discussed existing protection and enhancement measures performed by Alabama Power, including BMPs, animal boxes, and future discussion items such as the Wildlife Management Plan.

Jason M. noted Kleinschmidt will prepare the T&E Species report, which will focus on life history requirements and distributions of study plan species within the geographic scope. Alabama Power will host a HAT 3 meeting in the Spring of 2020, but a phone meeting may be scheduled earlier if needed.

R.L. Harris Project Relicensing

HAT 3 – Threatened & Endangered Species Study

August 27, 2019

HARRIS DAM
RELICENSING

Safety Moment

In case of an emergency…..

- Designee will contact 911
- Exit locations
- Designated meeting area
- Location of AED

HARRIS DAM
RELICENSING

Meeting Agenda

- Introductions and Process Overview
- Review Study Plan & Species List
- Timeline for Desktop Assessment
- Discuss need for Field Surveys
- Discuss Existing Protection and Enhancement Programs
- Review Action Items
- Adjourn

HARRIS DAM
RELICENSING

Process Update

March 13 - Revised Study Plans Filed

April 12 - FERC Study Plan Determination

Summer/Fall 2019 – Various HAT meetings

T & E Species Study

Goal

Determine if listed species occur in the Project Area and identify potential project impacts

Geographic Scope

Harris Project Boundary (Lake Harris and Skyline), and Tallapoosa River from Harris Dam through Horseshoe Bend

Study Components

- Compile a list of T&E species and critical habitats documented.
- Review literature of agreed upon species to gather habitat requirement data and describe historical range.
- Identify factors affecting the status of each species.
- Use GIS to map habitat information to determine possible areas in the geographic scope that T&E species may utilize.
- Summarize collected data of areas within the geographic scope that provide habitat requirements for T&E species.
- Determine if these areas are potentially impacted by Harris Project operations.
- Perform field surveys, as appropriate

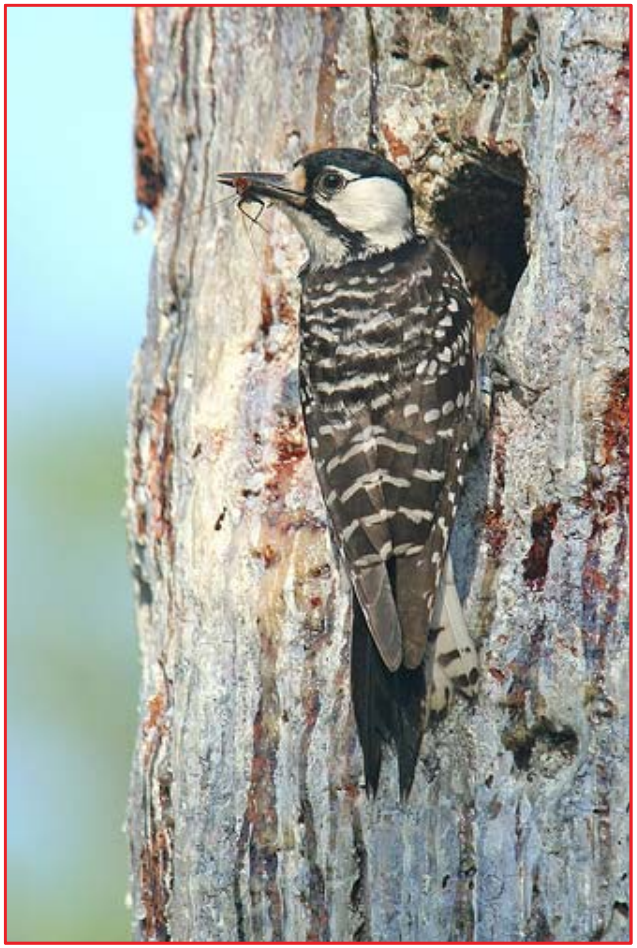
T & E Species Study Schedule

Task/Milestone	2019 APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2020 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2021 JAN	FEB	MAR	APR
Develop GIS Overlays and Maps																									
Discuss GIS and need for field verification																									
Progress Update																									
Field Verification, if required																									
Draft T&E study report to HAT 3																									
Initial Study Report																									
Initial Study Report Meeting																									
HAT 3 Meeting(s), as needed,																									
Progress Update																									
Final T&E study report to HAT 3																									
Updated Study Report																									
Updated Study Report Meeting																									

SCIENTIFIC NAME	COMMON NAME	FEDERAL STATUS	STATE PROTECTED	COUNTY(IES) OF OCCURRENCE	OCCURRENCE	DOCUMENTED HISTORIC RANGE IN AL
Picoides borealis	Red-Cockaded Woodpecker	E	Yes	Clay & Randolph		Statewide in appropriate habitat
Notropis albizonatus	Palezone Shiner	E	Yes	Jackson		Tennessee River system
Erimonax monachus	Spotfin Chub	T	Yes	Jackson		Tennessee River system
Hamiota altilis	Fine-lined Pocketbook mussel	T		Cleburne	Yes	Coosa, Tallapoosa, Cahaba River systems
Lampsilis virescens	Alabama Lampmussel	E		Jackson		Tennessee River system
Villosa trabalis	Cumberland Bean	E		Jackson		Tennessee River system
Fusconaia cuneolus	Finerayed Pigtoe	E		Jackson		Tennessee River system
Toxolasma cylindrellus	Pale Lilliput	E		Jackson		Tennessee River system
Quadrula cylindrica	Rabbitsfoot	T		Jackson		Tennessee River system
Fusconaia cuneolus	Shiny Pigtoe	E		Jackson		Tennessee River system
Epioblasma triquetra	Snuffbox	E		Jackson		Tennessee River system
Pleurobema georgianum	Southern Pigtoe	E		Clay		Coosa River system
Pleuronaia dolabelloides	Slabside Pearlymussel	E		Jackson		Tennessee River system
Myotis sodalis	Indiana Bat	E	Yes	Clay, Cleburne, Randolph, Chambers, Tallapoosa, & Jackson	Yes	Statewide in appropriate habitat
Myotis septentrionalis	Northern Long-eared Bat	T	Yes	Clay, Cleburne, Randolph, Chambers, Tallapoosa, & Jackson	Yes	Piedmont and Cumberland regions
Myotis grisescens	Gray Bat	E	Yes	Jackson	Yes	Statewide in appropriate habitat
Amphianthus pusillus	Little Amphianthus	T		Randolph, Chambers, & Tallapoosa	Yes	Piedmont region (Bridges 1988)
Platanthera integrilabia	White Fringeless Orchid	T		Clay, Cleburne, Jackson, Chambers, & Tallapoosa		Talladega National Forest
Apios priceana	Price's Potato-bean	T		Jackson	Yes	Statewide in appropriate habitat
Clematis morefieldii	Morefield's Leather Flower	E		Jackson		Northern regions of state (USFWS 2007)

Red-Cockaded Woodpecker

Federal Status	Endangered
Habitat	Open pine woodlands and savannas with large, old pines (preferably longleaf) and abundant native bunchgrass and groundcovers. Little or not mid or over-story hardwoods.
Potential Occurrence	Clay and Randolph counties



Palezone Shiner

Federal Status	Endangered
Habitat	Runs and pools of large creeks and small rivers with clean bedrock, cobble, gravel, and sand
Potential Occurrence	Jackson County
Known Populations	Paint Rock River

Spotfin Chub

Federal Status	Threatened
Habitat	Clear, large creeks and medium-sized rivers with moderate current over bedrock and gravel substrates
Potential Occurrence	Jackson County
Known Populations	Presumed extirpated in AL

Finelined Pocketbook

Federal Status	Threatened
Habitat	Small to large streams above Fall Line having stable sand, gravel, and cobble substrates and moderate to swift current
Potential Occurrence	Cleburne County
Known Populations	Little Cane Creek, Cane Creek and Muscadine Creek (Tallapoosa River tributaries upstream of Lake Harris in Cleburne County)
Critical Habitat	100-mile reach of Tallapoosa River extending upstream from US HWY 431

Alabama Lampmussel

Federal Status	Endangered
Habitat	Shoals of small and medium rivers
Potential Occurrence	Jackson County
Known Populations	Paint Rock River

Cumberland Bean

Federal Status	Endangered
Habitat	Swift riffles of small rivers and streams with gravel/sand
Potential Occurrence	Jackson County
Known Populations	None reported in Alabama since impoundment of the Tennessee River

Finerayed pigtoe

Federal Status	Endangered
Habitat	Shoals of medium to large rivers with sand to cobble substrates
Potential Occurrence	Jackson County
Known Populations	Paint Rock River

Pale lilliput

Federal Status	Endangered
Habitat	Large creeks and small rivers with moderate current over gravel
Potential Occurrence	Jackson County
Known Populations	Paint Rock River

Rabbitsfoot

Federal Status	Threatened
Habitat	Creeks and small rivers along margins of riffles and runs; sometimes lotic reaches of large rivers
Potential Occurrence	Jackson County
Known Populations	Paint Rock River

Shiny pigtoe

Federal Status	Endangered
Habitat	Shoals and riffles of medium to large rivers
Potential Occurrence	Jackson County
Known Populations	Paint Rock River

Southern pigtoe

Federal Status	Endangered
Habitat	Sand/gravel/cobble shoals and runs in small rivers and large streams
Potential Occurrence	Cleburne County
Known Populations	Shoal Creek
Notes	Species is endemic to Coosa River basin; no records indicate it has ever occurred in the Tallapoosa River basin

Slabside pearlymussel

Federal Status	Endangered
Habitat	Large creeks and rivers in shallow riffles with sand, gravel, and cobble substrates and moderate current
Potential Occurrence	Jackson County
Known Populations	Larkin Fork, Estill Fork, Hurricane Creek, and Paint Rock River
Critical Habitat	Larkin Fork (7 mi), Estill Fork (8 mi), Hurricane Creek (10 mi), Paint Rock River (53 mi)

Indiana Bat

Federal Status	Endangered
Habitat	Hibernates in caves; maternal colonies roost in tree hollows and behind loose bark
Potential Occurrence	Jackson, Clay, Cleburne, Randolph, Chambers, and Tallapoosa counties

Northern Long-eared Bat

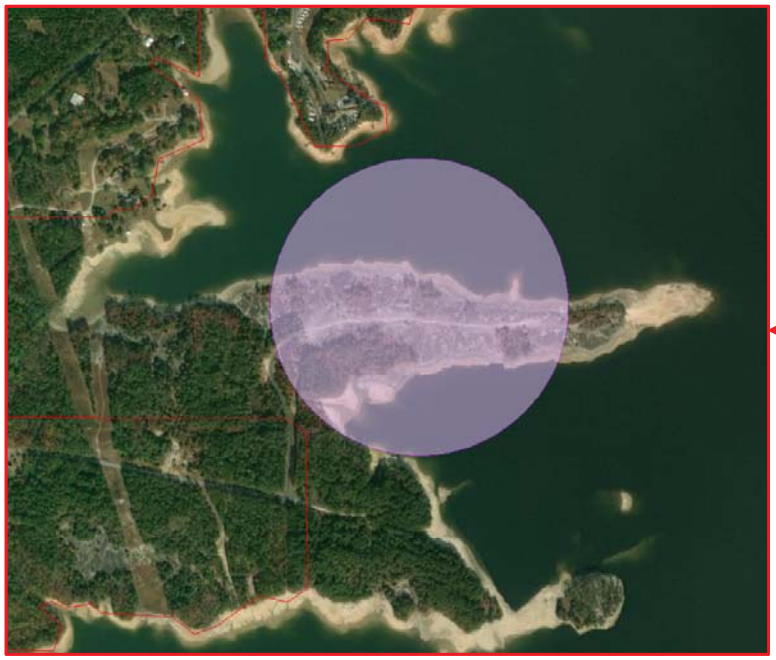
Federal Status	Threatened
Habitat	Hibernates in caves or cave-like structures; roosts in cavities, under bark, or in hollows of live or dead trees
Potential Occurrence	Jackson, Clay, Cleburne, Randolph, Chambers, and Tallapoosa counties

Gray Bat

Federal Status	Endangered
Habitat	Uses caves for both summer roosting and winter hibernation
Potential Occurrence	Jackson County

Little Amphianthus

Federal Status	Threatened
Habitat	Vernal pools on granite outcrops in the southeastern Piedmont
Potential Occurrence	Randolph, Chambers, and Tallapoosa counties
Know Populations	Randolph (two sites), Chambers (one site)



Last observed on 3/17/1995

White Fringeless Orchid

Federal Status	Threatened
Habitat	Wet, flat, or boggy areas with acidic muck or sand in partially shaded areas at the head of streams or seepage slopes
Potential Occurrence	Clay, Cleburne, Chambers, Tallapoosa, and Jackson counties
Know Populations	Talladega National Forest (Clay County)

Price's Potato-bean

Federal Status	Threatened
Habitat	Open bottom areas near or along the banks of streams and rivers, sometimes near the base of limestone bluffs
Potential Occurrence	Jackson County
Know Populations	Sauta Cave NWR, Little Coon Creek in Skyline WMA

Morefield's Leather Flower

Federal Status	Endangered
Habitat	Near seeps and springs in rocky limestone woods on south and southwest facing slopes of mountains
Potential Occurrence	Jackson County
Know Populations	Jackson County

APC Harris Relicensing

From: Anderegg, Angela Segars
Sent: Wednesday, August 28, 2019 12:36 PM
To: Sarah Salazar
Subject: RE: HAT 1 meeting - September 11, 2019

Hi Sarah,

I completely agree that it will be beneficial to document our consultation with FWS on what species should continue to be reviewed, which require field verification vs desktop analysis, protocols to use, etc.

I apologize again for the phone issues yesterday. We are going to make every effort to avoid that happening again!

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Sarah Salazar <Sarah.Salazar@ferc.gov>
Sent: Tuesday, August 27, 2019 11:54 AM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Subject: RE: HAT 1 meeting - September 11, 2019

Hi Angie,

I have a quick follow-up comment/clarification for the HAT 3 meeting for consideration as we move forward in the first study season. When you consult with FWS, it would be really helpful if you could get their explicit comments not only regarding which species should continue to be reviewed (i.e., as our official T&E species list for the Harris Reservoir area and Skyline), but also their comments about whether or not field surveys are needed for each of the species on the list. If FWS comments that surveys are needed for any of the species, it would be ideal for them to also provide the species-specific survey protocol(s), if available, that would facilitate their review under ESA. Having all of these types of comments on our record would facilitate ESA consultation throughout the licensing process. Feel free to call if you have any questions about this follow-up comment.

Thanks again for the opportunity to participate in the meeting today!

Sarah L. Salazar ✧ *Environmental Biologist* ✧ *Federal Energy Regulatory Commission* ✧ *888 First St, NE, Washington, DC 20426* ✧ *(202) 502-6863*

From: Anderegg, Angela Segars [mailto:ARSEGARS@southernco.com]
Sent: Monday, August 26, 2019 1:04 PM
To: Sarah Salazar <Sarah.Salazar@ferc.gov>
Cc: Allan Creamer <Allan.Creamer@ferc.gov>; Rachel McNamara <Rachel.McNamara@ferc.gov>; Monte Terhaar (CTR)

<Monte.Terhaar@ferc.gov>; Kyrstin Wallach <Kyrstin.Wallach@ferc.gov>; Stephen Bowler <Stephen.Bowler@ferc.gov>; Anderson, Dave <DKANDERS@SOUTHERNCO.COM>
Subject: RE: HAT 1 meeting - September 11, 2019

Hey Sarah,

Yes, if you have any technical difficulties call Dave Anderson (205-257-1398). He has the most experience in our group working out snags with Skype.

Talk to you tomorrow!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Sarah Salazar <Sarah.Salazar@ferc.gov>
Sent: Monday, August 26, 2019 10:36 AM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Allan Creamer <Allan.Creamer@ferc.gov>; Rachel McNamara <Rachel.McNamara@ferc.gov>; Monte Terhaar (CTR) <Monte.Terhaar@ferc.gov>; Kyrstin Wallach <Kyrstin.Wallach@ferc.gov>; Stephen Bowler <Stephen.Bowler@ferc.gov>
Subject: RE: HAT 1 meeting - September 11, 2019

Ok, thank you for the heads up Angie. We can call in for the audio. I will try to connect 5 or 10 min. before the mtg. starts. Is there a preferred number we should call if we experience any technical difficulties?

Sarah L. Salazar ✧ *Environmental Biologist* ✧ *Federal Energy Regulatory Commission* ✧ *888 First St, NE, Washington, DC 20426* ✧ *(202) 502-6863*

From: Anderegg, Angela Segars [mailto:ARSEGARS@southernco.com]
Sent: Thursday, August 15, 2019 4:28 PM
To: Sarah Salazar <Sarah.Salazar@ferc.gov>
Cc: Allan Creamer <Allan.Creamer@ferc.gov>; Rachel McNamara <Rachel.McNamara@ferc.gov>; Monte Terhaar (CTR) <Monte.Terhaar@ferc.gov>; Kyrstin Wallach <Kyrstin.Wallach@ferc.gov>; Stephen Bowler <Stephen.Bowler@ferc.gov>
Subject: RE: HAT 1 meeting - September 11, 2019

We have found that Skype works best if you have it call your desk or cell phone, in lieu of using the speakers on your computer. An alternative is to call the number directly from your phone. Then click on the link and choose “Don’t join audio.” Hopefully one of these will work!

Thanks!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Sarah Salazar <Sarah.Salazar@ferc.gov>
Sent: Tuesday, August 13, 2019 1:55 PM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Allan Creamer <Allan.Creamer@ferc.gov>; Rachel McNamara <Rachel.McNamara@ferc.gov>; Monte Terhaar (CTR) <Monte.Terhaar@ferc.gov>; Kyrstin Wallach <Kyrstin.Wallach@ferc.gov>; Stephen Bowler <Stephen.Bowler@ferc.gov>
Subject: RE: HAT 1 meeting - September 11, 2019

Good afternoon Angie,

Thank you for the information about the HAT 1 & 2 meetings in September. As with the HAT 3 mtg., we won't be able to attend in person, but some of us plan to participate by phone. I meant to confirm that I saw the call-in and skype info. in your previous email too. We will join by phone and/or Skype so that we can follow along with the slides as you present. I say and/or because sometimes our Skype sound works and other times it doesn't. We look forward to the meetings!

Thanks again,

Sarah L. Salazar ✧ *Environmental Biologist* ✧ *Federal Energy Regulatory Commission* ✧ *888 First St, NE, Washington, DC 20426* ✧ *(202) 502-6863*

From: Anderegg, Angela Segars [mailto:ARSEGARS@southernco.com]
Sent: Tuesday, August 13, 2019 2:19 PM
To: APC Harris Relicensing <g2apchr@southernco.com>
Subject: HAT 1 meeting - September 11, 2019

HAT 1,

Alabama Power Company will be hosting a series of HAT meetings on **Wednesday, September 11, 2019 at the Oxford Civic Center,** 401 Mccullars Ln, Oxford, AL 36203. The HAT 1 meeting will be from **9:00 to 11:00**. The purpose of the HAT 1 meeting is to review the models, model assumptions, inputs and scenarios, and to review the schedule for deliverables and respond to stakeholder questions on the models. This is for both the Operating Curve Change Feasibility Analysis and the Downstream Release Alternatives studies. Note that Alabama Power will not be presenting results of any of the modeling efforts at this meeting; however we will be explaining how the analyses will provide results.

Please RSVP by Friday, September 6, 2019. Lunch will be provided (~11:45) so please indicate any food allergies or vegetarian preferences on or before September 6, 2019. I encourage everyone to attend in person. If this is not feasible, we are also offering a Skype option (info below). It would be ideal to join on your computer as we will be viewing presentations and maps.

If you have any questions about the agenda or meeting, please email or call me at ARSEGARS@southernco.com or (205) 257-2251.

Join Skype Meeting [meet.lync.com]

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Conference ID: 892052380

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

HAT 3 - 8/27 meeting notes

Anderegg, Angela Segars

Wed 9/25/2019 7:43 PM

To: 'harrisrelicensing@southernco.com' <harrisrelicensing@southernco.com>
Bcc amy.silvano@dcnr.alabama.gov <amy.silvano@dcnr.alabama.gov>; chris.greene@dcnr.alabama.gov <chris.greene@dcnr.alabama.gov>; damon.abernethy@dcnr.alabama.gov <damon.abernethy@dcnr.alabama.gov>; evan.lawrence@dcnr.alabama.gov <evan.lawrence@dcnr.alabama.gov>; keith.henderson@dcnr.alabama.gov <keith.henderson@dcnr.alabama.gov>; mike.holley@dcnr.alabama.gov <mike.holley@dcnr.alabama.gov>; stan.cook@dcnr.alabama.gov <stan.cook@dcnr.alabama.gov>; steve.bryant@dcnr.alabama.gov <steve.bryant@dcnr.alabama.gov>; taconya.goar@dcnr.alabama.gov <taconya.goar@dcnr.alabama.gov>; ken.wills@jcdh.org <ken.wills@jcdh.org>; arsegars@southernco.com <arsegars@southernco.com>; ammcvica@southernco.com <ammcvica@southernco.com>; dkanders@southernco.com <dkanders@southernco.com>; jcarlee@southernco.com <jcarlee@southernco.com>; jefbaker@southernco.com <jefbaker@southernco.com>; kechandl@southernco.com <kechandl@southernco.com>; tlmills@southernco.com <tlmills@southernco.com>; cggoodma@southernco.com <cggoodma@southernco.com>; clowry@alabamarivers.org <clowry@alabamarivers.org>; cchaffin@alabamarivers.org <cchaffin@alabamarivers.org>; gjobsis@americanrivers.org <gjobsis@americanrivers.org>; devridr@auburn.edu <devridr@auburn.edu>; irwiner@auburn.edu <irwiner@auburn.edu>; kmo0025@auburn.edu <kmo0025@auburn.edu>; wrighr2@aces.edu <wrighr2@aces.edu>; jhancock@balch.com <jhancock@balch.com>; lgallen@balch.com <lgallen@balch.com>; chrisoberholster@birminghamaudubon.org <chrisoberholster@birminghamaudubon.org>; sarah.salazar@ferc.gov <sarah.salazar@ferc.gov>; allan.creamer@ferc.gov <allan.creamer@ferc.gov>; rachel.mcnamara@ferc.gov <rachel.mcnamara@ferc.gov>; monte.terhaar@ferc.gov <monte.terhaar@ferc.gov>; amanda.fleming@kleinschmidtgroup.com <amanda.fleming@kleinschmidtgroup.com>; colin.dinken@kleinschmidtgroup.com <colin.dinken@kleinschmidtgroup.com>; henry.mealing@kleinschmidtgroup.com <henry.mealing@kleinschmidtgroup.com>; jason.moak@kleinschmidtgroup.com <jason.moak@kleinschmidtgroup.com>; kate.cosnahan@kleinschmidtgroup.com <kate.cosnahan@kleinschmidtgroup.com>; kelly.schaeffer@kleinschmidtgroup.com <kelly.schaeffer@kleinschmidtgroup.com>; sforehand@russelllands.com <sforehand@russelllands.com>; lgarland68@aol.com <lgarland68@aol.com>; pace.wilber@noaa.gov <pace.wilber@noaa.gov>; mitchell.reid@tnc.org <mitchell.reid@tnc.org>; donnamat@aol.com <donnamat@aol.com>; trayjim@bellsouth.net <trayjim@bellsouth.net>; mhpwedowee@gmail.com <mhpwedowee@gmail.com>; straylor426@bellsouth.net <straylor426@bellsouth.net>; triciastearns@gmail.com <triciastearns@gmail.com>; wmcampbell218@gmail.com <wmcampbell218@gmail.com>; holliman.daniel@epa.gov <holliman.daniel@epa.gov>; decker.chris@epa.gov <decker.chris@epa.gov>; bill_pearson@fws.gov <bill_pearson@fws.gov>; evan_collins@fws.gov <evan_collins@fws.gov>; jeff_powell@fws.gov <jeff_powell@fws.gov>; jennifer_grunewald@fws.gov <jennifer_grunewald@fws.gov>; jeff_duncan@nps.gov <jeff_duncan@nps.gov>

Good afternoon HAT 3,

The meeting notes and presentation for the August 27 HAT 3 meeting can be found on the Harris relicensing website:
2019-8-27 HAT 3 meeting notes.

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

Level logger information

APC Harris Relicensing

Mon 10/14/2019 6:34 PM

To: 'harrisrelicensing@southernco.com' <harrisrelicensing@southernco.com>
Bcc damon.abernethy@dcnr.alabama.gov <damon.abernethy@dcnr.alabama.gov>; steve.bryant@dcnr.alabama.gov <steve.bryant@dcnr.alabama.gov>; stan.cook@dcnr.alabama.gov <stan.cook@dcnr.alabama.gov>; taconya.goar@dcnr.alabama.gov <taconya.goar@dcnr.alabama.gov>; chris.greene@dcnr.alabama.gov <chris.greene@dcnr.alabama.gov>; keith.henderson@dcnr.alabama.gov <keith.henderson@dcnr.alabama.gov>; mike.holley@dcnr.alabama.gov <mike.holley@dcnr.alabama.gov>; evan.lawrence@dcnr.alabama.gov <evan.lawrence@dcnr.alabama.gov>; brian.atkins@adeca.alabama.gov <brian.atkins@adeca.alabama.gov>; tom.littlepage@adeca.alabama.gov <tom.littlepage@adeca.alabama.gov>; jhaslbauer@adem.alabama.gov <jhaslbauer@adem.alabama.gov>; cljohnson@adem.alabama.gov <cljohnson@adem.alabama.gov>; mlen@adem.alabama.gov <mlen@adem.alabama.gov>; fal@adem.alabama.gov <fal@adem.alabama.gov>; djmoore@adem.alabama.gov <djmoore@adem.alabama.gov>; arsegars@southernco.com <arsegars@southernco.com>; dkanders@southernco.com <dkanders@southernco.com>; jefbaker@southernco.com <jefbaker@southernco.com>; jcarlee@southernco.com <jcarlee@southernco.com>; kechandl@southernco.com <kechandl@southernco.com>; mcoker@southernco.com <mcoker@southernco.com>; cggoodma@southernco.com <cggoodma@southernco.com>; sgraham@southernco.com <sgraham@southernco.com>; ammcvica@southernco.com <ammcvica@southernco.com>; tlmills@southernco.com <tlmills@southernco.com>; cmnix@southernco.com <cmnix@southernco.com>; kodom@southernco.com <kodom@southernco.com>; alpeeple@southernco.com <alpeeple@southernco.com>; dpreston@southernco.com <dpreston@southernco.com>; scsmith@southernco.com <scsmith@southernco.com>; twstjohn@southernco.com <twstjohn@southernco.com>; cchaffin@alabamarivers.org <cchaffin@alabamarivers.org>; clowry@alabamarivers.org <clowry@alabamarivers.org>; gjobsis@americanrivers.org <gjobsis@americanrivers.org>; kmo0025@auburn.edu <kmo0025@auburn.edu>; devridr@auburn.edu <devridr@auburn.edu>; irwiner@auburn.edu <irwiner@auburn.edu>; wrighr2@aces.edu <wrighr2@aces.edu>; lgallen@balch.com <lgallen@balch.com>; jhancock@balch.com <jhancock@balch.com>; allan.creamer@ferc.gov <allan.creamer@ferc.gov>; rachel.mcnamara@ferc.gov <rachel.mcnamara@ferc.gov>; sarah.salazar@ferc.gov <sarah.salazar@ferc.gov>; monte.terhaar@ferc.gov <monte.terhaar@ferc.gov>; gene@wedoweelakehomes.com <gene@wedoweelakehomes.com>; kate.cosnahan@kleinschmidtgroup.com <kate.cosnahan@kleinschmidtgroup.com>; colin.dinken@kleinschmidtgroup.com <colin.dinken@kleinschmidtgroup.com>; amanda.fleming@kleinschmidtgroup.com <amanda.fleming@kleinschmidtgroup.com>; chris.goodell@kleinschmidtgroup.com <chris.goodell@kleinschmidtgroup.com>; henry.mealing@kleinschmidtgroup.com <henry.mealing@kleinschmidtgroup.com>; jason.moak@kleinschmidtgroup.com <jason.moak@kleinschmidtgroup.com>; kelly.schaeffer@kleinschmidtgroup.com <kelly.schaeffer@kleinschmidtgroup.com>; jessecunningham@msn.com <jessecunningham@msn.com>; mdollar48@gmail.com <mdollar48@gmail.com>; drheinzen@charter.net <drheinzen@charter.net>; sforehand@russelllands.com <sforehand@russelllands.com>; 1942jthompson420@gmail.com <1942jthompson420@gmail.com>; nancyburnes@centurylink.net <nancyburnes@centurylink.net>; sandnfrench@gmail.com <sandnfrench@gmail.com>; lgarland68@aol.com <lgarland68@aol.com>; rbmorris222@gmail.com <rbmorris222@gmail.com>; Ira Parsons (irapar@centurytel.net) <irapar@centurytel.net>; mitchell.reid@tnc.org <mitchell.reid@tnc.org>; richardburnes3@gmail.com <richardburnes3@gmail.com>; eilandfarm@aol.com <eilandfarm@aol.com>; athall@fujifilm.com <athall@fujifilm.com>; ebt.drt@numail.org <ebt.drt@numail.org>; georgettraylor@centurylink.net <georgettraylor@centurylink.net>; beckyrainwater1@yahoo.com <beckyrainwater1@yahoo.com>; dbronson@charter.net <dbronson@charter.net>; wmcampbell218@gmail.com <wmcampbell218@gmail.com>; jec22641@aol.com <jec22641@aol.com>; sonjaholloman@gmail.com <sonjaholloman@gmail.com>; butchjackson60@gmail.com <butchjackson60@gmail.com>; donnamat@aol.com <donnamat@aol.com>; goxford@centurylink.net <goxford@centurylink.net>; mhpwedowee@gmail.com <mhpwedowee@gmail.com>; jerrelshell@gmail.com <jerrelshell@gmail.com>; bsmith0253@gmail.com <bsmith0253@gmail.com>; inspector_003@yahoo.com <inspector_003@yahoo.com>; paul.trudine@gmail.com <paul.trudine@gmail.com>; lindastone2012@gmail.com

<lindastone2012@gmail.com>; granddadth@windstream.net <granddadth@windstream.net>; trayjim@bellsouth.net <trayjim@bellsouth.net>; straylor426@bellsouth.net <straylor426@bellsouth.net>; robert.a.allen@usace.army.mil <robert.a.allen@usace.army.mil>; randall.b.harvey@usace.army.mil <randall.b.harvey@usace.army.mil>; james.e.hathorn.jr@sam.usace.army.mil <james.e.hathorn.jr@sam.usace.army.mil>; lewis.c.sumner@usace.army.mil <lewis.c.sumner@usace.army.mil>; jonas.white@usace.army.mil <jonas.white@usace.army.mil>; gordon.lisa-perras@epa.gov <gordon.lisa-perras@epa.gov>; holliman.daniel@epa.gov <holliman.daniel@epa.gov>; jennifer_grunewald@fws.gov <jennifer_grunewald@fws.gov>; jeff_powell@fws.gov <jeff_powell@fws.gov>; jeff_duncan@nps.gov <jeff_duncan@nps.gov>; amy.silvano@dcnr.alabama.gov <amy.silvano@dcnr.alabama.gov>; chris.greene@dcnr.alabama.gov <chris.greene@dcnr.alabama.gov>; damon.abernethy@dcnr.alabama.gov <damon.abernethy@dcnr.alabama.gov>; evan.lawrence@dcnr.alabama.gov <evan.lawrence@dcnr.alabama.gov>; keith.henderson@dcnr.alabama.gov <keith.henderson@dcnr.alabama.gov>; mike.holley@dcnr.alabama.gov <mike.holley@dcnr.alabama.gov>; stan.cook@dcnr.alabama.gov <stan.cook@dcnr.alabama.gov>; steve.bryant@dcnr.alabama.gov <steve.bryant@dcnr.alabama.gov>; taconya.goar@dcnr.alabama.gov <taconya.goar@dcnr.alabama.gov>; ken.wills@jcdh.org <ken.wills@jcdh.org>; arsegars@southernco.com <arsegars@southernco.com>; ammcvica@southernco.com <ammcvica@southernco.com>; dkanders@southernco.com <dkanders@southernco.com>; jcarlee@southernco.com <jcarlee@southernco.com>; jefbaker@southernco.com <jefbaker@southernco.com>; kechandl@southernco.com <kechandl@southernco.com>; tlmills@southernco.com <tlmills@southernco.com>; cggoodma@southernco.com <cggoodma@southernco.com>; clowry@alabamarivers.org <clowry@alabamarivers.org>; cchaffin@alabamarivers.org <cchaffin@alabamarivers.org>; gjobsis@americanrivers.org <gjobsis@americanrivers.org>; devridr@auburn.edu <devridr@auburn.edu>; irwiner@auburn.edu <irwiner@auburn.edu>; kmo0025@auburn.edu <kmo0025@auburn.edu>; wrighr2@aces.edu <wrighr2@aces.edu>; jhancock@balch.com <jhancock@balch.com>; lgallen@balch.com <lgallen@balch.com>; chrisoberholster@birminghamaudubon.org <chrisoberholster@birminghamaudubon.org>; sarah.salazar@ferc.gov <sarah.salazar@ferc.gov>; allan.creamer@ferc.gov <allan.creamer@ferc.gov>; rachel.mcnamara@ferc.gov <rachel.mcnamara@ferc.gov>; monte.terhaar@ferc.gov <monte.terhaar@ferc.gov>; amanda.fleming@kleinschmidtgroup.com <amanda.fleming@kleinschmidtgroup.com>; colin.dinken@kleinschmidtgroup.com <colin.dinken@kleinschmidtgroup.com>; henry.mealing@kleinschmidtgroup.com <henry.mealing@kleinschmidtgroup.com>; jason.moak@kleinschmidtgroup.com <jason.moak@kleinschmidtgroup.com>; kate.cosnahan@kleinschmidtgroup.com <kate.cosnahan@kleinschmidtgroup.com>; kelly.schaeffer@kleinschmidtgroup.com <kelly.schaeffer@kleinschmidtgroup.com>; sforehand@russelllands.com <sforehand@russelllands.com>; lgarland68@aol.com <lgarland68@aol.com>; pace.wilber@noaa.gov <pace.wilber@noaa.gov>; mitchell.reid@tnc.org <mitchell.reid@tnc.org>; donnamat@aol.com <donnamat@aol.com>; trayjim@bellsouth.net <trayjim@bellsouth.net>; mhpwedowee@gmail.com <mhpwedowee@gmail.com>; straylor426@bellsouth.net <straylor426@bellsouth.net>; triciastearns@gmail.com <triciastearns@gmail.com>; wmcampbell218@gmail.com <wmcampbell218@gmail.com>; holliman.daniel@epa.gov <holliman.daniel@epa.gov>; decker.chris@epa.gov <decker.chris@epa.gov>; bill_pearson@fws.gov <bill_pearson@fws.gov>; evan_collins@fws.gov <evan_collins@fws.gov>; jeff_powell@fws.gov <jeff_powell@fws.gov>; jennifer_grunewald@fws.gov <jennifer_grunewald@fws.gov>; jeff_duncan@nps.gov <jeff_duncan@nps.gov>

Good afternoon,

There have several questions at recent HAT meetings about the location of the level loggers that are collecting elevation and temperature data that will be used in several of the relicensing studies. For your information, here is a link to a map that shows the locations of the 20 level logger monitors: Level Logger Locations. This link will also be placed under HATs 1 and 3 on the Harris relicensing website, www.harrisrelicensing.com.

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251

arsegars@southernco.com

APC Harris Relicensing

From: Anderegg, Angela Segars
Sent: Thursday, November 7, 2019 10:39 AM
To: 'Evan Collins'
Cc: Baker, Jeffery L.; Jason Moak
Subject: Harris T&E survey
Attachments: 2019-10-21 Harris Finelined Pocketbook Survey Plan DRAFT.docx

Importance: High

Evan,

Jason Moak at Kleinschmidt informed me that you and Jeff Baker had worked out a plan to survey some areas around Lake Harris next week to determine if Finelined Pocketbook are present. I wanted to thank you for working with Jason and Jeff to hash out the details of this work. Jason prepared a survey plan for this effort based on your recommendations, which I've attached to this email.

I wanted to make sure we document your concurrence with the plan prior to performing the work. Can you send a brief reply if you are okay with it? If you have any suggestions or edits, please include those in your response and we'll be sure to update the document accordingly.

If you have any questions, please give me a call.

Thank You!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

APC Harris Relicensing

From: Anderegg, Angela Segars
Sent: Monday, November 18, 2019 3:36 PM
To: Collins, Evan
Cc: Baker, Jeffery L.; Jason Moak; Powell, Jeff; 'Taconya Goar'
Subject: RE: [EXTERNAL] Harris T&E survey
Attachments: 2019-11-18 Harris Finelined Pocketbook Survey Plan DRAFT 2.docx

Attached is a new version of the survey plan with revisions based on your comments. Please let me know if you concur with the plan as revised. I believe the survey work is scheduled for this Thursday. Taconya, please let me know if you have any questions.

Thanks!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Collins, Evan <evan_collins@fws.gov>
Sent: Thursday, November 7, 2019 5:08 PM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Baker, Jeffery L. <JEFBAKER@southernco.com>; Jason Moak <jason.moak@kleinschmidtgroup.com>; Powell, Jeff <jeff_powell@fws.gov>
Subject: Re: [EXTERNAL] Harris T&E survey

Hi, Angie. Thanks for sending over the survey plan. I think it is important to remember that this survey plan begins to provide the documentation that will demonstrate an adequate effort was put forth to assess possible effects to the finelined pocketbook from operation of the project. Therefore, the logic and reasoning behind the methods should be clearly laid out. I'd specifically like to see a bit more information as to why tributaries into the reservoir were or were not selected for survey. I think that clearly elaborating on the methods and providing repeatable and justifiable methods will help to ensure that this is a scientifically defensible document.

Thanks!
Evan

On Thu, Nov 7, 2019 at 10:41 AM Anderegg, Angela Segars <ARSEGARS@southernco.com> wrote:

> Evan,
>
> Jason Moak at Kleinschmidt informed me that you and Jeff Baker had worked out a plan to survey some areas around Lake Harris next week to determine if Finelined Pocketbook are present. I wanted to thank you for working with Jason

and Jeff to hash out the details of this work. Jason prepared a survey plan for this effort based on your recommendations, which I've attached to this email.

I wanted to make sure we document your concurrence with the plan prior to performing the work. Can you send a brief reply if you are okay with it? If you have any suggestions or edits, please include those in your response and we'll be sure to update the document accordingly.

If you have any questions, please give me a call.

Thank You!

Angie Anderegg

Hydro Services

(205)257-2251

arsegars@southernco.com

--

Evan Collins
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Alabama Ecological Services Field Office
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Daphne, AL 36526
251-441-5837 (phone)
251-441-6222 (fax)
evan_collins@fws.gov

APC Harris Relicensing

From: Anderegg, Angela Segars
Sent: Tuesday, November 19, 2019 3:35 PM
To: Collins, Evan
Cc: Baker, Jeffery L.; Jason Moak; Powell, Jeff; Taconya Goar
Subject: RE: [EXTERNAL] Harris T&E survey
Attachments: 2019-11-19 Harris Finelined Pocketbook Survey Plan DRAFT.docx

Hi Evan,

Jeff B and Jason added some language to address your question. Please let me know if you're good with the attached version.

Thanks!

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From: Collins, Evan <evan_collins@fws.gov>
Sent: Monday, November 18, 2019 4:56 PM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Baker, Jeffery L. <JEFBAKER@southernco.com>; Jason Moak <jason.moak@kleinschmidtgroup.com>; Powell, Jeff <jeff_powell@fws.gov>; Taconya Goar <taconya.goar@dcnr.alabama.gov>
Subject: Re: [EXTERNAL] Harris T&E survey

Hi, Angie. Thanks for sending over the revised plan. I think this is heading in the right direction. However, I'm still a little unclear about the heuristic that was used to identify survey reaches. It appears that a stream reach length threshold was used. If so, can the threshold be explicitly stated in the document? Also, it would be worth stating the logic behind implementing that threshold.

Thanks again!
Evan

On Mon, Nov 18, 2019 at 3:41 PM Anderegg, Angela Segars <ARSEGARS@southernco.com> wrote:

> Attached is a new version of the survey plan with revisions based on your comments. Please let me know if you concur with the plan as revised. I believe the survey work is scheduled for this Thursday. Taconya, please let me know if you have any questions.
>
> Thanks!

Angie Anderegg

Hydro Services

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arsegars@southernco.com

From: Collins, Evan <evan_collins@fws.gov>
Sent: Thursday, November 7, 2019 5:08 PM
To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Baker, Jeffery L. <JEFBAKER@southernco.com>; Jason Moak <jason.moak@kleinschmidtgroup.com>; Powell, Jeff <jeff_powell@fws.gov>
Subject: Re: [EXTERNAL] Harris T&E survey

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Thanks!

Evan

On Thu, Nov 7, 2019 at 10:41 AM Anderegg, Angela Segars <ARSEGARS@southernco.com> wrote:

> Evan,
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> Jason Moak at Kleinschmidt informed me that you and Jeff Baker had worked out a plan to survey some areas around Lake Harris next week to determine if Finelined Pocketbook are present. I wanted to thank you for working with Jason and Jeff to hash out the details of this work. Jason prepared a survey plan for this effort based on your recommendations, which I've attached to this email.

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Thank You!

Angie Anderegg

Hydro Services

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--

Evan Collins

Fish and Wildlife Biologist

U.S. Fish and Wildlife Service

Alabama Ecological Services Field Office
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Daphne, AL 36526
251-441-5837 (phone)

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NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

APC Harris Relicensing

From: Collins, Evan <evan_collins@fws.gov>
Sent: Wednesday, November 20, 2019 12:41 PM
To: Anderegg, Angela Segars
Cc: Baker, Jeffery L.; Jason Moak; Powell, Jeff; Taconya Goar
Subject: Re: [EXTERNAL] Harris T&E survey

Thanks for continuing to work on this document! I think the transparency and repeatability is improving. However, I'm still uncertain regarding a couple points. There appears to be an assumption behind using a 1200ft threshold. I think the logic and that assumption should be explicitly stated (i.e, why 1200 and 1000 or 100ft?). Furthermore, Is there a reason why the mussels wouldn't be found in those smaller reaches? If so, that reasoning should probably be stated. Additionally, two sentences later, the following statement is used: "these represent the tributary reaches with the greatest potential to have available habitat." Can there be more clarification as to why these reaches are the best? I think it's important to be very clear about site selection to demonstrate that an unbiased approach was used. Let me know if you'd like to discuss this further.

-Evan

On Tue, Nov 19, 2019 at 3:38 PM Anderegg, Angela Segars <ARSEGARS@southernco.com> wrote:

> Hi Evan,
>
> Jeff B and Jason added some language to address your question. Please let me know if you're good with the attached version.
>
> Thanks!
>
> **Angie Anderegg**
>
> Hydro Services
>
> (205)257-2251
>
> arsegars@southernco.com
>
> ---
>
> **From:** Collins, Evan <evan_collins@fws.gov>
> **Sent:** Monday, November 18, 2019 4:56 PM

To: Anderegg, Angela Segars <ARSEGARS@southernco.com>
Cc: Baker, Jeffery L. <JEFBAKER@southernco.com>; Jason Moak <jason.moak@kleinschmidtgroup.com>; Powell, Jeff <jeff_powell@fws.gov>; Taconya Goar <taconya.goar@dcnr.alabama.gov>
Subject: Re: [EXTERNAL] Harris T&E survey

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Thanks again!

Evan

On Mon, Nov 18, 2019 at 3:41 PM Anderegg, Angela Segars <ARSEGARS@southernco.com> wrote:

> Attached is a new version of the survey plan with revisions based on your comments. Please let me know if you concur with the plan as revised. I believe the survey work is scheduled for this Thursday. Taconya, please let me know if you have any questions.
>
> Thanks!
>
> **Angie Anderegg**
>
> Hydro Services
>
> (205)257-2251
>
> arsegars@southernco.com
>
> ---
>
> **From:** Collins, Evan <evan_collins@fws.gov>
> **Sent:** Thursday, November 7, 2019 5:08 PM
> **To:** Anderegg, Angela Segars <ARSEGARS@southernco.com>
> **Cc:** Baker, Jeffery L. <JEFBAKER@southernco.com>; Jason Moak <jason.moak@kleinschmidtgroup.com>; Powell, Jeff

<jeff_powell@fws.gov>
Subject: Re: [EXTERNAL] Harris T&E survey

EXTERNAL MAIL: Caution Opening Links or Files

Hi, Angie. Thanks for sending over the survey plan. I think it is important to remember that this survey plan begins to provide the documentation that will demonstrate an adequate effort was put forth to assess possible effects to the finelined pocketbook from operation of the project. Therefore, the logic and reasoning behind the methods should be clearly laid out. I'd specifically like to see a bit more information as to why tributaries into the reservoir were or were not selected for survey. I think that clearly elaborating on the methods and providing repeatable and justifiable methods will help to ensure that this is a scientifically defensible document.

Thanks!

Evan

On Thu, Nov 7, 2019 at 10:41 AM Anderegg, Angela Segars <ARSEGARS@southernco.com> wrote:

> Evan,
>
> Jason Moak at Kleinschmidt informed me that you and Jeff Baker had worked out a plan to survey some areas around Lake Harris next week to determine if Finelined Pocketbook are present. I wanted to thank you for working with Jason and Jeff to hash out the details of this work. Jason prepared a survey plan for this effort based on your recommendations, which I've attached to this email.
>
> I wanted to make sure we document your concurrence with the plan prior to performing the work. Can you send a brief reply if you are okay with it? If you have any suggestions or edits, please include those in your response and we'll be sure to update the document accordingly.
>
> If you have any questions, please give me a call.
>
> Thank You!

Angie Anderegg

Hydro Services

(205)257-2251

arsegars@southernco.com

--

Evan Collins

Fish and Wildlife Biologist

U.S. Fish and Wildlife Service

Alabama Ecological Services Field Office
1208-B Main Street
Daphne, AL 36526
251-441-5837 (phone)

251-441-6222 (fax)

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--

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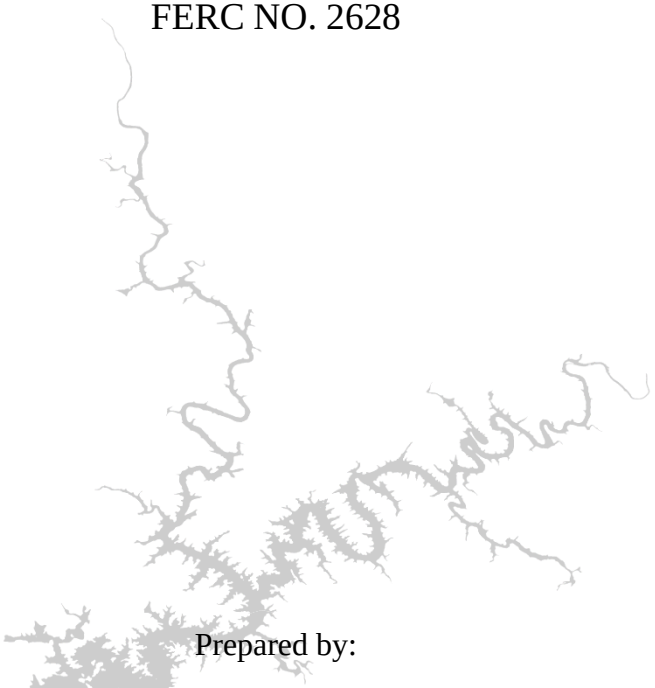
NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

HARRIS DAM
RELICENSING

FINE-LINED POCKETBOOK SURVEY PLAN

R. L. HARRIS HYDROELECTRIC PROJECT

FERC NO. 2628



Prepared by:

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

Alabama Power

NOVEMBER 2019

ALABAMA POWER COMPANY
BIRMINGHAM, ALABAMA

R. L. HARRIS HYDROELECTRIC PROJECT
FERC NO. 2628

FINE-LINED POCKETBOOK SURVEY PLAN

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FINE-LINED POCKETBOOK SURVEY PLAN

1.0 INTRODUCTION

Alabama Power Company (Alabama Power) is the Federal Energy Regulatory Commission (FERC) licensee for the R.L. Harris Hydroelectric Project (Harris Project) (FERC No. 2628). On June 1, 2018, Alabama Power filed a Pre-Application Document and began the Integrated Licensing Process (ILP) for the Harris Project.

On November 13, 2018, Alabama Power filed ten proposed study plans for the Harris Project. FERC issued a Study Plan Determination on April 12, 2019, which included FERC staff recommendations. Alabama Power incorporated FERC's recommendations and filed the Final Study Plans with FERC on May 13, 2019. On August 27, 2019, the Harris Action Team (HAT) 3 (Fish & Wildlife) met to discuss components of the Threatened and Endangered Species Study Plan (TESS). At that meeting, the U.S. Fish and Wildlife Service (FWS) noted that finelined pocketbook (*Hamiota altilis*), a federally threatened mussel species, occurs in the Tallapoosa River and its tributaries upstream of the Harris Project boundary. The FWS subsequently recommended that Alabama Power perform surveys to determine if finelined pocketbook occur within or near the Project boundary in major tributaries to Harris Reservoir.

The finelined pocketbook is a suboval shaped mussel that has a maximum length of approximately 3⅜ inches (Mirarchi et al. 2004). This mussel lives in large to small streams in habitats above the fall line having stable sand/gravel/cobble substrates and moderate to swift currents. Historically, this mussel was found in the Alabama, Tombigbee, Black Warrior, Cahaba, Tallapoosa, and Coosa Rivers, and their tributaries (USFWS 2004). Regarding reproduction, the finelined pocketbook mussel releases glochidia as a super-conglutinate from March through June, and confirmed host species include blackspotted topminnow, redeye bass, spotted bass, largemouth bass, and green sunfish (Mirarchi et al. 2004). Reasons for the decline and status of the species include habitat modification, sedimentation, eutrophication, and water quality degradation (USFWS 2000).

This survey plan identifies the goals and methods that Alabama Power will use to assess the occurrence of fine-lined pocketbook in the study area.

2.0 GOALS AND OBJECTIVES

The goal of this study is to determine if fine-lined pocketbook occurs in the vicinity of the Project boundary. Alabama Power will employ standard qualitative and quantitative survey methods to achieve this goal.

3.0 STUDY AREA

There are a total of 23 named tributaries to Harris Reservoir, which has a full (summer pool) level of 793 ft and a winter pool level of 785 ft (8 foot drawdown). When the reservoir is at winter pool, tributary reaches that are normally backwatered under summer pool conditions may become marginally suitable for finelined pocketbook. A Geographic Information System (GIS) was used to examine reach length of Harris Reservoir tributaries between the summer and winter pool elevations. Only four tributaries had affected reach lengths greater than 1,200 ft. Approximately 3 miles of the Tallapoosa River, 2.75 miles of the Little Tallapoosa River, and 1 mile on both Ketchepedrakee (Tallapoosa R. tributary) and Pineywood (Little Tallapoosa R. tributary) Creeks lie within the zone between summer and winter pool (Figure 1). These represent the tributary reaches with the greatest potential to have available habitat and were therefore selected to determine if finelined pocketbook are present within or near the project boundary.

The FWS specifically identified the Tallapoosa River reach for further investigation during the August 27, 2019 HAT 3 meeting. The Little Tallapoosa River, Ketchepedrakee Creek, and Pineywood Creek survey areas were delineated based on the rationale described in the previous paragraph, and with the intent to include roughly equal lengths of stream within and upstream of the Project boundary. Surveyors may make slight modifications to extent of these survey areas based on professional judgement and practical considerations (e.g., safety, access, etc.), especially with respect to ensuring that areas that could potentially be affected by Project operations are adequately assessed.

The Tallapoosa River study area includes approximately 4.5 miles, from 4 miles upstream to 0.5 miles downstream of the Highway 431 bridge (Figure 2). The area downstream of the bridge is included in the Harris Project boundary. The area upstream of the bridge is part of a 100-mile long section designated as critical habitat for fine-lined pocketbook. Finelined pocketbook has

previously been collected in the mainstem and tributaries to the Tallapoosa River upstream of Harris Reservoir (Johnson and DeVries 1997). Surveys associated with the 2019 removal of the Howle and Turner Dam approximately 4.5 miles upstream of the Highway 431 bridge did not indicate the presence of finelined pocketbook at that location.

The Little Tallapoosa River study area includes an approximately 2.5-mile reach located between Old US 431 and Hwy 59 (Figure 3). The Ketchepedrakee Creek study area extends approximately 1.5 miles upstream of County Road 201. The Pineywood Creek study area extends approximately 0.2 miles downstream of HWY 431 to approximately 0.3 miles upstream of County Road 270.

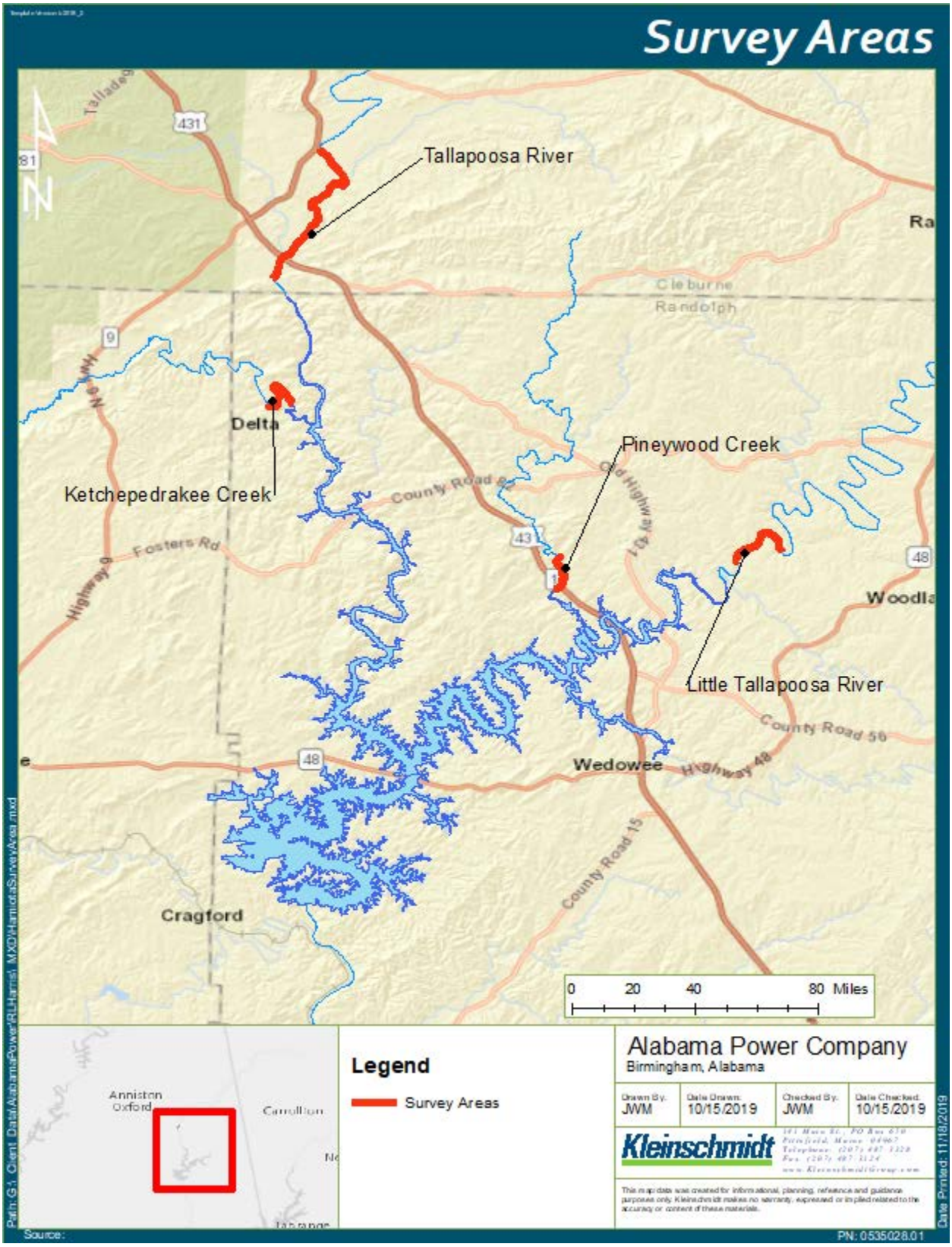

Figure 1. Survey Area Overview Map

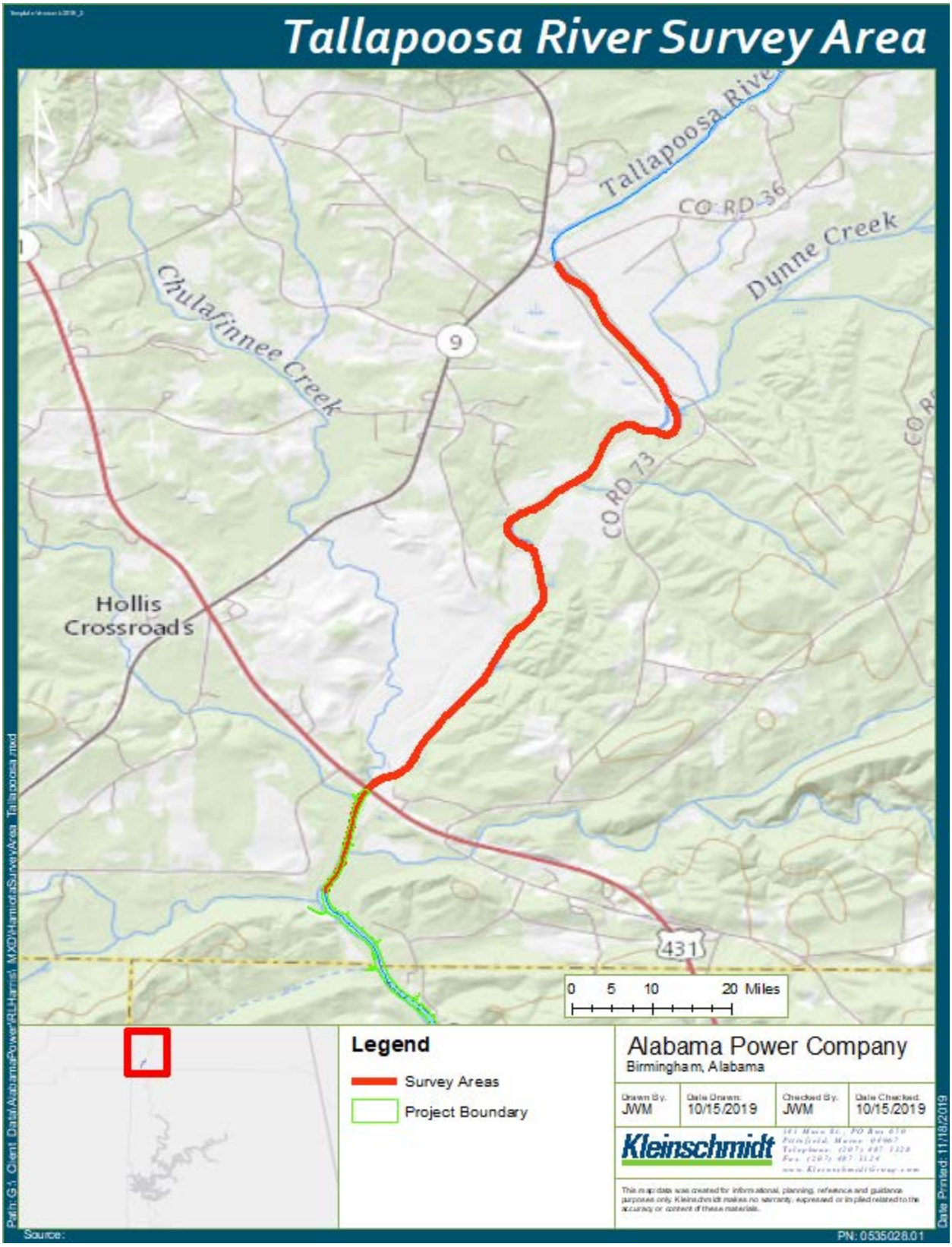

Figure 2. Tallapoosa River Survey Area

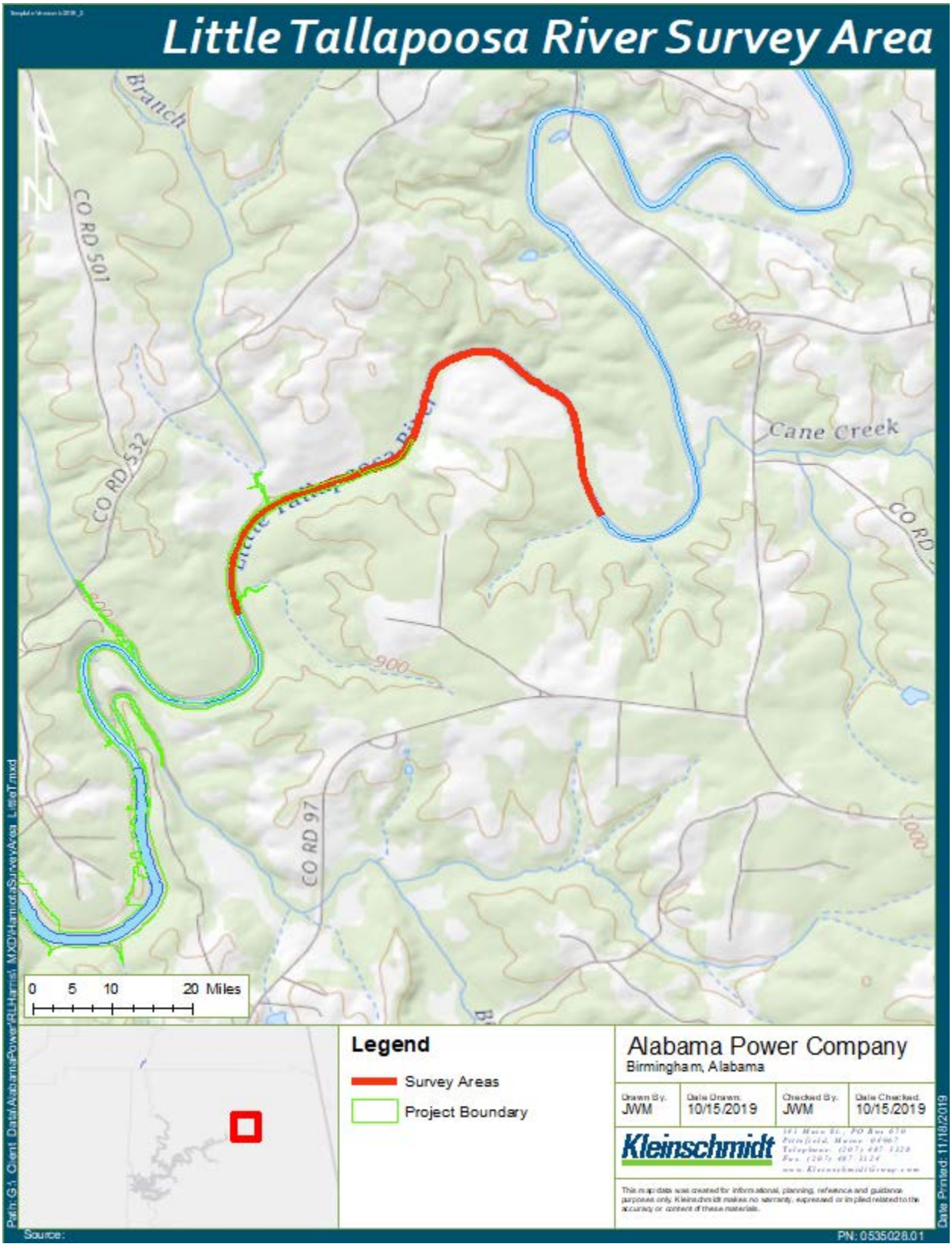

Figure 3. Little Tallapoosa River Survey Area

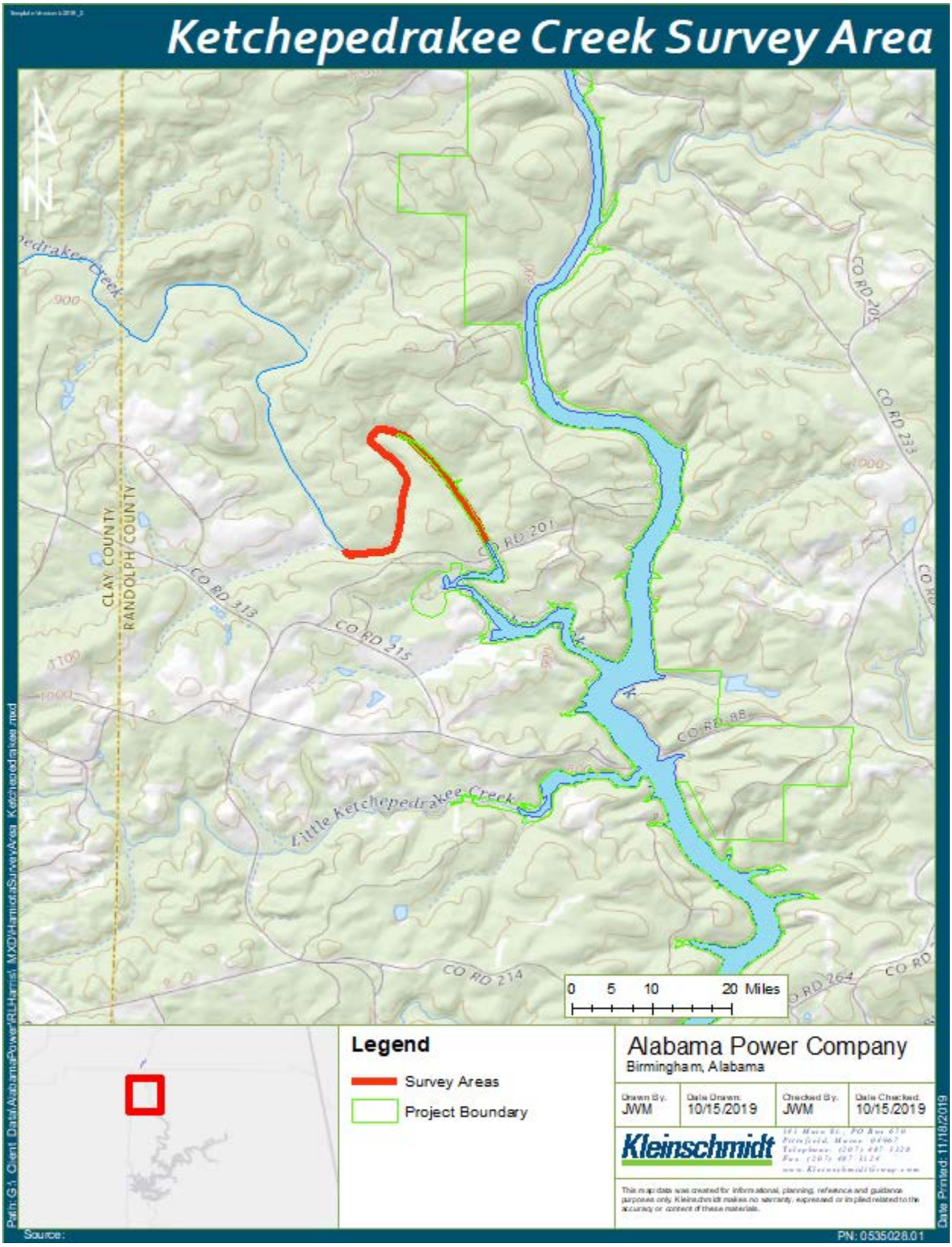

Figure 4. Ketchepedrakee Creek Survey Area

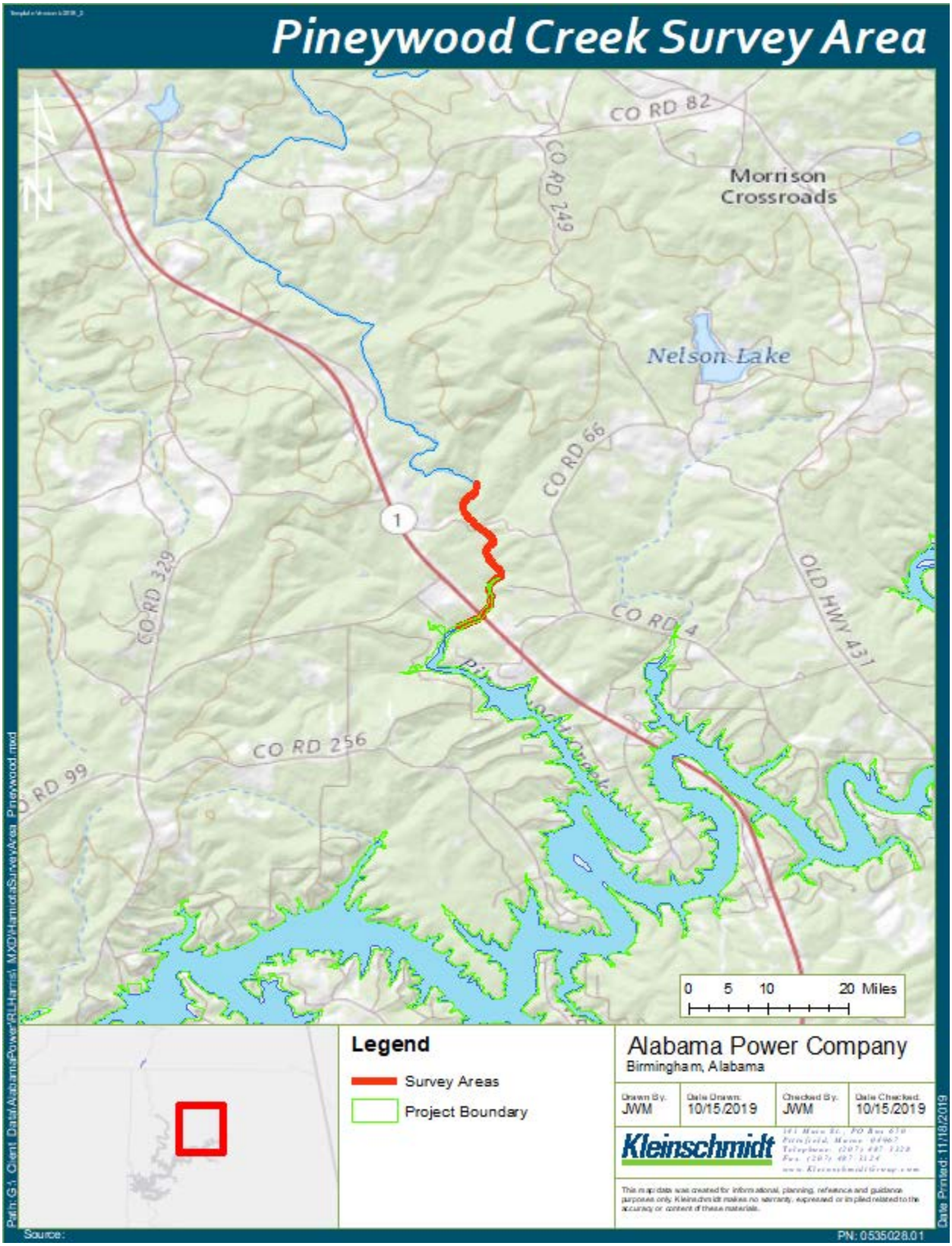

Figure 5. Ketchepedrakee Creek Survey Area

4.0 METHODS

Surveys will take place during a period of low flow when water clarity/visibility is generally greatest. Surveys will consist of both quantitative and qualitative methods according to Strayer and Smith (2003). Surveyors will perform an initial reconnaissance sweep of the survey areas to categorize the types of habitat (i.e., substrate and flow conditions) available. Based on the reconnaissance assessment, surveyors will perform qualitative surveys using appropriate techniques (e.g., snorkeling, SCUBA, etc.). In each survey area, at least one hour of qualitative survey effort will be expended per mile of river/creek. Any mussels encountered during qualitative surveys will be identified, photographed, and returned to the site of capture. In each survey area, if congregations of mussels (i.e. mussel beds) are located, surveyors will perform quantitative surveys using a ¼ meter quadrat sample. All mussels within the quadrat will be identified, enumerated, and photographed. Locations of sites where quantitative surveys are performed will be recorded using a geographic positioning system (GPS) unit. Surveyors will also record the dominant types of habitat present within the reach (e.g., silt, sand, gravel, etc.).

5.0 REPORTING

Results of the qualitative and quantitative surveys will be summarized in tabular format and presented in a brief report. The report will include descriptions of the dominant habitat types available in each survey area and will include maps depicting the locations of mussel beds identified during the survey.

6.0 REFERENCES

Johnson, Judith A. and D. R. DeVries. 1997. The freshwater mussel and snail species of the Tallapoosa River drainage, Alabama, U.S.A. *Walkerana* 9(22):121-137.

Mirarchi, Ralph E., ed. 2004. Alabama Wildlife, Volume One. A Checklist of Vertebrates and Selected Invertebrates: Aquatic Mollusks, Fishes, Amphibians, Reptiles, Birds and Mammals. The University of Alabama Press, Tuscaloosa, AL.

Strayer, David L. and D. R. Smith. 2003. A guide to sampling freshwater mussel populations. American Fisheries Society, Monograph 8, Bethesda, Maryland.

U.S. Fish and Wildlife Service (USFWS). 2004. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Three Threatened Mussels and Eight Endangered Mussels in the Mobile River Basin. Federal Register 69:40083-40171.

U.S. Fish and Wildlife Service (USFWS). 2000. Mobile River Basin Aquatic Ecosystem Recovery Plan. U.S. Fish and Wildlife Service, Atlanta, GA.

From:	Anderegg, Angela Segars
To:	"Evan Collins"
Cc:	Baker, Jeffery L.; Chandler, Keith Edward; Jason Moak; Colin Dinken
Subject:	Harris relicensing - T&E field notes
Date:	Friday, December 13, 2019 11:06:27 AM
Attachments:	2019-11-21 TE field notes.doc 2018-7-31 FERC Scoping Notice.docx

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Hi Evan,

Attached are field notes from the November 21 fine-lined pocketbook survey. Let me know if you have edits or anything to add. As we discussed on the phone, I've also attached, for your files, the scoping notice from last year where FERC designates APC as the non-federal rep for Section 7 consultation.

Thanks,

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

Threatened and Endangered Species: Fine-lined Pocketbook Survey
November 21, 2019
8:30 am to 3:00 pm
Tallapoosa River Upstream of Harris Reservoir

Participants:
Hunter Gibson – Aerotek
Jeff Baker – Alabama Power
Dylan Shaw – Alabama Power
Kate Cosnahan – Kleinschmidt
Colin Dinken – Kleinschmidt
Evan Collins – United States Fish and Wildlife Service (USFWS)

Six surveyors searched for fine-lined pocketbook on a ~3.75 mile stretch of the Tallapoosa River starting from the County 36 bridge and extending to the shoal below the Highway 431 bridge. This endpoint was selected because surveyors could see downstream of the shoal for approximately another half mile and only pool habitat was available, which is not ideal for this species. Focus was mostly directed toward habitat with gravel/cobble or sandy substrate, but some silty areas and piles of empty shells (relics) left by muskrats and raccoons were also searched. Roughly 20 minutes to an hour was spent at each survey site (~6 total sites) searching for suitable habitat and subsequent target species for a minimum of 2 hours total of qualitative effort. Most of what was encountered during the survey were relics of an invasive species of clam (*Corbicula* spp.) and live freshwater snails. An Alabama Power employee found an empty mussel shell that did not appear to be the target species, but this could not be confirmed at the time. Evan Collins (USFWS) took the relic with him to inspect it further and determine whether it was the target species. By the end of the survey, Evan suggested an additional effort should be made in the spring in case colder conditions caused the mussels to bury themselves too deep to be detected and Alabama Power agreed. Water levels were also fairly high, making it difficult to search for mussels in certain areas. Three sites were identified as having suitable habitat that warrant the additional effort during warmer conditions. Two of these sites are upstream of the Highway 431 bridge crossing and are comprised of shallow run, shoal habitat with cobble/gravel/sand substrate. A similar site was identified just downstream of the Highway 431 bridge crossing. The remaining tributaries outlined for survey in the Study Plan will be surveyed during warmer weather in early 2020. After the additional survey, Evan believes an adequate effort will have been made and Jeff Baker (Alabama Power) agreed.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Alabama Power Company Project No. 2628-065

NOTICE OF INTENT TO FILE LICENSE APPLICATION, FILING OF PRE-APPLICATION DOCUMENT (PAD), COMMENCEMENT OF PRE-FILING PROCESS, AND SCOPING; REQUEST FOR COMMENTS ON THE PAD AND SCOPING DOCUMENT, AND IDENTIFICATION OF ISSUES AND ASSOCIATED STUDY REQUESTS

(July 31, 2018)

a. Type of Filing: Notice of Intent to File License Application for a New License and Commencing Pre-filing Process

b. Project No.: 2628-065

c. Dated Filed: June 1, 2018

d. Submitted By: Alabama Power Company (Alabama Power)

e. Name of Project: R.L. Harris Hydroelectric Project (Harris Project)

f. Location: The project is located on the Tallapoosa River the City of Lineville in Randolph, Clay, and Cleburne Counties, Alabama. The project occupies 4.90 acres of federal land administered by the Bureau of Land Management.

g. Filed Pursuant to: 18 CFR Part 5 of the Commission's Regulations

h. Potential Applicant Contact: Angie Anderegg, Harris Relicensing Project Manager, Alabama Power Company, 600 18th Street, Birmingham, AL 35203; (205) 257-2251 or ARSEGARS@southernco.com.

i. FERC Contact: Sarah Salazar at (202) 502-6863 or e-mail at sarah.salazar@ferc.gov.

j. Cooperating agencies: Federal, state, local, and tribal agencies with jurisdiction and/or special expertise with respect to environmental issues that wish to cooperate in the preparation of the environmental document should follow the instructions for filing such requests described in item o below. Cooperating agencies should note the Commission's policy that

agencies that cooperate in the preparation of the environmental document cannot also intervene. *See* 94 FERC ¶ 61,076 (2001).

k. With this notice, we are initiating informal consultation with: (a) the U.S. Fish and Wildlife Service and/or NOAA Fisheries under section 7 of the Endangered Species Act and the joint agency regulations thereunder at 50 CFR, Part 402 and (b) the State Historic Preservation Officer, as required by section 106, National Historic Preservation Act, and the implementing regulations of the Advisory Council on Historic Preservation at 36 CFR 800.2.

l. With this notice, we are designating Alabama Power as the Commission's non-federal representative for carrying out informal consultation, pursuant to section 7 of the Endangered Species Act and section 106 of the National Historic Preservation Act.

m. Alabama Power filed with the Commission a Pre-Application Document (PAD; including a proposed process plan and schedule), pursuant to 18 CFR 5.6 of the Commission's regulations.

n. A copy of the PAD is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (http://www.ferc.gov), using the "eLibrary" link. Enter the docket number, excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). A copy is also available for inspection and reproduction at the address in paragraph h.

Register online at http://www.ferc.gov/docs-filing/esubscription.asp to be notified via e-mail of new filing and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

o. With this notice, we are soliciting comments on the PAD and Commission staff's Scoping Document 1 (SD1), as well as study requests. All comments on the PAD and SD1, and study requests should be sent to the address above in paragraph h. In addition, all comments on the PAD and SD1, study requests, requests for cooperating agency status, and all communications to and from Commission staff related to the merits of the potential application must be filed with the Commission.

The Commission strongly encourages electronic filing. Please file all documents using the Commission's eFiling system at

http://www.ferc.gov/docs-filing/efiling.asp. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at http://www.ferc.gov/docs-filing/ecomment.asp. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov. In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. The first page of any filing should include docket number P-2628-065.

All filings with the Commission must bear the appropriate heading: "Comments on Pre-Application Document," "Study Requests," "Comments on Scoping Document 1," "Request for Cooperating Agency Status," or "Communications to and from Commission Staff." Any individual or entity interested in submitting study requests, commenting on the PAD or SD1, and any agency requesting cooperating status must do so by September 29, 2018.

p. We intend to prepare either an environmental assessment (EA) or Environmental Impact Statement (EIS). The meetings listed below will satisfy the NEPA scoping requirements, irrespective of whether an EA or EIS is issued by the Commission.

Scoping Meetings

Commission staff will hold two scoping meetings in the vicinity of the project at the times and places noted below. The daytime meeting will focus on resource agency, Indian tribes, and non-governmental organization concerns, while the evening meeting is primarily for receiving input from the public. We invite all interested individuals, organizations, and agencies to attend one or both of the meetings, and to assist staff in identifying particular study needs, as well as the scope of environmental issues to be addressed in the environmental document. The times and locations of these meetings are as follows:

Evening Scoping Meeting – Lineville, Alabama

Date & Time:	Tuesday, August 28, 2018 at 6:30 p.m.
Location:	Wedowee Marine South 9681 Highway 48 Lineville, Alabama 36266 (770) 843-3054

Daytime Scoping Meeting – Lineville, Alabama

Date & Time:	Wednesday, August 29, 2018 at 9 a.m.
Location:	Wedowee Marine South 9681 Highway 48 Lineville, Alabama 36266 (770) 843-3054

Please RSVP to harrisrelicensing@southernco.com, or call Cecile Jones at 205-257-1701, on or before August 15, 2018, if you plan to attend one of the scoping meetings in Lineville. Directions to Wedowee Marine South are available at www.harrisrelicensing.com and in Appendix C of the Commission's Scoping Document 1, described below.

Scoping Document 1 (SD1), which outlines the subject areas to be addressed in the environmental document, was mailed to the individuals and entities on the Commission's mailing list. Copies of SD1 will be available at the scoping meetings, or may be viewed on the web at http://www.ferc.gov, using the "eLibrary" link. Follow the directions for accessing information in paragraph n. Based on all oral and written comments, a Scoping Document 2 (SD2) may be issued. SD2 may include a revised process plan and schedule, as well as a list of issues, identified through the scoping process.

Environmental Site Review

The potential applicant and Commission staff will conduct an Environmental Site Review (site visit) of the project on Tuesday, August 28, 2018, starting at 9:00 a.m., and ending at or about 4:30 p.m. All participants should meet at the R.L. Harris Dam located at 2761 County Road 100, Lineville, AL 36266. Directions to the R.L. Harris Dam are available at www.harrisrelicensing.com and in Appendix C of the Commission's SD1. Participants must notify Cecile Jones at (205) 257-1701 or www.harrisrelicensing.com, on or before August 15, 2018, if they plan to attend the environmental site review.

Meeting Objectives

At the scoping meetings, staff will: (1) initiate scoping of the issues; (2) review and discuss existing conditions and resource management objectives; (3) review and discuss existing information and identify preliminary information and study needs; (4) review and discuss the process plan and schedule for pre-filing activity that incorporates the time frames provided for in Part 5 of the Commission's regulations and, to the

extent possible, maximizes coordination of federal, state, and tribal permitting and certification processes; and (5) discuss the appropriateness of any federal or state agency or Indian tribe acting as a cooperating agency for development of an environmental document.

Meeting participants should come prepared to discuss their issues and/or concerns. Please review the PAD in preparation for the scoping meetings. Directions on how to obtain a copy of the PAD and SD1 are included in item n. of this document.

Meeting Procedures

The meetings will be recorded by a stenographer and will be placed in the public records of the project.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

From:	APC Harris Relicensing
To:	"harrisrelicensing@southernco.com"
Bcc:	amy.silvano@dcnr.alabama.gov; chris.greene@dcnr.alabama.gov; damon.abernethy@dcnr.alabama.gov; evan.lawrence@dcnr.alabama.gov; keith.henderson@dcnr.alabama.gov; mike.holley@dcnr.alabama.gov; steve.bryant@dcnr.alabama.gov; matthew.marshall@dcnr.alabama.gov; todd.fobian@dcnr.alabama.gov; ken.wills@jcdh.org; arsegars@southernco.com; ammcvica@southernco.com; dkanders@southernco.com; jcarlee@southernco.com; jefbaker@southernco.com; kechandl@southernco.com; tlmills@southernco.com; cggoodma@southernco.com; clowry@alabamarivers.org; mhunter@alabamarivers.org; gjobsis@americanrivers.org; devridr@auburn.edu; irwiner@auburn.edu; kmo0025@auburn.edu; wrighr2@aces.edu; jhancock@balch.com; lgallen@balch.com; chrisoberholster@birminghamaudubon.org; sarah.salazar@ferc.gov; allan.creamer@ferc.gov; rachel.mcnamara@ferc.gov; monte.terhaar@ferc.gov; amanda.fleming@kleinschmidtgroup.com; colin.dinken@kleinschmidtgroup.com; henry.mealing@kleinschmidtgroup.com; jason.moak@kleinschmidtgroup.com; kate.cosnahan@kleinschmidtgroup.com; kelly.schaeffer@kleinschmidtgroup.com; sforehand@russelllands.com; lgarland68@aol.com; Barry Morris - Lake Wedowee Property Owners Association (rbmorris222@gmail.com); pace.wilber@noaa.gov; mitchell.reid@tnc.org; donnamat@aol.com; trayjim@bellsouth.net; mhpwedowee@gmail.com; straylor426@bellsouth.net; triciastearns@gmail.com; wmcampbell218@gmail.com; holliman.daniel@epa.gov; decker.chris@epa.gov; bill_pearson@fws.gov; evan_collins@fws.gov; jeff_powell@fws.gov; jennifer_grunewald@fws.gov; jeff_duncan@nps.gov; "Morris, Barry"; devridr@auburn.edu; Russell Wright
Subject:	Harris Relicensing - March 19th HAT 3 meeting
Date:	Friday, February 21, 2020 12:47:01 PM
Attachments:	2020-03-19 HAT Meeting Agenda.doc

HAT 3,

Alabama Power Company will be hosting a series of HAT meetings on **Thursday, March 19, 2020 at the Oxford Civic Center,** 401 Mccullars Ln, Oxford, AL 36203. The HAT 3 meeting will be from **1:30-3:30** (see attached agenda). The purpose of the HAT 3 meeting is to review progress to date for the Threatened and Endangered Species, Downstream Aquatic Habitat and Aquatic Resources studies.

Please RSVP by Friday, March 13, 2020. Lunch will be provided (~11:15) so please indicate any food allergies or vegetarian preferences on or before March 13, 2020. I encourage everyone to attend in person. If this is not feasible, we are also offering a Skype option (info below). It would be ideal to join on your computer as we will be viewing presentations and maps.

If you have any questions about the agenda or meeting, please email or call me at ARSEGARS@southernco.com or (205) 257-2251.

Join Skype Meeting

+1 (205) 257-2663

Conference ID: 3660816

Angie Anderegg
Hydro Services
(205)257-2251
arsegars@southernco.com

From:	APC Harris Relicensing
To:	"harrisrelicensing@southernco.com"
Bcc:	amy.silvano@dcnr.alabama.gov; chris.greene@dcnr.alabama.gov; damon.abernethy@dcnr.alabama.gov; evan.lawrence@dcnr.alabama.gov; keith.henderson@dcnr.alabama.gov; mike.holley@dcnr.alabama.gov; steve.bryant@dcnr.alabama.gov; matthew.marshall@dcnr.alabama.gov; todd.fobian@dcnr.alabama.gov; ken.wills@jcdh.org; arsegars@southernco.com; ammcvica@southernco.com; dkanders@southernco.com; jcarlee@southernco.com; jefbaker@southernco.com; kechandl@southernco.com; tlmills@southernco.com; cggoodma@southernco.com; clowry@alabamarivers.org; mhunter@alabamarivers.org; gjobsis@americanrivers.org; devridr@auburn.edu; irwiner@auburn.edu; kmo0025@auburn.edu; wrighr2@aces.edu; jhancock@balch.com; lgallen@balch.com; chrisoberholster@birminghamaudubon.org; sarah.salazar@ferc.gov; allan.creamer@ferc.gov; rachel.mcnamara@ferc.gov; monte.terhaar@ferc.gov; amanda.fleming@kleinschmidtgroup.com; colin.dinken@kleinschmidtgroup.com; henry.mealing@kleinschmidtgroup.com; jason.moak@kleinschmidtgroup.com; kate.cosnahan@kleinschmidtgroup.com; kelly.schaeffer@kleinschmidtgroup.com; sforehand@russelllands.com; lgarland68@aol.com; Barry Morris - Lake Wedowee Property Owners Association (rbmorris222@gmail.com); pace.wilber@noaa.gov; mitchell.reid@tnc.org; donnamat@aol.com; trayjim@bellsouth.net; mhpwedowee@gmail.com; straylor426@bellsouth.net; triciastearns@gmail.com; wmcampbell218@gmail.com; holliman.daniel@epa.gov; decker.chris@epa.gov; bill_pearson@fws.gov; evan_collins@fws.gov; jeff_powell@fws.gov; jennifer_grunewald@fws.gov; jeff_duncan@nps.gov
Subject:	HAT 3 - T&E Species Desktop Assessment
Date:	Monday, February 24, 2020 9:20:49 AM
Attachments:	2020-02-21 HAT 3 - TE Species Desktop Assessment.pdf

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HAT 3,

Attached is the Threatened and Endangered (T&E) Species Desktop Assessment, which is one portion of the FERC-approved T&E species study plan. This assessment can also be found at www.harrisrelicensing.com. In the study plan, Alabama Power committed to distributing this assessment to HAT 3 participants in February. Please review and bring any comments or questions to the March 19, 2020 HAT 3 meeting. As you may recall, Alabama Power will file the Initial Study Report (ISR) in April 2020, which will include reports such as this T&E Species Desktop Assessment as well as other draft study reports. At that time, Alabama Power will request official comments on this assessment, the ISR, and draft study reports.

If you have any questions, please contact me at 205-257-2251 or ARSEGARS@southernco.com.
Thank you,

Angie Anderegg
Hydro Services
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Subject:	UPDATE - Harris Relicensing March 19th HAT 3 meeting
Date:	Friday, March 13, 2020 1:00:35 PM
Attachments:	2020-03-19 HAT Meeting Agenda.doc

HAT 3,

Due to the ongoing situation with the spread of COVID-19 (the "coronavirus"), Southern Company has directed its employees to use virtual meetings, when possible. Therefore, the HAT 3 meeting scheduled for Thursday, March 19th will **only be held via the Skype link below and call-in number below**. If you are able to join via Skype, we will be sharing the presentation. If you are not, we will provide the presentation in a PDF document the morning of the meeting and the presenter will help you follow along with the slides.

The Skype link will be available all day. I suggest you join early to make sure that your computer is capable of joining (has all the necessary software). We will be muting and unmuting the phones from the control center, so please don't worry about announcing that you joined. **At 1:30 am, the meeting will begin**, and we will conduct a roll call to make sure we have a record of who attended the meeting. Also, if you use your computer's microphone and speaker to join the call, there is no need to use the phone number.

If you have any questions, please let me know.

HAT 3,

Alabama Power Company will be hosting a series of HAT meetings on **Thursday, March 19, 2020 at the Oxford Civic Center,** 401 Mccullars Ln, Oxford, AL 36203. The HAT 3 meeting will be from **1:30-3:30** (see attached agenda). The purpose of the HAT 3 meeting is to review progress to date for the Threatened and Endangered Species, Downstream Aquatic Habitat and Aquatic Resources studies.

Please RSVP by Friday, March 13, 2020. Lunch will be provided (~11:15) so please indicate any food allergies or vegetarian preferences on or before March 13, 2020. I encourage everyone to attend in person. If this is not feasible, we are also offering a Skype option (info below). It would be ideal to join on your computer as we will be viewing presentations and

maps.

If you have any questions about the agenda or meeting, please email or call me at ARSEGARS@southernco.com or (205) 257-2251.

Join Skype Meeting

+1 (205) 257-2663

Conference ID: 3660816

Angie Anderegg
Hydro Services
(205)257-2251
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To:	"harrisrelicensing@southernco.com"
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Subject:	CANCELLED - Harris relicensing - HAT 3 meeting
Date:	Monday, March 16, 2020 12:53:05 PM

HAT 3,

First, I apologize for the multiple emails regarding this week's meeting and I appreciate you bearing with us. Because we are all in such a state of flux with schools closing and more and more of us being asked to telecommute, and the uncertainty of how well our technology is going to work when we're all trying to use it at once, we have decided to cancel this Thursday's stakeholder meeting. The information we were going to cover will be included in the Initial Study Report filing, along with several draft reports, in April.

Again, thank you for bearing with us. Stay well!

Angie Anderegg
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