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VIA ELECTRONIC FILING

Project No. 2628-066
R.L. Harris Hydroelectric Project
Comments on Draft Environmental Impact Statement (DEIS)

Ms. Debbie-Anne Reese
Secretary
Federal Energy Regulatory Commission
888 First Street N.
Washington, DC 20426

Dear Secretary Reese,

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). Alabama Power filed the Final License Application (FLA) for the Harris Project on November 23, 2021.[1] On November 21, 2024, FERC issued a draft Environmental Impact Statement (DEIS) for the license application with a comment deadline of January 20, 2025. On January 2, 2025, FERC extended this comment deadline for 30 days to February 19, 2025. Alabama Power is herein providing its response to FERC staff's DEIS for the Harris Project.

Attachment A includes Alabama Power's detailed comments on several staff recommendations in the DEIS. Primarily, these comments address the recommendations concerning temperature requirements and a continuous minimum flow at Harris Dam. In Attachment B, Alabama Power has revised the proposed license articles to make them consistent with the record in this licensing proceeding, consistent with corresponding articles from other Alabama Power hydropower licenses, and to address additional concerns. Following each draft article, Alabama Power provides an explanation for the modifications. Finally, in Attachment C, Alabama Power includes corrections and clarifications that should be made in the final EIS.

[1] Accession Nos. 20211123-5074, -5075, -5076, -5077, -5078, -5079.

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 A: Comments on FERC Staff's Recommended Alternative
Attachment B: Alabama Power's Proposed License Articles
Attachment C: Corrections and Clarifications

ATTACHMENT A

COMMENTS ON FERC STAFF'S RECOMMENDED ALTERNATIVE

Alabama Power Company (Alabama Power) provides the following comments on FERC staff's recommended alternative in the Draft Environmental Impact Statement (DEIS) for the relicensing of the R.L. Harris Hydroelectric Project (Harris Project). Alabama Power strongly disagrees with the recommendations regarding flow and temperature because they are unnecessary and unsupported by the licensing record in this proceeding. Indeed, the information in the record overwhelmingly supports Alabama Power's licensing proposal with respect to minimum flow operations and makes clear that FERC staff's recommendation with respect to temperature modifications is unnecessary.

It appears that FERC staff has disregarded the substantial amount of information provided by Alabama Power in its final license application and subsequent responses to FERC's Additional Information Requests. As required by FERC's Integrated Licensing Process, Alabama Power spent millions of dollars and years of research and scientific study—through research institutions and using scientists recommended by resource agencies—in developing thirteen studies to address agency and stakeholder issues and fill data gaps. The results of these FERC-approved studies should be used by FERC to support its licensing decisions. But instead, much of the data and modeling provided in the license application has been ignored; rather than using the copious amount of available information to make a licensing decision, FERC staff is instead recommending continued studies and unknown additional operational and structural modifications for the new license term.

Below, Alabama Power provides additional analysis of the flow and temperature recommendations in the DEIS that clearly refutes the unsubstantiated bases for these staff recommendations. This analysis, together with the modeling and other information previously submitted by Alabama Power, demonstrates that the FERC staff recommendations for flow and temperature in the DEIS are unnecessary and not supported by substantial evidence in the record. For these reasons, Alabama Power requests that FERC, in the final EIS and license order for the Harris Project, adopt Alabama Power's proposed alternative for continuous minimum flow and reject the Alabama Department of Conservation and Natural Resources' (ADCNR) 10(j) recommendations for temperature as being inconsistent with the Federal Power Act (FPA).

FEDERAL POWER ACT AND NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Under Section 10(a) of the FPA, any project licensed by FERC must be, in the judgment of the Commission, best adapted to a comprehensive plan for improving or developing a waterway or waterways for the benefit of multiple public uses. Section 4(e) of the FPA requires FERC to give equal consideration to power development, energy conservation, fish and wildlife, recreation, and preservation of other aspects of environmental quality.[1] In the Harris Project DEIS, FERC has not adequately considered the multiple public uses of the project or discussed how the staff's recommended alternative is in the public interest, as required by the comprehensive development/equal consideration standard of the FPA.

[1] FERC Hydropower Primer (Feb. 2017), *available here* https://www.ferc.gov/media/hydropower-primer.

FERC's consideration of the license application also requires environmental review under the National Environmental Policy Act (NEPA).[2] NEPA requires "'fully-informed and well-considered' decisions."[3] While NEPA does not require a particular outcome, it does require an agency to "identify the reasonable alternatives to the contemplated action and look hard at the environmental effects of its decision."[4] "An alternative is reasonable if it is 'technically and economically practical or feasible and meet[s] the purpose and need of the proposed action.'"[5] In most FERC NEPA documents, FERC reviews the incremental benefits vs. cost of the alternatives in order to reach a fully informed decision;[6] however, the DEIS does not include this analysis.

Because an incremental benefit and cost discussion is not disclosed or used in FERC's analysis in the DEIS, Alabama Power questions whether FERC actually applied the public interest criteria or took the necessary "hard look" under NEPA in reaching its recommendation. In the case of FERC's recommended temperature enhancements, the DEIS recommends that Alabama Power be required to develop a "partial destratification system" because it would provide the "most appropriate balance among water quality protection, fishery habitat enhancement, and project cost." (DEIS, Appendix I, pg. I-13). Without any incremental analysis to show the potential benefit to the aquatic resources compared to baseline or Alabama Power's proposal, it is unclear how FERC staff concluded that this is the best "balance." It is also unclear what the incremental temperature benefit may be to aquatic resources from the partially destratified system compared to the cost to produce that undefined benefit (not to mention the potential negative impacts described below). The DEIS merely infers that on balance it is likely better. Without this type of incremental analysis to "balance", the DEIS lacks the specificity needed to support FERC staff's recommended license requirements. Similarly, the DEIS fails to show the incremental benefit to aquatic resources by requiring an additional 50-150 cfs during certain times of the year.

There are numerous examples of FERC identifying an agency's failure to meet the public interest consideration in Section 10 of the FPA. In an order issuing a license to Idaho Irrigation District (Project No. 14513), FERC staff provided the following analysis:

> In the draft EA, Commission staff determined that a minimum flow of 3,500 cfs from May through August, 2,500 cfs in September and October, and 1,500 cfs from November through April would provide similar benefits to riparian stopover habitat compared with Interior's recommended flow. This is because the establishment and persistence of riparian plant communities in the bypassed reach is influenced by the magnitude, timing, and duration of spring and summer flows. During the growing season from May through October, both Interior's and staff's recommended flows would provide a similar amount of wetted stream channel, which would be sufficient to maintain existing riparian habitat in the bypassed reach.[7] During the late fall and winter, riparian vegetation is dormant;

[2] 42 U.S.C. § 4321 *et seq.*

[3] *Citizens Action Coal. of Indiana v. FERC*, No. 23-1046 (D.C. Cir. Jan. 7, 2025) (*quoting Ctr. for Biological Diversity v. FERC*, 67 F.4th 1176, 1181 (D.C. Cir. 2023)).

[4] *Id*. (*quoting Minisink Residents for Env't Preservation & Safety v. FERC*, 762 F.2d 97, 102 (D.C. Cir. 2014)).

[5] *Ctr. for Biological Diversity*, 67 F.4th at 1182.

[6] For example, on January 20, 2023, FERC issued a subsequent license order on Project No. 4451-024, referencing staff's conclusion from the Environmental Assessment (EA) that "the additional aquatic benefits associated with a 37-cfs minimum flow would not outweigh the additional annual lost opportunity cost of $5,260," and therefore, FERC staff did not recommend it (Accession No. 20230120-3029).

[7] Accession No. 20241017-3028 (citing Draft EA at 40-42).

> therefore, there would be no benefit to riparian vegetation from Interior's proposed 2,800-cfs minimum flow compared with staff's recommended 1,500-cfs minimum flow. **Because Interior's recommended year-round flow of 2,800 cfs would not provide any benefits to yellow-billed cuckoo stopover habitat compared to staff's recommended minimum flows, the incremental annual loss of 6,671 megawatt-hours (MWh) of energy production at an estimated annual opportunity cost of $567,943 was not justified**. Staff determined, instead, that its recommended minimum flows provide sufficient protection for riparian stopover habitat at an annual foregone generation of 3,741 MWh equating to an estimated annual opportunity cost of $292,948.[8] **Commission staff accordingly made a preliminary determination that Interior's recommended minimum flow was inconsistent with the comprehensive planning standard of section 10(a)(1) and the public interest standard of section 4(e) of the FPA.**[9]

In another example, FERC concluded in the final EIS for a hydro licensing action that "the additional habitat gains from providing a flow of 175 cfs [rather than alternative flow of 113 cfs] would not justify the additional annualized cost of $18,397."[10] Similarly, an EA for another hydro licensing action states: "[i]ncreasing minimum flows above 250-300 cfs would not provide incremental improvements to habitat conditions worth the cost of $803,205 and $448,247 in lost generation . . . . the staff recommended minimum flow of 250 cfs from July through February and 300 cfs from March through June would provide comparable habitat at a levelized annual cost of $201,688."[11] Additionally, the Ninth Circuit Court of Appeals has upheld FERC's rejection of 10(j) recommendations where the recommended flow regimes would decrease power production with inconclusive benefits, noting that Congress granted FERC the authority to balance competing interests.[12] Indeed, FERC routinely rejects 10(j) recommendations where costs outweigh environmental benefits.[13]

Lack of substantial evidence to support the agency recommendation is another common reason for rejecting 10(j) recommendations. For instance, in the final EIS for a hydro licensing action, FERC stated that the lack of evidence that "the project alters water temperature downstream of the tailrace in a way that would negatively affect aquatic resources during operation" meant that there was no nexus between

[8] *Id.* All costs from Commission staff's analysis in EA have been escalated to 2023 dollars.

[9] *Id.* (citing Draft EA at G-1 – G-4 (Oct. 17, 2024)).

[10] *See* KEI (Maine) Power Management (III) LLC, Baker's Mill Hydroelectric Project No. 2808-017, Final EIS at 181 (Feb. 6, 2019).

[11] Hawk's Nest Hydro, LLC, Project No. 2512-075, EA at PDF page 216 (Oct. 20, 2017).

[12] *San Bernadino Valley Audubon Society v. FERC*, 242 F. App'x 462, 464-65 (9th Cir. 2007). Similarly, in *Idaho Rivers United v. FERC*, 189 F. App'x 629, 633 (9th Cir. 2006), the Ninth Circuit upheld FERC's rejection of a 10(j) recommendation for run-of-river operations because the benefits "are not worth the cost in terms of the projects' loss of operational flexibility to match fluctuating power demands and the associated loss of dependable capacity." The court concluded that FERC "considered all of the germane factors and provided a reasoned explanation."

[13] *See e.g.*, Pacific Gas & Electric Co., Merced River Project No. 2179-043, Final EIS at 231 (Dec. 4, 2015) (Regarding installation of a multi-depth intake tower temperature control device, FERC concluded "there is a sufficiently detailed analysis of this potential option to conclude that the benefits would be minimal for such a massive construction project," noting also that other engineering options for temperature improvement had already been studied and ruled infeasible so benefits of repeating that analysis in the recommended long-term temperature improvement plan were unclear).

the project and the National Marine Fisheries Service's recommendation.[14] In an EA for another hydro licensing action, FERC rejected the state agency's recommendation to maintain tailrace temperatures within 5°F of upstream temperatures, because "fish living downstream of a project are affected by water temperature in their local habitat rather than by any differences between the temperature there and the upstream temperature, [so] there is no substantive evidence to support imposing this standard on these projects."[15]

FERC's Policy Statement on Hydropower Licensing Settlements (Policy Statement) also explains that substantial evidence is required to support a proposed license condition, acknowledging that licensing proceedings "require the balancing of many public interest factors".[16] For example, the Policy states: "The settling parties should provide the Commission with record support showing a nexus between the proposal and the impacts of the project, as well as to project purposes, and also explain how the proposal will accomplish its stated purpose." In addition, the Policy provides the following example:

> [T]he Commission must have substantial evidence to support its licensing decisions. If parties want the Commission to accept the terms of a settlement, they must provide substantial evidence to support the measures they ask the Commission to impose. Thus, for example, it would not be sufficient to ask the Commission to set a particular minimum instream flow solely because the parties have compromised on that number. Rather, the parties would need to provide a scientific explanation, supported by facts in the record, of how that level of flows meets the needs of affected resources and how it is consistent with the comprehensive development of the waterway. Similarly, if there is no showing of harm of a fishery, the record will not support a measure requiring the mitigation of harm to fish species. *See Allegheny Energy Supply Company, LLC, 109 FERC ¶ 61,028 at P 6 (2004); see also City of Centralia, WA v. FERC, 213 F.3d 742 (D.C. Cir. 2000).*

Similar to these examples, the Harris DEIS lacks the substantial evidence necessary to support FERC's recommended flows and temperature requirements. FERC has not identified any negative impacts to aquatic resources from project operations, much less provided an incremental benefit analysis of its recommended measures. As shown below, implementation of FERC's costly measures provides only minimal benefits when compared to Alabama Power's proposed alternative, and in some cases, could cause harm to certain species. Accordingly, FERC staff's recommended flows and ADCNR's 10(j) recommendations with respect to thermal limits should be dismissed as inconsistent with the FPA.

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[14] Great Lakes Hydro America, LLC, Mattaceunk Hydro Project No. 2520-076, Final EIS at PDF page 269 (Sept. 25, 2018) (noting also that because monitoring did not indicate that water temperature in the tailrace deviated substantially from unimpounded waters upstream and Maine's water quality standards did not include temperature limits, "there are no substantial project-related temperature issues under the current or proposed operation.").

[15] 85 FERC ¶ 61,063 at 5 (1998) (Environmental Assessment for Wolverine Power Company, Tittabawassee River Projects No. 10808,10809,10810). *See also* Final EIS for Kenai Hydro, LLC, Grant Lake Hydroelectric Project No. 13212-005 (May 1, 2019) at PDF page 320 (in rejecting 10(j) recommendation to maintain temperature in Grant Creek within 0.5°C of pre-project temperatures, FERC noted that "creation of an artificial temperature regime" may harm aquatic resources, and that the recommended pre-project water temperature targets "would be based on a very limited data set and subsequently eliminate the natural variability of Grant Creek's water temperature from one year to the next.").

[16] Policy Statement on Hydropower Relicensing Settlements (Docket No. PL06-5-000 (9/21/2006)), *available at* https://www.ferc.gov/sites/default/files/2020-06/PL06-5-000.pdf. The Policy Statement is intended to provide guidance for reaching settlements among the parties during licensing cases in order to avoid litigation. The Policy Statement notes that that the Commission "must ensure that its decision on settlements, like all decisions under the FPA, are supported by substantial evidence."

WATER TEMPERATURE

FERC staff recommends adopting ADCNR's Section 10(j) water temperature regime and recommends requiring structural modifications to destratify a portion of Harris Lake in order to meet that regime. However, the DEIS does not clearly define any negative impacts associated with current water temperatures downstream of Harris Dam, includes no analysis to support the need for a modified temperature regime, and ignores numerous studies previously filed on the record in this licensing proceeding confirming no temperature issues exist. Instead, the DEIS includes many vague and generalized references to the Project's impact on temperature, such as "lower spring and summer river temperatures" and "relatively large temperature fluctuations," but fails to quantify these terms or identify specific species that are being adversely impacted by current operations (DEIS, pg. 3-31).

The DEIS notes that releasing a continuous minimum flow would reduce temperature fluctuations and incidences of low DO "but would still not provide a thermal regime supporting a warmwater aquatic community as seen in the current high abundance of darters and minnows in the fishery." (DEIS, pg. xxiii). Therefore, the DEIS concludes that a partial destratification system is necessary to achieve "a warmer thermal regime that would further reduce temperature fluctuations, eliminate occasional low DO, and support a warmwater aquatic community." (DEIS, pg. xxiii). However, the high abundance of darters and minnows in the fishery is actually an indication that their temperature, flow, and habitat preferences are currently being met. The darter and minnow species found in the referenced studies are all warmwater species that are native to the Tallapoosa River. In fact, many of these species occur in the Tallapoosa River upstream of Harris Lake, which is also a warmwater fishery. Moreover, the presence of these fish indicates that they have adapted to a regulated flow regime and may actually be benefiting from current project operations. The most recent fish community sampling resulted in the collection of 57 different species, with the number of species at each site ranging from 35 at the site furthest downstream from Harris Dam to 39 at the tailrace site (the site closest to but downstream from Harris Dam). Furthermore, diversity indices calculated during the most recent sampling were similar for all sites. All fish species contributing to these summary findings are warmwater species.

As noted in its response to FERC's Additional Information Request (AIR) #3, at the request of ADCNR, Alabama Power contracted with Auburn University to conduct studies to evaluate the effects of altered flow and temperature due to discharges below Harris Dam.[17] The results from Auburn's study, combined with a review of the long-term record of water temperatures below Harris Dam and comparisons with recent water temperature records from unregulated sites upstream of Harris, formed the basis for Alabama Power's conclusion that *the temperature regime of the Tallapoosa River below Harris Dam is presently supportive of a warmwater fishery*. Based on study results and other information in the record in this licensing proceeding, Alabama Power emphasized in its response to AIR #3 that *there is no justification for making a structural modification to address temperature at Harris*. Furthermore, the FERC-approved relicensing studies, along with the extensive additional modeling conducted for the response to AIR #1 and #2, provide additional information that indicates *temperature is not having significant impacts on aquatic resources below Harris Dam under baseline conditions*.

[17] See Alabama Power Company's Response to Aug. 29, 2022 Harris Project License Application Additional Information Request (Accession No. 20221227-5104).

The DEIS seeks to justify the need for temperature modifications by asserting that project operations historically resulted in "temperature decreases as much as 10˚C (18°F) during spring and summer generation periods." (DEIS, pg. 3-25). Temperature fluctuations to this magnitude are extremely rare (occurring less than 1 percent of days within an eighteen-year monitoring period), and it is improper to rely on such fluctuations to justify a thermal requirement or structural modifications to influence temperature in releases. As noted in Auburn's report, which again, was requested by ADCNR and conducted by a scientist chosen by ADCNR, in analyzing data from 2000-2018, "[e]xtreme fluctuations in temperature were rare (extreme fluctuations were defined here as a 10°C shift within a day; Malone: 0.60% days pre-Green Plan, 0% days post-Green Plan; Wadley: 0% days pre-Green Plan, 0.52% days post-Green Plan; Heflin 0% (2018-2020 data); tailrace: 0.28% days pre-Green Plan, 0.43% days post-Green Plan [driven by 2015 data])."[18] Extreme temperature fluctuations occurring less than 1 percent of days for the entire 18-year monitoring period (with some measurements likely anomalous due to a temperature logger being out of the water during low flow) do not justify temperature modifications or a thermal requirement.

There is simply no evidence that temperature is having an adverse impact on the aquatic community downstream of Harris Dam, *nor does the DEIS attempt to identify any such impacts*. Even ADCNR acknowledges the lack of species-specific evidence in its 10(j) recommendations, relying instead on "natural hydrologic variability" as a surrogate for biological parameters.[19]

Furthermore, it is not clear what analysis was done to determine the potential impacts from structural modifications that partially destratify the forebay. The analysis on pg. 3-32 of the DEIS is for Alabama River's Alliance recommended 450 cfs release year-round, *not FERC's recommended seasonal flow regime*. Even if this analysis were done for FERC's recommended flows, Alabama Power notes that the assumptions used in FERC's analysis are not described in detail. FERC neither cites nor describes the data used in its modeling, and it is unclear whether FERC possessed or used the data needed to accurately derive the forebay temperatures that may result from partial destratification. Ultimately, without a rigorous model to determine if partial destratification of the forebay is even possible, the impacts to temperature from making such a modification are merely speculative. Destratification could very well result in minor benefits to some species, but more importantly, could result in adverse impacts to other species.

To further demonstrate that no temperature requirements or structural modifications are warranted, Alabama Power has included an analysis focused on three areas: how often temperature criteria for fish are met under existing operations; the differences between "natural" unregulated sites upstream of Harris Dam and regulated sites downstream; and the incremental benefits of theoretical partial forebay destratification.

[18] See Auburn Report, page 13, within the Aquatic Resources Monitoring Report, https://harrisrelicensing.com/wp-content/uploads/2023/03/FSR_Aquatic_Resources.pdf.

[19] ADCNR's Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions (Mar. 17, 2023), at 7 (ADCNR's Mar. 2023 Comments).

A. COMPARISON OF WATER TEMPERATURE DATA TO FISH SPAWNING CRITERIA

In the DEIS, FERC staff states that "attainment of the minimum number of days needed that a specific temperature threshold is met for a species lifestage, known as degree days, is often considered more important for assessing the effects of temperature on fish populations than daily mean values," (DEIS, pg. 3-40) and, "[w]e consider the spawning and hatching water temperature values to be the most important." (DEIS, Appendix I, pg. I-9). In Table 3.3.2-27, FERC summarizes spawning water temperature criteria for key fish species in the Tallapoosa River downstream from Harris Dam. (DEIS, Appendix G, pg. G-125). Long-term temperature monitoring data collected by Alabama Power (March to October 2005 – 2018) at the Tailrace, Malone, and Wadley sites was compared to these temperature criteria. Specifically, the daily average water temperature was computed, and the number of days per monitoring period that the spawning criteria were met were calculated. For example, the Alabama Bass spawning temperature criteria is 13-23°C, and the tailrace daily average water temperature was within this range for an average of 149 days per monitoring season from 2005-2018. Based on this analysis, it appears that spawning water temperature criteria are currently being met under existing operations (i.e., the Green Plan) (Table 1).

Table 1 Comparison of Fish Spawning Criteria and Long-Term Water Temperature Monitoring Data (March to October 2005-2018)

Species	Spawning Temperature Criteria (°C)	Average # Days Criteria Met Per Monitoring Season[1]		
		Tailrace[2]	Malone[3]	Wadley
Alabama Bass	13-23	149	116	110
Largemouth Bass	17-20	39	35	37
Tallapoosa Bass	17-22	83	65	64
Channel Catfish	21-30	111	124	137
Redbreast Sunfish	21-27	111	117	108
Muscadine Darter Tallapoosa Darter	22.8-26[4]	62	73	64

[1] Monitoring season was typically 245 days.
[2] Data from 2015 excluded due to anomalous values.
[3] Data from 2011 excluded due to anomalous values.
[4] Assumed range based on minimum spawning temperature and maximum listed in Table 3.3.2-27.

B. COMPARISON OF REGULATED AND UNREGULATED SITES AND FISH SPAWNING CRITERIA

The stated goal of manipulating current operations at Harris Dam to induce a more "natural" temperature regime is dubious. In terms of hydropower relicensing, the word "natural" is code for pre-project conditions[20] and it has been well-established that such an approach runs afoul of years of precedent when analyzing hydroelectric project effects. FERC case law is clear that the definition of baseline for an existing project, which is used to compare effects and alternatives, includes the existence of the dam. The

[20] In fact, FERC actually states "compared to pre-project conditions" on DEIS, pg. 3-25, footnote 39.

Tallapoosa River is a regulated river, and the environmental baseline is the project and the environment that exists today. With that said, there is data available to compare how often fish spawning criteria are met downstream of Harris Dam to how often these criteria are met at "natural" unregulated sites upstream of Harris Dam.

The USGS installed water temperature monitors at two unregulated river locations upstream of Harris Dam in 2017 and data are available from 2017 – 2020.[21] During this period, Alabama Power collected water temperature data in the Harris tailrace at the continuous downstream monitor (Water Quality Study Report, Revised November 2021). The period when data from the unregulated (i.e., Newell and Heflin) and regulated sites overlap included March to October 2019. Similar to the analysis described in the previous section, these data were analyzed to determine the number of days that fish spawning criteria were met at each location. This analysis revealed only minor differences in how often fish spawning criteria were met, with some criteria met more often at the regulated (tailrace) site (Alabama Bass, Tallapoosa Bass, and Redbreast Sunfish) and some criteria met more often at the unregulated sites (Largemouth Bass, Darters) (Table 2).

Table 2 Summary of Fish Spawning Temperature Analysis at Regulated and Unregulated Sites (March to October 2019)

Species	Spawning Temperature Criteria (°C)	Tailrace (regulated)		Newell (unregulated)		Heflin (unregulated)	
		# Days Criteria Met	% Days Criteria Met[1]	# Days Criteria Met	% Days Criteria Met	# Days Criteria Met	% Days Criteria Met
Alabama Bass	13-23	105	47%	99	44%	96	43%
Largemouth Bass	17-20	29	13%	26	12%	36	16%
Tallapoosa Bass	17-22	64	29%	50	22%	57	25%
Channel Catfish	21-30	136	61%	151	67%	138	61%
Redbreast Sunfish	21-27	135	60%	120	54%	112	50%
Muscadine Darter Tallapoosa Darter	22.8-26	103	46%	69	31%	67	30%

[1] Total Days Monitored: Tailrace = 224; Newell = 224; Heflin = 225

C. Comparison of Simulated Water Temperatures to Fish Spawning Criteria

In the DEIS, FERC staff does not present an analysis of the incremental benefits relative to existing (Green Plan) operations or Alabama Power's proposal (a continuous minimum flow of approximately 300 cfs) other than to make the general statement that:

[21] Data is available from USGS at nwis.waterdata.usgs.gov/usa/nwis/uv/?cb_00010=on&format=rdb&site_no=02413300&legacy=1&period=&begin_date=2017-12-05&end_date=2020-12-21 (Newell), and nwis.waterdata.usgs.gov/usa/nwis/uv/?cb_00010=on&format=rdb&site_no=02412000&legacy=1&period=&begin_date=2017-12-05&end_date=2020-11-24 (Heflin)

> "Providing a 450-cfs continuous minimum flow from a partially destratified forebay could provide warmer conditions. Assuming average water temperatures for the top 30 feet of the forebay, tailrace temperatures could be increased by about 3°C (5.4°F) in July, 1.5°C (2.7°F) in September, and 1°C (1.8°F) in April" (DEIS, pg. 3-33).

Note that FERC's DEIS simulation used a 450-cfs continuous minimum flow for each season (April, July, and September); however, FERC's recommended continuous minimum flows include 450 cfs for April, and 300 cfs for July and September. Alabama Power modeled the effects of partial forebay destratification in HEC-RAS according to the parameters listed on page 3-32 of the DEIS, using 450-cfs continuous minimum flow instead of the staff recommendation. The results of the simulations were then compared to the fish spawning criteria listed above to determine the relative effects of each scenario. Based on this analysis, it appears that partial forebay destratification would only result in modest increases in the number of days spawning criteria are met for certain species, predominantly at the tailrace location (Table 3). Additionally, for some species, partial forebay destratification *would result in fewer days* where water temperatures fall within the spawning temperature criteria. It is also notable that the simulations showed that partial forebay destratification would result in the exceedance of the 26°C maximum temperature for Muscadine Darter and Tallapoosa Darter in the tailrace in the July and September simulation windows, while Alabama Power's proposed continuous minimum flow of 300 cfs would result in no exceedance of that threshold in the tailrace. Darters were the second most abundant family of fish collected at the tailrace site during the most recent fish community sampling and are likely benefiting from current operations.

Table 3 Number of Days Within Seasonal Simulations Where Fish Spawning Criteria are Met

Location	Criteria (°C)	Seasonal Simulations[1]								
		April 1-14			July 1-14			September 9-23		
		Destrat	GP	300	Destrat	GP	300	Destrat	GP	300
136.56 (Tailrace)	13-23	14	14	14	0	0	0	0	0	0
	17-20	14	7	9	0	0	0	0	0	0
	17-22	14	7	9	0	0	0	0	0	0
	21-30	0	0	0	14	14	14	15	15	15
	21-27	0	0	0	14	14	14	5	15	15
	22.8-26	0	0	0	0	14	14	0	15	15
	>26	0	0	0	14	0	0	15	0	0
129.63 (Malone)	13-23	14	14	14	0	0	0	0	0	0
	17-20	12	7	7	0	0	0	0	0	0
	17-22	12	7	7	0	0	0	0	0	0
	21-30	0	0	0	14	14	14	15	15	15
	21-27	0	0	0	7	14	14	5	7	11
	22.8-26	0	0	0	3	8	12	4	5	5
	>26	0	0	0	14	6	2	13	10	10
122.71 (Wadley)	13-23	14	14	14	0	0	0	0	0	0
	17-20	10	7	7	0	0	0	0	0	0
	17-22	10	7	7	0	0	0	0	0	0
	21-30	0	0	0	14	14	14	15	15	15
	21-27	0	0	0	3	9	11	5	8	9
	22.8-26	0	0	0	0	2	5	3	5	5
	>26	0	0	0	14	12	9	12	10	10

[1] The rationale for the three seasonal analysis periods is described in Section 3.5.1 of the Downstream Release Alternatives Phase 2 Report (June 2022).
Destrat = 450 cfs continuous minimum flow for each seasonal simulation
GP = Green Plan (existing operations)
300 = Alabama Power's proposed continuous minimum flow of 300 cfs

The analyses above support the following conclusions:

1. Fish spawning temperature criteria are being met downstream of Harris Dam under existing operations.
2. FERC's recommendation to implement a partially destratified forebay would not provide substantially more days that meet fish spawning criteria compared to Alabama Power's proposal.
3. A partially destratified forebay may result in water temperatures that exceed the maximum threshold for darters, which could have adverse effects for darters currently occurring in the river downstream of Harris Dam.
4. The temperature regime below Harris Dam meets fish spawning criteria in a similar manner to how those criteria are met at upstream, unregulated sites.

Therefore, FERC's recommendation in the DEIS that Alabama Power address the temperature downstream of Harris Dam is not supported by scientific evidence or empirical data. And, with no evidence showing existing temperature has an adverse impact on the downstream aquatic community, FERC has failed to show that the cost of a destratification system, much less the cost to try to meet an arbitrary and improper temperature requirement, is commensurate with any benefit it may provide. For these reasons, this recommended measure should not be included in the final EIS or license order for the Harris Project.

IMPROPER USE OF WATER QUALITY STANDARDS

ADCNR's reliance on the Alabama Department of Environmental Management's (ADEM) water quality standards to justify its 10(j) thermal regime is misplaced and improper. As noted in the DEIS, ADCNR recommends "that state water quality standards be met at all times, including seasonal maximum and minimum temperature limits (in addition to hourly and daily temperature change limits)" (DEIS, pg. 3-24). To be clear, and as Alabama Power explained in its May 2, 2023 Response to Recommendations and Comments on Notice of Ready for Environmental Analysis (May 2023 Response), these water quality standards do not apply to hydropower projects and SHOULD NOT be included as requirements in the new license.

First, and foremost, it is unclear what FERC is actually proposing to adopt from ADCNR's 10(j) recommendation regarding temperature requirements. For instance, Item 4 of FERC staff's draft Article 408: Water Temperature and Dissolved Oxygen (DO) Monitoring Plan (DEIS, Appendix J, pg. K-7), says to include "a 3-year monitoring program that . . . includes the elements of . . . ADCNR's 10(j) recommendations nos. 2 and 9 through 13." But, ADCNR's 10(j) letter does not include recommendations that correspond with these numbers. If these numbers are intended to match the numbered recommendations outlined in Table 5-1 of the DEIS, FERC does not recommend adopting 10(j) recommendations 2, 11, or 13. (DEIS, Appendix I, pg. I-39 through I-44). Further, recommendation 9 in Table 5-1 requires provisions for real time monitoring of discharge, temperature, and DO year-round, in the project forebay and tailrace.[22] Alabama Power notes that reservoir levels and discharge data are available real-time on Alabama Power's website (apcshorelines.com) and in the Shorelines mobile app. However, Alabama Power has not proposed real-time monitoring in the forebay and it is not a requirement of the 401 Water Quality Certification (WQC). And, as explained in its May 2023 Response, any DO and temperature monitoring should be defined by the conditions of the WQC and be consistent with Alabama Power's third-party accredited monitoring program. Under Alabama Power's accredited program, DO and temperature data must be subject to a QA/QC review and therefore, cannot be provided in real time. DO and temperature data will be provided in the reports required by the WQC. In addition, with respect to recommendation 12, references throughout the DEIS and in Table 5-1 clearly state that FERC does not recommend adopting a 1.8°F (1°C) rate of change per hour but rather that a rate of change should be determined in consultation. Regardless of this confusion, the analysis below explains why all of ADCNR's 10(j) recommendations related to temperature limits are improper, unnecessary, and an exceedance of ADCNR's authority.

[22] Alabama Power notes that ADCNR's recommendation was for "real time *access* to discharge, temperature and DO data, year-round, in the forebay and tailrace" (emphasis added).

ADCNR recommends that FERC require Alabama Power to follow a 90°F (32.2°C) maximum, a ±5° F (2.7° C) change from ambient water temperature limit, and a 1.8°F (1° C) rate of change per hour requirement for the Harris tailrace. ADCNR also recommends a "Temperature Regulation Plan," developed within the Water Quality Monitoring Plan, that evaluates and considers "[a]ll strategies to provide temperatures that mimic an unregulated thermal regime…." ADCNR cites ADEM's temperature water quality standards ("WQS") as the basis for such recommendations. This is misguided because ADEM is the only state agency that can require Harris Project compliance with state WQS. ADCNR cannot mandate compliance with ADEM's WQS. Furthermore, even if ADCNR could properly rely on the WQS, the WQS cited by the agency are either inapplicable to hydroelectric facilities or have not been exceeded by the Harris Project.

It is well-established that hydroelectric facilities, like the Harris Project, and the water passing through them constitute nonpoint sources under the CWA.[23] It is also generally accepted that nonpoint sources of pollution are not subject to NPDES permits and/or effluent limitations.[24] As numerous courts have acknowledged, federal and state governments have limited authority or "tools" to require nonpoint source compliance with WQS.[25]

In Alabama, ADEM is the only agency with authority to require nonpoint sources to comply with WQS.[26] Therefore, ADCNR's attempt to impose WQS compliance on the Harris Project is outside of its jurisdiction, is not an appropriate exercise of its 10(j) authority, and must be rejected. Even if ADCNR could require WQS compliance, the standards cited are inapplicable to the Harris Project. ADCNR cites the following ADEM WQS regulations in requesting that FERC impose the above-referenced temperature limitations on the Harris Project:

> (i) The *maximum temperature* in streams, lakes, and reservoirs, other than those in river basins listed in subparagraph (ii) hereof, *shall not exceed 90° F*.
>
> (iii) The *maximum in-stream temperature rise* above ambient water temperature d*ue to the addition of artificial heat by a discharger* shall not exceed 5° F in streams, lakes, and reservoirs in non-coastal and non-estuarine areas.
>
> (vi) In all waters the normal daily and seasonal temperature variations that were present before the *addition of artificial heat* shall be maintained, and there shall be no thermal block to the migration of aquatic organisms.[27]

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[23] *See, e.g., Alabama v. Corps*, 704 F. Supp. 3d 20, 85 (D.C.D.C. 2023).

[24] *See also U.S. ex rel. Tenn. Valley Auth. v. Tenn. Water Quality Control Bd.*, 717 F.2d 992, 998 (6th Cir. 1983) (concluding that nonpoint sources, like dams, are not subject to NPDES permits or effluent limitations).

[25] *See, e.g., Alabama*, 704 F. Supp. 3d at 85-86 (providing that states may create best management practices and similar conditions applicable to nonpoint sources); *County of Maui v. Hawaii Wildlife Fund*, 590 U.S. 165, 174-75 (2020) (referencing certain states' limited nonpoint source programs and acknowledging that compliance can be voluntary).

[26] *See, e.g.,* 33 U.S.C. §§ 1288 & 1341; Ala. Code § 22-22A-4(n) (designating ADEM as the "State Water Pollution Control Agency" tasked with implementing the CWA). For hydroelectric facilities, ADEM typically addresses water quality concerns in CWA § 401 water quality certifications ("WQC"). ADEM has already issued its WQC for the Harris Project, and noticeably absent from it are any temperature limits or noted concerns. *See* DEIS, Appendix C.

[27] ADEM Admin. Code r. 335-6-10-.09(5)(e)(3)(i), (iii) and (vi) (emphases added). Alabama Power believes ADCNR mistakenly cited to ADEM Admin. Code r. "335-6-10.05" when it meant to cite to ADEM Admin. Code r. 335-6-

These provisions do not provide support for ADCNR's recommendations. Alabama Power addresses each, below.

Subparts (iii) and (vi) simply do not apply to the Harris Project. The application of both subparts is limited to "the addition of artificial heat." It is well settled that hydroelectric facilities do not "add" heat to water that is passing through the turbine.[28] Thus, the analysis can stop there: Given the Harris Project does not add heat to the water passing through its turbine, subparts (iii) and (vi)—which hinge on the "addition" of artificial heat—are inapplicable and cannot be utilized to impose temperature limits on the facility.

Further, any temperature changes experienced as water passes through the dam do not constitute "artificial heat."[29] The term "artificial heat" is not defined in Alabama law and/or the CWA. Instead, the "artificial heat" term is reasonably interpreted to refer only to water that has been heated by external activity. A prime example is dischargers of cooling water—such as manufacturing and steam electric generating facilities—that intake water from a waterbody, utilize it to cool facility equipment (which, in turn, increases the temperature of the water), and discharge it back to the same waterbody. An underlying premise in construing the "artificial heat" term in this way is that the party re-introducing the heated water to a waterbody has some meaningful control over it and reasonable means to manipulate its temperature prior to it entering a waterbody. This is simply not the case for most dams, including the Harris Project.

Separately, even if subpart (iii) did somehow apply to the Harris Project, it addresses only a "rise" in "maximum in-stream temperature" and ***does not regulate temperature decreases***. Thus, ADCNR's purported reliance on this subpart to support its request for a "-5°F change from ambient" recommendation is unfounded and improper. ADCNR's requested 1.8°F (1°C) rate of change per hour requirement likewise must fail because ADEM's WQS do not include or authorize the regulation of temperatures in this manner.

Subpart (i) may at least arguably apply to hydroelectric facilities like the Harris Project. However, the water passing through the hydroelectric dam has never approached 90°F, let alone exceeded that value. Even if it ever had, ADEM has additional flexibility in its regulations for water to exceed this threshold if the waterbody can reasonably accept it.

Ultimately, ADEM is the agency responsible for regulating water quality within the State of Alabama, including temperature. As explained above, ADCNR's interpretations of ADEM's temperature WQS are flawed and cannot reasonably be relied upon to impose ADCNR's temperature recommendations. If ADEM had determined some form of temperature regulation was necessary, such regulation would have been included in the CWA § 401 WQC issued by the agency. Instead, and as FERC notes, "Alabama

10.09(5)(e)(3)(i), (iii) and (vi), which are the temperature criteria applicable to the relevant segments of the Tallapoosa River.

[28] *See, e.g., Gorsuch*, 693 F.2d at 174-75 (agreeing with EPA's interpretation that "addition" requires introduction of a pollutant into water from the outside world and that the passage of water through a dam does not constitute such an addition or introduction).

[29] ADCNR admits as much in its 10(j) recommendations, providing that the Harris Project "resemble[s] a discharger releasing artificial heat" and specifically "recommend[ing]" that "FERC assess the Harris Project as [such] an artificial heat" discharger. *See* ADCNR's Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions (Mar. 17, 2023), at 13.

DEM considers this portion of the Tallapoosa River not to be impaired by a 'pollutant,' with pollution defined as 'the man-made or man-induced alteration of the chemical, physical, or radiological integrity of a waterbody.'" (DEIS, Appendix F, pg. F-6, n.115). FERC should not allow ADCNR to usurp ADEM's authority by inserting unsupported temperature conditions that are inconsistent (and may also be incompatible) with ADEM's WQS. Therefore, FERC should not include ADCNR's water temperature regime in the new license.

MINIMUM FLOW

In the DEIS, FERC staff asserts that its recommended seasonal flow regime "would provide the greatest improvement to downstream resources that could be acquired without reducing lake levels in Harris Lake." (DEIS, Appendix I, pg. I-11). However, FERC did not provide an analysis of the incremental benefit of its recommended minimum flow regime compared to existing (baseline) operations or to Alabama Power's proposal to release a continuous minimum flow of approximately 300 cfs year-round. Alabama Power's analysis below shows that the small percent increase in wetted perimeter and decrease in river level fluctuation from staff's recommended flows do not justify the significant impact to generation.

FERC states that higher flows are necessary during certain seasons: "the most appropriate balance between utilization of flow for project generation and for downstream aquatic resource protection is best struck by providing, during certain seasons of the year, higher minimum flows than the year-round 300-cfs flow proposed by Alabama Power." (DEIS, pg. xvii). However, seasonal flows already exist. As Alabama Power demonstrated in its May 2023 Response, seasonality in releases from the Harris Dam is already inherent due to the nature of existing climate and hydrology, with higher flow periods typically occurring in late winter and early spring, and lower flow periods typically occurring in summer and early fall. Alabama Power's proposed continuous minimum flow will enhance these already occurring seasonal flows.

Alabama Power analyzed HEC-RAS model simulation data to determine the relative benefit of three operation scenarios: existing (Green Plan) operations, Alabama Power's proposed continuous minimum flow of approximately 300 cfs, and FERC's recommended seasonal minimum flow regime. This was accomplished by comparing the average wetted perimeter and average wetted perimeter fluctuation for each scenario as was done in the Downstream Release Alternatives Phase 2 Study Report.

When compared to current (Green Plan) operations, modeled increases in wetted perimeter for the 300 cfs scenario ranged from 0.5 feet to 24.9 feet, and incremental percent increases in wetted perimeter ranged from 0.2% to 7.1% (Table 4). The incremental increases in wetted perimeter under FERC's seasonal flow regime, when compared to the 300 cfs scenario, ranged from 0.1 feet to 7 feet, and incremental percent increases in wetted perimeter ranged from 0.1% to 2.0%. The incremental wetted perimeter increases (feet) associated with the 300 cfs year-round and FERC's DEIS-recommended continuous minimum flow scenarios compared to the Green Plan are depicted in Figure 1 (January to April), Figure 2 (May to June), and Figure 3 (December).

Table 4 Summary of Incremental Increase in Wetted Perimeter Under Continuous Minimum Flow (CMF) Scenarios

Distance Downstream (mi)	Period	Average Wetted Perimeter (ft)			Incremental Increase in Wetted Perimeter (ft/%)	
		Green Plan (GP)	300 CMF	FERC CMF	300 CMF	FERC CMF
0.2 (Tailrace)	Jan-Apr	337.0	352.7	359.7	15.7 (4.7%)	7.0 (2.0%)
	May-Jun	324.3	343.3	346.5	19.0 (5.9%)	3.1 (0.9%)
	Dec	319.7	338.8	345.3	19.1 (6.0%)	6.5 (1.9%)
1	Jan-Apr	473.2	480.4	482.2	7.3 (1.5%)	1.7 (0.4%)
	May-Jun	459.4	468.9	469.8	9.5 (2.1%)	0.8 (0.2%)
	Dec	452.2	463.1	464.9	10.8 (2.4%)	1.9 (0.4%)
2	Jan-Apr	369.1	383.7	385.9	14.7 (4.0%)	2.2 (0.6%)
	May-Jun	355.6	378.1	379.3	22.4 (6.3%)	1.2 (0.3%)
	Dec	350.5	375.3	377.7	24.9 (7.1%)	2.4 (0.6%)
4	Jan-Apr	292.1	292.9	293.4	0.8 (0.3%)	0.5 (0.2%)
	May-Jun	289.1	290.0	290.3	0.9 (0.3%)	0.3 (0.1%)
	Dec	287.2	288.6	289.2	1.4 (0.5%)	0.6 (0.2%)
7 (Malone)	Jan-Apr	304.3	311.1	314.8	6.8 (2.2%)	3.7 (1.2%)
	May-Jun	291.2	298.0	300.2	6.8 (2.3%)	2.2 (0.7%)
	Dec	270.9	288.9	294.4	18.0 (6.6%)	5.5 (1.9%)
10	Jan-Apr	700.2	703.1	704.7	2.9 (0.4%)	1.5 (0.2%)
	May-Jun	674.9	677.7	678.4	2.7 (0.4%)	0.7 (0.1%)
	Dec	657.4	665.2	667.5	7.8 (1.2%)	2.3 (0.3%)
14 (Wadley)	Jan-Apr	295.6	296.1	296.4	0.6 (0.2%)	0.3 (0.1%)
	May-Jun	292.1	292.5	292.7	0.5 (0.2%)	0.1 (0.1%)
	Dec	288.2	289.8	290.3	1.7 (0.6%)	0.5 (0.2%)

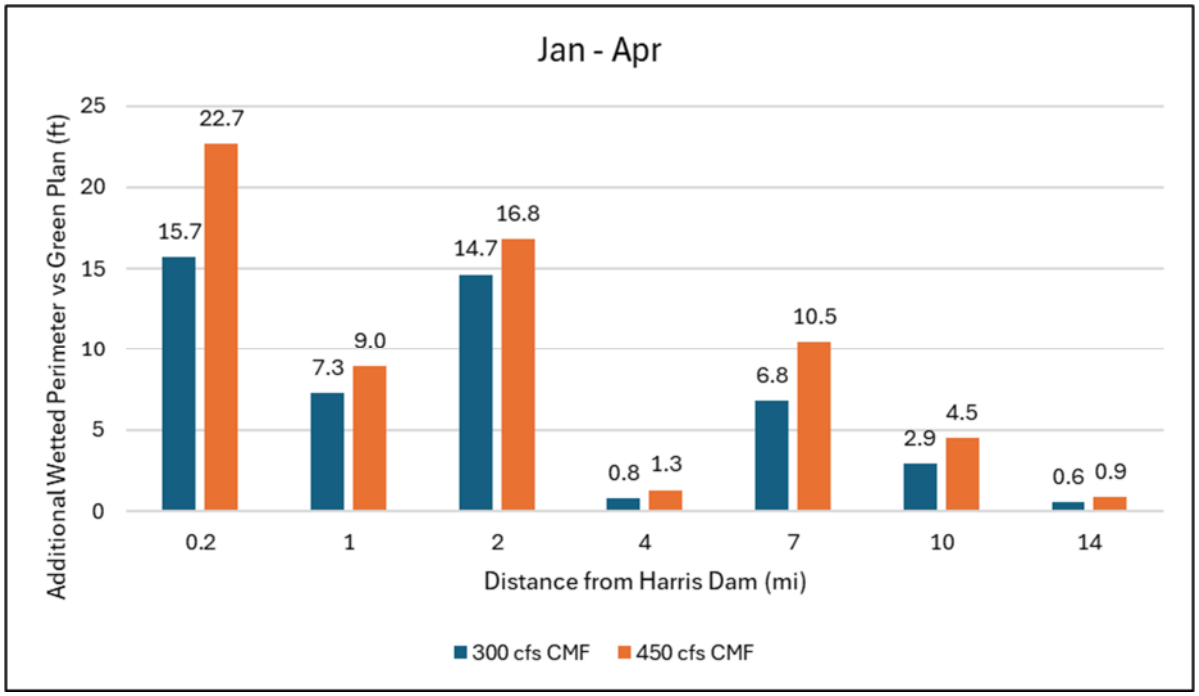


Figure 1 **Incremental Increase in Wetted Perimeter Associated with 300 cfs and 450 cfs Continuous Minimum Flow Compared to Green Plan (January to April)**

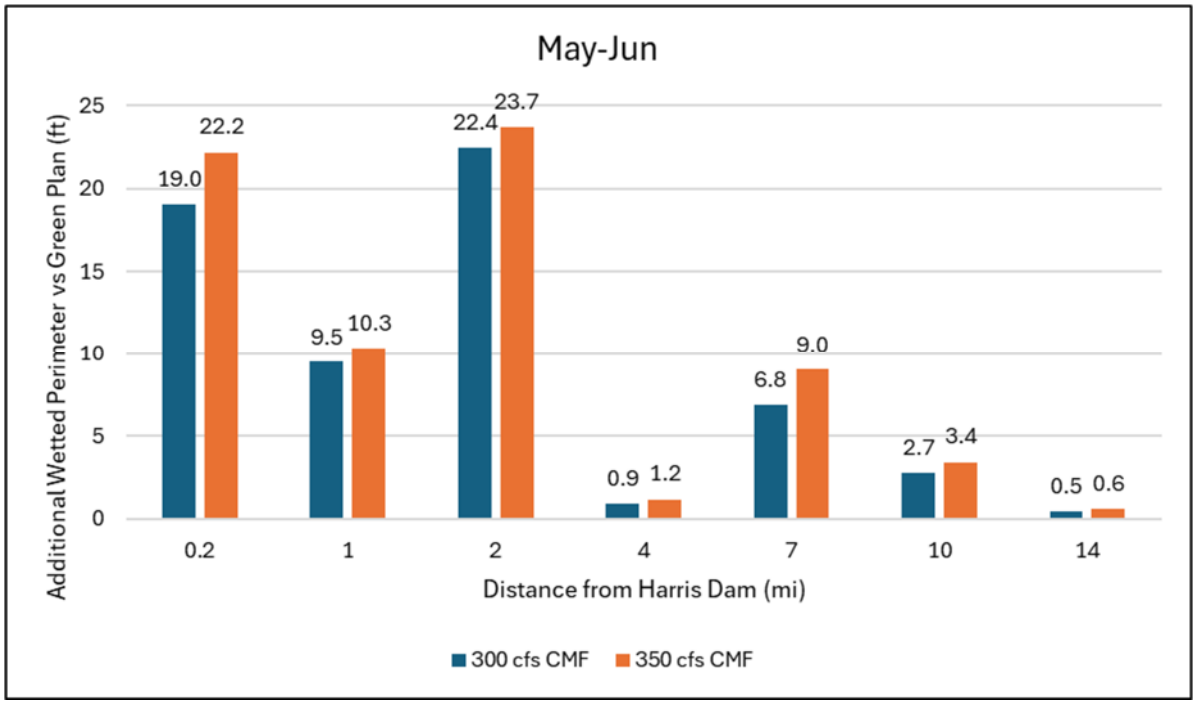


Figure 2 **Incremental Increase in Wetted Perimeter Associated with 300 cfs and 350 cfs Continuous Minimum Flow Compared to Green Plan (May to June)**

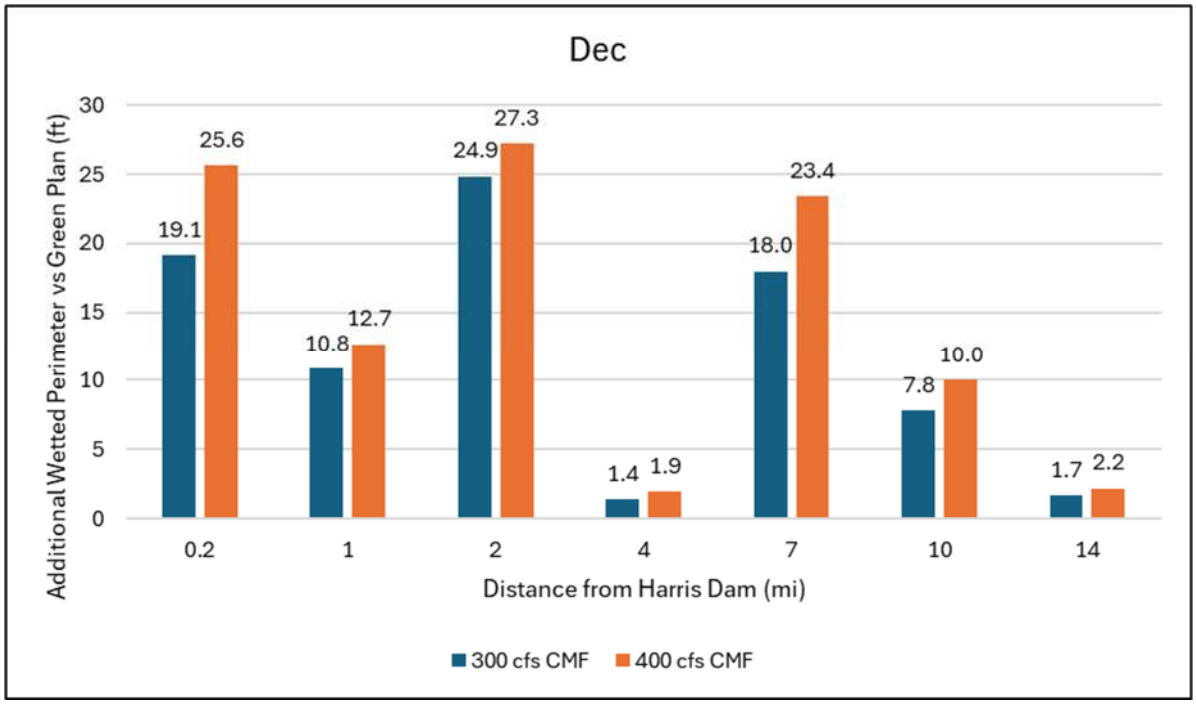


Figure 3 Incremental Increase in Wetted Perimeter Associated with 300 cfs and 400 cfs Continuous Minimum Flow Compared to Green Plan (December)

When compared to current (Green Plan) operations, modeled decreases in daily wetted perimeter fluctuation for the 300 cfs scenario ranged from 0.3 feet to 63.4 feet, and percent decreases ranged from 2.0% to 70.5% (Table 5). The incremental decreases in daily wetted perimeter fluctuation under FERC's seasonal flow regime, when compared to the 300 cfs scenario, ranged from 0.3 feet to 11.7 feet, and incremental percent decreases ranged from 1.8% to 18.7%.

Table 5 Summary of Incremental Decrease in Daily Wetted Perimeter Fluctuation Under Continuous Minimum Flow (CMF) Scenarios

Distance Downstream (mi)	Period	Average Wetted Perimeter Fluctuation (ft)			Incremental Decrease in Daily Wetted Perimeter Fluctuation (ft/%)	
		Green Plan	300 CMF	FERC CMF	300 CMF	FERC CMF
0.2 (Tailrace)	Jan-Apr	92.0	62.4	50.7	-29.6 (-32.2%)	-11.7 (-18.7%)
	May-Jun	93.8	57.1	52.4	-36.7 (-39.1%)	-4.8 (-8.3%)
	Dec	86.3	52.7	44.6	-33.7 (-39.0%)	-8.1 (-15.4%)
1	Jan-Apr	87.6	72.5	69.8	-15.1 (-17.2%)	-2.6 (-3.6%)
	May-Jun	82.6	60.2	59.0	-22.4 (-27.1%)	-1.3 (-2.1%)
	Dec	65.6	48.4	46.5	-17.2 (-26.2%)	-1.9 (-4.0%)
2	Jan-Apr	76.6	31.1	26.4	-45.5 (-59.4%)	-4.8 (-15.3%)
	May-Jun	93.3	29.9	26.1	-63.4 (-67.9%)	-3.8 (-12.7%)
	Dec	88.4	26.1	20.9	-62.3 (-70.5%)	-5.1 (-19.7%)
4	Jan-Apr	16.4	15.4	14.5	-1.0 (-6.3%)	-0.9 (-5.8%)
	May-Jun	15.8	13.4	12.9	-2.4 (-15.1%)	-0.5 (-3.4%)
	Dec	10.7	9.2	8.6	-1.5 (-14.0%)	-0.6 (-6.4%)
7 (Malone)	Jan-Apr	64.5	51.1	43.3	-13.3 (-20.7%)	-7.8 (-15.2%)
	May-Jun	92.3	70.9	65.7	-21.4 (-23.2%)	-5.2 (-7.4%)
	Dec	82.0	56.0	48.5	-26.0 (-31.7%)	-7.5 (-13.4%)
10	Jan-Apr	104.5	102.1	99.6	-2.3 (-2.2%)	-2.5 (-2.5%)
	May-Jun	90.6	85.3	83.8	-5.3 (-5.8%)	-1.5 (-1.8%)
	Dec	60.0	49.9	46.2	-10.1 (-16.8%)	-3.8 (-7.6%)
14 (Wadley)	Jan-Apr	14.5	14.2	13.8	-0.3 (-2.0%)	-0.5 (-3.3%)
	May-Jun	15.1	14.7	14.5	-0.4 (-2.7%)	-0.3 (-1.8%)
	Dec	12.3	10.5	9.8	-1.8 (14.9%)	-0.7 (-6.5%)

The incremental increases in wetted perimeter and decreases in daily wetted perimeter fluctuation appear very modest in light of the capital cost and lost generation associated with implementing FERC staff's recommended seasonal minimum flow regime. Meeting this seasonal flow regime would require additional capital cost due to installation of a new minimum flow unit *and* retrofit of a spillway gate, which would result in lost generation from part of the flow being spilled; or, if Alabama Power were to spill the entire seasonal flow, it would result in significant impacts to lost generation.[30] Neither of these options, on balance, justifies the need for continuous minimum flows above 300 cfs. Additionally, and importantly, the increases potentially conferred by FERC's recommended seasonal minimum flow regime appear to only benefit a short reach (1-2 miles) of the Tallapoosa River downstream of Harris Dam.

Based on this analysis and the financial impact to Alabama Power and its ratepayers with minimal benefits to the downstream aquatic resources, Alabama Power requests that FERC adopt Alabama

[30] In fact, DEIS Section 4.2 and Appendix H Table 4-3 state the average annual generation under the staff alternative (which assumes all of the flow is spilled) would be 30,181 MWh (or **17%**) less than the No-Action (or baseline) alternative.

Power's proposed year-round continuous minimum flow of approximately 300 cfs in the final EIS and license order for the Harris Project.

OPEN-ENDED LICENSE REQUIREMENTS

As stated earlier, rather than using the copious amount of available information in the record, including the results of thirteen licensing studies and more than twelve years of data collection and research conducted prior to relicensing, to make a licensing decision, FERC staff is instead recommending continued studying and unknown additional operational and structural modifications for the new license term. In several of its draft license articles, FERC includes a provision to monitor and make changes based on that monitoring. In certain cases, limited monitoring is reasonable and necessary to document how a resource responds to the change (i.e., operation changes, new enhancement measures). For example, in the case of the 401 water quality certification, there is a state standard for dissolved oxygen that must be met. If monitoring results do not demonstrate compliance with the 401 water quality certification, there is a mechanism for ADEM to require additional aeration measures during the license term to meet the state standard. However, developing new study objectives for aquatic resources (which were already developed during the relicensing process in order to fill data gaps), consulting with a group of stakeholders, monitoring, producing reports, and making new decisions on potential additional operational and structural modifications for temperature and minimum flow is basically a never-ending relicensing process. This is particularly troubling given there is no regulatory basis for these requirements or scientific evidence to support the need for them.

Staff-recommended Article 409 (Tallapoosa River Aquatic Resources Monitoring Plan) requires annual monitoring reports that include "…any recommendations to the Commission, for approval, for changes to project facilities and/or operations, including changes to the minimum flow regime and destratification practices…" Licensees need some level of predictability in their licenses. Alabama Power cannot have uncertainty regarding higher flows or additional required structural modifications during the license term. Further, Alabama Power, and numerous stakeholders who commented on the DEIS, need assurances that there will not be future changes in operations that affect lake levels or result in additional lost generation.

Also, it appears that FERC is recommending that two major structural and operational changes be made simultaneously: a continuous minimum flow regime and partial destratification of the forebay. However, draft Article 409 requires "methods to be used to isolate the effects of the minimum flows from other, non-project related effects." Impacts from each change cannot be isolated if both changes are made at the same time. In any event, Alabama Power remains steadfast in its analysis of the temperature below Harris Dam and finds no substantial evidence to support a structural modification to address temperature.

CONCLUSION

FERC staff's recommendations regarding flow and temperature are unnecessary and unsupported by the licensing record in this proceeding. Regarding flow, FERC did not provide an analysis of the incremental benefit of its recommended flow regime compared to Alabama Power's proposal to release a continuous minimum flow of approximately 300 cfs year-round. Meeting FERC's seasonal flow regime would require additional capital costs due to installation of a new minimum flow unit *and* retrofit of a spillway gate, which would result in lost generation from part of the flow being spilled; or, if Alabama Power were to spill the

entire seasonal flow, it would result in a significant (17%) impact in lost generation. Neither of these options, on balance, justifies the need for flows above 300 cfs. Additionally, and importantly, the increases potentially conferred by FERC's recommended seasonal minimum flow regime appear to only benefit a short reach (1-2 miles) of the Tallapoosa River downstream of Harris Dam. And as noted above, seasonality in releases from Harris Dam is already inherent due to the nature of existing climate and hydrology, with higher flow periods typically occurring in late winter and early spring, and lower flow periods typically occurring in summer and early fall. Alabama Power's proposed continuous minimum flow will enhance these already occurring seasonal flows.

Regarding temperature, FERC's recommendation in the DEIS that Alabama Power address the temperature downstream of Harris Dam is not supported by scientific evidence or empirical data. With no evidence showing existing temperature has an adverse impact on the downstream aquatic community, FERC has failed to show that the cost of a destratification system, much less the cost to try to meet an arbitrary and improper temperature requirement, is commensurate with any benefit it may provide. For these reasons, this recommended measure should not be included in the final EIS or license order for the Harris Project. To be clear, ADCNR's 10(j) recommendations for a thermal regime are not state water quality standards that apply to hydropower projects, the fishery below Harris Dam is a typical warmwater fishery, and temperature criteria for fish occurring there are currently being met. Therefore, a thermal regime and any structural modifications to meet that thermal regime should not be included as requirements in the new license.

In summary, the DEIS includes recommendations for flow and temperature that are not based on information in the record in this proceeding. Accordingly, Alabama Power requests that FERC staff adopt recommendations consistent with the record in this proceeding when issuing the final environmental impact statement and reject the ADCNR and other stakeholder recommendations with respect to continuous minimum flows and thermal regime as being unsupported by the record and inconsistent with the FPA.

ATTACHMENT B

ALABAMA POWER'S PROPOSED LICENSE ARTICLES

ARTICLE 401: COMMISSION APPROVAL AND FILING OF REPORTS AND AMENDMENTS

(a) Requirement to File Reports.

Condition 7 of the Alabama Department of Environmental Management's (ADEM) water quality certification, attached to this order as Appendix __, requires the licensee to file reports with ADEM. Because these reports relate to compliance with the requirements of this license, this report must also be submitted to the Commission, annually, no later than 60 days following the report's submittal to ADEM.

The licensee shall submit to the Commission documentation of any consultation, and copies of any comments and recommendations made by ADEM or any consulted entity in connection with this report. The Commission reserves the right to require changes to project operation or facilities based on the information contained in the report and any other available information.

(b) Requirement to File Amendment Applications

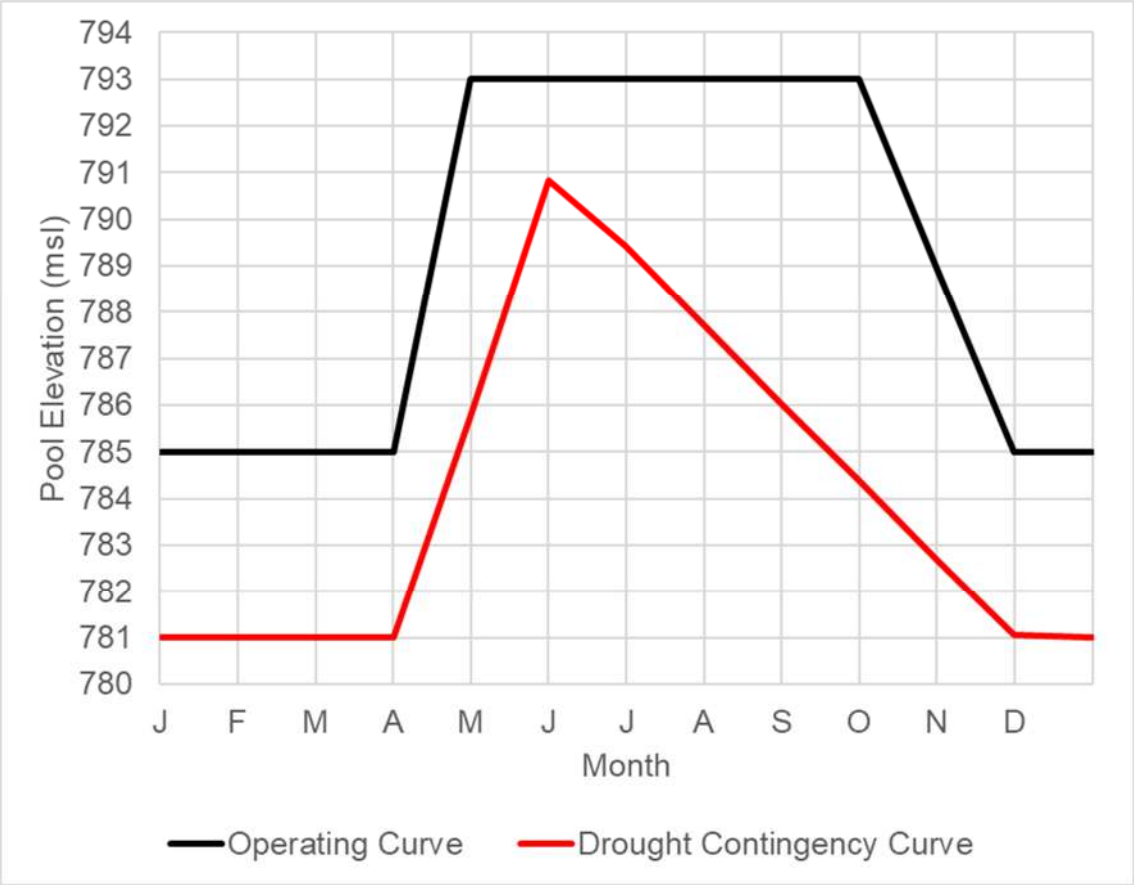
Certain conditions of the ADEM's water quality certification contemplate unspecified long-term structural and/or operational changes for the purpose of ensuring compliance with state water quality criteria for dissolved oxygen (e.g., condition 2). These changes must not be implemented without prior Commission authorization granted after the filing of an application to amend the license.

Reasoning for Alabama Power Modifications

- This article has been revised so that it is consistent with Alabama Power's Martin, Warrior, and Holt licenses.
- Condition 5 of the water quality certification refers to modifying monitoring and reporting requirements; therefore, it does not apply here. Any modifications to monitoring and reporting requirements would be made through implementation of Article 408: Water Quality Monitoring Plan, which would include agency consultation and FERC approval.

ARTICLE 402: LAKE HARRIS WATER LEVEL MANAGEMENT

Upon issuance of the license, the licensee shall operate the Harris Project in accordance with the operating curve and elevations as shown in the figure below and described herein unless operating for flood control and navigation consistent with the November 2022 Memorandum of Understanding between Alabama Power Company and the U.S. Army Corps of Engineers (Corps).



Operating Curve: The operating curve reflects the maximum elevation at which the reservoir may be maintained before implementing the Corps' flood control measures. Flood control measures, as identified in Article 403, Flood Control Operations at the Harris Project, are to be implemented when the reservoir level is at or above the operating curve.

On January 1, the curve is at elevation 785 feet mean sea level (msl) and remains at 785 feet msl until March 31. On April 1 the elevation linearly rises to 793 feet msl on May 1, and remains at 793 feet msl until September 30. From October 1 through November 30 the curve linearly declines to 785 feet msl, and remains at 785 feet msl until December 31.

Drought Curve: Reservoir elevations below the drought curve generally indicate that Lake Harris is in drought condition and the drought management provisions of Article 404 may need to be implemented. On January 1, the curve is at elevation 781 feet msl and remains at this elevation until April 1. On this

date the curve gradually rises to elevation 791 feet msl by June 1, then gradually lowers to elevation 781 feet msl by November 30. The curve remains at elevation 781 feet msl December 1 through December 31.

The area between the operating curve and the drought curve represents the range in which the reservoir may be maintained under normal conditions, except as provided in Article 403, Flood Control Operations at the Harris Project, for flood control and Article 404, Drought Management, for drought management. The licensee shall continually review hydrologic conditions and adhere to the requirements of Article 403, Flood Control Operations at the Harris Project, during flood conditions, and Article 404, Drought Management, during drought conditions.

As described below, the reservoir level requirements may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods, of up to 3 weeks, upon mutual agreement among the licensee, the Corps, Alabama Department of Environmental Management, and Alabama Department of Conservation and Natural Resources (collectively (for this article), the agencies).

Planned Deviation

The operating curve and lake levels may be temporarily modified for short periods, of up to 3 weeks, after mutual agreement among the licensee and the agencies. After concurrence from the agencies, the licensee must notify the Commission within 14 days and file a report with the Secretary of the Commission as soon as possible, but no later than 30 days after the conclusion of the planned deviation. Each report must include: (1) the reasons for the deviation and how project operations were modified; (2) the duration and magnitude of the deviation; (3) any observed or reported environmental effects and how potential effects were evaluated; and (4) documentation of consultation with the agencies. For planned deviations exceeding 3 weeks, the licensee must file an application for a temporary variance from operational requirements of this license and receive Commission approval prior to implementation.

Unplanned Deviations

In the event of an emergency modification to the reservoir level requirements that lasts longer than 3 hours or results in visible environmental effects, the licensee must notify the agencies within 48 hours, and file a report with the Commission as soon as possible, but no later than 14 days after each such incident. The report must include: (1) the cause of the deviation; (2) the duration and magnitude of the deviation; (3) any pertinent operational and/or monitoring data; (4) a timeline of the incident and the licensee’s response; (5) any comments or correspondence received from the agencies, or confirmation that no comments were received from the agencies; (6) documentation of any observed or reported environmental effects; and (7) a description of measures implemented to prevent similar deviations in the future.

For unplanned deviations to the reservoir level requirements, lasting 3 hours or less, that do not result in visible environmental effects, the licensee must file an annual report, by March 1, describing each incident that occurred during the prior January 1 through December 31 time period. The report must include for each 3 hours or less deviation: (1) the cause of the deviation; (2) the duration and magnitude of the deviation; (3) any pertinent operational and/or monitoring data; (4) a timeline of the incident and the licensee’s response to each deviation; (5) any comments or correspondence received from the agencies,

or confirmation that no comments were received from the agencies; and (6) a description of measures implemented to prevent similar deviations in the future.

Reasoning for Alabama Power Modifications

- Alabama Power notes the use of the November 2022 Memorandum of Understanding between Alabama Power Company and the U.S. Army Corps of Engineers in the wording of this revised license article is consistent with how FERC described Alabama Power's responsibilities under Article 13(c) of the existing Harris license.
- This proposed license article has been modeled after project operation and lake level requirements for Alabama Power's other storage reservoirs (e.g., the Weiss, Neely Henry, Logan Martin developments of the Coosa River Project and the Martin Dam Project). As described in the DEIS, "From May 1 through September 30, Harris Lake pool level is maintained *at or near* elevation 793 feet, *depending on inflow conditions* [emphasis added]." (DEIS, pg. xiii). Alabama Power tries to maintain the reservoir at or near the operating curve; however, the operating curve represents the maximum elevation of the reservoir before flood control operations are required. As described in Exhibit B, "Harris Reservoir is maintained at or below the elevations specified by the Harris operating curve except when storing floodwater."
- During normal operations, the lake level will typically be slightly below the operating curve; these levels should not be considered a deviation. While Alabama Power realizes that deviations may be defined under the Project Operation and Flow Monitoring Plan, the proposed edits to this license article makes clear normal operations will not be considered either a planned or unplanned deviation.
- During periods of low inflow, the lake level will be below the operating curve but these levels are neither a planned nor unplanned deviation. Alabama Power strives to keep the lake levels as high as possible during periods of low inflow; but because these are natural occurrences, they should not be considered deviations.
- The reporting requirement for a planned deviation has been changed from the "onset" of the planned deviation to the "conclusion" of the planned deviation to be consistent with license requirements for other Alabama Power hydropower projects that have notification requirements.[1] Alabama Power has also changed the agency notification requirement to 48 hours for unplanned deviations so that it has enough time to ascertain the cause of the unplanned deviation before making the notification to the agencies.
- Alabama Power notes that any unplanned deviation from normal operations would be limited to an emergency operation that already has reporting requirements through the Division of Dam Safety and Inspections.
- Alabama Power removed the phrase "such as a fish kill" from the section on unplanned deviations. Alabama Power has indicated to FERC staff previously that potential fish kills are investigated by the Alabama Department of Conservation and Natural Resources (ADCNR).[2] The scope of each investigation, amount of information collected, and Alabama Power's involvement varies depending on the circumstances surrounding each potential fish kill. Alabama Power will continue to coordinate with ADCNR on investigations of potential fish kills in the future and, if a

[1] See Accession No. 20180720-5075.

[2] See Accession No. 20170314-5044.

particular fish kill can be attributed to an emergency modification of lake levels, would report it to FERC as it would be a visible environmental effect.

ARTICLE 403: FLOOD CONTROL OPERATIONS

The purpose of this article is to provide for flood control in accordance with the November 2022 Memorandum of Understanding between Alabama Power Company and the U.S. Army Corps of Engineers (Corps).

Unless otherwise directed by the Corps, the licensee shall implement measures for flood control at the Harris Project as described in the Corps' April 2022 Alabama-Coosa-Tallapoosa Water Control Manual, Appendix I – R.L. Harris Dam and Lake (Harris Manual): paragraphs 7-04 and 7-05 of the Harris Manual, which describe the flood control operations; Plate 7-3, which summarizes the flood control regulation schedule and operating measures for flood control; and Plate 7-4, which describes an induced surcharge schedule.

Reasoning for Alabama Power Modifications

- This license article has been added to make the new Harris license consistent with license requirements for other Alabama Power hydropower projects that have flood control operations required by a Water Control Manual in the Alabama-Coosa-Tallapoosa Basin.
- Alabama Power recognizes its responsibilities required by the November 2022 Memorandum of Understanding contained in Exhibit C of the April 2022 Water Control Manual, which was filed as part of the revised Exhibit B on December 27, 2022. Alabama Power further notes the use of the November 2022 Memorandum of Understanding between Alabama Power Company and the U.S. Army Corps of Engineers in the wording of this proposed license article is consistent with how FERC described Alabama Power's responsibilities under Article 13(c) of the existing Harris license.

ARTICLE 404: DROUGHT MANAGEMENT

The licensee must implement the Tallapoosa River portion of the Alabama Drought Response Operating Proposal, November 2016 Revision, as described in Appendix C of Exhibit B, filed on December 27, 2022, as it applies to the Harris Dam Project. The licensee must notify the Commission in writing, as soon as possible, but no later than 10 days after modifying Harris Dam Project operations in response to drought conditions. The written notification must describe how operations at Harris Dam were modified in response to the Drought Response Proposal.

Any proposed revisions to the Drought Response Proposal as its implementation is required by this article must be developed after consultation with the Corps, U.S. Fish and Wildlife Service, Alabama Office of Water Resources, Alabama Department of Environmental Management, and Alabama Department of Conservation and Natural Resources. The licensee must include with the proposed revised Drought Response Proposal documentation of consultation, copies of recommendations on the completed revised proposal after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the revised Drought Response Proposal. The licensee must allow a minimum of 30 days for the entities to comment and to make recommendations before filing the revisions with the Commission for approval. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific reasons.

The Commission reserves the right to require changes to the Drought Response Proposal. Upon Commission approval, the licensee must implement the revised Drought Response Proposal, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- This article has been revised to reflect that the most recent version of ADROP is the November 2016 Revision, which was filed as part of a revised Exhibit B on December 27, 2022. The edits also recognize that only the Tallapoosa River portion of ADROP can be required under a new Harris license and that any notification required by the Harris license should be specific to Harris Dam.
- References to the "Report on Consistency" have been removed as that report was specific to the Martin Dam Project and is not needed in a new Harris license.

ARTICLE 405: PROJECT MINIMUM FLOW

Per the methods developed under Article 406, the licensee shall provide a continuous minimum flow release of approximately 300 cfs from Harris Dam.

Pending the implementation of this new minimum flow regime, the licensee shall maintain the existing Green Plan operations and minimum flow of 45 cfs at U.S. Geological Survey Gage 02414500 (Tallapoosa River at Wadley, AL).

The project minimum flow may be temporarily modified if required by operating emergencies beyond the control of the licensee, for short periods during plant maintenance that would require temporarily modified flows, or for short periods upon mutual agreement among the licensee, the Alabama Department of Environmental Management, the Alabama Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service (collectively (for this article), the agencies).

Planned Deviation

The project minimum flows may be temporarily modified for a period of up to 3 weeks, for plant maintenance or after mutual agreement among the licensee and the agencies. The licensee must notify the Commission within 14 days of the onset of the planned deviation and file a report with the Secretary of the Commission as soon as possible, but no later than 14 days after the conclusion of the planned deviation. Each report must include: (1) the reasons for the deviation and how project operations were modified; (2) the duration and magnitude of the deviation; (3) any observed or reported environmental effects and how potential effects were evaluated; and (4) documentation of notification/consultation with the agencies. For planned deviations exceeding 3 weeks, the licensee must file an application for a temporary variance from operational requirements of this license and receive Commission approval prior to implementation.

Unplanned Deviations

In the event of an emergency modification to the project minimum flow that lasts longer than 3 hours **or** results in visible environmental effects, the licensee must notify the agencies within 48 hours and file a report with the Commission as soon as possible, but no later than 14 days after each such incident. The report must include: (1) the cause of the deviation; (2) the duration and magnitude of the deviation; (3) any pertinent operational and/or monitoring data; (4) a timeline of the incident and the licensee's response; (5) any comments or correspondence received from the agencies, or confirmation that no comments were received from the agencies; (6) documentation of any observed or reported environmental effects; and (7) a description of measures implemented to prevent similar deviations in the future.

For unplanned deviations in the project minimum flows, lasting less than 3 hours, that do not result in visible environmental effects, the licensee must file an annual report, by March 1, describing each incident that occurred during the prior January 1 through December 31 time period. The report must include for each less than 3 hour deviation: (1) the cause of the deviation; (2) the duration and magnitude of the deviation; (3) any pertinent operational and/or monitoring data; (4) a timeline of the incident and the

licensee's response to each deviation; (5) any comments or correspondence received from the agencies, or confirmation that no comments were received from the agencies; and (6) a description of measures implemented to prevent similar deviations in the future.

Reasoning for Alabama Power Modifications

- As explained in Attachment A, Alabama Power's analysis shows that the small percent increase in wetted perimeter and decrease in river level fluctuation from staff's recommended flows do not justify the impact to lost generation. Therefore, Alabama Power requests that FERC adopt Alabama Power's proposed year-round continuous minimum flow of approximately 300 cfs in the final EIS and licensing order for the Harris Project.
- Alabama Power proposes to remove the Corps as a consulting agency. The Corps' primary interest with respect to Harris Dam and the Tallapoosa River is on navigation downstream on the Alabama River. Based on an agreement with the Corps, Alabama Power releases water from Harris, in coordination with its other storage projects in the Alabama River basin, to meet a weekly volume of flow in the Alabama River. The amount of water that Harris contributes to this targeted flow amount is based on basin conditions and not a specific volume from Harris Dam agreed to with the Corps. Therefore, any deviations from minimum flow will not affect Alabama Power's responsibility to meet this weekly flow volume. However, the Corps remains involved through Article 404 to coordinate the reduction of flows into the Alabama River.
- Alabama Power removed the phrase "such as a fish kill" from the section on unplanned deviations. Alabama Power has indicated to FERC staff previously that potential fish kills are investigated by the Alabama Department of Conservation and Natural Resources (ADCNR).[3] The scope of each investigation, amount of information collected, and Alabama Power's involvement varies depending on the circumstances surrounding each potential fish kill. Alabama Power will continue to coordinate with ADCNR on investigations of potential fish kills in the future and, if a particular fish kill can be attributed to an emergency modification to the project minimum flow, would report it to FERC as it would be a visible environmental effect.

[3] See Accession No. 20170314-5044.

ARTICLE 406: PROJECT MINIMUM FLOW RELEASE PLAN

Within 12 months of license issuance, the licensee must file, for Commission approval, a Project Minimum Flow Release Plan that describes how the minimum flow required by Article 405 would be provided. The plan must include, at a minimum:

(1) A description of the source(s) of water releases;
(2) A description of any new facilities and/or modifications of existing facilities needed to release the required minimum flows (with requisite conceptual design drawings), including an evaluation of fish-friendly turbine design options for any proposed minimum flow unit;
(3) A provision to determine the efficacy of any proposed release mechanism(s) to provide the required flows and modify the plan, with Commission approval, if necessary; and
(4) An implementation timeline for the provisions of the plan that starts on the day that the licensee receives approval of the plan from the Commission.

The Project Minimum Flow Release Plan must be developed after consultation with the Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service. The licensee must include with the plan documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Alabama Power proposes to move the requirement that this plan include "A provision for any deviation from normal operations" to Article 407, as this provision is more consistent with an operation monitoring plan.
- Alabama Power proposes to remove the USGS from the list of consulting agencies. As indicated on its website, the USGS "has no regulatory…mandate" and is "an independent fact-finding agency". It is Alabama Power's understanding that USGS does not have personnel assigned to review and comment on hydropower license requirements. While Alabama Power already partners directly with the USGS to collect data on the Tallapoosa River and will continue to do so to meet the requirements of ADEM's water quality certification, Alabama Power does not want to create an unnecessary administrative burden for USGS.

ARTICLE 407: PROJECT OPERATION AND FLOW MONITORING PLAN

Within 6 months of approval of the Project Minimum Flow Release Plan required by Article 406 of this license, the licensee must file, for Commission approval, a Project Operation and Flow Monitoring Plan to monitor compliance with: (1) the water levels required in Article 402, Project Operation and Lake Levels; (2) operations for flood control required in Article 403, Flood Control Operations at the Harris Project; (3) the drought management provisions in Article 404, Drought Management; (4) flow releases required in Article 405, Project Minimum Flow; and (5) reservoir stabilization requirements in Article 410, Harris Lake Spring Fish Spawning Enhancement Program. The plan must include:

(1) A provision to allow at least 30 minutes (consistent with existing Green Plan operations) to pass before starting a second turbine after the first turbine has been started;
(2) Criteria and reporting thresholds for identifying deviations from the operating curve requirement of Article 402 and the minimum flow requirement of Article 405;
(3) A provision for drought operations procedures for the minimum-flow releases that would be consistent with ADROP;
(4) A description of all existing and proposed mechanisms and procedures to be used to document compliance with project operation, including lake levels and minimum flows;
(5) The location of all gages and other devices that would be used to monitor project operation;
(6) A description of the procedures for maintaining and calibrating all monitoring equipment;
(7) A provision to maintain a log of project operation;
(8) A description of the protocols or methods to be used for reporting the monitoring data;
(9) A description of the operating procedures to be implemented outside normal operation (i.e., during planned and unplanned deviation periods as discussed in Article 402 and Article 405); and
(10) A definition of hydrological and emergency electrical system conditions that result in deviations from normal operation.

The Project Operation and Flow Monitoring Plan shall be developed after consultation with the Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- This article has been revised with the understanding that a Project Operations and Flow Monitoring Plan cannot be developed until the Project Minimum Flow Release Plan required by Article 406 has been approved by FERC. However, the timeline to develop and file the Project

Operation and Flow Monitoring Plan has been reduced to 6 months from approval of the Project Minimum Flow Release Plan.

- Additional revisions have been made, consistent with Alabama Power's other licenses, to recognize that the Project Operation and Flow Monitoring Plan should include all operating requirements of the Project license (e.g., flood control operations, drought operations, reservoir stabilization requirements).
- Alabama Power notes that project maintenance will not be limited to the months October through January. Alabama Power will make every effort to maintain the minimum flow during unit outages; however, how the project operates during periods of maintenance will be dependent on how the continuous minimum flow is provided (which will be determined following license issuance in accordance with Article 406).
- Consistent with Alabama Power's proposal and the DEIS (pg I-2), Alabama Power included a requirement to develop "A provision for drought operations procedures for the minimum-flow releases that would be consistent with ADROP". Note that any drought operations that release more water than that defined in the Green Plan Drought Release Criteria would have a greater impact on lake levels compared to baseline, which is a concern of many lake stakeholders, as expressed in comments on the DEIS. How and how much flow is provided during periods of drought will be dependent on how the continuous minimum flow is ultimately provided, which will be determined following license issuance in accordance with Article 406.
- Alabama Power proposes to remove the USGS from the list of consulting agencies. As indicated on its website, the USGS "has no regulatory…mandate" and is "an independent fact-finding agency". It is Alabama Power's understanding that USGS does not have personnel assigned to review and comment on hydropower license requirements. While Alabama Power already partners directly with the USGS to collect data on the Tallapoosa River and will continue to do so to meet the requirements of ADEM's water quality certification, Alabama Power does not want to create an unnecessary administrative burden for USGS.

ARTICLE 408: WATER QUALITY MONITORING PLAN

Within 6 months of license issuance, the licensee must file for Commission approval, a plan to implement the water quality monitoring and reporting requirements outlined in conditions 3 through 7 of ADEM's 401 water quality certification, attached as Appendix __ to this license order. The plan must define the water quality parameters to be monitored, monitoring methods, and the schedules for data collection and reporting.

The Water Quality Monitoring Plan must be developed after consultation with the Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service. The licensee must include with the plan documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- This article has been revised to make the new Harris license consistent with license requirements for other Alabama Power hydropower projects that have Water Quality Monitoring Plans.
- Additional revisions have been made to remove all references to a thermal regime. As explained in Attachment A, Alabama Power does not agree that a thermal regime requirement or structural modifications to destratify a portion of the forebay are warranted.
- Additional edits have been made to remove Alabama Rivers Alliance as a consulting party, because it is not a regulatory agency.

ARTICLE 409: TALLAPOOSA RIVER AQUATIC RESOURCES MONITORING PLAN

Within 12 months of license issuance, the licensee must file, for Commission approval, a Tallapoosa River Aquatic Resources Monitoring Plan. The purpose of the plan is to evaluate the biological response to the Project Minimum Flow required by Article 405. The plan must include, at a minimum, the following provisions:

(1) The goals and objectives of the monitoring plan;
(2) Criteria for measuring the effects of the required minimum flow on aquatic resources downstream of Harris Dam (these may include, but not be limited to, patterns in fish community structure, changes in aquatic habitat, and changes in temperature in the tailrace and at Malone and Wadley);
(3) The methodologies for monitoring the project-related effects of the minimum flow on aquatic resources downstream of Harris Dam, including monitoring locations and frequency (these should include fish assemblage monitoring similar to that conducted during relicensing at three sites downstream of Harris Dam and one upstream reference site);
(4) The formation of a Tallapoosa River Flow Advisory Committee, consisting of Alabama Power, Alabama Department of Conservation and Natural Resources, and Alabama Department of Environmental Management, to the extent they are willing to participate, and development of a meeting schedule;
(5) Provisions for reporting based on the monitoring schedule. Reports should include (a) the monitoring methods used, (b) the data collected, and (c) a discussion of the effects of the required minimum flow on aquatic resources downstream of Harris Dam; and
(6) An implementation schedule.

The Tallapoosa River Aquatic Resources Monitoring Plan must be developed after consultation with the Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service. The licensee must include with the plan documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Alabama Power provides the following rational for the potential criteria to be used to measure the effects of the required minimum flow on aquatic resources downstream of Harris Dam:
    - Alabama Power proposes to replicate the fish community collection methods developed during relicensing to compare future collections to baseline established during

relicensing. Three years of sampling may not be sufficient to evaluate potential changes in the fish community in response to the proposed minimum flow.

- Alabama Power proposes to use the High-Definition Stream Survey data, collected as part of the Erosion Monitoring Plan, to establish baseline instream habitat conditions. Subsequent high-definition stream surveys may be used to evaluate potential changes in habitat in response to the proposed minimum flow.
- Alabama Power proposes to evaluate changes in temperature as temperature data will be collected in the tailrace and at Malone and Wadley in accordance with the 401 water quality certification.
- Degree-day criteria has not been included because as explained in Attachment A, degree-day requirements are currently being met and will continue to be met with Alabama Power's proposed continuous minimum flow. However, if the Advisory Committee decides to prioritize one or more fish species and identify a particular goal for that species (to maximize spawning, growth, etc.), degree-day criteria may be used. Alabama Power notes that degree day criteria for different fish species may conflict with one another. In addition, degree-day criteria developed from literature may not be applicable to fish acclimated to existing conditions in the Tallapoosa River below Harris Dam.

- The provision in staff-recommended Article 409 (Tallapoosa River Aquatic Resources Monitoring Plan) that "…any recommendations to the Commission, for approval, for changes to project facilities and/or operations, including changes to the minimum flow regime and destratification practices…" has been removed. As noted in Attachment A, licensees need some level of predictability in their licenses. Alabama Power cannot have uncertainty regarding higher flows or additional required structural modifications during the license term.
- Alabama Power proposes to remove the USGS from the list of consulting agencies. As indicated on its website, the USGS "has no regulatory…mandate" and is "an independent fact-finding agency". It is Alabama Power's understanding that USGS does not have personnel assigned to review and comment on hydropower license requirements. While Alabama Power already partners directly with the USGS to collect data on the Tallapoosa River and will continue to do so to meet the requirements of ADEM's water quality certification, Alabama Power does not want to create an unnecessary administrative burden for USGS.
- Alabama Power proposes to remove the Corps from the list of consulting agencies because evaluating impacts from operations on aquatic resources is unrelated to the Corps primary interests on the Tallapoosa River of flood control and navigation. Alabama Power removed "navigational" from goals and objectives in sub-paragraph (1) because its obligations with respect to downstream navigation are established and the aquatic resources monitoring plan will be developed consistent with these existing obligations.

ARTICLE 410: HARRIS LAKE SPRING FISH SPAWNING ENHANCEMENT PROGRAM

Upon issuance of this license, the licensee shall implement a spring fish spawning program for Harris Lake to enhance spring fish spawning activities in the lake. The licensee shall hold constant or slightly increase the water levels in Harris Lake for a 14-day minimum period in the spring to facilitate and improve spawning conditions for spring fish. The exact dates and duration of stable water levels shall be determined in consultation with the Alabama Department of Conservation and Natural Resources (ADCNR). Any modifications of the spring fish spawning program shall be based on site-specific information that may be provided by the ADCNR to the licensee each year.

The licensee shall file a report with the Commission annually, by December 31, which provides the dates the spring fish spawning enhancement program was implemented, or if not implemented, the reasons for not implementing the program with supporting documentation, including comments from the ADCNR, if applicable.

Reasoning for Alabama Power Modifications

- This article has been edited to separate the Spring Fish Spawning Enhancement Program and Fish Habitat Enhancement Plans into different license requirements, consistent with license requirements for other Alabama Power hydropower projects.
- Additional edits were made to make the new Harris license consistent with license requirements for other Alabama Power hydropower projects that have Spring Fish Spawning Enhancement Programs implemented in consultation with ADCNR. Consistency among all of the Alabama Power licenses when implementing Spring Fish Spawning Enhancement Programs aids in streamlining implementation and agency consultation and facilitates compliance.

ARTICLE 411: FISH HABITAT ENHANCEMENT PLAN

Within 120 days of license issuance, the licensee shall develop and file for Commission approval, a Fish Habitat Enhancement Plan to enhance aquatic habitat in Harris Lake. The plan shall include, but not be limited to: (1) measures to stabilize the shoreline and banks of Harris Lake to improve water quality, control sedimentation, and provide cover for fish; and (2) a provision for the addition of fish attraction devices such as brush piles and other woody debris (recycled Christmas trees, felled trees) and synthetic materials (spider blocks, concrete, and PVC structures) in Harris Lake to provide cover for fish and to enhance angling opportunities in Harris Project waters.

In order to evaluate the effectiveness of the implemented measures and the need for additional measures, the plan shall also include a provision to file an annual report with the Commission by December 31 that includes, but is not limited to: (1) a map showing the location of the measures installed under the plan; (2) a detailed description of the types and composition of materials used to construct the physical habitat enhancements; (3) a detailed description of the method(s) to be used to evaluate individual enhancement measures, as well as the follow-up observations documenting the effectiveness of the implemented measures; (4) a description of any measures, devices, or techniques proposed to replace measures deemed ineffective, and a schedule for installing the replacement structures; and (5) the maintenance protocol to keep the enhancement structures in functional condition.

The Fish Habitat Enhancement Plan shall be developed after consultation with the Alabama Department of Conservation and Natural Resources and the U.S. Fish and Wildlife Service. The licensee shall include with the plan an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to require changes to the plan. Implementation of the plan shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- This article has been revised to separate the Spring Fish Spawning Enhancement Program and Fish Habitat Enhancement Plans into different license requirements, consistent with license requirements for other Alabama Power hydropower projects.
- Additional edits were made to make the new Harris license consistent with license requirements for other Alabama Power hydropower projects that have Fish Habitat Enhancement Plans developed in agency consultation. Consistency among all of the Alabama Power licenses when implementing Fish Habitat Enhancement Plans aids in streamlining implementation and agency consultation and facilitates compliance.

ARTICLE 412: AQUATIC INVASIVE SPECIES MANAGEMENT, INVASIVE AQUATIC VEGETATION, AND VECTOR CONTROL PLAN

Within 6 months of license issuance, the licensee must file, for Commission approval, a revised Aquatic Invasive Species Management, Invasive Aquatic Vegetation, and Vector Control Plan. The plan must specifically address project operating conditions required by this license and include, but not be limited to, the following:

(1) Provisions for educating the public regarding preventative actions that can be taken to help control aquatic invasive species on project land and waters;
(2) Provisions for consulting with agencies regarding appropriate signage to be provided on project land regarding control of aquatic invasive species;
(3) Provisions for developing BMPs for specific activities that have the potential to introduce aquatic invasive species into Harris Lake;
(4) Provisions for documenting incidental observations of aquatic invasive species on project land and waters and reporting such observations to the Alabama Department of Conservation and Natural Resources (ADCNR).
(5) Methods, including the frequency, timing, and locations, of surveys to identify areas where invasive aquatic vegetation could create a public health hazard, affect power generation facilities, restrict recreational use, or pose a threat to the ecological balance of the reservoir;
(6) Methods for monitoring increases in invasive aquatic vegetation;
(7) Methods for controlling invasive aquatic vegetation; and
(8) An implementation schedule for control measures and monitoring.

The Aquatic Invasive Species Management, Invasive Aquatic Vegetation, and Vector Control Program must be revised after consultation with the U.S. Fish and Wildlife Service, Alabama Department of Conservation and Natural Resources, and the U.S. Bureau of Land Management. The licensee must include with the plan documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- This article has been edited to make the new Harris license consistent with license requirements for other Alabama Power hydropower projects that have Invasive Aquatic Vegetation and Vector Control Plans, as developed in agency consultation. Consistency among all of the Alabama Power licenses when implementing Invasive Aquatic Vegetation and Vector Control Plans aids in streamlining implementation and agency consultation and facilitates compliance.

- This article has been further edited to combine FERC draft license requirements for Aquatic Invasive Species Management with requirements for Invasive Aquatic Vegetation and Vector Control as Alabama Power will manage these resources using the same or similar management actions or management actions executed at the same time.

ARTICLE 413: EROSION MONITORING PLAN

Within 12 months of license issuance, the licensee must file, for Commission approval, an Erosion Monitoring Plan to evaluate any change in downstream erosion following implementation of the flow requirements of Article 405. The plan must include:

(1) The goals of the monitoring;
(2) Anticipated erosion parameters to be monitored and methods for monitoring those parameters;
(3) The number and general locations of monitoring sites, which should include, at a minimum, the sites evaluated during the relicensing studies;
(4) Monitoring and reporting frequency;
(5) A schedule for implementing the plan; and
(6) Estimated capital and annual costs associated with the plan.

The Erosion Monitoring Plan must be developed after consultation with the Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service. The licensee must include with the plan documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Alabama Power proposes to remove the USGS from the list of consulting agencies. As indicated on its website, the USGS "has no regulatory…mandate" and is "an independent fact-finding agency". It is Alabama Power's understanding that USGS does not have personnel assigned to review and comment on hydropower license requirements. While Alabama Power already partners directly with the USGS to collect data on the Tallapoosa River and will continue to do so to meet the requirements of ADEM's water quality certification, Alabama Power does not want to create an unnecessary administrative burden for USGS.
- The Corps does not have regulatory oversight of Alabama Power hydropower license requirements related to erosion. Therefore, Alabama Power proposes to remove Corps from the list of consulting agencies for this license requirement.

ARTICLE 414: WILDLIFE MANAGEMENT PLAN

Within one year of license issuance, the licensee must file, for Commission approval, a final Wildlife Management Plan (WMP) to protect and enhance wildlife habitat on project land at Harris Lake and project lands at Skyline. The WMP must include the following parts of the draft WMP filed on November 23, 2021:

(1) Descriptions of land uses and existing habitats at Harris and Skyline;
(2) A description of wildlife management objectives and associated methods to protect and enhance native vegetation and wildlife habitat through management of: (a) shorelines at Harris Lake; (b) forests at Harris Lake and Skyline; (c) food plots and other permanent openings at Harris Lake and Skyline; (d) the Pollinator Plots at Little Fox Creek on Harris Lake; and (e) public hunting areas at Harris Lake and Skyline;
(3) Specific best management practices (BMPs) that reduce or prevent runoff, erosion, turbidity, and sedimentation that may impact streams and waterbodies on project lands during timber management activities, to include, but not be limited to the following Alabama Forestry Commission forestry BMPs: (a) establish streamside management zones, on each side of a perennial or intermittent stream with a minimum of 35 feet from a definable bank, or 50 feet if appropriate for wildlife protection; (b) avoid stream crossings by roads, skid trails, or firebreaks, when possible; (c) when unavoidable, use the fewest possible stream crossings located where the bank and streamside management zones would be least disturbed; and (d) properly plan and locate roads; and
(4) Implementation of conservation actions for the protection of federally listed species as deemed necessary through Section 7 consultation with the U.S. Fish and Wildlife Service.

The draft WMP plan must be revised in consultation with the U.S. Fish and Wildlife Service and the Alabama Department of Conservation and Natural Resources. The licensee must include with the plan documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the program. The licensee must allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project- specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Alabama Power has revised this article to make it consistent with Wildlife Management Plan license articles in other Alabama Power hydroelectric project licenses issued by FERC.
- As footnoted in Section 1.1 of Alabama Power's Draft Wildlife Management Plan, the Skyline Wildlife Management Area (WMA) is a wildlife management area managed by the Alabama Department of Conservation and Natural Resources (ADNCR) currently totaling approximately 60,000 acres. Approximately 15,000 acres of land within the Skyline WMA is also Harris Project

lands located at Skyline. All references to WMA have been removed to eliminate confusion as to which lands are subject to the WMP.

- Regarding the federally listed and other special status species, the WMP license article is not the appropriate place to include numerous species-specific measures, as the project related activities that may impact these species are not all included in the WMP. Instead, and if determined necessary based on the completion of Section 7 consultation with U.S. Fish and Wildlife Service (USFWS), species specific measures should be incorporated into other license articles, such as the Shoreline Management Plan or Recreation Plan as appropriate, for species that may be affected by activities authorized by these plans. During the relicensing proceeding, Alabama Power conducted multiple surveys in coordination with USFWS and ADCNR to document the potential occurrence of federally listed and other special status species on project lands. As explained below, many of the measures recommended in FERC's Biological Assessment and repeated in the draft license article are unnecessary and, in some cases, impracticable. Alabama Power will continue to coordinate with USFWS regarding specific measures needed to protect these species. Specifically, Alabama Power provides the following response:
    - Red-Cockaded Woodpecker (RCW): There are no current records for RCW within the project boundary. Alabama Power surveyed sites identified in conjunction with USFWS and ADCNR during relicensing and did not observe any suitable nesting or foraging habitat for the species. In addition, no cavities, active or abandoned, were identified during surveys conducted as part of the relicensing Threatened and Endangered Species (T&E) Study Plan. There has been no active management of habitat for the species on project land. Specifically, with the exception of the 160-acre natural pine site on the southwestern side of Harris Lake, prescribed fire or other midstory control methods have not been used on project lands. The 160-acre site has a high basal area and thick understory, consisting primarily of dense pines, 12 inches or less in diameter at breast height (dbh). Prescribed fire has only been used on one occasion to manage this site. Therefore, suitable nesting or foraging habitat does not occur within the project boundaries and no additional surveys are necessary. Alabama Power foresters are familiar with and know how to identify RCW and their cavity trees. If any RCWs are identified within the project boundary during routine timber harvest, Alabama Power will consult with USFWS to develop measures, if needed, to protect any identified RCWs or suitable/occupied habitat. Alabama Power will file documentation of any such consultation with the Commission.
    - Alligator Snapping Turtle: There are no current or historical records for this species in the Tallapoosa River above the fall line. The entire Harris project occurs above this geographic boundary, and it is unlikely that the species occurs at the Harris Project. If the species is identified, Alabama Power proposes to follow the proposed 4(d) rule for this species. Current exemptions included in the 4(d) rule, as proposed, would cover project activities. Finally, reports of visual sightings should not be required. Many of these sightings would be unsubstantiated and difficult to verify.
    - Monarch Butterfly: FERC's recommendations should be consistent with any proposed or finalized 4(d) rule for this species. Alabama Power will follow the final 4(d) rule for this species.
    - Georgia Rockcress: There are no known species records within the project boundary. Further, it is unlikely that timber harvest activities would occur in areas of suitable habitat (shallow soil on bedrock, sloping rock outcrops, and sandy loam on eroding river banks)

for the Georgia Rockcress if it were to occur within the proposed timber harvest units (i.e., it is unlikely that those areas would be impacted by timber harvest). Alabama Power will consult with USFWS to evaluate the need and protocols for surveys at the proposed recreation site.

- White Fringeless Orchid: White fringeless orchid (WFO) survey sites were identified, in consultation with USFWS, during relicensing as part of the T&E Study Plan. WFO was not observed at any of the sites during these surveys. Alabama Power may consult with USFWS on the need to periodically survey areas of the Harris Project to assess the occurrence of WFO. If it is determined that suitable habitat exists, and that suitable habitat could be impacted by timber harvest activities, Alabama Power will develop survey protocols, in conjunction with the USFWS, for the species.
- Price's Potato Bean: Alabama Power evaluated habitat for Price's Potato Bean during the WFO surveys and surveyed the known site at Skyline to evaluate occurrence of the plant at this site. Alabama Power was unable to determine if this site is still occupied but proposes to survey the site again ahead of any proposed timber harvest at the known location. In addition, Alabama Power will work with the USFWS to develop survey protocols for Price's Potato Bean prior to proposed timber harvests. Survey protocols could include using previously developed maps that present potential habitat along limestone drains at Skyline. If a proposed timber harvest overlaps with these areas identified as potentially suitable habitat, surveys may be necessary.
- Morefield's leather flower: There are no known occurrences within the project boundary. If it is determined that suitable habitat could be impacted by timber harvest activities, Alabama Power will consult with USFWS to develop survey protocols for this species. Protocols could include using previously developed maps that present potentially suitable habitat (seeps occurring along south/south-west facing slopes). Proposed timber harvest areas that include potentially suitable habitat may be surveyed if USFWS determines that timber activities may negatively affect the species. Alabama Power believes that proposed timber harvest measures (leaving 30 to 100 trees per acre) described in the WMP may benefit the species.
- American Hart's Tongue Fern: There are no known occurrences of this species within the project boundary. Furthermore, timber harvest activities will not occur in areas with potentially suitable habitat. Specifically, timber harvests are unlikely to occur at limestone sinks or cave openings where habitat for this species could potentially occur. Therefore, there should be no effect to this species if it were to occur and Alabama Power does not propose to conduct any surveys. If American Hart's Tongue Fern is identified while conducting surveys for other species in an area that could be impacted by Alabama Power's activities, Alabama Power will consult with USFWS on any necessary protective measures.

- FERC states that the draft WMP does not contain measures to protect bats from human disturbances, such as spelunking (exploring caves), hunting, primitive camping, and other recreation activities near caves. Alabama Power would like to clarify that cave recreation is not a project-related activity at Skyline. Skyline is leased to ADCNR who manages the property for wildlife and allows limited outdoor recreation including hunting, camping, and horseback riding.

Spelunking is not listed as an allowable recreation activity in any of ADCNR's WMA permits or WMA Regulation 220-2-.55.[4] Furthermore:

- Spelunking is not project-related and should not be evaluated as a project action.
- Hunting will not impact bats. Hunting does not occur in caves at Skyline and hunting near, but outside, caves should not cause disturbance.
- Primitive camping in caves is not permitted; Item No. 6 on ADCNR's Skyline permit[5] states that it is "Unlawful…to camp in the management area except in designated sites". None of the designated areas identified within Skyline are located in caves.

- With respect to the gray bat, Alabama Power proposes to follow federally published avoidance guidance, when possible, which will be protective of gray bats. Timber activities should have no effect on gray bats using project lands at Skyline.
- FERC states that Alabama Power should develop a plan to survey all 236 caves within 1 year after Commission approval of the final WMP. Alabama Power would like to clarify that only known caves within established buffer guidance distances, as outlined in federally avoidance/survey guidance, at proposed timber harvest areas should be surveyed. Survey of all caves on project lands at Skyline within one year is not feasible or warranted because known caves will be surveyed on a timber harvest specific basis consistent with published guidance. Furthermore, under current USFWS guidance, surveys are only valid for five years so caves would likely need to be resurveyed prior to applicable timber harvests.[6] If occupied caves are documented, Alabama Power will consult with USFWS to develop protective measures.
- Alabama Power would like to clarify the non-restricted time frames and zone of activity for bats within the Harris Project.
  - The Harris Project occurs entirely within the hibernating range for the federally listed bats whose range overlap with the project. No part of the project occurs or overlaps with the Zone 1 (year-round active range) and only non-restricted time frames for the hibernating range apply to project lands.
  - FERC states that the non-restricted time frame for federally protected tree roosting bats is from November 16 through March 14. This time frame applies to tree removal activities occurring within 5 miles of a known hibernacula. There are no known hibernacula within 5 miles of the Harris project boundary; therefore, Alabama Power will use the hibernating range non-restricted time frame of October 1 to March 14 as a first measure to avoid potential impacts to federally protected bats.
  - If timber harvest units are determined to contain potentially suitable habitat, and non-restricted time frames cannot be followed, Alabama Power will conduct surveys to determine presence/absence. If a proposed timber harvest area is determined to be occupied by federally protected bat species, Alabama Power will consult further with USFWS. It is likely that proposed timber harvest areas will need to be harvested outside the non-restricted time frame and that some of these will likely be occupied by federally protected bats. Thus, Alabama Power anticipates that timber harvest may routinely require additional consultation with USFWS.

[4] https://www.outdooralabama.com/WMARules

[5] https://www.outdooralabama.com/sites/default/files/Wildlife/wildlife-management-areas/Skyline%20Final.pdf

[6] U.S. Fish and Wildlife Service. 2024. Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines. U.S. Fish and Wildlife Service, Region 3, Bloomington, MN. 95 pp.

- The palezone shiner determination in the executive summary of the DEIS is “no effect”; however, FERC’s Biological Assessment concludes “may affect, but not likely to adversely affect” for the species. Alabama Power developed a study plan for palezone shiner, in consultation with USFWS, during relicensing as part of the T&E Study Plan. Little Coon Creek was the only site determined to have potentially suitable habitat. Four sites were sampled in Little Coon Creek to determine if palezone shiner occur within the project boundary. No palezone shiner were collected and they likely do not occur within the project boundary. There should be no project effects to this species.
- Finally, Alabama Power did not include language requiring surveys prior to removal of land from project boundaries because removing land from the project boundary is not an action that could cause a “take” of a species.

ARTICLE 415 – RECREATION PLAN

Within one year of license issuance, the licensee must file with the Commission for approval, a revised Recreation Plan for the Harris Hydroelectric Project. The conceptual and as-built drawings of the project recreation sites contained in Appendix B of the Recreation Plan filed on June 15, 2022 are not approved and must be included in the revised plan.

In addition, the revised Recreation Plan must include, at a minimum, the following:

(1) A description of the amenities provided at the following 11 project recreation sites identified in the proposed Recreation Plan filed on June 15, 2022: Big Fox Creek boat ramp; Crescent Crest boat ramp; Flat Rock Park; Foster's Bridge boat ramp; Harris Tailrace Fishing Pier; Highway 48 Bridge boat ramp; Lee's Bridge boat ramp; Little Fox Creek boat ramp; Lonnie White boat ramp; R.L Harris Wildlife Management Area; and Swagg boat ramp;
(2) Provisions for the operation and maintenance (O&M) of the above 11 project recreation sites to include, at a minimum: (a) hours of operation; (b) signage at each project recreation site as specified in section 8.2 of the Commission's regulations, and updated for accuracy as needed; (c) site-specific provisions for managing trash and its removal at each project recreation site; and (d) a description of soil erosion and sediment control measures to be used where ground-disturbing activities are proposed;
(3) A map or maps identifying the 11 project recreation sites in relation to the project boundary as licensed herein;
(4) Provisions for (a) improving the Harris Tailrace Fishing area and Highway 48 Day Use Park to include barrier-free access; and (b) removal of Wedowee Marine South as a project recreation site;
(5) A discussion of how the needs of the disabled were considered in the planning and design of any new recreation facilities or facility improvements; and
(6) Provisions to file a recreation report with the Commission every ten years. The report must describe recreation use data (collected prior to developing the report) and assess the current use of project recreation facilities. The report must describe the adequacy of the recreation plan, propose any necessary modifications to the plan, propose any required modifications to project recreation sites, and provide an implementation schedule for any proposed modifications.

The revised Recreation Plan shall be developed after consultation with the U.S. Fish and Wildlife Service and Alabama Department of Conservation and Natural Resources. The licensee shall include with the plan an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Edits have been made to make this article consistent with Alabama Power's Martin, Warrior, and Holt licenses.
- Alabama Power proposes to remove the BLM and Randolph, Clay, Cleburne, and Jackson counties from the list of consulting entities. While there are federal lands within the Project boundary (see sheet 9 of the Exhibit G filed March 23, 2022), the federal lands are not associated with any Project recreation site and have been classified as Flood Storage and Scenic Easement in the proposed SMP. If Alabama Power were to develop a Project recreation site on these federal lands (which is highly unlikely given the small acreage of the three tracts of non-inundated federal land and that it is not contiguous to any other Alabama Power owned land), it would consult with the BLM on these specific sites. Further, Alabama Power proposes to remove Clay, Cleburne, and Jackson counties from the list of consulting entities as there are no Project recreation sites (nor proposed Project recreation sites) in these counties. In fact, only small portions of the Project occur in Clay and Cleburne counties and the only portion of the Project that is in Jackson County is the Skyline tract, which is managed by the ADCNR. Finally, Alabama Power proposes to remove Randoph County as a consulting entity as Randolph County does not operate or maintain any of the Project recreation sites. While Alabama Power is proposing to remove Randolph County, it will continue to work closely with the county to provide public safety patrols through its Sherriff's Office and will secure any permits required by the county for any future recreation development.
- Alabama Power notes that while it proposes to develop the "Highway 48 Day Use Park", the boat launch and park area will likely have different operating hours and O&M provisions as they will be treated as two separate sites.
- Alabama Power notes that in the DEIS, page xxviii, page 3-66, and page 3-90 to 3-91, FERC staff seem to imply that monitoring efforts would include "river access points". Alabama Power would like to clarify that monitoring will only take place at Project recreation sites, which will include the proposed recreation access below Harris Dam. Further, monitoring will take place at Jaybird Landing under the requirements of the Martin license.

ARTICLE 416: SHORELINE MANAGEMENT PLAN

Within 6 months of license issuance, the licensee must file with the Commission for approval a revised Shoreline Management Plan. The plan must include, at a minimum: (1) a description, including acreage and a map or maps of the following land use classifications listed in the proposed Shoreline Management Plan filed on June 15, 2022: (i) Project Operations; (ii) Recreation; (iii) Commercial Recreation; (iv) Flood Storage; (v) Scenic Easement; (vi) Hunting; and (vii) Natural/Undeveloped; (2) a provision for using a geographic information system to record areas designated as Sensitive Resources; (3) a description of allowable and prohibited uses for each of the above shoreline classifications; (4) a description of best management practices, including bio- engineering techniques such as willow and wetland plantings to control erosion; (5) a description of the licensee's Dredging Permit Program, as approved by the Commission on July 6, 2011; (6) a description of the Shoreline Compliance Program specific to the Harris Project; (7) a provision to limit construction of new seawalls and criteria that must be applied in approving the installation of any new seawall; (8) a description of the encroachments at the Harris Project, including any that have been addressed, the method of resolution, and the number and location of encroachments that remain unresolved; and (9) a provision to review and update the Shoreline Management Plan every 10 years following plan approval.

The plan must also include provisions to protect rare plants within the 57-acre rare plant area adjacent to Flat Rock Park including: (1) periodically monitoring the area for evidence of unauthorized uses (e.g., tire track marks on vegetation and rock outcrops); (2) maintaining the new signs and barrier (gate); and (3) consulting with ADCNR to develop and recommend additional protection measures, for Commission approval, if needed, to avoid effects associated with recreation activities.

The revised Shoreline Management Plan must also reflect the project boundary modifications, and the reclassification of project lands as described in section 2.2.2 Proposed Project Boundary Changes and 3.3.6.2 Project Boundary Revisions.

The filing must include two separate sets of GIS data in a georeferenced electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The data must include (a) a polygon file of the project reservoir surface area including a separate polygon for the tailrace area, (b) a polygon file of the project lands included within the project boundary, as approved to date, including Skyline, (c) a polyline file of the land use/shoreline management classifications that reflect all modifications and reclassifications at Harris Lake and Skyline, as approved to date, and (d) a GIS file showing the designated sensitive resource areas. The attribute table for the classification polyline file must contain the name of each shoreline/land use management classification and its associated reservoir/tailrace/Skyline, consistent with the shoreline management plan.

All GIS data must be positionally accurate to ±40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) must include: FERC Project Number, data description, date of this order, and file extension in the following format [P-XXXX, reservoir name polygon/or reservoir name shoreline polyline data, MM-DD- YYYY.SHP]. The filing must be accompanied by a separate text file describing the spatial reference for the georeferenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees), the map datum (i.e., North American 27, North American 83),

and the units of measurement (i.e., feet, meters, miles). The text file name must include FERC Project Number, data description, date of this order, and file extension in the following format [P-XXXX, project reservoir/or shoreline classification metadata, MM-DD-YYYY.TXT].

The revised Shoreline Management Plan must be developed after consultation with the Alabama Department of Conservation and Natural Resources, the U.S. Fish and Wildlife Service, and the U.S. Bureau of Land Management. The licensee must include with the plan an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Edits have been made to make this article consistent with Alabama Power's Martin and Warrior licenses.
- Alabama Power notes that FERC's draft license article includes a requirement that the SMP reflect the proposed project boundary modifications as described in DEIS section 2.2.2 *Proposed Project Boundary Changes* and 3.3.6.2 *Project Boundary Revisions*, which includes lands proposed to be added, removed and reclassified. and recommends that revised Exhibit G drawings reflect these modifications.

ARTICLE 417: PUBLIC EDUCATION AND OUTREACH PLAN

Within one year of license issuance, the licensee must file for Commission approval, a Public Education and Outreach Plan to enhance the public experience and protect natural resources at the Harris Project through public education and awareness.

The plan shall include, but not be limited to: (1) a detailed description of public education and outreach activities to be conducted at the project; (2) a provision to share information about (a) recreation opportunities and upgrades, including when the new proposed recreation sites/amenities become available (b) water levels in Harris Lake and the releases from Harris Dam in the Tallapoosa River downstream from Harris Dam, (c) the new shoreline classifications, changes to land parcels in the project boundary, and the allowable activities in each area, (d) BMPs to protect natural resources from construction and maintenance activities (e.g., boat dock construction, shoreline stabilization, and vegetation management), (e) the procedures for permits to lease or occupy project lands and waters for purposes permitted by any license issued for the project, (f) plans to restore aquatic habitat, and manage invasive species, historic properties, and recreation at the project; (3) provide educational opportunities to share information regarding events and resource matters, consistent with the Shoreline Management Plan required by Article 416; and (4) a provision to review and update the plan every 10 years.

The Public Education and Outreach Plan must be developed after consultation with the Alabama Department of Conservation and Natural Resources and the U.S. Fish and Wildlife Service. The licensee must include with the plan an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the agencies above, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval the licensee must implement the plan, including any changes required by the Commission.

Reasoning for Alabama Power Modifications

- Edits have been made to make this article consistent with Alabama Power's Martin and Warrior licenses.
- Alabama Power proposes to remove the requirement that the plan include "a schedule for regular distribution of the project information described in item 3 to stakeholders". This requirement implies that there would be hard copy materials associated with the plan. As indicated in its public education plans for the Martin and Warrior Projects, Alabama Power has moved to electronic distribution of material through its website and mobile application, which are updated as needed. A strict requirement for "regular distribution" of material is counterintuitive to this approach.
- Alabama Power proposes to remove the BLM from the list of consulting agencies. While there are federal lands within the Project boundary (see sheet 9 of the Exhibit G filed March 23, 2022), the lands would not be subject to any of the requirements of the plan.

ARTICLE 418: PROGRAMMATIC AGREEMENT

The licensee shall implement the “Programmatic Agreement Between the Federal Energy Regulatory Commission and the Alabama State Historic Preservation Office for Managing Historic Properties That May Be Affected by Issuing a New License to Alabama Power for the Continued Operation of the R.L. Harris Hydroelectric Project in Randolph, Clay, Cleburne, and Jackson Counties, Alabama (FERC No. 2628-066),” executed on INSERT DATE , including, but not limited to, a Historic Properties Management Plan (HPMP) for the project. Pursuant to the requirements of this Programmatic Agreement, the licensee must file, for Commission approval, a HPMP within one year of issuance of this order.

The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HPMP, the licensee must obtain approval from the Commission and the Alabama State Historic Preservation Officer (SHPO) before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project’s Area of Potential Effect (APE). In the event that the Programmatic Agreement is terminated after approval of the HPMP, the licensee shall continue to implement the provisions of its approved HPMP.

Reasoning for Alabama Power Modifications

- This article has been revised to match conforming language in other Alabama Power FERC hydropower licenses.
- Language has been added to account for termination of Programmatic Agreement both before FERC approves the HPMP and after approval of HPMP.
- The list of specific measures (1) through (7) to be included in the revised HPMP has been removed. These measures are either required by the Programmatic Agreement or can be achieved with updates to the draft HPMP. FERC must approve the final HPMP and can confirm that these measures are included when reviewing and approving the HPMP.
- Specifically, with respect to measures (1), (2) and (6) of the draft license article--regarding National Register determinations for 9 sites to be removed from the project boundary, updates on sites that remain “unevaluated” but have been removed from the consideration, and SHPO determinations of eligibility for the proposed removal of 17 tracts and for 9 potentially affected sites--Alabama Power provides the following response:
    - These measures are already covered by Stipulations I.C.2. and I.C.3. of the draft Programmatic Agreement, which require the HPMP to include the following:
        - I.C.2.: "An updated table of all identified cultural resources within the APE and specific reasons why any have been removed from consideration, including references to concurrence by the Alabama SHPO"
        - I.C.3.: "Completion, if necessary, of identification of historic properties within the Project's APE, including National Register evaluations of unevaluated properties"
    - Further, the final version of Alabama Power’s “Cultural Resources Assessment and Testing of Tracts to be Removed” report, filed on June 16, 2022, incorporated comments by the SHPO and Muscogee (Creek) Nation. Prior to any ground-disturbing activities or selling the property, Alabama Power will consult with appropriate parties regarding any potential impacts to any historic properties to be removed from the Project Boundary.

- On Page 3-82 of the DEIS, FERC notes 119 sites to be removed from additional consideration. The removal of recorded sites from consideration for additional field review was determined in conjunction with the SHPO and consulting tribes during the consultation process leading up to the field work. Sites removed from the list for additional review included:
  - Sites located at elevations below winter low pool levels that would not be exposed during any time of normal reservoir operations.
  - Sites with additional information found in reports and documents supplemental to the Alabama State Site File (ASSF). These are sites recommended as ineligible for listing on the National Register of Historic Places (NRHP).
  - Sites that were not in the defined Harris Project APE determined by FERC, SHPO, Alabama Power, and consulting tribes.
  - Notably, and as explained below, several sites were added for additional consideration based on requests from the Muscogee (Creek) Nation.
- The Harris Project relicensing record explains how sites were added or removed from consideration. In sum, and as described below, Alabama Power revisited and/or evaluated all 330 sites previously recorded within the APE, and, after consultation with FERC, SHPO, and the consulting tribes, chose 101 sites for further assessment (including 96 from the original 330 and 5 sites added at the request of the Muscogee (Creek) Nation). From these 101 sites, 52 were selected for additional assessment (which includes 11 sites discovered during OAR's assessment of the 101 sites):
  - "Previously recorded sites that fall within APC's fee owned lands or select flowage easement were **revisited, evaluated**, and recommendations generated as to the National Register of Historic Places (NRHP) eligibility of the historic properties. Within the RL Harris project lands on RL Harris Reservoir, 330 previously recorded archaeological sites **had been documented**.[7] After consultation between the Cherokee Nation, Eastern Band of Cherokee Indians, United Keetoowah Band of Cherokee Indians in Oklahoma, Alabama-Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Kialegee Tribal Town, Muscogee (Creek) Nation [MCN], Poarch Band of Creek Indians, and Thlopthlocco Tribal Town, the Alabama Historical Commission, FERC, and APC[,] 96 previously recorded sites were selected for a preliminary assessment to determine location, setting, and disposition. In addition, the MCN requested that several sites on APC hunting lands outside the area of normal reservoir operations be revisited to determine their disposition. After the preliminary assessment, four of those sites which were not already on the list for revisit were included in the current cultural resources assessment. Subsequent to that, another site was added as the possible site of a historic Mvskoke town for a total of 101 sites. This total does not include 11 sites discovered during OAR's subsequent survey of the reservoir. The 52 previously recorded sites were selected based on the potential to retain integrity or were identified by the MCN as sites of particular interest and were assessed in accordance with the research design. Although the reservoir includes project lands in Clay, Cleburne, and Randolph counties, all 52 sites fell within Randolph County. Information

[7] 29 surveys were previously conducted in and around the Harris APE.

regarding those sites that were not determined to warrant additional testing was shared by APC with consulting parties to determine if any additional information was needed to determine them ineligible for inclusion to the NRHP, inaccessible (e.g. inundated), or outside RL Harris's area of potential effect." (From Appendix C of Harris HPMP, "A Cultural Resources Assessment of Select Sites on the Alabama Power Company Lands in the R.L. Harris Reservoir in Randolph County, Alabama")

- Regarding Skyline, in 1992, the Skyline Wildlife Management Area was subjected to a cultural resources assessment which documented 141 archaeological sites on Alabama Power property. Of the 141 sites, 26 were considered to be potentially eligible for listing on the NRHP. In consultation with FERC, consulting tribes, and the SHPO, the 26 sites were selected for revisit. In addition, 198 caves were recorded within Alabama Power owned lands. In consultation, 11 of those caves were selected for revisit with 4 additional caves considered as alternates in case some could not be revisited. Finally, bluff lines with the potential for containing precontact rock art sites were considered. Again, in consultation, a selection of four bluff lines, totaling 2.67 kilometers (1.66 miles) were selected for field investigations. The four areas were selected based on geomorphology (near access points to the uplands within areas of exposed sandstone caprock).

- On Page 3-83 of the DEIS, FERC states the ASSF indicates some sites still may not be evaluated. Please note that the ASSF reflects records submitted to the ASSF by federal, state, professional, academic, and lay persons. The information in the ASSF does not reflect all available information, and is only as accurate as the information that is provided. Notably, Alabama Power, in consultation with SHPO and the consulting tribes, has reached ineligible determinations for several sites that are still listed as "undetermined" on the ASSF.
- Similarly, it is unclear to Alabama Power what FERC means when referring to sites as "unevaluated." All sites have already been evaluated to some extent—otherwise they would not be recorded and documented. If FERC means "undetermined," that term is an official NHPA determination, and Alabama Power considers undetermined sites as potentially eligible for listing under NHPA until a different determination is made.
- Additionally, the revised final HPMP will incorporate similar items requested by FERC, including: Alabama SHPO's October 28, 2022 determinations of eligibility for 224 sites (47 eligible sites, 173 ineligible sites) within the project APE at Harris Lake, downstream from Harris Dam, and at Skyline; discussion of Alabama Power's cultural resources investigations of lands proposed for removal from the project boundary; and the National Register determinations provided for 9 sites (2 previously recorded sites, 7 new sites) located on these lands; and methods of disseminating information to the public.

- Regarding measures (2) and (3) with respect to appropriate treatment measures and addressing current project-related impacts, Alabama Power provides the following response:
  - These measures are covered by Stipulations I.C.6. & I.C.7. of PA, which require the HPMP to include the following:
    - I.C.6.: "Treatment of historic properties threatened by Project-induced shoreline erosion, and other Project-related ground-disturbing activities, including but not

limited to all-terrain vehicle (ATV) use, vandalism, and the removal of historic properties from federal oversight."

- I.C.7.: "Consideration and implementation of appropriate treatment that would minimize or mitigate unavoidable adverse effects on historic properties."

- Alabama Power will continue to comply with the requirements of the current license (Article 62), which requires consultation with SHPO to protect historical properties.
- As already determined through consultation with the SHPO and consulting tribes, Alabama Power will address any project-related impacts through implementation of the HPMP, when approved.

- Regarding measure (4)--Alabama Power's plan to develop mitigation contracts with private landowners for an additional 10 downstream sites--Alabama Power provides the following response:
  - Under Alabama law, written consent of a landowner is required prior to conducting any surveys on private lands. Ala. Code § 41-9-249.1. Therefore, Alabama Power must first obtain permission from the landowner before conducting cultural resource surveys or implementing protection measures on any private lands. Alabama Power intends to seek permission from private landowners to survey these 10 downstream sites. However, in cases where landowners deny appropriate access, Alabama Power will not be responsible for addressing impacts to the historic property, if any. As noted in the draft HPMP, where access is granted, Alabama Power will develop mitigation contracts with landowners, as needed, if it is determined that the project is causing impacts to a historic property. Notably, however, cultural resources located on private properties in Alabama are not protected, and any artifacts found on private lands belong to the landowner. Thus, the best approach to protect cultural resources on private lands is to develop a best management practices brochure for managing historic properties on private lands (e.g., provide advice to owners and encourage the protection, rehabilitation, restoration or maintenance of cultural properties on private lands), which Alabama Power has proposed to do in the draft HPMP.
- With respect to measure (5), deleting the exemption from consultation for reservoir fluctuations and drawdowns, Alabama Power provides the following response:
  - On Page 3-85 of the DEIS, FERC states:

    "As reservoir fluctuation and drawdowns are associated with project operations, the potential effects associated with these operations require consideration under section 106. Inclusion in the HPMP of an exemption from consultation for reservoir fluctuation and drawdowns would not acknowledge the impacts of these activities on historic properties and would be inconsistent with Alabama Power's proposal to assess the 132 inundated sites should they become exposed. Deletion of the exemption in Appendix F from consultation regarding reservoir fluctuations and drawdowns, and the inclusion in the section 4.1 (*Evaluation Procedures*) of requirements and specific protocols to assess inundated sites when they are exposed and also to formally assess the effects of known erosion/deflation that was observed on eligible or unevaluated sites would ensure that affected sites that are eligible or potentially eligible for listing on the National Register are appropriately addressed in accordance with section 106."

    As agreed upon in consultation with SHPO and consulting tribes, Alabama Power included exceptions for "**fluctuation of reservoir levels associated with routine**

operation of the Project" and "**standard seasonal drawdowns based on the respective Operating Curve**," because no known historic properties would be affected. At the Harris Project, the routine operation of the Project and standard seasonal drawdowns do not lower lake elevations enough to expose previously inundated sites. Should those sites be exposed during drought or some other extreme condition, Alabama Power will formally assess the effects.

- Regarding measure (6)--requesting the results of additional consultation with the Muscogee (Creek) Nation regarding Traditional Cultural Properties (TCPs), and plans to consult with other tribes regarding TCPs--Alabama Power provides the following response:
    - On April 10, 2020, Alabama Power filed the "Traditional Cultural Properties (TCP) Identification Plan." The plan was developed in consultation with the consulting tribes and establishes procedures for identifying TCPs in the APE for the Harris Project. This consultation is discussed in the draft Harris HPMP and the plan is included as Appendix E of the HPMP.
    - The revised final HPMP will include, to the extent determined appropriate, inclusion of the results of consultation between Alabama Power and the Muscogee (Creek) Nation to manage identified TCPs.
- Finally, with respect to measure (7) to develop a schedule for completion of all HPMP actions, Alabama Power notes that a detailed schedule for the completion of all actions required in the HPMP will be included in the final revised HPMP.
- Additional items of concern with respect to FERC's comments and proposed alternatives with respect to cultural resources and NHPA Section 106 include the following:
    - On Page 3-86 of the DEIS, FERC notes the need for a monitoring plan and states that monitoring should be conducted by a qualified archaeologist or cultural resources specialist. As previously determined in consultation with SHPO and consulting tribes, Section 4.4 of the HPMP covers management and monitoring protocols for historic properties in the Harris APE. The HPMP Coordinator, who is designated by Alabama Power and is trained in historic preservation and management of historic properties, establishes and coordinates the monitoring program. While the monitoring program is developed in consultation with a qualified archaeologist and/or cultural resources specialist, the HPMP Coordinator is responsible for training various Alabama Power personnel on monitoring for any disturbances in or around historic properties in the APE. It is both impractical and not required by regulations to have a qualified archaeologist and/or cultural resources specialist conduct monitoring around the entire span of the Harris Project APE. As also noted in Section 4.4 of the HPMP, Alabama Power will immediately report all observed suspected vandalism or looting to the SHPO. If appropriate, Alabama Power will work together with a qualified archaeologist and/or cultural resources specialist to determine any impacts of suspected vandalism or looting.
    - On Page F-36 of the DEIS, FERC notes that the Skyline WMA is not part of the Harris Project Boundary. The Harris Project contains 15,063 acres of land within the James D. Martin-Skyline WMA located in Jackson County, Alabama.

ATTACHMENT C

CORRECTIONS AND CLARIFICATIONS

Clarification of Project Lands Proposal

It is unclear whether FERC staff intends for the new license to incorporate the Project boundary changes proposed by Alabama Power. For example, Draft Article 415 in the DEIS indicates that the Shoreline Management Plan "must also reflect the project boundary modifications and the reclassification of project lands as described in section 2.2.2 Proposed Project Boundary Changes and 3.3.6.2 Project Boundary Revisions." Section 2.2.2 generally describes Alabama Power's proposed project boundary changes and Section 3.3.6.2 provides more detail on these changes and FERC staff's analysis of the changes. Both sections discuss additions *and* removals. However, Draft Article 413 in the DEIS states that the Wildlife Management Plan must be approved and surveys for several federally listed species (red-cockaded woodpecker, gray bat, Indiana bat, northern long-eared bat, tri-colored bat, and white-fringeless orchid) must occur prior to any land being removed from the Project. Further, Appendix I indicates that Alabama Power's proposed changes to the project boundary reflect land needed to fulfill project purposes, but only discusses land additions and caveats the project land removals on surveys for federally listed species. As explained in Attachment B, Article 414, surveys should not be required prior to removing land from the project boundary because that action is not an action that could cause "take" of a species.

In addition, Alabama Power would like to ensure that FERC staff have a clear understanding of how Alabama Power's proposed additions and removals of project lands affect the project boundary and associated land classifications, especially as the proposal relates to the classifications of Flood Storage and Scenic Easement. For example, on Page 3-76 of the DEIS, FERC indicates that Alabama Power's proposal would "reduce the shoreline buffer where project infrastructure and recreation facilities are not located along the shoreline" and (when discussing project land removal) "Land adjacent to the reservoir shorelines would be reduced to the 800 feet contour, unless additional land above the 800 feet contour is needed to enclose adjacent project features." Further, Page 3-77 of the DEIS states:

> However, the proposed reclassification of these additions may be incorrect since Alabama Power states that all portions of land additions or removals below 800 feet would still be considered project lands and would remain within the project boundary. All lands between 793 feet and 795 feet reclassified to flood storage and lands between 795 feet and 800 feet reclassified to scenic easement. Therefore, Alabama Power's proposal to change from flood storage or scenic easement to another classification seems inconsistent with that statement.

As described in the license application, Alabama Power maintains a scenic easement at Lake Harris on land located between the 795-feet msl contour and the 800-feet msl contour (or 50 horizontal feet from 793-feet msl, whichever is less, but never less than 795-feet msl). It is important to note that all lands below the 800 ft msl contour are currently project lands (with the exception of lands where the project boundary is 50 feet from the 793 ft msl contour) and will remain project lands. Under the existing license, as part of the existing Land Use Plan, there are significant land parcels that are classified in their entirety according to their use (in other words, a parcel that is classified as Natural Undeveloped does not have a flood storage or scenic easement classification below the 800 ft msl contour).

The classifications of flood storage and scenic easement were not formally used in the existing Land Use Plan, but they were defined in the existing Harris license under Article 50. In the license application, all project lands below the 800 ft msl contour were labeled as flood storage or scenic easement to allow for

comparison to the proposed land use classifications. In other words, for parcels of land adjacent to the reservoir that are proposed to be removed, the portion of the parcel that will remain in the project boundary will be reclassified to either flood storage or scenic easement and not “reduce the shoreline buffer” but would reclassify the portion of the land below the 800 ft msl contour to flood storage and scenic easement. Also, if a parcel is proposed to be removed, there would be no “additional land above the 800 feet contour” needed for project purposes.

For example, Land Parcel ID R2, as identified in Table 13-6 and Page 12 of 26 in Appendix G of the Exhibit E filed on December 27, 2022, is a small parcel of land that is currently classified as Recreation (meaning the portion of the parcel below the 800 ft msl is also classified as Recreation). When removed, the land below the 800 ft msl contour will remain project land to be consistent with current and proposed license requirements but will be “reclassified” as Flood Storage (the strip between the 793 ft msl and 795 ft msl contours) and Scenic Easement (between the 795 ft msl and 800 ft msl contours).

For the parcels of land proposed to be added to the Project, the entire parcel will be reclassified to its proposed Project use, including the area below the 800 ft msl contour that was already in the Project and labeled as Flood Storage and Scenic Easement to allow for comparison to the proposed land use classifications. As an example of an addition, Land Parcel ID A2, as identified in Table 13-6 and Page 20 of 26 in Appendix G of the Exhibit E filed on December 27, 2022, is a small parcel of land that is proposed to be added and classified as Natural/Undeveloped. Currently, as described above, the portion of the parcel below the 800 ft msl contour is already project land and is “classified” as Flood Storage (between the 793 ft msl and 795 ft msl contours) or Scenic Easement (between the 795 ft msl and 800 ft msl contours). When this parcel is added to the project, these areas will be reclassified to Natural/Undeveloped so that the entirety of the parcel has a uniform classification, consistent with how Alabama Power has treated Project land under the existing license.

Other Clarifications and Recommended Corrections

Alabama Power is providing additional clarifications and recommended corrections below so that the final EIS and license order are as accurate as possible when issued.

- On Page 1-1 (Section 1.1): FERC states there are “7,371 acres of Alabama Power-owned land”. This is Alabama Power owned non-inundated land; there are an additional 9,870 acres of inundated Alabama Power-owned land at Lake Harris.

- On Page 1-1 (Footnote 12): FERC states that the Skyline WMP was approved by the Commission on June 29, 1990 and provides an Accession No. from 2018. The 2018 filing was a response to a FERC AIR in this licensing proceeding; the correct Accession No. is 19900705-0443.

- Page 2-2 (continuing from Section 2.1.1.1): FERC includes the R.L. Harris Wildlife Management Area as a project recreation site managed by Alabama Power and the ADCNR. The R.L. Harris Wildlife Management area is not managed by the ADCNR. The partnership referenced in the Draft Recreation Plan means that the ADCNR registers hunters with physical disabilities through its statewide Physically Disabled Hunting and Fishing Trail. Reservations for the site are handled by Alabama Power and site operation maintenance is conducted by Alabama Power.

- Page 2-2: Alabama Power would like to clarify that due to recent generator stator rewinds on both Unit 1 and Unit 2, the current installed capacity for the Harris Project has increased from 135 MW to 142.5 MW. Prior to the rewinds, each unit was generator limited, meaning the generator had a smaller nameplate capacity (67.5 MW), compared to the turbine nameplate capacity (71.25 MW), as described by FERC in the DEIS. As a result of the rewinds, each generator is now currently rated at 84,450 kilovolt-amperes, with a power factor of 0.9 and therefore has a nameplate capacity of 76.005 MW. Due to the increase in nameplate capacity on each generator, both units are now turbine limited and therefore the installed capacity for the Harris Project is 142.5 MW. Alabama Power will reflect the updated installed capacity, along with any decisions on changes to Project lands in an updated Exhibit A post license issuance.

- Page 2-2 (Section 2.1.2): FERC states that the existing license was issued in 1968. The existing license for the R.L. Harris Project was issued on December 27, 1973.

- Page 2-4 (Section 2.1.3.3): FERC indicates that “navigation support is suspended” if any of the drought triggers are met. This should read “normal operations and navigation support is suspended”.

- Page 2-9 to 2-10 (Section 2.2.5): The mandatory conditions from the 401 water quality certification should not be paraphrased but should be included verbatim as written in the certification.

- Page 3-19 (in the Flood Management section) and throughout DEIS: FERC indicates that the ADCNR recommends that monitoring of flows take place at a gage downstream of the Harris powerhouse, but in other sections of the DEIS indicates that the ADCNR recommends seasonal flows at the Wadley gage. While the ADCNR does indicate two different locations in its March 23, 2023 comments, Alabama Power would like to clarify that there is not a gage immediately downstream from the powerhouse and any required flow will be released from Harris Dam and not measured at the Wadley gage. Releases from Harris Dam are either calculated using an industry accepted formula based on kilowatts, efficiency of turbine and generator, weight of water, and effective head (if releases are made from a hydroelectric unit) or based on the Gate Opening Schedule from the Harris Water Control Manual (if releases are made through a spillway gate).

- Page 3-65 (in the *Our Analysis* section): FERC seems to indicate the proposed day use park and boat ramp would increase parking at Highway 48 Bridge Boat Ramp (“Alabama Power’s proposal to develop a day use site at Highway 48 Bridge would *increase parking from 30 spaces to about 150 spaces* and provide new recreational features including a swimming area, boat launch, boat launch pier, and fishing piers.” [emphasis added]). Alabama Power would like to clarify that the proposal is not to expand Highway 48 Bridge Boat Ramp but to develop an additional project recreation site in the area.

- Page 3-73 (in the *Shoreline Classifications* section): The description of the shoreline classification of Recreation is inconsistent with proposed SMP. The description should match the proposed SMP.

- Page 3-74 (in the *Shoreline Compliance and Permitting and BMPs* section): FERC indicates that "Alabama Power requires that permittees maintain a minimum of 15 feet of unmanaged vegetation that would serve as a shoreline buffer zone on Alabama Power-owned lands." This statement misconstrues the BMP included in the draft SMP. The *recommended* (not required) "buffer set back" of 15 feet measured horizontally from the full pool elevation is for private property owners and not on Alabama Power owned lands. The only requirement on private property, as indicated in footnote 12 in the draft SMP, is related to the scenic easement. The statement would be correct if it read "Alabama Power recommends that property owners establish or maintain a buffer set back of at least 15 feet measured horizontally from the full pool elevation."

- Page B-2 (continuing from **Clean Water Act** section): The filing on December 4, 2023 contained ADEM's Water Quality Certification; the certification conditions are not "preliminary".

- Page I-3 (continuing from **Measures Proposed by the Applicant** section under **Land Use and Aesthetics**): FERC indicates that Alabama Power's proposal is to "Implement proposed land additions to the project boundary and incorporate into Exhibit G." This should be "Implement proposed land additions, removals, and reclassifications to the project boundary and incorporate into Exhibit G".