

153 FERC ¶ 61,298
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

Alabama Power Company

Project No. 349-173

ORDER ISSUING NEW LICENSE

(Issued December 17, 2015)

Introduction

1. On June 8, 2011, Alabama Power Company (Alabama Power) filed, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),¹ an application for a new license to continue operation and maintenance of the 182.5-megawatt (MW) Martin Dam Hydroelectric Project No. 349. The project is located on the Tallapoosa River in Tallapoosa, Elmore, and Coosa Counties, Alabama, near the cities of Alexander City and Dadeville, and occupies 1.39 acres of federal land administered by the U.S. Bureau of Land Management (BLM).²

¹ 16 U.S.C. §§ 797(e) and 808 (2012).

² The Tallapoosa River is a navigable waterway of the United States. As noted in *Alabama Power Company*, 33 FPC 71, 72 (1965), the United States has improved the Tallapoosa River for navigation from its mouth to a point 48 miles upstream therefrom. In addition, although there are two 1.5-mile-long stretches of whitewater on the Tallapoosa River, the entire Tallapoosa River is navigable, as noted in a 2009 travel journal describing an 11-day canoe trip down the Tallapoosa River. Alabama Whitewater Paddling Guide, www.alabamawhitewater.com; <http://www.alabamascenicrivertrail.com/uploadedFiles/File/Travel.Journal.Harold.Banks.pdf>. Under section 23(b)(1) of the FPA, 16 U.S.C. § 817(1) (2012), a project is required to be licensed if, as pertinent here, it is located on a navigable waterway, or occupies federal land.

2. As discussed below, this order issues a new license for the project.

Background

3. On June 9, 1923, the Federal Power Commission (FPC), predecessor to the Federal Energy Regulatory Commission (Commission), issued the original 50-year license to Alabama Interstate Power Company for the Martin Dam Project.³ On June 22, 1923, the FPC authorized the transfer of the license to Alabama Power.⁴ On May 11, 1978, the Commission issued a new 40-year license.⁵ On June 8, 2011, Alabama Power filed its relicense application. The existing license expired June 8, 2013, and since that time the project has been operating under annual licenses.⁶

4. On February 8, 2012, the Commission issued a public notice⁷ accepting the application for filing, indicating the application was ready for environmental analysis, and establishing an April 9, 2012 deadline for filing motions to intervene, comments, and final recommendations, terms and conditions, and prescriptions. The U.S. Department of the Interior (Interior) filed a notice of intervention.⁸ Timely motions to intervene were filed by Alabama Department of Conservation and Natural Resources (Alabama Department of Conservation); Alabama Rivers Alliance; American Rivers; Atlanta Regional Commission; Downstream Landowners;⁹ Georgia Department of Natural

³ Federal Power Commission, 3 Annual Report 101, at 174 and 258 (1923).

⁴ *Id.* at 195 (1923).

⁵ *Alabama Power Company*, 3 FERC ¶ 61,137 (1978). The license was effective June 8, 1973.

⁶ 16 U.S.C. § 808(a)(1) (2012).

⁷ 77 *Fed. Reg.* 8246-8247 (February 14, 2012).

⁸ Under Rule 214(a)(2) of the Commission's Rules of Practice and Procedure, Interior became a party to the proceeding upon timely filing its notice of intervention. 18 C.F.R. § 385.214(a)(2) (2015).

⁹ The Downstream Landowners group includes 19 landowners, farmers, and businesses: Euel A. Screws, Jr.; W. Thomas Dozier III; W. T. Dozier Farm, Inc.; Parmer G. Jenkins; R. Shepherd Morris, Sr.; Morris & Morris Farms, Inc.; Daniel G. Taylor; Mark B. Taylor; Carl E. Taylor; Milstead Farm Group, Inc.; Dale M. Taylor; Jimmy M.

(continued ...)

Resources, Environmental Protection Division (Georgia DNR); Lake Martin Home Owners and Boat Owners Association (Lake Martin Owners Association); Lake Martin Resource Association, Inc. (Resource Association); and World Wildlife Fund, Inc.¹⁰ In addition, the Alabama-Coushatta Tribe of Texas, Alabama Office of Water Resources, Coosa River Paddling Club, and the U.S. Army Corps of Engineers (Corps) filed comments on the application. Alabama Power filed reply comments on May 23, 2012.

5. Commission staff issued a draft Environmental Impact Statement (EIS) on June 6, 2013, analyzing the potential environmental impacts of the proposed project, and setting a deadline of August 13, 2013, for comments and additional interventions. A public meeting on the draft EIS was held in Alexander City, Alabama, on July 17, 2013.¹¹ Comments on the draft EIS were filed by the Alabama Department of Conservation; the Alabama Historical Commission; the Alabama Office of Water Resources; the Atlanta Regional Commission; Congressman Mike Rogers, 3rd District, Alabama; Georgia DNR; Governor Robert Bentley; Interior; Lake Martin Owners Association; Resource Association; Lake Watch of Lake Martin; Senator Richard C. Shelby; the Southern Environmental Law Center, on behalf of the Alabama Rivers Alliance and American Rivers (Conservation Groups); the Corps; the U.S. Environmental Protection Agency, Region 4 (EPA); and over 750 individuals.

6. On April 2, 2015, Commission staff issued a final EIS. Alabama Power, the Conservation Groups, and EPA filed comments on the final EIS. On September 3, 2015, the Lake Martin Owners Association responded to Alabama Power's comments on the final EIS. Alabama Power filed a response to the Lake Martin Owners Association on October 15, 2015, and the Lake Martin Owners Association responded to Alabama Power on October 27, 2015.

7. The interventions, comments, and recommendations have been fully considered in determining whether, and under what conditions to issue the license.

Dozier; Judy P. Bryan; Auttossee Plantation; L. A. Wisener; Howard T. Weir, III; Anne Weir; Charles E. Herron, Jr.; and Rock Springs Land & Timber, Inc.

¹⁰ Timely, unopposed motions to intervene are granted by operation of Rule 214(c) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c) (2015).

¹¹ The meeting was recorded and a transcript is in the Commission's e-Library.

Project Description**A. Project Area**

8. The Tallapoosa River Basin drainage encompasses approximately 4,675 square miles in east-central Alabama and western Georgia. The major tributaries of the Tallapoosa River include the Little Tallapoosa River and the Sougahatchee, Sandy, Uphabee, and Hillabee Creeks. The headwaters of the Tallapoosa and Little Tallapoosa Rivers begin in Paulding and Carroll Counties, Georgia, and enter Alabama in Randolph County to form the main stem of the Tallapoosa River.

9. The Tallapoosa River flows southwesterly in Alabama, passing through four Alabama Power-owned hydroelectric developments. From upstream to downstream, they are: (1) the R.L. Harris Hydroelectric Project No. 2628, whose dam is at river mile (RM) 139.1; (2) the Martin Dam Project, whose dam is at RM 60.6; (3) the Yates Development of the Yates and Thurlow Hydroelectric Project No. 2407, whose dam is at RM 52.7; and (4) the Thurlow Development of Project No. 2407, whose dam is at RM 49.7.

10. The confluence of the Tallapoosa and Coosa Rivers is located approximately 50 miles downstream of Thurlow Dam, where the rivers meet to form the Alabama River. The Alabama River flows west/southwest to Mobile Bay, where it enters the Gulf of Mexico.

B. Project Facilities

11. The Martin Dam Project includes a dam, powerhouse, impoundment, and recreation facilities, described in more detail below.

12. The project includes Lake Martin, an approximately 31-mile-long, 41,450-acre reservoir at the maximum full pool elevation of 491 feet mean sea level (msl).¹² Lake Martin is formed by a 2,255-foot-long concrete gravity dam and earth dike section (Martin Dam), which includes a 720-foot-long gated spillway section with 20 vertical lift spillway gates, a 255-foot-long concrete gravity non-overflow section, an approximately 1,000-foot-long earth embankment on the left abutment, and a 280-foot-long concrete gravity intake structure with 12 intake gates fitted with trashracks. There are

¹² Unless otherwise stated, all references to reservoir elevations, herein, are in mean sea level.

two, 450-foot-long transmission lines that lead from the powerhouse to the project's switchyard; and appurtenant facilities include a low auxiliary dam that forms a stilling basin for spillway discharges, and a powerhouse access road.

13. Water from Lake Martin flows through the 12 intake gates to 4 steel penstocks that supply water to the generating units at the project powerhouse. The powerhouse abuts Martin Dam on the downstream side, and houses four vertical Francis turbine generating units. Each of the generating units contains a draft tube aeration system.¹³

C. Project Recreation Sites

14. Under the current license, Alabama Power operates and maintains, or provides for the operation and maintenance of, 12 project recreation sites: Anchor Bay Marina, Camp Alamisco, Camp ASCCA, DARE Boat Landing, DARE Power Park, Kamp Kiwanis, Maxwell Gunter AFB Recreation Area, Parker Creek Marina, Pleasure Point Park and Marina, Real Island Marina and Campground, Scenic Overlook, and Union Ramp. These sites offer a variety of recreation amenities, including boat ramps, bank fishing sites, campsites, parking areas, and picnic areas.

D. Project Boundary

15. The project boundary encloses 49,752 acres of land. Of this, 41,150 acres are inundated by the reservoir, and 8,602 acres are Lake Martin shoreline above the reservoir's high water mark (491-foot contour). The project boundary generally follows the 491-foot elevation contour line around the reservoir, except where it encloses additional lands that serve project purposes (e.g., land occupied by project facilities and recreation areas, and land needed for the management and protection of wildlife and natural resources).

E. Current Project Operation

16. Alabama Power operates the Martin Dam Project as a peaking facility that produces electricity during times of peak demand. Alabama Power maintains the elevation of Lake Martin between the bounds of a flood control curve and an operating curve. The project typically generates power Monday through Saturday to meet peak power demands.

¹³ Draft tubes are vertical cylinders located below aerators that allow the aeration system to draw water from below the surface to increase dissolved oxygen levels.

17. During generation, the four project turbines release a flow of up to about 17,900 cubic feet per second (cfs). Hours of generation each day depend principally on reservoir inflows, which can vary substantially between wet and dry periods of the year. During the wetter periods (normally December through April), the project generates 8 to 12 hours daily on weekdays and 5 to 7 hours on Saturday. During the drier periods (normally May through November), daily generation is typically reduced to 4 to 6 hours, Monday through Saturday.

18. Flows from Martin Dam during periods of generation provide most of the flow to the Yates and Thurlow Developments,¹⁴ located 7.9 miles and 10.9 miles downstream, respectively. The Yates Development includes a 2,000-acre reservoir and a 45.5-MW powerhouse with a hydraulic capacity of about 12,400 cfs. Yates Dam releases flow directly into the Thurlow Development, which has a 574-acre reservoir and an 85-MW powerhouse with a hydraulic capacity of about 13,200 cfs.

19. The license for the Martin Dam Project does not have a minimum flow release requirement. However, releases from the project help meet the minimum flow requirement of the downstream Thurlow Development of Project No. 2407. Article 401 of the 1994 license for the Yates and Thurlow Project No. 2407 requires the licensee to provide a continuous 1,200-cfs minimum flow release from the Thurlow Dam¹⁵ to protect aquatic resources in the downstream riverine reach. Inflows to Project No. 2407 consist of flows from tributaries to the Tallapoosa River and releases from Martin Dam.

20. Article 12 of the license for the Martin Dam Project reserved the right to use water in an amount determined by the Secretary of the Army, as necessary for the purposes of navigation.¹⁶ An agreement between Alabama Power and the Corps, reached April 18, 1972, requires a combined release from dams on the Tallapoosa and Coosa Rivers to provide for navigation on the Alabama River.¹⁷

¹⁴ As discussed above, the Yates and Thurlow Developments are licensed to Alabama Power as Project No. 2407. *See Alabama Power Company*, 66 FERC ¶ 62,068 (1994).

¹⁵ *See Alabama Power Company*, 66 FERC at 64,210.

¹⁶ *Alabama Power Company*, 3 FERC at 61,421. Ordering Paragraph D incorporates by reference, Article 12 from Form L-5, 54 FPC 1832 (1975).

¹⁷ *See* final EIS at 21.

21. On a seasonal basis, water levels in Lake Martin can fluctuate by as much as 10 feet between elevations 481 and 491 feet. The project's average annual generation is approximately 375,614 megawatt-hours (MWh).

1. Project Operation Guide Curves

22. Alabama Power uses three guide curves to guide operation of the Martin Dam Project: (1) a flood control curve; (2) an operating curve; and (3) a drought curve.¹⁸ The flood control curve reflects the maximum elevation at which Lake Martin can be maintained before the implementation of flood control measures. The operating curve generally follows the same path as the flood control curve, but varies from 0.5 foot to 4 feet below the flood control curve (depending on the time of year). The area between the flood control curve and the operating curve represents the range in which Alabama Power operates Lake Martin under normal conditions. Alabama Power maintains water levels at or near the flood control curve to optimize project benefits, including recreation and power production, while also maintaining a likelihood of being able to refill Lake Martin to near full pool (i.e., 491 feet) before the summer recreation season.

23. As guided by the flood control curve, Alabama Power draws down Lake Martin during the winter to provide storage capacity in the reservoir for potential floods. Specifically, between September 1 and December 31 of each year, the elevation of Lake Martin is gradually lowered from a maximum of 491 feet to 481 feet, according to the flood control curve. The flood control curve stays at elevation 481 feet between December 31 and February 17. From February 17 to April 28, the flood control curve gradually rises back up to elevation 491 feet. The flood control curve remains at a maximum elevation of 491 feet until September 1.

24. Under the current license, when the elevation of Lake Martin exceeds the flood control curve, Alabama Power operates for seasonal flood control in the following manner (Seasonal Flood Control Operations):¹⁹

¹⁸ The flood control and operating curves are included in the project's current license. See Alabama Power's revised Exhibit H, dated January 23, 1973, and filed February 16, 1973 (revising its 1973 relicense application). The drought curve is not a current license requirement, but has served as a guide for addressing recent drought concerns. See final EIS at 15.

¹⁹ See Alabama Power's revised Exhibit H, dated January 23, 1973, and filed February 16, 1973 (revising its 1973 relicense application).

- Between elevations 481 and 486 feet, the turbines at Martin Dam are operated to provide a continuous outflow from Thurlow Dam of a volume at least equal to the hydraulic capacity of the turbines at Yates Dam (i.e., about 12,400 cfs).
- Between elevations 486 and 489 feet, the turbines at Martin Dam are operated to provide continuous outflow from Thurlow Dam of a volume at least equal to the plant hydraulic capacity at Thurlow Dam (i.e., about 13,200 cfs).
- Above elevation 489 feet, the turbines at Martin Dam are operated as in the above sentence and further, if required to avoid the water level rising above elevation 491 feet, the Martin Dam turbines are operated to provide a volume of outflow from Martin Dam at least equal to the discharge from all available turbine units operating at full gate (approximately 17,900 cfs). In addition, spillway gates are raised so that the reservoir does not exceed elevation 491 feet.

In addition, Alabama Power coordinates its flood control operations with the Corps.²⁰

25. During low-flow operations, Alabama Power uses a drought curve to identify impending hydrologic drought conditions. The drought curve is used by Alabama Power as one of several factors for evaluating drought reservoir operations. Alabama Power has responded to drought conditions in the past by applying for, and being granted, three temporary amendments to raise the winter flood control curve by 3 feet (to 484 feet) so

²⁰ See *id.* at 5, which states:

During flood periods, communications will be maintained with the Weather Bureau's River Forecast Center, Atlanta, Georgia, and the Corps of Engineers, and if greater flood control benefits can be attained through increased coordination of operations at Tallapoosa and Coosa River dams, and increased coordination with the Corps of Engineers' downstream Alabama River dams than would be attained through use of the above flood control procedures, then these procedures will be modified as mutually agreed to verbally by the Corps of Engineers and Alabama Power Company.

that it could operate Lake Martin at a higher winter pool in 2007, 2009, and 2011.²¹ A higher winter pool elevation provides additional assurance that Alabama Power will be able to fill Lake Martin during drought periods.

F. Proposed Project Operation and Environmental Measures

1. Project Operation

26. Alabama Power proposes to continue to operate the project in a peaking mode, but to modify other aspects of project operation as discussed below.

27. Alabama Power proposes to modify the flood control curve in two ways. To enhance late-fall and winter recreation opportunities at Lake Martin, it proposes to implement a 3-foot increase in the flood control curve (i.e., from elevation 481 feet to 484 feet) from the third week of November through February 28 (with a corresponding increase in the drought and operating curves). To enhance recreation opportunities in the late summer/fall months, Alabama Power also proposes a “conditional fall extension” that would increase the flood control curve to 491 feet between September 1 and October 15, provided that certain hydrologic and operational conditions are met. Raising the lake level will allow for additional recreation, including more boating than would otherwise be possible if the lake were at lower levels, when boat docks might be out of the water.

28. To enable more efficient operations during flooding conditions, Alabama Power proposes to make minor changes to its Seasonal Flood Control Operations, including: (1) increasing the minimum elevation at which flood control operations commence during certain times of the year (from 481 feet in the current license, to 484 feet under the new license), to match Alabama Power’s proposed 3-foot increase in the flood control curve; (2) operating the turbines at the Martin Dam Project to provide a variable outflow (i.e., between elevations 486 feet and 489 feet, outflows from Martin Dam must be equivalent to either a hydraulic capacity of Thurlow Dam [13,200 cfs], or Yates Dam [12,400 cfs], depending on whether inflows to Lake Martin are increasing or decreasing, respectively); (3) recognizing that reservoir elevations above the flood control curve (i.e., 491 feet) may be beyond the control of Alabama Power, if all turbines are generating and all spillway gates are raised, but the reservoir continues to rise above 491 feet; (4) adding a protocol stating that, if inflow to Lake Martin is greater than the

²¹ See *Alabama Power Company*, 121 FERC ¶ 62,129 (2007); *Alabama Power*, 126 FERC ¶ 62,104 (2009); and *Alabama Power Company*, 134 FERC ¶ 62,067 (2011).

hydraulic capacity of the project's turbines, then outflow from Martin Dam must not be greater than inflow; and (5) revising the current coordination and communication protocols with the National Weather Service and the Corps by replacing provisions that currently require Alabama Power to coordinate flood control operations with the Corps for greater flood control benefits, with provisions stating generally that Alabama Power will continue its current notification and data sharing practices with the National Weather Service and Corps.

29. Alabama Power also proposes to lower the winter reservoir elevation to 481 feet every 6 years to accommodate non-project maintenance and construction needs (e.g., boat dock maintenance).

30. Alabama Power proposes to implement a drought response plan known as the "Alabama Drought Response Operating Proposal" (Drought Response Proposal) as it pertains to the Martin Dam Project.²² The Drought Response Proposal is a plan to manage Alabama Power's water resources within the Alabama-Coosa-Tallapoosa River Basin during drought conditions. The Drought Response Proposal identifies specific drought indicators to signal when drought response measures should be triggered at Alabama Power's projects in the basin and how aggressive those measures should be.

2. Environmental Measures

31. To ensure maintenance of adequate water quality, Alabama Power proposes to: (1) monitor water temperature immediately downstream of the dam when the project is generating to verify that it continues to meet state standards;²³ (2) monitor dissolved oxygen (DO) immediately downstream of the dam when the project is generating; (3) maintain the state standard for DO in releases from the project; and (4) develop a reservoir water quality monitoring plan prior to implementing the proposed 3-foot increase in the winter pool elevation.

²² See Alabama Power's August 13, 2013 Comments at Attachment B.

²³ Alabama Power's water temperature measurements for the Martin Dam tailrace during generating periods did not exceed the state water temperature standard of 90 degrees Fahrenheit (32.2 degrees Celsius) during 8 years of monitoring (2002-2009). See final EIS at 52.

32. To enhance understanding of the catadromous²⁴ American eel population in the Tallapoosa River, Alabama Power proposes to study American eels in an approximately 50-mile stretch of the Tallapoosa River, from immediately downstream of Martin Dam to the Montgomery Water Works river gauge, located at RM 12.9.

33. To enhance wildlife habitat at the project, Alabama Power proposes to implement a Wildlife Management Program²⁵ that includes: (1) forest management practices on project land that increase longleaf pine habitat for the federally endangered red-cockaded woodpecker; (2) managing Natural/Undeveloped project land for maintenance of water quality and wildlife habitat; (3) developing public hunting opportunities on project land; (4) continuing bald eagle monitoring and management on project land; and (5) implementing best management practices during timber management activities on project land to protect water quality and wildlife habitat surrounding Lake Martin.

34. To prevent the spread of non-native, invasive aquatic plant species, Alabama Power proposes to implement the Nuisance Aquatic Vegetation and Vector Control Management Program for Lake Martin, as filed with its license application.²⁶ As part of the program, Alabama Power proposes to prepare a plan to monitor for increases in nuisance aquatic vegetation in Lake Martin that could result from the proposed 3-foot increase in the winter pool elevation.²⁷

35. To enhance recreation opportunities, Alabama Power proposes to implement a Recreation Plan, filed on December 9, 2011, that includes: (1) continued maintenance of 12 existing project recreation sites; (2) the addition of 6 existing recreation sites as project recreation sites and the reservation of a seventh site for future recreation development; (3) improvements to an existing boat ramp, construction of two bank-

²⁴ Catadromous fishes begin their lives in ocean habitat, migrate to freshwater areas to grow and mature, and return to the ocean to spawn.

²⁵ See Alabama Power's June 8, 2011 License Application, Exhibit E at E-38.

²⁶ See Alabama Power's June 8, 2011 License Application, Exhibit E - Supporting Documents (Nuisance Aquatic Vegetation and Vector Control Management Program).

²⁷ The 3-foot increase in winter pool would result in an increase of 413 acres of lake bottom that would be inundated year-round. This inundated land would not dry out and would be better shielded from freezing during the winter, which could result in an increase in submerged (and in part, emergent) invasive aquatic vegetation in the lake.

fishing sites, and construction and expansion of parking areas; (4) annual review of project recreation signage; (5) periodic consultation with the Alabama Department of Conservation to assess recreation access and needs at Lake Martin; and (6) filing an annual Recreation Plan addendum that describes consultation and any changes to project recreation that occurred in the preceding year.

36. To improve water quality and aquatic habitat, Alabama Power proposes a Shoreline Management Plan that includes: (1) a shoreline classification system²⁸ consistent with the classification system in place at Alabama Power's Coosa River Project No. 2146²⁹ and Warrior Project No. 2165,³⁰ to guide management and permitting activities on land within the project boundary; (2) a shoreline permitting program for processing and reviewing permits for shoreline property owners for development and construction along reservoir shorelines; (3) shoreline management policies for bank stabilization, dredging, channelization, water withdrawals, and causeways; and (4) a process for reviewing the Shoreline Management Plan every 6 years.

37. Alabama Power proposes to: (1) add 991.5 acres to the project boundary to provide recreation opportunities, protect environmental resources, and provide public hunting opportunities; (2) remove approximately 499 acres from the project boundary that it states are no longer serving a project purpose; and (3) reclassify land use on 1,294.4 acres within the project boundary to be consistent with existing land use or other project purposes.

38. Alabama Power proposes to implement a Public Education and Outreach Plan, filed on December 9, 2011,³¹ to enhance public awareness regarding the need to protect lands adjacent to the Lake Martin shoreline.

²⁸ The existing land use classifications are provided in Alabama Power's Comprehensive Recreation Plan, approved by the Commission in 1981. *Alabama Power Company*, 15 FERC ¶ 62,245 (1981).

²⁹ See *Alabama Power Company*, 143 FERC ¶ 61,249 (2013).

³⁰ See *Alabama Power Company*, 130 FERC ¶ 62,271 (2010).

³¹ See Alabama Power's December 9, 2011 Filing, Response to Question 30 of Commission staff's August 11, 2011 letter (Draft Public Education and Outreach Program Plan).

39. To protect cultural resources, Alabama Power proposes to develop a Historic Properties Management Plan (HPMP).

Summary of License Requirements

40. As summarized below, this license, which authorizes 182.5 MW of renewable energy, requires a number of measures to protect and enhance water quality, fish, wildlife, cultural, and recreation resources at the project. The license requires Alabama Power's proposed project operation and environmental measures, with the modifications discussed below.

41. To ensure effective implementation of invasive aquatic species control measures at the project, the license requires Alabama Power to revise its Nuisance Aquatic Vegetation and Vector Control Management Program to provide additional information, including a schedule for implementation and details of the proposed methods for surveying, monitoring, and controlling nuisance aquatic vegetation.

42. To improve recreational opportunities at the project, the license requires Alabama Power to submit a recreation plan that includes: (1) a detailed description of 11 project recreation sites and proposed enhancements; (2) a provision for assessing the need to develop bank/pier fishing areas within the project boundary; and (3) a provision to file a recreation monitoring report – concurrent with the filing of the Licensed Hydropower Development Recreation Report (Form 80) – that includes: (a) a recreation use and needs assessment; and (b) identification of any additional measures or modifications proposed for project recreation sites that may be needed to meet recreational use and demand, with a schedule for implementing such changes.

43. To protect the Lake Martin shoreline, the license requires the proposed Shoreline Management Plan, with the following modifications: (1) updating the shoreline classification maps that are included in the plan; (2) adding a provision limiting the construction of new seawalls to instances where riprap and vegetation are not sufficient to protect shoreline habitat from erosion; (3) adding a provision that addresses the long-term disposition of unpermitted private structures on project lands and waters; and (4) adding a provision for filing Geographic Information System (GIS) data regarding the Lake Martin area and shoreline classifications.

44. The license requires Alabama Power to: (1) add 1,009.1 acres for recreation, environmental resource protection, and public hunting; and (2) remove about 57.47 acres that no longer serve a project purpose.

45. The license does not include Alabama Power's proposal to study American eel in the 50-mile stretch of the river below the project because: (1) American eel have not been documented at the project; (2) upstream migration of American eel appears to be

blocked by downstream dams; and (3) there is no indication that Alabama Power's study relates to potential Martin Dam Project effects on eel migration.

Water Quality Certification

46. Under section 401(a)(1) of the Clean Water Act (CWA),³² the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed 1 year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.³³

47. On May 10, 2010, Alabama Power applied to Alabama Department of Environmental Management (Alabama DEM) for water quality certification for the Martin Dam Project, which Alabama DEM received on May 11, 2010. On May 9, 2011, Alabama DEM issued a certification for the Martin Dam Project that includes seven conditions, which are set forth in Appendix A of this order, and incorporated into the license by ordering paragraph D.

48. One of the seven conditions is administrative in nature and is not discussed further.³⁴ The remaining six conditions require Alabama Power to: (1) manage project operations such that DO concentrations are maintained in accordance with Alabama DEM's state regulations,³⁵ including the 4.0-mg/l minimum state DO criterion when the project is operating; (2) place the monitoring point for determining compliance with Condition 1 at an existing monitoring location immediately downstream of Martin Dam;

³² 33 U.S.C. § 1341(a)(1) (2012).

³³ 33 U.S.C. § 1341(d) (2012).

³⁴ Alabama DEM's administrative condition states that: (1) Alabama DEM certifies that there are no applicable effluent limitations nor other limitations imposed under sections 301(b), 302, 306, or 307 of the CWA; and (2) the certification does not exempt Alabama Power from requirements under the National Pollutant Discharge Elimination System for other discharges at the project.

³⁵ The certification states that the DO criteria are specified in Alabama DEM Admin. Code Reg. 335-6-10-.09(2)4., 335-6-10-.09(3)4., and 335-6-10-.09(5)4.

(3) establish a 3-year program for monitoring and recording DO concentrations and water temperatures at 30-minute intervals from June 1 through October 31, when the project is operating, except during flooding events; (4) maintain and calibrate the monitoring equipment; (5) submit: (a) DO and temperature monitoring reports to the Alabama DEM within 90 days following the end of the annual monitoring period, and (b) the complete set of monitoring data to Alabama DEM following the third year of monitoring; and (6) conduct and file with Alabama DEM an assessment of the effects of the operation of the Martin Dam Project on Alabama's water quality standards within 6 months after the final year of the monitoring period, and develop and implement additional structural or operational measures if monitoring results do not indicate compliance with the DO standard. Article 406 requires Alabama Power to file, for Commission approval, a Water Quality Monitoring Plan that is consistent with the certification's conditions.

Coastal Zone Management

49. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),³⁶ the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 6 months of its receipt of the applicant's certification.

50. By letter dated February 10, 2011,³⁷ Alabama DEM notified Alabama Power that the project is neither within the Alabama coastal zone nor within a geographic area in which Alabama DEM would review licenses for consistency with the coastal zone management program. Therefore, no consistency certification is required.

Section 18 Fishway Prescriptions

51. Section 18 of the FPA³⁸ provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.

³⁶ 16 U.S.C. § 1456(c)(3)(A) (2012).

³⁷ See Alabama Power's June 8, 2011 License Application, Exhibit E at E-4.

³⁸ 16 U.S.C. § 811 (2012).

52. By letter filed April 6, 2012, the Secretary of the Interior requested that the Commission reserve authority to prescribe fishways. Consistent with Commission policy, Article 407 reserves the Commission's authority to require fishways that may be prescribed by Interior for the Martin Dam Project.

Threatened and Endangered Species

53. Section 7(a)(2) of the Endangered Species Act (ESA) of 1973³⁹ requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

54. In its license application, Alabama Power identified four mussel species, two fish species, two plant species, and one avian species listed under the ESA and potentially occurring within the project area. The mussel species include: the threatened Alabama moccasinshell; and the endangered ovate clubshell, finelined pocketbook, and southern clubshell. The fish species include the threatened Gulf sturgeon and the endangered Alabama sturgeon. The plant species include the threatened little amphianthus and the Georgia rockcress. The avian species is the endangered red-cockaded woodpecker.

55. FWS has designated critical habitat for the four mussel species that includes portions of the Tallapoosa River drainage, but no critical habitat occurs in the project area.⁴⁰ The FWS-designation of critical habitat for the Alabama sturgeon and Gulf sturgeon does not include the Tallapoosa River, nor does the designated critical habitat for the Georgia rockcress occur in the project area.

56. In the final EIS, staff concluded that relicensing the project, as proposed and with the staff-recommended measures, would have no effect on the Alabama moccasinshell, ovate clubshell, finelined pocketbook, southern clubshell, Gulf sturgeon, and Alabama sturgeon because these species are not found in the project area, and no designated critical habitat for any of the species would be affected by continued project operation.⁴¹ Because neither the little amphianthus nor its habitat occurs within the project boundary, and because Georgia rockcress is not known to occur within the project boundary, staff

³⁹ 16 U.S.C. § 1536(a) (2012).

⁴⁰ See final EIS at 103.

⁴¹ See *id.* at 105.

concluded in the final EIS that continued operation of the Martin Dam Project would have no effect on these species.⁴² Therefore, no further action under the ESA is required for these species.

57. While the red-cockaded woodpecker is not known to occur within the project boundary,⁴³ Commission staff found that Alabama Power's proposal to enhance habitat for the red-cockaded woodpecker through its proposed Wildlife Management Program discussed later in this order, could ultimately lead to colonization of red-cockaded woodpeckers in the project boundary and, thus, provide long-term benefits for the endangered species. Therefore, staff concluded that issuing a new license for the project is not likely to adversely affect the red-cockaded woodpecker.⁴⁴

58. By letter filed July 25, 2013, FWS indicated that it concurred with Commission staff's determination.⁴⁵ Therefore, no further action under the ESA is required.

National Historic Preservation Act

59. Under section 106 of the National Historic Preservation Act (NHPA)⁴⁶ and its implementing regulations,⁴⁷ federal agencies must take into account the effect of any

⁴² See *id.*

⁴³ FWS's most recent recovery plan for the red-cockaded woodpecker, published in 2003, indicates that secondary core populations and essential supporting populations of red-cockaded woodpecker occur within the Talladega National Forest (about 50 miles north of Lake Martin). See U.S. Fish and Wildlife Service, *Recovery Plan for the Red-cockaded Woodpecker* (*Picoides borealis*), *Second Revision* (2003), http://ecos.fws.gov/docs/recovery_plan/030320_2.pdf.

⁴⁴ See final EIS at 106.

⁴⁵ FWS also stated that Commission staff's determination regarding project effects for the Alabama moccasinshell, ovate clubshell, finelined pocketbook, southern clubshell, Gulf sturgeon, Alabama sturgeon, little amphianthus, and Georgia rockcress, should be revised to "not likely to adversely affect," instead of "no effect." However, a determination of no effect on listed species is solely within the Commission's discretion to make. See *Seneca Generation, LLC*, 153 FERC ¶ 61,234, at P 40 (2015).

⁴⁶ Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. § 306108, Pub. L. No. 113-287, 128 Stat. 3188 (2014).

proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This process generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

60. To satisfy these responsibilities, the Commission executed a Programmatic Agreement (PA) with the Alabama SHPO, and invited Alabama Power, the BLM, Alabama-Quassarte Tribal Town, the Thlopthlocco Tribal Town, the Poarch Band of Creek Indians, the Alabama-Coushatta Tribe of Texas, the Muscogee (Creek) Nation of Oklahoma, and the Kialegee Tribal Town of the Muscogee (Creek) Nation to concur with the stipulations of the PA. Alabama Power, the Poarch Band of Creek Indians, and the Alabama-Coushatta Tribe of Texas concurred. The PA requires the licensee to prepare and implement a HPMP for the term of any new license issued for this project. Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA. Article 413 requires the licensee to implement the PA and file the HPMP with the Commission within 1 year of license issuance.

Recommendations of Federal and State Fish and Wildlife Agencies

61. Section 10(j)(1) of the FPA⁴⁷ requires the Commission, when issuing a license, to include conditions based on recommendations submitted by federal and state fish and wildlife agencies pursuant to the Fish and Wildlife Coordination Act,⁴⁹ to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

62. In response to the February 8, 2012 public notice that the project was ready for environmental analysis, Interior filed five recommendations under section 10(j).⁵⁰ Of the five recommendations, two are outside the scope of section 10(j) and are discussed in the next section. The license includes conditions consistent with two of the remaining three

⁴⁷ 36 C.F.R. pt. 800 (2015).

⁴⁸ 16 U.S.C. § 803(j)(1) (2012).

⁴⁹ 16 U.S.C. §§ 661 *et seq.* (2012).

⁵⁰ Interior filed the recommendations on April 6, 2012.

recommendations that are within the scope of section 10(j), namely: (1) limiting construction of new seawalls (Article 412); and (2) managing longleaf pine habitat towards a desired forest condition consistent with the definition of “good quality foraging habitat” for the federally listed endangered red-cockaded woodpecker (Article 409).

63. If the Commission believes that any section 10(j) recommendation may be inconsistent with the purposes and requirements of Part I of the FPA or other applicable law, section 10(j)(2) requires the Commission and the agencies to attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies.⁵¹ If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law, and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

64. Interior recommended that the license provide for a 30-foot-wide “control strip”⁵² within the project boundary and a shoreline buffer width of at least 100 feet. In the draft EIS, Commission staff recommended partially accepting Interior’s recommendation.⁵³ Specifically, Commission staff found⁵⁴ that Alabama Power’s Shoreline Management Plan comports with Interior’s recommendation to the extent that it proposes to continue Alabama Power’s practice of retaining a 30-foot control strip of land in certain areas along the Lake Martin shoreline. Commission staff recommended maintaining the 30-foot control strip along the project shoreline in these areas to help protect the lake by filtering runoff, controlling erosion, stabilizing the shoreline, and protecting habitat for aquatic and terrestrial species.⁵⁵ Accordingly, a 30-Foot Control Strip land use classification is included in Article 412 of this license.

⁵¹ 16 U.S.C. § 803(j)(2) (2012).

⁵² See Alabama Power’s June 8, 2011 Filing, Exhibit E at E-37 and E-235. The “30-Foot Control Strip” land use classification would restrict development within a 30-foot strip of land along certain areas of the Lake Martin shoreline.

⁵³ See draft EIS at 164.

⁵⁴ See *id.* at 179.

⁵⁵ See final EIS at 192.

65. Staff did not recommend adopting Interior's recommendation to increase the total shoreline buffer width to at least 100 feet.⁵⁶ Staff explained that establishing such a buffer width would require the acquisition of a large amount of private property, which could be very costly. Further, Alabama Power's Shoreline Management Plan, as modified by this license, will protect the scenic quality of, and environmental resources at, the Martin Dam Project. Besides providing for a 30-foot-wide control strip along portions of the reservoir, the plan includes, *inter alia*, best management practices for controlling erosion, a shoreline compliance program,⁵⁷ and a provision to limit construction of new seawalls. The license also requires Alabama Power to implement a Wildlife Management Program that will protect water quality by providing water quality buffers and using best management practices during timber management activities. In addition, the license requires: (1) Alabama Power's proposal to reclassify 918.6 acres of project land to the Natural/Undeveloped land use classification; (2) Alabama Power's proposal to add 606.7 acres of Natural/Undeveloped land to the project boundary; and (3) the retention of 459.33 acres of Natural/Undeveloped project land that was not included in Alabama Power's application for a new license. Natural/Undeveloped lands will remain undeveloped throughout the term of the new license and will help to maintain water quality and provide shoreline habitat.

66. On June 18, 2013, Commission staff notified Interior of staff's preliminary determination to not adopt Interior's 100-foot buffer strip recommendation. Staff informed Interior that it could submit comments in response to staff's preliminary determination and that Interior could request a meeting to attempt to resolve the

⁵⁶ See *id.* at 189. It is not clear whether Interior wants a 100-foot buffer along the entire shoreline or is seeking such a buffer only in areas where there is a 30-foot control strip. Interior states only that: "We also recommend language to encourage shoreline developments to maintain the 30-feet wide control strip within the project boundaries and also to increase the total buffer width to at least 100 feet." Interior's April 6, 2012 Filing at 2.

⁵⁷ Alabama Power's existing shoreline compliance program is broadly implemented across Alabama Power's eight hydroelectric projects and establishes a framework for addressing unpermitted structures on project land and water. Alabama Power is required to file annual status reports on activities under its shoreline compliance program, including an overview of its progress in resolving the unpermitted structures. Article 412 of this license requires Alabama Power to file a description of the shoreline compliance program specific to the Martin Dam Project.

inconsistency.⁵⁸ Interior did not file comments or request a meeting. Therefore, no resolution of the inconsistency was reached.

67. For the above reasons, we conclude, in accordance with FPA section 10(j)(2)(A), that Interior's recommendation for a 100-foot shoreline buffer is inconsistent with the comprehensive planning standard of sections 4(e) and 10(a) of the FPA. In accordance with section 10(j)(2)(B) of the FPA, we find that the measures required by this license will adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources affected by this project.

Section 10(a)(1) Of the FPA

68. Section 10(a)(1) of the FPA⁵⁹ requires that any project for which the Commission issues a license be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. Interior Recommendations

69. Interior provided two recommendations under section 10(j) that are not specific measures to protect, mitigate damages to, or enhance fish and wildlife,⁶⁰ or that do not address a project effect.⁶¹ Consequently, we do not consider these recommendations

⁵⁸ Letter from David Turner, FERC, to Joy Stanley, Interior (June 18, 2013). In a telephone conversation on July 31, 2013, Commission staff again informed Interior of its right to request a FPA section 10(j) meeting. *See* Memo from Stephen Bowler, FERC, to Public Files, FERC (August 7, 2013).

⁵⁹ 16 U.S.C. § 803(a)(1) (2012).

⁶⁰ Recommendations under section 10(j) must be specific measures. *See, e.g., Public Utility District No. 1 of Chelan County, WA*, 107 FERC ¶ 61,280, at 62,329 (2004) (rejecting a 10(j) recommendation as unduly vague).

⁶¹ Section 10(j) applies to conditions relating to fish and wildlife "affected by the development, operation, and management of the project."

under section 10(j) of the FPA, but rather address them under the broad public-interest standard of section 10(a)(1) of the FPA.⁶²

70. Interior recommends that Alabama Power “continue its support of aquatic restoration within the Mobile River Basin and work with [Interior] and the Alabama Department of Conservation and Natural Resources to identify suitable habitats (primarily tributaries) for species reintroductions within the project boundaries of the Martin Dam Project.”⁶³ Interior states that the restoration plans would minimize habitat fragmentation and that the Martin Dam Project continues to be a physical barrier not only because of Martin Dam, but also because of the conversion of shoreline habitat from natural to residential development.

71. As explained in the final EIS, Interior’s recommendation is too vague to determine what measures would be implemented.⁶⁴ Accordingly, this license does not require Interior’s restoration plan measure.

72. Interior recommends that this license require the Tallapoosa River portion of Alabama Power’s Drought Response Proposal for assessing drought operations. As discussed later in this order, Article 405 requires Alabama Power to implement the Tallapoosa River portion of the Drought Response Proposal, inasmuch as it pertains to the Martin Dam Project.

B. Reservoir Elevations

73. To enhance recreation opportunities, Alabama Power proposes to: (1) raise the winter flood control curve for Lake Martin by 3 feet (to elevation 484 feet) from mid-November through mid-February,⁶⁵ and to change the operating and drought curves

⁶² 16 U.S.C. § 803 (a)(1) (2006).

⁶³ Interior’s April 6, 2012 Filing at 1-2. This measure is outside the scope of section 10(j) because it is not a specific measure to protect, mitigate, or enhance fish and wildlife resources affected by the project.

⁶⁴ See final EIS at 192.

⁶⁵ Over 736 individuals, Alabama Governor Robert Bentley, Congressman Mike Rogers, the Lake Martin Owners Association, Lake Watch of Lake Martin, and the Resource Association provided comments supporting the proposed increase in the winter pool elevation due to the anticipated recreational and economic benefits.

proportionately during this timeframe; and (2) implement a conditional fall extension that would increase the flood control curve to 491 feet between September 1 and October 15, provided that certain hydrologic and operational conditions are met.

74. As proposed, the Martin Dam Project flood control curve would be at elevation 484 feet on January 1 and remain at this elevation until February 28, when filling begins. The curve would gradually rise until it reaches elevation 491 feet on April 28. The curve would then remain at 491 feet until September 2 or until October 15 if the conditional fall extension is implemented; and gradually lower to 484 feet by the third week in November. The curve would remain at 484 feet until December 31.

75. As discussed above, the area between the flood control and operating curves represents the range in which the lake is maintained under normal flow conditions. According to Alabama Power's proposal, the operating curve would be at elevation 480 feet on January 1, and would gradually rise to elevation 483 feet by the middle of March. The curve would then gradually rise to elevation 487 feet by April 3 and elevation 490 feet by May 1. The curve would remain at 490 feet until July 7. The curve would then gradually decline to 480 feet by December 31.

76. Alabama Power also proposes changes to the drought curve for the project. The drought curve for the Martin Dam Project is used by Alabama Power as one of several factors for evaluating drought reservoir operations. According to Alabama Power's proposal, on January 1, the drought curve would be at elevation 480 feet and remain at this elevation until March 1. The curve would gradually rise to elevation 487 feet by May 1, and then gradually lower to elevation 480 feet by October 1. The curve would remain at elevation 480 feet through December 31.

77. To protect the ecological and recreational values of Lake Martin and provide for flood control and downstream navigation, Article 402 requires Alabama Power to operate the Martin Dam Project in accordance with the guide curves and elevations detailed above. We discuss specific operational issues below.

1. Increasing the Lake Martin Winter Pool

78. To enhance recreation, Alabama Power proposes to raise the winter flood curve for Lake Martin by 3 feet (to elevation 484 feet) from the third week of November to February 28. The Resource Association and Lake Martin Owners Association recommended even greater increases (of 4 feet and 5 feet, respectively) in the winter lake level based on potential economic benefits associated with increased recreation opportunities during the winter. In contrast, the Downstream Landowners opposed any increase in winter lake levels, citing concerns that higher winter elevations would limit the seasonal flood control capacity of the Martin Dam Project and increase flooding downstream of Martin Dam.

79. The draft EIS did not recommend any increase in winter lake elevations, citing to Alabama Power's modeling results, which suggested a worst-case scenario that would increase the possibility of flooding and potential damage to structures and roads.⁶⁶ Alabama Power subsequently performed a more refined analysis, which indicated little potential for increased downstream peak water elevations resulting from a 3-foot increase in winter flood pool elevations.⁶⁷ After review of Alabama Power's refined analysis, Commission staff recommended the implementation of Alabama Power's proposal to raise the flood control curve by 3 feet in the winter.⁶⁸

80. We agree with Commission staff's conclusion that a 3-foot increase in Lake Martin's winter pool elevation is not likely to increase downstream flooding, and will provide net energy gains, improved paddlefish spawning conditions,⁶⁹ and enhanced recreation opportunities.⁷⁰ While even higher winter pool increases (i.e., 4 feet or 5 feet) would result in incremental economic and recreation benefits, staff did not recommend – and the license does not adopt – these alternative proposals due to the offsetting risk of increased floods.⁷¹

⁶⁶ See draft EIS at 167-170.

⁶⁷ See final EIS at 65-66.

⁶⁸ See *id.* at 172.

⁶⁹ The paddlefish is a species of concern for Alabama Department of Conservation, and is an important sport and commercial species. A winter lake level of 481 feet has historically provided an average of 19 days during the paddlefish's spawning season where flows have exceeded a key spawning threshold of 6,000 cfs, which is the flow that provides the necessary depth for paddlefish spawning. A winter lake level of 484 feet would provide, on average, an extra 5 days of flows above 6,000 cfs during the spawning season. See *id.* at 172.

⁷⁰ For instance, a 3-foot increase in winter pool elevation would allow for the use of additional boat ramps that provide public access during the winter. See *id.* at 118-119 and 171-172.

⁷¹ See *id.* at 172.

2. Revising the Operating Curve

81. The area between the flood control curve and the operating curve represents the range in which Alabama Power operates Lake Martin under normal conditions. Alabama Power proposes an operating curve elevation of 490 feet during the summer months (May 1 to July 7), which is 1 foot lower than the flood control curve (491 feet). From July 7 to August 31, the flood control curve remains at 491 feet, but the operating curve drops gradually from 490 feet to about 488.5 feet.

82. Draft Article 402 in the final EIS states “between May 1 and August 31, the licensee shall manage the lake level to be no less than 0.5 foot below the flood control curve (i.e., 490.5 feet msl).” In its July 29, 2015 comments on the final EIS,⁷² Alabama Power disagrees with the 490.5-foot lake level provision, stating that although Alabama Power strives to keep the lake level at 490.5 feet between May 1 and August 31, it must maintain the operational flexibility of the entire 1 to 2.5-foot operating zone during this time of year. Therefore, Alabama Power requests that the Commission not require this provision. The Lake Martin Owners Association contends that maintaining the lake level at no less than 0.5 foot below the flood control curve (i.e., 490.5 feet), as stated in Draft Article 402, is an important benefit for the Lake Martin Owners Association.⁷³

83. As explained in the final EIS, Alabama Power attempts to maintain Lake Martin at 490.5 feet (i.e., 0.5 foot below the flood control curve elevation of 491 feet) during the summer months to provide 0.5 foot of storage for flood control and other purposes.⁷⁴ Therefore, the intent of Draft Article 402 in the final EIS was to establish 490.5 feet as an *upper elevation limit* for flood control purposes rather than as a *lower elevation limit* for recreation purposes as interpreted by Lake Martin Owners Association. No information has been provided in this proceeding to show that a 490.5-foot lower elevation limit is necessary to provide additional recreation opportunities, as suggested by the Lake Martin Owners Association.⁷⁵ Therefore, we decline to require 490.5 feet as a lower elevation

⁷² See Alabama Power’s July 29, 2015 Comments at 1.

⁷³ See Lake Martin Owners Association September 3, 2015 Comments at 1.

⁷⁴ See final EIS at note 15.

⁷⁵ The operating curve allows Alabama Power to draw down Lake Martin to an elevation of approximately 488.5 feet by September 1. The final EIS analyzes data showing that all public boat ramps are available at this elevation. See *id.* at 109 and 130.

limit during the summer months, as recommended by the Lake Martin Owners Association.

84. With respect to Alabama Power's concerns, the 0.5 foot limit in the draft article was intended for flood control purposes. However, as discussed later in this order, Article 404 of this license provides for specific measures to minimize the risk of both upstream and downstream flooding at the Martin Dam Project, and these measures should be sufficient to provide for flood control. Thus, the Draft Article 402 provision to manage the lake level to be no less than 0.5 foot below the flood control curve during the summer is unnecessary for purposes of flood control, and is not included as a license requirement.

3. Proposed Periodic Drawdown in Winter Pool

85. In the final EIS, staff recommended adopting Alabama Power's proposal to lower the reservoir elevation every 6 years in the winter (to at least 481 feet) in order to facilitate non-project seawall and boat dock maintenance, construction, and other non-project activities that could benefit from lower lake levels.⁷⁶ As discussed in the final EIS, Lake Martin has historically been able to refill from an elevation of 481 feet during the winter to a normal summer pool elevation of between 490 and 491 feet.⁷⁷ Further, lowering the winter reservoir elevation to 481 feet every 6 years provides a predictable opportunity for repairs and maintenance of seawalls and docks. Accordingly, Article 402 authorizes Alabama Power to lower the reservoir to elevation 481 feet every 6 years between the third week of November and February 28, and requires Alabama Power to provide public notice at least 30 days in advance of the draw down.

In addition, Alabama Power conducted surveys finding that only 4 percent of private boat docks cannot be used at 488 feet, and only 1 percent of private docks are completely out of the water at 488 feet. *See id.* at 118-119; *see also* Alabama Power's December 9, 2011 Filing, Response to Question 25 of Commission staff's August 11, 2011 letter. These analyses indicate that operational flexibility does not result in widespread effects on recreation at Lake Martin.

⁷⁶ *See* final EIS at 76.

⁷⁷ *See id.*

4. **Conditional Fall Extension**

86. Under the current license, the flood control curve begins to steadily decrease from an elevation of 491 feet on September 1, to an elevation of 481 feet in December. To enhance late-summer and fall recreation opportunities at Lake Martin, Alabama Power proposes a modification of the flood control curve from September 1 through October 15 (“conditional fall extension”).⁷⁸ Under Alabama Power’s proposal, the flood control curve would be maintained at 491 feet from September 1 to October 15, provided certain hydrologic and operational conditions are met. Thereafter, the flood control curve would gradually decline until it reaches elevation 484 feet by the third week in November. In the months of July through September, Alabama Power would conduct daily evaluations of elevations and inflows to the Martin Dam Project and its other projects in the basin, to determine the feasibility of implementing the conditional fall extension. Alabama Power would only implement the conditional fall extension if the following four conditions are met:

- a. Lake Martin is above its operating curve during September (487 to 488.5 feet);
- b. the rolling 7-day average total basin inflow on the Tallapoosa River, calculated at Thurlow Dam, is at or higher than the median historical flow;
- c. the rolling 7-day average total basin inflow on the Coosa River, calculated at Jordan Dam,⁷⁹ is at or higher than the median historical flow; and

⁷⁸ See *id.* at 24-25. Over 736 individuals, Alabama Governor Robert Bentley, Congressman Mike Rogers, the Lake Martin Owners Association, Lake Watch of Lake Martin, and the Resource Association provided comments supporting the conditional fall extension. They emphasize the recreational and economic benefits of the extension. Several individuals commented that although the conditional fall extension would most likely be limited to once every 3 years, or less, they were satisfied with the possibility of having the potential for a longer recreation season.

⁷⁹ Jordan Dam is located on the Coosa River approximately 18 miles upstream of the confluence of the Tallapoosa and Coosa Rivers. Jordan Dam is one of seven developments that make up Alabama Power’s Coosa River Project No. 2146. The seven developments of the Coosa River Project are located along a 200-mile-long

(continued ...)

- d. the elevations at the Weiss, Neely Henry, and Logan Martin Developments of Project No. 2146 on the Coosa River, and the R.L. Harris Project on the Tallapoosa River, are within one foot of their respective operating curves.

87. If these conditions are met, Alabama Power will operate the Martin Dam Project by targeting a flood control curve elevation no greater than 491 feet for a period not to exceed October 15, at which point drawdown would resume to a flood control curve elevation of 484 feet, (i.e., the winter flood control curve elevation approved by this license). Based on historic hydrologic and operating conditions, the conditional fall extension would occur infrequently, less than 1 in 3 years.⁸⁰

88. Alabama Power proposes to abide by all other operational requirements while implementing the extension. Thus, the measure would be implemented only in years when there are adequate flows and reservoir elevations to meet such needs.

89. In the final EIS, Commission staff recommended implementing the conditional fall extension based on the recreational benefits provided by the measure during above-average flow years.⁸¹ Article 402 in this license requires Alabama Power to implement the conditional fall extension if the conditions specified in Article 403 are met. In turn, Article 403: (1) lists the four proposed hydrologic and operational conditions; (2) requires Alabama Power to submit reports to the Commission when the four conditions are not met; and (3) requires Alabama Power to provide weekly updates on its website, from July 15 to October 15, to provide the implementation status of the conditional fall extension. We discuss specific comments on the final EIS directly below.

90. In its comments on the final EIS, Alabama Power explains that although it initially proposed to include the Neely Henry Development as part of its evaluation, it is no longer necessary to do so because of recent operational changes at the Neely Henry

segment of the Coosa River. From upstream to downstream, they are: the Weiss Development at RM 226, the Neely Henry Development at RM 148, the Logan Martin Development at RM 99.5, the Lay Development at RM 51, the Mitchell Development at RM 38, and the Jordan and Bouldin Developments near RM 18. *See Alabama Power Company*, 143 FERC ¶ 61,249.

⁸⁰ *See* final EIS at 173.

⁸¹ *See id.* at 174.

Development. Specifically, Alabama Power explains that the June 2013 license issued for the Coosa River Project, makes permanent a new operating curve for the Neely Henry Development that only fluctuates 1 foot during the year.⁸²

91. We decline to remove evaluation of the Neely Henry Development from the criteria for a conditional fall extension. Alabama Power's justification is unrelated to the purpose of the condition, and the company provides no support for removing this measure. While the operating *curve* for the Neely Henry Development fluctuates 1 foot throughout the year (from 507 feet to 508 feet), the criterion states that Alabama Power must wait until the *actual Neely Henry Development elevation* is within a 1-foot bandwidth around the operating curve before implementing the conditional fall extension. This 1-foot bandwidth criterion is unrelated to the annual variation in the operating curve that Alabama Power discusses in its comments. The Coosa River Project license does not restrict operation of the Neely Henry reservoir to a 1-foot bandwidth, as implied by Alabama Power. Indeed, Article 401(b) of the Coosa River Project license states that, under normal conditions, Alabama Power must maintain the reservoir between the drought curve and operating curve, *an area that can exceed 2 feet during the month of September*, the month in which the conditional fall extension could be implemented.⁸³ Therefore, we deny Alabama Power's request to delete this criterion.

92. Next, Alabama Power takes issue with Commission staff's recommendation in the final EIS for Alabama Power to continue monitoring the criteria after implementing the conditional fall extension (i.e., through October 15) and to discontinue the conditional fall extension if any of the four conditions are no longer met.⁸⁴

93. Alabama Power asserts that it never intended to continue evaluating the criteria after they have been met, or past September 30 of each year, whichever occurs first.⁸⁵ It asserts that, once implemented, the conditional fall extension should continue until October 15, at which time normal winter drawdown would begin. Alabama Power agrees to monitor the conditions, but asks that the Commission not require it to resume normal

⁸² Alabama Power's July 29, 2015 Comments at 2.

⁸³ See *Alabama Power Company*, 143 FERC ¶ 61,249 at Article 401(b).

⁸⁴ See final EIS, Appendix A at A-4.

⁸⁵ See Alabama Power's July 29, 2015 Comments at 2.

reservoir drawdown when the conditions are not met. Alabama Power proposes to replace Commission staff's proposed requirement with the following:

Beginning on September 1, the licensee will monitor conditions daily. Once the four conditions are met, the Conditional Fall Extension will be implemented and the normal reservoir drawdown to the winter pool shall begin October 15.⁸⁶

94. The record in this proceeding, including the operations modeling conducted by Alabama Power, indicates that the four conditions required to implement the conditional fall extension were selected to ensure that adequate flows and reservoir elevations would be available to support downstream needs throughout the 6-week period in which the conditional fall extension is implemented. In addition, the Drought Response Proposal, required in Article 405, includes provisions for modifying project operations during periods of drought, which includes low-flow conditions that would occur in the September 1 to October 15 period. The Drought Response Proposal will ensure that low-flow conditions are not exacerbated by the conditional fall extension. Therefore, we include Alabama Power's proposed revisions in Article 403 of this license, with the clarification that monitoring is to begin no later than July 14 each year, rather than September 1 as proposed by Alabama Power.⁸⁷

5. Drought Management

95. To guide the operation of the project during low inflow or drought conditions, Alabama Power proposes to implement the Tallapoosa River portion of the Drought Response Proposal as it pertains to the Martin Dam Project. The Drought Response Proposal requires Alabama Power to monitor rainfall and streamflow, and to use rain and streamflow indicators to determine drought conditions. When these indicators reach specified levels, drought response measures would be triggered, resulting in reduced flow into the Alabama River based on drought intensity conditions within both the Tallapoosa and Coosa River Basins. When the basins are observed to be recovering from drought conditions, a consensus would be sought among Alabama Power and federal and state

⁸⁶ *See id.*

⁸⁷ Article 403 requires that beginning July 15, the licensee post on its website the likelihood that the conditional fall extension will be implemented. In order to meet this notification requirement, monitoring must begin prior to July 15 each year.

agencies before a return to normal operations at Alabama Power's projects located on the Tallapoosa and Coosa Rivers. Alabama Power filed the most recent version of the Drought Response Proposal in its comments on the draft EIS.⁸⁸

96. In the final EIS, Commission staff recommended implementing the Tallapoosa River portion of the Drought Response Proposal as it pertains to the Martin Dam Project. Staff found that the coordinated management of flows in the Coosa and Tallapoosa Basins during drought years would provide long-term benefits to water supply, fish and wildlife resources, and power generation.⁸⁹

97. The final EIS also accounted for the Corps' recent efforts to update its reservoir regulation manuals to provide a comprehensive management plan for the Alabama-Coosa-Tallapoosa River Basin, including drought management. On October 31, 2014, the Corps issued the Final Environmental Impact Statement for Updates to the Master Water Control Manual for the Alabama-Coosa-Tallapoosa River Basin (Corp's Final EIS). On May 4, 2015, the Corps approved a final Master Water Control Manual for the Alabama-Coosa-Tallapoosa (ACT) River Basin (ACT Water Control Manual). Staff recommended that Alabama Power review the Corps' reservoir regulation manuals for consistency with the Tallapoosa River portions of the Drought Response Proposal.⁹⁰ Staff also recommended that Alabama Power file a report of its findings, along with any recommendations for modifications to the Drought Response Proposal, to be consistent with the finalized manuals. Finally, staff proposed that future changes to the Drought Response Proposal be developed after consultation with the Corps, FWS, EPA, Alabama Office of Water Resources, Alabama DEM, Alabama Department of Conservation, Georgia DNR, and the Atlanta Regional Commission.

98. In its comments on the final EIS, Alabama Power takes issue with Commission staff's consultation requirement. Alabama Power states that the most recent version of the Drought Response Proposal was finalized without input from EPA, Georgia DNR, or the Atlanta Regional Commission. Alabama Power explains that the Drought Response Proposal is a multi-basin drought operating plan that coordinates operations of Alabama Power dams on the Coosa and Tallapoosa Rivers to provide adequate flows below the

⁸⁸ See Alabama Power's August 13, 2013 Comments at Attachment B.

⁸⁹ See final EIS at 176.

⁹⁰ See *id.*

Thurlow Development of the Yates and Thurlow Project, and the Jordan Development of the Coosa River Project during times of low inflows. Alabama Power asserts that consultation with EPA, Georgia DNR, or the Atlanta Regional Commission could result in potential delays that would negatively impact Alabama Power's ability to implement immediate and future drought operations in the Alabama-Coosa-Tallapoosa River Basin inside the state of Alabama. Alabama Power asserts that the Drought Response Proposal does not apply to the State of Georgia, and that Alabama DEM is responsible for water quality concerns during drought operations. Therefore, Alabama Power requests that the requirement be to consult only with the Corps, FWS, Alabama Office of Water Resources, Alabama DEM, and the Alabama Department of Conservation.

99. To minimize the impacts of drought on water supply, fish and wildlife resources, and power generation, Article 405 requires Alabama Power to: (1) implement the Tallapoosa River portion of the Drought Response Proposal as it pertains to the Martin Dam Project; (2) notify the Commission as soon as possible, but no later than 10 days after modifying operations in response to drought conditions; and (3) review the Corps' regulation manuals, and file a report of its findings, including recommendations to ensure consistency between the Drought Response Proposal and the Corps' finalized manuals.

100. As requested by Alabama Power, Article 405 also requires that revisions to the Drought Response Proposal be developed after consultation with the Corps, FWS, Alabama Office of Water Resources, Alabama DEM, and the Alabama Department of Conservation. Alabama Power's Drought Response Proposal provides a plan for managing Alabama Power's reservoirs within the Alabama-Coosa-Tallapoosa River Basin when the basin is experiencing drought conditions. Because the Drought Response Proposal will only be implemented during low inflow or drought conditions, and does not apply to the state of Georgia, we are not requiring Alabama Power to consult with the Georgia DNR or Atlanta Regional Commission. In addition, we are not requiring Alabama Power to consult with EPA prior to implementing future changes to the Drought Response Proposal. State water quality interests will be protected through: (1) the requirement for Alabama Power to consult with the state agency charged with the development and implementation of water quality standards (i.e., Alabama DEM) before making changes to the Drought Response Proposal; (2) the requirement for Alabama Power to consult with EPA on the development of its Water Quality Monitoring Plan; and (3) the requirement for Alabama Power to comply with the conditions of its water quality certification.

6. Flood Control Operations

101. Flood control operations under Alabama Power's license are set forth in its January 23, 1973 revised Exhibit H.⁹¹ These flood control guidelines are used by Alabama Power when the elevation of Lake Martin exceeds the previously-discussed flood control curve. Alabama Power proposes five changes to its flood control operations, some of which correspond to the changes to the flood control curve authorized by this license.

102. First, Alabama Power proposes to revise the point at which flood control operations commence; from 481 to 484 feet, such that turbine operations at Martin Dam are to provide continuous minimum outflows after Lake Martin's elevation is above 484 feet and exceeds the flood control curve.

103. Second, when the elevation at Lake Martin exceeds the flood control curve and is between 486 and 489 feet, Alabama Power proposes to employ a conditional operations strategy. Specifically, turbine operations at Martin Dam would provide: a continuous outflow of 13,200 cfs (the hydraulic capacity at the Thurlow Dam) when inflows to Martin Dam are increasing; and a continuous outflow of 12,400 cfs (the hydraulic capacity at the Yates Dam) when inflows to Martin Dam are decreasing.

104. Third, Alabama Power proposes to recognize that, if the elevation of Lake Martin exceeds the flood control curve and is above 489 feet, and continues to rise after all spillway gates at Martin Dam are raised and all units are generating, then circumstances regarding project operations are beyond its control.

105. Fourth, when inflow to Lake Martin exceeds the total hydraulic capacity of the turbines, Alabama Power proposes that the 3-hour average outflow rate from Lake Martin not exceed the concurrent average inflow rate, except to evacuate accumulated storage.

106. Fifth, Alabama Power proposes to revise its current coordination and communication protocols with the National Weather Service and the Corps during flood periods. Specifically, Alabama Power proposes to replace provisions that currently require Alabama Power to coordinate flood control operations with the Corps for greater flood control benefits, with provisions stating generally that Alabama Power will continue its current notification and data sharing practices with the National Weather Service and Corps.

⁹¹ Alabama Power filed its revised Exhibit H on February 16, 1973.

107. While Alabama Power's proposed revisions to spillway operations would generally not have negative effects on flood management, Commission staff identified two issues with Alabama Power's flood control proposal.⁹² Commission staff did not recommend Alabama Power's third proposal – to add the text “which would be beyond the control of Alabama Power” – for circumstances where the elevation of Lake Martin rises above 489 feet. Commission staff found that this proposed change does not define an operational measure to be implemented for flood control and thus is not necessary. Staff also did not recommend Alabama Power's fifth proposal, i.e., to revise its coordination and communication protocols with the Corps during flood periods. Commission staff found that this revision could lead to reduced coordination with the Corps.

108. Accordingly, Article 404 requires Alabama Power to operate the project for flood control in accordance with its first, second, and fourth proposals discussed above. Article 404 also requires Alabama Power to: (1) continue its current practice of notifying the National Weather Service when the spillway gates are used in flood control operations; (2) continue to share data with the National Weather Service's Southeast River Forecast Center, and the Corps; and (3) coordinate operations at the Tallapoosa and Coosa River dams with the Corps' downstream Alabama River dams to attain greater flood control benefits.

C. Dissolved Oxygen

109. In its May 11, 2015 comments, EPA states that Alabama DEM's water quality regulations apply to both generating and non-generating periods, and the DO monitoring requirements in the license should, therefore, include monitoring during generating and non-generating periods to determine compliance with the state standard.⁹³ EPA states that there is insufficient information to determine compliance with the state water quality standard for DO, and that readings for 2002-2005 and 2006-2009 indicate the project may not be meeting the standard. EPA also states that the Commission should have provided all tailrace DO data collected by Alabama Power, and should have differentiated the data based on whether or not the project was generating. Without this information, EPA states that compliance with the DO standard cannot be determined and that the Commission's

⁹² See final EIS at 70.

⁹³ EPA's May 11, 2015 Comments at 3 (citing ADEM Admin. Code r. 335-6-10 (2014)); *see also* Conservation Groups' April 23, 2015 Comments at 2.

EIS does not fully disclose the potential impacts to water quality from continued project operation.

110. Condition 1 of the water quality certification requires that “operation of [the Martin Dam Project], including the operation of the turbines and existing turbine aeration systems, shall be managed such that [DO] criteria ... shall be maintained [in accordance with Alabama DEM’s regulations] at all times at the monitoring point” Condition 3 of the certification only requires monitoring during periods of hydroelectric generation from June 1 through October 31 of each year for 3 years. According to Condition 6, if the monitoring results do not indicate compliance with the state water quality standards (maintenance of a DO concentration of 4.0 mg/l or greater),⁹⁴ then Alabama Power must develop and implement measures to ensure compliance with the 4.0 mg/l DO standard.

111. As discussed in the final EIS, Alabama Power conducted extensive temperature and DO monitoring of the tailrace from 2002 through 2009 during periods of generation.⁹⁵ The data show that the water quality of the discharge from Lake Martin generally met or exceeded the minimum state water quality standard for DO of 4.0 mg/l for hydropower discharges. Specifically, DO concentrations were greater than 4 mg/l, 99.9 percent of the time from 2002 through 2005, and 100 percent of the time from 2006 through 2009. Water from the Martin Dam Project is discharged from the Martin Dam powerhouse directly into the upstream end of the Yates Development’s reservoir. The DO level of the discharges dropped below 4.0 mg/l only twice in the 2002-2005 timeframe, during: (1) a scheduled outage that resulted in a temporary shutdown of the turbine aeration system, and (2) a flood event.⁹⁶ As demonstrated by the water quality monitoring data, however, these occurrences are anomalous and not characteristic of water quality conditions downstream of Martin Dam when the project is generating.

112. When flows are not coming from the powerhouse, water quality conditions in the Yates Development are not affected by the Martin Dam Project; rather, water quality is primarily dictated by the biological and chemical processes of the Yates Development, and by inflows to the Yates Development that are unassociated with the Martin Dam

⁹⁴ See, e.g., Alabama DEM Admin. Code r. 335-6-10-.09(5)(e)(4)(i) (Specific Water Quality Criteria- Fish and Wildlife- Specific criteria- Dissolved oxygen) (2014).

⁹⁵ See final EIS at 51-52.

⁹⁶ See *id.* at 52.

Project. No party has provided evidence in this proceeding that the Yates Development is suffering from water quality issues, and we have no reason to conclude there is a water quality issue at the Yates and Thurlow Project.⁹⁷

113. For the above reasons, we find that EPA has not demonstrated a need for additional water quality monitoring. The conditions of this license will ensure Alabama Power is able to meet state water quality standards at the Martin Dam Project.

114. EPA also requests that the Commission and Alabama Power coordinate with EPA, Region 4 on the development of the tailrace Water Quality Monitoring Plan.⁹⁸ Article 406 requires Alabama Power to develop its Water Quality Monitoring Plan in consultation with FWS, EPA, Alabama DEM, and the Alabama Department of Conservation.

D. Nuisance Aquatic Vegetation and Vector Control Management Program

115. Alabama Power's proposal to increase the winter pool elevations and implement a conditional fall extension would decrease the amount of lake substrate subject to drying out and/or freezing during the fall and winter, which could result in an increase in invasive aquatic vegetation in Lake Martin.⁹⁹ To mitigate the potential for these changes in project operations to increase the abundance of non-native invasive species, Alabama Power proposes to continue its current Nuisance Aquatic Vegetation and Vector Control Management Program. As part of this program, Alabama Power performs lake-wide surveys to identify areas of aquatic plant infestation at a minimum of once per year. Throughout each year Alabama Power also reviews, on a case-by-case basis, requests from the public, state and federal agencies, and Alabama Power employees to treat nuisance aquatic vegetation. Alabama Power treats nuisance aquatic vegetation that could: (1) provide mosquito breeding habitat; (2) pose a threat to power generation facilities or water withdrawal structures; (3) restrict recreational use of the reservoir; or

⁹⁷ See Article 405 of the Yates and Thurlow Project license, *Alabama Power Company*, 66 FERC ¶ 62,068 at 64,211 (requiring monitoring of temperature and DO at the Yates and Thurlow Developments to ensure maintenance of state water quality standards).

⁹⁸ See EPA's May 11, 2015 Comments at 5.

⁹⁹ See final EIS at 87.

(4) pose a threat to the ecological balance of Lake Martin. With the changes to the flood control curve authorized by this license, Alabama Power also proposes to revise its Nuisance Aquatic Vegetation and Vector Control Management Program to monitor for increases in nuisance aquatic vegetation, and to identify the cause of any such increases.

116. Article 408 of the license requires Alabama Power to file a revised Nuisance Aquatic Vegetation and Vector Control Management Program, which must include a schedule for implementation, and provide details about the methods for surveying and monitoring aquatic vegetation, such as the frequency, timing, and locations of surveys and monitoring events.

E. Wildlife Management Program

117. During preparation of the license application, Alabama Power consulted with FWS and the Alabama Department of Conservation to develop a Wildlife Management Program. The proposed Wildlife Management Program filed on December 9, 2011, would designate specific wildlife management objectives for project lands¹⁰⁰ within two broadly-defined management areas: a “Primary Management Area” that includes 3,166 acres of project lands along the eastern shore of Lake Martin; and a “Secondary Management Area” that includes 2,717 acres of project lands near the Lake Martin headwaters. The objectives of the Wildlife Management Program for these lands include: (1) enhancing available habitat for longleaf pine-dependent species on project land; (2) managing Natural/Undeveloped project land to maintain water quality and wildlife habitat; (3) providing public hunting opportunities on project land; (4) continuing bald eagle monitoring and management on project lands; and (5) using best management practices during timber management activities on project land to protect water quality and wildlife habitat surrounding Lake Martin.

118. Under the Wildlife Management Program, Alabama Power would manage project lands within the Primary Management Area toward a desired forest condition consistent with good quality foraging habitat for the federally endangered red-cockaded woodpecker, as defined in the recovery plan for this species. The proposed Wildlife Management Program includes a number of specific management strategies for longleaf pine stands, including selective cutting and forest rotation, prescribed burns, and planting.

¹⁰⁰ The lands proposed for wildlife management are currently in the project boundary or are non-project lands proposed to be added to the project.

119. In the final EIS, staff recommended implementing the Wildlife Management Program to enhance wildlife habitat and provide long-term benefits to terrestrial plant and wildlife communities within the project boundary.¹⁰¹ Article 409 of the license requires Alabama Power to implement its Wildlife Management Program.

F. Eel Sampling

120. The catadromous American eel is native to the Tallapoosa River system and has been documented below Thurlow Dam, which is located about 11 miles below Martin Dam. Alabama Power proposes to implement a three-phased American eel sampling study in an approximately 50-mile stretch of the Tallapoosa River from just downstream of Martin Dam to the Montgomery Water Works river gauge, located at RM 12.9.¹⁰² Alabama Power states that the American eel study could benefit catadromous American eel populations by providing additional information on current numbers and identifying potential restoration activities. Interior and the Alabama Department of Conservation support the proposed study.

121. The final EIS found that a general survey of eel distribution in the Tallapoosa River would not provide data to support analysis of eel passage at Martin Dam or the effect of the operation of Martin Dam on fish passage in the Tallapoosa River.¹⁰³ The study methods described by Alabama Power focus on locating eels and observing their movements below Thurlow Dam, with no indication that data are to be gathered on habitat or passage factors influenced by the operation of the Martin Dam Project (such as the flow, temperature, or quality of water). While American eel have been documented downstream of Thurlow Dam, they have not been documented in the Yates Development immediately downstream of Martin Dam. According to the final EIS, it appears that the upstream migration of American eel is blocked by the downstream dams.¹⁰⁴ The final EIS concluded that the record does not show that Alabama Power's proposed, three-phase eel study relates to the operation of the Martin Dam Project, effects of the

¹⁰¹ See final EIS at 101-102.

¹⁰² See Alabama Power's February 27, 2012 Filing.

¹⁰³ See final EIS at 183.

¹⁰⁴ See *id.* at 54.

Martin Dam Project on fish passage below Thurlow Dam, or fish passage at Martin Dam.¹⁰⁵

122. Without a nexus between the proposed study and the effects of the project on American eels, and with no indication that American eels are present between the project and the downstream Thurlow Dam, we concur with staff's recommendation, and are not incorporating the proposed eel study into this license. Alabama Power is, however, free to continue voluntarily.

G. Recreation Plan

123. Alabama Power proposes to implement a Recreation Plan, filed on December 9, 2011, to enhance recreation opportunities at the project. The plan includes a general description of 26 recreation sites on land owned by Alabama Power that are in, or partially in, the project boundary. The plan identifies 12 of these as sites that Alabama Power proposes to retain as project recreation sites in the new license: (1) Anchor Bay Marina; (2) Camp Alamisco; (3) Camp ASCCA; (4) DARE Boat Landing; (5) DARE Power Park; (6) Camp Kiwanis; (7) Maxwell Gunter AFB Recreation Area; (8) Parker Creek Marina; (9) Pleasure Point Park and Marina; (10) Real Island Marina and Campground; (11) Scenic Overlook; and (12) Union Ramp. Under the proposed plan, Alabama Power would provide for the operation and maintenance of the four sites that provide for public access: DARE Boat Landing; DARE Power Park; Scenic Overlook; and Union Ramp. The other eight sites are on land owned by Alabama Power, but are managed by other entities and do not provide full public access, as further discussed below.

124. The proposed recreation plan includes six additional sites, which Alabama Power would operate and maintain as project recreation for public access/day use: Bakers Bottom Landing (1.9-acre site with boat ramp and parking); Jaybird Landing (19.9-acre site with boat ramp); Madwind Creek Ramp (5.8-acre site with boat ramp, courtesy dock, and parking); Pace Point Ramp (8.7-acre site with boat ramp, courtesy dock, and parking); Paces Trail (24.1-acre site with fishing pier and campground); and Smith Landing (4.2-acre site with boat ramp, courtesy dock, and parking). Under the proposed plan, Alabama Power would reserve, for future development as project recreation, the 36.4-acre Ponder Camp (Stillwaters Area Boat Ramp). If developed, Ponder Camp would provide public access for day use and include a paved access road, a

¹⁰⁵ See *id.* at 81-82.

boat ramp, parking, and courtesy pier. Alabama Power proposes to develop, operate, and maintain the site in the future when needed. Two of the seven sites described above – Madwind Creek Ramp and Smith Landing – are not within the current project boundary, but as project recreation facilities would need to be brought into the project boundary.¹⁰⁶

125. In addition, the proposed Recreation Plan provides for: (1) improvements to an existing boat ramp, construction of two bank-fishing sites, and construction of a parking area at Jaybird Landing; (2) expansion of the parking areas at Madwind Creek Ramp and Smith Landing, as needed based on a review of project recreation use and needs; (3) consultation with the Alabama Department of Conservation on additional bank/pier fishing areas within the Martin Dam Project boundary; (4) annual review of project recreation signs; (5) annual consultation with the Alabama Department of Conservation to assess recreation access needs at Lake Martin; and (6) the filing of an annual Recreation Plan addendum with the Commission to describe consultation and any changes to project recreation that occurred in the preceding year.

126. In the final EIS, Commission staff found that Alabama Power's Recreation Plan would continue to guide project recreation management, and would provide a framework for the implementation of site improvements and associated measures.¹⁰⁷ However, Commission staff also found that Alabama Power's proposed Recreation Plan describes non-project facilities (i.e., facilities that it would not be responsible for operating and maintaining),¹⁰⁸ does not describe all amenities available at existing project facilities (e.g., the number of parking spaces available at project recreation sites), and includes extraneous material (e.g., pre-filing study plans).

127. Staff, therefore, recommended that Alabama Power file for Commission approval a Recreation Plan to include the following components: (1) a more complete description of the existing and proposed project recreation sites and amenities at each site, including a map or maps of each project recreation site in relation to the project boundary; (2) provisions for the operation and maintenance of project recreation facilities through the term of the license; (3) provisions for implementing Alabama Power's proposed improvements to the Jaybird Landing, Smith Landing, and Madwind Creek Ramp sites;

¹⁰⁶ See *id.* at 130.

¹⁰⁷ See *id.* at 131-132.

¹⁰⁸ See *id.* at 178.

(4) provision for assessing the need for developing bank/pier fishing areas within the Martin Dam Project boundary; and (5) a provision for filing a recreation monitoring report, concurrent with the Form 80 filings, that includes: (a) a recreation use and needs assessment; and (b) an identification of any additional measures or modifications to the project recreation sites that may be needed, with a schedule for implementing such changes.¹⁰⁹

128. Further, as noted above, Alabama Power's Recreation Plan lists eight sites as project recreation sites¹¹⁰ that do not currently provide recreational access to the general public, but, rather, are leased and/or managed by commercial and nonprofit entities.¹¹¹ Because these sites do not provide project recreation and access to the general public, but rather provide recreation to a subset of the public or customers of a commercial operator,

¹⁰⁹ See *id.* at 177-178.

¹¹⁰ These eight recreation sites are classified as either Commercial Recreation or Quasi-public Recreation, as defined by Alabama Power's land-use plan that accompanied Alabama Power's Comprehensive Recreation Plan, approved by the Commission in 1981. *Alabama Power Company*, 15 FERC ¶ 62,245 (1981). Quasi-public Recreation was defined as lands used by eleemosynary (i.e., charitable) organizations to meet the needs of particular segments of the public. As noted above, Alabama Power's proposed Shoreline Management Program defines "Quasi-public Recreation" as project lands that provide a natural, outdoor, recreational setting for the enjoyment of non-profit groups.

¹¹¹ These sites are (1) the 6.4-acre Anchor Bay Marina (managed by Vinings Marine Group and currently classified in the Shoreline Management Program as Commercial Recreation); (2) the 51.5-acre Camp Alamisco (managed by the Gulf States Conference of Seventh Day Adventist and classified as Quasi-public Recreation); (3) the 22.8-acre Camp ASCCA (Dadeville Campus) (managed by Alabama's Special Camp for Children and Adults and classified as Quasi-public Recreation); (4) the 90.5-acre Kamp Kiwanis (managed by the Girl Scouts of Southern Alabama and classified as Quasi-public Recreation); (5) the 45.3-acre Maxwell Gunter AFB Recreation Area (managed by the U.S. Department of Defense and classified as Quasi-public Recreation); (6) the 9.7-acre Parker Creek Marina (managed by the Singleton Marine Group and classified as Commercial Recreation); (7) the 6.6-acre Pleasure Point Park and Marina (managed by the Pleasure Point Park and Marina, Inc. and classified as Commercial Recreation); and (8) the 9.6-acre Real Island Marina and Campground (managed by Russell Marine and classified as Commercial Recreation).

we do not consider them to be project recreation. Accordingly, Alabama Power need not identify or otherwise discuss these non-project recreation facilities at Lake Martin in the revised Recreation Plan required by Article 410.

H. Shoreline Management

129. Currently, shoreline use at the project is guided by Alabama Power's existing Comprehensive Recreation Plan¹¹² and Alabama Power's shoreline permitting program.¹¹³ Alabama Power's Comprehensive Recreation Plan guides land uses within the project boundary. Currently, project lands are categorized into seven classifications:¹¹⁴

- a. Prohibited Access – Areas where the public is not allowed for safety reasons or to prevent damage to operational facilities.
- b. General Public Use – Land reserved for development of parks, boat ramps, concessionaires' facilities, and other public recreation facilities.

¹¹² The Comprehensive Recreation Plan was approved by the Commission on June 2, 1981. *See Alabama Power Company*, 15 FERC ¶ 62,245, *amended by Alabama Power Company*, 72 FERC ¶ 62,096 (1995).

¹¹³ The permitting program for the use of project lands is administered pursuant to the standard land use article contained in Alabama Power's license. There are currently three levels of use of project lands that each require different degrees of permit review and processing, as detailed by paragraphs (b), (c), and (d) of license Article 58. *Alabama Power Company*, 3 FERC ¶ 61,137, *amended by Alabama Power Company*, 15 FERC ¶ 62,245 (1981) (deleting the original land use Article 49 and adding the currently applicable Article 58). For any requests that do not meet the criteria specified in the standard land use article, Alabama Power must obtain prior Commission approval before permitting the activity.

¹¹⁴ In addition to the seven existing classifications, 510.1 miles of the 879.5-mile-long shoreline is categorized under "Unclassified Lands." There is no acreage associated with unclassified lands, as this category represents the number of shoreline miles where Alabama Power has no project lands above the 491-foot contour. *See Alabama Power's June 8, 2011 License Application*, Exhibit E at E-233.

- c. Natural/Undeveloped – Lands that are to remain undeveloped to serve as buffer zones around public recreational areas, to protect environmentally sensitive areas, to prevent overcrowding of partially developed shoreline areas, to maintain the aesthetic qualities of certain visible areas, to provide for nature study, and to provide for primitive camping.
- d. Potential Residential – Areas where lots for cottage construction can be developed by Alabama Power and made available to the public under restrictive lease provisions.
- e. Quasi-public Recreation – Lands leased to quasi-public organizations (e.g., Camp ASCCA, the U.S. Department of Defense [Maxwell Gunter AFB Recreation Area], Camp Alamisco, and Kamp Kiwanis [Girl Scouts]), as needed.
- f. Commercial Recreation – Lands that include existing concessionaire-operated public marinas and recreational areas (e.g., Anchor Bay Marina) that provide a wide variety of recreational services to the public on a fee basis.
- g. 30-foot Buffer – Defines a strip of land along the shoreline in certain areas of the reservoir. This 30-foot buffer is located on land once owned by Alabama Power. When sold, Alabama Power retained a 30-foot strip to act as a buffer and prohibit certain activities (e.g., habitable structures).

130. In addition, Alabama Power manages shoreline land that is within the project boundary (some of which it owns outright and some of which it has the right to maintain) through its existing shoreline permitting program.¹¹⁵ Non-project uses of project waters and shoreline lands are subject to permitting by Alabama Power. The shoreline permitting program provides guidelines for the construction of piers, boat ramps, seawalls, boathouses, boat slips, or docks on lands within the project boundary. The permitting process involves on-site meetings with property owners, a review of the proposed structures and other necessary permits or approvals from state and local agencies, and monitoring shoreline development after the issuance of a permit.

¹¹⁵ See final EIS at 116.

131. To protect environmental resources along the project shoreline, and enhance public access, Alabama Power proposes to implement its proposed Shoreline Management Plan, filed on June 8, 2011, with its license application. The plan is based on the Comprehensive Recreation Plan and includes: (1) a revised land-use classification system, discussed in detail below, to guide shoreline management and permitting activities within the project boundary; (2) a shoreline permitting program to guide the installation of non-project structures, including: (a) new guidelines and specifications for the installation of riprap and seawalls; (b) guidance for landowners to establish or maintain a 15-foot vegetated buffer on privately owned shoreline lands located outside of the project boundary; (c) the retention of a 30-foot control strip on any project lands removed from the project boundary; and (d) guidance on the use of best management practices to minimize soil erosion and sedimentation resulting from excavations, installation of boat docks, and lawn maintenance on land adjacent to the Lake Martin shoreline; (3) shoreline management policies designed to guide existing and future shoreline management actions at the project, including dredging,¹¹⁶ bank stabilization, channelization, water withdrawals, and causeways; and (4) a proposed process for reviewing the Shoreline Management Plan every 6 years.

¹¹⁶ On the July 6, 2011, the Commission approved Alabama Power's proposed dredge permit program for seven licensed hydroelectric projects, including the Martin Dam Project. The dredge permit program establishes the process and procedures for permittees seeking to obtain direct authorization from the licensee for dredging activities involving up to 500 cubic yards of material (below the full pool elevation) at the seven hydroelectric projects. *See* Alabama Power's December 9, 2011 Filing, Response to Question 29(b) of Commission staff's August 11, 2011 letter; *see also* Alabama Power Company, 136 FERC ¶ 62,012 (2011).

132. The proposed land-use classifications in the Shoreline Management Plan are:¹¹⁷

- a. Project Operations – Lands reserved for current and potential future operational activities, including project lands used for hydroelectric generation and other operational uses. There would be 279.8 acres of land under this classification.
- b. Recreation – Lands owned by Alabama Power for existing and/or future recreational use, including land developed for recreation with provisions for public access, recreation, open space, and future recreation development. There would be 334 acres of land under this classification.
- c. Quasi-public – Lands reserved to provide a natural, outdoor, recreational setting for the enjoyment of non-profit groups. There would be 237.2 acres of land under this classification.
- d. Commercial Recreation – Lands for existing concessionaire-operated public marinas and recreational areas that provide a wide variety of recreational services to the public on a fee basis. There would be 32.3 acres of land under this classification.
- e. Natural/Undeveloped – Lands to remain undeveloped for specific project purposes, including to: protect environmentally sensitive areas, maintain aesthetic qualities, provide for nature study, serve as buffer zones around public recreational areas, and prevent overcrowding of partially developed shoreline areas. This classification would total 6,992.4 acres.

¹¹⁷ Alabama Power also proposes to develop a “Sensitive Resources designation layer” in conjunction with other project land use classifications, such as Natural/Undeveloped. The Sensitive Resources designation layer includes resources that are important to the area or natural environment (e.g., historic or archaeological resources, wetlands, floodplains, habitat for federally listed species). Alabama Power proposes to develop the Sensitive Resources designation layer within 1 year of license issuance. *See* Alabama Power’s June 8, 2011 License Application, Exhibit E at E-233, E-235.

- f. Martin Small Game Hunting Area – This 528.2-acre area is a sub-classification under the Natural/Undeveloped land-use classification, and would be managed according to the Martin Dam Project Wildlife Management Program.
- g. 30-foot Control Strip – This classification addresses project lands located within a control strip of land along the shoreline in certain areas of the reservoir that were once owned by Alabama Power, and are now covered by easements held by Alabama Power. Alabama Power prohibits certain activities (e.g., habitable structures) within this classification. There would be 690.2 acres of land within this classification, across 195.1 miles of shoreline.

133. Alabama Power would discontinue its current General Public Use and Potential Residential classifications, which currently contain 781.2 and 329.6 acres of project land, respectively. Alabama Power proposes to reclassify some of these lands as Recreation and others as Natural/Undeveloped, depending on whether the land is currently being used to provide recreation, or is undeveloped land that receives relatively little recreation use. Separately, at eight recreation sites, Alabama Power proposes to reclassify 91 acres of project lands from the Natural/Undeveloped classification to the Recreation classification. Alabama Power also proposes to reclassify 160.4 acres of Natural/Undeveloped land to the Martin Small Game Hunting Area classification to allow for small game hunting within the project boundary.

134. In the final EIS, Commission staff recommended adopting the proposed Shoreline Management Plan, along with additional measures, to protect shoreline resources at the Martin Dam Project.¹¹⁸ Commission staff found that the proposed Shoreline Management Plan would provide shoreline management guidelines, clarify and revise shoreline land use classifications, and establish an overall framework for managing project lands at the Martin Dam Project. Further, staff found that Alabama Power's proposal to reclassify certain project land results in a more accurate description of land-use at the project. In addition, staff found that Alabama Power's shoreline permitting program would protect the Lake Martin shoreline during construction, operation, and maintenance of non-project structures.

¹¹⁸ See final EIS at 136-137.

135. However, the final EIS concluded that additional measures should be incorporated into the Shoreline Management Plan to protect the scenic quality of, and environmental resources at, the Martin Dam Project. First, Commission staff recommended that Alabama Power use GIS mapping technology to obtain GIS data on the Lake Martin area,¹¹⁹ which will facilitate the Commission's future reviews of the Shoreline Management Plan by providing, *inter alia*, location-specific information on monitoring programs and project resources. Second, staff found that the existing shoreline classification maps do not reflect some of the project boundary modifications proposed by Alabama Power, including proposed changes to the land-use classification system.¹²⁰ Therefore, staff recommended that the Shoreline Management Plan be revised to include updated shoreline classification maps. Third, staff recommended that Alabama Power develop a plan for addressing unpermitted shoreline development, or "encroachments," in order to protect the project's scenic, recreational, and environmental values, as well as ensure adherence to Shoreline Management Plan policies and shoreline permitting guidelines.¹²¹

136. As discussed above, the final EIS also found that Interior's recommendation to limit the construction of new seawalls is consistent with Alabama Power's proposal to encourage the use of alternative bank stabilization techniques, best management practices, and permitting guidelines before allowing the construction of seawalls.¹²² However, based on the potential for shoreline erosion to occur where a seawall is built without riprap, staff recommended that Alabama Power revise the Shoreline Management Plan to define the circumstances under which Alabama Power would permit a seawall without riprap.¹²³

137. Further, staff found that filing a Shoreline Management Plan update with the Commission that describes the 6-year review and consultation process would ensure

¹¹⁹ *See id.* at 137.

¹²⁰ *See id.* at 179.

¹²¹ *See id.* at 137-138.

¹²² *See id.* at 138.

¹²³ *See id.*

implementation of shoreline management guidelines, policies, and an overall framework for management of project lands.

138. We find that Alabama Power's Shoreline Management Plan, as revised by Commission staff in the final EIS, adequately provides for the protection of the scenic quality of, and environmental resources at, the Martin Dam Project. Article 412 of this license requires Alabama Power to file for Commission approval a revised Shoreline Management Plan in accordance with the additional measures recommended by staff in the final EIS.

I. Project Boundary

139. The existing project boundary encloses 8,602 acres of project land in addition to the lands inundated by the reservoir. Under the current license, these lands are used by Alabama Power for project operations, public recreation, and environmental protection.

1. Lands Proposed to Be Added to Project

140. Alabama Power proposes to add 991.5 acres to the project boundary: (1) 17 acres, to be designated under the Recreation land use classification; (2) 606.7 acres, to be designated as Natural/Undeveloped lands; and (3) 367.8 acres, to be designated under the Martin Small Game Hunting Area.

141. The 17 acres to be added as Recreation include the following acreages associated with sites proposed to be included in the project as project recreation: (1) 5.8 acres for the existing boat launch, courtesy dock, and parking area at Madwind Creek Ramp; (2) 4.2 acres for the existing boat launch, courtesy dock, and parking area at Smith Landing; and (3) 7 acres to correct a mapping error at Union Ramp (i.e., the site currently is only partially within the project boundary).¹²⁴

¹²⁴ See Alabama Power's December 9, 2011 Filing, Final Recreation Plan at 52-54. Table E-67 in Exhibit E of Alabama Power's June 8, 2011 License Application indicates that Alabama Power proposes to add 16.9 acres of land as Recreation. However, Alabama Power's December 9, 2011 Final Recreation Plan provides site-specific information indicating that Alabama Power proposes to add a total of 17 acres. With the 17 acres, we calculate the total acreage that Alabama Power proposes to add to the project boundary to be 991.5 acres.

142. The 606.7 acres of Natural/Undeveloped land are meant to protect environmentally sensitive areas, maintain natural aesthetic qualities, serve as buffer zones around public recreation areas, and prevent overcrowding of partially developed shorelines.¹²⁵

143. The 367.8 acres proposed for inclusion as part of the Martin Small Game Hunting Area would be managed by Alabama Power in accordance with the Wildlife Management Program, thereby facilitating the development of public hunting opportunities and additional habitat for longleaf pine-dependent wildlife species, such as the red-cockaded woodpecker.¹²⁶

144. In the final EIS, Commission staff recommended incorporating these 991.5 acres into the project boundary because they would be used and managed for project purposes.¹²⁷ While Alabama Power submitted Exhibit G drawings with its license application that appear to include the additional 991.5 acres, the additional project land is not specifically labeled and it is unclear whether all 991.5 acres of land are included in the Exhibit G drawings submitted in this proceeding. Accordingly, Article 203 of the license requires Alabama Power to revise its Exhibit G drawings clearly showing all 991.5 acres in the project boundary.

2. Lands Proposed for Removal from Project

145. Alabama Power proposes to remove 499.2 acres from the project boundary, including: (1) 25.8 acres at Pleasure Point Park and Marina; (2) 24.4 acres at Lake View Park; (3) 75.9 acres that are designated as Potential Residential and are proposed for private development; and (4) 373.1 acres that are designated as Natural/Undeveloped. Alabama Power states that it would, however, retain a 30-foot control strip between all land proposed for removal and the project shoreline.

¹²⁵ See Alabama Power's June 8, 2011 License Application, Exhibit E at E-234 to E-235.

¹²⁶ See Alabama Power's December 9, 2011 Filing, Final Wildlife Management Program at 19.

¹²⁷ See final EIS at 140.

a. Pleasure Point Park and Marina and Lake View Park

146. Alabama Power states that 25.8 acres at Pleasure Point Park and Marina are leased for private residences and are not used for any project purpose; and 24.4 acres at Lake View Park are classified as Quasi-public Recreation and are under a lease agreement with a commercial entity, and managed accordingly. As such, Alabama Power states that the 25.8 acres and 24.4 acres of land are not necessary for project purposes.

147. The acreage within Pleasure Point Park and Marina proposed for removal is currently being used for private seasonal cabins.¹²⁸ Consistent with Commission policy, private structures that are either unnecessary for operation of the project or do not serve a project purpose should not be enclosed within the project boundary. Further, Lake View Park is managed by a private entity as part of a residential community under a lease agreement, and is therefore not being used for project purposes. We accept Alabama Power's proposal to remove the 25.8 acres at Pleasure Point Park and Marina and 24.4 acres at Lake View Park. These changes to the project boundary should be reflected in the revised Exhibit G drawings that Alabama Power submits in accordance with Article 203.

b. Lands Classified as Potential Residential

148. Alabama Power proposes to discontinue its current Potential Residential land use classification. Of the 329.6 acres of Potential Residential land currently in the project boundary, Alabama Power proposes to: (1) remove 75.9 acres; and (2) reclassify the remaining 253.7 acres as either Natural/Undeveloped or Recreation.

149. As relevant to its proposal to remove the 75.9 acres, Alabama Power states that "removal of certain Project lands will allow consistent uses of Project property by taking those properties planned for private development (i.e., Potential Residential) out of the Project."¹²⁹ Following a Commission staff request for additional information,¹³⁰ Alabama Power explained that, because the Potential Residential classification is "inconsistent with the Commission's policy of maximizing public recreational use,"

¹²⁸ *See id.*

¹²⁹ *See* Alabama Power's June 8, 2011 License Application, Exhibit E at E-232.

¹³⁰ Letter from Mark Pawlowski, FERC, to James Crew, Alabama Power (August 11, 2011).

“Alabama Power has proposed ... to reclassify these lands as Natural/Undeveloped project lands.”¹³¹ Alabama Power did not provide property-specific information justifying why the 75.9 acres of land should be removed from the project boundary, rather than be re-classified as Natural/Undeveloped.

150. The final EIS did not make a recommendation on Alabama Power’s proposal to remove the 75.9 acres from the project boundary.

151. For discussion purposes, we divide the 75.9 acres of Potential Residential land into three parcels of land, listed in order of descending size: (1) Parcel A is located on a peninsula directly north of the waterway labeled “Manoy Creek”; (2) Parcel B is located directly northeast of Parcel A, on the same peninsula as Parcel A; and (3) Parcel C is located directly east of a peninsula labeled “Point Cloxson,” which is southeast of Parcels A and B.¹³² From the map provided in Alabama Power’s December 9, 2011 filing, we estimate the size of Parcels A and B to total approximately 70 acres.

152. We find that Parcels A and B serve the project purposes of protecting wildlife habitat and environmentally sensitive areas, maintaining aesthetic qualities, providing for nature study, serving as buffer zones around public recreation areas, and preventing overcrowding of partially developed shoreline. Consequently, the parcels should not be removed from the project boundary, but should instead be reclassified as “Natural/Undeveloped” land. Parcels A and B consist of undeveloped shoreline that appears to meet the Natural/Undeveloped land criteria,¹³³ and Alabama Power has not provided information showing that Parcels A and B are distinct from other Potential Residential land that Alabama Power is proposing to retain in the project boundary and reclassify as “Natural/Undeveloped” land. In addition, Parcels A and B adjoin 113 acres of existing Natural/Undeveloped land that would be isolated if Parcels A and B were

¹³¹ See Alabama Power’s December 9, 2011 Filing, Response to Question 22 of Commission staff’s August 11, 2011 Letter.

¹³² See *id.*, Response to Question 29 of Commission staff’s August 11, 2011 letter, Attachment entitled “Existing Project Land Classifications with Proposed Relicensing Changes.”

¹³³ See Alabama Power’s June 8, 2011 License Application, Exhibit G at sheet 10; *see also*, Alabama Power’s June 8, 2011 License Application, Shoreline Management Program at 4-2.

removed from the project boundary.¹³⁴ Specifically, the removal of Parcels A and B from the project boundary would create a gap between the 113 acres of existing Natural/Undeveloped land and the Lake Martin shoreline, thereby isolating the 113 acres of Natural/Undeveloped land and diminishing the project purposes currently served by the 113 acres of existing project land.¹³⁵ Moreover, Parcels A and B are within the Primary Management Area of Alabama Power's Wildlife Management Program and, along with the 113 acres of Natural/Undeveloped land, could potentially serve as foraging habitat for the federally listed red-cockaded woodpecker.¹³⁶ Accordingly, maintaining the approximately 70 acres of land that make up Parcels A and B within the project boundary, and reclassifying Parcels A and B as Natural/Undeveloped land will protect the integrity of the shoreline environment, leverage the buffering and aesthetic value of adjacent parcels, and provide additional potential habitat for the red-cockaded woodpecker. Therefore, we do not accept Alabama Power's proposal to remove Parcels A and B from the project boundary and, instead, require Alabama Power to reclassify them as Natural/Undeveloped land.

153. Parcel C (approximately 6 acres) does not share the same natural and undeveloped characteristics described above for Parcels A and B. Specifically, Parcel C is divided by a road, directly bordered by residential property, does not have direct access to the Lake Martin shoreline, and does not appear to serve any project purpose. Therefore, we approve the removal of Parcel C from the project boundary.

154. The changes to the project boundary regarding parcels A, B, and C should be reflected in the revised Exhibit G drawings that Alabama Power submits in accordance with Article 203.

¹³⁴ See Alabama Power's July 29, 2015 Filing, Attachment at 2-3.

¹³⁵ As defined, Natural/Undeveloped land remains undeveloped to protect environmentally sensitive areas, maintain aesthetic qualities, provide for nature study, serve as buffer zones around public recreation areas, and prevent overcrowding of partially developed shoreline.

¹³⁶ See Alabama Power's June 8, 2011 License Application, Exhibit G at sheet 10 (showing pine forests and mixed pine-hardwood forests); *see also*, Alabama Power's December 9, 2011 Filing, Final Wildlife Management Program at 12 (showing forest cover types in the Primary Management Area).

c. Lands (373.1 acres) Designated as Natural/Undeveloped

155. In its December 9, 2011 filing responding to Commission staff's request for additional information, Alabama Power explained that its proposal to remove from the project 373.1 acres classified as Natural/Undeveloped land, while adding almost 607 acres of land classified as Natural/Undeveloped at other sites, would "balance" the classification of lands in the project boundary and "more effectively distribute Natural/Undeveloped lands all around [Lake Martin]." ¹³⁷ In the final EIS, Commission staff determined that Alabama Power had failed to demonstrate why the 373.1 acres are no longer necessary for project purposes. ¹³⁸ Staff found that the 373.1 acres would continue to provide the benefits of Natural/Undeveloped land, including serving as a buffer for public recreation areas, preventing overcrowding of partially developed shoreline areas, protecting environmentally sensitive areas, and maintaining aesthetic qualities. Therefore, staff recommended not adopting Alabama Power's proposal.

156. We deny Alabama Power's proposal to remove the entire 373.1 acres from the project boundary. The 373.1 acres proposed for removal from the project consist of plots of land spread throughout the project, and Alabama Power has not provided sufficient information to conclude that the land no longer serves a project purpose. Indeed, Alabama Power's December 9, 2011 filing ¹³⁹ shows that a substantial portion of the 373.1 acres is within the Primary Management Area of the Wildlife Management Program, which includes land that will be managed toward good quality foraging habitat for the red-cockaded woodpecker. ¹⁴⁰

¹³⁷ See Alabama Power's December 9, 2011 Filing, Response to Question 22 of Commission staff's August 11, 2011 letter.

¹³⁸ See final EIS at 180.

¹³⁹ See Alabama Power's December 9, 2011 Filing, Response to Question 29 of Commission staff's August 11, 2011 letter, Attachment entitled "Existing Project Land Classifications with Proposed Relicensing Changes."

¹⁴⁰ This is important for an analysis of Alabama Power's proposal because the red-cockaded woodpecker depends on specific habitat conditions in the local area, such as the density of large pines that are greater than 60 years in age and the lack of hardwood trees.

157. In its July 29, 2015 comments on the final EIS, Alabama Power provided additional information regarding certain aspects of its proposal.¹⁴¹ Alabama Power concedes that the purpose of these lands is to buffer public recreation areas, prevent overcrowding of partially developed shoreline areas, protect environmentally sensitive areas, and maintain aesthetic qualities. However, Alabama Power states that its proposal to remove the 373.1 acres is offset by its proposal to add 606.7 acres of Natural/Undeveloped land to the project boundary, which it notes is an almost two-to-one exchange of project lands for non-project lands. Noting stakeholder support of its proposal, Alabama Power requests that the Commission consider and approve its proposal to remove the 373.1 acres from the project boundary.

158. Alabama Power also provided new information on specific tracts of project lands within the 373.1 acres. Alabama Power states that certain logistical issues arise in a post-license environment if the Commission retains the 373.1 acres in the project boundary. Specifically, Alabama Power offers the following explanation for why seven tracts of land (totaling about 150.37 acres) should not be retained in the project boundary:¹⁴²

- a. Tract 1: Because of the concurrent removal of certain Potential Residential lands from the project boundary, Alabama Power states that Tract 1 (53 acres) will be isolated and will no longer serve a specific project purpose.
- b. Tract 2: Because of the concurrent removal of certain Potential Residential lands from the project boundary, Alabama Power states that Tract 2 (60 acres) will be isolated and will no longer serve a specific project purpose.
- c. Tract 3: Because of a labeling error in its license application, Alabama Power states that Tract 3 (8.5 acres) was incorrectly mapped as Natural/Undeveloped land instead of Potential Residential land.
- d. Tract 4: Due to a labeling error in its license application, Alabama Power states that Tract 4 (3.6 acres) was incorrectly

¹⁴¹ See Alabama Power's July 29, 2015 Comments at 3.

¹⁴² See Attachment to Alabama Power's July 29, 2015 Comments.

mapped as Natural/Undeveloped land instead of Potential Residential land.

- e. Tract 5: Broken into four separate segments, Tract 5 (1.27 acres) consists of lands that Alabama Power states: (a) were incorrectly mapped as Natural/Undeveloped land instead of Potential Residential land; or (b) are isolated and no longer serve a project purpose.
- f. Tract 6: Alabama Power states that Tract 6 (6 acres) was mapped incorrectly and that it is currently outside of the project. Alabama Power states that it did not intend to bring Tract 6 into the project boundary.
- g. Tract 7: Alabama Power states that Tract 7 (18 acres) was proposed for removal due to changing land-use in the area. In exchange, Alabama Power states that it purchased a 17.6-acre island with the sole intent to serve as Natural/Undeveloped land in lieu of Tract 7.

159. As noted by Alabama Power, Tracts 1 and 2 are adjacent to certain Potential Residential lands. These Potential Residential lands are Parcels A and B, which are discussed in detail above. Because we are requiring Parcels A and B to remain in the project boundary, Tracts 1 and 2 will not be isolated from the shoreline and will serve the project purposes of Natural/Undeveloped land. Therefore, we do not accept Alabama Power's proposal to remove the 113 acres of Natural/Undeveloped land that comprises Tracts 1 and 2.

160. We also find that Alabama Power has not adequately demonstrated that Tracts 3 and 4 no longer serve a project purpose. Alabama Power states that it incorrectly mapped Tracts 3 and 4 as Natural/Undeveloped, when in fact these lands are Potential Residential. Alabama Power states that Tracts 3 and 4 should be removed from the project boundary because they are not serving a project purpose.¹⁴³ However, the lands serve some of the same purposes identified above with respect to Parcels A and B.

¹⁴³ See *id.*

Namely, Tracts 3¹⁴⁴ and 4¹⁴⁵ appear to be mostly natural and undeveloped forested areas that are intended to prevent overcrowding of shoreline areas, and maintain aesthetic qualities. Tracts 3 and 4 are also within the Primary Management Area of Alabama Power's Wildlife Management Program.¹⁴⁶ Because Alabama Power has not provided sufficient justification for removing Tracts 3 and 4 from the project boundary, we do not accept its proposal and, instead, require Alabama Power to reclassify Tracts 3 and 4 as Natural/Undeveloped land.¹⁴⁷

161. Upon reviewing Alabama Power's justification for removing Tracts 5 and 6 from the project boundary, we find that Alabama Power has adequately demonstrated that Tract 5 no longer serves a project purpose. Although Tract 5 consists of both Potential Residential and Natural/Undeveloped lands, we find that these lands will be adjacent to developed land, are isolated from Natural/Undeveloped land by roads, are not located in the Primary Management Area, and that removal of these lands will not result in the isolation of other Natural/Undeveloped land. Therefore, removing the Potential Residential and Natural/Undeveloped land in Tract 5 does not present the same concerns identified above with respect to the removal of Parcels A and B. As for Tract 6, Alabama Power states that this tract of land is currently outside of the project boundary and that Alabama Power did not intend to bring it into the project. However, the Exhibit G map filed by Alabama Power, and showing the project boundary as of April 11, 2006, actually includes Tract 6 as part of the *existing* project.¹⁴⁸ Alabama Power has not provided a justification for removing Tract 6 from the project boundary. Accordingly, we approve the exclusion of Tract 5, but not Tract 6, from the project boundary.

¹⁴⁴ See Alabama Power's June 8, 2011 License Application, Exhibit G at sheet 5.

¹⁴⁵ See *id.* at sheet 10.

¹⁴⁶ See Alabama Power's December 9, 2011 Filing, Final Wildlife Management Program at 12.

¹⁴⁷ Tract 4 is also directly connected to Parcel C, which is discussed above in detail. While we are accepting Alabama Power's proposal to remove Parcel C, we find that Tract 4 still serves a project purpose of Natural/Undeveloped land because it will prevent overcrowding of the local shoreline area and maintain natural aesthetic shoreline qualities.

¹⁴⁸ See Attachment to Alabama Power's July 29, 2015 Comments.

162. We do not accept Alabama Power's proposal to remove from the project boundary the 18 acres of Natural/Undeveloped land that constitute Tract 7. Alabama Power asserts that land uses are changing in the area and it has purchased an adjacent 17.6-acre island to serve as Natural/Undeveloped land in lieu of Tract 7. Upon analyzing Alabama Power's license application, it is apparent that Tract 7 is located between existing residential development to the north and undeveloped, forested shoreline to the south.¹⁴⁹ Tract 7 also appears to be directly connected to the adjacent 17.6-acre island, via a sandbar, for at least part of the year.¹⁵⁰ Accordingly, based on its location, Tract 7 currently serves as a buffer between developed and undeveloped lands, thereby preventing overcrowding of the shoreline and maintaining the natural aesthetic qualities of the local shoreline area. At the same time, the 17.6-acre island cannot serve as a replacement for Tract 7 because of the connectivity between the two pieces of land. That is, the land use of Tract 7 will strongly influence the habitat quality and project purposes of the 17.6-acre island because Tract 7 provides direct access to the 17.6-acre island for at least part of the year. As stated in section 4.3.3 of Alabama Power's Shoreline Management Plan: "Private residential property occupies a considerable amount of [the] shoreline and has a significant effect on the shoreline as well as the reservoir itself." For all these reasons, we do not accept Alabama Power's proposal to remove Tract 7 from the project boundary.

163. In addition, in its July 29, 2015 comments, Alabama Power states that it has proposed to add the adjacent 17.6-acre island to the project. Because the 17.6-acre island includes existing Natural/Undeveloped land that provides natural aesthetic qualities within Lake Martin and can be used to protect environmental and wildlife resources, we accept this proposal. However, this 17.6-acre parcel was not included within the project boundary in Exhibit G, sheet 4 of Alabama Power's license application, and the company must refile the sheet to correct this omission.

3. Conclusion

164. In sum, the following lands, totaling 1,009.1 acres, are added to the Martin Dam Project:

¹⁴⁹ See Alabama Power's June 8, 2011 License Application, Exhibit G at sheet 3.

¹⁵⁰ See *id.* at sheet 4.

- 17 acres, to be designated under the Recreation land use classification and consisting of (a) 5.8 acres for the existing boat launch, courtesy dock, and parking area at Madwind Creek Ramp; (b) 4.2 acres for the existing boat launch, courtesy dock, and parking area at Smith Landing; and (c) 7 acres to correct a mapping error at Union Ramp (i.e., the site currently is only partially within the project boundary);
- 606.7 acres, to be designated as Natural/Undeveloped lands;
- 367.8 acres, to be designated under the Martin Small Game Hunting Area; and
- The 17.6-acre island located at the mouth of Blue Creek, and across from shoreline of Union Boat Ramp.¹⁵¹

165. The following lands, totaling approximately 57.47 acres, are removed from the project boundary:

- 25.8 acres at Pleasure Point Park and Marina;
- 24.4 acres at Lake View Park;
- approximately 6 acres associated with Parcel C, described above, which is located directly east of a peninsula labeled “Point Cloxson,”¹⁵² and
- 1.27 acres made up of Tract 5, described above.

166. As discussed below, Alabama Power must file revised Exhibit G drawings to reflect the project boundary modifications.

¹⁵¹ See Alabama Power’s December 9, 2011 Filing, Response to Question 29 of Commission staff’s August 11, 2011 letter, Attachment entitled “Existing Project Land Classifications with Proposed Relicensing Changes.”

¹⁵² See *id.*

J. Public Education and Outreach

167. To help protect the Lake Martin shoreline and aquatic habitat within the project boundary through public education and awareness, Alabama Power proposes to develop and implement a Public Education and Outreach Plan that provides: (1) a description of current public education efforts, such as the *Shorelines* newsletter and an updated website; (2) a brochure for homeowners on best management practices for protecting the Lake Martin shoreline and establishing a vegetative buffer on private lands adjacent to the project boundary; (3) results of a striped bass hooking mortality study, in order to reduce the occurrence of hooking mortality during summer and fall periods; (4) information for boaters and homeowners on methods to prevent shoreline erosion and sedimentation; (5) information about nuisance aquatic vegetation in the *Shorelines* newsletter and/or *Lake Magazine*; (6) an “Adopt an Island” program to address litter control on Alabama Power-owned project islands; and (7) information on Alabama Power’s participation in efforts to restore longleaf pine forests.¹⁵³ Alabama Power proposes to update the plan periodically.

168. In the final EIS, Commission staff recommended the development and implementation of the Public Education and Outreach Plan¹⁵⁴ to assist landowners and developers in protecting project shorelines and aquatic habitat at Lake Martin. Article 411 requires Alabama Power to develop and file a Public Education and Outreach Plan, as discussed above.

¹⁵³ In its draft Public Education and Outreach Program Plan, Alabama Power proposes to develop a brochure about the Long Leaf Pine Legacy program, but does not provide information on its participation in this program. The National Fish and Wildlife Foundation provides information on its website noting that the “Longleaf Legacy Program” is no longer active, but that the “Longleaf Stewardship Fund builds on the success of the Longleaf Legacy Program, a partnership between Southern Company and the Foundation since 2004, which has invested over \$8.7 million into projects that will restore more than 87,000 acres of longleaf pine forest and the native species that rely on it.” See National Fish and Wildlife Foundation, *Longleaf Stewardship Fund* (accessed November 24, 2015), <http://www.nfwf.org/longleaf/Pages/home.aspx>.

¹⁵⁴ See final EIS at 178.

K. Project Operation and Flow Monitoring Plan

169. The final EIS recommended that Alabama Power file a Project Operation and Flow Monitoring Plan to enable the Commission to monitor compliance with (1) Lake Martin water levels required in Article 402; (2) the Conditional Fall Extension required by Article 403; (3) operations for flood control required by Article 404; and (4) the Drought Response Proposal required by Article 405. However, this license includes notification and reporting requirements within each of these articles, which, along with Commission oversight during the term of this license, will be sufficient to monitor compliance. Accordingly, we are not requiring Alabama Power to submit a Project Operation and Flow Monitoring Plan for the Martin Dam Project.

L. Implementation Dates

170. In its July 29, 2015 comments, Alabama Power seeks clarification on the effective dates for implementing its new operating conditions, namely, the winter pool increase and the conditional fall extension. Alabama Power asks if the new operating conditions can be implemented immediately upon issuance of the license and, if so, how the Water Quality Monitoring Plan, Project Operation and Flow Monitoring Plan, and Nuisance Aquatic Vegetation and Vector Control Program, affect the implementation schedule.¹⁵⁵

171. The operating conditions that are being approved as part of this license are effective as of the issuance date of this license. As discussed above, we are not requiring Alabama Power to submit a Project Operation and Flow Monitoring Plan. The Water Quality Monitoring Plan and Nuisance Aquatic Vegetation and Vector Control Program continue ongoing monitoring efforts: the Water Quality Monitoring Plan carries forward monitoring requirements from the water quality certification; and the Nuisance Aquatic Vegetation and Vector Control Program involves the performance of lake-wide surveys that are periodically performed by Alabama Power. Accordingly, the schedules for implementation of the Water Quality Monitoring Plan and Nuisance Aquatic Vegetation and Vector Control Program do not affect the implementation schedule of the operating conditions approved in this license.

¹⁵⁵ See Alabama Power's July 29, 2015 Comments at 2-3.

Sufficiency of EIS

A. State-listed Endangered Species

172. In their April 23, 2015 comments, Conservation Groups assert that the threatened and endangered species analysis in the final EIS is inadequate.¹⁵⁶ Conservation Groups focus on the final EIS analysis of project effects on the lipstick darter, a fish species listed as endangered by the State of Alabama. Conservation Groups assert that existing impoundments in the basin, including Lake Martin, are a major threat to the lipstick darter, and that the Commission must discuss the environmental impact of the proposed action, regardless of whether the lipstick darter is federally listed.

173. Conservation Groups reference a detailed account of the lipstick darter that can be found on Georgia DNR's website.¹⁵⁷ According to this source, impoundments are a threat to the lipstick darter because they eliminate or alter the flow regime of the riffles that are typically inhabited by lipstick darters. In addition, the lipstick darter is vulnerable to impacts from sedimentation associated with land clearing and failure to follow best management practices. Therefore, forested buffers should be maintained or restored along riverbanks and smaller tributary streams. Maintaining natural streamflow patterns by preventing excessive water withdrawals also helps protect riverine habitat quality for the lipstick darter.

174. In the final EIS, Commission staff described the range and habitat characteristics of the lipstick darter,¹⁵⁸ and responded to concerns raised about the project's effects on the lipstick darter.¹⁵⁹ Staff stated that the primary threats identified for the lipstick darter are from new impoundments and deforestation upstream of riffle habitats. Staff noted that the Martin Dam Project is an existing impoundment and there is no known project-related activity that would cause deforestation of the tributary watershed and affect riffle habitat. Though state-listed as endangered, staff also noted that the lipstick darter is not

¹⁵⁶ Conservation Groups' April 23, 2015 Comments at 2.

¹⁵⁷ Freeman, B., and Dinkins, G., *Lipstick Darter* (Dec. 2009), http://www.georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/pdf/accounts/fishes/etheostoma_chuckwachatte.pdf.

¹⁵⁸ See final EIS at 55.

¹⁵⁹ See *id.* at 87.

federally listed under the ESA. For these reasons, the final EIS found that no further analysis of the lipstick darter was needed.¹⁶⁰

175. We concur with staff's analysis and find that several of the measures included in the license (e.g., measures associated with the Public Education and Outreach Plan, Shoreline Management Plan, Wildlife Management Program, and the water quality certification) will help protect aquatic habitat at Lake Martin and, in turn, could benefit the lipstick darter.

B. Basin-wide Analyses

176. EPA and Conservation Groups submitted comments on the need to coordinate licenses in the Tallapoosa River Basin and to further analyze the cumulative impacts of hydroelectric projects on the Coosa and Tallapoosa Rivers.

1. License Coordination

177. EPA "believes there may be more opportunities within the FERC relicensing process to coordinate licenses within [the] basin, especially when instream flow requirements for other projects (in this case – [the Yates and Thurlow Project]) significantly impact operations at the project under review."¹⁶¹

178. EPA requests that the Commission consider changing the expiration dates of licenses within the river system so that licenses can be evaluated at the same time. It is the Commission's long-standing policy to "coordinate the expiration dates of licenses to the maximum extent possible, to maximize future considerations of cumulative impacts . . . in contemporaneous proceedings at relicensing."¹⁶² However, we cannot do so in this case. The Yates and Thurlow Project was relicensed in 1994 for a 40-year term, with an expiration date in February 2034. Under section 15 of the FPA,¹⁶³ we cannot issue a new

¹⁶⁰ *See id.*

¹⁶¹ *See* EPA's May 11, 2015 Comments at 4.

¹⁶² *See, e.g.,* 18 C.F.R. § 2.23 (2015); *see also* *FPL Energy Maine Hydro LLC*, 88 FERC ¶ 61,116 (1999).

¹⁶³ 16 U.S.C. § 808(e) (2012).

license for the Martin Dam Project for a term of less than 30 years or more than 50 years (i.e., with an expiration date of between 2045 and 2065).¹⁶⁴

179. EPA also states that “variable flow patterns [are] needed to maintain or restore processes that sustain natural riverine characteristics in the Tallapoosa River system and that they should be reviewed within each license.”¹⁶⁵ For this reason, EPA believes coordination of licenses using a basin-wide approach is critical to ensuring protection of water quality below FERC projects.

180. We deny EPA’s request to require Alabama Power to revise project operations to simulate natural flow patterns. Historical flow statistics demonstrate that, on a seasonal basis, regulated flows from Martin Dam roughly simulate natural flow characteristics for the Tallapoosa River. Natural river flow in the Tallapoosa River Basin normally peaks during the winter and early spring, with flood events most commonly recorded during the winter and spring.¹⁶⁶ Similarly, from 1992 to 2011, average flows downstream of Thurlow Dam were highest in winter and early spring (e.g., 5,594 cfs in February, and 6,274 cfs in March) and lowest in the summer and early fall (e.g., 2,570 cfs in August and 2,583 cfs in September).¹⁶⁷ Flood events also provide inter-annual variability, as indicated by maximum flows of 94,000 cfs reported in May.

181. EPA has not provided recommendations on a suitable minimum, or variable flow, and has not provided sufficient information for the Commission to assess the benefits of modifying project operations to mimic natural, variable flow regimes. To the extent possible, Alabama Power will continue to provide flows from Martin Dam to meet minimum flow requirements for, *inter alia*, navigation, and will continue to manage the Martin Dam Project to mitigate drought conditions.

¹⁶⁴ As for the Yates and Thurlow Project, that license may be altered only upon mutual agreement between the licensee and the Commission. *See* section 6 of the FPA, 16 U.S.C. § 799 (2012).

¹⁶⁵ *See* EPA’s May 11, 2015 Comments at 4.

¹⁶⁶ *See* final EIS at 31.

¹⁶⁷ *See id.* at 48.

2. Downstream Flow Impacts

182. Conservation Groups assert that the Commission has not studied the environmental impacts of the flow that is released from the Thurlow Dam, even though the Yates and Thurlow Project uses flows from Martin Dam to meet the instream flow requirements from Thurlow Dam.¹⁶⁸ We disagree. The final EIS provides an environmental analysis of the impacts of Alabama Power's proposed operational changes on flows downstream of Thurlow Dam. According to staff's analysis, increased winter pool levels and the conditional fall extension could have beneficial effects on DO, but could also increase erosion and turbidity levels downstream of Thurlow Dam.¹⁶⁹ Staff's analysis of flooding downstream of Thurlow Dam also directly contributed to its recommendation to approve Alabama Power's proposed 3-foot increase in the winter pool instead of a larger increase.¹⁷⁰

3. Cumulative Impacts

183. Conservation Groups state that the Commission must improve its study of cumulative impacts on the Mobile Bay by assessing the collective impacts of projects located on the Coosa and Tallapoosa Rivers. However, Commission staff in the final EIS identified water quantity, and aquatic and fishery resources as having the potential to be cumulatively affected by the proposed project in combination with other past, present, and future activities.¹⁷¹ Staff found that the geographic scope for its analysis of water quantity and aquatic and fishery resources is the entire Alabama River and the Tallapoosa River (from its mouth, upstream to and including the Martin Dam Project).¹⁷² Staff chose this geographic scope because operation of the Martin Dam Project in combination with the other Alabama Power hydropower projects and the Corps impoundments could cumulatively affect these resources.

¹⁶⁸ See Conservation Groups' April 23, 2015 Comments at 1.

¹⁶⁹ See final EIS at 77.

¹⁷⁰ See *id.* at 172.

¹⁷¹ See *id.* at 32.

¹⁷² See *id.* at 33.

184. The final EIS includes an analysis of the potential cumulative effects on flows, and aquatic and fishery resources.¹⁷³ Commission staff found that increasing the winter pool elevation at both the Martin Dam Project and the Neely Henry Development on the Coosa River Project No. 2146 (as authorized in the new license for the Coosa River Project)¹⁷⁴ would reduce winter flood storage, but would not result in increased flooding in the Alabama River downstream of the projects.¹⁷⁵ Regarding low flows, staff found that the implementation of the Drought Response Proposal will help manage any cumulative effects on drought flows. In the cumulative effects analysis for aquatic resources, staff found that Alabama DEM's certification would ensure no change in, or a slight improvement to, DO levels in the Tallapoosa River. Staff also found that migratory and resident fish species would accrue modest benefits from Alabama Power's proposals for habitat and water quality improvements and from the proposal for drought management. Paddlefish in the downstream reaches of the Tallapoosa River should also benefit from increased spawning season flows associated with Alabama Power's proposal to raise the winter pool at Martin Dam.¹⁷⁶

185. To the extent that EPA and Conservation Groups argue for an even broader analysis of cumulative effects across the entire Alabama-Coosa-Tallapoosa River Basin, the scope of the analysis in the final EIS is consistent with practical considerations of feasibility.¹⁷⁷ Moreover, the Commission's obligation under FPA section 10(a)(1) continues throughout the term of the license.¹⁷⁸ To this end, we include in licenses a number of conditions that reserve the Commission's authority to reopen and amend the license to order changes to project facilities or operations in the future, as circumstances may warrant.

¹⁷³ See *id.* at 89-90.

¹⁷⁴ See *Alabama Power Company*, 143 FERC ¶ 61,249.

¹⁷⁵ See final EIS at 90.

¹⁷⁶ See *id.*

¹⁷⁷ See *Central Maine Power Company*, 81 FERC ¶ 61,251 (1997); *Public Service Company of New Hampshire*, 68 FERC ¶ 61,177 (1994), *reh'g denied*, 74 FERC ¶ 61,177 (1996).

¹⁷⁸ See, e.g., *S.D. Warren Company*, 68 FERC ¶ 61,213, at 62,022 (1994).

C. Environmental Justice

186. In its May 11, 2015 comments on the final EIS, EPA states that Commission staff did not meaningfully engage minority and low-income populations in the decision-making process consistent with Executive Order 12898.¹⁷⁹ EPA states that it is unclear whether minority and low-income populations exist in the vicinity of the project area and whether these populations utilize the resources in the area. EPA states that this information would have been helpful for targeting outreach efforts to ensure that minority and low-income populations provide information regarding subsistence, recreation, and/or flooding, etc.

187. The environmental justice policy was promulgated in Executive Order No. 12898, which requires specified Executive Branch agencies to identify and address any disproportionately high and adverse health or environmental effects of their actions on low-income and minority populations.¹⁸⁰ However, Executive Order 12898 applies to the agencies specified in section 1-102 of that order, and the Commission is not identified as one of the specified agencies. Consequently, the provisions of Executive Order 12898 are not binding on this Commission.¹⁸¹

188. Nonetheless, in accordance with our existing outreach practices and section 5.8(a) of the Commission's regulations, we provided notice of commencement of this proceeding subsequent to receiving Alabama Power's notification of intent and pre-application document on June 5, 2008.¹⁸² Subsequently, we issued a scoping document on August 5, 2008, requesting information on socioeconomic issues, fishing, recreation, and land use. Commission staff received input on all of these topics and included those analyses in the appropriate places in the EIS. Staff also analyzed issues related to

¹⁷⁹ See EPA's May 11, 2015 Comments at 5-6.

¹⁸⁰ Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order 12898 (February 11, 1994), *reprinted at* 59 Fed. Reg. 7629. Executive Order No. 12898 is not binding on the Commission, which is an independent regulatory agency, not an executive agency, but section 6-604 of the order requests that independent agencies comply with the provisions of the order.

¹⁸¹ See *New York Power Authority*, 120 FERC ¶ 61,266, at PP 9-10 (2007).

¹⁸² 18 C.F.R. § 5.8 (2015).

potentially competing interests and discussed fish consumption advisories, which can affect those who participate in subsistence fishing. To date, no party has provided comments or evidence indicating an issue of environmental justice. Altogether, we find that our efforts to reach all interested public citizens have been consistent with our regulations and have promoted the participation of a variety of interests, including citizens of the counties in which the project is located.

D. Children's Health

189. In its May 11, 2015 comments, EPA states that the final EIS has not identified to what extent, if any, the proposed project, may or may not impact children or women of child-bearing age.¹⁸³ We do not concur. EPA did not specifically identify the aspects of the project or project operations that in its view, could adversely affect children or women of child-bearing age. Nonetheless, as requested by EPA in comments on the draft EIS, the final EIS provided information identifying the demographics of children under the age of 18 in Coosa, Elmore, and Tallapoosa Counties.¹⁸⁴ In addition, Commission staff in the final EIS confirmed that no fish consumption advisories currently exist for Lake Martin or the area immediately downstream of the dam.¹⁸⁵ Finally, as stated below, staff has reviewed Alabama Power's management, operation, and maintenance of the Martin Dam Project and concludes that the dam and other project works are safe. There is no indication that Alabama Power cannot continue to safely manage, operate, and maintain these facilities under a new license or that the proposed project presents a particular risk to children or women of child-bearing age.

E. Miscellaneous Issues

190. In its May 11, 2015 comments, EPA contends that the final EIS did not respond to its previous comments on the draft EIS, where EPA stated that it supports the adoption of Interior's proposed recommendations for the Martin Dam Project.¹⁸⁶ While the draft EIS

¹⁸³ See EPA's May 11, 2015 Comments at 6.

¹⁸⁴ See final EIS at 114.

¹⁸⁵ See *id.* at 53.

¹⁸⁶ See EPA's May 11, 2015 Comments at 4. EPA also takes issue with Commission staff's treatment in the final EIS of EPA's comments on the draft EIS. First, EPA states that, contrary to a statement made by staff in the final EIS, EPA did not make

may not have referred to EPA's support of Interior's recommendations, the final EIS addressed each of Interior's recommendations. Furthermore, this license incorporates Interior's recommendations to limit new seawall construction, maintain a 30-foot-wide control strip within the project boundary, require the Drought Response Proposal, and manage longleaf pine habitat for the red-cockaded woodpecker.

Administrative Provisions

F. Annual Charges

191. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA and use and occupancy of United States lands.

G. Exhibit F and G Drawings

192. The Commission requires licensees to file sets of approved project drawings in electronic file format. Article 202 requires the filing of these drawings.

193. The Exhibit G drawings filed with the license application do not include in the project boundary the 499.2 acres of land that Alabama Power has proposed for removal from the project. However, as explained above, this order denies the removal of 441.73

comments related to the Resources and Ecosystems Sustainability, Tourist Opportunity and Revived Economics of the Gulf States Act (RESTORE Act). EPA requests that the record be amended to accurately reflect its comments. *See* EPA's May 11, 2015 Comments at 6. We acknowledge here that EPA did not make comments related to the RESTORE Act.

EPA also argues that the final EIS incorrectly references an August 20, 2013 filing date for EPA's comments on the draft EIS. EPA states that it submitted an e-copy of its comments on the draft EIS to the Commission by email on August 13, 2013, and that the record should be amended accordingly. *See* EPA's May 11, 2015 Comments at 6. Section 385.2001 of the Commission's regulations, 18 C.F.R. § 385.2001 (2015), provides the requirements for submitting filings with the Commission. Filings must be submitted to the Commission's Secretary via mail, hand delivery, or links provided at <http://www.ferc.gov>. The Commission's eLibrary records show that EPA's comments were formally filed with the Commission on August 20, 2013. Accordingly, no revisions to the record are necessary.

of the 499.2 acres. In addition, this order requires Alabama Power to include in the project boundary an additional 17.6 acres of Natural/Undeveloped land.

194. It is also unclear whether all 991.5 acres of land that Alabama Power has proposed to add to the project boundary is included in Alabama Power's Exhibit G. Finally, Alabama Power must include all 11 project recreation sites contained in Appendix D, sheets D-2 (Bakers Bottom Landing), D-5 (DARE Boat Landing), D-6 (DARE Power Park), D-7 (Jaybird Landing), D-9 (Madwind Creek Ramp), D-11 (Pace Point Ramp), D-12 (Paces Trail), D-15 (Ponder Camp), D-17 (Scenic Overlook), D-18 (Smith Landing), and D-19 (Union Ramp) of the Recreation Plan filed on December 9, 2011.

195. The Exhibit G drawings must show all approved project features; therefore, the project boundary drawings are not approved. Article 203 requires Alabama Power to file revised Exhibit G drawings pursuant to sections 4.39 and 4.41 of the Commission's regulations.

H. Amortization Reserve

196. The Commission requires that for new major licenses, non-municipal licensees must set up and maintain an amortization reserve account upon license issuance. Article 204 requires the establishment of the account.

I. Headwater Benefits

197. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 205 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

J. Use and Occupancy of Project Lands and Waters

198. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 414 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

K. Review of Project Works Modifications

199. Article 301 requires Alabama Power to consult with the Commission's Division of Dam Safety and Inspections (D2SI)–Atlanta Regional Engineer if environmental requirements under this license require modification that may affect project works or operations.

L. Commission Approval of Resource Plans, Notification, and Filing of Amendments

200. In Appendix A, there are certain certification conditions that either do not require Alabama Power to file reports with the Commission or do not specify the need for Alabama Power to obtain Commission authorization prior to making long-term structural and/or operational modifications at the project. Therefore, Article 401 requires the licensee to file reports with the Commission and to obtain Commission authorization prior to making structural or operational changes to the project.

State and Federal Comprehensive Plans

201. Section 10(a)(2)(A) of the FPA,¹⁸⁷ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.¹⁸⁸ Under section 10(a)(2)(A), federal and state agencies filed 15 comprehensive plans that address various resources in Alabama. Of these, the staff identified and reviewed eleven comprehensive plans that are relevant to this project.¹⁸⁹ No conflicts were found.

Applicant's Plans and Capabilities

202. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,¹⁹⁰ Commission staff evaluated Alabama Power's record as a licensee for these areas: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost effectiveness of plans; and (H) actions affecting the public. We accept staff's findings in each of the following areas.

¹⁸⁷ 16 U.S.C. § 803(a)(2)(A) (2012).

¹⁸⁸ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2015).

¹⁸⁹ The list of applicable plans can be found in section 5.5 of the final EIS for the project. *See* final EIS at 192-193.

¹⁹⁰ 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2012).

A. Conservation Efforts

203. Section 10(a)(2)(C) of the FPA requires the Commission to consider the extent of electricity consumption efficiency improvement programs in the case of license applicants primarily engaged in the generation or sale of electric power, like Alabama Power.

204. Alabama Power has provided conservation services for its electricity customers since 1979. Alabama Power has several programs to promote conservation and energy efficiency for residential, commercial, industrial, and agricultural customers. Alabama Power: (a) provides the public with seasonal energy saving tips through multi-news media including print, television, and radio; (b) sponsors conservation-oriented events including conservation/recreation-themed programs, workshops and conferences; and (c) maintains the Energy-Saving Tips website, which is a comprehensive online resource designed to provide customers with home energy information using easy to understand terms and illustrations. These programs show that Alabama Power is making an effort to conserve electricity and has made a satisfactory good faith effort to comply with section 10(a)(2)(C) of the FPA.

B. Compliance History and Ability to Comply with the New License

205. Commission staff has reviewed Alabama Power Company's compliance with the terms and conditions of the existing license. Staff finds that Alabama Power Company's overall record of making timely filings and compliance with its license is satisfactory. Therefore, staff believes that Alabama Power can satisfy the conditions of a new license.

C. Safe Management, Operation, and Maintenance of the Project

206. Staff has reviewed Alabama Power's management, operation, and maintenance of the Martin Dam Project pursuant to the requirements of 18 C.F.R. Part 12, and the Commission's Engineering Guidelines and periodic Independent Consultant's Safety Inspection Reports. Staff concludes that the dam and other project works are safe, and that there is no reason to believe that Alabama Power cannot continue to safely manage, operate, and maintain these facilities under a new license.

D. Ability to Provide Efficient and Reliable Electric Service

207. Staff has reviewed Alabama Power's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Staff's review indicates that Alabama Power regularly inspects the project turbine generator units to ensure they continue to perform in an optimal manner, schedules maintenance to minimize effects on energy production, and since the project has been in operation, has undertaken several initiatives to ensure the project is able to operate

reliably into the future. Staff concludes that Alabama Power is capable of operating the project to provide efficient and reliable electric service in the future.

E. Need for Power

208. To assess the need for power, staff looked at the needs in the operating region in which the project is located. The North American Electric Reliability Corporation (NERC) annually forecasts electrical supply and demand nationally and regionally for a 10-year period. NERC prepares seasonal and long-term assessments to examine the current and future reliability, adequacy, and security of the North American bulk power system. For these assessments, the bulk power system is divided into 20 assessment areas, both within and across eight regional entity boundaries. The Martin Dam Project is located in the SERC Reliability Corporation (SERC) region of NERC, in the southeast sub-region (SERC-SE), which covers portions of Alabama, Georgia, Mississippi, and Florida. According to NERC's 2014 long-term reliability assessment, the total internal demand for the SERC-SE region is projected to grow at a compound annual growth rate of 1.49 percent for summer and 1.34 percent for winter from 2015 through 2024.

209. Commission staff concludes that power from the Martin Dam Project would help meet a need for power in the SERC region, both short and long term. The project provides low-cost power that displaces generation from non-renewable sources. Displacing the operation of non-renewable facilities may avoid some power plant emissions, thus creating an environmental benefit.

F. Transmission Services

210. The project includes two, 450-foot-long, 115-kilovolt transmission lines leading from the powerhouse to a switching station located at the west end of Martin Dam. Alabama Power is proposing no changes that would affect its own or other transmission services in the region.

G. Cost Effectiveness of Plans

211. Alabama Power plans to make a number of facility and operational modifications to both improve project generating capability and enhance environmental resources affected by the project. Based on Alabama Power's record as an existing licensee, staff concludes that these plans are likely to be carried out in a cost-effective manner.

H. Actions Affecting the Public

212. During the previous license period, Alabama Power provided facilities to enhance the public use of project lands and facilities, and operated the project with consideration to protecting public use of Lake Martin, as well as protecting downstream communities by providing flood control storage. During this relicensing process, the public was

invited to participate in meetings and provide comments at each phase of the process. In addition to being responsive to public input that benefits the community, Alabama Power uses the project to help meet the power needs of the region.

Project Economics

213. In determining whether to issue a new license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,¹⁹¹ the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

214. In applying this analysis to the Martin Dam Project, Commission staff has considered three options: no action alternative, Alabama Power's proposal, and the project as licensed herein. Under the no action alternative, the project would continue to operate as it does now. The project has an installed capacity of 182.456 MW, has a dependable capacity of 179 MW, and generates an average of 375,614 MWh of electricity annually. When staff multiplies its estimate of average generation by the alternative power cost of \$141.84/MWh,¹⁹² staff gets a total value of the project's power of \$53,277,090 in 2015 dollars. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the project's power.¹⁹³ The average annual project cost is about \$8,167,703, or \$21.74/MWh. Therefore, the project costs \$45,110,000, or \$120.10/MWh, less to produce power than the likely alternative cost of power.

¹⁹¹ 72 FERC ¶ 61,027 (1995).

¹⁹² The alternative power value includes an energy rate of \$72.50/MWh for energy generated, plus a value for dependable capacity at a rate of \$145.50/kilowatt-year.

¹⁹³ See final EIS at 153-163 for details of staff's economic analysis for the project as licensed herein and for various alternatives.

As proposed by Alabama Power, the levelized annual cost of operating the Martin Dam Project is \$8,437,963, or \$22.39/MWh. Based on an estimated average generation of 376,903 MWh¹⁹⁴ and alternative power cost of \$141.84/MWh, staff gets a total value of the project's power of \$53,459,922 in 2015 dollars. Therefore, in the first year of operation, the project would cost \$45,021,959, or \$119.45/MWh, less than the likely alternative cost of power.

215. As licensed herein with the mandatory conditions and staff measures, the levelized annual cost of operating the project would be about \$8,442,773, or \$22.40/MWh. Based on an estimated average generation of 376,903 MWh, the project would produce power valued at \$53,459,922 when multiplied by the \$141.84/MWh value of the project's power. Therefore, in the first year of operation, project power would cost \$45,020,000, or \$119.44/MWh, less than the likely cost of alternative power.

216. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include the ability to help maintain the stability of a power system, such as by quickly adjusting power output to respond to rapid changes in system load; and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil-fuel based generating stations and put them back on line.

Comprehensive Development

217. Sections 4(e) and 10(a)(1) of the FPA¹⁹⁵ require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation; the protection, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued must be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

¹⁹⁴ This generation estimate is based on an annual 1,547 MWh gain in generation by implementing the 3-foot increase in the winter pool, a 1,547 MWh loss in generation every sixth year when the winter drawdown is to 481 feet, and a negligible increase due to the conditional fall extension. See final EIS at 165.

¹⁹⁵ 16 U.S.C. §§ 797(e) and 803(a)(1) (2012).

218. The final EIS for the project contains background information, analysis of effects, and support for related license articles. The project will be safe if operated and maintained in accordance with the requirements of this license.

219. Based on staff's independent review and evaluation of the Martin Dam Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the final EIS, we have selected the proposed Martin Dam Project, with the staff-recommended measures, as modified herein, and find that it is best adapted to a comprehensive plan for improving or developing the Tallapoosa River.

220. We selected this alternative because: (1) issuance of a new license will serve to maintain a beneficial, dependable, and an inexpensive source of electric energy; (2) the required environmental measures will protect and enhance fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 182.5 MW of electric capacity comes from a renewable resource that does not contribute to atmospheric pollution.

License Term

221. Section 15(e) of the FPA¹⁹⁶ provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures.¹⁹⁷ This license authorizes no new construction or new capacity, and only a minor amount of new environmental mitigation measures. Consequently, a 30-year license term for the Martin Dam Project is appropriate.

The Commission orders:

(A) This license is issued to Alabama Power Company (licensee), for a period of 30 years, effective the first day of the month in which this order is issued, to construct, operate and maintain the Martin Dam Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of

¹⁹⁶ 16 U.S.C. § 808(e) (2012).

¹⁹⁷ See *Consumers Power Company*, 68 FERC at 61,383-84.

this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in these lands, described in the project description and the project boundary discussion of this order.

(2) Project works consisting of: (a) a reservoir (Lake Martin), about 31 miles long, with: (i) about 880 miles of shoreline; (ii) a surface area of about 41,150 acres at a normal full pool elevation of 491 feet mean sea level (msl); (iii) a gross storage capacity of 1,622,000 acre-feet; and (iv) a tailwater elevation of 345 feet msl; (b) a dam (Martin Dam) with: (i) a 255-foot-long concrete gravity non-overflow section; (ii) a 720-foot-long arched concrete gravity gated spillway with 20 vertical lift steel spillway gates measuring 30-foot-wide by 16-foot-high; and (iii) an approximately 1,000-foot-long compacted earth embankment; (c) a 280-foot-long concrete gravity intake structure with: (i) 12 intake gates, each measuring 9-foot-wide by 24-foot-high, and fitted with a trashrack; and (ii) four steel penstocks; (d) a 307.9-foot-long, 58-foot-wide, by 99-foot-high brick, steel, and concrete powerhouse; (e) four vertical type Francis turbine/generator units, with draft tube aeration systems and installed capacities of 45.8 MW, 41.0 MW, 40.5 MW, and 55.2 MW, for a total installed capacity of 182.5 MW; (f) two 450-foot-long, 115-kilovolt transmission lines leading from the powerhouse to the Martin switchyard; and (g) appurtenant facilities, including a low auxiliary dam downstream of Martin Dam, and a powerhouse access road.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F shown below:

Exhibit A: The following section of exhibit A filed on June 8, 2011:

Section 2.1, pages A-2 and A-3, entitled "Project Structures," section 2.2, page A-3, entitled "Reservoir Characteristics," section 2.3, pages A-3 and A-4, entitled "Turbines and Generators," and section 2.4, page A-5, entitled "Transmission System."

Exhibit F: The following exhibit F drawings filed on June 8, 2011:

| Exhibit F Drawing | FERC No. 349- | Description |
|-------------------|------------------|--|
| F-1 | 1001 | Site Location Map |
| F-2 | 1002 | Transverse Cross-Sections, Powerhouse & Headworks, Units 1-3 |
| F-3 | 1003 | Transverse Cross-Sections Thru Unit 4 |
| F-4 | 1004 | Longitudinal Cross Section Thru Switchyard |
| F-5 | 1005 | Longitudinal Cross Section of Powerhouse |
| F-6 | 1006 | Powerhouse Floor Plan, EL 365.75-370.00, Unit 1-4 |
| F-7 | 1007 | Powerhouse Floor Plan, EL 378.5 & 390.00 |
| F-8 | 1008 | East Embankment Modifications |

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A and F described above are approved and made part of this license. The Exhibit G drawings filed as part of the application for license do not conform to Commission regulations and are not approved.

(D) This license is subject to the conditions submitted by the Alabama Department of Environmental Management under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1) (2012), as those conditions are set forth in Appendix A to this order.

(E) This license is also subject to the articles set forth in Form L-5 (Oct. 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting

Navigable Waters and Lands of the United States,” (*see* 54 F.P.C. 1799 et seq.), as reproduced at the end of this order, and the following additional articles:

Article 201. *Administrative Annual Charges.* The licensee must pay the United States annual charges, effective the first day of the month in which the license is issued, and as determined in accordance with provisions of the Commission’s regulations in effect from time to time, for the purposes of:

(a) reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 182.5 megawatts; and

(b) recompensing the United States for the use, occupancy, and enjoyment of 1.39 acres of its lands.

Article 202. *Exhibit F Drawings.* Within 45 days of the date of issuance of this license, as directed below, the licensee must file two sets of the approved exhibit drawings in electronic file format on compact disks with the Secretary of the Commission, ATTN: OEP/DHAC.

Digital images of the approved exhibit drawings must be prepared in electronic format. Prior to preparing each digital image, the FERC Project-Drawing Number (i.e., P-349-1001 through P-349-1008) must be shown in the margin below the title block of the approved drawing. Exhibit F drawings must be segregated from other project exhibits, and identified as **(CEII) material under 18 CFR § 388.113(c)**. Each drawing must be a separate electronic file, and the file name must include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-349-1001, F-1, Description, MM-DD-YYYY.TIF]. All digital images of the exhibit drawings must meet the following format specification:

IMAGERY – black & white raster file

FILE TYPE – Tagged Image File Format (TIFF), CCITT Group 4
(also known as T.6 coding scheme)

RESOLUTION – 300 dots per inch (dpi) desired, (200 dpi minimum)

DRAWING SIZE FORMAT – 22” x 34” (minimum), 24” x 36” (maximum)

FILE SIZE – less than 1 megabyte desired

Article 203. *Exhibit G Drawings.* Within 90 days of license issuance, the licensee must file, for Commission approval, revised Exhibit G drawings enclosing within the project boundary all principal project works necessary for operation and maintenance of the project, including: (1) the licensee’s 11 project recreation sites contained in Appendix D, sheets D-2 (Bakers Bottom Landing), D-5 (DARE Boat Landing), D-6

(DARE Power Park), D-7 (Jaybird Landing), D-9 (Madwind Creek Ramp), D-11 (Pace Point Ramp), D-12 (Paces Trail), D-15 (Ponder Camp), D-17 (Scenic Overlook), D-18 (Smith Landing), and D-19 (Union Ramp) of the Recreation Plan filed on December 9, 2011; (2) approximately 441.73 acres of land that the licensee proposed to remove, but are determined by the Commission to be needed for project purposes as discussed in the license order; (3) a 17.6-acre island classified as Natural/Undeveloped land determined by the Commission to be needed for project purposes; and (4) all 991.5 acres of land proposed to be added to the project boundary by the licensee. The Exhibit G drawings must also be revised to remove the approximately 57.47 acres of existing land discussed in the license order from the project boundary. The Exhibit G drawings must comply with sections 4.39 and 4.41 of the Commission's regulations.

Article 204. Amortization Reserve. Pursuant to section 10(d) of the Federal Power Act, a specified reasonable rate of return upon the net investment in the project must be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee must set aside in a project amortization reserve account at the end of each fiscal year one-half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee must deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee must set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee must maintain the amounts established in the project amortization reserve account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves must be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly included in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios must be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity must be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 205. Headwater Benefits. If the licensee's project was directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee must reimburse the owner of the headwater improvement for

those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license. The benefits will be assessed in accordance with Part 11, Subpart B, of the Commission's regulations.

Article 301. *Project Modification Resulting from Environmental Requirements.* If environmental requirements under this license require modification that may affect the project works or operations, the licensee must consult with the Commission's Division of Dam Safety and Inspections (D2SI)–Atlanta Regional Engineer. Consultation must allow sufficient review time for the Commission to ensure that the proposed work does not adversely affect the project works, dam safety, or project operation.

Article 401. *Commission Approval and Reporting.*

(a) Requirement to File Report.

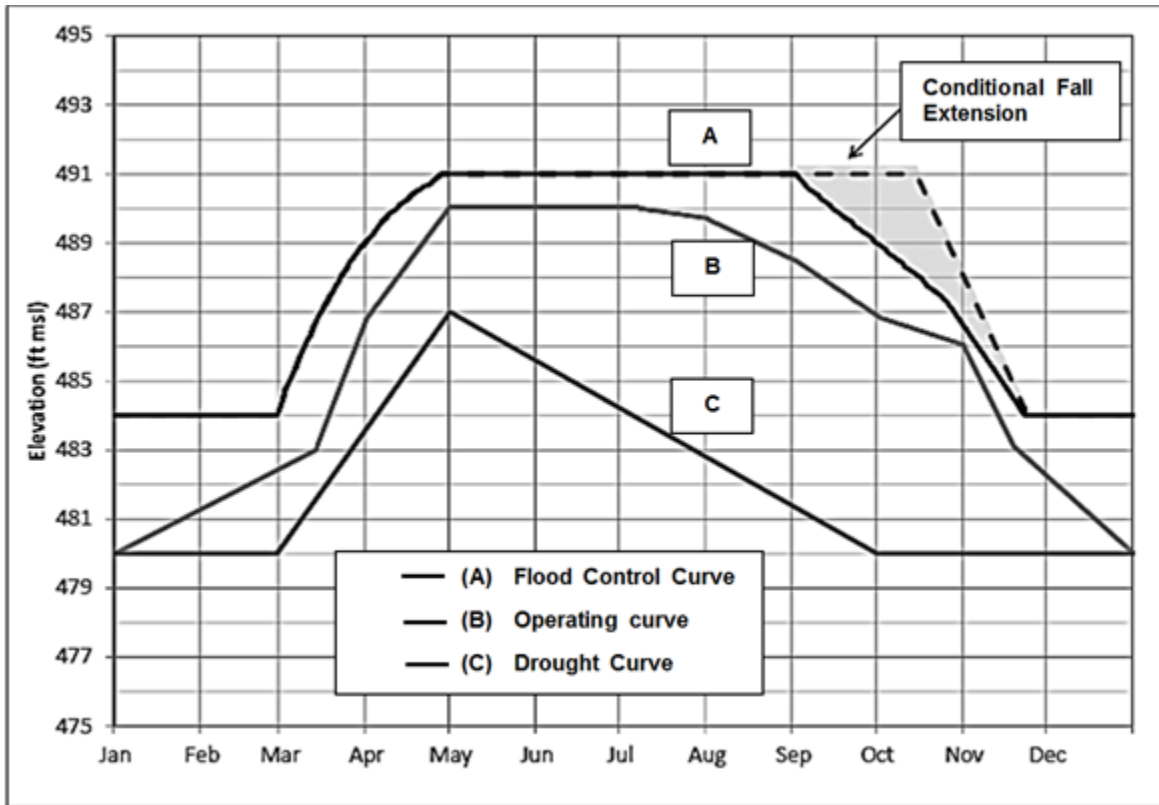
The licensee must file with the Commission the following report as required by the Alabama Department of Environment Management's (Alabama DEM) water quality certification.

| Alabama DEM Condition Number | Report Name | Commission Due Date |
|-------------------------------------|--|--|
| 5 | Dissolved oxygen and water temperature monitoring report | Within 90 days following the end of the annual monitoring period |

(b) Filing of Amendment Applications.

Alabama DEM's Condition 6 of the water quality certification attached to this order contemplates unspecified long-term structural and/or operational changes for the purpose of ensuring compliance with state water quality criteria for dissolved oxygen. These changes must not be implemented without prior Commission authorization granted after the filing of an application to amend the license.

Article 402. *Lake Martin Water Level Management.* The licensee must operate the Martin Dam Project in accordance with the guide curves and elevations shown in the figure below and described herein to protect the ecological and recreational values of Lake Martin and provide for flood control and downstream navigation:



Flood Control Curve. The flood control curve reflects the maximum elevation at which the lake may be maintained before implementing the flood control provisions in Article 404. On January 1, the curve is at elevation 484 feet mean sea level (msl) and remains at this elevation until February 28, when filling begins. The curve gradually rises until it reaches elevation 491 feet msl on April 28. The curve remains at 491 feet msl until September 2, then is gradually lowered to 484 feet msl by the third week in November, and remains at 484 feet msl until December 31, except when the conditional fall extension is implemented.

Conditional Fall Extension. If the conditions specified in Article 403 are met, the flood control curve remains at 491 feet msl to October 15; thereafter the flood control curve gradually declines until it reaches elevation 484 feet msl by the third week in November, and remains at 484 feet msl until December 31.

Operating Curve. The area between the flood control curve and operating curve represents the range in which the lake must be maintained under normal flow conditions. On January 1, the curve is at elevation 480 feet msl and gradually rises to elevation 483 feet msl by the middle of March. The curve then gradually rises to elevation 487 feet msl by April 3, 490 feet msl by May 1, and remains at 490 feet msl until July 7. On July 7, the curve begins declining to 489.7 feet msl

by August 1, 486.9 feet msl by October 1, 486 feet msl by November 1, 483 feet msl by November 20, and 480 feet msl by December 31.

Drought Curve. Reservoir elevations below the drought curve generally indicate that Lake Martin is in drought condition and the drought management provisions of Article 405 may need to be implemented. On January 1, the curve is at elevation 480 feet msl and remains at this elevation until March 1. On this date the curve gradually rises to elevation 487 feet msl by May 1, then gradually lowers to elevation 480 feet msl by October 1. The curve remains at elevation 480 feet msl October 1 through December 31.

To the extent possible, the licensee must maintain the lake level between the flood control and operating curves, except as provided in Article 404 for flood control and Article 405 for drought management.

The licensee must notify the Commission when Lake Martin is at or below 488 feet msl for a consecutive 7-day period between June 1 and Labor Day, or 2 feet below the operating curve for a consecutive 7-day period between Labor Day and May 31.

To the extent possible and in coordination with weather conditions, the licensee must lower the reservoir to elevation 481 feet msl every 6 years, beginning in 2021, between the third week of November and February 28, to enable the construction and maintenance of shoreline structures. The licensee must provide public notice at least 30 days in advance of the draw down, and file documentation of the public notice with the Commission prior to the drawdown.

The lake level requirements may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement among the licensee, the U.S. Army Corps of Engineers, Alabama Department of Environmental Management, and Alabama Department of Conservation and Natural Resources. If the lake level is so modified, the licensee must notify the Commission in writing as soon as possible, but no later than 10 days after each such incident, and must provide the reason for the change in lake levels.

Article 403. Conditional Fall Extension. The licensee must initiate the following monitoring process on an annual basis to evaluate implementation of the Conditional Fall Extension. The flood control curve, identified in Article 402, must be at elevation 491 feet mean sea level (msl) from September 1 to October 15 (i.e., the shaded zone in Figure 1, Article 402), provided that the following hydrologic and operational conditions are met:

1. Lake Martin is above its operating curve during September (487 to 488.5 feet msl);

2. the rolling 7-day average total basin inflow (i.e., the average of the total daily basin inflow for the previous 7 days recalculated on a daily basis for a given period of time) on the Tallapoosa River, calculated at Thurlow Dam, is at or higher than the median flow (i.e., the median of the recorded daily flows over the period of record for the particular day of interest);
3. the rolling 7-day average total basin inflow on the Coosa River, calculated at Jordan Dam, is at or higher than the median flow; and
4. the elevations at the Weiss, Neely Henry, and Logan Martin developments on the Coosa River and the R.L. Harris Project on the Tallapoosa River must all be within 1 foot of their respective operating curves.

No later than July 14 of each year, the licensee must monitor conditions daily. Beginning on September 1 of each year, once the four conditions are met, the Conditional Fall Extension will be implemented and continue to October 15. The normal reservoir drawdown to the winter pool must begin October 15.

The licensee must file a report with the Commission by December 15 of each year if the above conditions were not met. The report must include a description of the daily hydraulic and operation conditions that prevented implementing the Conditional Fall Extension. In addition, regardless of the outcome of the evaluation, the licensee must post, from July 15 through October 15, weekly reports on its website providing (1) the posting date; (2) the lake level on the posting date; and (3) from (a) July 15 through August 31, an estimate of the likelihood that the Conditional Fall Extension will be implemented that fall, (b) September 1 to October 15, a statement of whether or not the Conditional Fall Extension is being implemented, and (c) September 1 through September 30, an estimate of the likelihood that the Conditional Fall Extension will continue to be implemented to October 15.

Article 404. Flood Control Operations. The licensee must operate the project such that Lake Martin does not exceed elevation 491 feet mean sea level (msl) to assist in flood control. Flood control operation must be guided by the following:

(1) When Lake Martin is above the flood control curve and between elevations 484 and 486 feet msl, the turbines at Martin Dam must be operated to provide an outflow from the Yates and Thurlow Hydroelectric Project No. 2407's Thurlow Dam of at least the equivalent of the hydraulic capacity of the turbines at Project No. 2407's Yates Dam (about 12,400 cubic feet per second (cfs)).

(2) When Lake Martin is above the flood control curve and between elevations 486 and 489 feet msl:

- a) With increasing inflows, the turbines at Martin Dam must be operated to provide an outflow from Project No. 2407's Thurlow Dam of at least the equivalent of the hydraulic capacity of the turbines at Thurlow Dam (about 13,200 cfs).

- b) With decreasing inflows, the turbines at Martin Dam must be operated to provide for an outflow from Thurlow Dam of at least the equivalent of the hydraulic capacity of the turbines at Yates Dam (about 12,400 cfs).

(3) When Lake Martin is above the flood control curve and above elevation 489 feet msl, the turbines at Martin Dam must be operated as they would in the increasing inflow scenario described in No. 2(a). In addition, if required to avoid rising above elevation 491 feet msl, the turbines must be operated to provide an outflow from Lake Martin at least equivalent to all turbine units operating at full gate (17,900 cfs), and spillway gates raised. An exception to this requirement would occur if the reservoir continues to rise after all spillway gates are raised and inflow exceeds the gate capacity. Under these conditions, the licensee must operate the project to return Lake Martin to elevation 491 feet msl as soon as practicable.

(4) During periods when inflow exceeds the total hydraulic capacity of the turbines, the 3-hour average outflow rate from Lake Martin must not exceed the concurrent 3-hour average inflow rate, except to evacuate surcharge storage which may be accumulated after the period of peak inflow. This measure should ensure that the outflow from Lake Martin is lower than the inflow.

(5) The licensee must continue its current practice of notifying the National Weather Service (NWS) when spillway gate operation is used in flood control operations and must continue to share data with the NWS' Southeast River Forecast Center (SERFC), and the U.S. Army Corps of Engineers (Corps). In addition, the licensee must coordinate its planned operation of its spillway gates with the SERFC and the Corps to limit the effects of discharge from the Martin Dam Project to the extent practicable. If greater flood control benefits can be attained through increased coordination of operations at the Tallapoosa and Coosa River dams, and increased coordination with the Corps' downstream Alabama River dams than would be attained through use of the above flood control procedures, then these procedures may be modified as mutually agreed to verbally by the Corps and the licensee. The licensee must notify the Commission as soon as possible, but no later than 10 days after each temporary change to flood control measures which may arise as part of a verbal agreement between the licensee and Corps.

Article 405. Drought Management. The licensee must implement the Tallapoosa River portion of Alabama Drought Response Operating Proposal (Drought Response Proposal), Version 3.3.3, dated July 12, 2013, as described in Attachment B to the licensee's August 13, 2013 comments to Commission staff's June 6, 2013 draft Environmental Impact Statement. The licensee must notify the Commission in writing, as soon as possible, but no later than 10 days after modifying operations in response to drought conditions.

The licensee must review the U.S. Army Corps of Engineers' (Corps) final Master Water Control Manual for the Alabama-Coosa-Tallapoosa River Basin (ACT Water

Control Manual) for consistency with the Tallapoosa River portions of the Drought Response Proposal, and file a report with the Commission describing its findings within 1 year of license issuance (Report on Consistency). The Report on Consistency must discuss and evaluate any inconsistencies between the ACT Water Control Manual and the Drought Response Proposal, and must include any proposed modifications for consistency between the Drought Response Proposal and the Corps' manuals.

Any proposed revisions to the Drought Response Proposal, including any revisions filed through the Report on Consistency, 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 Drought Response Proposal 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 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, including changes based on the Report on Consistency. Upon Commission approval, the licensee must implement the revised Drought Response Proposal, including any changes required by the Commission.

Article 406. Water Quality Monitoring Plan. Within 90 days of license issuance, the licensee must file with the Commission for approval, a plan to monitor water quality in Lake Martin upstream of the dam and in the project's tailrace. The tailrace monitoring requirements must be consistent with Conditions 2 through 6 of the water quality certification (Appendix A of this license). The plan must define the water quality parameters to be monitored, monitoring methods, and the schedules for data collection and reporting.

The plan must be developed after consultation with the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency (Region 4), Alabama Department of Environmental Management, and 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 plan. 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 reasons.

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.

Article 407. *Reservation of Authority to Prescribe Fishways.* Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior pursuant to section 18 of the Federal Power Act.

Article 408. *Nuisance Aquatic Vegetation and Vector Control Program.* Within 180 days of license issuance, the licensee must file with the Commission for approval, a Nuisance Aquatic Vegetation and Vector Control Program. The program must specifically address project operating conditions required by this license and include, but not be limited to, the following: (1) methods, including the frequency, timing, and locations, of surveys to identify areas where nuisance aquatic vegetation could create a public health hazard, affect power generation facilities, restrict recreational use, or pose a threat to the ecological balance of Lake Martin; (2) methods for monitoring increases in nuisance aquatic vegetation; (3) methods for controlling nuisance aquatic vegetation; and (4) a schedule for implementation of control measures and monitoring.

Revisions to the Nuisance Aquatic Vegetation and Vector Control Program filed on June 8, 2011, and future revisions to the plan, must be developed 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 entities above, and specific descriptions of how the entities' comments are accommodated by the plan. 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 reasons.

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.

Article 409. *Wildlife Management Program.* The licensee's final Wildlife Management Program, filed on December 9, 2011, consisting of pages 1 through 23, is approved and must be implemented. The program must be implemented according to section 6.0, *Implementation Timeline*, of the *Wildlife Management Program*. Reporting must be completed according to section 7.0, *Consultation and Reporting*, of the *Wildlife Management Program*.

Any proposed revisions to the program must be developed 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 those proposed revisions documentation of consultation and specific descriptions of how the consulted entities' comments are accommodated by the proposed revisions. The Commission reserves the right to require changes to the proposed revisions. Upon Commission approval the licensee must implement the revisions to the program, including any changes required by the Commission.

Article 410. Recreation Plan. Within 1 year of license issuance, the licensee must file with the Commission for approval, a revised Recreation Plan for the Martin Dam Hydroelectric Project. The conceptual and as-built drawings of the 11 project recreation sites contained in Appendix D, sheets D-2 (Bakers Bottom Landing), D-5 (DARE Boat Landing), D-6 (DARE Power Park), D-7 (Jaybird Landing), D-9 (Madwind Creek Ramp), D-11 (Pace Point Ramp), D-12 (Paces Trail), D-15 (Ponder Camp), D-17 (Scenic Overlook), D-18 (Smith Landing), and D-19 (Union Ramp), of the Recreation Plan filed on December 9, 2011, are approved and must be included in the plan.

In addition, the 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 December 9, 2011: DARE Boat Landing; DARE Power Park; Scenic Overlook; Union Ramp; Bakers Bottom Landing; Jaybird Landing; Madwind Creek Ramp; Pace Point Ramp; Paces Trail; Smith Landing; and Ponder Camp (Stillwaters Area Boat Ramp) (reserved for future project recreation).

(2) Provisions for the operation and maintenance of the above 10 project recreation sites (excluding Ponder Camp, which is reserved for future project recreation) 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 10 project recreation sites and Ponder Camp, which is reserved for future project recreation, in relation to the project boundary as licensed herein.

(4) Provisions for (a) improving the boat ramp, constructing two bank fishing sites, and constructing a gravel parking area at the Jaybird Landing; (b) expanding the parking areas, if needed, at Smith Landing and Madwind Creek Ramp, based on a review of the project's recreational use and needs; and (c) assessing the need for developing bank/pier fishing areas within the Martin Dam Project boundary.

(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.

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.

Concurrent with the periodic filing of the Licensed Hydropower Development Recreation Report (Form 80) with the Commission, the licensee must file a report that describes: (a) the adequacy of the Recreation Plan to meet its stated goals and the need for any modification to the plan; and (b) identification of any proposed measures or modifications to project recreation sites, with a schedule for implementing such changes.

Article 411. Public Education and Outreach Plan. Within 1 year of license issuance, the licensee must file with the Commission for approval, a Public Education and Outreach Plan to protect the Lake Martin shoreline and aquatic habitat within the project boundary through public education and awareness. The plan must include, at a minimum, the development of public education efforts, including: (1) a brochure for homeowners on best management practices for protecting the Lake Martin shoreline and establishing a vegetative buffer on private lands adjacent to the project boundary; (2) results of a striped bass hooking mortality study; (3) information for boaters and homeowners on methods to prevent shoreline erosion and sedimentation; (4) information about nuisance aquatic vegetation; (5) an “Adopt an Island” program to address litter control on licensee-owned project islands; (6) information on the licensee’s participation in efforts to restore longleaf pine forests; and (7) a provision to review and update the plan every 6 years.

Revisions to the Public Education and Outreach Plan filed on December 9, 2011, 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 entities above, and specific descriptions of how the entities’ comments are accommodated by the plan. 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 reasons.

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.

Article 412. Shoreline Management Plan. Within 1 year 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 seven land use classifications listed in the proposed Shoreline Management Plan filed on June 8, 2011: (i) Project Operations;

(ii) Recreation; (iii) Quasi-public; (iv) Commercial Recreation; (v) Natural/Undeveloped; (vi) Martin Small Game Hunting Area; and (vii) 30-Foot Control Strip; (2) a provision for using Geographic Information System (GIS) data to record areas designated as Sensitive Resources; (3) a description of allowable and prohibited uses for each of the above land use 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 dredge permit program, as approved by the Commission on July 6, 2011; (6) a description of the licensee's existing Lake Shore Use Permitting Program and Shoreline Compliance Program, specific to the Martin Dam Project; (7) a provision to limit construction of new seawalls to instances where riprap and vegetation are not sufficient to protect shoreline habitat from erosion, and to include criteria that must be applied in approving the installation of any new seawall; (8) a description of the encroachments at the Martin Dam Project, including the number of encroachments 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 over the term of the license.

The Shoreline Management Plan must reflect the project boundary modifications and the reclassification of project lands from the Natural/Undeveloped Classification to the Recreation Classification for the following project recreation sites as described in Section 4.1.1 of the proposed Recreation Plan filed December 9, 2011: (1) Madwind Creek Ramp (5.8 acres); (2) Smith Landing (4.2 acres); (3) Union Ramp (7.0 acres); (4) Bakers Bottom Landing (1.9 acres); (5) Jaybird Landing (19.9 acres); (6) Pace Point Ramp (8.7 acres); (7) Paces Trail (24.1 acres); and (8) Ponder Camp (Stillwaters Area Boat Ramp) (36.4 acres).

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) polygon files of the project reservoir surface area including a separate polygon for the tailrace area, and (b) polyline file of the shoreline management classifications. The filing must be in CD or diskette format and must include polygon data that represents the surface area of the reservoir/tailrace, as shown on the project boundary exhibits, and polyline data that represents the linear extent of each shoreline classification segment as shown on maps in the shoreline management plan. A polygon GIS data file is required for the reservoir/ tailrace. The attribute table for the reservoir/ tailrace must include at least the reservoir name, water elevation, and elevation reference datum. A polyline GIS data file is required for the shoreline classifications associated with the reservoir. The attribute table for the reservoir must include at least the reservoir name and management classification description for each polyline, 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, etc.), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). 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 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.

Article 413. Programmatic Agreement. The licensee must implement the “Programmatic Agreement Between the Federal Energy Regulatory Commission and the Alabama State Historic Preservation Officer for Managing Historic Properties that May be Affected by Issuing a New License to Alabama Power Company for the Continued Operation of the Martin Dam Hydroelectric Project in Coosa, Elmore, and Tallapoosa Counties, Alabama (FERC No. 349-173),” executed on June 12, 2012, and 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 1 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 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 effects.

Article 414. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies, for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project’s scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee must take any lawful

action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee must require multiple use and occupancy of facilities for access to project lands or waters. The licensee must also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee must: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than 1 million gallons per day from a project impoundment. No later than January 31 of each year, the licensee must file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is 5 acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must file a letter with the Commission, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Commission's authorized representative, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee must consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee must determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed must not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee must take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee must not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project must be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article must not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) The licensee must serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2012), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2015). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Form L-5
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

**TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED
MAJOR PROJECT AFFECTING NAVIGABLE WATERS
AND LANDS OF THE UNITED STATES**

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the

region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than 1 week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within 5 years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project

property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 13. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 16. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and

adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 22. Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and rights-of-way and such rights of passage through its dams or other structures, and shall permit such control of its pools, as may be required to complete and maintain such navigation facilities.

Article 23. The operation of any navigation facilities which may be constructed as a part of, or in connection with, any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

Article 24. The Licensee shall furnish power free of cost to the United States for the operation and maintenance of navigation facilities in the vicinity of the project at the voltage and frequency required by such facilities and at a point adjacent thereto, whether said facilities are constructed by the Licensee or by the United States.

Article 25. The Licensee shall construct, maintain, and operate at its own expense such lights and other signals for the protection of navigation as may be directed by the Secretary of the Department in which the Coast Guard is operating.

Article 26. Timber on lands of the United States cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: Provided, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

Article 27. The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

Article 28. The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Article 29. The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works

appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

Article 30. The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Article 31. In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Article 32. The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license, and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

Article 33. The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

Article 34. The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, et seq.), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: Provided, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: Provided further, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

Article 35. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 36. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 37. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

APPENDIX A

Water Quality Certificate Conditions for the Martin Dam Hydroelectric Project No. 349 issued by the Alabama Department of Environmental Management May 9, 2011

LIMITATIONS

1. The operation of this project, including the operation of the turbines and existing turbine aeration systems, shall be managed such that dissolved oxygen (D.O.) criteria specified at ADEM Administrative Code Reg. 335-6-10-.09(2)4., 335-6-10-.09(3)4., and 335-6-10-.09(5)4. shall be maintained at all times at the monitoring point prescribed herein downstream of the project. Management required to maintain the D.O. concentration shall be implemented to assure that the 4.0 mg/l minimum D.O. criterion is maintained.

MONITORING AND REPORTING

2. The monitoring point for determining compliance with paragraph 1. above, shall be located in an area immediately downstream of Martin Dam at the existing monitoring location indicated in Figure 1. [Figure 1 is not attached to this license, but can be found within Alabama Department of Environmental Management's water quality certification, located on the Commission's eLibrary, at: <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12678703>.] The location is at approximately latitude 32.679350 N and longitude 85.911648 W.
3. The monitor in the Martin Dam tailrace will record D.O. concentrations and water temperature at 30-minute intervals during periods of hydroelectric generation following one continuous hour of generation beginning June 1 and extending through October 31. During flood events, the monitoring may be temporarily discontinued until tailrace elevations return to normal. The monitoring program will begin within 18 months of the effective date of a new license issued by the Federal Energy Regulatory Commission (FERC) for the Martin Dam Project if the effective date is within the prescribed monitoring period. If the effective date of the license is not within the prescribed monitoring period, monitoring shall begin the following June 1. The monitoring program shall continue for a period of 3 years.
4. Alabama Power Company will provide adequate and frequent maintenance and calibration of the D.O. and temperature monitoring equipment to assure its proper operation. The D.O. monitoring equipment will be calibrated at an acceptable frequency using the manufacturer's recommendations, the modified Winkler

Method, Method 360.2 of the Environmental Protection Agency's Method for Chemical Analysis of Water and Wastes, latest edition, or other equivalent methods.

5. Dissolved oxygen and temperature monitoring reports shall be submitted with appropriate certifications to the ADEM within 90 days following the end of the annual monitoring period. Following the final year of monitoring, the complete set of data shall be submitted to ADEM for review and comment prior to submittal to the FERC. In addition to dissolved oxygen and temperature data, the monitoring reports shall specify whether turbines were in operation at the time of the dissolved oxygen and temperature measurements and the discharge rate of water flow passing through each turbine at the time of the measurements. Monitoring reports shall be submitted in an electronic form compatible with the Microsoft™ Excel and Word software.
6. An assessment of the effects of the operation of the Martin Dam Project on the State of Alabama's water quality standards shall be conducted using the results of the monitoring as described in the previous paragraphs. If the monitoring results do not indicate compliance with the State of Alabama water quality standards (maintenance of a D.O. concentration of 4.0 mg/l or greater), Alabama Power Company shall develop and implement measures to ensure compliance with the 4.0 mg/l D.O. criterion through structural and/or operational modifications at the project as prescribed in paragraph 1. The assessment shall be filed with ADEM within 6 months following the end of the 3-year monitoring period. As a part of the assessment Alabama Power Company shall furnish, at the Department's request, other data and information that may be available but not expressly required in this monitoring plan.
7. The Department also certifies that there are no applicable effluent limitations nor other limitations imposed under Sections 301 (b) or 302 or other standards imposed under Sections 306 or 307 of the Clean Water Act. This certification does not, however, exempt Alabama Power Company from requirements imposed under the National Pollutant Discharge Elimination System for other discharges at these facilities regulated by the Department.