Document Accession #: 20240329-3003 Filed Date: 03/29/2024

ENVIRONMENTAL ASSESSMENT

FOR SURRENDER, DECOMMISSIONING, AND REMOVAL

Langdale and Riverview Hydroelectric Projects

FERC Project Nos. 2341-033 & 2350-025

Georgia and Alabama

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
888 First Street, NE
Washington, D.C. 20426

March 2024

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LIST OF ABBREVIATIONS

Advisory Council	Advisory Council on Historic Preservation
Alabama DEM	Alabama Department of Environmental Management
Alabama SHPO	Alabama State Historic Preservation Officer
APE	area of potential effect
BCC	Birds of Conservation Concern
BMPs	best management practices
°C	degrees Celsius
certification	water quality certification
CEQ	Council of Environmental Quality
C.F.R.	Code of Federal Regulations
cfs	cubic feet per second
Commission	Federal Energy Regulatory Commission
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
D_{50}	median grain size
Decommissioning Plan	Langdale and Riverview Projects Decommissioning Plan
EA	Environmental Assessment
EAWSFPD	East Alabama Water, Sewer and Fire Protection District
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESV	ecological screening value
FERC	Federal Energy Regulatory Commission
FWS	U.S. Fish and Wildlife Service
Georgia DNR	Georgia Department of Natural Resources
Georgia EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
Georgia SHPO	Georgia State Historic Preservation Officer
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
IPaC	Information for Planning and Consultation
Mgd	million gallons per day
mg/L	milligrams per liter
mm	millimeter
MOA	Memorandum of Agreement
MW	megawatt
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
OPP	Office of Public Participation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated biphenyl

RM	river mile
USGS	United States Geological Survey

1. INTRODUCTION

1.	Application:	License Surrender and Decommissioning for the Langdale Hydroelectric Project No. 2341 and Riverview Hydroelectric Project No. 2350
2.	Date Filed:	December 18, 2018, supplemented on May 24, 2019, September 6, 2022, September 8, 2022, and November 1, 2023.
3.	Applicant:	Georgia Power Company
4.	Water body:	Chattahoochee River
5.	County and State:	Chambers County, Alabama and Harris County, Georgia
6.	Federal Lands:	The projects do not occupy federal lands.

1.1 BACKGROUND

On December 18, 2018, and supplemented on May 24, 2019, September 6, 2022, September 8, 2022, and November 1, 2023, Georgia Power Company (Georgia Power), licensee for the Langdale Hydroelectric Project No. 2341[1] and the Riverview Hydroelectric Project No. 2350,[2] filed an application requesting Federal Energy Regulatory Commission (Commission) authorization to surrender, decommission, and remove both projects.[3] Neither project has been operational since 2009. The purpose of the proposed action is to allow Georgia Power to remove Langdale Dam, Crow Hop Dam, as well as Riverdale Dam and powerhouse and to surrender the licenses for both projects.

1.2 PROJECT DESCRIPTION

1.2.1 Langdale Project Description

The Commission issued an original license for the Langdale Hydroelectric Project on October 15, 1964, and a subsequent license for the project on May 24, 1993. The

[1] Order Issuing Subsequent License (63 FERC ¶ 62,187), issued May 24, 1993.

[2] Order Issuing Subsequent License (63 FERC ¶ 62,186), issued May 24, 1993.

[3] See Georgia Power's Surrender and Decommissioning Plan filed on September 6, 2022 (accession number 20220908-5071).

current license expired on December 31, 2023, and the project is under an annual license. The 1.04-megawatt (MW) project is located at River Mile (RM) 191.9 on the Chattahoochee River near the city of Valley, Alabama, along the border of Georgia and Alabama (Figure 1). Langdale Dam is located approximately 9.5 river miles downstream of the U.S. Army Corps of Engineers (Corps) West Point Dam which began operation in 1976 and regulates the flow through the Middle Chattahoochee River region. The Langdale impoundment starts approximately five miles downstream of West Point Dam. The project, constructed between 1904 and 1908, includes an approximately 1,300-foot-long, 12-foot-tall stone masonry dam (Langdale Dam) across the Chattahoochee River which forms the impoundment for the Langdale Powerhouse located on the west side of the river (Figure 2).[4] The Langdale Powerhouse and concrete bulkhead wall span from the western shore to the mid-river island, with the powerhouse tailrace discharging to the south. The approximately 220-foot-long stone masonry abutment wall joins the Langdale Powerhouse to the masonry dam.

1.2.2 Riverview Project Description

The Commission issued an original license for the Riverview Hydroelectric Project on March 2, 1965, and a subsequent license for the project on May 24, 1993. The current license expired on December 31, 2023, and the project is under an annual license. The 0.48-MW project is located at RM 191.0 on the Chattahoochee River downstream of the city of Valley, Alabama along the border of Georgia and Alabama (Figure 1). Crow Hop Dam is located approximately 0.9 river miles downstream of the Langdale Project, and Riverview Dam is located an additional 0.4 river miles downstream. Riverview Dam (approximately 200-foot-long, 12-foot-tall concrete structure spanning from a mid-channel island to the west bank of the Chattahoochee River) was constructed in 1906 to power an adjacent mill. In 1918, the powerhouse was constructed and Crow Hop Dam (approximately 950-foot-long, 12-foot-tall concrete structure spanning from the east bank of the Chattahoochee River to a mid-channel island) was built in 1920, to divert flows towards the west channel of the Chattahoochee River which serves as the headrace channel for the project. A rock weir was placed at the upstream end of the channel connecting the Riverview headrace with the main stem (identified as Rock Weir No. 3 in Figure 1). The backwater effect of the downstream Bartlett's Ferry Project No. 485 extends upstream beyond Riverview Dam.

2. PURPOSE AND NEED FOR ACTION

The Langdale and Riverview projects have been out of service since 2009. On December 18, 2018, Georgia Power filed a Notice of Intent to not seek a subsequent

[4] While the powerhouse is located on the Alabama side of the river, it lies below the average water mark on the western bank of the river (the borderline between Georgia and Alabama); therefore, the project works are located entirely within Georgia.

license with the Commission. Georgia Power determined that due to the inoperability of the generating units, transmission issues, safety and liability concerns, the cost to repair and rehabilitate the projects, as well as the potential environmental and recreational benefits associated with removal, operation of the projects is no longer in the public interest.

The need for these proposed changes is to remove non-functional project works which impede the flow of the Chattahoochee River and to restore the sites to a more natural environment. This Environmental Assessment (EA) is being prepared to satisfy the Commission's responsibilities under the National Environmental Policy Act of 1969 (NEPA),[5] the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 C.F.R. 1500-1508), and the Commission's implementing regulations under 18 C.F.R. 380. It analyzes the environmental effects of Georgia Power's proposed action to decommission and remove project works and allows the Commission to make an informed decision regarding the Georgia Power's application to surrender and decommission both projects.

3. PROPOSED ACTION AND ALTERNATIVES

3.1 PROPOSED ACTION

Georgia Power proposes to surrender the project licenses and decommission and remove most project facilities as described in the Langdale and Riverview Projects Decommissioning Plan (Decommissioning Plan).[6] The decommissioning proposal includes the following: (1) removal of Landale Dam except approximately 300 feet on the east side, which would be lowered approximately eight feet to distribute water across the channel and reduce velocities on the eastern side of the channel; (2) construction of Langdale Island channel to convey flow to the Langdale tailrace; (3) removal of Crow Hop Dam except for ten-foot unaltered sections of both abutments left in place for historic documentation; (4) construction of a rock ramp in the west channel above Crow Hop Dam to serve as a grade control structure; (5) removal of Riverview Dam except for a ten-foot unaltered section of the southern abutment left in place for historic documentation and a 25-foot portion of the northern abutment left in place for historic documentation and to provide additional bank protection; and (6) removal of the Riverview Powerhouse including all mechanical and electrical equipment. In order to complete the decommissioning activities, Georgia Power would construct temporary access roads from the laydown areas to the dams.

[5] 42 U.S.C. §§ 4321 *et seq*.

[6] Filed September 8, 2022.

3.1.1 Proposed Environmental Measures

Georgia Power proposes to implement the following environmental measures for decommissioning project works:

- Implement the Post Removal Shoal Bass Abundance and Tracking Study.
- Implement the Post Removal Monitoring Plan to include a Revegetation Plan, outfall pipe armoring/extension if needed, and monitoring and agency consultation.
- Develop and implement an Erosion and Sediment Control Plan.
- Implement the Aquatic Organism Recovery Survey and Relocation Plan.
- Extend existing public boat ramps (at airport, Cemetery Park, and Riverview Park) to at least two feet of water depth at the new water surface elevation (measured at West Point minimum flow) following dam removal and river stabilization.
- Langdale Park – Design and construct a new day-use park in the City of Valley adjacent to the river, to include: 3 pavilions (~ 24 feet by 36 feet); 8 tables; gravel walkway (~ 0.5-mile-long) linked to the parking lot with riverfront views; 3 benches along walkway; parking for ~13 vehicles (one barrier-free) with overhead lighting; car-top boat launch with 3 parking spaces; and access road to the car-top boat launch (regrade and gravel).
- Implement the stipulations of the Memorandum of Agreement (MOA) between the Commission, Georgia State Historic Preservation Officer (Georgia SHPO) and the Alabama State Historic Preservation Officer (Alabama SHPO) including recordation, avoidance, post-dam removal monitoring, protective covenants, and public education/interpretation.
- Perform or cause to be performed Level II Historic American Building Survey (HABS)/ Historic American Engineering Record (HAER) documentation of the Langdale and Riverview dams and powerhouses, to include historic narrative, measured drawings, and medium format black and white photography, and submit documentation to the National Park Service for approval. The record would be housed at the Georgia and Alabama SHPO's offices and be available to the public at Cobb Memorial Archives at the Chambers County Library in Valley, Alabama.
- Develop educational material, including interpretive signage to be located in the proposed Langdale Park.
- Photo-document each of the three rock weir structures, to the extent possible, during dam removal.
- Construct a rock ramp to preserve Rock Weir No. 3 and maintain flow in the Riverview headrace channel.
- Provide bank and bed scour protection in the southern end of the Riverview headrace channel.
- Construct Langdale Island Channel to convey flow to the Langdale tailrace.

- Construct a rock ramp in the west channel above Crow Hop Dam to serve as a grade control structure.
- Leave 10-foot dam abutments on both sides of Crow Hop Dam, on the south side of Riverview Dam, and the west side of Langdale Dam. An approximately 25-foot abutment would be left on the north side of Riverview Dam and an approximately 300-foot segment of the east side of Langdale Dam would be reduced approximately eight feet in elevation, with the final ten feet of the abutment left as is.

3.2 NO-ACTION ALTERNATIVE

Under the no-action alternative, the surrender and decommissioning of the projects would not be approved. The no-action alternative represents existing conditions and serves as the baseline for evaluating the effects of Georgia Power's proposed action. The licenses for the projects expired on December 31, 2023, and an annual license was issued to maintain Commission jurisdiction. Under the no-action alternative, Georgia Power would be required to prepare an application for relicensing the projects. However, the Commission cannot force a licensee to continue to operate a project when it has not chosen to do so.[7] Due to project economics, Georgia Power has decided to surrender the projects. Therefore, the no-action is not a viable alternative.

4. STATUTORY AND REGULATORY COMPLIANCE

This surrender and decommissioning request for the Langdale and Riverview projects would be subject to numerous requirements under the Federal Power Act and other applicable statutes. The major regulatory and statutory requirements are described in Appendix A.

5. PRE-FILING CONSULTATION AND PUBLIC INVOLVEMENT

5.1.1 Pre-filing Consultation

Georgia Power held conference calls with numerous public agencies to inform agency staff of their intent to surrender the projects and to remove the associated dams, as

[7] Niagara Mohawk Power Corporation, 83 FERC ¶ 61,226 (1998); Fourth Branch Associates (Mechanicville) v. Niagara Mohawk Power Corp., 89 FERC ¶ 61,194 (1999); Niagara Mohawk Power Corp. and Fourth Branch Associates (Mechanicville), 98 FERC ¶ 61,227 at 61,903, reh'g denied, 100 FERC ¶ 61,185 (2002); and Arizona Public Service Company, 109 FERC ¶ 61,036 (2004).

well as to identify any agency concerns regarding the proposed action.[8] The agencies identified a number of concerns including: water quality; public access; habitat restoration; cultural resource protection; recreation; and ensuring that the existing water treatment facility would remain functional. Additionally, Georgia Power reached out to numerous other stakeholders to understand their interests and concerns relative to the proposed surrender and decommissioning of the projects.[9] These non-governmental organizations identified similar issues as the agencies, as well as how dam removals would influence flows, erosion, and sedimentation. Postcards were mailed to adjacent property owners on August 16, 2018 to notify them of bathymetric survey activities that were planned in the area. On March 23, 2018, Georgia Power initiated consultation with the Georgia SHPO and on March 30, 2018, initiated consultation with the Alabama SHPO regarding its application. On December 18, 2018, Georgia Power mailed its application to Tribes that are traditionally and culturally affiliated with the proposed area of potential effect for the proposed action.

5.1.2 Public Notice and Comments

The Commission issued public notice of the surrender applications for both proceedings on January 24, 2019, with protests, comments, and motions to intervene due to be filed by February 25, 2019. On February 14, 2019, the Commission issued public notice extending the comment and intervention period until March 4, 2019, due to the funding lapse at certain federal agencies between December 22, 2018, and January 25, 2019. Kendal Andrews filed a timely motion to intervene in both surrender proceedings.[10] In addition, several commenters filed letters opposing the proposed dam

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[8] U.S Fish and Wildlife Service (FWS) (on January 9, 2018), the U.S. Army Corps of Engineers (Corps) (May 17, 2018), Alabama Historical Commission (March 30, 2018), Alabama Department of Conservation and Natural Resources (May 3, 2018), Alabama Department of Environmental Management (Alabama DEM) (November 15, 2018), Georgia Department of Natural Resources (Georgia DNR) Wildlife Resources Division (January 24, 2018), Georgia DNR Historic Preservation Division (March 23, 2018), Georgia DNR Environmental Protection Division (August 15, 2018), Harris County, Georgia (November 8, 2018), Chambers County, Alabama (November 29, 2018), and Valley, Alabama (March 21, 2018).

[9] Lake Harding Homeowners Association (March 7, 2018), Chattahoochee River Conservancy (March 21, 2018), Trust for Public Land (May 10, 2018), and East Alabama Water, Sewer and Fire Protection District (May 14, 2018).

[10] Timely, unopposed motions to intervene are granted by operation of Rule 214(c)(1) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c)(1) (2023).

removals at both projects. Lanny Bledsoe expressed concern regarding the potential for islands he owns in the river to be subject to increased erosion due to dam removal. Additional comments focused on concern for the potential loss of boating and fishing opportunities, loss of waterfront access from neighboring property, as well as for the continued existence of shoal bass. Letters of support for dam removal were filed by local citizens as well as the Georgia Department of Natural Resources (Georgia DNR) Division of Wildlife Resources and the Chattahoochee Riverkeeper. The Muskogee Nation requested that archeological surveys be conducted prior to dam removal as well as subsequent monitoring to ensure protection of archeological sites.

On September 6, 2022, and supplemented on September 8, 2022, Georgia Power amended its surrender applications by filing the decommissioning plan for both projects. The Commission issued public notice of the decommissioning plan on November 17, 2022, with protests, comments, and motions to intervene due to be filed by December 19, 2022. On December 12, 2022, the FWS filed a letter of support for decommissioning the projects and removing the associated dams. No other comments were received pursuant to the public notice.

6. ENVIRONMENTAL ANALYSIS[11]

6.1 GENERAL DESCRIPTION OF PROJECT AREA

The Langdale and Riverview projects are located in the Piedmont Region of Georgia and Alabama along the Chattahoochee River which divides the two states. The projects are situated in the Chattahoochee River Basin which extends 430 miles from the Blue Ridge Mountains in northern Georgia to the confluence with the Flint River at the Florida state line. The Langdale Project extends from RM 196.5 to RM 191.9 and the Riverview Project extends from RM 191.0 to RM 190.6 on the Chattahoochee River.

[11] Unless otherwise indicated, information is taken from: Georgia Power's December 18, 2018 filing of a surrender application for the Langdale Project (Kleinschmidt, 2018a); December 18, 2018 filing of a surrender application for the Riverview Project (Kleinschmidt, 2018b); May 24, 2019 filing of a response to the Commission's April 11, 2019 additional information request; September 6, 2022 Applicant Prepared Environmental Assessment (Kleinschmidt, 2022a); September 8, 2022 filing of the Decommissioning Plan for both projects (Kleinschmidt, 2022b); and the November 1, 2023 supplemental filing of final plans.

The project area is within the Southern Outer Piedmont ecoregion,[12] which is comprised of dissected irregular plains and open hills with low to moderated gradient streams. Land cover is predominately oak-hickory-pine forest and cultivated crops. Annual precipitation ranges from 46 to 56 inches and average temperatures range from 31 to 90 degrees Fahrenheit (-0.6 to 32 degrees Celsius).

6.1.1 Geologic and Soil Resources

6.1.1.1 Affected Environment

The projects are located within the Piedmont ecoregion which is underlain by Precambrian and Paleozoic crystalline rocks (predominantly gneiss and schists with lesser amounts of metamorphosed volcanic rocks, metamorphosed sedimentary rocks, and granites) and the unconsolidated Pliocene, Cretaceous, and Tertiary sands of the Southeastern Plains (Georgia DNR 1997). The Piedmont ecoregion is further subdivided into the Southern Inner Piedmont and Southern Outer Piedmont, with the projects being in the Southern Outer Piedmont that is dominated by gneiss, schist, and granite. The surficial geology near the projects transitions from mica schist to the east of the river and felsic gneiss to the west of the river (US EPA 2011).

The Chattahoochee River shorelines at both projects are generally forested with some areas of development, with slopes that typically range from 0 to 5 degrees, but can be as steep as 45 degrees. The shoreline on the Georgia side is predominantly forested, while the shoreline on the Alabama side has more developed lands. The soils in the area of the projects are sandy loams and clay loams.

Sediment Quantity

According to U.S. Department of Agriculture reports from the 1930s, the Langdale and Riverview impoundments were filled with sediment at that time with some erosion and redeposition of sediment occurring (i.e., the impoundments had reached sediment equilibrium) (Eakin 1936; Eakin and Brown 1939). The upstream West Point Lake has served as the primary sink for sediment since its construction in 1975, with limited sediment being introduced to the projects' impoundments due to bank erosion and tributary streams that are below West Point Dam.

[12] Ecoregion Download Files by State - Region 4 | US EPA accessed September 12, 2023.

To inform the Georgia Power's Sediment Transport Assessment Study Report and Sediment Quality Study Report (together, Sediment Studies),[13] Georgia Power collected sediment borings upstream of the projects' dams in 2019 – five upstream of Langdale Dam, three upstream of Crow Hop Dam, and three upstream of Riverview Dam. The borings indicate the sediment upstream of the dams is tan-brown, silty, fine to coarse sand with a median grain size (D_{50}) equal to approximately 1 millimeter (mm). The sediment depth ranged from 2.3 to 8 feet upstream of Langdale Dam, from 3 to 6 feet upstream of Crow Hop Dam, and from 8 to 9 feet upstream of Riverview Dam. Georgia Power collected additional sediment depth measurements and samples in 2021 to better estimate the volume of stored sediment and its chemistry and grain size distribution, the results of which are detailed in Georgia Power's Sediment Studies.

According to the Sediment Studies, Georgia Power estimates there are approximately 495,000 cubic yards of sediment upstream of Langdale Dam, 108,000 cubic yards of sediment between Crow Hop Dam and Langdale Dam, and 266,000 cubic yards of sediment between Riverview Dam and Crop Hop Dam. Based on this, Georgia Power estimates there is a total of 869,000 cubic yards of stored sediment at the projects, with a dominant grain size of coarse sand and a D_{50} of 0.83 mm.

Sediment Transport

Georgia Power created a 2-dimensional hydraulic model, as part of its Hydrologic and Hydraulic Study,[14] to investigate sediment transport at three critical cross sections – Cross Section 1 above Crow Hop Dam, Cross Section 2 between Crow Hop Dam and Riverview Dam, and Cross Section 3 below Riverview Dam. Using six flow conditions, between the base outflow from the upstream West Point Dam and the 100-year flood, Georgia Power used the model to determine the average hydraulic characteristics at the three cross sections, including flow velocity, shear stress, water depth, and wetted width. Based on the sediment grain sizes and these hydraulic characteristics, Georgia Power then developed sediment transport rating curves to estimate a timeline for sediment transport out of the project impoundments.

Georgia Power estimated the timelines for sediment transport depending on the average flows experienced at the projects following dam removal (i.e., high or low, and not accounting for peaking operations at the upstream West Point Dam) and assuming all stored sediment would be transported. Georgia Power estimates it would take between one and three years for the sediment upstream of the Langdale Dam to move

[13] Included in Georgia Power's November 1, 2023 supplemental filing.

[14] Included in Georgia Power's November 1, 2023 supplemental filing.

downstream, between seven and 15 years for the sediment upstream of Crow Hop Dam to move downstream, and up to 46 years for all sediment upstream of Cross Section 3 to move downstream. Georgia Power anticipates the timelines for downstream sediment transport and stabilization would likely occur in shorter timespans than the estimates above due to the upstream peaking operations, storm-caused high flows, and natural adjustments in the stream channel geometry.

Sediment Constituents

Georgia Power collected sediment samples at seven locations to investigate potential constituents of concern as part of the Sediment Studies. Based on the constituents found in sediments tested as part of previous removals of dams downstream of the projects,[15] and in consultation with the Georgia Environmental Protection Division (Georgia EPD), Georgia Power tested the sediment samples for the constituents shown in Table 1. As shown in Table 2 and Table 3, none of the constituents found in the sediment samples were found to be above the U.S. Environmental Protection Agency's (EPA) Region 4 Sediment Ecological Screening Values (ESV).[16]

6.1.1.2 Environmental Effects of Proposed Action

Georgia Power proposes the following major decommissioning and removal construction activities: construction of temporary access roads from the laydown areas to the dams, removal of the Riverview Powerhouse, parallel removal of the Riverview and Crop Hop dams utilizing notching followed by removal of Langdale Dam, removal of rubble to disposal locations as it is removed, removal of the temporary access roads, and restoration of disturbed areas. Additionally, Georgia Power proposes to install riprap to stabilize the Riverview headrace channel, construct a rock ramp in the west channel above Crow Hop Dam, and construct the Langdale Island Channel.

The effects to geology and soils of the decommissioning and removal of the Langdale Dam, Crow Hop Dam, Riverview Dam, and Riverview Powerhouse would be primarily related to post-removal sediment transport and sediment quality. The effects of pre-removal, removal, and post-removal construction activities to remove the project

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[15] Eagle and Phenix Dam (FERC Project No. 2655) City Mills Dam (FERC Project No. 8519) (collectively, Columbus dams) were removed in 2012 and 2013, respectively.

[16] ESVs are based on chemical concentrations associated with a low probability of unacceptable risks to ecological receptors. https://www.epa.gov/sites/default/files/2018-03/documents/era_regional_supplemental_guidance_report-march-2018_update.pdf .

facilities would be limited to short-term disturbances in the immediate work areas. Georgia Power would develop and implement an Erosion and Sediment Control Plan, including the Construction Best Management Practices (BMP) Plan for Alabama, to reduce turbidity, erosion, and sedimentation during construction. Georgia Power would also leave varying lengths of the abutments of the Langdale, Crow Hop, and Riverview dams that, in part, would prevent or reduce erosion along the riverbanks. Additionally, Georgia Power would revegetate several areas and add shoreline armoring (i.e., riprap) along the Riverview headrace channel where high scouring forces would occur following dam removal.

Following the removal of the dams, an initial period of erosion and sediment transport would result as the impounded areas transition to riverine conditions. Following that initial period, the river would mostly return to its historic channel(s) as the streambanks stabilize and more natural geomorphologic processes are reestablished. These processes would include localized areas of streambank erosion or sediment deposition throughout the project areas, including along the islands now in the impoundments. Georgia Power would implement the proposed Post Removal Monitoring Plan,[17] including monitoring at one month, six months, and one year to ensure bank stability and identify, prevent, and remediate issues with sedimentation and erosion. This plan would include planting, seeding, and live staking, and a process for identifying and addressing management actions if any unforeseen erosion or sediment related issues arise. Georgia Power would also develop and implement outfall pipe armoring/extensions, as appropriate, to protect discharge pipes along the riverbanks and prevent associated erosion and scour.

By implementing the proposed measures, Georgia Power would minimize effects to soils and geology due to the dam removals. Sediment currently stored behind the Langdale, Crow Hop, and Riverview dams would be transported downstream to Lake Harding; however, it is unlikely that all stored sediment would move downstream due to natural bank stabilization and Georgia Power's proposed measures. Based on Georgia Power's sediment sampling, no potential constituents of concern were found to be above the ESVs, and therefore, the sediment would not pose a risk to water quality or aquatic resources as discussed in sections *6.1.2 Water Quality and Quantity* and *6.1.4 Fisheries and Aquatic Resources*, below. Some of this sediment could create sand bars and areas of sedimentation that may affect public access. Georgia Power's proposed Post Removal Monitoring Plan includes processes for identifying and addressing sedimentation affecting public access, including working with the relevant technical support and permitting agencies to determine appropriate actions. Therefore, Commission staff

[17] Included as Appendix F of Georgia Power's Surrender and Decommissioning Plan filed on September 8, 2022.

concludes that no long-term adverse effects to geology or soils would occur as a result of the surrender and removal of the Langdale, Crow Hop, and Riverview dams.

6.1.2 Water Quality and Quantity

6.1.2.1 Affected Environment

The affected environment for water quality under the proposed action includes the Chattahoochee River from the project boundaries for the Langdale and Riverview Projects, from the Langdale impoundment downstream through Riverview, to the headwaters of Lake Harding.[18] Located approximately 9.5 river miles upstream of the Langdale Project is West Point Dam, which regulates the flow through the Middle Chattahoochee River region.

Water quality is a measure of the suitability of water for a particular use. The Clean Water Act (CWA) requires that states establish water quality standards that consist of designated beneficial uses and associated criteria to protect those beneficial uses. These classifications are scientifically determined to be the best utilization of the surface water from an environmental and economic standpoint. Georgia EPD's use classification for the Chattahoochee River in the reach containing the projects is "Drinking Water" and Alabama DEM use classifications for the Chattahoochee River in the same reach are "Public Water Supply" and "Fish and Wildlife". The most recent 305(b) reports[19] for Georgia and Alabama indicate that the Chattahoochee River in the project areas is currently fully supporting its designated uses (Georgia EPD 2022a and Alabama DEM 2022).

A study performed by Georgia Power in 2009 and 2010 documented water quality in the Chattahoochee River approximately one river mile downstream of the Riverview Powerhouse (Georgia Power 2011). Study results indicated that monthly vertical profile samples at this location for dissolved oxygen levels exceed applicable criteria. Water quality conditions in the Chattahoochee River basin, particularly in upstream West Point Reservoir and Long Cane Creek, have a direct effect on the projects' water quality.

Dissolved oxygen at the projects is affected by influent water quality. Previously, the Chattahoochee River downstream of West Point was listed as impaired due to low dissolved oxygen concentrations in releases from West Point Dam. This reach is now

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[18] Lake Harding is the impoundment of the Bartlett's Ferry Hydroelectric Project No. 485, owned by and licensed to Georgia Power Company.

[19] Section 305(b) of the CWA requires that states and other entities prepare and submit Watershed Assessment Reports to the EPA on April 1 of every even-numbered year.

attaining the dissolved oxygen standards and has been removed from the CWA section 303(d) list of impaired waters.[20] Monthly average dissolved oxygen concentrations were generally above 5 milligrams per liter (mg/L), except for September (4.94 mg/L). While seasonally low dissolved oxygen concentrations due to hypolimnetic releases from West Point Dam are observed in the project impoundments, water flowing over its spillway currently provides aeration to water as it passes downstream.

Between 2000 and 2013, the U.S. Geological Survey (USGS) and Georgia EPD conducted periodic monitoring on the Chattahoochee River approximately 7 river miles upstream of Langdale Dam, which is co-located with a USGS gage (Station No. 02339500) and is approximately two river miles below West Point Dam and just above where the City of West Point begins (USGS 2023a). During this period, average monthly water temperatures ranged from a low of 8.47 degrees Celsius in February to a high of 27.67 degrees Celsius in August. The monitoring results also indicated relatively low nutrient concentrations in the water, with average total nitrogen concentrations of 0.38 mg/L and average total phosphorus concentrations of 0.26 mg/L. Analysis of samples for fecal coliform bacteria, including E. coli indicated that pathogens were well below acceptable limits (Georgia EPD 2022b, USGS 2023b).

Regarding turbidity, the projects do not exacerbate erosion in the Chattahoochee River (i.e., cause an increase in turbidity in the context of water quality analyzed here) occurring within the river system, as Georgia Power does not store or cause a fluctuation of water through operation of the dams, which is run-of-river. Daily water level fluctuations do occur in the area associated with the daily peaking of West Point Dam. The existence of the projects contributes to limited sedimentation of coarser material; however, the quantities of stored coarse sediment are also limited by the reservoirs' relatively small sizes and depths.

Regarding water quantity and use, the surface area of the reservoirs is relatively small; the Langdale impoundment being approximately 270 acres, and the Riverview impoundment approximately 75 acres. Inflows into the projects are composed of 98

[20] Section 303(d) of the CWA requires that states and other entities identify impaired waters, develop priority rankings for clean-up, and establish total maximum daily loads of pollutants allowed in each water body to meet water quality standards.

percent of the discharges from West Point Dam,[21] with the remaining 2 percent due to local runoff. Water withdrawals in the river basin are primarily used for public water supply (12.39 million gallons per day [mgd]), irrigation (0.54 mgd), and livestock (0.18 mgd). Water use infrastructure located on the Chattahoochee River between West Point Dam and the project vicinities include Lower Valley Wastewater Treatment Plant wastewater treatment plant outfalls, raw water intakes, and lift stations.

6.1.2.2 Environmental Effects of Proposed Action

Implementation of the proposed action would result in temporary, construction-related effects to the water quality of the Chattahoochee River through increased turbidity levels. Coarse sediment transport and the resulting temporary increase in turbidity would occur as the river cuts back into its channel. However, sediment mobility and turbidity would decrease to normal levels following the initial scour. Any coarser sediment reintroduced downstream following dam removal would continue to move downstream to Lake Harding through the action of both natural seasonal flow pulses and peaking flows from West Point Dam. Following completion of the proposed action, the Chattahoochee River within the reach of the projects would return to a more natural condition through the removal of the Langdale, Crow Hop, and Riverview dams.

Following the proposed action, the impounded portions of the Chattahoochee River at the projects would return to a riverine environment, resulting in previously inundated shoreline areas and shoals becoming exposed. While removal of the low-head dams would result in the loss of the aeration effect of water spilling over the crests, the consequent exposure of previously inundated shoals following the proposed action would create similar aeration benefits, therefore resulting in no significant effects to dissolved oxygen concentrations in the Chattahoochee River below the projects. The proposed action would eliminate the warming effects that the impoundments currently cause to the Chattahoochee River (i.e., removal of the dams would result in proportionally cooler outflows). However, the proposed action would not significantly affect water temperatures due to the reservoirs' small storage capacities.

Regarding potential effects to water use infrastructure, the predicted post-removal data indicate that the decommissioning and removal of the dams would result in a minimum flow of at least 193 cubic feet per second (cfs) in the Riverview channel, which

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[21] The West Point Dam operates in peaking mode and typically peaks Monday through Friday with only minimum flow (670 cfs) being released Saturday and Sunday, and Monday through Friday when not peaking. Peak generation fluctuates between 9,000 and 18,000 cfs depending on how many units are running. See Corps Hydropower Generation Schedule at https://spatialdata.usace.army.mil/hydropower/. Accessed on October 11, 2023.

would allow sufficient flow for the Valley Wastewater Treatment Plant to continue operations in compliance with its National Pollution Discharge Elimination System requirements. Further, the licensee proposes to construct a channel through the Langdale Island and to construct a rock ramp at Crow Hop, which would support the integrity of the rock weir to maintain river flow in the Riverview headrace channel that would provide sufficient water for the wastewater treatment plant's flow dilution requirements. Modeling indicates that the proposed action would not cause substantial effects to any other public infrastructure along the river, specifically upstream of Interstate 85 to the Langdale Dam due to the presence of shoals that would provide a natural hydraulic control.

Overall, the proposed action would restore a free-flowing river in the project areas, allowing natural sediment processing mechanisms to reestablish, and would provide a more consistent temperature regime to this stretch of the Chattahoochee River. The Chattahoochee River is currently supporting its designated uses and the proposed action would not have an adverse, long-term effect on these current use designations. Dissolved oxygen and nutrient concentrations in the project areas currently meet acceptable criteria, and the proposed action would not significantly affect these parameters in the Chattahoochee River in the vicinity of the projects. The proposed action would have minor adverse and temporary effects via elevated turbidity during the removal phases, which Georgia Power proposes to minimize by following BMPs. Given the reasons above, Commission staff concludes that the proposed action would not significantly affect the current water quality or water quantity of the Chattahoochee River, would be beneficial to the ecosystem in the long-term by returning the river to a more natural condition, and would facilitate the continuation of the existing municipal water uses for fire suppression and waste treatment purposes.

6.1.3 Fisheries and Aquatic Resources

6.1.3.1 Affected Environment

Despite the presence of the dams, the Chattahoochee River within the area of the projects has been historically categorized as mostly riverine, consisting of large pools, shoal areas, and backwaters. The waters of the Chattahoochee River in the project areas support a diverse array of aquatic organisms, including approximately 40 species of fish and 8 species of mussels. Fish species include: bluegill (*Lepomis macrochirus*), black crappie (*Poxomis nigromaculatus*), redbreast sunfish (*Lepomis auratus*), common carp (*Cyprinus carpio*), and largemouth bass (*Micropterus salmoides*) representing the majority of the fish community. Most fish in the project area reside in habitats dominated by riprap. Common game fish species found in this stretch of river include channel catfish (*Ictalurus punctatus*), striped bass (*Morone saxatilis*), white bass (*Morone chrysops*), spotted bass (*Micropterus punctulatus*), shoal bass (*Micropterus cataractae*), bluegill, largemouth bass, black crappie, and yellow perch (*Perca flavescens*).

The shoal bass is a riverine, freshwater fish species found in the project vicinities, typically found in mainstem rivers and larger tributaries such as the Chattahoochee River and Flat Shoal Creek. Shoal bass are recognized as a high priority, rare species by both Alabama Department of Conservation and Natural Resources and Georgia DNR in their State Wildlife Action Plans due to multiple factors, including limited range and habitat fragmentation by dams; the Langdale, Crow Hop, and Riverview dams currently serve as barriers to upstream fish passage. Shoal bass spawn in refuges from higher water velocities such as boulders, rocks, or vegetation in the lower ends of pools. Juveniles tend to inhabit more shallow areas of low velocity with rocky substrate in both shoals and pools. Adult shoal bass inhabit rocky areas of moderate to high velocity. Shoal bass are also an important game fish species in the Chattahoochee River for anglers.

As part of the Decommissioning Plan for the projects, Georgia Power performed a pre-removal survey in 2021 for shoal bass on the Chattahoochee River in the project vicinities and in Flat Shoal Creek, a tributary to the Chattahoochee River. In the pre-removal survey, a total of 1,173 individual fish were collected, 56 of which were shoal bass, which varied in age between young of year, sub-adults, and mature adults. Other black bass species (*Micropterus* spp.) captured included 71 spotted bass and 54 largemouth bass. Individuals of each species appeared characteristically distinct and did not appear to have been hybridized among species, as is sometimes the case.

Regarding mussels in the project areas, Georgia Power performed surveys in 2020 to characterize the mussel community as part of the Decommissioning Plan for the projects. Through sampling, a total of 31 individual mussels were collected, including 12 gulf spike (*Elliptio pullata*) and 19 southern rainbow (*Villosa vibex*), both deemed as stable populations. The invasive Asian clam (*Corbicula fluminea*) was present at every survey site. No federally protected mussel species have been detected in the project area and Georgia Power has consulted with FWS, who confirmed that federally protected species were unlikely to occur in the project areas based on current aquatic habitat conditions therein.

6.1.3.2 Environmental Effects of Proposed Action

The proposed action involves the removal of the project dams and would result in short-term adverse effects to fish and mussels in the Chattahoochee River due to increased turbidity and sediment-rich conditions. However, over the long term, the proposed action would largely benefit aquatic resources, as the removal of the dams would reconnect isolated fish and mussel populations, and habitats for aquatic resources that have been fragmented since the dams were built in the early 1900s. Reconnection of these habitats would provide benefits for fish and mussels through greater mobility (e.g., for host species in the case of mussels), genetic diversification, and habitat availability. Further, removal of the dams would additionally benefit aquatic resources by providing a more stable downstream temperature regime in the absence of the reservoirs.

Numerous public comments were received stating that the dam removals would have a negative effect on the shoal bass populations in the currently impounded reaches. However, in addition to the general overall benefits listed above that the dam removals would provide for aquatic species, including improved water quality, Commission staff determined that the proposed action would also result in a net increase of specific preferred habitats for shoal bass for its juvenile and adult life phases. These include flowing water environments with rocky bottoms and moderate to swift currents. Additionally, the amount of optimum habitat necessary for larval shoal bass would increase overall following dam removals, when considering preferred water depth and velocity. Therefore, Commission staff determines that the proposed action would result in permanent beneficial effects for the shoal bass population in the Chattahoochee River at the project areas.

To mitigate for any potentially stranded organisms during the dam removals, Georgia Power proposes to implement an Aquatic Organism Recovery Survey and Relocation Plan.[22] To aid in fish movement, Georgia Power also proposes to leave partial dam abutments in place on the sides of Langdale Dam to redistribute water to reduce velocities. Also, to assess the effects of dam removal on shoal bass abundance, Georgia Power proposes to implement a Post Removal Shoal Bass Study. Considering these measures and the reasons above, Commission staff concludes that the proposed action would be beneficial to aquatic resources in the Chattahoochee River.

6.1.4 Terrestrial Resources

6.1.4.1 Affected Environment

The project areas include the following habitat types, upland, wetland, and riparian areas. The eastern side of the Chattahoochee River in Harris County, Georgia is a mixture of managed forests (periodically harvested), agriculture, and developed lands. Uplands located within the boundaries of the projects consist primarily of hardwood and pine forests. Extensive alluvial wetland systems have developed within and adjacent to the projects. The western side of the Chattahoochee River in Chambers County, Alabama is characterized by industrial and urban residential development, with limited naturally vegetated terrestrial habitats.

6.1.4.2 Environmental Effects of Proposed Action

Effects of the proposed action to terrestrial resources would be limited to short-term disturbances in the immediate work area resulting from the removal of the Langdale, Crow Hop, and Riverview dams, removal of the Riverview Powerhouse,

[22] Appendix D of the licensee's September 6, 2022 Applicant Prepared EA.

decommissioning of the Langdale Powerhouse and associated project components. Removal of the dam structures would be conducted in the wet, thereby reducing the footprint of terrestrial effects. Such effects would primarily result from the establishment of temporary staging areas, movement of equipment, development of a rock ramp to protect Rock Weir No. 3, and construction of the Langdale Island Channel to support continued flows into the Langdale tailrace. These activities may temporarily disturb wildlife species due to vehicle and construction noise and minor disturbance during the construction period.

Georgia Power anticipates removal of trees or vegetation during activities associated with deconstructing Langdale Dam, Crow Hop Dam, Riverview Dam and powerhouse, as well as implementing mitigation measures. Ground-disturbing activities would be subject to BMPs outlined in the Riverview, Crow Hop, and Landale ninety percent design drawings.[23] Georgia Power proposes to plant approximately 9.5 acres of upland, wetland, and riprap, and to monitor growth to ensure a minimum of 80% of the disturbed area is covered with vigorous growth. Drone flights are proposed at one month, six months, and one year post planting in the Draft Post Removal Monitoring Plan to document vegetative success.[24]

No long-term adverse effects to terrestrial species would occur from the decommissioning of the Langdale and Riverview projects. The proposed action would have beneficial long-term effects on terrestrial resources following decommissioning because riparian habitat would expand as a result of the unregulated streamflow.

6.1.5 Threatened and Endangered Resources

In reviewing the proposed surrender and decommissioning, Commission staff identified two federally listed species and one candidate species[25] which may occur within the vicinity of the Langdale and Riverview hydroelectric projects (Table 4).[26] Georgia Rockcress (*Arabis georgiana*) is listed as threatened, Oval Pigtoe (*Pleurobema pyriforme*) is listed as endangered, and Monarch butterfly (Danaus plexippus) is a

[23] Included as Appendices B-D respectively of Georgia Power's Surrender and Decommissioning Plan filed on September 6, 2022.

[24] Included as Appendix F of Georgia Power's Surrender and Decommissioning Plan filed on September 6, 2022.

[25] Commission staff accessed FWS's Information Planning and Conservation (IPaC) tool on August 3, 2023.

[26] Applicant Prepared EA at 10-1.

candidate species. By letter dated December 12, 2022, the FWS indicated that no impacts to federally listed species are anticipated because none are known to occur in the vicinity of the projects, the proposed action area, nor in downstream areas which would be impacted by the mobilization of sediments.

6.1.5.1 Environmental Effects of Proposed Action

The federally listed species have not been found to occur in the project vicinity so the proposed action would have no effect on these species. Therefore, Commission staff concludes that no effects to threatened or endangered resources would occur as a result of the surrender and removal of the Langdale, Crow Hop, and Riverview dams.

6.1.6 Recreation Resources and Land Use

6.1.6.1 Affected Environment

Numerous recreation opportunities are provided at sites located near the projects. West Point Dam is located approximately five miles upstream of the Langdale Project impoundment and Lake Harding backs up to Riverview Dam. West Point Lake includes 35 recreation areas providing recreation opportunities ranging from camping and hiking to boating, fishing, and swimming. Lake Harding includes seven recreation areas which provide boating, fishing, camping, and picnicking opportunities. The Blanton Creek Wildlife Management Area is located just downstream of the Riverview Project and provides wildlife viewing, hiking, fishing, and hunting opportunities. Recreation use along the 5.8-mile project reach of the Chattahoochee River occupied by the two projects consists primarily of water-based recreation activities including boating, fishing, and swimming.

The eastern shore of the river is predominately privately owned undeveloped forest land while the western shoreline includes the community of Valley, Alabama, former industrial complexes, and privately owned undeveloped land. East Alabama Water, Sewer and Fire Protection District (EAWSFPD) has a permit to discharge treated effluent into the Chattahoochee River at the upstream end of the Riverview channel. The permit requires a minimum flow of 136 cfs in the Riverview channel. Several privately owned islands are located within the reach between Langdale and Riverview dams.

Due to limited public access and development in the area, recreation use consists primarily of fishing and boating activities and secondarily of swimming and wildlife viewing at the projects. Project recreation facilities include the Cemetery Road boat launch at the Langdale Project and a pedestrian bridge to facilitate tailrace fishing at the Riverview Project. Three non-project boat ramps are located within the project areas at Shawmut Airport, Riverview Park, and the City of Valley, Alabama.

6.1.6.2 Environmental Effects of Proposed Action

Removal of the three dams would expose shoals located throughout the projects' reach and limit the types of watercraft that would be able to navigate the river post dam removal at minimum flows.[27] Currently, bass boats, jon boats, and non-motorized boats (e.g., canoes and kayaks) frequently use the river within the projects' reach. As the flows change through the braided stream bed after dam removal neighboring landowners may find that access to the river has changed. Some neighboring parcels would have shallower water while others would have deeper water as compared to current conditions due to the movement of sediment within the river channel as well as changes in the wetted portions of the channel.

Long-term effects of the proposed action would be positive due to a restoration of the pre-project natural setting, thereby increasing the overall recreational value of the area for fishing, paddling, and nature viewing. Georgia Power's proposal to minimize effects of the proposed action on recreational use during construction and after dam removal is described below.

The proposed construction activities required to remove the dams and associated facilities would predominately have limited, short-term effects on recreation. During construction activities, warning buoys and signage would be placed upstream and downstream of the dams and existing boat launches would be closed during the approximately eight-month construction window (work would begin in late summer or early fall). These measures would restrict public access, over the short-term, to protect public safety. One permanent effect would be the loss of the pedestrian bridge which currently provides access to the Riverview dam tailrace, as the bridge would be removed along with the dam and powerhouse. Given the absence of the powerhouse, there would no longer be flows to attract fish and anglers hoping to catch them. Anglers would continue to have access to the riverfront at the nearby Riverview Park. Upon completion of dam removal, paddlers would no longer have to portage around the three dams, thereby enhancing their recreational experience.

Georgia Power has committed to extending the existing boat ramps at Riverview Park, Cemetery Park, and the Valley airport to at least two feet of water depth at the new water surface elevation after dam removal. All of these public access areas are owned and operated by entities other than Georgia Power and they would continue to be available after the projects were decommissioned. A new park would be developed for the town of Valley, Alabama, adjacent to the decommissioned Langdale Powerhouse to

[27] Post-dam removal, flows through the projects' reach will continue to be regulated by operations at the upstream West Point Dam.

include picnic pavilions, gravel walkway with benches along the riverfront, and a hand-carry boat launch. These measures would ensure ongoing recreation access to the Chattahoochee River.

Members of the public expressed concern regarding the navigability of the Chattahoochee River post dam removal and continued access to the river. While modeling was used to estimate future water depths at each neighboring parcel, the actual depth would not be known until the dams are removed and the existing sediments have been redistributed. Rivers are dynamic systems and water depth adjacent to any given parcel may change over time. The three dams created a static environment for decades and more natural sediment transport processes would be reintroduced to the projects' reach upon dam removal. Given that the operation of West Point Dam regularly changes flows in the river, all neighboring parcels would continue to have river access when power is being generated at West Point.

In order to ensure adequate flows to the Riverview channel for the EAWSFPD wastewater treatment facility, Georgia Power proposes to construct a channel through Langdale Island and to construct a rock ramp at Crow Hop to support the integrity of Rock weir No. 3. These two measures would direct flows to the Riverview channel to maintain enough flow to meet the wastewater flow dilution requirement.

Opportunities for fishing and boating would be similar post dam removal with the biggest change being the wetted area of the river at minimum flows. The Chattahoochee River would remain navigable throughout the project reach for canoes and kayaks, but navigability for flat bottom boats (jon boats) would be reduced and larger motorized boats (bass boats) would no longer be able to navigate this stretch of the river during minimum flows. When West Point Dam is generating, the increased flows would enhance navigability for jon boats but bass boat access would remain very limited. Given the proximity of Lake Harding and West Point Lake, motorboaters would still have easy access to deeper waters to engage in their outdoor pursuits, thereby mitigating the lost access to the short segment of the Chattahoochee River within the reach of the two projects. Public comments expressed concerns regarding negative effects the dam removals would have on recreation resources; however, Commission staff finds that while recreation opportunities and access would change, recreation access points and opportunities would be similar to existing conditions. Neighboring landowners also voiced concerns regarding river access from their properties. Commission staff determines that changing water depths influenced by sediment transport would occur naturally, regardless of the proposed action, and that water access would be similar to existing conditions. Considering the measures proposed by Georgia Power and the reasons above, Commission staff concludes that no long-term adverse effects to recreation resources or land use would occur as a result of the surrender and removal of the Langdale, Crow Hop, and Riverview dams. Maintaining the usability of existing boat

ramps and development of a new park would result in long-term beneficial effects for recreation resources.

6.1.7 Cultural Resources

6.1.7.1 Affected Environment

Definition of Cultural Resources, Historic Properties, Effects, and Area of Potential Effects

Historic properties are cultural resources listed or eligible for listing in the National Register. Historic properties can be buildings, structures, objects, districts (a term that includes historic and cultural landscapes), or sites (archaeological sites or locations of important events). Historic properties also may be resources of traditional religious and cultural importance to any living community, such as an Indian Tribe or a local ethnic group, that meet the National Register criteria; these properties are known as traditional cultural properties. Cultural resources must possess sufficient physical and contextual integrity to be considered historic properties. For example, dilapidated structures or heavily distributed archaeological sites, although they may retain certain historical or cultural values, may not have enough integrity to be considered eligible.

Section 106 of the NHPA requires the Commission to evaluate potential effects on properties listed or eligible for listing the National Register prior to an undertaking. An undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including, among other things, processes requiring a federal permit, license, or approval. Advisory Council regulations implementing section 106 define effects on historic properties as those that change characteristics that qualify those properties for inclusion for the National Register. In this case, the undertaking is the surrender of the Langdale and Riverview project licenses, including the decommissioning and removal of project facilities that are eligible for listing on the National Register.[28]

Determination of effects on historic properties first requires identification of any historic properties in the APE. The APE is the "geographic area or areas with an undertaking may directly or indirectly causes alterations in the character or use historic properties, if any such properties exist."[29] For this undertaking, the APE includes lands within the project boundary as well as lands outside of the project boundary where

[28] Eligible facilities are the Riverview, Crow Hop, and Langdale dams as well as the Riverview Powerhouse.

[29] 36 C.F.R. Section 800.16(d).

project construction activities may affect historic properties. The APE includes all access roads, laydown areas, and other locations required during construction.

Cultural History Overview

Prior to the arrival of European settlers, the area where the Riverview, Crow Hop, and Langdale dams were eventually constructed was home to many different peoples over several distinct periods, including the Paleo-Indian, Archaic, Woodland, and Mississippian. Cultures over time consisted of hunters and gatherers, cultivators of plants, agricultural communities, pottery makers, mound builders, villages, and trade networks. With the arrival of the Spanish Conquistadors, the cultural landscape in the project area began to change as European goods and diseases, as well as wars, destroyed and displaced southeastern native communities. The project area was located in between the Upper and Lower Creek Towns prior to being ceded to the United States in the early 1800s. As European settlers established themselves in the area, small farms of cotton and grain became important in the area as farm owners and slaves often worked alongside each other. A number of mill dams and associated features were constructed, replaced, enlarged, destroyed, and abandoned between the 1840s and 1890s. The Langdale and Riverview plants were constructed in 1907 and 1917, respectively, and were both sold to Georgia Power in 1930, and operated until 2009.

During the 1980s, Georgia Power conducted several cultural resources surveys of the project area. Both projects have approved cultural resources management plans[30] and have been determined to be eligible for inclusion on the National Register. As part of this proceeding, in 2020, Georgia Power conducted additional cultural resource surveys of the area. As a result of its studies, Georgia Power has identified several additional archaeological sites that are eligible for listing on the National Register.

6.1.7.2 Environmental Effects of Proposed Action

Effects on cultural resources within the APE can result from project-related activities such as reservoir operations, modifications to project facilities, or project related ground-disturbing activities. Effects can result from other forces such as wind and water erosion, recreational use (project and non-project related), vandalism, and private and commercial development. In this case, Georgia Power's proposal to surrender the project licenses and decommission and remove most project facilities would directly affect several historic properties. The proposed undertaking would include the use of vehicles and tracked equipment to remove the facilities associated with

[30] Order Amending Cultural Resource Management Plan (68 FERC ¶ 62,147), issued August 10, 1994, and Order Amending Cultural Resource Management Plan (68 FERC ¶ 62,146), issued August 10, 1994.

the Langdale and Riverview projects. Effects would include ground-disturbing activities attributed to the displacement of soils, and the removal of the majority of the Langdale Dam, decommissioning in place of the Langdale Powerhouse, removal of the Crow Hop Dam and Riverview Dam and powerhouse. Indirect effects associated with the project include the termination of continued operation and maintenance due to the decommissioning of the facilities. Additionally, the surrender would remove from federal jurisdiction any known eligible resources in the project boundary.

Pursuant to the Commission's Tribal Policy, the Commission has notified the following federally recognized Tribes and invited their participation in section 106 consultation for the Undertaking: Alabama-Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, and Muscogee (Creek) Nation. In letters dated January 24, 2019, Commission staff requested comments from the Tribes on the proposed surrender and decommissioning of the Langdale and Riverview projects. On February 6, 2019, Commission staff sent follow-up e-mails to the Tribes requesting comments. By letter dated March 5, 2019, The Muscogee (Creek) Nation filed a request that archaeological surveys be conducted downstream of the project after dams are removed. In letters dated January 27, 2023, Commission staff notified the Tribes that additional studies had been completed and a draft Memorandum of Agreement (MOA),[31] regarding the decommissioning and removal of infrastructure at the Projects, had been developed and requested additional comments. On April 21, 2023, Commission staff sent follow-up e-mails to the Tribes requesting comments. No additional comments were received.

Georgia Power, Georgia SHPO, Alabama SHPO, and the Commission developed an MOA to mitigate adverse effects to historic properties. The MOA states that the Commission would ensure the following measures are carried out by Georgia Power, including, but not limited to: (1) recordation of historic dams and powerhouses; (2) recordation of any crib dam or other structures identified during or after dam removal; (3) avoidance of certain archaeological sites; (4) protective covenants and post-removal monitoring; and (5) specific interpretation and education provisions. Regarding the Muscogee (Creek) Nation's request for archaeological surveys be conducted downstream post dam removal, the draft MOA includes a Mitigation Measure for Georgia Power to conduct a post dam removal survey of the river "to identify any historic properties that were not previously identified and to assess potential effects of changes in water levels to

[31] The draft MOA and study reports were sent to the Tribes for review by Georgia Power via letter dated July 1, 2022.

identified sites."[32] Implementation of the MOA would mitigate the adverse effects that would be caused by the proposed action. On March 6, 2024, the Commission signed the final MOA and provided it for signature to the Georgia SHPO and the Alabama SHPO, as well as to the Tribes. Commission staff will forward a copy of the executed MOA to all parties to the MOA and to the Advisory Council.

Georgia Power would remove all infrastructure, excluding the Langdale Powerhouse building (to be preserved and potentially repurposed for some other use), short segments of dam abutments (to remain for historical interpretation) as well as a 300-foot segment of Langdale Dam on the east side of the Chattahoochee River (to spread flows across the river and reduce their velocity). Decommissioning and removal of the Langdale and Riverview projects' facilities would adversely affect cultural resources eligible for inclusion on the National Register (Table 5). Georgia Power proposes to mitigate effects on historic properties by performing (or cause to be performed) Level II HABS/HAER documentation of the projects' dams and powerhouses. The five historic stone and timber weir structures would be documented with a laser scanner and detailed drawings. Known prehistoric artifact sites would be avoided and construction traffic would be limited to clearly marked access roads and timber mats would be used to protect sensitive resource areas where temporary access roads would be needed to remove structures or to construct channels. Georgia Power also proposes to develop educational material, including interpretive signage to document the historical significance of the projects' dams and powerhouses. We agree with these measures. Commission staff concludes implementation of the MOA, along with the other proposed measures, would mitigate the adverse effects of removing the Langdale Dam, Crow Hop Dam, Riverview Dam and Riverview Powerhouse, as well as mothballing the Langdale Powerhouse, as part of the decommissioning of the Langdale and Riverview Projects.

6.1.8 Aesthetic Resources

6.1.8.1 Affected Environment

Aesthetics includes visual and auditory stimuli which may influence an individual's perception of their surroundings either positively or negatively. Views of the Chattahoochee River throughout the reach of the two projects are dynamic due to the changes in flows from West Point Dam and the braided nature of the river channel. The depth of the river varies by ten feet or more as flows released change from minimum flows (670 cfs) to operating flows with one (7,000 to 9,000 cfs) or two (9,000 to 18,000

[32] Commission staff's January 27, 2023 letter to the Muscogee (Creek) Nation specifically requested comments regarding the adequacy of this Mitigation Measure in the draft MOA.

cfs) units generating power. River depth is also determined by topography with rocky shoals being prevalent in this stretch of the Chattahoochee River, and the channel is braided downstream of Langdale Dam.

The shoreline along this reach of the Chattahoochee River is primarily undeveloped along the eastern bank with large tracts of woodland used for timber production. The community of Valley, Alabama lies along the western bank with a mix of uses including an airfield, hospital, water treatment plant, industrial, residential, and parkland. Public access to the shoreline is limited, thus aesthetic resources are primarily viewed by the general public from the water. Boaters encounter vegetated shorelines interrupted by the various developments identified previously. The riverbanks and shoals are exposed at minimum flows and become increasing inundated with higher operating flows.

6.1.8.2 Environmental Effects of Proposed Action

Georgia Power proposes to remove the Langdale and Riverview power generation facilities, including Langdale, Crow Hop, and Riverview dams, Riverview Powerhouse, decommissioning of the Langdale Powerhouse and associated project components. Georgia Power proposes to restore the Chattahoochee River in the project vicinity to a natural, unimpeded flow regime. Construction activities associated with the proposed action would be performed over an eight-month period with standard heavy equipment such as tracked excavators with attached rock hammers or hydraulic thumbs and off-road dump trucks. Proposed deconstruction methods would not include blasting but would create sound disruptions in and around the area of work. Noise levels would be highest at residences in the immediate vicinity of construction activities and would diminish with distance from the work areas. Similarly, individuals pursuing outdoor recreation nearby work areas would be exposed to elevated noise levels during demolition of project facilities and channel hardening activities. How these changes are perceived varies by an individual's preferences and sensitivity levels.

To mitigate for noise, Commission staff recommends limiting construction activities between the hours of 7 a.m. to 7 p.m. Monday through Saturday to eliminate construction noise at night and on the weekend when noise effects would be the most disruptive to residents. However, noise would still be temporarily elevated during the daytime up to six days per week throughout the construction period. Further, Commission staff recommends Georgia Power provide public notice (e.g., town website, local newspaper, mailers, etc.) at least two weeks prior to the start of the higher noise volume construction actions of removing the dam and site restoration. These noise levels would have a temporary adverse effect on residences closest to the construction site and those pursing outdoor recreation activities nearby. Construction activities would be limited to the areas immediately surrounding the dams and powerhouses.

Landowners with property that abut the river may notice a change in their viewshed due to removal of power generation structures, exposure of shoals, or modifications in lands wetted by the river post dam removal. Removal of the Riverview Dam and Powerhouse, Crow Hop Dam, Langdale Dam and decommissioning of the Langdale Powerhouse would also change the scenic viewshed. Rivers are inherently dynamic and viewsheds change over time as the river modifies its course. The built environment also changes as communities evolve.

While deconstructing power generating facilities is a permanent modification, the effect on aesthetics would be minor and may be perceived by individual landowners positively or negatively depending upon their preferences. Considering the short duration of the proposed construction activities and staff's recommendation to limit the hours and days of construction, the noise effects of project construction on nearby residents and outdoor recreation enthusiasts would be minor. Aesthetic effects associated with the removal of these structures would be localized, moderate, short-term disturbances nearby deconstruction sites during dam removal activities.

The long-term effects of decommissioning the Langdale and Riverview facilities would be positive for aesthetic resources as the area would be restored to a more natural environment similar in aesthetic value to pre-project natural conditions. Georgia Power would use BMPs during construction activities to reduce potential affects to aesthetic resources, such as revegetating temporary staging areas and sites where structures have been removed. The proposed action would have beneficial effects on aesthetic resources following decommissioning, as aesthetic value would increase with exposure of shoals, return to a more natural riverine environment and removal of facilities no longer in operation. Considering these measures and the reasons above, Commission staff concludes that no long-term adverse effects to aesthetic resources would occur as a result of the surrender and removal of the Langdale, Crow Hop, and Riverview dams.

6.1.9 Environmental Justice

In conducting NEPA reviews of proposed actions at hydropower projects, the Commission follows Executive Order 12898, and Executive Order 14096, which direct federal agencies to identify and address "disproportionate and adverse human health or environmental effects" of their actions on minority and low-income populations (i.e., environmental justice communities).[33] Executive Order 14008, also directs agencies to develop "programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative effects on disadvantaged communities, as well as the accompanying economic challenges of such

[33] Exec. Order No. 12,898, 59 Fed. Reg. 7629, at 7629, 7632 (Feb. 11, 1994); Exec. Order No. 14,096, 88 Fed. Reg. 25251 (Apr. 21, 2023).

impacts." [34] Environmental justice is "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."[35] The term "environmental justice community" includes disadvantaged communities that have been historically marginalized and overburdened by pollution.[36]

Commission staff used *Promising Practices for EJ Methodologies in NEPA Reviews* (*Promising Practices*)[37] which provides methodologies for conducting environmental justice analyses throughout the NEPA process for this proposed action. Additionally, consistent with EPA recommendations, Commission staff used EPA's Environmental Justice Screening and Mapping Tool (EJScreen) as an initial screening tool to better understand locations that require further review or additional information regarding minority and/or low-income populations; potential environmental quality issues; environmental and demographic indicators; and other important factors. [38]

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[34] Exec. Order No. 14,008, 86 Fed. Reg. 7619, at 7629 (Jan. 27, 2021).

[35] EPA, *Learn About Environmental Justice*, https://www.epa.gov/environmentaljustice/learn-about-environmental-justice (Sep. 6, 2022). Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. *Id.* Meaningful involvement of potentially affected environmental justice community residents means: (1) people have an appropriate opportunity to participate in decisions about a proposed activity that may affect their environment and/or health; (2) the public's contributions can influence the regulatory agency's decision; (3) community concerns will be considered in the decision-making process; and (4) decision makers will seek out and facilitate the involvement of those potentially affected. *Id.*

[36] Environmental justice communities include, but may not be limited to minority populations, low-income populations, or indigenous peoples. See USEPA, EJ 2020 Glossary (Aug. 18, 2022), https://www.epa.gov/environmentaljustice/ej-2020-glossary.

[37] Federal Interagency Working Group on Environmental Justice & NEPA Committee, *Promising Practices for EJ Methodologies in NEPA Reviews* (Mar. 2016) (*Promising Practices*), https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf

[38] The EPA recommends that screening tools, such as EJScreen, be used for a "screening-level" look and a useful first step in understanding or highlighting locations that may require further review.

Meaningful Engagement and Public Involvement

The Council on Environmental Quality's (CEQ) *Environmental Justice Guidance Under the National Environmental Policy Act (CEQ Environmental Justice Guidance)* [39] and *Promising Practices* recommend that federal agencies provide opportunities for effective community participation in the NEPA decision-making process by: identifying potential effects and mitigation measures in consultation with affected communities; improving accessibility of public meetings, crucial documents, and notices; and using adaptive approaches to overcome potential barriers to effective participation. In addition, Executive Order 13985 and Executive Order 14096, strongly encourage independent agencies to "consult with members of communities that have been historically underrepresented in the Federal Government and underserved by, or subject to discrimination in, federal policies and programs,"[40] and "provide opportunities for the meaningful engagement of persons and communities with environmental justice concerns who are potentially affected by Federal activities."[41]

As discussed in section *5.0 Public Involvement* of this EA, there have been opportunities for public involvement during the Commission's environmental review process, although the record does not demonstrate that these opportunities were targeted at engaging environmental justice communities. The Commission's communication and involvement with the surrounding communities began when a Notice of Application for Surrender of License, Soliciting Comments, Motions to Intervene, and Protests was issued, for both projects, on January 24, 2019, which established a 30-day comment period and intervention deadline. By letter dated March 5, 2019, the Muscogee (Creek) Nation filed a request that archaeological surveys be conducted downstream of the project to assess any effects on cultural artifacts. As discussed above (*See* 6.1.7 Cultural Resources), an MOA has been developed which includes a provision to conduct downstream monitoring. When the Decommissioning Plan was filed, a joint Notice of Application for Surrender, Decommissioning, and Removal of Project, and Soliciting Comments, Motions to Intervene, and Protests was issued on November 17, 2022, which established a 30-day comment period and intervention deadline. No other comments regarding environmental justice concerns were filed during either notice period.

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[39] CEQ, *Environmental Justice: Guidance Under the National Environmental Policy Act*, 4 (Dec. 1997) (CEQ's Environmental Justice Guidance), https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/GCEQ-EJGuidance.pdf .

[40] Exec. Order No. 13985, 86 Fed. Reg. at 7009 (Jan. 20, 2021).

[41] Exec. Order No. 14096, 88, Fed. Reg. 25254 (Apr. 21, 2023).

All documents that form the administrative record for these proceedings, with the exception of privileged or critical energy infrastructure information, are available to the public electronically through the internet on the Commission's website (www.ferc.gov). We recognize that not everyone has internet access or is able to file electronic comments. Anyone may comment to the Commission about the proceeding, either in writing or electronically. Commission staff has consistently emphasized with the public that all comments receive equal weight by Commission staff for consideration in the EA.

In 2021, the Commission established the Office of Public Participation (OPP) to support meaningful public engagement and participation in Commission proceedings. OPP provides members of the public, including environmental justice communities, landowners, Tribal citizens, and consumer advocates, with assistance in Commission proceedings—including navigating Commission processes and activities relating to the proposed action. For assistance with interventions, comments, requests for rehearing, or other filings, and for information about any applicable deadlines for such filings, members of the public are encouraged to contact OPP directly at 202-502-6592 or OPP@ferc.gov for further information. OPP staff can help the public more fully participate in Commission proceedings generally but does not act in a decisional capacity on the merits of any particular case.

Identification of Environmental Justice Communities

According to CEQ's *Environmental Justice Guidance* and *Promising Practices*, minorities are those groups that include: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Following the recommendations set forth in *Promising Practices*, the Commission uses the **50 percent** and the **meaningfully greater analysis** methods to identify minority populations. Using this methodology, minority populations exist when either: (a) the aggregate minority population of the block groups in the affected area exceeds 50 percent; or (b) the aggregate minority population in the block group affected is 10 percent higher than the aggregate minority population percentage in the county. The aforementioned guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Using *Promising Practices'* **low-income threshold criteria** method, low-income populations are identified as census block groups where the percentage of low-income population in the identified block group is equal to or greater than that of the county.

To identity potential environmental justice communities for the analysis presented here, Commission staff used 2022 U.S. Census American Community Survey data for the race, ethnicity, and poverty data at the block group level (Census, 2022). Here, Commission staff selected Chambers County, Alabama, and Harris County, Georgia, in which the proposed action is located, as the comparable reference community to ensure that affected environmental justice communities are properly identified.

According to the current U.S. Census Bureau information, minority and low-income populations exist within the project area, as discussed further below. The minority populations (by race and ethnicity) and low-income populations within Alabama and Georgia, the counties affected by the proposed amendment proposal (Chambers County, Alabama, and Harris County, Georgia), and U.S. census block groups[42] within vicinity of the proposed action site are identified in Table 6. For this proposed action, staff chose a 1-mile radius around areas affected by the amendment (i.e., proposed action area). Commission staff found that a 1-mile radius is the appropriate unit of geographic analysis given the limited scope of the proposed amendment and concentration of project-related effects near the proposed action.[43] For this analysis, we use U.S. Census American Community Survey File #B03002 for the race and ethnicity data and Survey File #B17017 for poverty data at the census block group level.[44]

Commission staff found that all six census block groups within the geographic scope of the proposed action meet the criteria for an environmental justice community (Table 6). One block group has a low-income population greater than the county (Census Tract 954700, Block Group 1). Commission staff identified two census block groups in which the population qualifies as an environmental justice community with a minority population meaningfully greater than the minority populations within their surrounding communities (Census Tract 954300, Block Group 1 and Census Tract 954600, Block Group 3). One block group has 10% higher aggregate minority population than the aggregate minority population percentage in the county (Census Tract 120198, Block Group 1). Two block groups have greater than 50% minority populations and the percentage of low-income families is greater than that of the county (Census Tract

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[42] U.S. Census block groups are statistical divisions of census tracts that generally contain between 600 and 3,000 people. U.S. Census Bureau. 2022. Glossary: Block Group. Available online at: https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_4 (October 19, 2022).

[43] The activities proposed, including facility removal and equipment staging near the dams and powerhouses, would occur within small footprints within or nearby environmental justice communities. Staff found that effects on recreation and land use, as well as aesthetics, may affect environmental justice communities but that adverse effects associated with the proposed activities would not exceed a 1-mile radius.

[44] U.S. Census Bureau, American Community Survey 2021 ACS 5-Year Estimates Detailed Tables, File #B17017, *Poverty Status in the Past 12 Months by Household Type by Age of Householder*, https://data.census.gov/cedsci/table?q=B17017 (Sept. 13, 2023); File #B03002 *Hispanic or Latino Origin by Race*, https://data.census.gov/cedsci/table?q=b03002 (Sept. 13, 2023).

954300, Block Group 4 and Census Tract 954700, Block Group 2). A geographic representation of these communities relative to the area affected by the proposed amendment can be found in Appendix B-Figure 3.

Environmental Effects

Consistent with *Promising Practices*, Executive Order 12898, and Executive Order 14096, we reviewed the proposed action to determine if resulting effects would be disproportionate and adverse on minority and low-income populations and whether effects would be significant.[45] *Promising Practices* provides that agencies can consider any of a number of conditions in this determination and the presence of any of these factors could indicate a potential disproportionate and adverse effect. For this proposed action, a disproportionate and adverse effect on an environmental justice community means the adverse effect is predominantly borne by such population. Relevant considerations include the location and the natural physical environment of Project facilities influenced by the proposed action and the proposed action's human health and environmental effects, on potential environmental justice communities including direct, indirect, and cumulative effects.

As described in section *3.1 Proposed Action*, Georgia Power proposes to remove the Langdale and Riverview project facilities, including the majority of the Langdale, Crow Hop, and Riverview dams, as well as the Riverview powerhouse. The Langdale powerhouse would be preserved for an undetermined future use. Georgia Power proposes to restore the Chattahoochee River in the project vicinity to a natural, unregulated flow regime. The proposed action would occur at three locations, the Langdale Dam and powerhouse, the Crow Hop Dam, and the Riverview Dam and powerhouse. Each area encompasses a small footprint within which deconstruction activity would occur. Georgia Power's tentative schedule is to remove Crow Hop and Riverview dams at the same time in order to maintain adequate flow distribution across the river channel. The Riverview powerhouse would be demolished prior to dam removal to allow access to the southern end of the Riverview Dam and the headrace channel would be armored to protect against erosion. Upon completion of the Crow Hop

[45] See *Promising Practices* at 33 (stating that "an agency may determine that impacts are disproportionately high and adverse, but not significant within the meaning of NEPA" and in other circumstances "an agency may determine that an impact is both disproportionately high and adverse and significant within the meaning of NEPA"); *see also Promising Practices* at 45-46 (explaining that there are various approaches to determining whether an impact will cause a disproportionately high and adverse impact). We recognize that CEQ and EPA are in the process of updating their guidance regarding environmental justice and we will review and incorporate that anticipated guidance in our future analysis, as appropriate.

and Riverview dam demolition, the Langdale Dam would be removed, a riprap channel would be created linking the main channel of the Chattahoochee River to the Landale tailrace as requested by the town of Valley, Alabama, and the powerhouse would be decommissioned.

Deconstruction activities are expected to occur over an eight-month timeframe. Removal of the Crow Hop Dam would take place within Census Tract 954700, Block Group 1 (identified as an environmental justice community with a minority population and a low income) and Census Tract 120198, Block Group 1 (identified as environmental justice community with a minority population). Removal of the Riverview Dam and powerhouse would take place within Census Tract 954700, Block Group 2 (identified as an environmental justice community with a low income).and Census Tract 120198, Block Group 1. Removal of the Landale Dam and installation of a riprap channel would take place within Census Tract 954600, Block Group 3 (identified as an environmental justice community with a minority population) and Census Tract 120198, Block Group 1. Census Tract 954300, Block Group 1 (identified as an environmental justice community with a minority population) and Census Tract 954300, Block Group 4 (identified as an environmental justice community with a minority population and a low income) may experience increased noise levels during facility removal, but the severity would be greatly reduced due to their distance from the deconstruction activity.

Potential effects on the natural and human environment from deconstruction of the Riverview powerhouse, decommissioning the Langdale powerhouse, and removal of three dams are identified and discussed throughout this document. Factors that would affect environmental justice communities include recreation and land use (*See* section 6.1.6) and aesthetics (*See* section 6.1.8). These potential effects are addressed in greater detail in the associated sections of this EA. Potential effects on environmental justice communities are not present for other resource areas such as geology and soils, wetlands, water quality, fisheries, terrestrial resources, and cultural resources.

No entity provided comments or recommendations regarding the effects of the proposed amendment on environmental justice communities in response to the Commission's November 17, 2022 public notice.

Five of the six identified block groups are located in Chambers County, Alabama and have a combined population of 7,145. The remaining block group is located along the eastern side of the proposed project area in Harris County, Georgia with a population of 822. The project area is surrounded by private landowners, with Valley, Alabama on the western side of the river and unpopulated lands on the east side. Georgia Power's land ownership is limited to lands encompassing the project works (at each end of the three dams as well as lands at the powerhouses). The nearest residences to the structures to be removed are all on the western side of the river in Chambers County. Riverview Dam is approximately 575 feet from the nearest residential structure, but this same

structure is approximately 200 feet from the area where the headrace channel would be armored with riprap. Langdale Dam is approximately 675 feet from the nearest residential structure with a 500-foot buffer in the form of the former mill site and Crow Hop Dam is approximately 1,100 feet from the nearest residential structure with a tree-covered island in between.

Recreation Resources and Land Use

As discussed in section *6.1.6 Recreation Resources and Land Use*, the proposed construction activities would have limited, short-term effects on recreation and nearby residents. During construction activities, noise, dust, and additional traffic caused by construction may affect environmental justice communities who live closest to the power generating facilities that would be removed. Additionally, all recreation access to the segment of the river where structure removal would occur would be closed for approximately eight months. Recreational opportunities within the project vicinity are extensive and would continue to be available during and after removal of Langdale, Crow Hop, and Riverview dams. Recreational users would continue to have access to the Chattahoochee River upstream of Langdale Dam, West Point Lake, and Lake Harding for fishing, boating, and related recreation activities. Dam removal would improve habitat for bass species targeted by anglers as well as facilitate the return of a more natural riverine environment which would enhance recreation experiences. Due to protection measures proposed during construction activities, the effects to identified environmental justice communities would not be significant, as effects would be temporary and minor.

After construction is complete the project area would return to natural conditions. Long-term effects of the proposed action would be positive, including a return to unregulated flows, removal of the manmade facilities, a restoration of the pre-project natural setting, increase in available aquatic and riparian habitat, therefore increasing the overall natural, aesthetic, and recreational value of the area to the benefit of the local environmental justice communities.

Aesthetic Resources

As discussed in section *6.1.8 Aesthetics,* Construction activities associated with the proposed action would be performed with standard heavy equipment such as tracked excavators with attached rock hammers or hydraulic thumbs and off-road dump trucks. Proposed deconstruction methods would not include blasting but would create sound disruptions in and around the area of work. Noise levels would be highest at residences in the immediate vicinity of construction activities and would diminish with distance from the work areas. Construction activities would be limited to the areas immediately surrounding the dams and powerhouses. Distance between residences and active construction areas are variable with the nearest residential structure to Riverview Dam and powerhouse is approximately 575 feet, while the nearest residential structure to

Langdale Dam and powerhouse is approximately 675 feet, and the nearest residential structure to Crow Hop Dam is approximately 1,100 feet.

Commission staff recommends limiting construction activities between the hours of 7 a.m. to 7 p.m. Monday through Saturday to eliminate construction noise at night and on the weekend when noise effects would be the most disruptive to residents. However, noise would still be temporarily elevated during the daytime up to six days per week throughout the construction period. Further, Commission staff recommends Georgia Power provide public notice (e.g., town website, local newspaper, mailers, etc.) at least two weeks prior to the start of the higher noise volume construction actions of removing the dam and site restoration. These noise levels would have a temporary adverse effect on residences within environmental justice communities that are close to the construction site. Nonetheless, because of the short duration of the proposed construction activities and staff's recommendation to limit the hours and days of construction, the construction related noise effects associated with implementation of the proposed action on nearby residents within environmental justice communities would be less than significant.

Determination of Disproportionate and Adverse Effects on Environmental Justice Communities

Based on the above findings regarding recreation resources and land use as well as aesthetic effects, Commission staff concludes that any adverse effects of the proposed action to members of environmental justice communities, residing nearby or visiting the area, would be temporary and not significant. Additionally, in consideration of the included census data, and the limited and temporary scope of the proposed project amendment construction activities, Commission staff conclude that this amendment would not result in disproportionate and adverse effects on environmental justice communities.

7. CUMULATIVE EFFECTS

The CEQ's regulations for implementing NEPA at 50 C.F.R. 1508.7 indicate that an action may cause cumulative effects on the environment if its effects overlap in space or time with the effects of other past, present, or reasonably foreseeable future actions, regardless of the agency, company, or person undertaking the action. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time, including hydropower and other land and water development activities.

Aquatic, soil, recreation, and aesthetic resources have the potential to be cumulatively affected by the proposed action in combination with other past, present, and future activities. Short-term negative effects to aquatic habitat, aquatic and terrestrial species, aesthetics, and recreation access may arise due to a sudden increase in erosion, sediment transport, and sedimentation once the dams are removed, releasing an abnormally high volume of water in a short period.

As flows increase and sediment transport occurs, aquatic habitat may be modified which would temporarily disrupt behavioral patterns of some aquatic and terrestrial species and affect habitat suitability until the elevated sediment load is naturally transported downstream. Increased sediment loads would likely have a negative aesthetic effect during the initial scour; however, excess sediment in the stream would eventually wash downstream, and turbidity would return to normal levels following the initial scour. Any sediment left or deposited above the water line would quickly revegetate and naturalize, stabilizing the streambanks and preventing excessive future erosion. Localized areas of streambank erosion or sediment deposition throughout the proposed action area would occur, including along the islands now in the impoundments; however, these areas would naturalize and stabilize over time. Sediment may accumulate on the boat ramps within the proposed action area and, with lower water levels, may impede visitors' ability to launch some types of watercraft. Georgia Power plans to mitigate for this potential effect by extending the boat ramps to a minimum of two feet of water depth post dam removal.

Long-term effects of the proposed action would be primarily positive, including a return to a more natural riverine system and an increase in available aquatic and riparian habitats through stream connectivity resulting from the removal of aquatic barriers, benefiting terrestrial and aquatic species, and adding value to the aesthetic of the landscape. The proposed action would continue to enhance aquatic and other resources by returning to more natural flow conditions in the Chattahoochee River.

Commission staff is not aware of any foreseeable future actions in the geographic or temporal scope of this analysis.

8. CONCLUSIONS AND RECOMMENDATIONS

Georgia Power proposes to surrender the licenses for the Langdale and Riverview hydroelectric projects, remove the Langdale, Crow Hop, and Riverview dams, remove the Riverview powerhouse and decommission the Langdale powerhouse in place. This would involve removing the dams and one powerhouse, decommissioning and stabilizing a powerhouse building for future use as another purpose, removing some trees, constructing two rock ramps, providing bank and bed scour protection in the southern end of the Riverview headrace channel, developing a Langdale channel, planting native vegetation, seeding, erosion control, and monitoring.

Georgia Power would restore the temporary staging areas at each dam and reclaim all disturbed areas used to access the river for demolition purposes. These actions would return an approximately five-mile reach of the Chattahoochee River to natural, free-flowing conditions. In doing so, opportunities for motorized recreational boating would be reduced due to lower water levels. Recreational fishing would remain similar to existing conditions but with improved habitat. Recreational users would continue to have

access to West Point Lake and Lake Harding for motorized boating, and other recreation activities. While some temporary effects would occur, no long-term adverse effects to geology and soils; water quality and quantity; fisheries; terrestrial resources; threatened and endangered species; recreation resources and land use; aesthetics; cultural resources; or environmental justice would occur under the proposed decommissioning.

Based on Commission staff's independent review and evaluation in this EA, we recommend the proposed action with the additional staff recommended measures discussed below to minimize the effects of construction on environmental justice communities. Under the proposed action, short-term effects associated with construction and removal of the Langdale and Riverview project facilities would include erosion, dust, noise, vehicle traffic, and disrupted recreational access. However, the environmental effects would be minimized by the proposed environmental measures outlined in Section 3.1.4 including: erosion control, BMPs, regular inspections, site restoration using native vegetation, restoring the Chattahoochee River to a natural unregulated flow regime, relocating stranded fish and mussels, and implementing public safety measures during removal activities.

Additionally, Commission staff recommend limiting construction activities between the hours of 7 a.m. to 7 p.m. Monday through Saturday to eliminate construction noise at night and on weekends when noise effects would be the most disruptive to residents. Commission staff also recommend Georgia Power provide public notice (e.g., town website, local newspaper, mailers, etc.), in English and Spanish, at least two weeks prior to the start of the high noise volume construction activities and provide public notice of periodic road closures and the unavailability of public parking near recreation sites.

While limited, temporary construction-related effects may occur during the proposed project activities; however, substantial long-term positive effects would occur as a result of the proposed action. These long-term benefits include returning the streamflow in the Chattahoochee River to an unregulated natural flow in the project area, which would increase available aquatic and riparian habitat and improve water quality. The improvements in aquatic and riparian habitats would also add to the aesthetic value of the project area landscape, as would removal of the non-operational Langdale and Riverview project features.

In accordance with section 106 of the NHPA, Georgia Power has consulted with the Georgia and Alabama SHPOs to determine the effects of the proposed decommission and removal of certain facilities at the Langdale and Riverview projects on cultural resources. It would not be possible to avoid affecting the historical structures associated with the projects. However, these effects would be mitigated through an MOA prior to disturbance. Commission staff developed an MOA to address protection, mitigation, and enhancement measures for the proposed action. Prior to removal of any of the historic

properties, Georgia Power would be required to file with the Commission documentation of acceptance from the Georgia SHPO, Alabama SHPO, and any interested Tribes.

In conclusion, Commission staff believes that any loss of generation and short-term environmental effects caused by the proposed action would be outweighed by the long-term environmental benefits gained from the removal of these non-operational project facilities. Because the projects have not been operational since 2009 which now represents baseline conditions, power generation capacity is not considered a loss associated with surrender and decommissioning. The environmental and public benefits of the proposed action would exceed those of the no-action alternative (status quo). Therefore, Commission staff recommend that Georgia Power's application for license surrender and decommissioning, with the addition of staff-recommended measures, be approved.

9. FINDING OF NO SIGNIFICANT IMPACT

In conclusion, Commission staff find the proposed surrender, including the decommissioning of the Langdale and Riverview projects, with Georgia Power's proposed protection measures and Commission staff's recommended measures, would not constitute a major federal action significantly affecting the quality of the human environment.

APPENDIX A. STATUTORY AND REGULATORY REQUIREMENTS

A.1 CLEAN WATER ACT SECTION 401

Under section 401(a)(1) of the Clean Water Act (CWA),[46] an applicant for a federal license or permit to conduct activities that may result in a discharge into the navigable waters of the United States, must obtain either a water quality certification (WQC or certification) from the appropriate state pollution control agency verifying that any discharge from the project would comply with applicable provisions of the CWA, or a waiver of such certification.[47] The Commission may not approve an application to conduct such activities unless the state water quality certifying agency has issued a certification for the project or has waived its certification. Section 401(d) of the CWA provides that the state certification shall become a condition of any federal license that is issued.

Georgia Power filed a request for a certification for the proposed action at both projects with the Georgia Environmental Protection Division (Georgia EPD) on December 13, 2022. This filing was withdrawn and resubmitted on December 8, 2023. On February 5, 2024, Georgia EPD issued WQCs for both projects, with conditions to protect water quality downstream, to ensure any fill used is free of waste and contaminants, to prevent soil erosion, sedimentation, and deposition, to protect stream buffers, and to provide advanced notice to Georgia EPD should any modifications to the proposed action be needed (*See Appendix D* for full text of conditions).

Commission staff's full analysis of effects to water quality from the proposed action is in section 6.1.2 *Water Quality* above.

A.2 ENDANGERED SPECIES ACT

Section 7 of the Endangered Species Act (ESA)[48] requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in any adverse modification of the critical habitat of such species.

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[46] 33 U.S.C. § 1341(a)(1).

[47] If a state agency does not act on a request for certification within a reasonable period of time, not to exceed one year after receipt of such request, the certification is considered to be waived.

[48] 16 U.S.C. § 1536(a).

On December 18, 2018, Georgia Power requested designation as the non-federal representative for the purpose of consultation with the FWS pursuant to section 7 of the ESA. By letter dated March 8, 2019, Commission staff designated Georgia Power as the non-federal representative for the purposes of conducting section 7 consultation under the ESA to assess the potential adverse effects on aquatic and terrestrial resources within the proposed action area. By letter dated December 12, 2022, the FWS provided support for decommissioning and removal of the project dams and stated that there are no federally listed species known to occur in the project area.

A.3 NATIONAL HISTORIC PRESERVATION ACT

Under section 106 of the National Historic Preservation Act (NHPA),[49] and its implementing regulations,[50] federal agencies must consider the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (National Register), and afford the Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment on the undertaking.[51] This generally requires the Commission to consult with the Georgia SHPO and Alabama SHPO to determine whether and how a proposed action may affect historic properties,[52] and to seek ways to avoid or minimize any adverse effects. In this document, we also use the term "cultural resources" for properties that have not been evaluated for eligibility for the National Register. Cultural resources represent items, structures, places, or archaeological sites that can be either prehistoric or historic in origin. In most cases, cultural resources less than 50 years old are not considered historic.

Section 106 also requires that the Commission seek concurrence with the Georgia SHPO and Alabama SHPO on any finding involving effects or no effects on historic properties and consult with interested Native American Tribes or Native Hawaiian

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[49] 16 U.S.C. § 470 *et seq*.

[50] 36 C.F.R. Part 800 (2022).

[51] An undertaking means "a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with Federal financial assistance; and those requiring a federal permit, license, or approval." 36 C.F.R. § 800.16. Here, the undertaking is the proposed amendment to the project's design.

[52] Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register.

organizations that attach religious or cultural significance to historic properties that may be affected by an undertaking.

On January 24, 2019, Commission staff designated Georgia Power as its non-federal representative for the purposes of conducting section 106 consultation under the NHPA. Pursuant to section 106, and as the Commission's designated non-federal representative, Georgia Power initiated consultation with the Georgia SHPO, Alabama SHPO, and federally recognized Tribes[53] to identify historic properties, determine the eligibility of cultural resources for listing on the National Register, and assess potential adverse effects on historic properties within the project's area of potential effect (APE).

The proposed action at the Langdale and Riverview projects is considered an undertaking pursuant to section 106 of the NHPA and several historic properties listed or eligible for listing in the National Register exist at the projects. Because federal jurisdiction would end if the proposed action was to be approved, the proposed action would have an adverse effect on historic properties within the APE. To meet the requirements of section 106 of the NHPA, Commission staff developed an MOA between the Commission, Georgia SHPO, and Alabama SHPO to mitigate the adverse effect of surrendering and decommissioning the projects. The MOA was sent to the ACHP on October 12, 2023, for review and comment. By letter dated October 27, 2023, the ACHP indicated that their participation in the consultation to resolve adverse effects is not needed. A final MOA will be sent to the Georgia and Alabama SHPOs for signature.

A.4 WILD AND SCENIC RIVERS ACT

Section 7(a) of the Wild and Scenic Rivers Act of 1968[54] prohibits the Commission from licensing any project located on or directly affecting any river that is designated as a component of the National Wild and Scenic Rivers System, or any river segment that Congress has designated for study. Designation under this act is intended to protect rivers with outstanding natural, cultural, and recreational values. The Chattahoochee River is not a component of the National Wild and Scenic Rivers System

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[53] On December 18, 2018, Georgia Power mailed the Application for Surrender to Tribes that are traditionally and culturally affiliated with the proposed area of potential effect for the proposed action concurrently with filing the application with the Commission. The following Tribes were sent copies: Alabama Coushatta Tribes of Texas, Alabama Quassarte Tribal Town, Choctaw Nation of Oklahoma, Coushatta Indian Tribe, Jena Band of Choctaw Indians, Kialegee Tribal Town, Mississippi Band of Choctaw Indians, and Muscogee (Creek) Nation of Oklahoma.

[54] 16 U.S.C. § 1278.

nor has Congress designated any segment of the river for study for potential inclusion in the system.

A.5 EXECUTIVE ORDERS 12898 & 14008

The Commission follows Executive Order 12898, which directs federal agencies to identify and address "disproportionately high and adverse human health or environmental effects" of their actions on minority and low-income populations (i.e., environmental justice communities).[55] Executive Order 14008 also directs agencies to develop "programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts."[56]

Environmental justice is "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (EPA, 2021b).

Commission staff identified six potential environmental justice communities within a 1-mile radius of the project boundary and considered how the community may be affected by noise, visual, and traffic effects of the construction and the effect of reduced public access to the river during dam removal activities. Our analysis of the project's effects on this community is presented in section 6.1.9, Environmental Justice. We conclude that approving the surrender and decommissioning, as proposed with staff's recommended modifications, would not result in disproportionate and adverse effects on the identified environmental justice population.

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[55] Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 16, 1994). While the Commission is not one of the specified agencies in Executive Order 12898, the Commission nonetheless addresses environmental justice in its analysis, in accordance with our statutory duties.

[56] Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Feb. 1, 2021). The term "environmental justice community" includes disadvantaged communities that have been historically marginalized and overburdened by pollution. Id. § 219, 86 Fed. Reg. 7619, 7629. The term also includes, but may not be limited to, minority populations, low-income populations, or indigenous peoples (EPA, 2021a).

APPENDIX B. FIGURES

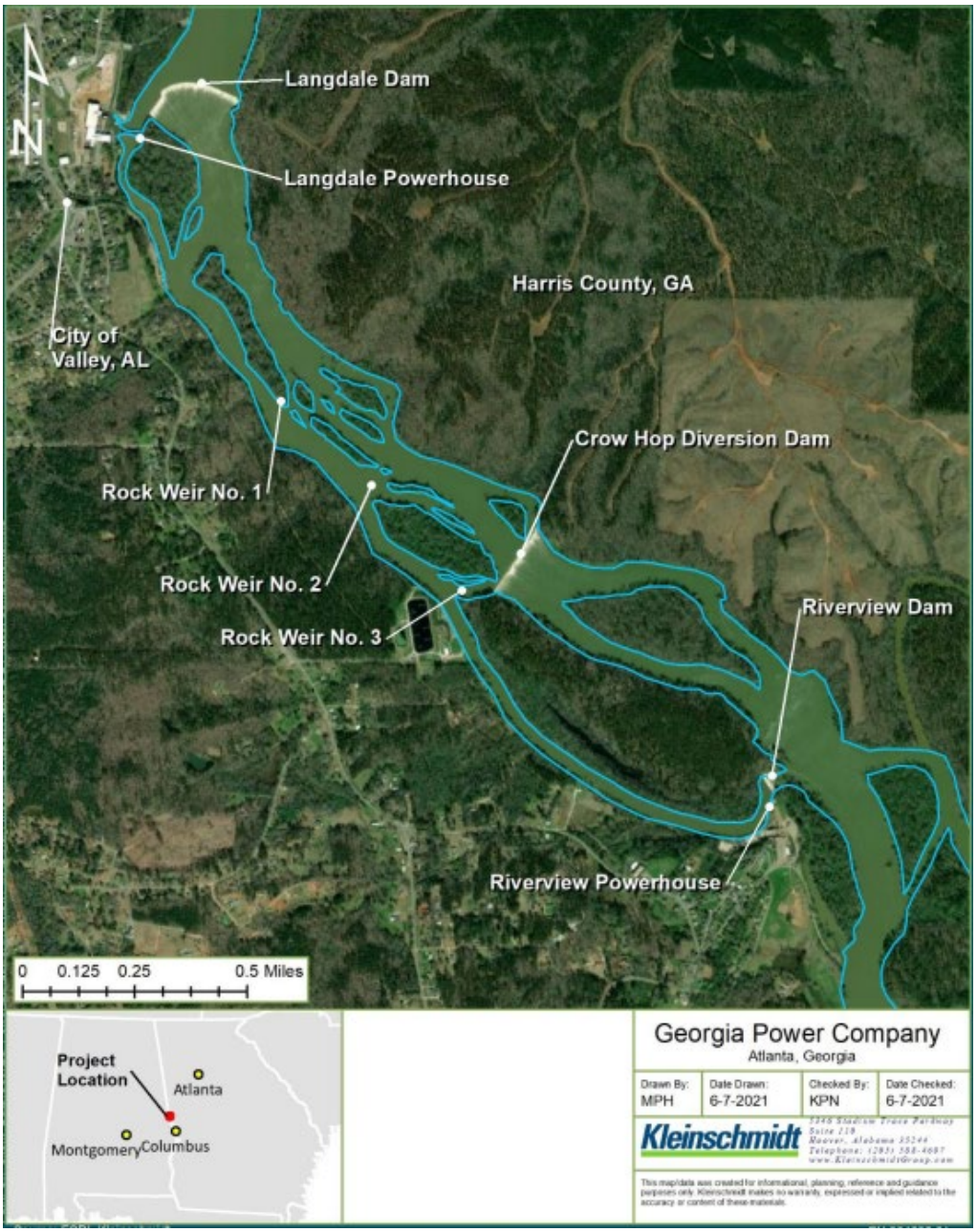

Figure 1. Langdale and Riverview Hydroelectric Projects Location Map (Source: Georgia Power's December 18, 2018 Surrender of License Application).

Figure 2. One mile radius around Langdale and Riverview Hydroelectric Projects (Source: Commission staff).

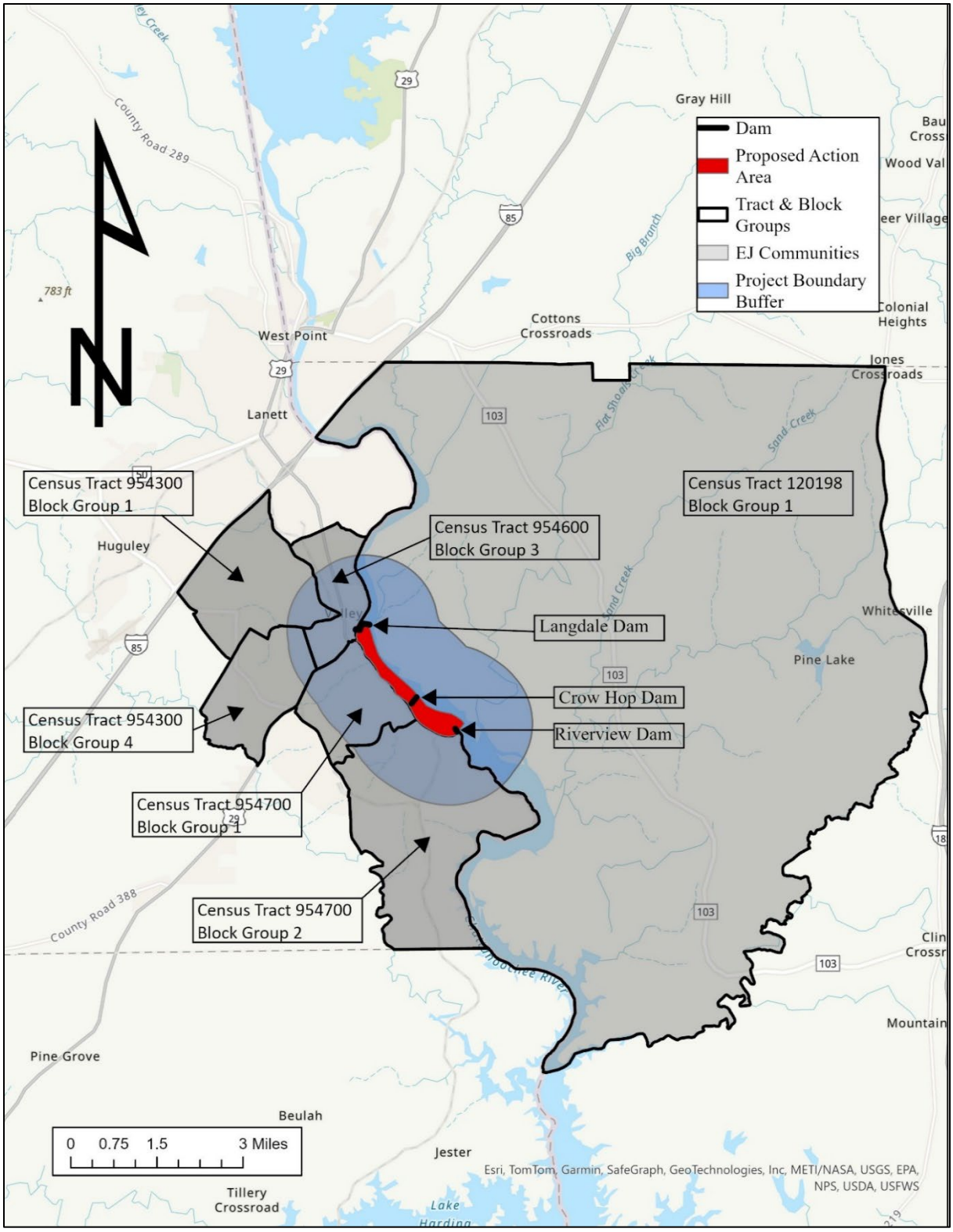

Figure 3. Census tracts and block groups within one mile of proposed action area (Source: Commission staff).

APPENDIX C. TABLES

Table 1. List of Sediment Quality Parameters Testing and Relevant Criteria. (Source: Applicant Prepared EA at 6-48).

Type	Parameter	Unit (dry weight)	Detection Limit	Analytical Method	ESV*	Columbus Dams Sediment **
Metal	Antimony	mg/kg	0.1	6010D	2	Non-detect
Metal	Arsenic	mg/kg	0.1	6010D	9.8	4.02
Metal	Cadmium	mg/kg	0.1	6010D	1.0	0.37
Metal	Chromium	mg/kg	0.1	6010D	43.4	38.2
Metal	Copper	mg/kg	0.17	6010D	31.6	27
Metal	Lead	mg/kg	0.34	6010D	35.8	43.1
Metal	Mercury (inorganic)	mg/kg	0.003	7470A	0.180	0.250
Metal	Nickel	mg/kg	0.1	6010D	22.7	9.08
Metal	Selenium	mg/kg	0.1	6010D	0.72	3.9
Metal	Silver	mg/kg	0.1	6010D	1.0	1.43
Metal	Zinc	mg/kg	0.7	6010D	121	140
PAH	Total Low Molecular Weight PAHs (LMW-PAHs)	µg/kg	analyte specific	8270E	600	N/A***
PAH	Total High Molecular Weight PAHs (HMW-PAHs)	µg/kg	analyte specific	8270E	1,000	N/A***
PCB	Total PCB Aroclors	µg/kg	100	EPA 8082A	59.8	327.5
Pesticide	4,4' DDE	µg/kg****	0.18	8081B	1.4	14.2
Pesticide	Chlordane	µg/kg	2.9	8081B	3.2	Non-detect
Dioxin	Dioxins/Furans	µg/kg	analyte specific	1613B*****	0.0025	Not tested

*EPA 2018, Table 2a and 2b for Region 4 Freshwater Sediment Ecological Screening Values for Hazardous Waste Sites

**Maximum sample concentration reported in GEL, 2009

***The testing at the Columbus Dams was for individual PAH's. The current (2018) EPA Screening Level evaluation recommends testing only for Total LMW-PAHs and Total HMW-PAHs. Georgia Power is following the more recent guidance for screening level assessments (EPA, 2018), and as such, the LMW-PAHs and HMW-PAHs will be evaluated as the sum of the individual PAHs in each category. These constituents may have varying detection limits by PAH.

**** µg/kg at 1 percent OC

***** Analytical method 1613B was used to quantify the dioxins/furans results and was summarized using the Toxicity Equivalent Quotient (TEQ)

Table 2. Analytical Results for Metals Analyzed in Sediment Samples Collected from the Langdale and Riverview Project during October 2021 (Source: Applicant Prepared EA at 6-49).

Analyte	ESV	Sampling Location						
		Q1	Q2	Q3	Q4	Q5	Q6	Q7
Metals: dry-weight (mg/kg)								
Antimony	2	<0.18	<0.2	<0.2	<1.2	<0.18	<0.2	<0.19
Arsenic	9.8	<0.25	0.3	<0.27	<1.6	<0.24	0.295	0.285
Cadmium	1.0	<0.0087	0.031	<0.0095	0.5085	<0.0087	0.0847	0.0796
Chromium	43.4	7.3	1.8	2.1	6.8	1.2	2.6	2.2
Copper	31.6	1.4	1.2	0.72	13	0.3975	0.98	0.94
Lead	35.8	1.3	1.4	1.3	15	0.99	1.6	1.7
Mercury	0.18	<0.003	<0.0032	<0.0032	<0.0039	<0.003	<0.0032	<0.0031
Nickel	22.7	3.3	0.88	0.82	3.2	0.6275	1.4	1.2
Selenium	0.72	<0.073	<0.076	<0.077	<0.092	<0.071	<0.076	<0.076
Silver	1.0	<0.027	<0.029	<0.029	<0.17	0.0885	<0.029	<0.028
Zinc	121	6.3	6.7	7.3	43	2.8	13	10

Table 3. Analytical Results for PAHs, PCBs, and Pesticides in Sediment Samples Collected from the Langdale and Riverview Projects during October 2021 (Source: Applicant Prepared EA at 6-50).

Analyte	ESV	Sampling Location						
		Q1	Q2	Q3	Q4	Q5	Q6	Q7
PAHs, PCBs, and Pesticides: dry-weight (µg/kg)								
Total Low Molecular Weight PAHs (LMW-PAHs)	600	1.8	<5.97	<5.97	60.5	1.7	<6	170.8
Total High Molecular Weight PAHs (HMW-PAHs)	1,000	7.1	<16.11	<16.11	511	25.8	<16.22	650
Total PCB Aroclors	59.8	0.26	<1.008	<1.007	<1.182	0.54	0.22	0.18
Chlordane	3.2	<0.21	<0.23	<0.23	<0.27	<0.21	<1.1	<0.22
4,4' DDE	1.4	<0.01	<0.011	<0.011	<0.013	<0.0099	<0.054	<0.01
Dioxins/Furans	0.0025	0.00041	0.00012	0.0001	0.0023	0.00032	0.000097	0.00023

Table 4. Determination of Effect for Federally Protected Species Which May Occur in the Vicinity of the Landale and Riverview Projects (Source: Commission staff).

Species	Status	Effects Determination
Georgia Rockcress (*Arabis georgiana*)	Threatened	No effect
Oval Pigtoe (*Pleurobema pyriforme*)	Endangered	No effect
Monarch butterfly (Danaus plexippus)	Candidate	No effect

Table 5. Summary of Historical Sites Within Langdale and Riverview Project Areas (Source: Applicant Prepared EA at 14-5).

Site No.	Site Type	NRHP Eligibility Determination
9HS30	Prehistoric artifact scatter and midden	Eligible
9HS525	Historic stone and timber weir	Eligible
9HS526	Historic stone and timber weir	Eligible
9HS527	Historic stone and timber weir	Eligible
9HS528	Historic stone and timber weir	Eligible
9HS529	Prehistoric artifact scatter	Unknown
9HS530	Prehistoric artifact scatter	Eligible
9HS531	Prehistoric artifact scatter	Eligible
9HS532	Prehistoric and historic artifact scatter	Eligible
9HS533	Historic stone and timber weir	Eligible

Table 6. Minority populations by race and ethnicity and low-income populations within one mile of the proposed action area (Source: Commission staff).

Demographic Composition within the Project Area											
State/County/Census Tract and Block Group	Race and Ethnicity Columns										Low Income Column
	Total Population	White Alone, not Hispanic or Latino[a]	Black or African-American[a]	American Indian and Alaska Native[a]	Asian[a]	Native Hawaiian & Other Pacific Islander[a]	Some Other Race[a]	Two or More Races[a]	Hispanic or Latino (any race)[a]	Total Minority Population[c]	Households Below Poverty Level[b]
State of Alabama	5,028,092	64.6%	26.2%	0.3%	1.4%	>0.1%	0.3%	2.6%	4.6%	35.4%	15.9%
Chambers County, Alabama	34,612	54.3%	40.8%	>0.1%	0.2%	>0.1%	0.2%	1.3%	3.3%	45.7%	19.1%
Census Tract 954300, Block Group 1	781	49.6%	47.5%	0.0%	2.0%	0.0%	0.0%	0.0%	0.9%	50.4%*	5.4%
Census Tract 954300, Block Group 4	1,999	36.6%	56.2%	0.0%	0.0%	0.0%	1.6%	4.5%	1.2%	63.4%*	35.1%*
Census Tract 954600, Block Group 3	1,341	43.7%	51.8%	>0.1%	0.0%	0.0%	0.0%	0.0%	4.5%	56.3%*	5.4%
Census Tract 954700, Block Group 1	1,095	55.7%	44.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	44.3%	22.6%*
Census Tract 954700, Block Group 2	1,677	44.8%	53.2%	0.0%	0.0%	0.0%	1.1%	0.0%	0.8%	55.2%*	25.8%*
State of Georgia	10,722,325	50.8%	31.1%	0.1%	4.3%	>0.1%	0.5%	3.1%	10.1%	49.2%	13.2%
Harris County, Georgia	34,914	75.7%	15.5%	>0.1%	0.7%	>0.1%	0.2%	3.4%	4.4%	24.3%	6.5%
Census Tract 120198, Block Group 1	1,280	71.9%	28.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.1%*	0.0%

A blue shaded cell with red text and an * denotes a qualifying value for inclusion as an environmental justice community.

[a]U.S. Census Bureau, 2022a.

[b]U.S. Census Bureau, 2022b.

APPENDIX D. WATER QUALITY CERTIFICATION CONDITIONS

Langdale Hydroelectric Project No. 2341 Water Quality Certification

In accordance with Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341, the State of Georgia has evaluated the Langdale Hydroelectric Project Decommissioning submitted by Georgia Power Company, an applicant for a federal permit or license related to proposed activity in, on, or adjacent to the waters of the State of Georgia.

The State has examined the information regarding the Langdale Hydroelectric Project Decommissioning provided to it by Georgia Power Company. In accordance with that information, the State of Georgia issues this Section 401 water quality certification to Georgia Power Company. This Section 401 water quality certification is subject to the following terms and conditions:

1. To assure compliance with State water quality standards, the applicant shall conduct all activities in a manner that will assure water quality adequate or necessary to protect and maintain designated uses. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03(2)(i), (ii).

    a. To prevent or avoid degradation of water quality downstream, the applicant shall implement Best Management Practices (BMPs) that have been approved for in-water use to the extent practical and feasible, to minimize total suspended solids (TSS) and sedimentation for any work conducted within a state water or within the delineated boundaries of wetlands. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); O.C.G.A. §§ 12-7-6 to 7; Ga. Comp. R. and Regs. 391-3-6-.03(5).

    b. In order to prevent or avoid violations of state water quality standards, the applicant must ensure that any fill placed in state waters must be clean fill that is free of solid waste, toxic, or hazardous contaminants. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); Ga. Comp. R. and Regs. 391-3-6-.03(5), (6), (11), (14)-(16).

2. To prevent sedimentation of state waters, the applicant shall ensure that it obtains coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction for discharges comprised of storm water associated with construction activity and any required land disturbing activity permits intended to prevent soil erosion, sedimentation, and deposition into waters of the state. 33 U.S.C. § 1342(p); O.C.G.A. § 12-5-30; O.C.G.A. §§ 12-7-6 to 7; Ga. Comp. R. and Regs. 391-3-6-.06; Ga. Comp. R. and Regs. 391-3-6-.16.
3. To assure compliance with State stream buffer rules, the applicant shall ensure that it abides by the requirements of any stream buffer variance applicable to the Project, including provisions to ensure protection, restoration, or mitigation of or related to the

stream buffer, which facilitates the protection of water quality. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-7-6; Ga. Comp. R. and Regs. 391-3-7-.05

4. To assure compliance with State stream buffer rules, the applicant shall ensure that it abides by the requirements of any stream buffer variance applicable to the Project, including provisions to ensure protection, restoration, or mitigation of or related to the stream buffer, which facilitates the protection of water quality. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-7-6; Ga. Comp. R. and Regs. 391-3-7-.05

The Georgia Environmental Protection Division may invalidate or revoke this certification for failure to comply with any of these terms or conditions. This certification does not waive any other permit or other legal requirement applicable to this project or relieve the applicant of any obligation or responsibility for complying with the provisions of any other federal, state, or local laws, ordinances, or regulations.

Riverview Hydroelectric Project No. 2350 Water Quality Certification

In accordance with Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341, the State of Georgia has evaluated the Langdale Hydroelectric Project Decommissioning submitted by Georgia Power Company, an applicant for a federal permit or license related to proposed activity in, on, or adjacent to the waters of the State of Georgia.

The State has examined the information regarding the Langdale Hydroelectric Project Decommissioning provided to it by Georgia Power Company. In accordance with that information, the State of Georgia issues this Section 401 water quality certification to Georgia Power Company. This Section 401 water quality certification is subject to the following terms and conditions:

1. To assure compliance with State water quality standards, the applicant shall conduct all activities in a manner that will assure water quality adequate or necessary to protect and maintain designated uses. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03(2)(i), (ii).

    a. To prevent or avoid degradation of water quality downstream, the applicant shall implement Best Management Practices (BMPs) that have been approved for in-water use to the extent practical and feasible, to minimize total suspended solids (TSS) and sedimentation for any work conducted within a state water or within the delineated boundaries of wetlands. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); O.C.G.A. §§ 12-7-6 to 7; Ga. Comp. R. and Regs. 391-3-6-.03(5).

    b. In order to prevent or avoid violations of state water quality standards, the applicant must ensure that any fill placed in state waters must be clean fill that is free of solid waste, toxic, or hazardous contaminants. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); Ga. Comp. R. and Regs. 391-3-6-.03(5), (6), (11), (14)-(16).

2. To prevent sedimentation of state waters, the applicant shall ensure that it obtains coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction for discharges comprised of storm water associated with construction activity and any required land disturbing activity permits intended to prevent soil erosion, sedimentation, and deposition into waters of the state. 33 U.S.C. § 1342(p); O.C.G.A. § 12-5-30; O.C.G.A. §§ 12-7-6 to 7; Ga. Comp. R. and Regs. 391-3-6-.06; Ga. Comp. R. and Regs. 391-3-6-.16.
3. To assure compliance with State stream buffer rules, the applicant shall ensure that it abides by the requirements of any stream buffer variance applicable to the Project, including provisions to ensure protection, restoration, or mitigation of or related to the stream buffer, which facilitates the protection of water quality. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-7-6; Ga. Comp. R. and Regs. 391-3-7-.05

4. To assure compliance with State stream buffer rules, the applicant shall ensure that it abides by the requirements of any stream buffer variance applicable to the Project, including provisions to ensure protection, restoration, or mitigation of or related to the stream buffer, which facilitates the protection of water quality. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-7-6; Ga. Comp. R. and Regs. 391-3-7-.05

The Georgia Environmental Protection Division may invalidate or revoke this certification for failure to comply with any of these terms or conditions. This certification does not waive any other permit or other legal requirement applicable to this project or relieve the applicant of any obligation or responsibility for complying with the provisions of any other federal, state, or local laws, ordinances, or regulations.

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