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OFFICE OF ENERGY PROJECTS

Project No. 485-063
Bartletts Ferry Hydroelectric Project
Georgia Power Company

George A. Martin
Hydro Relicensing Project Manager
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**Reference: Determination on Information Requests and Requests for
Modifications to the Bartlett Ferry Hydroelectric Project Study
Plan**

Dear Mr. Martin:

Pursuant to 18 C.F.R. § 5.15(c) of the Commission's regulations, this letter contains my determination on stakeholder requests for information and modifications to the study plan for Georgia Power Company's (Georgia Power) Bartletts Ferry Hydroelectric Project No. 485. This determination is based on staff review of the Initial Study Report (ISR), the ISR meeting and summary, review of comments made on the studies, and Georgia Power's responses to the comments filed on the ISR.

Background

On March 17, 2010, the Director of the Office of Energy Projects (Director) issued a Study Plan Determination approving three of Georgia Power's study plans without modification and five of the study plans with modifications. Further, the Director required an additional study plan to address project operations and drought management.

Georgia Power issued its ISR for the first year of studies on March 17, 2011, held meetings on March 30 and April 1, 2011 to discuss the results, and filed a meeting summary on April 18, 2011. Georgia Power, with its

ISR, filed final study reports on: (1) geology and soils; (2) project operation and drought management; (3) water resources; (4) fish and aquatic resources; (5) wildlife and botanical resources; (6) wetlands, riparian, and littoral habitats; (7) rare, threatened, and endangered species; (8) recreation and land use; and (9) cultural resources. The final reports were distributed to agencies and stakeholders for review at that time.

Written comments on the ISR and final study reports were filed by the Upper Chattahoochee Riverkeeper (Riverkeeper) on May 16, 2011; the Georgia Department of Natural Resources (Georgia DNR), the U.S. Fish and Wildlife Service (FWS), the Alabama Department of Conservation and Natural Resources (Alabama DCNR), and the West Point Lake Coalition (Coalition) on May 18, 2011; and the City of LaGrange, Georgia (LeGrange) on May 19, 2011. In their comments, the FWS, Georgia DNR, and Alabama DCNR expressed concern about low dissolved oxygen (DO) in the project tailrace during the summer, and FWS and Georgia DNR recommended Georgia Power explore methods to ameliorate the low DO in the project tailrace. The Riverkeeper requested the Commission suspend the relicensing process, reopen the study phase of the Integrated Licensing Process (ILP), and direct Georgia Power to reevaluate cumulative effects on water quality, recreation, fish, wildlife, drought management, and other [undefined] outstanding stakeholder concerns. The Coalition and LeGrange requested the Commission reopen the study phase of the ILP and direct Georgia Power to address their and other stakeholders' concerns.

On June 17, 2011, Georgia Power responded to the stakeholders' comments and additional information requests on the ISR. To address agency concerns regarding low DO in the project tailrace, Georgia Power included as Attachment II to its June 17, 2011 letter a new study entitled, "*Operational Study of Measures to Enhance Summer Dissolved Oxygen in the Bartletts Ferry Tailrace Area.*" Georgia Power also filed a revised Process Plan and Schedule to accommodate the new study.

In addition to the information requests and Georgia Power's new study undertaking mentioned above, the agencies and other stakeholders provided suggestions: (1) to improve the quality and content of the study reports; (2) that relate to assessment of project effects; or (3) that describe the need for protection and enhancement measures. These suggestions are not for new studies, or do not, otherwise, require changes to the study plan. However, Georgia Power is expected to incorporate the information provided in its June 17, 2011 response to the comments on the ISR, as well as the information requested in Appendix A, where appropriate, in its Preliminary Licensing Proposal (PLP) and license application.

Determination

This determination is based on the study criteria set forth in 18 C.F.R. § 5.15(d), § 5.51(e), and § 5.9(b) of the Commission's regulations. Staff findings and recommendations on the new study, the requests to further study cumulative effects, as well as staff requested clarification concerning the results of the geology and soils and the wildlife and botanical resources study reports, are in the enclosed Appendix A. A summary of the findings is included here.

New Dissolved Oxygen Study – Georgia Power's new study to evaluate the feasibility of enhancing summer DO in the project tailrace conforms with 18 C.F.R. § 5.9(b) of the Commission's regulations and is approved, with one modification. In its comments on the ISR, the FWS recommends Georgia Power assess options for enhancing DO in the project tailrace, including releasing a continuous minimum flow. Staff agree. Georgia Power's study plan does not include this measure as an option. Therefore, the list of measures identified for evaluation in the new study should include a continuous minimum flow release from the project. The new study, as modified herein and implemented after consultation with the resource agencies, will provide information for staff to fully assess alternatives for improving DO in the tailrace.

Cumulative Effects Analysis – The Coalition, LaGrange, and the Riverkeeper express concern that the relationship between Bartletts Ferry and other developments in the Apalachicola-Chattahoochee-Flint River basin - the U.S. Corps of Engineer's (Corps) West Point Lake and the Jim Woodruff Lock and Dam, and Georgia Power's Middle Chattahoochee Project No. 2177 - has not been adequately identified. The stakeholders commented that the Bartletts Ferry Project is one component of the Apalachicola-Chattahoochee-Flint River basin and the project must be analyzed in a basin-wide cumulative effects analysis. Therefore, the Coalition and LaGrange request the Commission reopen the study phase of the ILP to address basin-wide cumulative effects. The Riverkeeper requests the Commission suspend the relicensing process until the Commission and the Corps determine the appropriate scope of cumulative effects analysis, and at such time, the Commission reopen the study phase of the ILP.

Georgia Power conducted its studies for the Bartletts Ferry Project in accordance with the study plan approved by the Director. The Coalition, LaGrange, and the Riverkeeper have not provided any new information to support their study requests or any specific justification or showing of good cause to suspend the relicensing process or reopen the study phase and conduct further studies on cumulative effects. Based on staff review in Appendix A, the information contained in the record and other information available from the Corps, relative to its projects on the Chattahoochee River, will support staff's

cumulative effects analysis commensurate with the Bartletts Ferry Project's effects on identified resources in the Middle Chattahoochee River basin. Georgia Power is not required to conduct any further studies regarding cumulative effects.

Clarification of Study Results – In reviewing Georgia Power's ISR, staff identified items in the geology and soils and the wildlife and botanical resources study reports, which need clarification. Clarifying the data in these study reports, as described by staff in Appendix A, will provide information necessary for staff to fully assess the existing environment, and evaluate potential environmental protection and enhancement measures for the project.

Process Plan and Schedule – Georgia Power's new study is expected to be completed by October 11, 2011. The revised process plan accounts for the time needed to conduct the new study, prepare and file the associated report, and hold a meeting with the stakeholders to discuss the study results. Georgia Power indicates the PLP will be filed by July 17, 2012, instead of November 21, 2011, as originally planned. However, this change in the PLP filing date is consistent with the timeframe required by 18 C.F.R. § 5.16(a). Therefore, the revised process plan filed July 17, 2011 is approved.

If you have any questions, please contact Allan Creamer at (202) 502-8365, or by e-mail at allan.creamer@ferc.gov.

Sincerely,

Jeff C. Wright
Director
Office of Energy Projects

Enclosure: Appendix A

cc: Mailing List
Public Files

APPENDIX A

Staff's Recommendations and Findings on Study and Information Requests

The study and information requests made by the U.S. Fish and Wildlife Service (FWS), the Upper Chattahoochee Riverkeeper (Riverkeeper), the West Point Lake Coalition (Coalition), and the City of LaGrange, Georgia (LeGrange), where it concerns the cumulative effects of the Bartletts Ferry Project, do not comply with the Commission's regulations at 18 C.F.R. § 5.15(d), § 5.15(e), and § 5.9(b) because the requests do not address the standards and criteria set forth in the Commission's regulations. Nonetheless, staff considered the merits of the information sought, and concludes the study and information requests are not necessary for staff to complete its environmental analysis of the proposed project.

Study to Enhance Summer Dissolved Oxygen in the Bartletts Ferry Project Tailrace

Data collected as part of the Middle Chattahoochee River Project No. 2177 relicensing proceeding showed that dissolved oxygen (DO) in the headwaters of the Goat Rock reservoir (same as the Bartletts Ferry Project tailrace) fell below Georgia and Alabama State standards.¹ Georgia Power Company's (Georgia Power) study report, filed on March 17, 2011, shows DO concentrations below 4.0 milligrams per liter (mg/L) in the Bartletts Ferry Project tailrace during summer periods (2008-2010). The low DO periods typically occur in association with peaking events, where generation begins and ends using a single unit at the west powerhouse, in the absence of generation releases from the east powerhouse. The lowest DO concentrations are usually at night during non-generation periods.

In their comments on the Initial Study Report (ISR), the FWS, the Georgia Department of Natural Resources (Georgia DNR), and the Alabama Department of Conservation and Natural Resources (Alabama DCNR) expressed concern regarding low DO in the Bartletts Ferry Project tailrace and its effects on aquatic resources in the downstream reach. The FWS and Georgia DNR request Georgia Power assess options for enhancing DO in the tailrace area. Specifically, the agencies recommend Georgia Power explore methods to ameliorate low DO in the tailrace, including: (1) implementing a continuous minimum flow, (2) operationally altering generation flow through the powerhouses, and/or (3) structural modifications.

¹ Georgia's applicable DO standards are a daily average of 5.0 mg/L and no less than 4.0 mg/L at all times. Alabama's applicable standards require a daily concentration of not less than 5.0 mg/L at all times; except under extreme conditions due to natural causes, it may range between 5.0 and 4.0 mg/L, provided that the water quality is favorable in all other parameters.

Staff reviewed the water quality report, and preliminarily concludes that project operation affects DO concentrations in the tailrace area. Therefore, staff recommends Georgia Power's new study to evaluate the feasibility of enhancing summer DO in the project tailrace be approved, with one modification.

Georgia Power's new study, filed June 17, 2011, addresses the agencies' concerns regarding low DO and its effects on aquatic resources in the tailrace area. However, the study plan would not provide a complete picture as to the breadth of measures that could be implemented at the project to improve DO in the tailrace. The study plan identified three options: (1) placing stoplogs immediately upstream of one or more units at the west powerhouse intake to selectively draw water from higher in the water column of the reservoir, (2) conducting turbine vacuum breaker venting of one or more units at the west powerhouse, and (3) operating the west and east powerhouses in different sequences to enhance DO concentrations. However, the study plan does not identify continuous minimum flows in the tailrace as an option.

Georgia Power, in its response to comments on the ISR, explains that it does not plan to evaluate a continuous minimum flow in the new study for several reasons. First, the Bartletts Ferry Project discharges directly into the backwaters of Goat Rock reservoir, and there is no free-flowing riverine habitat in the Bartletts Ferry Project tailrace. Second, the 2010 fish surveys of the tailrace show the fish community to be healthy and dominated by habitat-generalist species typical of southeastern reservoirs. In addition, the mussels that occur in the tailrace tolerate impounded conditions. Finally, the low DO that occurs in the tailrace was often associated with generation releases from the west powerhouse. Because the west powerhouse would likely be used to provide the minimum flow, the release would not necessarily improve summer DO conditions.

When the reservoir for the Goat Rock development is at its normal operating level, water backs up to Bartletts Ferry Dam, and there is no free-flowing river reach. However, when Goat Rock reservoir elevation is low, the Bartletts Ferry Project discharges to a riverine-like environment. The Bartletts Ferry tailrace is a transition zone with potential aeration capabilities.² Therefore, a minimum flow individually, or in combination with another enhancement strategy may be a feasible solution for improving summer DO conditions, and the aquatic resources in the reach. For the above reasons, it is recommended that Georgia Power add a continuous minimum flow to the list of options evaluated as part of its new "*Operational Study of Measures to Enhance Summer Dissolved Oxygen in the Bartletts Ferry Tailrace Area.*"

² The Bartletts Ferry tailrace is dominated by boulder and bedrock substrates, with sporadic patches of cobble/gravel and sand/silt/detritus.

Basin-wide Drought Management and Study of Cumulative Effects

Georgia Power's Bartletts Ferry Project and its Middle Chattahoochee Project No. 2177 are situated on the Chattahoochee River between the U.S. Army Corps of Engineers' (Corps) West Point Lake and the Jim Woodruff Lock and Dam developments. For this reason, the FWS, the Coalition, LaGrange, and the Riverkeeper, assert that the Bartletts Ferry Project should be part of an integrated response to drought conditions in the Apalachicola-Chattahoochee-Flint River basin to augment downstream flows during drought periods to protect aquatic resources in the river basin. The stakeholders also commented that Georgia Power needs to conduct the necessary studies to gather information relative to Bartletts Ferry Project's cumulative effects on a number of resources.³

The Coalition, LaGrange, and the Riverkeeper express concern that the relationship between Bartletts Ferry and other developments in the Apalachicola-Chattahoochee-Flint River basin - the Corps' West Point Lake and the Jim Woodruff Lock and Dam, and Georgia Power's Middle Chattahoochee Project - has not been adequately identified. The stakeholders commented that the Bartletts Ferry Project is one component of the Apalachicola-Chattahoochee-Flint River basin and the project must be analyzed in a basin-wide cumulative effects analysis. Therefore, the Coalition and LaGrange request the Commission reopen the study phase of the ILP to address basin-wide cumulative effects. The Riverkeeper requests the Commission suspend the relicensing process until the Commission and the Corps determine the appropriate scope of cumulative effects analysis, and at such time, the Commission reopen the study phase of the ILP.

Georgia Power conducted its studies for the Bartletts Ferry Project in accordance with the study plan approved by the Director. The Coalition, LaGrange, and the Riverkeeper have not provided any new information to support their study requests or any specific justification of the showing of good cause to suspend the relicensing process or reopen the study phase and conduct further studies on cumulative effects.

The Commission does not require license applicants to conduct studies on cumulative effects. Rather, staff will consider the information contained in the record and other information available from the Corps to support its cumulative effects analysis commensurate with the Bartletts Ferry Project's effects on identified resources in the Middle Chattahoochee River basin.⁴

³ The resources include water quality, drought management, fish, wildlife, recreation, and other [undefined] outstanding stakeholder concerns.

⁴ See Scoping Document 2 for the Bartletts Ferry Hydroelectric Project No. 485-063, issued October 15, 2009, at 8-12.

Geology and Soils Study Results

As part of its geology and soils study, Georgia Power conducted a shoreline reconnaissance survey. Georgia Power filed the field data forms for each shoreline assessment site. However, some of the notes on the field data forms are illegible because the ink is too light to read. Therefore, Georgia Power should provide legible copies of the data forms with its PLP.

Wildlife and Botanical Resources Study Results

The approved study plan for the Wildlife and Botanical Resources Study included a field reconnaissance survey to collect information about existing terrestrial communities and associated wildlife habitat. The study plan required Georgia Power to survey all recreation areas associated with the project and document whether exotic invasive species are present.⁵ The ISR lists 15 exotic invasive plant species that Georgia Power identified during its field reconnaissance survey,⁶ and Georgia Power's letter filed June 16, 2011, identifies four exotic invasive species that were planted at Blanton Creek Wildlife Management Area to support wildlife.⁷ However, Georgia Power's ISR and June 16, 2011 letter do not provide information regarding which, if any, exotic invasive plant species occur at the project recreation sites. The study plan also required Georgia Power to keep field notes that were to include the locations of invasive pest plant (IPP) species, as well as provide estimates of the size of any infestation where IPP species are observed. Georgia Power's nine community evaluation forms, filed with the ISR, provide some information about exotic invasive species based on general vegetation communities in the project area. However, the evaluation forms do not provide the level of detail on existing exotic invasive plant species, as required by the approved study plan.

Staff requests that Georgia Power provide, in the PLP, copies of the field notes from the reconnaissance survey, including a list of exotic invasive species observed at the individual project recreation sites, as well as estimates on the size of IPP infestations observed.

⁵ See Georgia Power's revised study plan, filed February 18, 2010, at 5-5.

⁶ See Georgia Power's ISR – Wildlife and Botanical Resources Study Report at 10.

⁷ See Georgia Power's letter filed June 16, 2011, *Responses to Comments from U.S. Fish and Wildlife Service, dated May 18, 2011*, at 3.