NORTH GEORGIA PROJECT
PLAN FOR OPERATING THE PROJECT DURING AESTHETIC AND WHITEWATER FLOW RELEASES
(as required by Article 411 of the new North Georgia license)

Article 411 of the new North Georgia license reads:

Article 411. Within six months from the date of issuance of this license, the licensee shall file for Commission approval a plan for operating the North Georgia Project during the aesthetic flow releases required in Article 409 and the whitewater flow releases required in Article 410 to reduce the fluctuations of upstream lake levels (Lakes Burton, Seed, and Rabun and Tallulah Falls Lake).

The plan shall include but not be limited to a description of how the licensee plans to operate the project prior to and during aesthetic and whitewater flow releases to reduce fluctuations of upstream lake levels.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the Georgia Department of Natural Resources, the Lake Burton Civic Association, and the Lake Rabun Association. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No aesthetic or whitewater flow releases shall be made until the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission.

Georgia Power Company proposes the following plan in fulfillment of Article 411 of the new North Georgia Project license.

Introduction

While the special whitewater and aesthetic flow releases occur from the Tallulah Falls project, the release decisions and associated schedule must be cognizant of the potential impacts to the upstream reservoirs. With exception of Lake Burton, and to a small degree Lake Rabun, the upstream reservoirs have minimal storage capacity. Lake Burton was designed from its inception in the early 1920's to be the supply reservoir for the North Georgia hydro system. The remaining projects are essentially operated as run of river projects. For this reason, Lake Burton, with assistance from Lake Rabun, will be used to regulate flows for the special whitewater and aesthetic flow releases.

In order to develop an effective operation plan for making the whitewater and aesthetic flow releases, it is essential that all of the competing water uses be identified and prioritized. Criteria must also be established for determining whether sufficient flow is available to support the releases without adversely impacting other critical resource needs. As part of this plan, acceptable lake level fluctuations must be established for the supply reservoirs (Burton and Rabun) and the release mechanisms for providing these flows must be identified. These criteria are established in the following sections of the Operation Plan.

Reservoir Regulation for Competing Uses of the Water

There are numerous constraints upon the water resources that flow into the Burton reservoir. These include: (1) drawdowns to flush out sediments in tributaries so that spawning can be enhanced for walleye, (2) refilling Burton reservoir from its winter drawdown level to its summer operating pool elevation to ensure adequate recreational activities and maintain reservoir aesthetic values, (3) ensuring there is sufficient water available in the lake for use in the dry fire hydrant system around the lake, (4) providing flows for whitewater recreation in Tallulah Gorge in April and November, (5) providing flows for aesthetic considerations at Tallulah Gorge in April, May, September and October, (6) providing its share of flow to support minimum release requirements at Mathis, Tallulah Falls, and Yonah, (7) ensuring that project operation has minimal impact on fisheries during the spring spawning season by limiting fluctuations in an effort to avoid stranding and nest dewatering, and (8) power generation requirements.

During normal or above average flow periods, there should be sufficient water available to satisfy all of the competing needs. However, some of these requirements could come into conflict with each other especially in critical low flow periods. For example, power generation needs may conflict with scheduled releases for whitewater activities or aesthetic flow releases may conflict with the need to maintain lake elevations for lake recreation, fisheries, and aesthetic values. As

such, it is necessary to rank the demands on the resource and assign priorities for the critical low flow periods. The assigned priorities are as follows:

Priority Assignments During Periods of Low Streamflow

Resource Constraints	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Refill Lake Burton		1	1	1								
Maintain Burton Level	3				1	1	1	1	1	1	3	3
Whitewater Flows				2							1	
Aesthetic Flows				2	2				2	2	1	
Yonah Minimum Flow	1	2	2	2	2	2	2	2	2	2	1	1
Power Generation	2	3	3	3	3	3	3	3	3	3	2	2

Notes:

- Rule Curve Drawdown begins in November of each year.
- Burton must be refilled to at least El. 1860 by March 1.
- Rule curve operation designed to achieve full pool (El 1865) at Burton by April 30.
- Whitewater and Aesthetic Flow releases in November can be used to facilitate drawdown.
- Aesthetic and Whitewater releases can also be used to satisfy Yonah minimum flow requirements.
- Refilling of Lake Burton during February-April is considered in the Yonah inflow calculation as described in Article 414.
- During a "drought" the "or inflow" provision in the Yonah minimum flow requirement would prevent "drawing down" the Burton reservoir to supplement the Yonah minimum release. Therefore, a priority 2 ranking was given to the Yonah minimum release during May-October. The actual minimum flow at Yonah would be equal to the calculated inflow as described in Article 414.

Allowable Reservoir Fluctuations Due to Special Flow Releases

As with normal power generation flow releases, the special flow releases into Tallulah gorge will be scheduled in a manner that will minimize lake level fluctuations. Generating units at the upstream projects will be loaded and operated to balance the required releases into the gorge. Lake level fluctuations at Lake Burton and Lake Rabun during the whitewater and aesthetic flow release periods will be consistent with those historically experienced during normal power generation periods.

Units at Nacoochee are loaded and unloaded based on lake level. As such, fluctuations at the Nacoochee projects will be consistent with normal plant operations based on the Burton flow release. Tallulah Falls reservoir levels should remain relatively constant throughout the aesthetic and whitewater flow releases. Georgia Power plans to balance the Terrora discharge and local Tiger Creek inflow with the combination of the Tallulah unit flow and special releases into the gorge.

In general, project operation schedules are developed based on a "weekly look ahead" taking into account expected system demand and available water. Power generation schedules for the project during the week preceding the special flow releases will be established based upon system demand and the projected inflow using the flows measured at USGS gage No. 02178400 (Tallulah River near Clayton, Ga).

Criteria for Cancellation of Special Flow Releases

With exception of extreme drought periods, Georgia Power anticipates that there will be sufficient water available to satisfy all of the competing resource needs. It is estimated that an average inflow of approximately 115 cfs is required to refill Lake Burton during the months of March and April. Georgia Power believes that sufficient flow will be available to refill the reservoir and provide the special release flows providing that the flow at USGS gage No. 02178400 is consistently greater than 95 cfs. Beginning no later than one week prior to the Wednesday preceding the whitewater or aesthetic flow releases, Georgia Power will monitor, record and evaluate the flows at USGS gage No. 02178400. Should the average daily flow for the week ending on the Wednesday preceding the scheduled releases fall below 95 cfs, Georgia Power will cancel the flow release for the upcoming weekend. Rescheduling of flows will be at the discretion of Georgia Power. Statistical analyses of the flow at USGS gage No. 02178400 indicates that the average daily flow for a one week period in April would drop below 95 cfs about once in 25 years.

Aesthetic flow releases in May should not be impacted by the refilling of Lake Burton and can be provided by modifying generation schedules. Whitewater and aesthetic flow releases during the fall season can be provided by modifying generation schedules. Georgia Power does not anticipate having to cancel these releases in the fall.

Consultation Process

During the consultation process, the USF&WS indicated that its priority ranking of the competing needs could be different than that presented by Georgia Power as part of this plan. However, all agencies agreed that the plan as presented adequately addresses operational constraints for whitewater and aesthetic flow releases. Georgia Power acknowledges that input from the South Carolina Department of Natural Resources regarding the Yonah Lake operation has been considered in the development of this plan. Although Article 411 does not mandate consultation with the South Carolina DNR, Georgia Power agrees to notify South Carolina DNR of any changes to this plan in order to include their input.

Acceptance of Plan

It is hereby agreed that the above plan for operating the project during aesthetic and whitewater flow releases is acceptable for the North Georgia Project, FERC Project No. 2354.

Date: _____

Accepted for: U. S. Fish and Wildlife Service

_____
Steve Gilbert
Senior Staff Biologist
Acting Field Supervisor

Accepted for: Georgia Department of Natural Resources

_____
David Waller
Director, Wildlife Resources Division

Accepted for: Lake Burton Civic Association

_____
Don Heald
President

Accepted for: Lake Rabun Association

_____
Ann Webb
President

Accepted for: Georgia Power Company

_____
Robert L. Boyer
Vice President-Power Generation