ARC Concept for ACF Interim Operations Proposal 3 – FIOPA3 – 5% over-release caps George F. McMahon, Ph.D., December, 2006

- 1. Minimum Woodruff release rates based on USACE Mobile District Revised IOP, dated 12 June 2006 Interim Operations Table, with 10,000-cfs June – February threshold adjustment per USFWS BO corrected version dated September 22, 2006.
- 2. Maximum Woodruff release rates when system conservation storage (Lanier, West Point and W.F. George) less than full shown in Table 1:

Months	Basin Inflow (BI) (cfs)	Woodruff maximum releases (cfs)
March – May	>=37,400	NTE 37,400 cfs
	20,400 - 37,400	NTE greater of 20,400 or 75% BI
	<20,400	NTE greater of 5,250 or BI
June - February	>=23,000	NTE 23,000
	10,000 - 23,000	NTE greater of 10,000 or 75% BI
	<10,000	NTE greater of 5,250 or BI

Table 1: Maximum Woodruff releases when system conservation storage less than
full (ARC Proposal 3 – FIOPA3)

- 3. Other provisions:
 - System conservation storage varies seasonally as the sum of Lanier's West Point's and W.F. George's conservation storage, based on USACE October 1989 ACF WCP rule curves.
 - USACE October 1989 ACF Water Control Plan zones for Lanier, West Point, W.F. George; all reservoirs operated insofar as possible to maintain equal zones and equal portions of storage remaining in each zone.
 - Refilling of system conservation storage subject to provisions of Table 1.
 - Lanier releases to meet Atlanta minimum instream flow requirement: 750 cfs year-round.
 - West Point releases to meet Columbus minimum instream flow requirement: 1850 cfs, 1200 cfs when West Point elevation below 621.6.
 - Navigation releases only incidental to other requirements.
 - At-site firm power requirements defined in Table 2.
 - Woodruff release ramp-up rate limit equals ramp-down rate limit, BO Table 1.3.A

Zone	Lanier	West Point	W.F. George	Woodruff
1	3	4	4	15% PF
2	2	2	2	15% PF
3	2	2	2	15% PF
4	0	0	0	15% PF

Table 2: At-site firm energy requirements (minimum weekday hours of full-capacitygeneration) based on Col. Taylor June 12, 2006 letter to Dr. Carol Couch