ACF Interim Operations FIOPOR – IOP w/20% over-releases "as practiced" by USACE in 2006 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. Woodruff release rates "as practiced" by USACE in 2006 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 90% BI | |
| | <20,400 | NTE greater of 6,000 or BI | |
| June - February | >=23,000 | NTE 23,000 | |
| | 10,000 - 23,000 | NTE greater of 10,000 or 90% BI | |
| <10,000 | | NTE greater of 6,000 or BI | |

Table 1: Maximum Woodruff releases when system conservation storage less than full (ARC Proposal 2 – FIOPA2)

- 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-down rate limit per 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-capacity generation) based on Col. Taylor June 12, 2006 letter to Dr. Carol Couch