



DEPARTMENT OF THE ARMY  
MOBILE DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 2288  
MOBILE, ALABAMA 36628-0001

November 21, 2007

Inland Environment Team  
Planning and Environmental Division

Ms. Gail Carmody  
Field Supervisor  
U.S. Fish and Wildlife Service  
1601 Balboa Avenue  
Panama City, Florida 32405-3721

Dear Ms. Carmody:

In accordance with the amended Biological Opinion and Conference Report (BIOP) dated November 15, 2007, we began reducing flows from Woodruff Dam on November 16, 2007 from a minimum flow provision of 5,000 cubic feet per second (cfs), to a temporary minimum flow of 4,750 cfs. As of November 20, 2007, the discharge from Jim Woodruff Dam has stabilized at approximately 4,770 cfs with a corresponding river stage of 38.91 feet, as measured at the USGS Chattahoochee gage located approximately one-half mile below the dam. This represents approximately a 360 cfs reduction in flow and an approximate 3-inch reduction in stage immediately below the dam. Downstream at our Blountstown and Wewahitchka gages the stage reductions appear to have stabilized at approximately 1.5 inches and 1 inch, respectively.

In the BIOP dated November 15, 2007, you included the following Reasonable and Prudent Measure; "RPM6. Minimum Flow Criteria and Triggers":

*By December 7, 2007, the Corps shall, in cooperation with the Service, determine appropriate criteria for initiating a reduction from 4,750 cfs to 4,500 cfs in the EDO minimum releases from Woodruff Dam. The criteria shall consider all appropriate monitoring data and models (e.g., survey of mussels mortality under condition 7.4.5.e, composite reservoir storage, climatic and hydrological conditions experienced, hydrological models, meteorological forecasts) to specify when a reduction is needed and the probable impacts to project purposes or other resources avoided by a reduction at that time, including impacts to listed species that would likely occur without the reduction.*

Based on inflow and reservoir conditions significantly worse than the 10<sup>th</sup> percentile flow values upon which the analysis in our Biological Assessment was based, we feel that a flow reduction to the 4,500 cfs level must be implemented very soon, as early as December 1, 2007. Due to the shortened work week caused by the Thanksgiving Holiday, we want to let you know our thoughts regarding the proposed triggers to initiate a flow reduction to 4,500 cfs. Beginning next week following the Holiday, we would like to consult with you and your staff on this proposal and also to allow time to complete the final population distribution and mortality estimates for the previous flow reduction to 4,750 cfs.

As presented in our Biological Assessment dated November 1, 2007, and based on extensive reservoir system modeling, we have determined that ACF Composite Storage Zone 4 is the appropriate trigger point for implementation of the Exceptional Drought Operation (EDO). The modeling used to develop the EDO triggers and analyze system impacts, both with and without EDO adoption, was based on the 10<sup>th</sup> percentile hydrology. Subsequent to EDO development, basin climatology and resulting hydrology have deteriorated considerably to less than the 2<sup>nd</sup> percentile hydrology on both the Flint and Chattahoochee portions of the basin. We have experienced record low flows in November, and the forecast for December continues to provide little hope for significant improvement in the exceptional drought conditions. Because of these dangerously low inflows, coupled with the previously realized EDO implementation trigger, which occurred when ACF Composite Storage declined into Zone 4, we propose the following triggers to reduce flows to 4,500 cfs:

- a. Cumulative Annual Basin Inflow above W. F. George Dam < 5<sup>th</sup> Percentile: This trigger represents a measure of the amount of inflow we have received in our three storage reservoirs; Lake Lanier, West Point Lake, and Walter F. George Lake. The trigger is a cumulative annual value designed to capture the importance of sustained low flows on reservoir storage and recovery. Coupled with Composite Storage in Zone 4, this trigger indicates a prolonged and sustained reduction in inflows to the storage reservoirs meriting further outflow reductions.
- b. Monthly Basin Inflow above the Newton Gage on the Flint River < 5<sup>th</sup> Percentile: This trigger represents the flow contribution of the uncontrolled Flint River. When coupled with the exceptional system storage trigger (Composite Zone 4) and cumulative annual basin inflows on the Chattahoochee River less than the 5<sup>th</sup> percentile, flows less than the 5<sup>th</sup> percentile on the Flint River represent a continuation of critically low inflows and associated further rapid depletion of the remaining basin storage.

In addition to the two recommended triggers described above, we also took into consideration the facts that the modeling used to develop the EDO was based on the 10<sup>th</sup> percentile hydrology, and that the National Weather Service continues to predict a very strong La Niña. A La Niña condition can be expected to bring significantly increased probabilities of a very dry winter in the ACF basin.

Should you have any questions, comments, or recommendations, please contact Ms. Joanne Brandt at (251) 690-3260, e-mail at [joanne.u.brandt@sam.usace.army.mil](mailto:joanne.u.brandt@sam.usace.army.mil); or Mr. Brian Zettle, (251) 690-2115, email at [brian.a.zettle@sam.usace.army.mil](mailto:brian.a.zettle@sam.usace.army.mil).

Sincerely,

  
Curtis M. Flakes  
Chief, Planning and Environmental  
Division