



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

October 19, 2007

REPLY TO
ATTENTION OF

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:

The extraordinary drought conditions occurring in the Apalachicola-Chattahoochee-Flint Rivers (ACF) Basin this year appear likely to persist throughout the remainder of the year. Our staffs have discussed various options to temporarily modify the existing Jim Woodruff Dam Interim Operations Plan (IOP) protocols in order to conserve composite storage available in the system to support many project purposes, including the 5,000 cubic feet per second (cfs) minimum release at Jim Woodruff Dam. The purpose of this letter is to describe one of these options that we believe we can implement immediately and that is not likely to adversely affect resources protected under the Endangered Species Act of 1973 (ESA).

The IOP was developed in consultation with the U.S. Fish and Wildlife Service to provide for releases in support of federally listed species on the Apalachicola River, consistent with the requirements of the current water control plan. In conformance with the Draft Water Control Plan (1989) for the ACF Basin and the provisions of the IOP, the U.S. Army Corps of Engineers has been releasing a minimum flow of at least 5,000 cfs from Jim Woodruff Dam since late May 2007. Basin inflows during this same period have been considerably lower than 5,000 cfs for substantial periods (average 2,500 cfs over the last 60 days) resulting in a substantial reduction in storage from the upstream reservoirs. Recently the 7-day basin inflow has averaged less than 2,000 cfs. The composite storage for the system is currently in Zone 4 (lowest zone) and is projected to continue to drop significantly over the next 30-60 days. Currently, Lake Lanier is the only Federal reservoir within the ACF basin with storage remaining to support downstream water users and the 5,000 cfs minimum flow. The extremely dry conditions are resulting in rapidly declining availability of this storage. If the current conditions continue, the remaining conservation storage could only support the 5,000 cfs minimum flow for an estimated 100 additional days. At that point, no storage would remain in the conservation pool at Lake Lanier or the other Federal reservoirs. Our operational flexibility regarding water management within the basin would be acutely limited and the 5,000 cfs minimum flow release from Jim Woodruff Dam would no longer be able to be maintained.

During our recent informal discussions, we have considered possible temporary modifications to the IOP that would minimize the risk of depleting composite storage within the basin and assist us in maintaining the 5,000 cfs minimum flow on the Apalachicola River. Certain measures under consideration will require further consultation discussion, but we have also discussed whether certain drought contingency measures could be implemented at this time without causing adverse effects to the listed species. Based on our discussions, we herein propose to temporarily suspend the IOP-prescribed maximum fall rate schedule for releases from Jim Woodruff Dam until March 1, 2008. During the period of the temporary modification, we will attempt to match any releases from Jim Woodruff Dam above the 5,000 cfs minimum flow to the basin inflow fall rate rather than the IOP maximum fall rate schedule to the extent practicable. This modification will minimize the additional use of storage that would occur when the IOP specified ramping down rate is slower than the rate of fall of basin inflow. Physical limitations and water travel times may prevent strict adherence to the basin inflow fall rate. All other provisions of the IOP will be adhered to.

Fall rate, also called down-ramping rate, is the vertical drop in river stage (water surface elevation) that occurs over a given period. The IOP fall rates are expressed in units of feet per day (ft/day), and are measured at the United States Geological Survey (USGS) gage, #02358000, Apalachicola River at Chattahoochee, Florida, as the difference between the daily average river stage of consecutive calendar days. Maximum fall rates under the IOP vary according to the flow released from Jim Woodruff Dam. Lower flows are assigned more gradual fall rates, and higher flows are assigned more rapid fall rates. The intent of the IOP maximum fall rate schedule is to limit the potential for stranding aquatic organisms, including listed species and host fish for listed mussels, in areas that become exposed or become disconnected from the main channel during periods of declining flow.

As you know, the IOP utilizes a 7-day moving average basin inflow calculation to determine the prescribed minimum releases from Jim Woodruff Dam. The 7-day moving average basin inflow calculation dampens daily fluctuations in basin inflow and results in less extreme day-to-day changes in the required minimum release from Jim Woodruff Dam. This dampening should generally, but not always, yield a prescribed minimum release that is also consistent with the maximum fall rate schedule without the release of additional water from storage. However, there are occasions when this is not the case and a substantial drawdown of storage can occur due to gradual down ramping while following declining basin inflow. An example of this scenario would involve rain events limited to the Flint River basin, where no Federal storage projects exist, requiring increased releases from Jim Woodruff Dam (essentially no storage capability) and the use of stored water from the Federal reservoirs on the Chattahoochee River to meet the maximum fall rate schedule prescriptions. Given the severity of the current drought, especially in the upper portion of the basin, continued adherence to the IOP maximum fall rate schedule could impact our ability to conserve storage to the maximum extent practicable and, if current conditions continue, limit our ability to continue to meet the 5,000 cfs minimum release from Jim Woodruff Dam as composite storage within the basin becomes depleted.

As described above, the intent of the IOP maximum fall rate schedule is to limit the potential for stranding aquatic organisms, including listed species and host fish for listed mussels, in areas that become exposed or become disconnected from the main channel during periods of declining flow. Due to the drought conditions resulting in flows on the Apalachicola River averaging approximately 5,000 cfs since May of this year, it is unlikely that live mussels occur at elevations above the current level. Given the current drought conditions and forecasted drought extension, it is also unlikely that rain events will result in flows in the Apalachicola River significantly increasing above current flows for a period of time long enough for mussels to move to higher elevation locations with or without the maximum fall rate schedule in place and the potential for stranding is minimal. Likewise, distributaries of the Apalachicola River, except those that flow directly to the bay, are disconnected at the current flow levels and it is unlikely that flows would increase high enough and for an extended period lengthy enough to result in significant stranding of Gulf sturgeon or host fish for listed mussels. Furthermore, most sturgeon will soon, if they have not already, migrate from the river to the bay and gulf, where they will remain until the spring spawning period beginning March 1, 2008. Because we do not anticipate a large increase in flows in the coming weeks, suspending the maximum fall rate schedule will make a relatively small difference in flows compared to those that would occur if no change to the IOP were made. Therefore, we do not anticipate any destruction or adverse modification of critical habitat primary constituent elements for Gulf sturgeon (ex: flow regime) or destruction or adverse modification of proposed critical habitat primary constituent elements for the listed mussels.

It is our determination that the proposed modification may affect, but is not likely to adversely effect the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*), endangered fat threeridge mussel (*Amblema neislerii*), threatened purple bankclimber mussel (*Elliptioideus sloatianus*) and threatened Chipola slabshell (*Eliptio chipolaensis*) and will not result in destruction or adverse modification of habitat designated and proposed as critical habitat for the Gulf sturgeon and the mussels. We request your concurrence with this determination and approval of the proposed modification pursuant to Section 7 of the ESA.

If you have any further questions or comments regarding our operations under the Jim Woodruff Dam IOP and our efforts to minimize or avoid impacts to the listed species on the Apalachicola River, please feel free to contact Ms. Joanne Brandt, (251) 690-3260, email joanne.u.brandt@sam.usace.army.mil; or Mr. Brian Zettle, (251) 690-2115, email brian.a.zettle@sam.usace.army.mil.

Sincerely,



Curtis M. Flakes
Chief, Planning and Environmental
Division