



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

REPLY TO  
ATTENTION OF

June 12, 2006

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:

As you are aware, on March 7, 2006, the U.S. Army Corps of Engineers, Mobile District initiated formal consultation with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act of 1973 regarding our existing water management operations at Jim Woodruff Dam. This consultation addresses the potential for impacts to the threatened Gulf sturgeon, critical habitat for the Gulf sturgeon, the endangered fat threeridge mussel, and the threatened purple bankclimber mussel, all which occur on the Apalachicola River downstream of Jim Woodruff Dam. In our request to initiate formal consultation, we included an Interim Operations Plan (IOP) that described the water management operations that we would implement until the existing Water Control Plan is updated at a future date. Since beginning formal consultation, we have held numerous discussions with Mr. Jerry Ziewitz of your staff; initiated parallel modeling of the proposed Interim Operations Plan using a STELLA model (conducted by USFWS and Steve Leitman of Phipps Foundation) and a HEC-5 model (conducted by Mobile District); and conducted a technical modeling workshop to assist in identifying appropriate modeling approaches and assumptions to incorporate into the models. We are also in the process of computing areas of suitable Gulf sturgeon spawning habitat in the upper Apalachicola River inundated by various flow levels.

As a result of these efforts, and in light of the "lessons learned" during our operations under the IOP this spring, we have identified several proposed adjustments to the IOP that could minimize unintended impacts on project operations and improve our ability to manage releases from Jim Woodruff Dam to meet the needs of the federally-listed species. Enclosed is a Memorandum for Record of our telephone conference on April 25, 2006, during which we discussed some of these adjustments and considered recommendations for improvements to the IOP with Mr. Ziewitz. A summary of the identified adjustments is also enclosed. These proposed adjustments include the method for computing basin inflows to manage releases under the IOP (using a 7-day average basin inflow rather than a 3-day average); tying computations of basin inflows and releases to the Chattahoochee gage; clarifying threshold flows for ramping rates associated with flood control operations; and clarifying how releases for gradual ramping rates are captured in the volumetric computation of releases to meet the volumetric computation of basin inflows. Also included is the hydropower generation operation that occurs at Jim Woodruff powerhouse, where releases are temporarily increased for a few hours daily to meet

contractual hydropower demands. This operation is described in the enclosed memorandum for record and summary of adjustments, and does not result in a net increase in the volume of water released from Jim Woodruff Dam. We also are proposing an adjustment to the upper flow threshold for the months June through February, for which a percentage of the basin inflows below this threshold would be stored. This adjustment is believed to be necessary to accommodate some additional storage during significant rain events that may occur during extended dry periods. This modification would enhance our ability to refill or conserve storage, minimize the burden on reservoir storage and adverse impacts to other project purposes, and to assure that adequate storage would be available for maintaining minimum flows for mussels in the event the extended dry conditions continue through the remainder of the year. We propose to adjust this upper flow threshold level to 23,000 cfs, with the specification that if inflows are 23,000 cubic feet per second (cfs) or greater, then at least 16,000 cfs would be released. When basin inflows are less than 23,000 cfs but greater than 8,000 cfs, at least 70 percent of basin inflows would be released but not less than 8,000 cfs. This modified operation would provide for controlled releases and storage when flows on the river are at or below 16,000 cfs. This flow threshold is based on an evaluation of spawning and rearing needs for the host fish necessary for mussel reproduction. These adjustments are described in more detail in the enclosed summary and updated IOP table, and should be incorporated into the description of the proposed action that is the subject of our current consultation.

In our March 7 request to initiate formal Section 7 consultation, we previously determined that the IOP at Jim Woodruff Dam for releases to the Apalachicola River during low flow conditions may affect but would not result in jeopardy to the federally-listed threatened Gulf sturgeon, endangered fat threeridge mussel, or threatened purple bankclimber mussel and will not result in the destruction or adverse modification of Gulf sturgeon critical habitat. Nor would the IOP result in the irreversible or irretrievable commitment of resources which would foreclose the development of reasonable and prudent alternatives or measures. We have reviewed the proposed adjustments and clarifications described in the enclosed summary, and conclude that the IOP, as modified, will also not result in the irreversible or irretrievable commitment of resources that would foreclose the development of reasonable or prudent alternatives to avoid jeopardy, or reasonable prudent measures to minimize adverse effects on the listed species or critical habitat.

The IOP was developed based on best available information prior to this spring spawning season for the Gulf sturgeon, including data from monitoring of sturgeon spawning collected during the spring of 2005. It is anticipated that additional monitoring information collected this spring, during extremely dry and lower flow conditions, will be available later this summer. Once this information is available, we intend to review the relationship of flows to available habitat and sturgeon spawning success. Depending upon the timing of the availability of new information and the results of our review, we may propose an amendment to the Section 7 consultation, an extension to the consultation period, or the re-initiation of Section 7 consultation, as appropriate.

We have also learned that a proposal to list additional critical habitat for seven listed mussels was published in the Federal Register on June 6, 2006. The proposed critical habitat includes Unit 8 for the Apalachicola River (96.6 miles upstream from the downstream end of Bloody Bluff Island to Jim Woodruff Dam) for the fat threeridge mussel and the purple

bankclimber mussel, which is within the action area of our proposed action. The primary constituent elements for the proposed critical habitat include: (1) a stable stream channel; (2) sand, gravel or cobble bottom substrate; (3) flowing water; (4) water quality; and (5) availability of fish hosts. Our proposed operations, as detailed in the IOP, are not expected to adversely impact stream channel stability; nor alter sand, gravel or cobble bottom substrate; or alter water quality. The IOP has taken into consideration the amount of flow necessary for the mussel species. The mussel species occur within the river channel at depths that could be affected at flows less than 8,000 cfs. For flows of 8,000 cfs or less, releases would be made to equal or exceed the computed average basin inflow, and any reductions in releases would be made gradually at rates approximating 0.25 foot per day. When operating in this manner, it was previously determined that any impacts to mussels due to low flow conditions would be due to declining basin inflows rather than due to discretionary operations by the Mobile District, and any flow releases that exceed basin inflow would provide for mitigation of the declining basin inflows. The IOP also provides for adequate flow and water levels for host fish spawning, feeding and resting areas, with respect to available water within the basin, by managing flows during the spring spawning months of March through May. The IOP also provides for at least 70 percent release of basin inflows to accommodate access to habitat areas and gradual ramping rates to minimize potential exposure of fish beds and stranding of fish in adjacent floodplain areas. No significant effect on the primary constituent elements is anticipated due to our operations at Jim Woodruff. Therefore, we conclude that our operations under the IOP are not likely to alter or destroy the primary constituent elements of this critical habitat to the extent that survival or recovery of these species would be appreciably reduced; and that this critical habitat will remain functional to serve its intended conservation role for the species. As such, our operations are not likely to result in the destruction or adverse modification of the proposed critical habitat for the federally-listed mussel species on the Apalachicola River. We request your concurrence in this conclusion and ask that your determination be incorporated into the biological opinion for the ongoing Section 7 consultation.

Please incorporate the enclosed adjustments into the IOP and the description of the action being considered under our request for formal consultation under Section 7. We plan to furnish you the results of our detailed HEC-5 modeling of the IOP for your consideration within the next few days.

If you have any additional questions or need any additional information, please continue to coordinate with Ms. Joanne Brandt by telephone at (251) 690-3260, or by email at [joanne.u.brandt@sam.usace.army.mil](mailto:joanne.u.brandt@sam.usace.army.mil).

Sincerely,



Curtis M. Flakes, Chief  
Planning and Environmental  
Division

Enclosures