



LAKE LANIER ASSOCIATION, INC.

a 501(c)3 nonprofit organization

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January 28, 2016

Colonel Jon J. Chytka
Commander USACE
Mobile District
Attn: PD-EI (ACF-DEIS)
P.O. Box 2288
Mobile, AL 36628

RE: Comments regarding update of ACF Water Control Manual

Dear Colonel Chytka:

Thank you for the opportunity to submit comments regarding the Corps of Engineers' ("Corps") revision of the Water Control Manual ("WCM") for the Apalachicola-Chattahoochee-Flint River ("ACF") system. The Lake Lanier Association ("Association") represents approximately 3,000 individuals and businesses whose lives, livelihoods, and profitability depend on Lake Lanier. Please accept this submission on behalf of all our constituents. We previously submitted scoping comments via letters of November 20, 2008, January 2, 2010, and January 14, 2013, yet it was not clear in the DEIS that due consideration had been given to those comments. We would appreciate your considering the contents of all our previous correspondence – especially the 2013 letter - in addition to the comments in this letter.

The Association's constituency is most concerned with preserving the water level and quality of Lake Lanier through the Corps' management. It is obvious that considerable time and effort was invested in the DEIS, and that effort is sincerely appreciated. It is also apparent that much consideration has been given to maintaining Lake Lanier in a healthy and sustainable condition as an integral part of the ACF, which is not only appreciated but crucial to the successful operation of the entire system.

However, we have one area of critical concern and several constructive criticisms of the DEIS that we wish to address. These are Navigation, Projections of Reservoir Levels During Recreation Season, Fall Rates, Unplanned Deviations, Full Pool Level of 1073, Drought Operations, and Reservoir Operations.

"Committed to a Clean, Full, and Safe Lake Lanier"

Navigation

In light of the fact that navigation is one of the authorized purposes for the ACF facilities, we understand why the proposed WCM calls for its support. However, the proposed navigation releases would be made even during the most severe droughts in history, despite the fact that the volume of water needed to support a 9-foot channel has more than doubled from 9,300 cfs in the 1950's to over 20,000 cfs today. The discontinuation of dredging of the Apalachicola, continued widening of the Chipola Cutoff, and significant reach losses near the Blountstown gage that are not addressed in the DEIS are among the primary causes, none of which is going away.

We are extremely concerned that the Corps has not accurately or adequately modeled the impacts on Lake Lanier (or the other ACF reservoirs) of the proposed navigation plan, especially in times of drought. According to a draft technical analysis shared with us by the Atlanta Regional Commission, we understand that the proposed navigation provisions would lower Lake Lanier by more than four feet in a drought similar to that of 2007-2008. As you know, Lake Lanier reached its lowest point in history at 1050.79 MSL during that drought, even though navigation was not being regularly supported due to Florida's earlier discontinuation of dredging permits. As you also know, droughts risk enormous impact to everyone who depends on the ACF reservoirs - and Lanier in particular, due to the huge recreational economy that has grown up in dependence on it.

There has been no change in Florida's stance on dredging permits, and none can reasonably be contemplated in light of the potential impact on the Apalachicola River's ecology, especially threatened and endangered species. Moreover, there is very little demand for navigation on the ACF, a purpose that was imagined to be far more useful a century ago than history has shown it to be since. In contrast, the relatively minor impact that recreation was expected to exert when the Corps first proposed building the ACF facilities has turned out to be an enormous economic engine in the area around Lake Lanier. The extreme disparity in the true importance of these two authorized purposes is dramatic and real.

As a result, we object strenuously to the proposed navigation plan. The Corps' DEIS modeling shows that the lowest reservoir elevations in Lake Lanier are caused by navigation releases, not by increased water supply withdrawals to meet Georgia's projected demand. Using that model, if navigation releases were discontinued during a drought similar to that of 2007-2008, Lake Lanier would remain three feet higher than the historical low of 1050.79 feet even while meeting Georgia's entire increased demand. From this, it is apparent that the navigation portion of the proposed WCM alone risks serious damage to the primary source of ACF water storage during droughts. It prioritizes the few who might be interested in occasional navigation at the expense of not only millions of Lake Lanier users, but millions more who rely on Lake Lanier for drinking water - and does so during the Lake's most vulnerable periods.

We would urge the Corps to reconsider its entire navigation plan and revise the WCM to reflect the realities of the 21st century, in which much of the economic value of the Corps' ACF operations has proven to be recreation, not navigation. The Apalachicola channel will continue to degrade over time, and will eventually make it impossible to maintain even a 7-foot navigation channel, much less a 9-foot channel. Attempting to do so in the near-term as outlined in the DEIS risks the welfare of the entire system when it is most vulnerable and, without some enormous and unforeseeable hydrologic change, is ultimately doomed to failure. Navigation as originally contemplated has become an obsolete function of the ACF system, and the Corps should reflect that fact in the WCM.

Projections of Reservoir Levels During Recreation Season

As noted in Section 4.2.7.2.5 Recreation, "Under Water Management Alternative 7 (Table 4.2-22), the pool levels during the recreation season would be below the IIL and the RIL more often and below the WAL much more often than under Water Management Alternative 1." The negative impact to water levels in Lanier during the recreation season is our foremost concern. We understand that increased water consumption due to the higher projected population of North Georgia will impact Lanier, but believe that every measure possible to minimize that impact should be implemented.

We are particularly concerned that the Corps performed its calculations of impacts to recreation water levels and of the revised Action Zones using different recreation seasons for the three principal ACF reservoirs, as shown in Table 4.2-22:

**Table 4.2-22.
 Recreation Water Levels for Water Management Alternative 7**

	Project		
	Buford (May-Jul)	West Point (May-Sep)	Walter F. George (Jun-Aug)
Number of weeks below IIL during period of record	142	333	57
Number of weeks below RIL during period of record	26	46	0
Number of days below WAL during period of record	0	74	0
Percent of time below IIL	15	22	6
Percent of time below RIL	3	3	0
Percent of time below WAL	0	1	0

We believe that the same period should be used for all three reservoirs and that the period of May-July used for Lanier is inappropriate. The recreation season at Lake Lanier, which as you know is one of the most highly-visited Corps lakes in the entire country, simply does not end in July. Moreover, the suggestion that the recreation period for West Point Lake extends through September while Lanier's does not begs the question of what data the Corps relied on in

coming to such a conclusion. The only response provided at the Open House was that fishing is the primary recreation activity at West Point Lake and goes on through September. As anyone who lives or works on Lanier can tell you, fishing hardly stops in July on Lanier, and in fact anecdotal observation suggests that fishing activity significantly increases on Lanier after the summer crowds decline with the resumption of school (which would occur simultaneously at the two lakes in any event, given that all of Georgia's primary and secondary schools resume operation at approximately the same time). As most any angler can also tell you, fishing is often better when the weather cools off, leading to an increase in fishing after Labor Day.

But beyond the volume of fishing that takes place on the two lakes, it strains credibility to assert that the recreation season ends for Lake Lanier in July. In light of the extreme importance of selecting analytical data based on that assertion, we question the basis for making it. The Corps' consideration of all alternatives was performed on conclusions that were based on that assertion, which we believe is false. We do not believe it is an overstatement to say that the potential impact of every alternative, and especially the Proposed Action Alternative, was miscalculated based on an incorrect identification of the recreation periods of the three reservoirs.

Tables 5.2-3 and 5.2-19, reproduced below, show the impacts on water level of the Corps' calculations. According to the tables, IIL impact increases by over 29% and WAL impact doubles from the NAA to the PAA. Those impacts are bad enough, but our fear is that the true impacts will be even more severe because the wrong data was used in their calculation. As is well known, Lanier's level typically declines from August through November, and eliminating a significant portion of that data from the impact calculation likely skewed the results published in the tables.

Table 5.2-3.
Percent of Time Below Established Recreational Impact Levels During the Recreation Season

Project	Percent of time below Initial Impact Level	Percent of time below Recreation Impact Level	Percent of time below Water Access Limited Level
Buford	17	5	1
West Point	21	3	1
Walter F. George	3	0	0

Table 5.2-19.
Percent of Time Below Established Recreational Impact Levels During the Recreation Season

Project	Percent of time below Initial Impact Level	Percent of time below Recreation Impact Level	Percent of time below Water Access Limited Level
Buford	22	5	2
West Point	22	2	0
Walter F. George	5	0	0

Unfortunately, the data needed to assess the impact of the recreation season differential was not included in the DEIS, so we are unable to provide numerical corrections to the results that were published. However, the main point is readily stated: Lanier's increase in percent of time below recreational impact levels during the recreation season as shown in Tables 5.2-3 and 5.2-19 is significant. To the extent that the published impacts have been reduced by the use of inaccurate recreation season periods, the true impacts are likely even greater. The DEIS conclusions must be recalculated to reveal the true impacts to Lanier, and if the impacts are greater than those published, the alternatives must be reconsidered so that the negative impacts on Lanier can be eliminated to the greatest extent possible.

Fall Rates

We have pointed out previously that the Apalachicola River mussels not only endured but thrived for millennia with large and rapid fluctuations in river levels. We understand that the U. S. Fish and Wildlife Service has expressed its opinion that fall rates must be incorporated in ACF operations to minimize the possibility of stranding mussels as river levels decline following high-flow events. But the Service's requirement appears not only unnecessary but at odds with the reality of thousands of years of biological history. The query we would pose is this: if low fall rates were crucial to the survival of the mussels, then why did they thrive in the face of the far more drastic fall rates that existed prior to construction of the Corps' ACF facilities? Requiring the artificially-reduced fall rates proposed in the DEIS negatively impacts upstream reservoirs without a sound scientific foundation. We would encourage the Corps and the Service to examine the possibility that this requirement is not only unnecessary but ill-advised, as it may contribute to unfavorable natural selection among the individuals in the relevant species.

Unplanned Deviations

Section **2.1.1.2.4.7 Special Operations and Releases** of the DEIS describes "unplanned deviations" in only general terms, as follows:

"The need for unplanned deviations might be caused by unforeseen conditions that do not allow sufficient time to plan for the deviation, but do not involve an imminent threat to public health and safety, property, or the environment."

That section goes on to state that, "Any extended temporary deviation ... is required to be approved by the ... South Atlantic Division." However, Section **7-15. Deviation from Normal Regulation** of the Master Manual states, "Approval for unplanned deviations, either major or minor, will be obtained from the Division Office by telephone or electronic mail prior to

implementation.” We note the inconsistency in the two provisions and are concerned about the review and approval process for unplanned deviations.

We believe that unplanned deviations have occurred in the past that should not have been approved. One relatively recent example was a request for increased water releases that impacted Lake Lanier from August 15-29, 2014. We understand the request was verbal and are aware of no factual support for it. The impact to Lanier was significant and immediate, dropping the lake by approximately one foot in less than two weeks during the (real) summer recreation period. We are not aware of any justification for the release, and the absence of warning and documentation made it virtually impossible to object or to intervene.

In order to eliminate such instances in the future, we have four recommendations to offer. First, we recommend that ALL deviation requests be required to be in writing from the party making the request. This would provide a paper trail of accountability for all deviations, whether planned or unplanned. Second, we recommend that all deviations be required to be authorized in writing by the Division rather than by the District. This would prevent the possibility of favorable treatment of undocumented and either inappropriate or insufficiently founded requests. Third, we recommend that the basis for approval of all deviations be stated in writing in the approval document. Fourth, we recommend that all deviation requests be published on the District website, making the reason for the deviations public and creating accountability for the approval of such requests. Lake levels are too critical for them to be subject to undocumented and unjustified manipulations, and the WCM should contain strict requirements that impose appropriate accountability for deviations from normal operations.

Full Pool Level of 1073

The DEIS summarily rejects the Association’s proposal to raise Lanier from 1071 to 1073. This rejection is short-sighted and ultimately unjustifiable.

The Corps currently operates Lanier with a summer pool of 1071 and a winter pool of 1070. The operational change of raising summer pool from 1070 to 1071 was implemented with little study many years ago, and there have been no negative effects whatsoever. Yet the DEIS states that flood control capacity will be preserved without modification. We fully recognize the crucial importance of adequate flood control, but the additional foot of flood control pool that was given up in Lanier has not been needed at any time in the entire history of the Buford Project, and no projections of which we are aware substantiates the need for maintaining every single remaining foot of flood control storage.

The Association has long championed raising full pool to 1073, creating a substantial additional volume of water for all ACF stakeholders. The resulting additional 26 billion gallons of stored water at that level would be available for all authorized purposes and would increase

the margin of safety in the event of severe drought. Significantly, other than the need to update some Lanier-specific infrastructure, we are aware of no objection by any ACF stakeholder to the proposition of raising Lanier's full pool level to 1073. The sheer magnitude of that statement alone underscores what a tremendous improvement raising full pool would be for the ACF. It therefore appears that the Corps' refusal to consider the proposal boils down to two things: preserving flood control capability and the integrity of Buford Saddle Dike #3.

Weather prediction and climate modeling have improved markedly since the full pool level of 1071 was set for Lanier, and the best science available for forecasting can and should be used in managing lake levels. The Corps already incorporates forecasting in its management activities, and should have little trouble in utilizing those capabilities to maintain adequate flood control capability in Lake Lanier while still accommodating much-needed additional water supply storage. If there is a structural issue regarding Saddle Dike #3, then it should be addressed sooner rather than later and not used as a reason to ignore what is indisputably the most cost-effective means of increasing water supply storage for the entire ACF. Whatever studies and infrastructure adaptations are necessary to accomplish the goal of raising full pool year-round to 1073 should be incorporated in the new WCM and accomplished as soon as possible to benefit all ACF stakeholders.

Drought Operations

We applaud the consideration given in the proposed WCM to improve drought operations, particularly activating drought operations upon transition from Zone 2 to Zone 3. The earlier a drought condition is reflected in operations, the better.

However, we also recommend further consideration of drought triggers that could be useful in predicting oncoming drought conditions. Assessments of soil moisture, ground water levels, and stream flow conditions in the ACF Basin can be useful early warning signals that might not be reflected in Composite Storage data. Existing models such as the Palmer Drought Index and antecedent flows could greatly improve drought predictions and the Corps' operational responses. Incorporating regional drought considerations rather than looking only at full basin-based parameters could also provide better insight into potential drought conditions as they develop.

Reservoir Operations

The PAA continues the practice of using Basin Inflow and reservoir storage balancing as the determining factors for operational decisions. Based on extensive modeling performed by the ACF Stakeholders, we highly recommend the use of Recreation Impact levels as an operational parameter. Under this, new zones could be defined to coincide with the Corps reservoir recreational impact zones, and water would be released from an upstream reservoir

when the downstream reservoir is in a lower zone. ACF's modeling has shown that this action will result in increased water storage in reservoirs for use during drought conditions. This action would be consistent with the Corps' stated desires and obligations to provide for maximum water availability during drought conditions.

CONCLUSION

It is obvious that as water withdrawals increase due to population growth, all water resources in the ACF Basin will be under increased stress - but none more than Lake Lanier. In addition to planning for those increases, effective plans need to be put in place to mitigate their impacts. The Corps should be at the forefront of actions to reduce Interbasin Transfers, increase water conservation, and increase water storage for drought operations.

During the 2007-2008 drought, Lake Lanier became the sole source of augmentation flows to maintain the 5,000 cfs minimum required flow at the Chattahoochee Gage. Augmentation releases from Lanier during late summer and fall of 2007 at times was as much as three times the basin inflow of the entire ACF. The same phenomenon occurred again in 2012, dropping Lake Lanier nearly six feet in six weeks between late October and mid-December. It is critical that the ACF be operated in a way that minimizes such severe draw-downs and that safeguards Lake Lanier's water levels for the future – for all stakeholders. That can be done most effectively by incorporating the recommendations we have addressed above, and especially by substantially revising or eliminating the proposed navigation provisions, which we sincerely encourage the Corps to do.

Yours truly,

A handwritten signature in black ink, appearing to read "V. Perry". The signature is fluid and cursive, with a large, sweeping initial "V".

Val Perry
President