



LAKE LANIER ASSOCIATION, INC.

a 501(c)3 nonprofit organization

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January 14, 2013

Tetra Tech
Attention: ACF-WCM
61 Saint Joseph Street
Ste 550
Mobile, AL 36602-3521

VIA EMAIL: acf-wcm@usace.army.mil

VIA WEBSITE: <http://ww3.sam.usace.army.mil/pa/acf-wcm/form.htm#form>

RE: Comments regarding update of ACF Water Control Manual

Dear Sir or Madam:

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. We understand that the scoping process has been re-opened due to the ruling by the U. S. Court of Appeals for the Eleventh Circuit in the *Tri-State Water Rights Litigation* that water supply storage is an authorized purpose of Lake Lanier.

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, and January 2, 2010, and would appreciate your considering the contents of this letter in addition to our previous correspondence.

LAKE LANIER SHOULD BE MAINTAINED AT THE HIGHEST POSSIBLE WATER LEVEL TO SUPPORT THE RECREATION-BASED ECONOMY

The recreation-based economy of north Georgia relies heavily on a water level above 1060 MSL. Consistent with the Eleventh Circuit's reasoning, recreation is an authorized purpose of Lake Lanier, and the Corps has long recognized it as such. In the Corps' seminal Park Report submitted to Congress in 1939, the Corps listed recreational value as one of six direct benefits of constructing the ACF facilities and estimated the annual recreational benefit to be \$50,000. Since the creation of Lake Lanier, the annual value of recreation has vastly outstripped that estimate. Based on a December, 2010, economic impact study by the *1071 Coalition* (a copy of which accompanies this letter), approximately \$290

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million in annual economic impact derives directly from the Lake. An estimated \$87.6 million reduction in recreational spending was directly caused by low lake levels in 2008 alone. All of this underscores the importance of maintaining the highest levels possible on Lake Lanier.

Any water level below 1060 in Lake Lanier has a devastating impact on recreation and the regional economy that depends on it. We would urge the Corps to craft the WCM to maximize Lanier's levels to the greatest extent possible year-round, but especially in the critical Memorial Day-through-Labor Day time period.

THE 5,000 CFS OPERATING POLICY SHOULD BE ELIMINATED

The Corps currently mandates that a minimum flow of 5,000 cfs be maintained at the Chattahoochee Gage (by design, the lone exception for lowering the minimum to 4,500 cfs occurs only under conditions that are unlikely to occur). However, a 5,000 cfs minimum flow is not legally required and is unsustainable in the long run without substantial harm to recreation.

The Corps' ACF Pre-Lanier Flow Record Does Not Accurately Reflect the Lower Extent of the System's Historical Flows

The Corps bases the 5,000 cfs flow minimum on the premise that basin inflow less than 5,000 cfs did not occur in the pre-Lanier average daily flow record for the Chattahoochee gage (1929 through 1955). While flows may not have dropped below 5,000 cfs during that time, a 26-year base period is insufficient to serve as the baseline for minimum flows in the new WCM. Data over the last 20 years has shown substantially lower flows during the post-West Point period than during the so-called "pre-Lanier" period. This calls into question whether the pre-Lanier flow record accurately reflects the true lower extent of historical ACF flows. If not, then all planning based on that record is flawed and is likely unsustainable.

A study performed by Neil Pederson, et al., entitled *A Long-Term Perspective On A Modern Drought In The American Southeast*, published March 14, 2012, concludes that the baseline period used by the Corps in setting the minimum flow does not accurately reflect the lowest pre-Lanier flows in the ACF. Through their study of paleohydroclimate records, the authors uncovered evidence that the lowest flows in the ACF system likely dropped well below the level the Corps has assumed based on its 26-year pre-Lanier dataset. According to the authors,

"...the recent droughts are not unprecedented over the last 346 years. Indeed, droughts of extended duration occurred more frequently between 1696 and 1820. Our results indicate that **the era in which local and state water supply decisions were developed and the period of instrumental data upon which it is based are amongst the wettest since at least 1665.**" Environ. Res. Lett. 7 (2012) 014034), page 1, (emphasis added).

A copy of the study accompanies this letter with the permission of the authors. It can also be downloaded at <http://academiccommons.columbia.edu/catalog/ac%3A145377> from Columbia University's Academic Commons program. The data is accessible at: <ftp://ftp.ncdc.noaa.gov/pub/data/paleo/treering/reconstructions/northamerica/usa/seusa2012pdsi.txt>

We would ask that the Corps re-evaluate the minimum flow requirement in light of this study and the corroborating evidence of the last dozen years.

A 5,000 cfs Minimum Flow is Unsustainable

When first implemented, the required minimum flow was based on the presumption that dams would be built on the Flint River in addition to those on the Chattahoochee. However, the Flint River dams were never built and have been de-authorized. The Corps' resulting inability to store and control the release of Flint River flows, exacerbated by Florida's elimination of dredging on the Apalachicola River, renders the original goal of ACF navigation unachievable. Nonetheless, because navigation continues to be a nominal authorized purpose, the WCM will presumably be designed to support navigation even though it is not sustainable on a consistent basis.

The WCM should reflect the reality that navigation as originally envisioned is no longer possible and provide for it only during very limited time windows so that it will not negatively affect recreation on Lake Lanier. The windows of navigation under the RIOP and Modified RIOP ("MRIOP") appear to be far too long, given recent precipitation trends.

As explained by the Georgia Environmental Protection Division in its May 2011 comments, long-term average precipitation in the Lanier portion of the ACF Basin has been substantially lower from January through April in the post-West Point period than in the pre-Lanier period. This decline is exerting a disproportionate impact on both Lanier's ability to refill and its capacity to support recreation during the critical Memorial Day through Labor Day time frame. More recently, precipitation has been below average during the fall as well, a period that has not historically seen rainfall in sufficient amounts to replenish Lanier and is even less likely to do so now.

The natural decline in winter and spring precipitation coincides with the increased demand for augmentation flows imposed by the Corps through the RIOP and MRIOP. Again, the presumption that the pre-Lanier record constitutes an accurate baseline for determining appropriate post-dam flows is an inadequately substantiated assumption. The hazard in making that assumption is exacerbated further by the noticeably drier climate that has predominated during the 21st century.

The result of this amalgamation of natural and government-induced effects has been seen in the failure of Lanier to reach full pool by June 1 in all but one year since 2000. Water levels in Lanier are once again mimicking those of 2007-2009, marking the third sustained period of time since 2000 that levels have been drawn down so low. Those levels are a direct result of the inadvisable and legally unrequired 5,000 cfs minimum flow mandated by the Corps.

Lake Lanier was not designed to provide the full volume of flows desired by all stakeholders downstream of Buford Dam, and the new WCM should recognize that operating Lanier to achieve that goal is not legally required or physically sustainable. Even if the Corps' pre-Lanier data were an accurate representation of the lowest ACF historical flows, basin hydrology, precipitation levels, and timing of precipitation have changed in recent years, exacerbating the effects of the insufficiency of the Corps' pre-Lanier data.

Augmentation Flows are Not Required by the Endangered Species Act

The Association is sensitive to the impacts of low water levels downstream of Lake Lanier, including in the Apalachicola River and Bay. We do not wish our comments to be misconstrued as being an attack on downstream stakeholders in any sense. But we believe the U. S. Fish and Wildlife Service (“Service”) and the Corps misinterpret the Endangered Species Act (“ESA”) to require that the ACF reservoirs – and in particular, Lake Lanier - must augment Apalachicola River flows above run-of-river levels. This is because nature herself - not discretionary Corps operations - is the predominant cause of low flows in the Apalachicola. Conversely, however, the Corps *is* obligated even during severe droughts to support the ACF facilities’ legally authorized purposes, including recreation.

As addressed extensively in the Tri-State litigation, we believe the Service and the Corps used the wrong environmental baseline in determining what flow levels are required under the ESA. The correct baseline is run-of-river flows. Therefore, although we fully support the laudatory goal of the ESA, augmentation flows that raise Apalachicola River flows above run-of-river are not required by the ESA and should not be imposed by the new WCM.

YEAR-ROUND FULL POOL SHOULD BE RAISED TO 1071 MSL IMMEDIATELY, AND TO 1073 AFTER ALL NECESSARY PREPARATIONS HAVE BEEN COMPLETED

The Corps currently operates Lanier with a summer pool of 1071 and a winter pool of 1070. Ostensibly, this is to allow for greater flood control capacity during the wetter winter months. But the additional foot of flood control pool has not been needed in the entire history of the Buford Project and no projections of which we are aware substantiate the need for maintaining the additional foot of flood control storage.

Weather prediction and climate modeling have improved markedly since the full pool levels were set for Lanier, and the best science available for making those forecasts 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 operate the flood control capability of Lake Lanier without dropping winter pool to 1070.

The Association has long championed raising full pool to 1073. 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.

In addition to providing a substantial additional volume of water for all ACF stakeholders, Lanier’s nominal level would be two feet higher, allowing shoreline users to stay within approved, maintained recreation areas. A significant percentage of the drowning deaths in Lake Lanier have resulted from inexperienced swimmers venturing outside of the engineered swimming areas, where sudden drop-offs and deep siltation present unseen hazards. When the lake drops, the designated swimming areas are out of the water, leaving users no choice but to venture into these relatively more dangerous areas. The importance of this should be reflected in the WCM, and the most cost-effective solution for both safety and water storage needs is to raise Lanier’s level.

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.

EXISTING STORAGE AND RAMP RATE PROVISIONS SHOULD BE CHANGED

As mentioned above, we believe the RIOP is based on a fundamental misinterpretation of the ESA. Making matters worse, the Corps has incorporated provisions in the MRIOP that decrease the volume of basin inflow that can be stored in the reservoirs during the critical wet-weather months and increase Woodruff discharges to slow down-ramping. We believe the result of those changes will be to lower Lake Lanier levels even further under the MRIOP than they already are under the RIOP. The primary bases for the changes are the underlying propositions that the Fat Threeridge mussel ("FTR") is endangered and that some portion of its population needs assistance in moving down with the water after rainfall events.

Studies conducted by numerous scientists since the listing of the FTR have shown that it is vastly more populous than the Service believed when it was listed as endangered. It would appear that the population is sufficiently robust that the Service should move to de-list the FTR, and the WCM should be prepared in anticipation of the de-listing. But until the FTR is de-listed, we would challenge the Service's conclusion that it is necessary or even fundamentally beneficial to the species to artificially slow down-ramping.

The FTR thrived in the Apalachicola for millennia under conditions in which river levels varied widely and quickly. This causes us to question whether the Service's down-ramping requirements are based on sound science and whether they are ultimately efficacious in preserving the species. It stands to reason that they may inadvisedly be facilitating the preservation of the weakest members of the species for reproduction, which may ultimately be counterproductive. The down-ramping requirements deplete the resources available to preserve minimum flows in the Apalachicola during severe droughts, and absent an established need for artificially dampening ramp rates, we believe these provisions in the RIOP and MRIOP are unnecessary and should be eliminated.

GEORGIA "CONTEMPLATION"

We understand that recent studies commissioned by the Georgia Environmental Protection Division indicate that Lanier can be maintained at a level roughly four feet higher than is possible under the MRIOP. If an increase in Lanier's level is in fact obtainable under that methodology, especially during the warm-weather months when lake levels have their greatest affect on recreation, the Association would endorse its implementation - in addition to revising the environmental baseline and eliminating the 5,000 cfs minimum flow requirement and down-ramping restrictions.

CONCLUSION

During the 2006-2008 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's

storage during late summer and fall of 2007 at times amounted to two to 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. As explained above, Lake Lanier alone cannot provide enough water to be the sole source of augmentation flows to meet the 5,000 cfs minimum required flow under the changing climatic circumstances we are facing. We hope that the Corps will take this opportunity to re-examine its fundamental presumptions regarding that flow volume and draft the new WCM in a way that safeguards Lake Lanier's water levels for the future.

Yours truly,

A handwritten signature in blue ink, appearing to read 'Val Perry', written in a cursive style.

Val Perry
Executive Vice-President

Attachments:

- Neil Pederson, et al. (2012), "A long-term perspective on a modern drought in the American Southeast"
- Bleakly Advisory Group, et al. (2010), "Executive Summary - Lake Lanier Economic Impact Analysis Final Report"