

Executive Summary

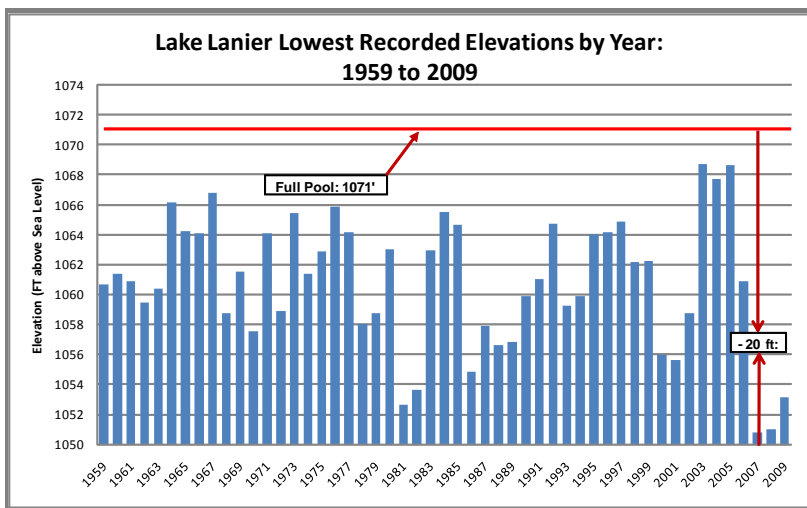
In 2009, the 1071 Coalition funded a study to calculate the economic impacts arising from the U.S. Army Corps of Engineers' (USACE) management of water levels at Lake Sidney Lanier, located in Northwest Georgia. The goal of the study is to provide a quantitative measure of the economic impacts of low lake levels on the economies of the counties bordering the Lake, the Metro-Atlanta Region and the State of Georgia.

The scope of research included an extensive literature review, collection of background information and primary research in the form of web-based surveys. The Consultant team was able to assemble and analyze extensive historical data on lake levels, visitation, recreational spending, boat registrations, marina incomes, property values and related information. These findings are reported in Chapter II. That information was used to estimate the direct and indirect economic impacts associated with documented reductions in visitor spending during the period of historically low lake levels in 2008. Economic impacts are addressed in Chapters III and IV.

The final Chapter V of the report addresses economic impacts associated with broader water supply and regional equity issues. Management of downstream flows in the ACF Basin obviously involves complex legal and environmental issues which are well beyond the scope of this analysis. The limited purpose of Chapter V is to place observed economic impacts on Lake Lanier in the context of downstream economies. Findings regarding downstream economic impacts were assembled primarily from a review of prior research prepared by others. Sources relied upon to support the study findings are footnoted in the full report and listed in the report bibliography (Appendix A). The major report findings from this study are summarized below:

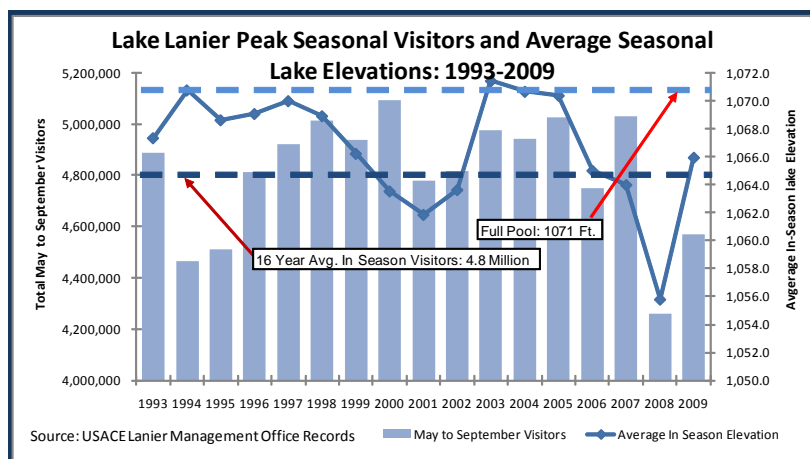
[FINDING #1] LOW WATER LEVELS AT LAKE LANIER HAVE BEEN A RECURRING PROBLEM, WHICH HAS PERIODICALLY CAUSED VISITATION TO DECLINE

Unusually low in-season water levels have reoccurred every few years and have tended to last for one to three seasons. Although the 2007-2009 drought just concluded was the longest and most severe over Lake Lanier's 50 year history, other less severe periods of low water occurred in 1981-1982, 2000-2001, 1987-1989, 1971 and 1979. While USACE is able to manage competing demands for the lake's water resource during periods of above average or normal rainfall, during recurring periods of



inadequate rain the lake has been drawn down by more than 10 feet in order to serve competing downstream demand. Changes to the Corps Interim Operation Plan (IOP) for the ACF Basin, implemented in March of 2006, may have also exacerbated the severity of the drawdown of reservoir storage during the most recent drought. Findings regarding the effects of the most recent change in lake levels on visitor patterns include the following:

- In the past, the number of annual visitors to Lake Lanier has occasionally dropped when water levels were not an issue. But visitation has almost always declined when water levels were unusually low. In 2008 lake elevations averaged 1,055.8 feet (15.2 feet below full pool) for the



entire boating season and the number of visitors fell by 880,000 compared to the year earlier. In 2001, lake levels averaged 1,061.8 feet (9.2 feet below full pool) and the number of visitors fell by nearly 627,000 compared to the prior year.

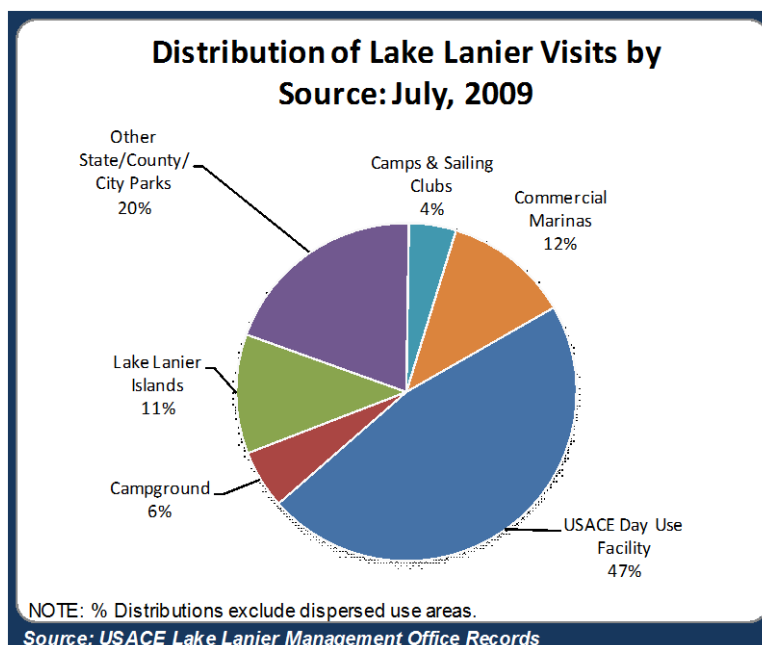
- The effects of water levels on visitor patterns depend in part on when low elevations occur. Since 2000, 77% to 79% of total annual visits to Lake Lanier occurred during the (Apr-Oct) boating season and 29% to 34% of annual visits occurred during the months of June and July alone. The presence of low lake elevations in June and July has a much more negative impact on visitation than during other parts of the year.
- The nature of visits to Lake Lanier has changed since 2000. Overnight stays have declined as a percentage of total visitor days, from 62.5% in 2000 to 51.6% in 2008. The percentage of overnight stays to total visitors is largest in May and lowest in September.
- Because boaters (particularly marina slip renters), campers and lodging visitors spend significantly more per capita than day trippers, Lake Lanier's appeal as an overnight destination is very important to its overall economic impact on the region. According to USACE data, the number of boating, camping and other forms overnight visits fell more sharply in percentage terms than total visitors during 2008. This suggests that low water levels negatively impact the total dollar volume of recreational spending to a greater extent than is indicated by the percentage drop in visitors.



[FINDING #2] LAKE LANIER IS AN IMPORTANT CONTRIBUTOR TO THE METRO-ATLANTA AND GEORGIA ECONOMIES

Lake Lanier attracts 7.6 million annual visitors in normal years and is one of the most popular Corps facilities in the US. USACE's own economic modeling and the agency's prior studies of spending by marina slip renters and private dock owners confirm the economic importance of Lake Lanier's recreational use to Metro-Atlanta's economy (water supply value is addressed in Finding 10):

- USACE's own economic modeling estimates that recreational visitors to Lake Lanier spend more than \$207 million annually including multiplier effects. Lake Lanier accounts for more than 5% of Metro-Atlanta's \$3.5 billion tourism economy and 23% of the total economic impact of all Corps projects in the State of Georgia.
- The USACE estimates that annual recreational visitor spending at Lake Lanier supports nearly 2,300 jobs in the region. This estimate includes only trip spending by visitors and does not include capital spending on boats, docks, slip rentals, real estate and related items.
- In 2007, marina slip renters and owners of private lake residences with docks spent an estimated \$135 million for recreational boating trips on the lake, plus an additional \$91 million in capital costs for boat and docks repairs, new purchases, slip rentals, insurance and related fixed-cost items which are not reflected in USACE's annual recreational economic impact estimates. When these additional capital cost items are considered, the Consultants estimate that the Lake's local economic impact potentially reached \$232.4 million in 2007 and supported nearly 5,200 jobs.
- The Corps' economic modeling also omits the Lake's value for water supply and power generation. As discussed in Finding 10, Lake Lanier's economic value as a regional water supply source is several orders of magnitude greater than its value as a recreational asset.



[FINDING 3] LAKE LANIER IS AN IMPORTANT AMENITY FOR THE SURROUNDING LOCAL POPULATION

Lake Lanier has been a major contributing factor in supporting the growth and development of surrounding counties as well as the Metro-Atlanta region, as evidenced by the following findings:

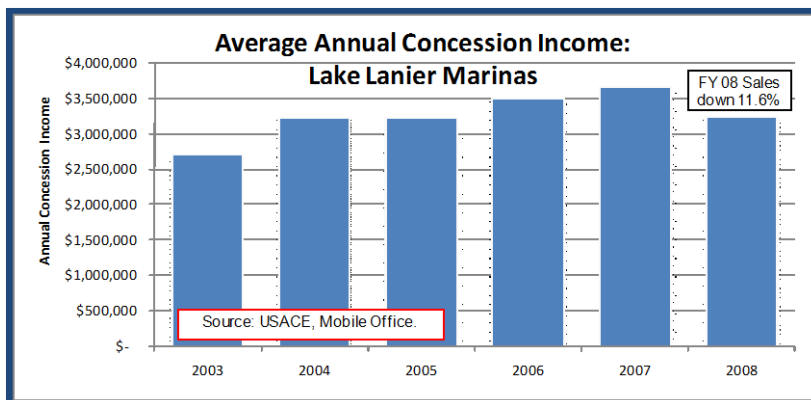
- The five counties which surround Lake Lanier contain an estimated population of nearly 1.29 million. That population has grown by more than 40% since 2000, twice as fast as the combined downstream Georgia counties located below Buford Dam and more than 4 times the growth rate of the combined Alabama and Florida Counties in the Apalachicola-Chattahoochee-Flint (ACF) Rivers Basin.
- Lake Lanier serves a larger recreational market beyond the five counties, which extends to an approximate 30-mile radius and totals 2.1 million people, equivalent to roughly half of the Metro-Atlanta population.
- Water supplied from Lake Lanier for municipal and industrial consumption serves an even larger market of 4.0 million Metro-Atlanta residents and business which employ more than 2.0 million workers.
- The lake provides an amenity to 216,000 residents who live in the immediate vicinity of the lake shore, as well as companies that provide 133,000 local jobs located between I-985 and GA 400.
- The presence of Lake Lanier adds a “premium” of \$5.3 to \$6.4 billion in additional value to nearly 15,500 lakefront homes. This premium generates an additional \$52.1 to \$63.0 million in annual county and school district property tax revenues within the counties (\$3,370 to \$4,076 per unit), plus additional city taxes for lake properties located in incorporated areas.
- Residents of the five counties surrounding Lake Lanier owned more than 26,000 boats registered as personal property in 2007, contributing an estimated \$4.4 million in personal property taxes to the respective counties and school districts.



[FINDING 4] EVIDENCE COLLECTED FROM MULTIPLE SOURCES SHOWS THAT THE SEVERE DRAW-DOWN IN LAKE LEVELS DURING 2008 HAD A NEGATIVE EFFECT ON VISITATION AND THE REGION'S ECONOMY

The study profiles historical trends in lake elevations, annual visitation, boating, real estate and related spending around Lake Lanier. Lake elevations fell to 50 year lows in 2008. Compared to 2007, Lake Lanier experienced:

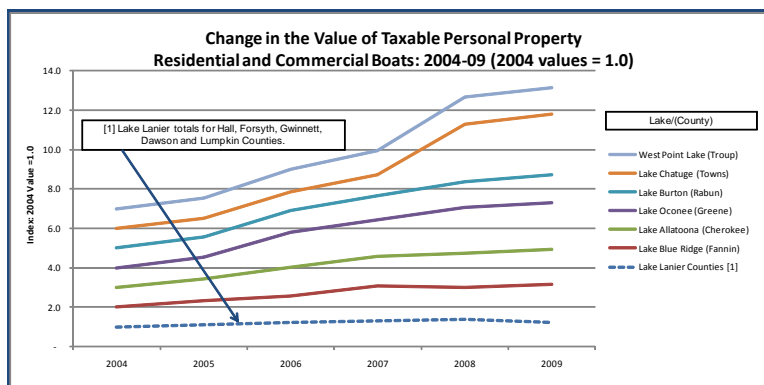
- A near 880,000 decline in total annual visits including 326,000 fewer boaters and 68,000 fewer campers;
- An estimated \$4.7 million reduction in earnings among commercial marinas;
- A \$50.2 million reduction in the personal property value of all boats located and taxed within the five counties which surround the lake;
- A \$35 million reduction in purchases of new and used boats by local residents and registered within the five counties; and
- A 54% decrease in the number of arms-length sales of lakefront properties.
- A potential temporary loss of consumption value or amenity value of lakefront real estate of up to \$133 million or 1.5% of the value of residential property value which surrounds the lake.



The Consultants estimate that total recreational spending at Lake Lanier fell by nearly \$90.2 million in 2008 compared to the prior year. This estimate does not include other economic impacts or wealth effects that may have been associated with reduced home sales, losses in power generation, M&I water supply reductions or other effects of drought-related conditions on the regional economy. (The percentage of these direct spending reductions which can be linked to low lake levels versus other potential causes is addressed in the next finding.)

[FINDING 5] THE VAST MAJORITY OF NEGATIVE ECONOMIC AND VISITOR TRENDS OBSERVED IN 2008 CAN BE ATTRIBUTED TO LOW WATER LEVELS RATHER THAN ECONOMIC RECESSION

Even though 2008 was a period of regional and national economic recession, comparisons of these indicators at Lake Lanier versus conditions surrounding other Georgia lakes, as well as comparisons with statewide or national averages, clearly show that local impacts were far worse than might be expected based solely on economic conditions.



Surveys of area residents, visitors and businesses conducted for this report indicate that low water

levels and not the downturn in regional and national economic conditions was the primary reason for changing recreational spending at Lake Lanier. Of the total reduction in Lake Lanier recreational spending from 2007 to 2008, the Consultants estimated that approximately \$87.6 million was directly attributable to low lake elevations rather than other causes.

In addition to survey responses, the following evidence also supports this conclusion:

- Observed impacts on boat registrations and reductions in the taxable personal property value of boats based around Lake Lanier were far worse than the state average or impacts at other Georgia lakes.
- Recession did not fully impact the region until after the 2008 boating season.
- Lake Lanier spending began to recover in 2009 as water levels rose, while the region remained in recession.

[FINDING 6] OBSERVED RECREATIONAL SPENDING REDUCTIONS IN 2008 WOULD HAVE BEEN MORE SEVERE HAD LOW LAKE ELEVATIONS BEEN PERCEIVED AS A PERMANENT OR MORE FREQUENTLY RECURRING CONDITION

Although a very significant impact, the estimated \$87.6 million reduction in recreational spending which is directly attributable to low lake elevations could have been greater had it not been for the fact that drought conditions were an anomaly in the context of the lake's 50-year history. Lakefront homeowners and marina slip renters are intensive recreational users and tend to have a long history of boating and/or property ownership on Lake Lanier. It is reasonable to assume that these users believed that low lake elevations in 2008 were temporary. Therefore, they avoided making painful economic decisions that they would have otherwise considered, had they believed that abnormally low water levels were going to become either a permanent or much more frequent occurrence. Homeowners and marina slip renters could decide to remain invested at Lake Lanier for one or two seasons to wait out low water levels. But over time, large numbers would eventually sell or relocate if convinced that elevations were not going to return to historical norms. If 2008 lake elevations were to become a prevalent future condition rather than a temporary anomaly, it is very likely that percentage declines in marina occupancy, boat sales, overnight visitation and real estate values would have been much worse, perhaps orders of magnitude higher than were observed over a single season.

[FINDING 7] THE NEGATIVE ECONOMIC IMPACTS OF 2008 LAKE CONDITIONS WERE SUBSTANTIAL AND SIGNIFICANT TO THE REGION

It is important to understand that not all of the estimated reduction in recreational spending attributed to 2008 drought conditions represented a net loss of economic activity to the region. A portion of reduced lake spending was among the local population. Reductions in lake spending

among local residents were certainly negative to some sectors of the economy, but could have been neutral to the region as a whole if residents simply diverted their lake spending to other local businesses. Net negative economic impacts occur when the region loses visitor spending which originates from outside the region, and/or when area residents divert their own recreational spending at Lake Lanier to other states or regions. In addition, the economic impacts of changes in visitor spending, whether positive or negative are not entirely confined to the region where the spending change occurs. A portion of any change in economic activity tends to immediately “leak” from the local economy in the form of payments to non-local vendors, the manufacturer versus retailer share of retail purchases, or other profits accruing to non-local owners of enterprises operating in the region. Therefore, the economic impact analysis was very careful to focus on net impacts, as well as impacts to the local economy versus those of other states or regions.

The net negative regional economic impacts of low water levels at Lake Lanier included:

- The annual loss of local option sales tax revenues to surrounding counties ranging from \$1.83 million to \$1.94 million;
- The annual loss of hotel-motel tax revenues of approximately \$34,000;
- The annual loss of property tax revenues (from lost personal property value of boats) of approximately \$389,500;
- The annual loss of output (the value of all goods and services sold in the region) ranging from \$43.81 million to \$54.83 million;
- The reduction in output resulted in a corresponding reduction in labor income (salaries, wages and proprietors’ income) ranging from \$25.18 million to \$31.51 million; and
- The reduction in economic activity and output also caused employment losses ranging from 987 to 1,224 jobs.

In the context of Lake Lanier’s total economic impact on the region’s recreational economy as measured by USACE, employment losses in the range of 978 to 1,224 jobs are very significant. The estimated impact of low water levels during 2008 represents an approximate 23% reduction in lake-supported employment in only one year.

It should be emphasized that these negative impacts focus on measurable short run spending effects in the counties bordering Lake Lanier. Although they are significant, these numbers understate the full incremental economic impact of low water levels for three major reasons:

1. Short-term changes in recreational spending always fail to capture total “consumption values,” or the full economic value of benefits received by those who actually utilize Lake Lanier and its many related facilities. (Consumption values are explained in the introduction as well as in Chapter IV of the full report.)
2. The importance of Lake Lanier as a contributor to the size and growth rates of the five surrounding counties clouds the important distinction between out-of-region and local visitors to the lake. There is little doubt that the presence of the lake has contributed to population growth and has attracted upper-income households, seasonal residents and

retirees who would not otherwise be living in the region. Persistently low water levels would impact that particular segment of the resident population and have long run adverse effects on the local economy, yet the effects of such “endogenous” population size factors are hard to fully capture in short run spending impact studies.

3. To the extent that the indirect multiplier analysis failed to fully capture the existence of a wider web of vendors and other suppliers to the lake-based economy located throughout the state of Georgia, the statewide economic impact of the decline in recreational activity at Lake Lanier would be larger than the estimated impacts on the local region only. Based on the naturally higher state-wide multipliers that would apply, relative to the localized multipliers that were used, such state-wide impacts could be as much as 20% higher than the local impacts estimated above.

[FINDING 8] DOWNSTREAM ECONOMIES AND POPULATIONS IN THE LOWER ACF BASIN ARE SUBSTANTIALLY SMALLER THAN THOSE IMMEDIATELY SURROUNDING LAKE LANIER

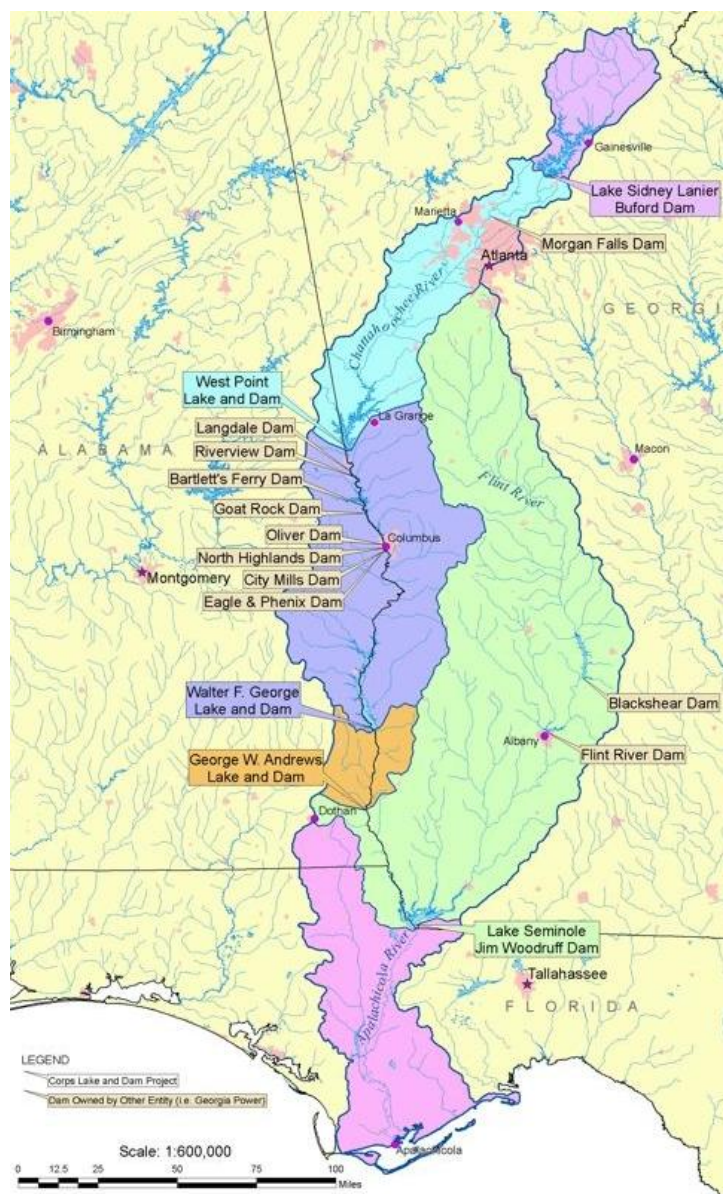
Based on Finding 7, it is clear that lake management policies which avoid severe draw-downs and maintain higher pool levels during longer periods of the year would certainly benefit the local lake recreation economy. However, an important focus of the study was to gather data to determine whether job and income losses suffered during 2008 as a result of low water levels at Lake Lanier, were equitable in comparison to economic impacts on downstream economies. Would management policies designed to reduce negative economic impacts on lake-dependent businesses simply cause more harmful economic impacts downstream? It was well beyond the scope of the study to address the complex legal and environmental issues that govern management of the ACF Basin’s water resources, nor did the Consultants conduct an economic impact analysis of downstream economies. However, in order to provide a context for comparison, the report analyzed the relative population and employment levels of counties in the ACF Basin. The report also focused on power generation, tourism, fishing and agricultural industries which could be most directly impacted by changes to downstream flows. (Findings 8 through 10 focus on these issues.)

Analysis of population and employment data for the counties in the ACF Basin revealed the following:

- Alabama and Florida together contain 13% of the ACF River Basin’s total population, 11% of its businesses and 9% of total private employment, while the Georgia portion of the ACF Basin contains 5.8 million people, representing 59% of Georgia’s total population and an even larger share of the state’s economy.
- The combined economies of Hall and Forsyth Counties alone are roughly comparable to the entire Florida portion of the ACF basin and only marginally smaller than the Alabama portion.

- The total private sector economies of the 17 Alabama and Florida counties in the ACF Basin, combined, represent less than half of Gwinnett County in terms of numbers of existing companies, private payrolls and employees.
- While the Florida portion of the ACF Basin is slightly more dependent on tourism as a percentage of its private employment, the total number of tourism-dependent jobs in that region appears to be smaller than the counties immediately surrounding Lake Lanier.

For nine months of the year and except during periods of exceptional drought, the Corps' IOP for the ACF Basin is designed to maintain minimum flows of 5,000 cubic feet per second (cfs) from Woodruff Dam into the Apalachicola River, with substantially higher flows in the Spring months, coinciding with the spawning season of the Gulf Sturgeon. These IOP objectives also tend to be the controlling factor for flows upstream of Woodruff Dam between Lake Lanier and Lake Seminole. Our review of available information found that minimum flows for municipal and industrial (M&I) water supply, power generation and agricultural demand in Alabama and Southern Georgia were lower than the minimum 5,000 cfs released from Woodruff Dam. Therefore, releases of reservoir storage needed to supply the Apalachicola River should also provide adequate flow rates to these other downstream users. Finding 9 focuses on downstream industries in Alabama and Georgia and Finding 10 addresses the Florida portion of the ACF Basin, including Apalachicola Bay.



[FINDING 9] THE NEGATIVE ECONOMIC IMPACTS ON THE LAKE LANIER ECONOMY ESTIMATED IN 2008 (SEE FINDING #5) WERE SUBSTANTIALLY LARGER THAN THOSE ON DOWNSTREAM INDUSTRIES IN ALABAMA AND GEORGIA.

Except during those periods of most severe drought, Lake Lanier's influence on downstream Alabama and Georgia economies is very difficult to quantify and marginal at best. The analysis found that downstream industries that rely on Chattahoochee River flows (a) are comparatively small in size compared to the recreational economy of Lake Lanier; (b) have minimum flow requirements which are generally satisfied by the 5,000 cfs flow rates from Woodruff dam; (c) derive marginal or no economic benefits from higher river flows than the required minimums and (d) did not suffer the magnitude of negative economic impacts that were incurred by Lake Lanier dependent businesses during the 2007-09 drought. Therefore, there appear to be very limited or no positive downstream economic impacts to Alabama or Georgia that offset the negative effects of severe draw-downs of Lake Lanier or the other Corps' lakes in the ACF Basin. This finding is based on the following factors:

- The three lakes in the ACF Basin located south of Lake Lanier (West Point, Walter F. George and Seminole) combined, attract only 18% more visitors and support 423 more jobs than Lake Lanier alone. Reservoir storage was severely depleted at all of the Corp's ACF lakes during the 2007-09 drought. Economic losses at West Point and Walter George during this period were likely to be proportional to Lake Lanier.
- Releasing water and drawing down ACF reservoirs during droughts has had no discernable effect on downstream river recreation in the Chattahoochee National Recreation Area, while substantially reducing lake recreation. Prior studies have found no historical link between downstream river flows and visitation to the Chattahoochee NRA.
- The economic benefits of hydropower generation in the ACF Basin have been diminishing over time, while Lake Lanier's recreational value has increased. The marginal economic benefits of maintaining higher lake levels for recreation has been previously estimated to be 8 times the marginal cost of resulting reductions in hydropower production.
- The State of Alabama and Southern Nuclear Company have stated that the Farley Station nuclear plant near Dothan, Alabama requires a 2,000 cfs minimum flow rate on the lower Chattahoochee to maintain adequate cooling water for full operations, and can continue generating with one unit if flows should fall below 2,000 cfs. Farley Station underwent refueling during late 2007 and therefore was not impacted by drought conditions at that time. Although the State of Georgia and other parties have questioned the 2,000 cfs minimum flow assertion, there is



generally little difficulty in supplying adequate flow during “normal” periods. Marginally adjusted operational priorities at Lake Lanier are unlikely to restrict downstream flows to a degree that would restrict power generation at Farley Station.

- Water releases from Lake Lanier have either a very minor influence or no influence at all on available supplies of irrigation and non-irrigation water for downstream agriculture and therefore have little or no economic impact on the ACF Basin’s agricultural economy. Analysis of prior research on agricultural water demand found: (a) 70% of all agricultural water used in the ACF Basin is supplied from groundwater withdrawals; (b) of the remaining surface water withdrawals for agricultural use, about 60% of the water is taken from the Flint River Basin and not influenced at all by Lake Lanier; (c) a major percentage of surface water withdrawals for agricultural use in Alabama and Florida are from smaller tributaries to the Chattahoochee or Apalachicola Rivers and are also not dependent on Chattahoochee River flows; and (d) poultry production in the northern portion of the ACF Basin and surrounding Lake Lanier has been identified as the ACF Basin’s economically dominant agricultural industry.



[FINDING 10] APALACHICOLA BAY’S FRESHWATER FISHING AND OYSTER INDUSTRIES ARE SMALL IN COMPARISON TO THE RECREATIONAL ECONOMY SUPPORTED BY LAKE LANIER. LAKE LANIER’S CAPACITY TO INFLUENCE APALACHICOLA’S LARGER SALTWATER FISHING ECONOMY IS ALSO UNCLEAR.



Associations between freshwater inflows and oyster and crab harvesting productivity in Apalachicola Bay were first studied in the early 1990’s using historical flow data for the prior decade. Statistical analyses in these studies found that oyster growth rates are significantly related to salinity. Although these studies found a statistical correlation between freshwater inflow and oyster and crab growth, the Consultants were unable to locate prior research which (a) determined what flow rates in the Apalachicola River supported optimal salinity for oyster growth; (b) measured the impacts of low flow periods on aggregate harvests in terms of actual percentage declines or dollar losses; or (c) determined the degree to which Lake Lanier directly influences Apalachicola Bay salinity. Absent of such data, it is difficult to estimate Lake Lanier’s direct economic significance to the Apalachicola Bay fishing and oyster industries. However, prior research conducted within the State of Florida has estimated the economic impact of fishing in Apalachicola Bay to be no more important than the recreational economy of Lake Lanier, as highlighted by the following findings:

- A March, 2003 study released by the University of Florida estimated that the total agricultural economy in the four county Apalachicola Bay Region supported fewer than 1,250 jobs in 1999. Commercial fishing represents only a component of the total agricultural sector.
- The same report estimated the **total** annual economic output of the region's seafood industry, consisting of both oysters and shrimp, at \$22.7 million at that time. The industry supported 707 total jobs (including direct employment and multiplier effects), roughly 30% of the 2,300 jobs supported by Lake Lanier.
- According to more recent (2007) U.S. Department of Commerce County Business Patterns reports, combined employment in the "forestry, fishing, hunting and agricultural support" industry supports only 111 direct payroll jobs in the entire region, with a substantial portion of those payroll jobs connected to the region's commercial forestry operations.
- The total economic value of all "wildlife related recreation" in the region, including hunting, freshwater and saltwater fishing and wildlife viewing attracted 156,000 visitors to the region in 2000, roughly 2.0% of annual visitation to Lake Lanier. These activities generated \$235.5 million in total economic activity for the region and supported 3,360 total jobs. However, 86% of that total impact was associated with saltwater fishing, which has a less direct linkage to Apalachicola River flows. Saltwater fishing accounted for \$201.7 million in total output and supported more than 2,500 of these jobs, numbers roughly comparable to Lake Lanier.
- Freshwater fishing (which is assumed to be more directly dependent on Apalachicola River flows), accounted for \$17.7 million of total output and supported only 329 jobs, roughly equivalent to total employment supported by recreational hunting in the same region.
- Apalachicola Bay's oyster industry was studied more recently (in April, 2010) by the University of Florida in response to possible bed closures to protect consumers from "red tide" infections. Economic impacts of various closure scenarios were estimated for "harvesters, processors and the overall economies of Gulf and Franklin Counties." In comparing potential economic impacts from several proposed regulatory scenarios, the report confirmed that total annual oyster industry output in these two counties was roughly \$13.6 million. The industry found a total of 496 harvesters in the region, including only 28 who earned more than \$20,000 from oysters in 2004. Under a "worst case" scenario which modeled a total May through September closure of the half shell oyster market, the researchers estimated that the action would cause a 26% reduction to the industry's economic impact on the region, translating to a loss of about \$3.4 million in total output. That sum represents about 6% to 8% of the estimated economic losses which resulted from Lake Lanier draw-downs in 2008.

Based on these findings, the total annual economic impact of Apalachicola's freshwater fishing and oyster industries appears to be in the range of \$31 million per year, representing less than 20% of the total estimated local annual economic impact of Lake Lanier recreation estimated by USACE. The total economic output of these Florida industries is substantially less than the estimated \$43.8 million to \$54.8 million in economic losses suffered by Lake Lanier recreation during 2008. The

region's recreational saltwater fishing industry is larger and roughly comparable to Lake Lanier in terms of total economic impact, but the degree to which water releases from Lake Lanier directly impact the economic performance of these Florida industries either positively or negatively has never been quantified and appears to be marginal at best.

[FINDING 11] LAKE LANIER'S VALUE AS A REGIONAL WATER SUPPLY DWARFS ITS SIGNIFICANT VALUE AS A RECREATIONAL RESOURCE

Even though maintaining higher pool levels might actually be made easier as a result of reducing lake withdrawals for water supply purposes, losing Lake Lanier as a source of regional water supply would have enormously negative regional economic consequences for Metro-Atlanta. The magnitude of negative economic impacts obviously depends upon the timing and degree of restricted withdrawals and the resulting supply shortfalls.

The economic impacts of resulting water shortages and the enormous public cost to acquire replacement supply would also have a substantial negative effect on recreational spending. Those negative impacts are likely to be permanent and worse to the lake-dependent economy than the effects of low water levels during 2008. The huge negative economic consequences of regional water supply shortages on Metro-Atlanta, a market of more than 4 million people and one of Florida's largest visitor markets, could also be more severe to Florida's tourism economy than the limited benefits associated with resulting marginally higher downstream flows in the lower ACF Basin. The annual economic benefits of continuing to use Lake Lanier for water supply dwarf any resulting negative effects on lake recreation or downstream economies. This conclusion is supported by the following findings:

- According to a 2004 study, which modeled a much less restrictive scenario than was recently imposed by court-mandated reductions to water supply withdrawals, the present value benefits to the national economy associated with Lake Lanier's use as a regional water supply was estimated at \$19.1 billion.
- A more recent study also determined that the cost of replacing Lake Lanier as a source of regional water supply would have a multi-billion annual negative impact on the Metro-Atlanta economy. According to a preliminary analysis, court-mandated reductions in water supply withdrawals could:
 - Cause a 34% regional water shortfall by 2012;
 - Result in a 13% to 15% reduction in the region's total economic output and an annual "cost" of \$35 to \$39 billion; and
 - Lead to the possible loss of 250,000 jobs to the Georgia economy.

To place this impact in context, potential job losses to the Atlanta Region, which could result from losing Lake Lanier water supply, exceed the estimated 223,000 total existing (2007) private sector jobs in all of the Florida and Alabama Counties in the ACF Basin, combined.

An ongoing study is being prepared by the Atlanta Regional Commission to refine the preliminary findings cited above. We understand that this study concludes that it will be even more difficult and expensive to replace Lake Lanier as a source of water supply than originally anticipated. Therefore, the resulting regional economic impact of losing/replacing Lake Lanier as a regional water supply source would also be greater than the \$35 to \$39 billion annual cost previously estimated, with resulting higher costs to the national economy as well.

The above findings are presented in more detail in the following report.