



Location: **Inflows into Lake Lanier - Georgia**

Issued: October 18, 2007

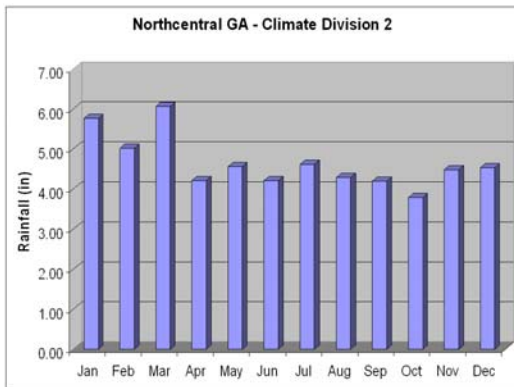
...Minimal Chance for Inflows into Lake Lanier to Equal Normal Outflows Prior to Winter...

Our Forecast – Key Points

- Less than a 2% Chance for Average Inflows into Lake Lanier to Reach Average Outflows through November.
- Moderate La Nina Points Towards a Tendency for Continued Below-Normal Rainfall Heading into Winter.
- Better Chances of Rain the Rest of the Month but Not Likely to Help Overall Reservoir Conditions Significantly.

Hydrometeorological Basin Analysis

October is typically the driest month over the Upper Chattahoochee River Basin. One would not expect significant recharge into Lake Lanier during the fall season. Furthermore, the month started off with temperatures well above normal enhancing evaporation from the lake.

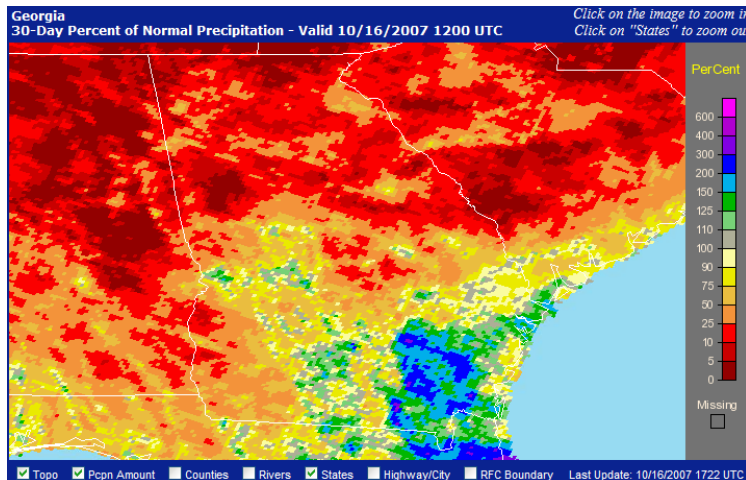


Average Monthly Rainfall Values

Since the first of the month, about 0.75 inches of basin-average rain fell over the basin. Due to the extremely dry ground, very little, if any, of this rain made it into the Upper Chattahoochee River above Lake Lanier.

Inflows into the lake have been running only about a quarter (326 cfs) of normal (1197 cfs) for the month so far.

The lake elevation is nearly 14 feet below seasonal normal.



For the past 30 days, the Upper Chattahoochee River Basin has received less than 25% of normal rainfall.

Looking Ahead into Early November

One of our primary medium-range forecast models indicates above-normal rainfall for the Southeast U.S. for the rest of October. However, since October is typically the driest month of the year, this still doesn't translate into very much additional rain. The total (mean areal) rainfall for the Upper Chattahoochee River Basin through the end of October is expected to be in the range of 1 to 2 inches. Due to existing very dry upper soils, only a fraction of this rainfall will actually make it into the river. Most will be soaked into upper soils.

The latter part of October will see an increase in cold frontal passages and increasing chances of rain. There will be a chance of rain about twice a week, or about 4 to 5 frontal passages through the end of October.

Recently, the lack of strong low-level flow (850 mb at least 50 knots) from the Gulf of Mexico has inhibited moisture from working from South Georgia further northward.

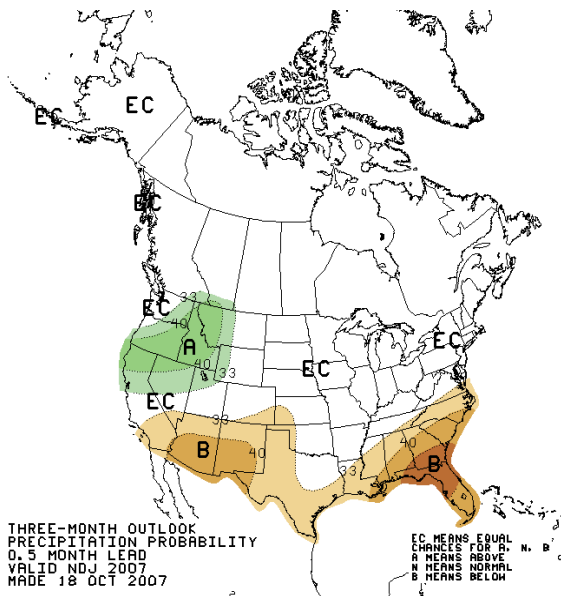
Another inhibiting factor is a persistent east-west trough axis/boundary located just south of the Florida panhandle. This boundary is squeezing moisture out before it can get very far inland. The boundary is expected to lift north near a Montgomery-to-Charleston line over the next week.

Rainfall will be heavier along and south of this boundary, and tend to decrease further to the north.

The transition from summer to fall appears to be lagging by two to three weeks. This could mean that the first half of November might be similar to typical October weather; i.e., dry.

In summary, unless a cold front can bring about a very strong 850-mb jet to carry ample Gulf moisture into north Georgia, no more than 1 to 2 inches of mean areal rainfall through November 1st will occur. Then after November 1st, dry conditions will once again prevail.

Longer-Term Outlook



This map is the seasonal outlook distributed by the NWS Climate Prediction Center (CPC). This outlook is for the months of November and December of 2007 and January of 2008.

The white category denoted by the "EC" symbol stands for "Equal Chances." "Equal Chances" indicates that there is a 33.3% chance of above-normal rainfall, a 33.3% chance of normal rainfall, and a 33.3% chance of below-normal rainfall.

An EC outlook indicates that there are no clear signals to indicate that the

area is going to deviate above or below normal during this time frame.

The dark brown area indicates a 50% chance of below normal rainfall. This means that there is a 50% chance that there will be below-normal rainfall, a 33.3% chance of normal rainfall, and a 17.7% chance that there will be above-normal rainfall.

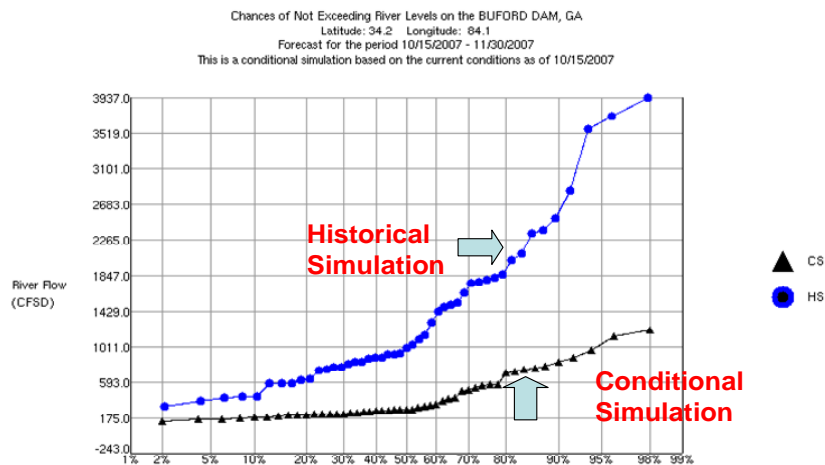
The forecast of below-normal rainfall centered along the South Georgia/North Florida border is based to a large degree on climate models expecting moderate to strong La Nina conditions in the equatorial Pacific through the winter.

The La Nina event is expected to intensify, and these conditions look to continue through most of the winter and into early spring.

The Lake Lanier Basin is towards the northern edge of the below-normal precipitation area. This means there is a 40% chance of below-normal rainfall, 33.3 chance of normal rainfall, and 26.7% chance of above-normal rainfall.

While below-normal rainfall is forecast, it is important to remember that there will be a number of rain events during this period, some of which will bring heavy rainfall. However, in consideration of the alleviation of the overall drought, the frequency of rain events, intensity of rain, and overall basin coverage will be key factors to watch.

Technical Discussion



The above graph is an ensemble stream flow non-exceedance plot looking at potential inflows into Lake Lanier through the end of November. 1 cfsd (cubic foot per second day) is the volume of water represented by 1 cubic foot per second for 24 hours. This is equivalent to 86,400 cubic feet, or 646,317 gallons. Recent current outflow from Lake Lanier have been 2820 cfsd on weekdays and 1170 cfsd on the weekends. Inflow into

the lake on 10/17/07 was 286 cfsd. This value is calculated based on outflow and pool level measurements. At the moment, there is a significant discrepancy between inflows and outflows. For this reason, the pool continues to fall.

The above graph gives an indication of what might be expected for inflows over the next 45 days. The historical simulation (HS) represents an historical model simulation of inflows from 1950 through 1998. Compare this historical simulation to the conditional simulation (CS) represented by the triangles and black line on the graph. The CS is produced by re-running each of those 48 years using current soil moisture conditions, which are much drier than normal. The conditional simulation (model forecast) indicates that there is less than a 2% chance of having an average inflow that equals or exceeds the average outflow over the next 45 days.

Note: This forecast is for average inflows for the 45-day period. It is likely that individual daily flows will reach or exceed outflows from time to time.

The above information likely will change in some form in the future. It is based on existing soil moisture and outflow information as of 10/17. Both of these parameters are likely to change with time. Updates will be issued about every two weeks. These updates will incorporate any additional rainfall or changes to outflows.

For more information, contact Todd Hamill, John Feldt, or Brad Gimmestad at (770) 486-0028 ext. 1.

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