Background

Pursuant to the Rules for Drought Management, Section 391-3-3-.04 Drought Indicators and Triggers, the Director of EPD monitors climatic indicators and water supply conditions to assess drought occurrence and severity, and its impact upon the ability of public water systems to provide adequate supplies of water. These indicators and conditions September include, but not be limited, to the following:

• U.S. Drought Monitor;
• Precipitation;
• Streamflow;
• Groundwater;
• Reservoir levels;
• Short term climate predictions;
• Soil moisture; and
• Water supply conditions.
Background

• The Rules require EPD to report on current climatic indicators at least semi-annually or monthly when any part of the state has experienced at least two consecutive months of severe drought.

• This reports compare current conditions to historical levels (and/or reservoir rule curves) for each of the following indicators:
  – Precipitation during the prior 3, 6, and 12 months;
  – Streamflow at the select United States Geological Survey gages;
  – Groundwater levels at select United States Geological Survey monitoring wells; and
  – Reservoir levels at Allatoona Lake, Lake Hartwell, Clarks Hill Lake, and Lake Lanier.

• The following sections of this presentation provide the data and information sources analyzed by EPD in developing this drought indicators report for conditions as of October 3, 2019.
• **U.S. Drought Monitor** – Drought has progressed to different levels statewide. Extreme Drought (D3) exists in part or entirety of Bartow, Pickens, Cherokee, Forsyth, Hall, Coweta, Fulton, Fayette, Clayton, Wilkinson counties and their surrounding areas. Severe Drought (D2) exists in the vicinity of D3 areas and isolated areas in central and southeastern GA. Moderate Drought (D1) exists in the periphery of D2 and D3 areas. Abnormally dry (D0, the least intense level) covers the rest of the state.

• **Precipitation** - Three-month precipitation is below normal statewide with 25% to 50% of normal precipitation in south metro and surrounding area. Six-month precipitation is below normal statewide with some isolated area being slightly above normal. Twelve-month precipitation is normal or above normal in northwest half of the state and below normal in southeast half of the state.

• **Soil Moisture** – Soil moisture conditions show different levels of dryness statewide. Some extreme dryness (2\(^{th}\) - 5\(^{th}\) percentiles) exists in upper Chattahoochee basin, mid Flint-Ocmulgee basin, and a large area in southeast GA. Some severe dryness (5\(^{th}\) - 10\(^{th}\) percentiles) exists in the vicinity of the extreme dry area. Less severe dryness (10\(^{th}\) - 30\(^{th}\) percentiles) exists in the rest of the state.
Streamflow - Stream flows observed at all selected USGS gages have been below normal. Most of gage flows are between driest 10th and 20th percentiles. Four gages flows are between driest 5th and 10th percentiles (each in mid Flint, mid Oconee, lower Savannah and Satilla basins). Six gages flows are below driest 5th percentile (one in Tennessee, one in middle Flint, two in upper Ocmulgee, one in lower Oconee, and one in lower Suwanee basins).

Groundwater Level - One third of the groundwater levels observed at selected wells are above normal and the other two thirds are below normal, with three being below driest 20th percentiles (one in Crystalline Rock Aquifer in Chattahoochee basin, two in Floridan Aquifer in Flint and Oconee basins), and rest being between lowest 20th percentile and median.

Reservoir Levels - In September 2019, all federal reservoir levels in Georgia (ACF, ACT, and Savannah River Basins) are below their respective top of conservation (normal) pools but above the Zone 1, except Lake Hartwell being near the bottom of its Level 1, Lake Allatoona and Lake Clark Hill being below their respective Zone1\Level 1 since the late September 2019.


Water Supplies - EPD has granted a Drought Level 1 Variance to City of Griffin and a Drought Level 2 Variance to Coweta County.
US Drought Monitor

Data Source:
http://droughtmonitor.unl.edu/
October 4, 2016
(Released Thursday, Oct. 6, 2016)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>D0-D4</th>
<th>D1-D4</th>
<th>D2-D4</th>
<th>D3-D4</th>
<th>D4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>36.32</td>
<td>64.58</td>
<td>51.86</td>
<td>37.46</td>
<td>15.01</td>
<td>2.29</td>
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<tr>
<td>Last Week</td>
<td>35.37</td>
<td>64.83</td>
<td>45.84</td>
<td>34.50</td>
<td>14.67</td>
<td>1.58</td>
</tr>
<tr>
<td>3 Months Ago</td>
<td>51.69</td>
<td>48.31</td>
<td>33.76</td>
<td>28.12</td>
<td>6.77</td>
<td>0.00</td>
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<tr>
<td>Start of Year</td>
<td>87.36</td>
<td>12.54</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Start of Water Year</td>
<td>35.37</td>
<td>64.53</td>
<td>45.84</td>
<td>34.50</td>
<td>14.67</td>
<td>1.58</td>
</tr>
<tr>
<td>One Year Ago</td>
<td>71.24</td>
<td>28.76</td>
<td>12.93</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Intensity:
- **D0 Abnormally Dry**
- **D1 Moderate Drought**
- **D2 Severe Drought**
- **D3 Extreme Drought**
- **D4 Exceptional Drought**

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**
Brian Fuchs
National Drought Mitigation Center

http://droughtmonitor.unl.edu/
3, 6, and 12 Month Percent of Normal Precipitation

Data Source:
http://climate.ncsu.edu/drought/map
3 Month Percent of Normal Precipitation
6 Month Percent of Normal Precipitation
12 Month Percent of Normal Precipitation

12 month Percent of Normal Precipitation for October 01, 2019

0 5 10 25 50 75 90 100 110 125 150 200 300 400 800 %
Soil Moisture Conditions

Data Source:
http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor/curr/conus.mexico/east.vic.sm_qnt.gif
Current (daily updated) percentiles for soil moisture (SWE) with respect to the climatological period (1916-2004).
Streamflow Conditions

Data Source: USGS
Streamflow Monitoring

• As shown on the following slide, EPD Monitors 34 USGS stream gages in 13 of the State’s major river basins to assess drought conditions.

• These gages were selected because each has:
  – Long-term and relatively complete records for recent decades; and
  – Relatively low consumptive water use implications and streamflows are not heavily influenced by dams.

• Note: Hydrologic conditions of major rivers with streamflows that are heavily influenced by dams can be assessed by reviewing status of major storage reservoirs.
### USGS Stream Gages Monitored by EPD to Assess Drought Conditions

<table>
<thead>
<tr>
<th>GAGE#</th>
<th>BASIN</th>
<th>GAGE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TENNESSEE</td>
<td>LOOKOUT CREEK NEAR NEW ENGLAND</td>
</tr>
<tr>
<td>2</td>
<td>TENNESSEE</td>
<td>NOTTELY RIVER NEAR BLAIRSVILLE</td>
</tr>
<tr>
<td>3</td>
<td>COOSA</td>
<td>CHATTOOGA RIVER AT SUMMerville</td>
</tr>
<tr>
<td>4</td>
<td>COOSA</td>
<td>TALKING ROCK CREEK NEAR HINTON</td>
</tr>
<tr>
<td>5</td>
<td>COOSA</td>
<td>ETOWAH RIVER AT CANTON</td>
</tr>
<tr>
<td>6</td>
<td>CHATTAAHOOCHEE</td>
<td>CHATTAAHOOCHEE RIVER AT CORNELIA</td>
</tr>
<tr>
<td>7</td>
<td>CHATTAAHOOCHEE</td>
<td>CHESTATEE RIVER NEAR DAHLONEGA</td>
</tr>
<tr>
<td>8</td>
<td>CHATTAAHOOCHEE</td>
<td>NEW RIVER AT GA 100 NEAR CORINTH</td>
</tr>
<tr>
<td>9</td>
<td>CHATTAAHOOCHEE</td>
<td>UPATOI CREEK AT COLUMBUS</td>
</tr>
<tr>
<td>10</td>
<td>FLINT</td>
<td>FLINT RIVER AT GA26 NEAR MONTEZUMA</td>
</tr>
<tr>
<td>11</td>
<td>FLINT</td>
<td>FLINT RIVER AT ALBANY</td>
</tr>
<tr>
<td>12</td>
<td>FLINT</td>
<td>ICHAWAYNOCHAWAY CREEK AT MILFORD</td>
</tr>
<tr>
<td>13</td>
<td>FLINT</td>
<td>SPRING CREEK NEAR IRON CITY</td>
</tr>
<tr>
<td>14</td>
<td>OCMULGEE</td>
<td>ALCOVY RIVER ABOVE COVINGTON</td>
</tr>
<tr>
<td>15</td>
<td>OCMULGEE</td>
<td>OCMULGEE RIVER AT MACON</td>
</tr>
<tr>
<td>16</td>
<td>OCMULGEE</td>
<td>TOBESOFKEE CREEK NEAR MACON</td>
</tr>
<tr>
<td>17</td>
<td>OCMULGEE</td>
<td>TUCSAWHATCHEE CREEK NEAR HAWKINSVILLE</td>
</tr>
<tr>
<td>18</td>
<td>OCONEE</td>
<td>MIDDLE OCONEE RIVER NEAR ATHENS</td>
</tr>
<tr>
<td>19</td>
<td>OCONEE</td>
<td>LITTLE RIVER NEAR EATONTON</td>
</tr>
<tr>
<td>20</td>
<td>OCONEE</td>
<td>OCONEE RIVER AT DUBLIN</td>
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<tr>
<td>21</td>
<td>ALTAMAHA</td>
<td>OHOOPEE RIVER NEAR REIDSVILLE</td>
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<td>22</td>
<td>SAVANNAH</td>
<td>CHATTOOGA RIVER NEAR CLAYTON</td>
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<tr>
<td>23</td>
<td>SAVANNAH</td>
<td>BROAD RIVER NEAR BELL</td>
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<tr>
<td>24</td>
<td>SAVANNAH</td>
<td>BEAVERDAM CREEK NEAR SARDIS</td>
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<td>25</td>
<td>SAVANNAH</td>
<td>BRIER CREEK AT MILLHAVEN</td>
</tr>
<tr>
<td>26</td>
<td>OGEECHEE</td>
<td>CANOOCHEE RIVER NEAR CLAXTON</td>
</tr>
<tr>
<td>27</td>
<td>OGEECHEE</td>
<td>OGEECHEE RIVER NEAR EDEN</td>
</tr>
<tr>
<td>28</td>
<td>OCHLOCKONEE</td>
<td>OCHLOCKONEE RIVER NEAR THOMASVILLE</td>
</tr>
<tr>
<td>29</td>
<td>SUWANEE</td>
<td>WITHLACOOCHEE RIVER NEAR PINETTA FL</td>
</tr>
<tr>
<td>30</td>
<td>SUWANEE</td>
<td>ALAPAHA RIVER AT STATENVILLE</td>
</tr>
<tr>
<td>31</td>
<td>SUWANEE</td>
<td>SUWANEE RIVER AT US 441, AT FARGO</td>
</tr>
<tr>
<td>32</td>
<td>SATILLA</td>
<td>SATILLA RIVER NEAR WAYCROSS</td>
</tr>
<tr>
<td>33</td>
<td>SATILLA</td>
<td>LITTLE SATILLA RIVER NEAR OFFERMAN</td>
</tr>
<tr>
<td>34</td>
<td>ST MARY</td>
<td>ST MARYS RIVER NEAR MACCLENNY FL</td>
</tr>
</tbody>
</table>
Streamflow Graphs

• For each of the 34 gages, EPD has prepared a graph that shows monthly average streamflow from January 2019 through September 2019;

• To help put these streamflow conditions into perspective, for comparison purposes, each graph also shows:
  – Monthly average streamflows for the years 2007 and 2011 when streamflows were at or near recorded low levels across much of the state; and
  – A statistical composite of historical conditions showing the “driest” 50, 20, 10, and 5 percent of all recorded monthly average stream flows at the same gage.
How to Read the Streamflow Graphs

Example #1: Etowah River at Canton

The streamflow graph for Gage #5, USGS Etowah River gage at Canton shows:

- Average stream flow for September 2019 was 350 cfs. The statistical composite of all historical data for this gage shows that average streamflow in September has historically been lower than September 2019 about 10-20% of the time; about 80-90% of the time in September it has been higher.

- Average stream flow in September 2011 was 341 cfs. The statistical composite of all historical data for this gage shows that average streamflow in September has historically been lower than September 2011 only 10-20% of the time; 80-90% of the time in September it has been higher.

- Average stream flow in September 2007 was 130 cfs. The statistical composite of all historical data for this gage shows that average streamflow in September has historically been lower than September 2007 only 0.1% of the time; 99.9% of the time in September it has been higher.
How to Read the Streamflow Graphs

Example #2: **Flint River at Albany**

The streamflow graph for Gage #11, [USGS Flint River gage at Albany](https://waterdata.usgs.gov) shows:

- Average stream flow for September 2019 was 1,268 cfs. The statistical composite of all historical data for this gage shows that average streamflow in September has historically been lower than September 2019 about 5~10% of the time; about 90-95% of the time in September it has been higher.

- Average stream flow in September 2011 was 764 cfs. The statistical composite of all historical data for this gage shows that average streamflow in September has historically been lower than September 2011 about 0.01% of the time; about 99.99% of the time in September it has been higher.

- Average stream flow in September 2007 was 1,385 cfs. The statistical composite of all historical data for this gage shows that average streamflow in September has historically been lower than September 2007 about 5~10% of the time; about 90~95% of the time in September it has been higher.
Gage #2, USGS #03550500, Tennessee Basin, NOTTELY RIVER NEAR BLAIRSVILLE, GA

Yr 2007 not available
Yr 2011

Monthly Average Flow (cfs)

Back to Map
Gage #3. USGS #02398000, Coosa Basin, Chattooga River at Summerville, GA

Monthly Average Flow (cfs)

Driest 50%
Driest 20%
Driest 10%
Driest 5%
Minimum
Yr2007
Yr2011
Yr2019

Back to Map
Gage #8, USGS #02338660, Chattahoochee Basin, NEW RIVER AT GA 100, NEAR CORINTH

Monthly Average Flow (cfs)

Driest 50%
Driest 20%
Driest 10%
Driest 5%
Minimum

Yr2007
Yr2011
Yr2019

Back to Map
Gage #12. USGS #02353500, Flint Basin, Ichawaynochaway Creek at Milford, GA

Back to Map
Gage #15. USGS #02213000, Ocmulgee Basin, Ocmulgee River at Macon, GA

Monthly Average Flow (cfs)

Driest 50%
Driest 20%
Driest 10%
Driest 5%
Minimum

Yr2007
Yr2011
Yr2019

Back to Map
Gage #17. USGS #02215100, Ocmulgee Basin, TUCSAWHATCHEE CREEK near HAWKINSVILLE, GA

- Monthly Average Flow (cfs)
- Gage #17. USGS #02215100, Ocmulgee Basin, TUCSAWHATCHEE CREEK near HAWKINSVILLE, GA
- Driest 50%
- Driest 20%
- Driest 10%
- Driest 5%
- Minimum
- Yr2007
- Yr2011
- Yr2019

Back to Map
Gage #19. USGS #02220900, Oconee Basin, LITTLE RIVER near EATONTON, GA

Monthly Average Flow (cfs)

- Driest 50%
- Driest 20%
- Driest 10%
- Driest 5%
- Minimum

Yr2007
Yr2011
Yr2019

Back to Map
Gage #20. USGS #02223500, Oconee Basin,
Oconee River at Dublin, GA

Monthly Average Flow (cfs)

- Driest 50%
- Driest 20%
- Driest 10%
- Driest 5%
- Minimum

Yr2007
Yr2011
Yr2019

Back to Map
Gage #28. USGS #02327500, Ochlockonee Basin, OCHLOCKONEE RIVER near THOMASVILLE, GA

Monthly Average Flow (cfs)

- Driest 50%
- Driest 20%
- Driest 10%
- Driest 5%
- Minimum

Yr2007
Yr2011
Yr2019
Gage #31. USGS #02314500, Suwanee Basin, SUWANNEE RIVER AT US 441, AT FARGO, GA

- Driest 50%
- Driest 20%
- Driest 10%
- Driest 5%
- Minimum

Yr2007
Yr2011
Yr2019

Monthly Average Flow (cfs)
Groundwater Levels

Data Source: USGS
Rationale for Choosing USGS Monitoring Wells

EPD monitors 17 groundwater USGS monitoring wells shown on the following slide to assess drought conditions. These wells were selected for monitoring because they have:

• Long-term monitoring records consisting of three decades or more of data; and
• Real-time monitoring that represents the most up-to-date conditions.
USGS Wells Monitored

Chattahoochee Basin
1. 16MM03

Flint Basin
2. 11AA01
3. 13L180
4. 12M017
5. 08K001
6. 11K003
7. 12K014
8. 13J004
9. 08G001
10. 10G313
11. 09F520
16. 11J011

Oconee Basin
12. 21T001

Tennessee Basin
13. 03PP01

Suwanee Basin
14. 19E009
17. 27E004

Ogeechee Basin
15. 35P094

---

Figure 2. Area of use of principal aquifers and physiographic provinces in Georgia (modified from U.S. Geological Survey, 2006).
Groundwater Level Graphs

• For each of the 17 groundwater wells, EPD has prepared a graph that shows monthly average groundwater levels from January 2019 through September 2019;

• To help put these levels into perspective, for comparison purposes, each graph also shows:
  – Monthly average levels at that same well for the years 2007 and 2011 when groundwater levels were at or near recorded low levels across much of the state; and
  – And a statistical composite of historical conditions at that same gage showing the “lowest” 50, 20, 10, and 5 percent of all recorded monthly average levels at the same well.
How to Read the Groundwater Level Graphs

Example: **Well #11, 09F520, Flint River Basin**

The groundwater level graph for Well #11, USGS 09F520 shows:

- The average monthly groundwater level for September 2019 was 48.7ft below land surface. The statistical composite of all historical data for this well shows that monthly average groundwater levels in September have historically been lower than September 2019 about 30% of the time; about 70% of the time in September they have been higher.

- The average monthly groundwater level in September 2011 was 51ft below land surface. The statistical composite of all historical data for this well shows that monthly average groundwater levels in September have historically been lower than September 2011 about 5% of the time; about 95% of the time in September they have been higher.

- The average monthly groundwater level in September 2007 was 51.1ft below land surface. The statistical composite of all historical data for this well shows that monthly average groundwater levels in September have historically been lower than September 2007 about 2~5% of the time; about 95~98% of the time in September they have been higher.
Well #1, 16MM03, Crystalline Rocks Aquifer in Chattahoochee Basin,
Monthly Average Depth Below Land Surface

- Depth below Land Surface (ft.)
- Well #1, 16MM03, Crystalline Rocks Aquifer in Chattahoochee Basin,
  Monthly Average Depth Below Land Surface
- Lowest 5%
- Lowest 10%
- Lowest 20%
- Below Median
- Above Median
- Yr2007
- Yr2011
- Yr2019
Well #2, 11AA01, Surficial Aquifer in Flint Basin, Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

January
February
March
April
May
June
July
August
September
October
November
December

Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median
Yr2007
Yr2011
Yr2019
Well #3, 13L180, Floridan Aquifer in Flint Basin,
Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

-75
-70
-65
-60
-55
-50
-45
-40

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median

Yr2007
Yr2011
Yr2019

Back to Map

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Well #4, 12M017, Floridan Aquifer in Flint Basin, Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median
Yr2007
Yr2011
Yr2019

Back to Map
Well #5, 08K001, Floridan Aquifer in Flint Basin, Monthly Average Depth Below Land Surface

- Lowest 5%
- Lowest 10%
- Lowest 20%
- Below Median
- Above Median

Yr2007
Yr2011
Yr2019

Back to Map
Well #7, 12K014, Floridan Aquifer in Flint Basin, Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

-36
-31
-26
-21
-16
-11
-6
-1
-51
-56

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Back to Map

Yr2007
Yr2011
Yr2019
Well #8, 13J004, Floridan Aquifer in Flint Basin, Monthly Average Depth Below Land Surface

- Depth below Land Surface (ft.)
- Well #8, 13J004, Floridan Aquifer in Flint Basin, Monthly Average Depth Below Land Surface
- Lowest 5%
- Lowest 10%
- Lowest 20%
- Below Median
- Above Median
- Yr2007
- Yr2011
- Yr2019

Back to Map

68
Well #9, 08G001, Floridan Aquifer in Flint Basin, Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

- Lowest 5%
- Lowest 10%
- Lowest 20%
- Below Median
- Above Median

Yr2007
Yr2011
Yr2019
Well #10, 10G313, Floridan Aquifer in Flint Basin,
Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)
Well #10, ... Average Depth Below Land Surface
Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median
Yr2007
Yr2011
Yr2019
Well #11, 09F520, Floridan Aquifer in Flint Basin,
Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median
Yr2007
Yr2011
Yr2019
Well #12, 21T001, Floridan Aquifer in Oconee Basin, Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median

Yr2007
Yr2011
Yr2019
Well #14, 19E009, Floridan Aquifer in Suwanee Basin,
Monthly Average Depth Below Land Surface

- Lowest 5%
- Lowest 10%
- Lowest 20%
- Below Median
- Above Median

Yr2007
Yr2011
Yr2019
Well #15, 35P094, Surficial Aquifer in Ogeechee Basin, Monthly Average Depth Below Land Surface

Depth below Land Surface (ft.)

-12 -10 -8 -6 -4 -2 0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Lowest 5%
Lowest 10%
Lowest 20%
Below Median
Above Median

Yr2007
Yr2011
Yr2019
Well #17, 27E004, Floridan Aquifer in Suwanee Basin,
Monthly Average Depth Below Land Surface

- Depth below Land Surface (ft.)
- Yr2007
- Yr2011
- Yr2019

Back to Map
Reservoir Levels

Data Source:
US Army Corps of Engineers
Coosa Basin
1. Carters
2. Allatoona

Chattahoochee Basin
3. Lanier
4. West Point
5. W.F. George

Savannah Basin
6. Hartwell
7. Thurmond

EPD monitors the water levels of seven reservoirs to assess drought conditions.
Reservoir Elevation Graphs

- The following graphs show the reservoir elevation curves for January 2019 through September 2019.
- Each graph also shows the Action Zone Divides (or Levels) for each reservoir
  - Zone 1 is the top layer of the conservation pool
  - Zone 2 is the layer below Zone 1
  - Zone 4 is the lowest layer in the conservation pool
  - There is no conservation storage below the bottom of Zone 4
- To put 2019 reservoir elevations into perspective, elevations for 2007 and 2011 are also shown.
LAKE LANIER ELEVATION

Elevation (ft)

Top of conservation
Top of zone 2
Top of Zone 3
Top of zone 4
Yr 2007
Yr 2011
Yr 2019

Zone 1
Zone 2
Zone 3
Zone 4
2019 ACF Basin Composite Conservation and Flood Storage

Composite Zone 1
Composite Zone 2
Composite Zone 3
Composite Zone 4
Drought Zone

Actual data thru 09-30-2019

Add value of 1,856,000 acre-ft to include inactive storage.

Compiled by USACE.
Lake HARTWELL ELEVATION

- Top of Conservation Pool
- Level 1
- Level 2
- Level 3

- BOC
- Y2007
- Y2011
- Y2019

Elevation (ft)

Back to Map
Climate Prediction Center
3-month Temperature and Precipitation Probability Outlook
and Seasonal Drought Outlook

Data Source:
http://www.cpc.ncep.noaa.gov/
Temperature Outlook
Precipitation Outlook

THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID ON 3D 2019
MADE 19 SEP 2019

EC MEANS EQUAL CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW