

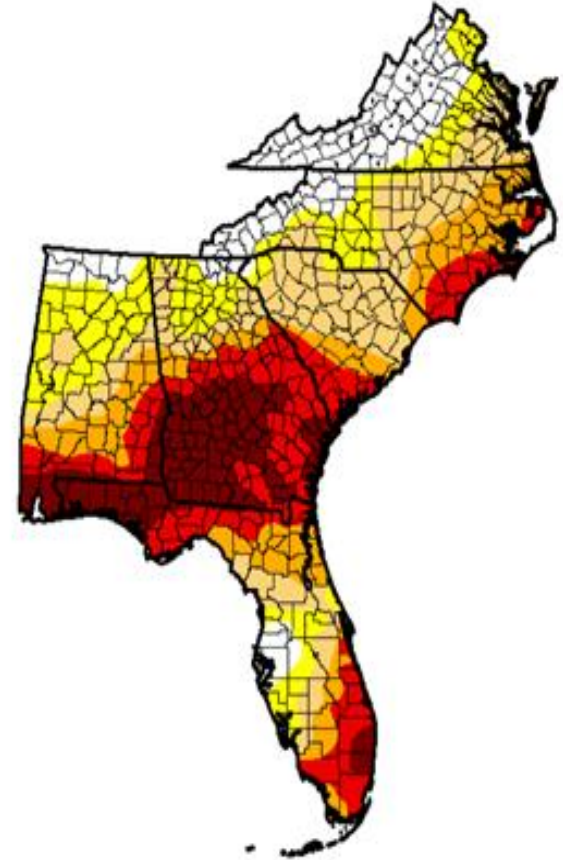
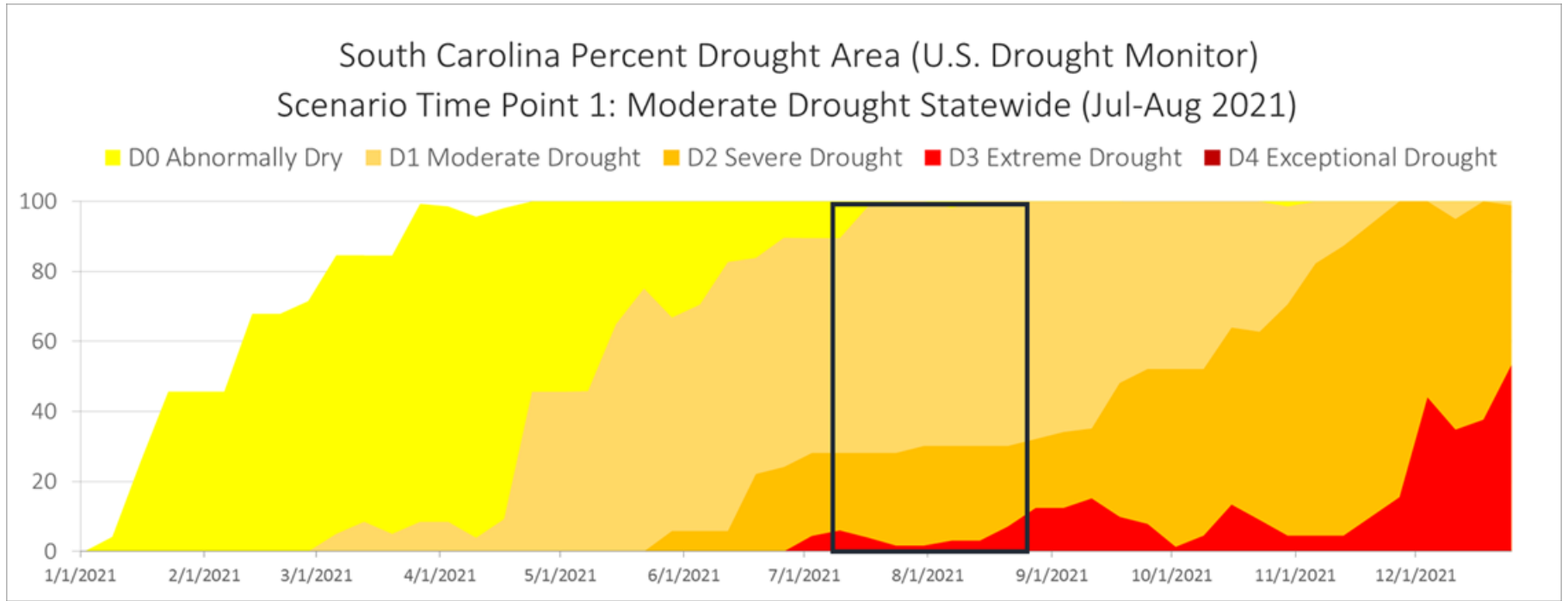
# Scenario Time Point 1

Moderate Drought Statewide

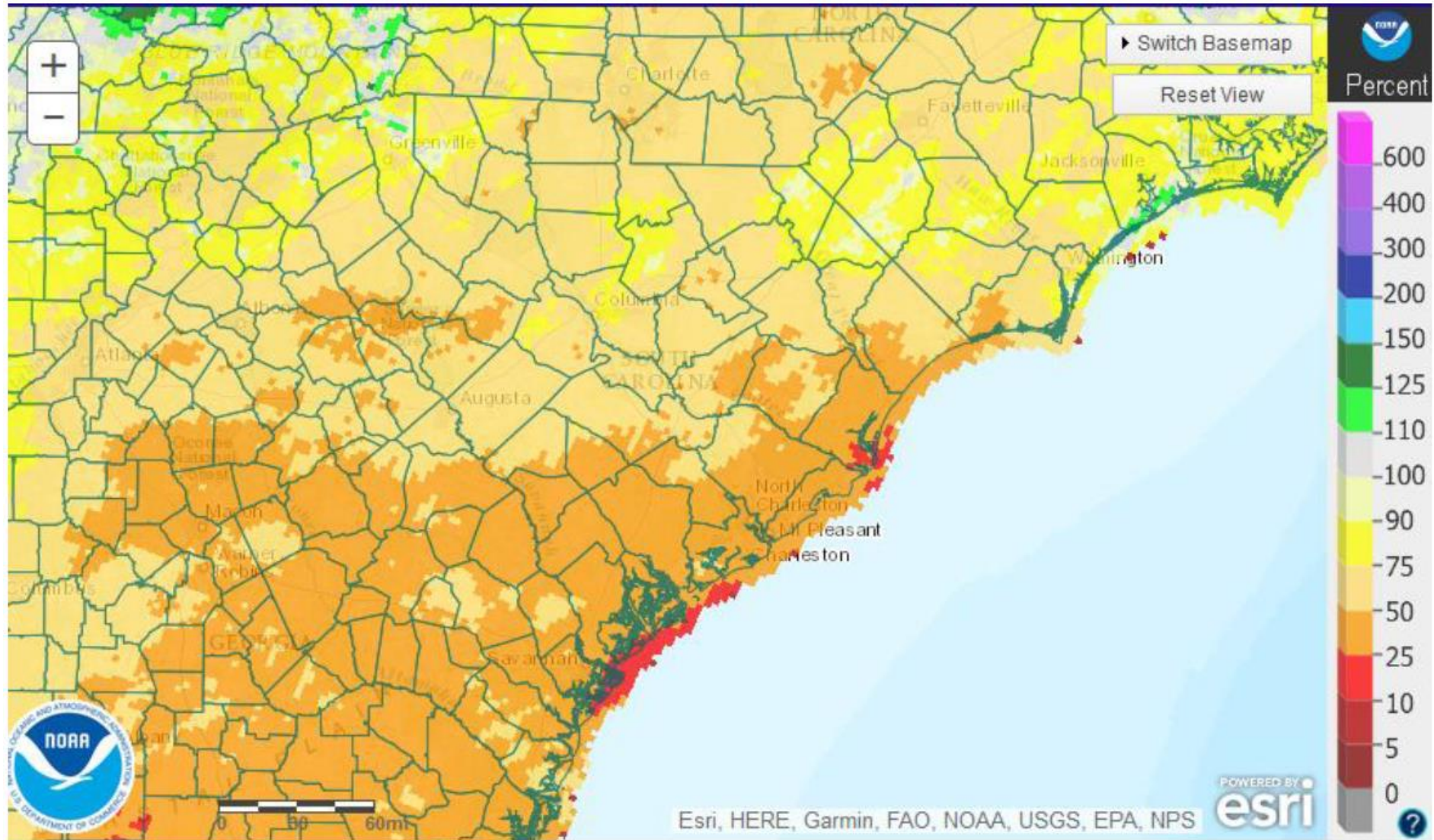
July – August 2021

## Moderate Drought – Indicators and Triggers

- Precipitation: departure from normal
- PDSI: -1.50 to -2.99
- CMI: -1.50 to -2.99
- SPI: -1.00 to -1.49
- KBDI: 400 to 499
- USDM: D1
- Streamflow
- Lake levels
- Groundwater
- Outlooks



# 60-Day Departure from Normal Rainfall

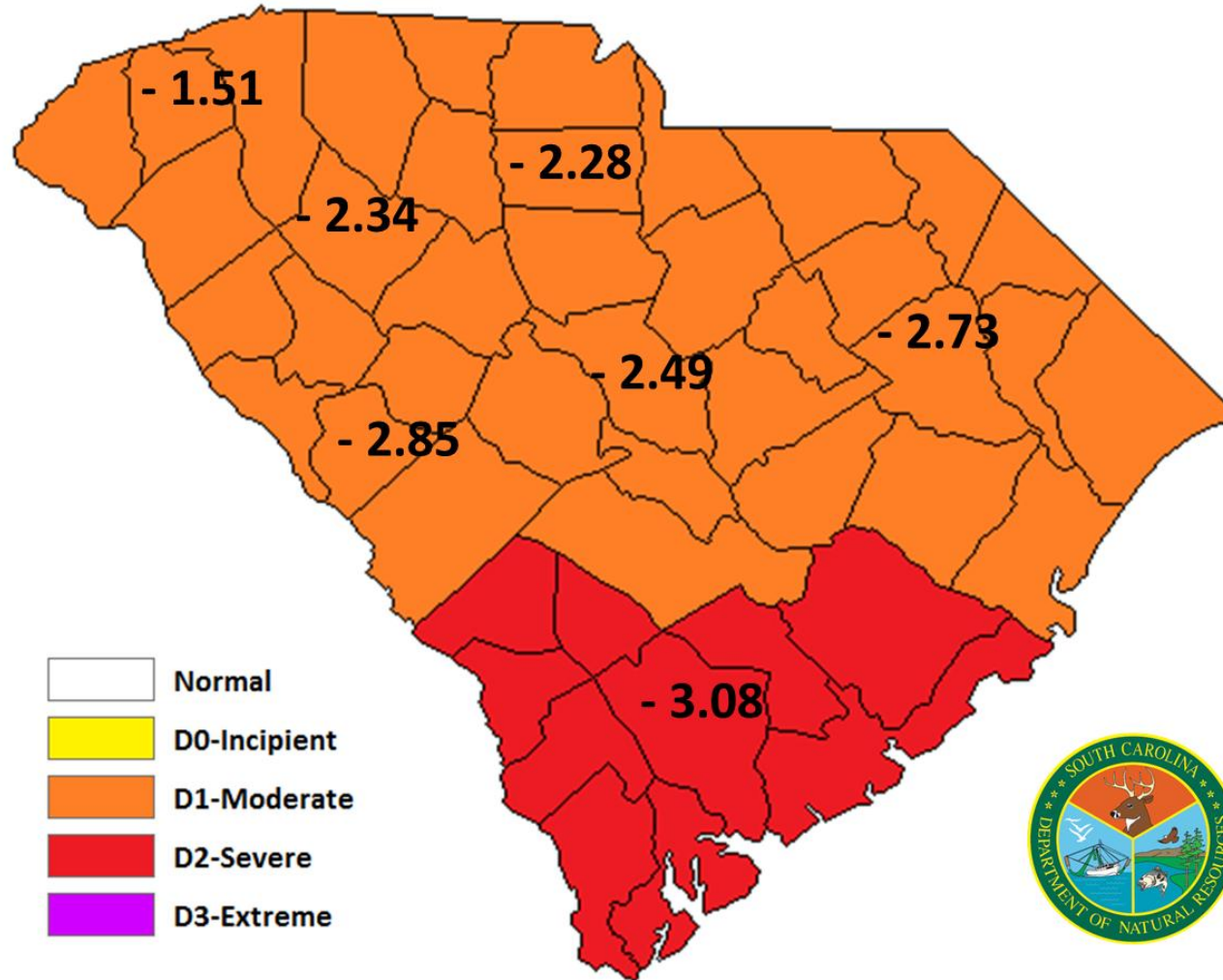


1. Moderate Drought Statewide

July – August 2021

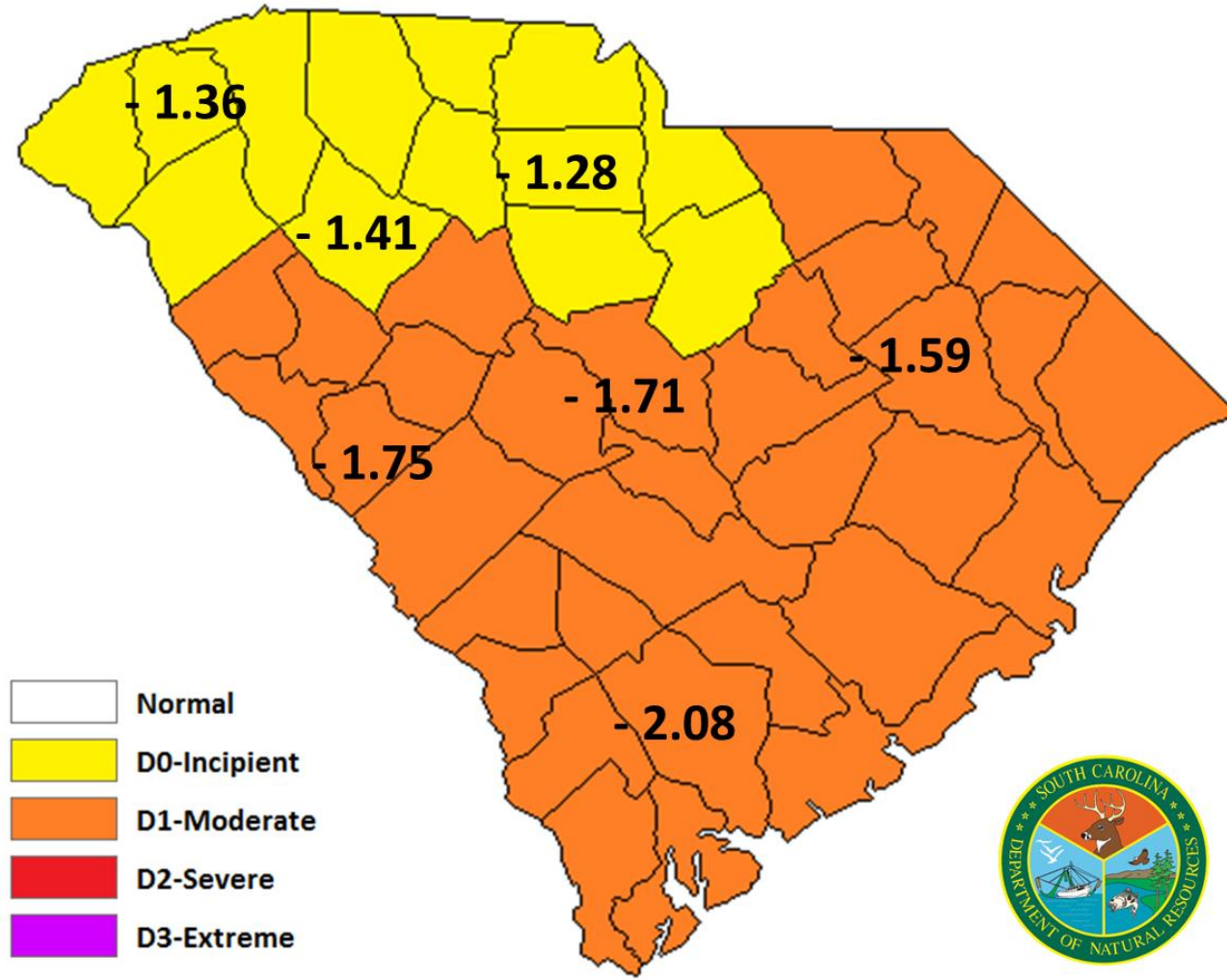
# PALMER DROUGHT SEVERITY INDEX

## Week ending August 1, 2021



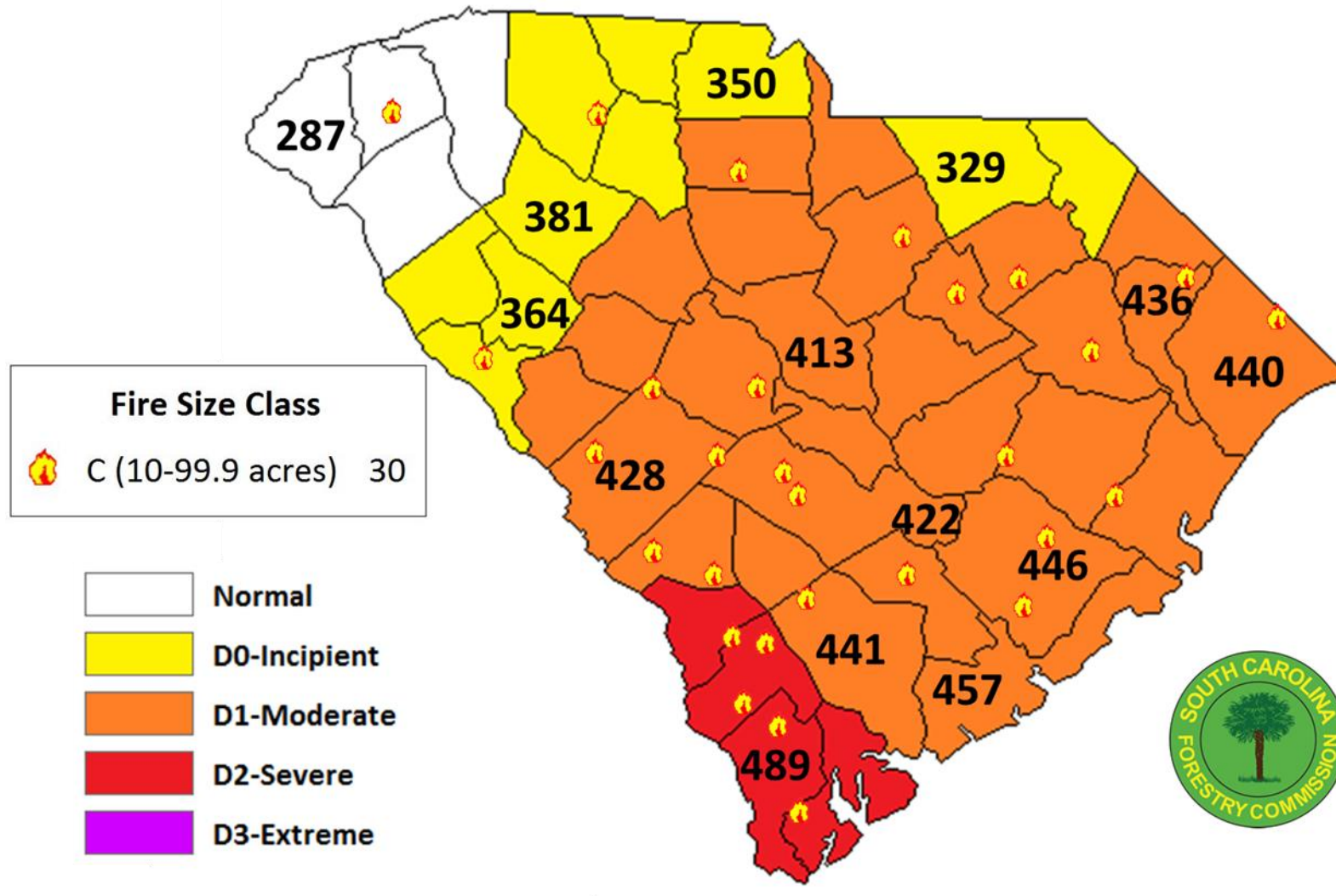
# CROP MOISTURE INDEX

## Week ending August 1, 2021



# KEETCH-BYRAM DROUGHT INDEX

August 1, 2021

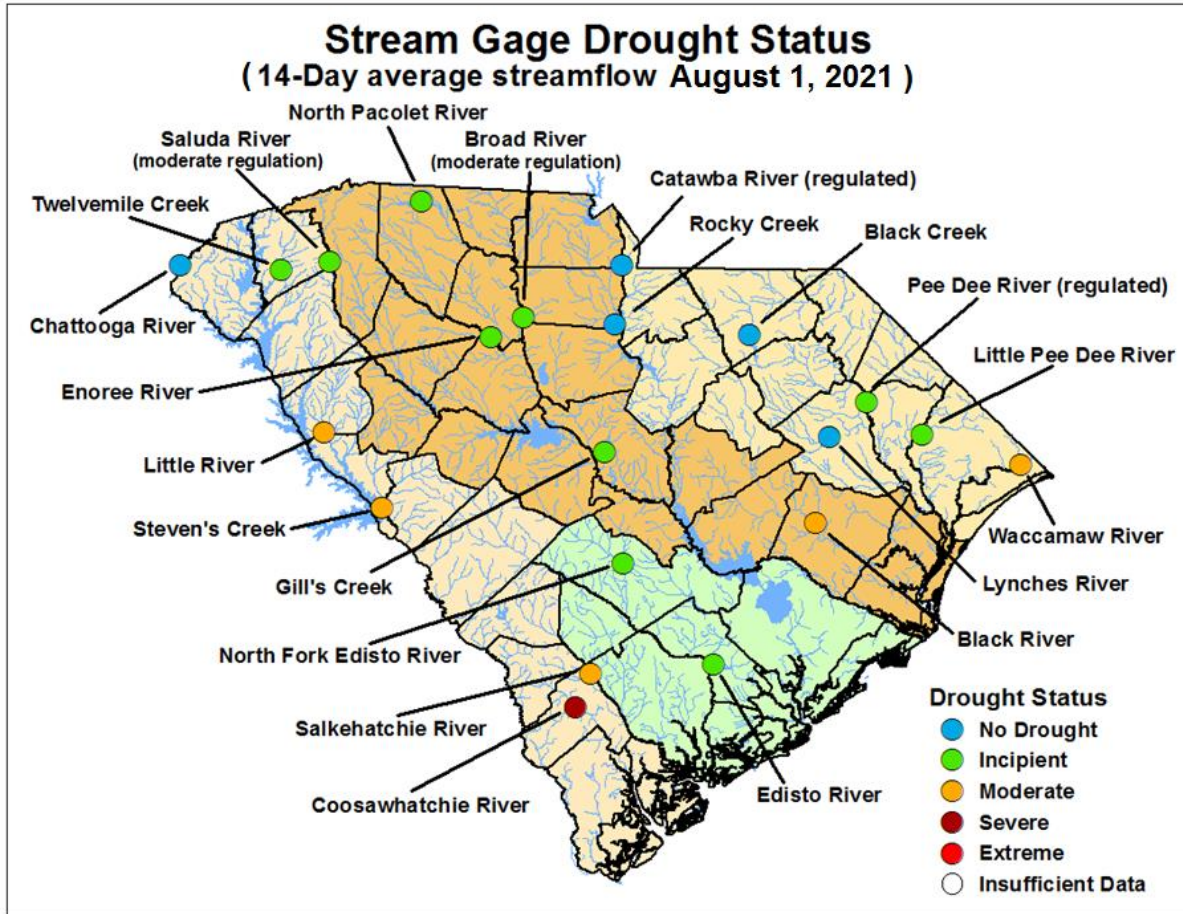


# DNR Hydrology





# Streamgage Drought Status

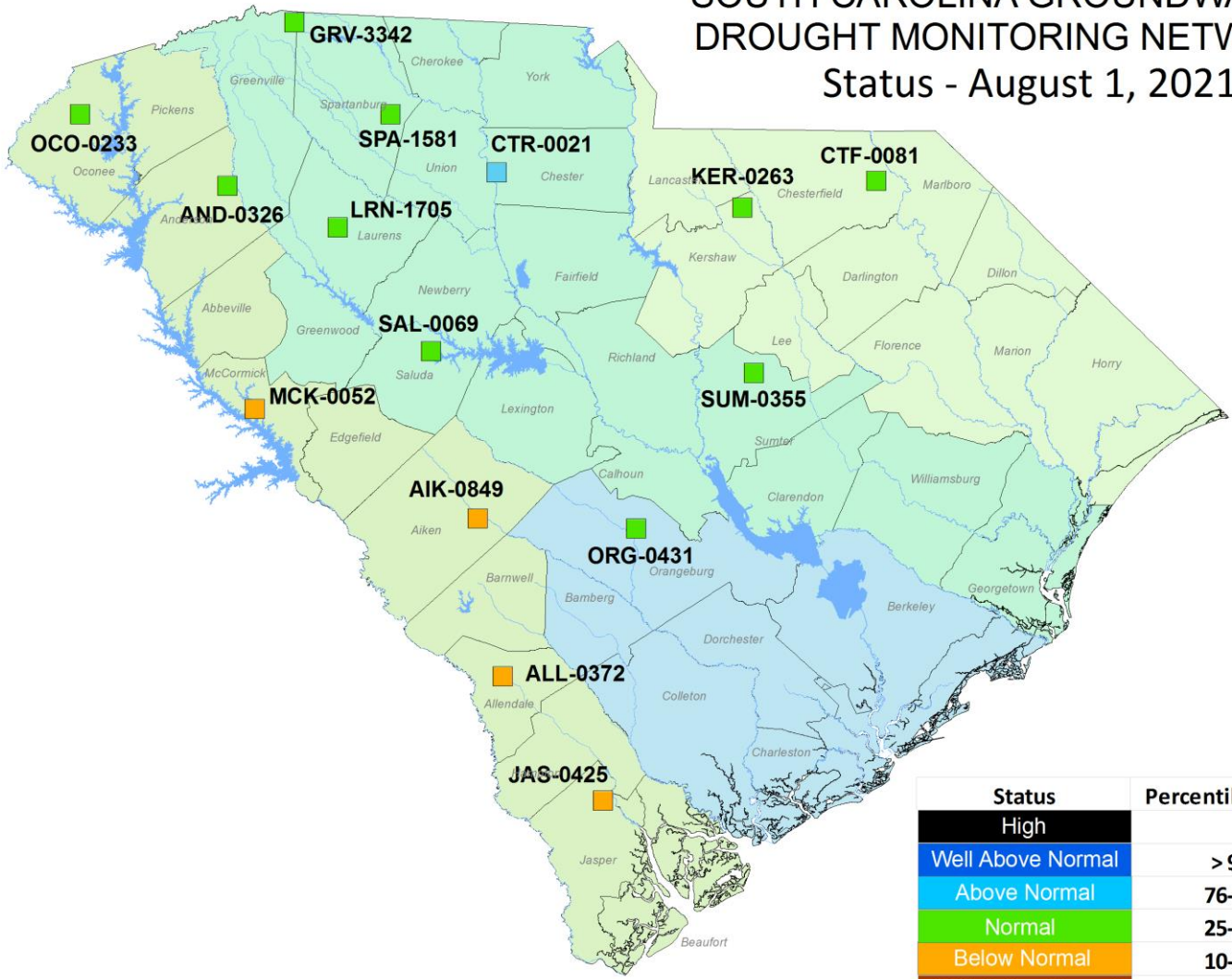


| Streamgage (08/01/2021)  | 14DAvg | 14D%              | Test 1     |
|--|--------|-------------------|------------|
| Waccamaw_Longs   | 58     | 10                | moderate   |
| PeeDee_PeeDee  | 3473   | 20                | incipient  |
| Little PeeDee_Galivants  | 506    | 15                | incipient  |
| Lynches_Effingham  | 383    | 40                | no drought |
| BlackCreek_McBee   | 128    | 35                | no drought |
| Catawba_Catawba  | 4822   | 50                | no drought |
| RockyCreek_GreatFalls  | 16.4   | 25                | no drought |
| North Pacolet_Fingerville  | 64     | 15                | incipient  |
| Enoree_Whitmire  | 317    | 20                | incipient  |
| Broad_Carlisle   | 1042   | 15                | incipient  |
| GillsCreek_Columbia  | 17     | 13                | incipient  |
| Black_Kingstree  | 240    | 10                | moderate   |
| Saluda_Greenville  | 145    | 11                | incipient  |
| Chattooga_Clayton  | 270    | 30                | no drought |
| TwelveMileCreek_Liberty  | 43     | 15                | incipient  |
| Little_MtCarmel  | 50     | 7                 | moderate   |
| StevensCreek_Modoc   | 8      | 10                | moderate   |
| Salkehatchie_Miley   | 67     | 10                | moderate   |
| Coosawhatchie_Hampton  | 2      | 5                 | severe     |
| NorthForkEdisto_Orangeburg   | 363    | 20                | incipient  |
| Edisto_Givhans   | 537    | 15                | incipient  |
|  |        | <b>no drought</b> | <b>5</b>   |
|  |        | <b>incipient</b>  | <b>10</b>  |
|  |        | <b>moderate</b>   | <b>5</b>   |
|  |        | <b>severe</b>     | <b>1</b>   |
|  |        | <b>extreme</b>    | <b>0</b>   |
| <b>Drought Status based on comparing 14 day average flows to historical values</b> |        |                   |            |
|  |        | 20th-10th         | incipient  |
|  |        | 10th-5th          | moderate   |
|  |        | 5th-2nd           | severe     |
|  |        | <2                | extreme    |

1. Moderate Drought Statewide

July – August 2021

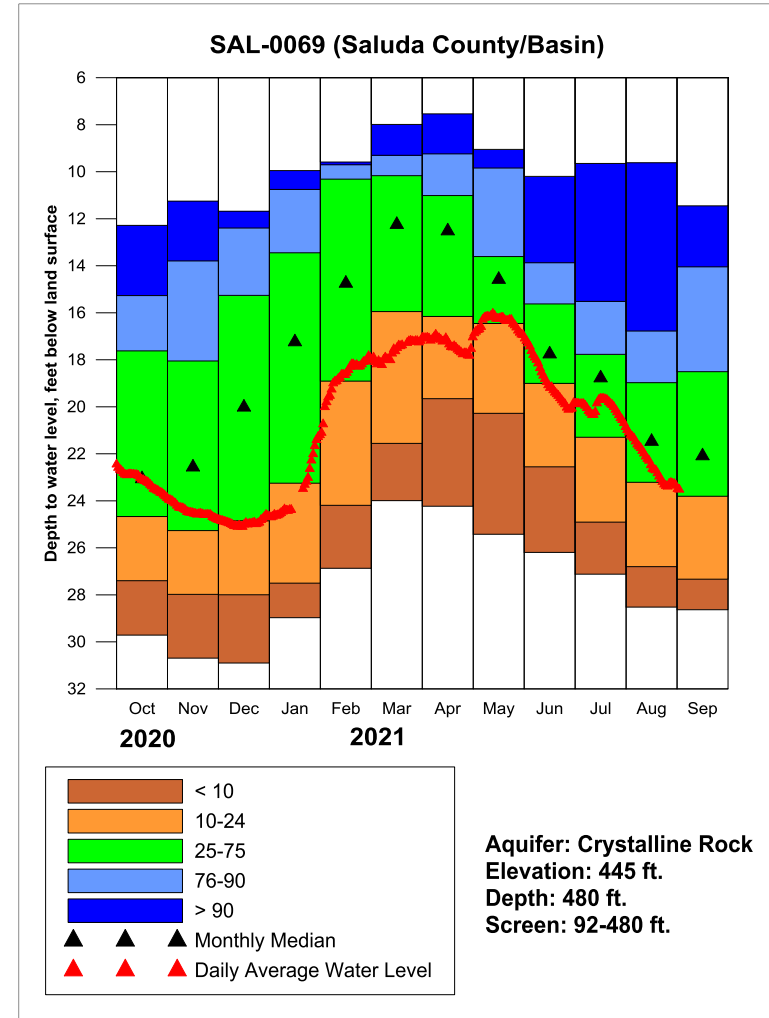
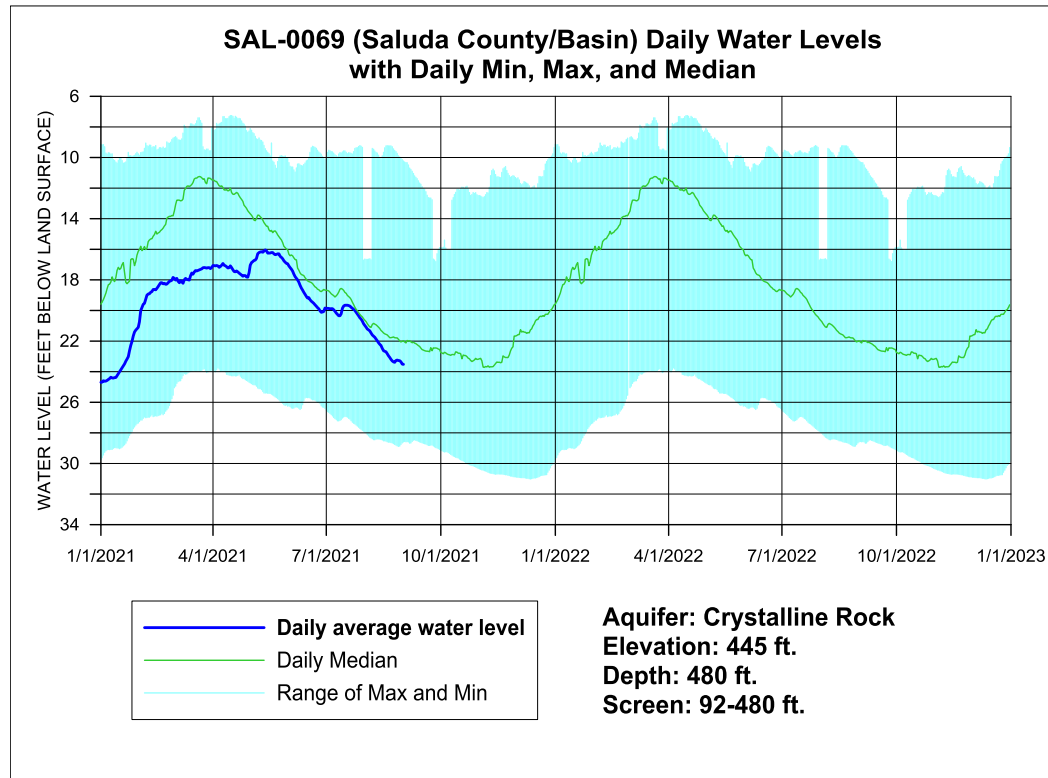
# SOUTH CAROLINA GROUNDWATER- DROUGHT MONITORING NETWORK Status - August 1, 2021



1. Moderate Drought Statewide

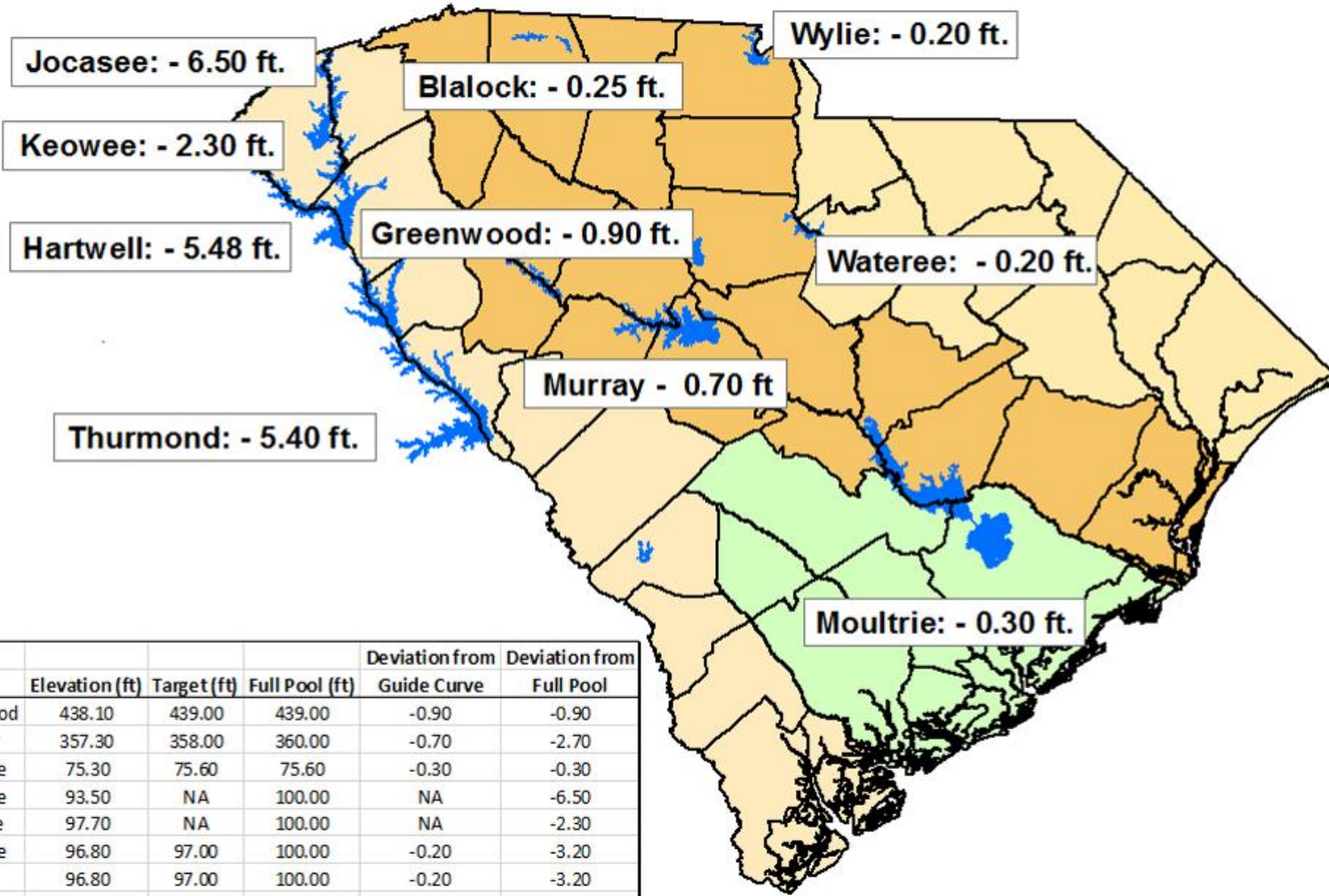
July – August 2021

# Saluda County/Basin Groundwater Levels



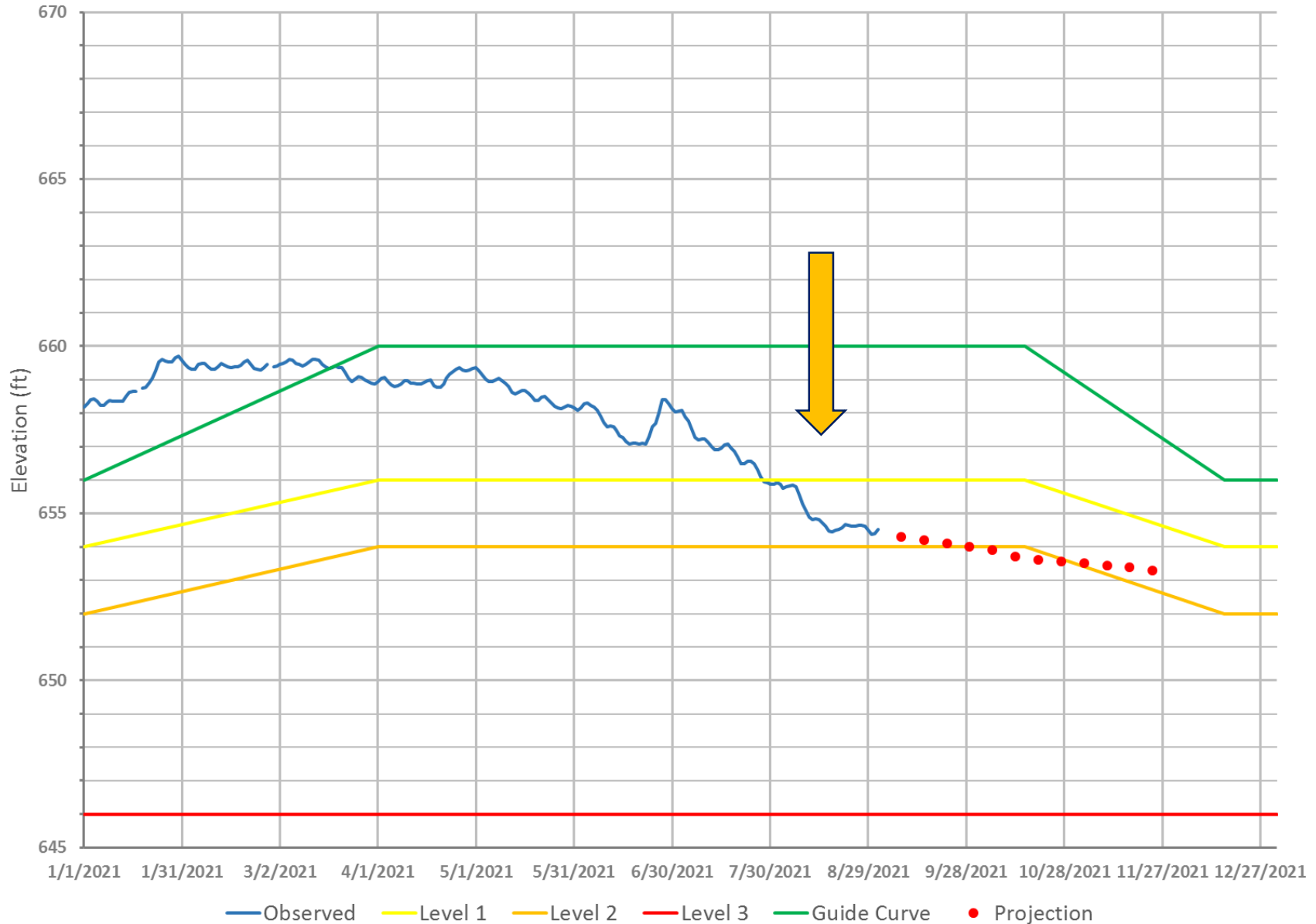
# Lake Level Deficit/Surplus on August 1, 2021

(Deficit/surplus values are referenced to guide curves, except Jocassee and Keowee which are referenced to full pool)



| Lake      | Elevation (ft) | Target (ft) | Full Pool (ft) | Deviation from Guide Curve | Deviation from Full Pool |
|-----------|----------------|-------------|----------------|----------------------------|--------------------------|
| Greenwood | 438.10         | 439.00      | 439.00         | -0.90                      | -0.90                    |
| Murray    | 357.30         | 358.00      | 360.00         | -0.70                      | -2.70                    |
| Moultrie  | 75.30          | 75.60       | 75.60          | -0.30                      | -0.30                    |
| Jocassee  | 93.50          | NA          | 100.00         | NA                         | -6.50                    |
| Keowee    | 97.70          | NA          | 100.00         | NA                         | -2.30                    |
| Wateree   | 96.80          | 97.00       | 100.00         | -0.20                      | -3.20                    |
| Wylie     | 96.80          | 97.00       | 100.00         | -0.20                      | -3.20                    |
| Hartwell  | 654.52         | 660.00      | 660.00         | -5.48                      | -5.48                    |
| Thurmond  | 324.60         | 330.00      | 330.00         | -5.40                      | -5.40                    |
| Blalock   | 709.75         | 710.00      | 710.00         | -0.25                      | -0.25                    |

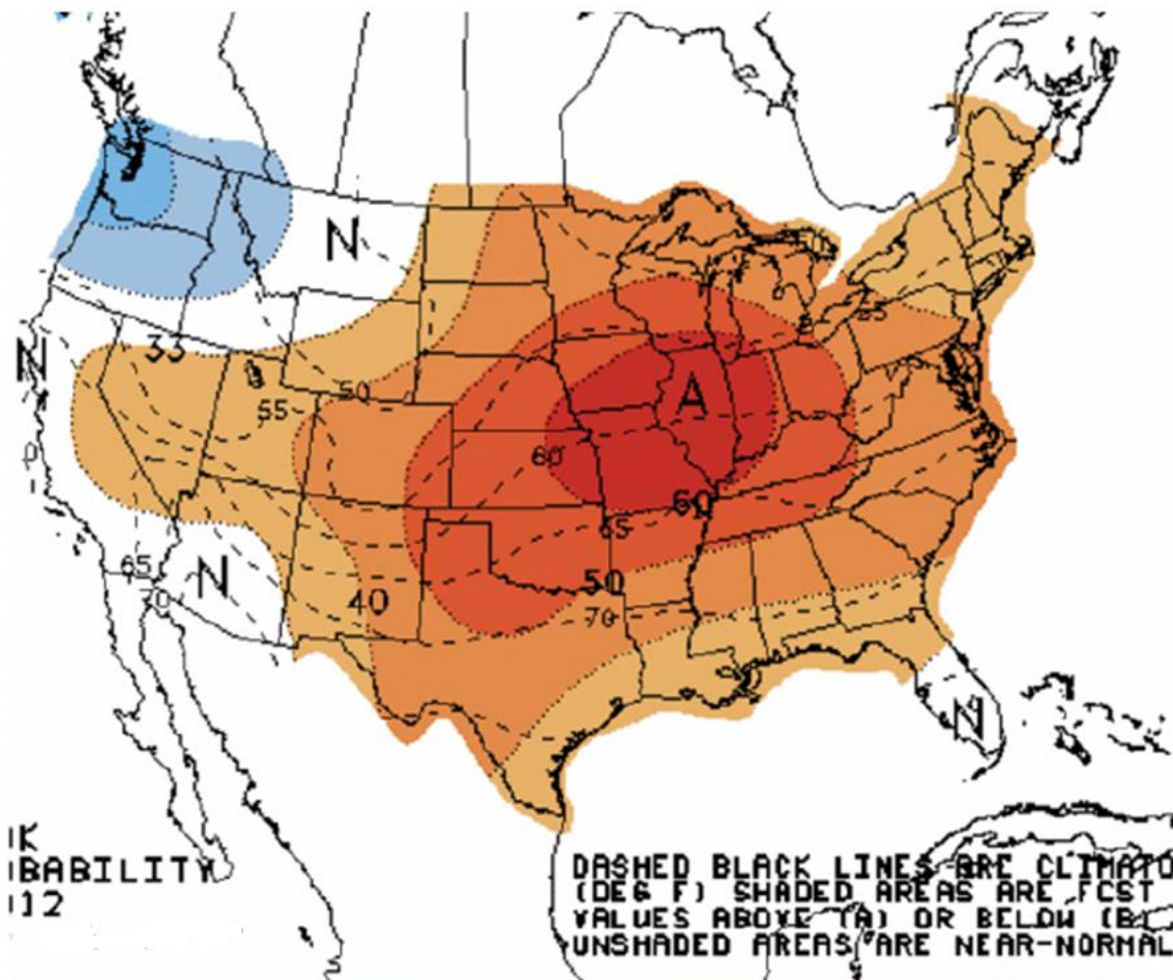
# Lake Hartwell Projections



1. Moderate Drought Statewide

July – August 2021

# Temperature



LIK  
PROBABILITY  
112

DASHED BLACK LINES ARE CLIMATE  
(DEG F) SHADED AREAS ARE FCST  
VALUES ABOVE (A) OR BELOW (B)  
UNSHADED AREAS ARE NEAR-NORMAL

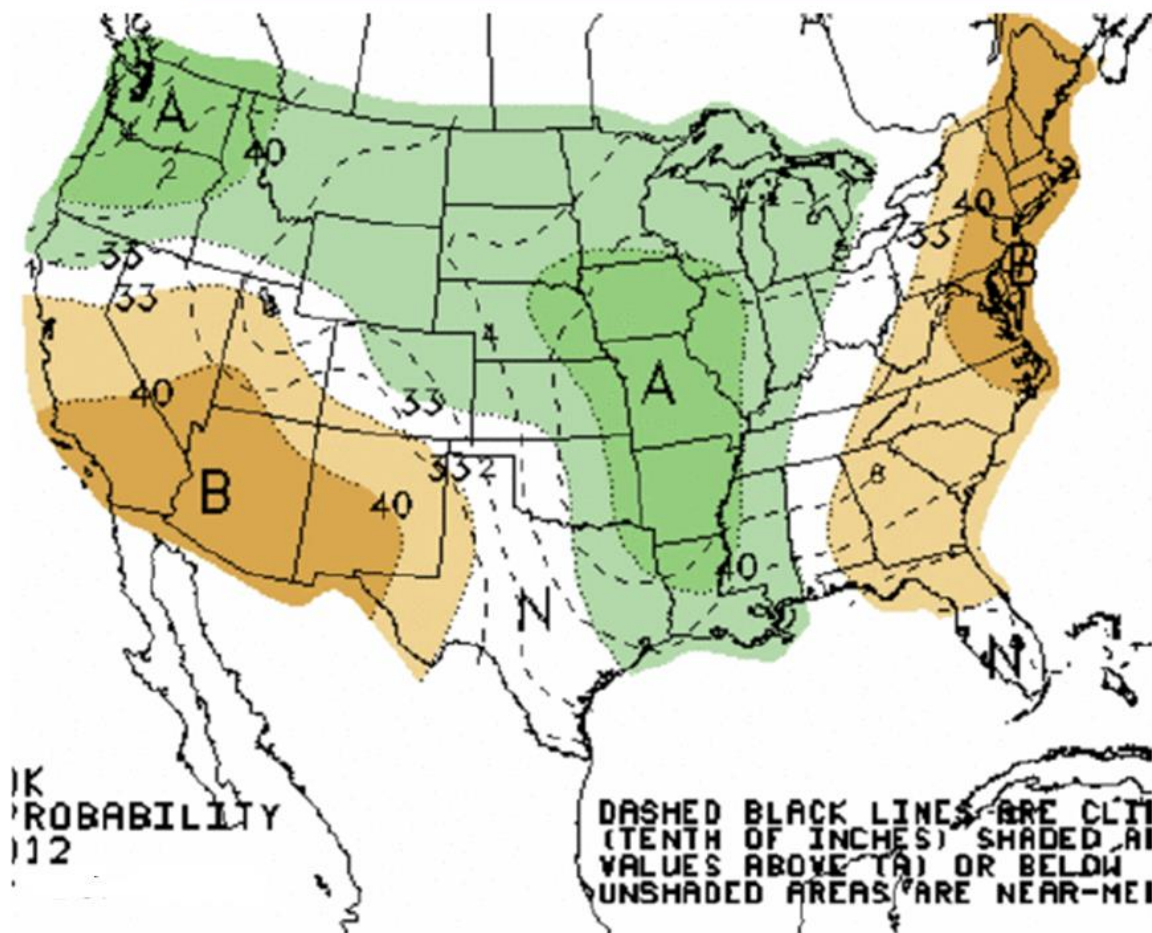


60% 50% 40% 33% 33% 40% 50% 60% 70% 80%

Probability of Below Normal Probability of Above

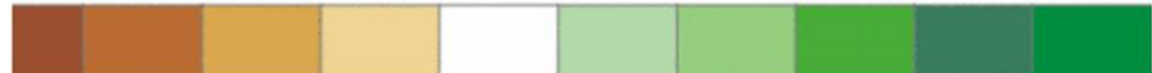
1. Moderate Drought Statewide

# Precipitation



LIK  
PROBABILITY  
112

DASHED BLACK LINES ARE CLIMATE  
(TENTH OF INCHES) SHADED AREAS  
VALUES ABOVE (A) OR BELOW (B)  
UNSHADED AREAS ARE NEAR-NORMAL

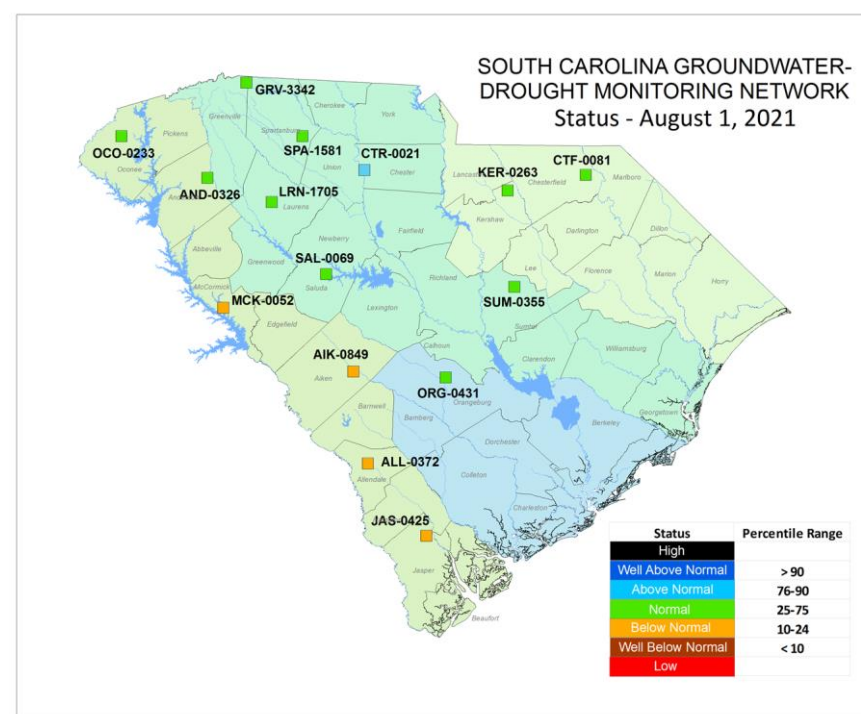
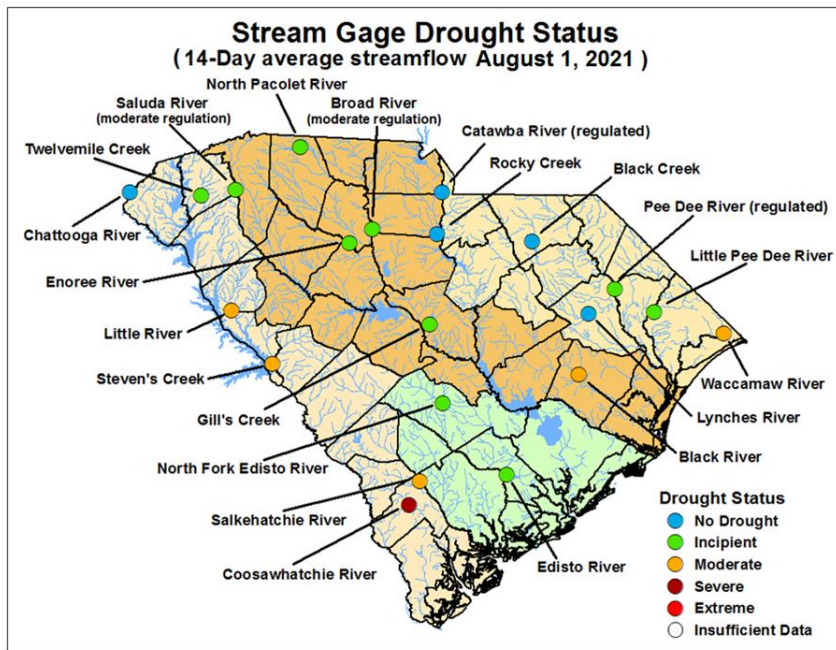
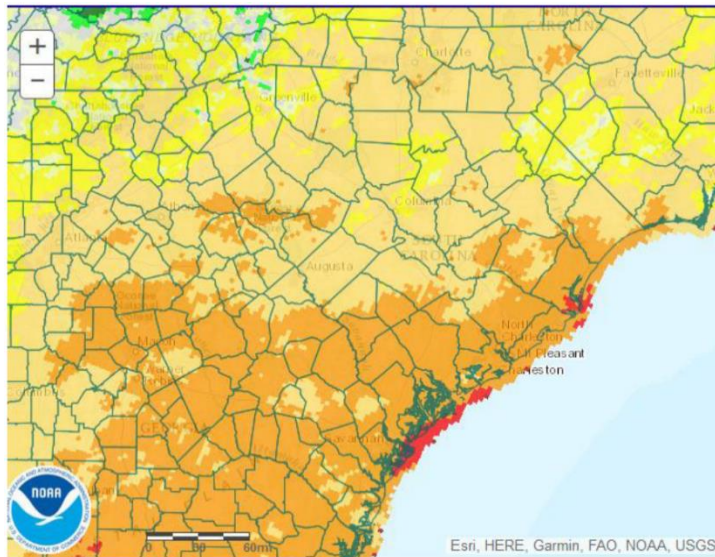


60% 50% 40% 33% 33% 40% 50% 60% 70% 80%

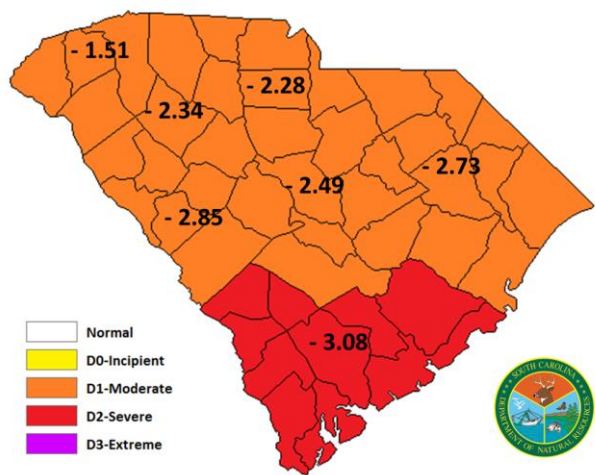
Probability of Below Normal Probability of Above

July - August 2021

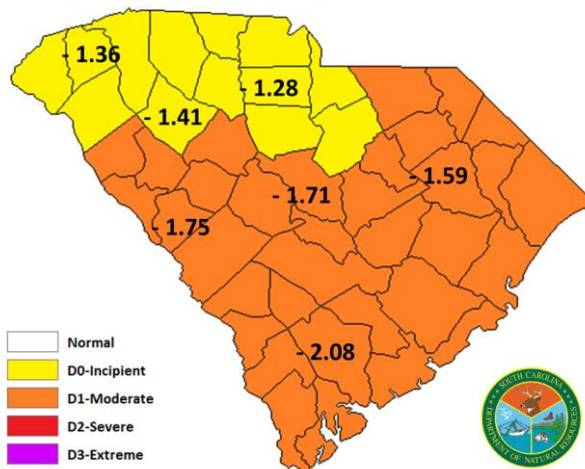
# 60-Day Departure from Normal Rainfall



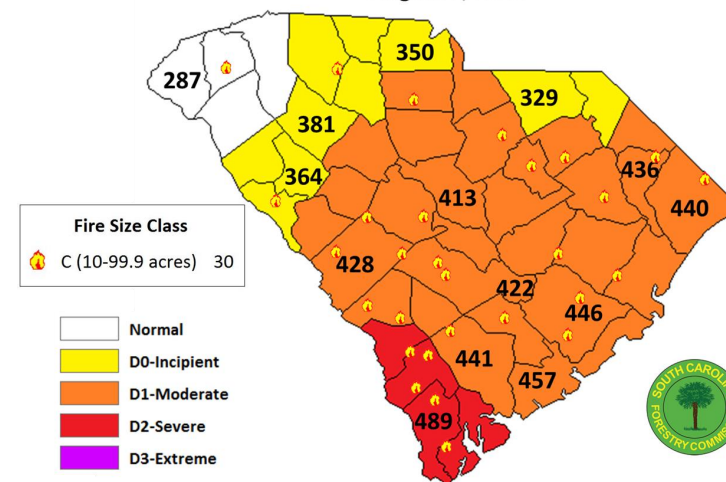
**PALMER DROUGHT SEVERITY INDEX**  
Week ending August 1, 2021



**CROP MOISTURE INDEX**  
Week ending August 1, 2021

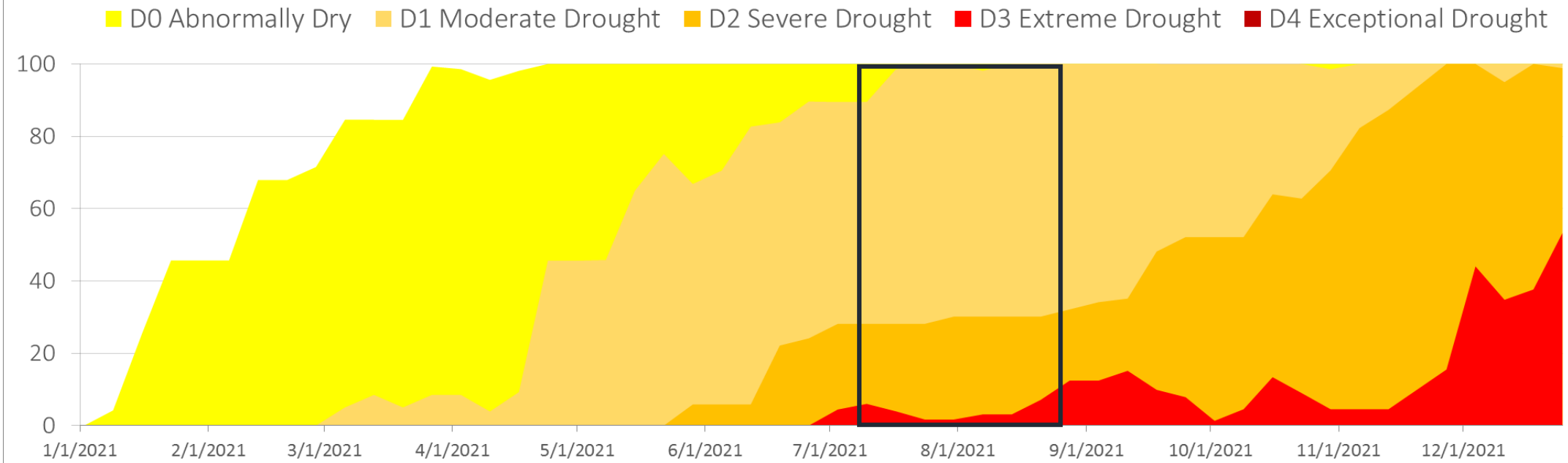


**KEETCH-BYRAM DROUGHT INDEX**  
August 1, 2021



# Impacts:

## South Carolina Percent Drought Area (U.S. Drought Monitor) Scenario Time Point 1: Moderate Drought Statewide (Jul-Aug 2021)



|  |  |  |  |   |   |  |  |  |
|--|--|--|--|---|---|--|--|--|
| <p>La Nina contributes to lack of rain during winter-spring.</p> | <p>Abnormally high temps, increased evaporation contribute to 'flash drought' situation; water demands and use increase.</p> | <p>Most streams are at some stage of drought, concerns about declining trend toward extreme levels and potential effects on water quality.</p> | <p>Reservoir managers reduce releases from lakes to maintain storage; some lakes are below target level.</p> | <p>Some water systems request voluntary conservation.</p> | <p>Increased wildfire danger, higher than normal activity, on average &gt;30 Class C (10-99 acres) wildfires per day. Concerns about negligent burning and seedling survival.</p> | <p>Red Flag Fire Alerts and Burning Bans are issued.</p> | <p>Crops are withering, low soil moisture, lower-than-normal yields expected, areas with irrigation using earlier than normal.</p> | <p>Steady decline in GW monitoring wells; some reports of private wells going dry.</p> |
|--|--|--|--|---|---|--|--|--|



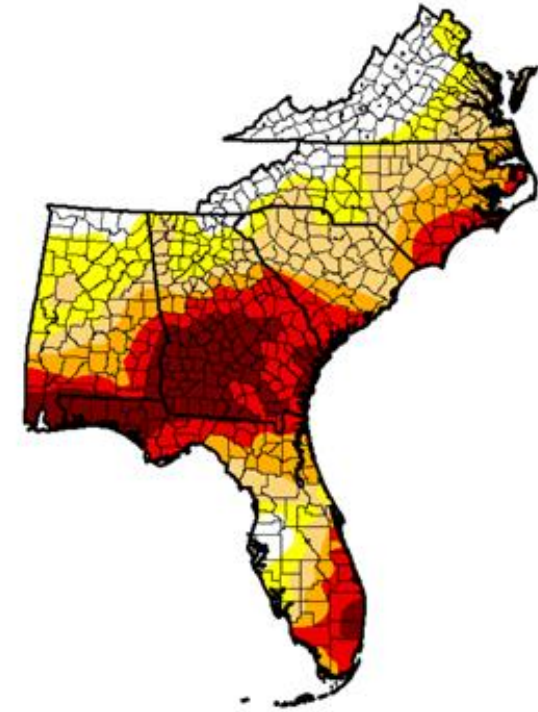
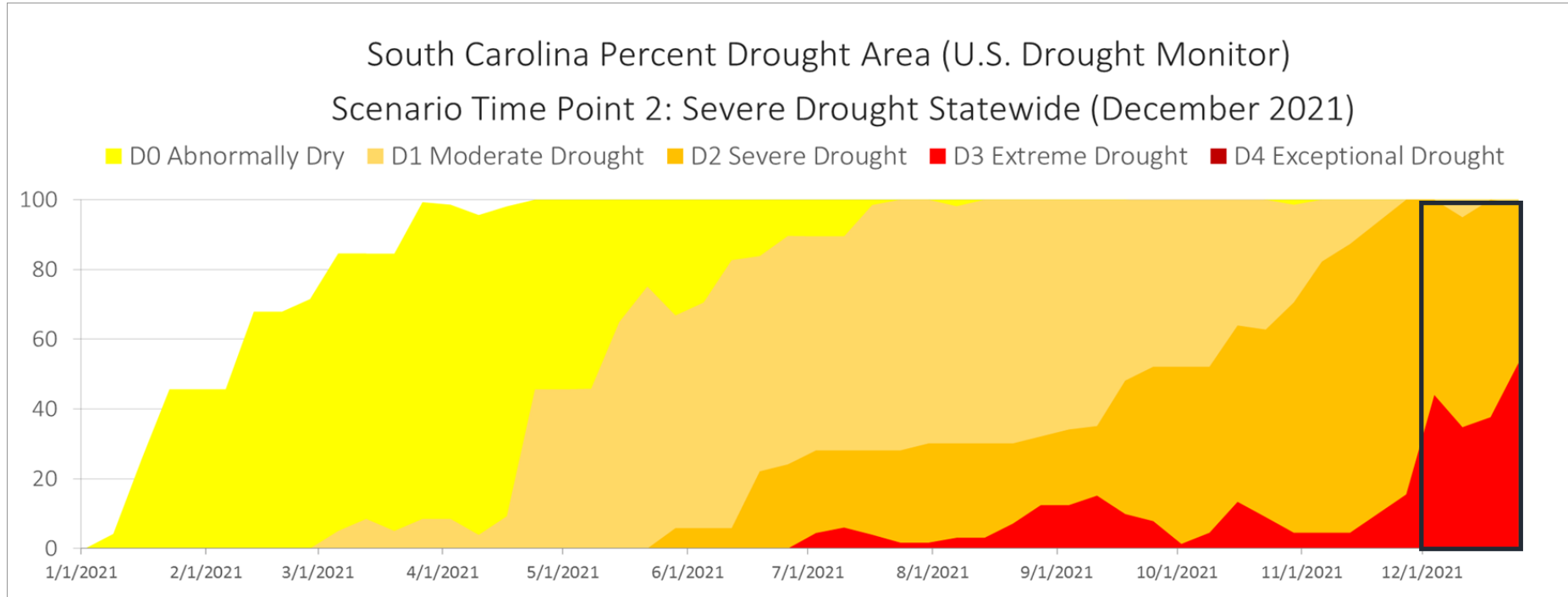
# Scenario Time Point 2

Severe Drought Statewide

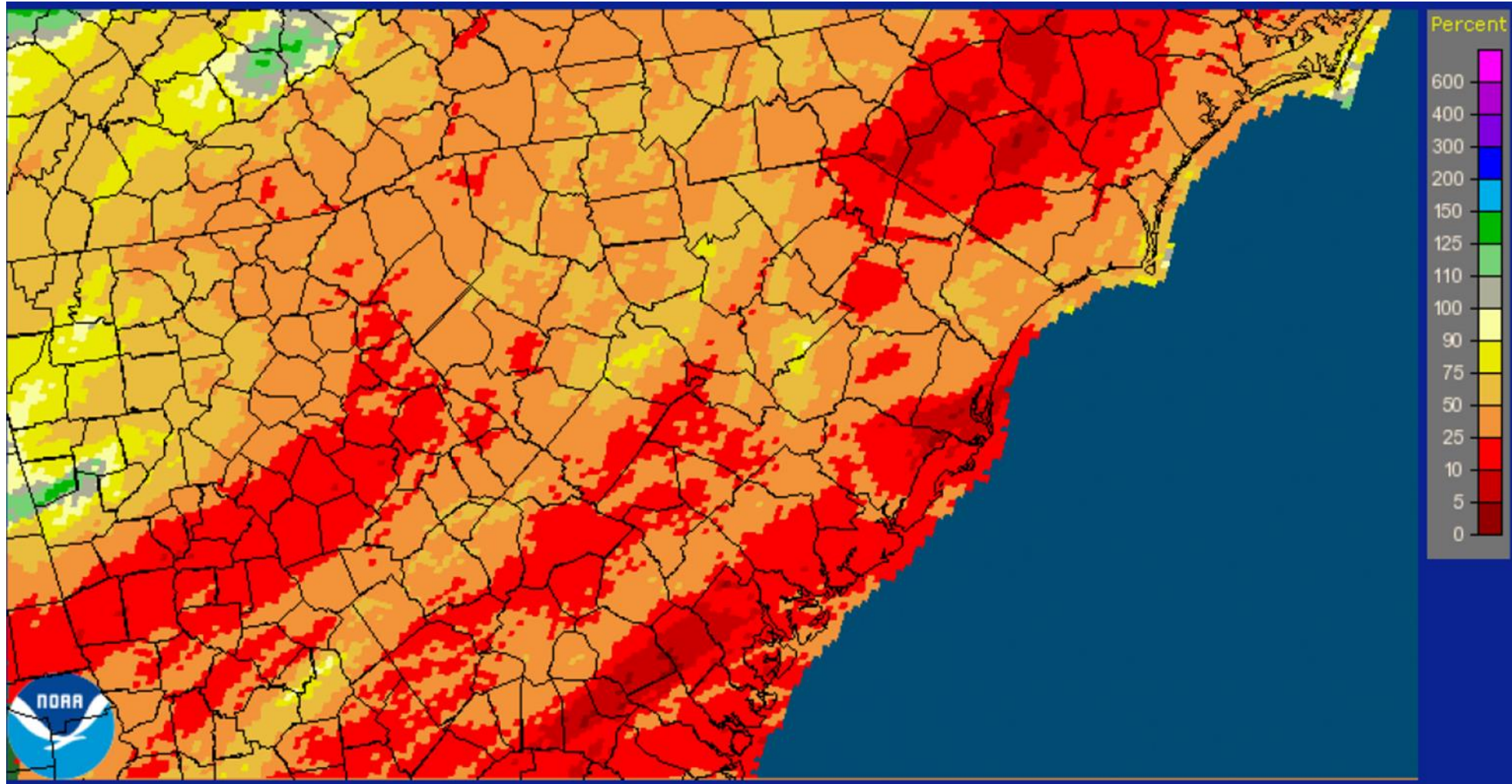
December 2021

## Severe Drought – Indicators and Triggers

- Precipitation: departure from normal
- PDSI: -3.00 to -3.99
- CMI: -3.00 to -3.99
- SPI: -1.50 to -1.99
- KBDI: 500 to 699
- USDM: D2
- Streamflow
- Lake levels
- Groundwater
- Outlooks

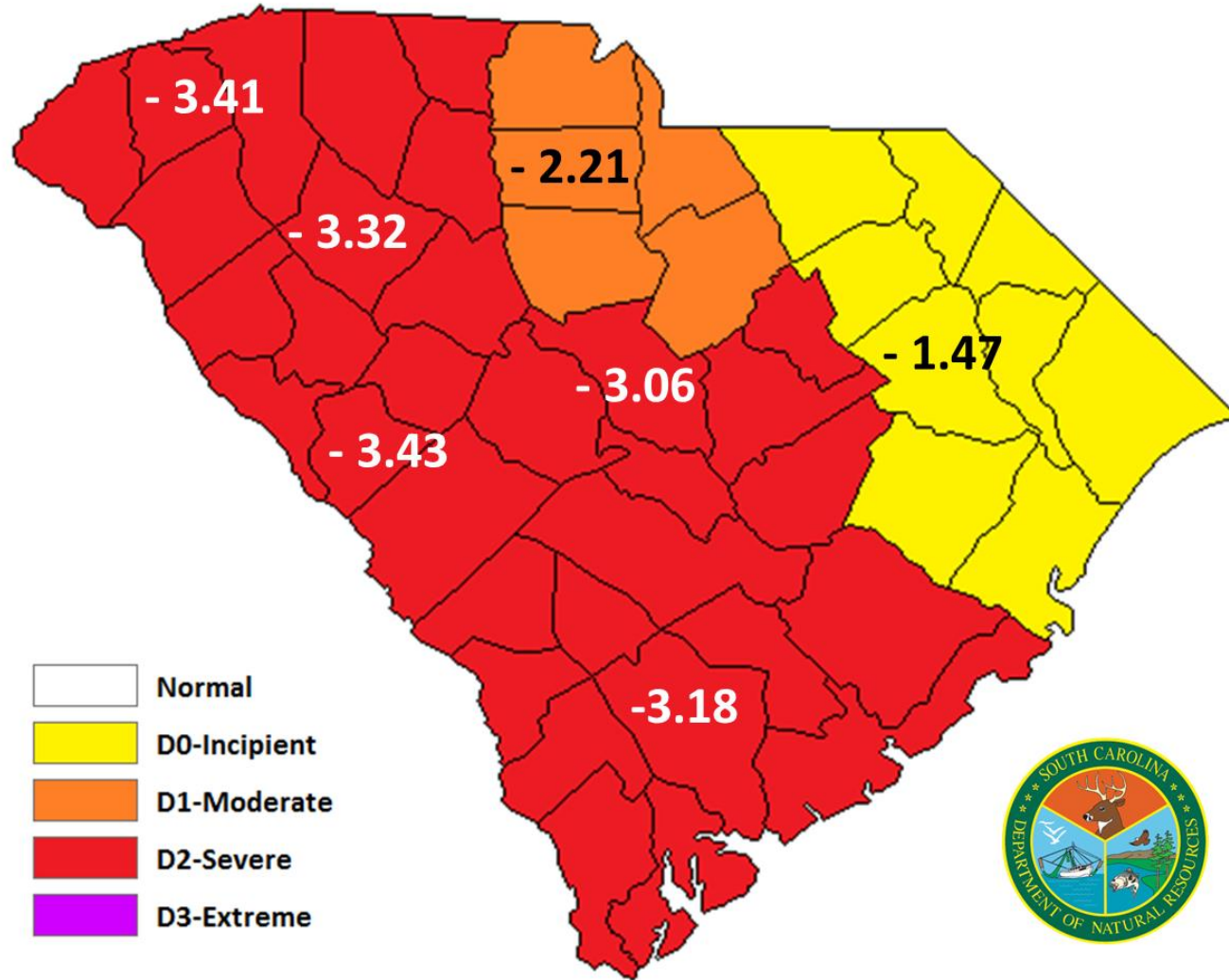


# 60-Day Departure from Normal Rainfall



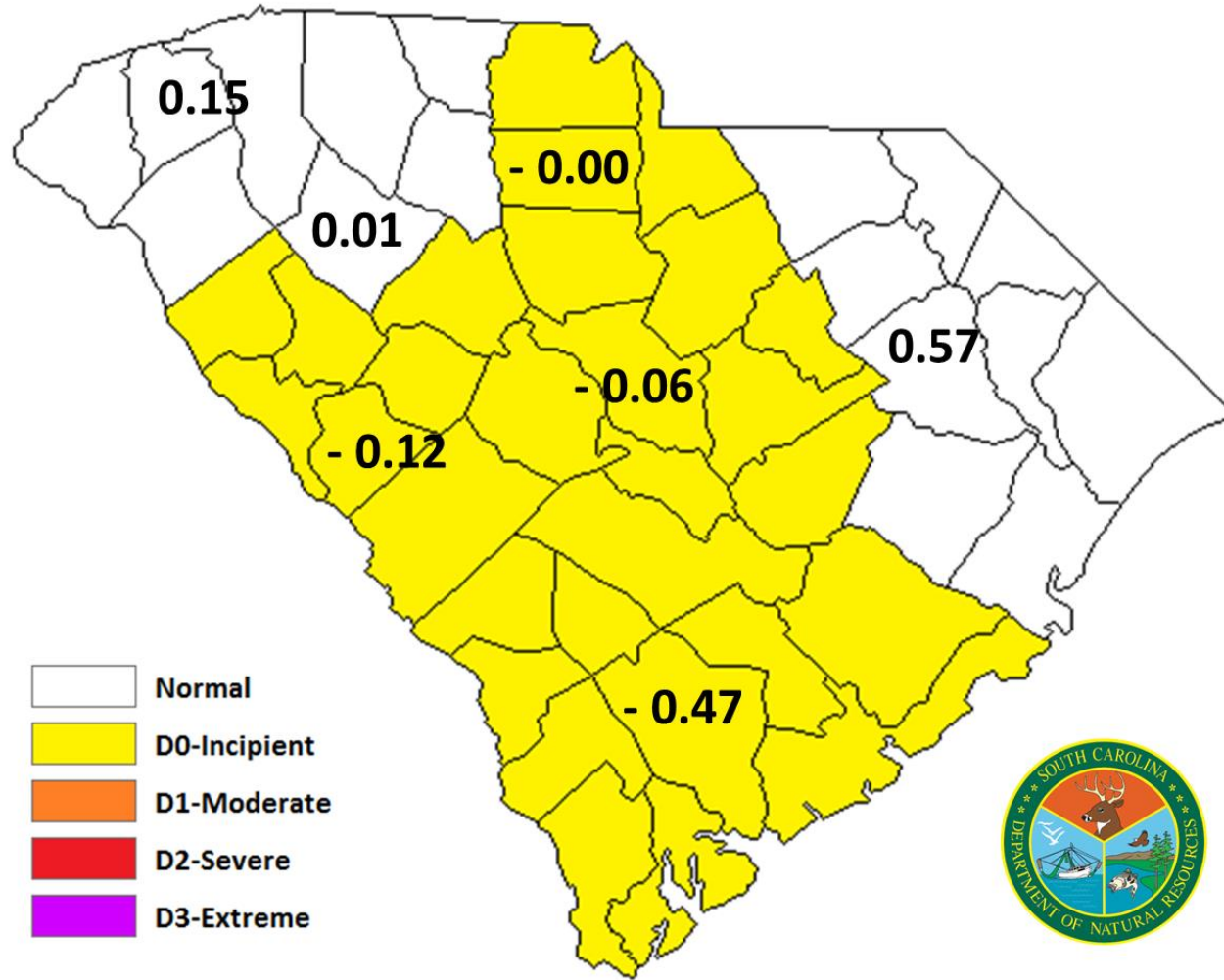
# PALMER DROUGHT SEVERITY INDEX

## Week ending December 5, 2021



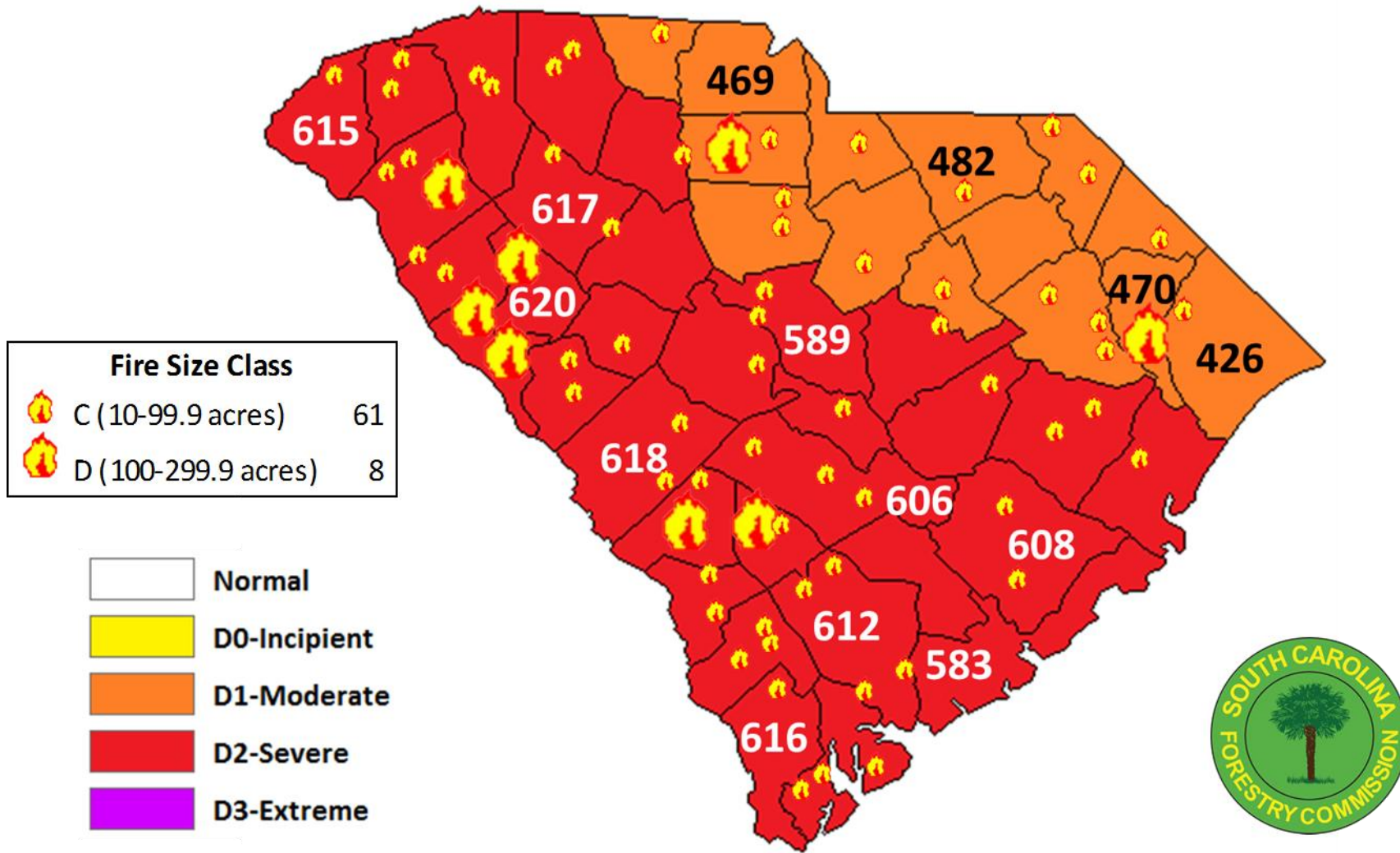
# CROP MOISTURE INDEX

## Week ending December 5, 2021



# KEETCH-BYRAM DROUGHT INDEX

December 5, 2021

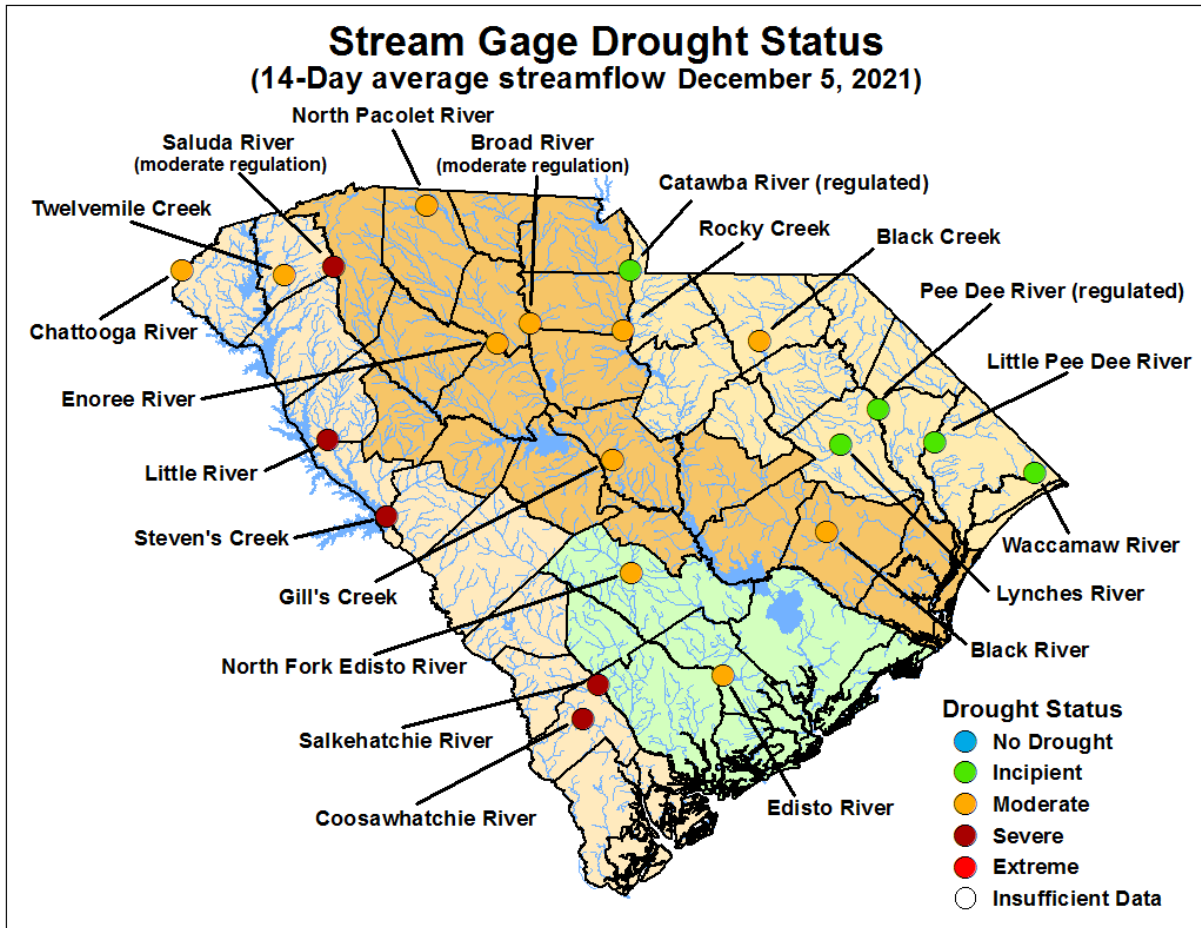


# DNR Hydrology





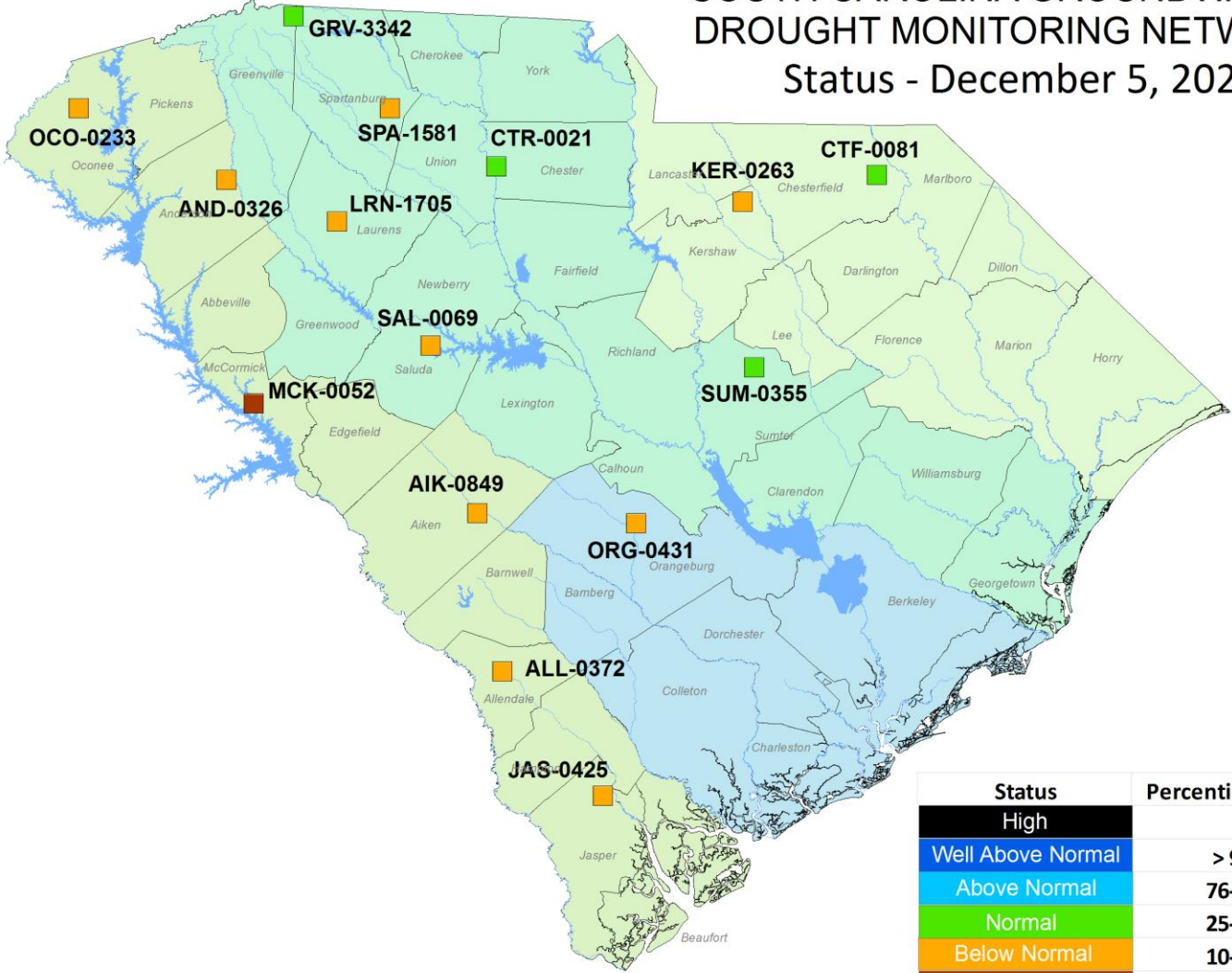
# Streamgage Drought Status



| Streamgage (12/05/2021)                   | 14DAvg | 14D%      | Test 1            |           |
|---|--------|-----------|-------------------|-----------|
| Waccamaw_Longs                            | 83     | 15        | incipient         |           |
| PeeDee_PeeDee                             | 3109   | 15        | incipient         |           |
| Little PeeDee_Galivants                   | 545    | 18        | incipient         |           |
| Lynches_Effingham                         | 221    | 15        | incipient         |           |
| BlackCreek_McBee                          | 93     | 10        | moderate          |           |
| Catawba_Catawba                           | 1790   | 20        | incipient         |           |
| RockyCreek_GreatFalls                     | 5.3    | 10        | moderate          |           |
| North Pacolet_Fingerville                 | 51     | 10        | moderate          |           |
| Enoree_Whitmire                           | 239    | 10        | moderate          |           |
| Broad_Carlisle                            | 790    | 9         | moderate          |           |
| GillsCreek_Columbia                       | 13     | 7         | moderate          |           |
| Black_Kingstree                           | 200    | 8         | moderate          |           |
| Saluda_Greenville                         | 115    | 5         | severe            |           |
| Chattooga_Clayton                         | 182    | 10        | moderate          |           |
| TwelveMileCreek_Liberty                   | 35     | 8         | moderate          |           |
| Little_MtCarmel                           | 41     | 5         | severe            |           |
| StevensCreek_Modoc                        | 5      | 5         | severe            |           |
| Salkehatchie_Miley                        | 52     | 5         | severe            |           |
| Coosawhatchie_Hampton                     | 1      | 4         | severe            |           |
| NorthForkEdisto_Orangeburg                | 273    | 10        | moderate          |           |
| Edisto_Givhans                            | 440    | 8         | moderate          |           |
|   |        |           | <b>no drought</b> | <b>0</b>  |
|   |        |           | <b>incipient</b>  | <b>5</b>  |
|   |        |           | <b>moderate</b>   | <b>11</b> |
|   |        |           | <b>severe</b>     | <b>5</b>  |
|   |        |           | <b>extreme</b>    | <b>0</b>  |
| <b>Drought Status based on comparing</b>  |        |           |                   |           |
| <b>14 day average flows to historical</b> |        |           |                   |           |
| <b>values</b>                             |        |           |                   |           |
|   |        | 20th-10th | incipient         |           |
|   |        | 10th-5th  | moderate          |           |
|   |        | 5th-2nd   | severe            |           |
|   |        | <2        | extreme           |           |

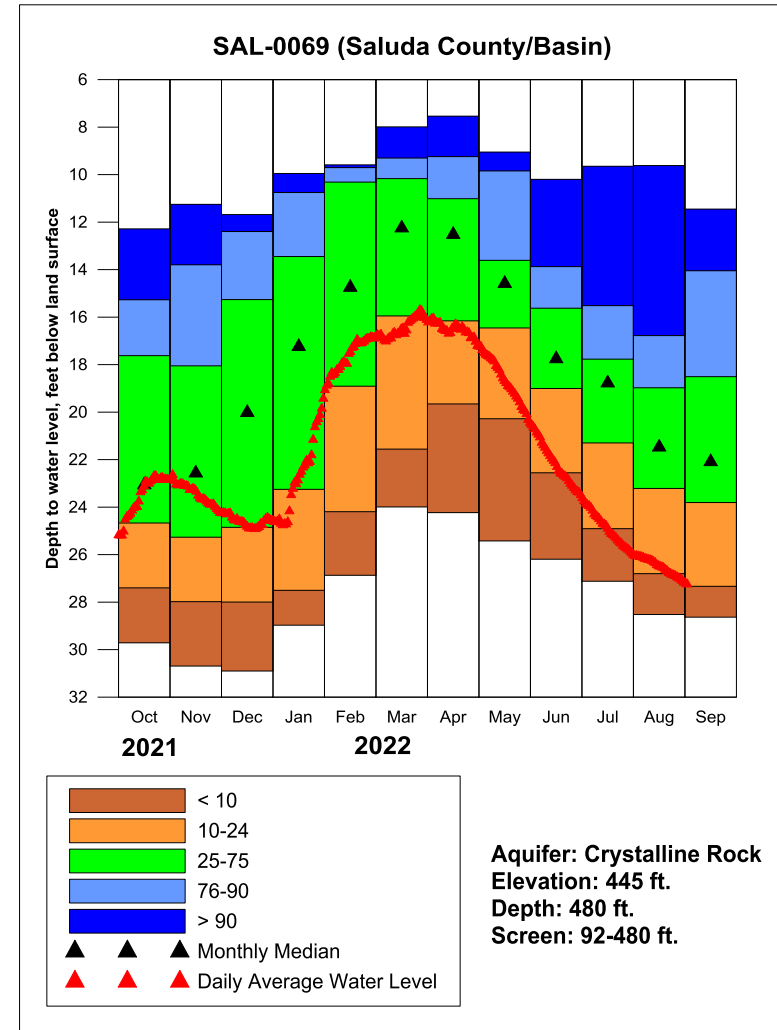
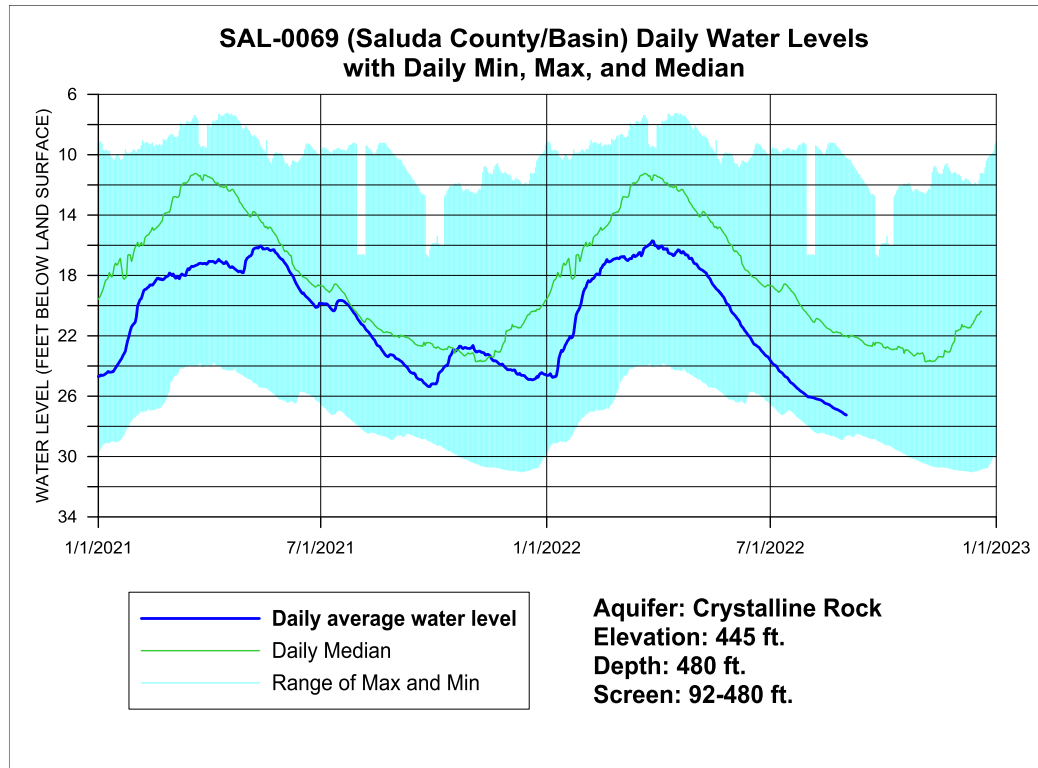
# SOUTH CAROLINA GROUNDWATER-DROUGHT MONITORING NETWORK

Status - December 5, 2021



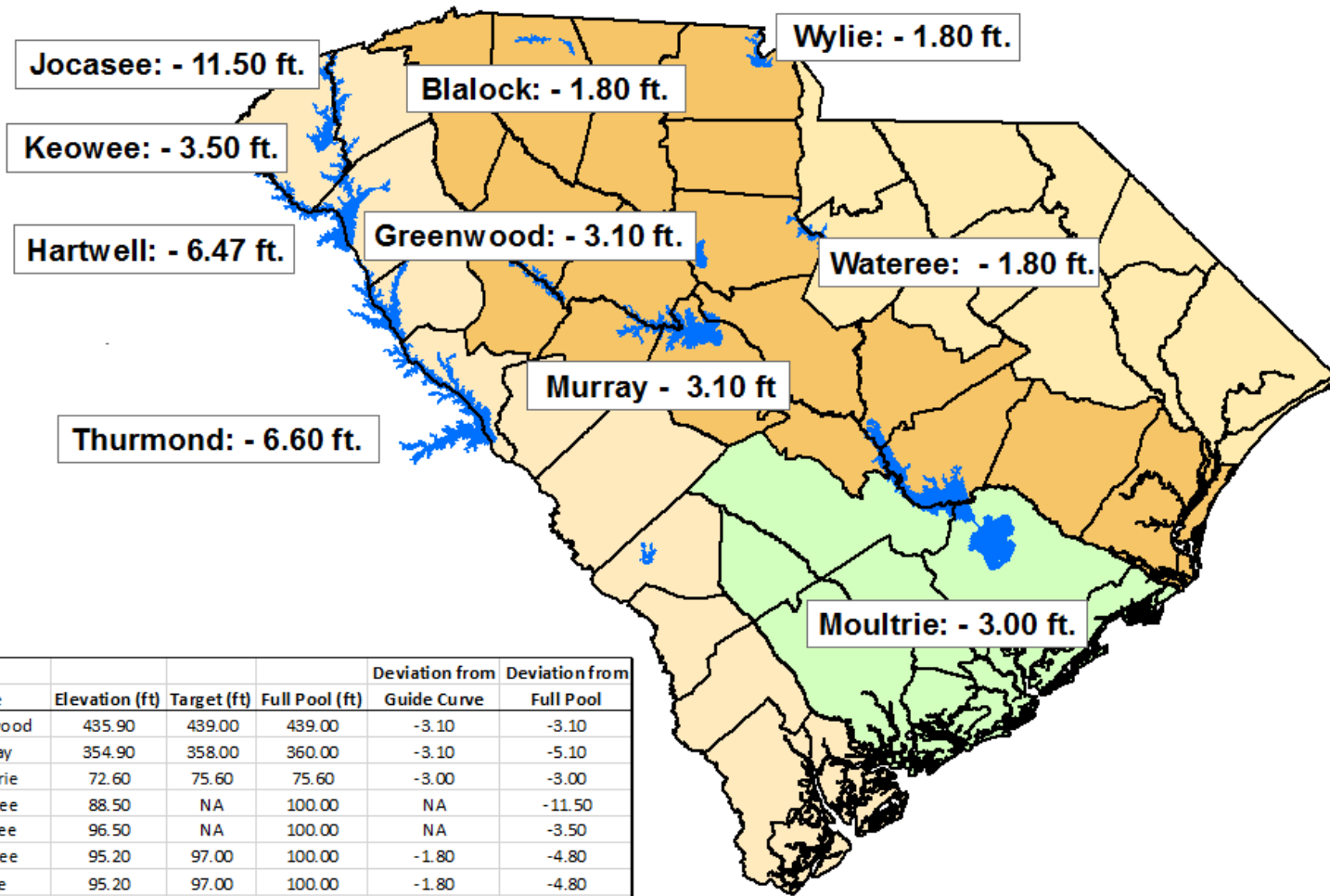
| Status            | Percentile Range |
|-------------------|------------------|
| High              |                  |
| Well Above Normal | > 90             |
| Above Normal      | 76-90            |
| Normal            | 25-75            |
| Below Normal      | 10-24            |
| Well Below Normal | < 10             |
| Low               |                  |

# Saluda County/Basin Groundwater Levels



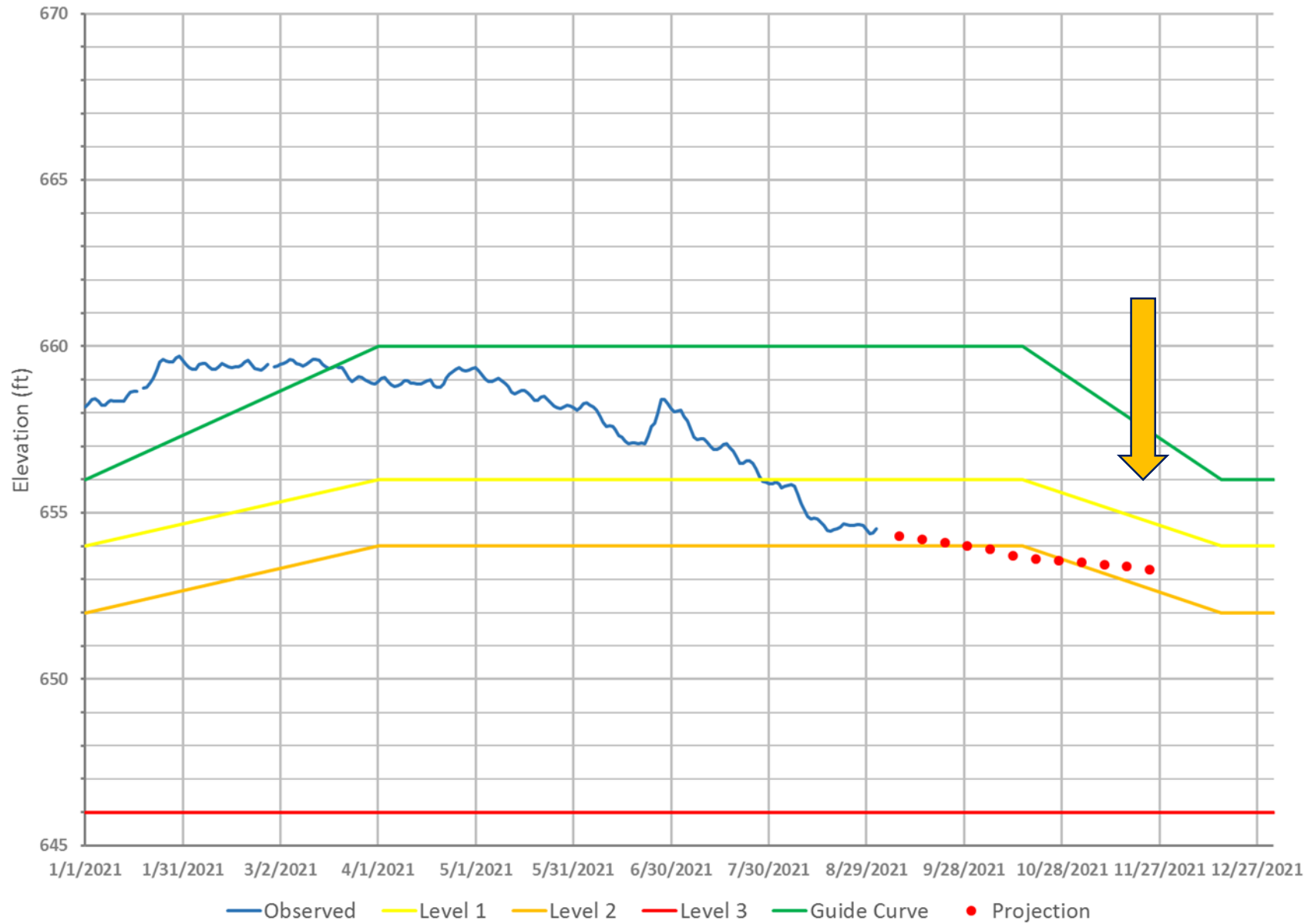
## Lake Level Deficit/Surplus on December 5, 2021

(Deficit/surplus values are referenced to guide curves, except Jocassee and Keowee which are referenced to full pool)



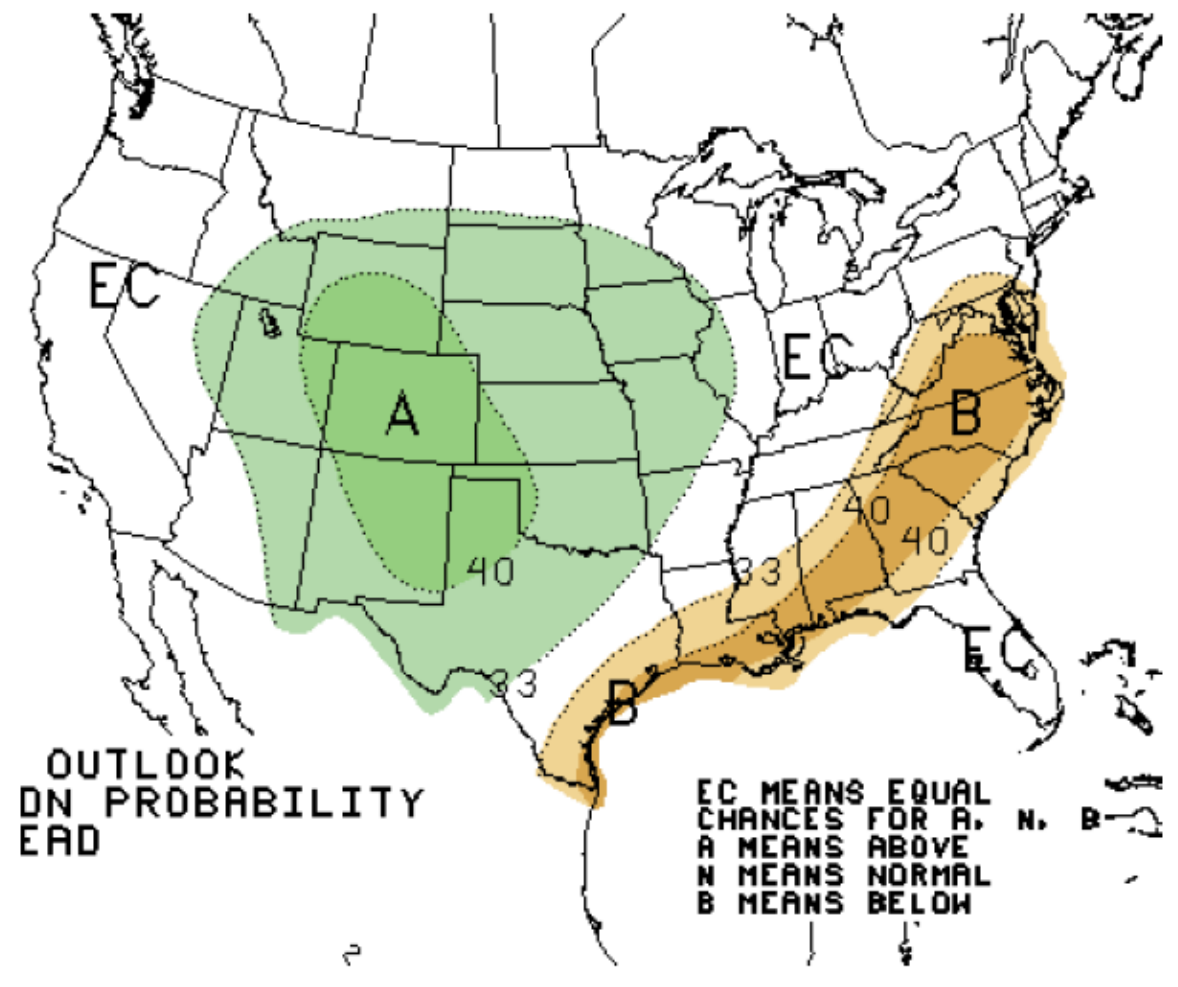
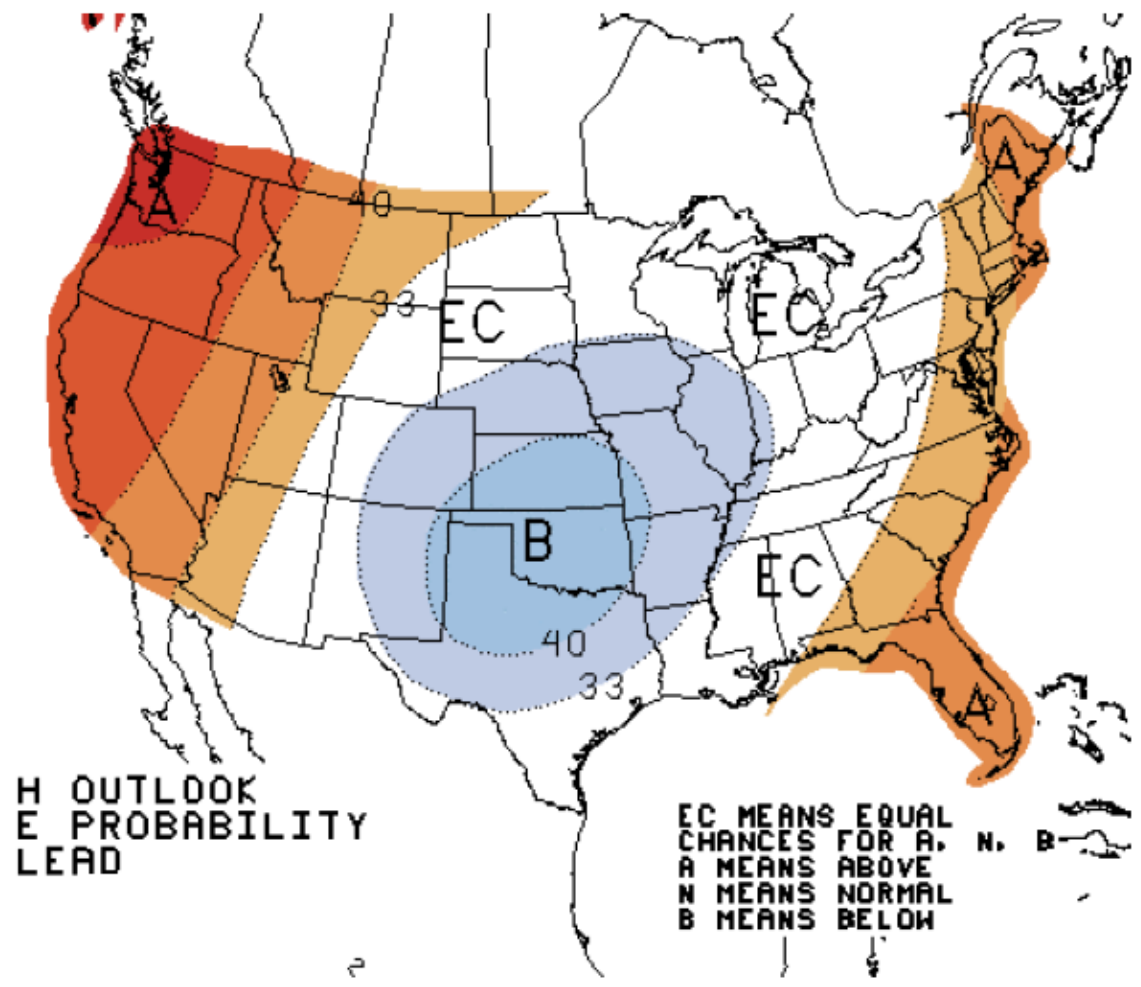
| Lake      | Elevation (ft) | Target (ft) | Full Pool (ft) | Deviation from Guide Curve | Deviation from Full Pool |
|-----------|----------------|-------------|----------------|----------------------------|--------------------------|
| Greenwood | 435.90         | 439.00      | 439.00         | -3.10                      | -3.10                    |
| Murray    | 354.90         | 358.00      | 360.00         | -3.10                      | -5.10                    |
| Moultrie  | 72.60          | 75.60       | 75.60          | -3.00                      | -3.00                    |
| Jocassee  | 88.50          | NA          | 100.00         | NA                         | -11.50                   |
| Keowee    | 96.50          | NA          | 100.00         | NA                         | -3.50                    |
| Waterree  | 95.20          | 97.00       | 100.00         | -1.80                      | -4.80                    |
| Wylie     | 95.20          | 97.00       | 100.00         | -1.80                      | -4.80                    |
| Hartwell  | 653.53         | 660.00      | 660.00         | -6.47                      | -6.47                    |
| Thurmond  | 323.40         | 330.00      | 330.00         | -6.60                      | -6.60                    |
| Blalock   | 708.20         | 710.00      | 710.00         | -1.80                      | -1.80                    |

### Lake Hartwell Projections

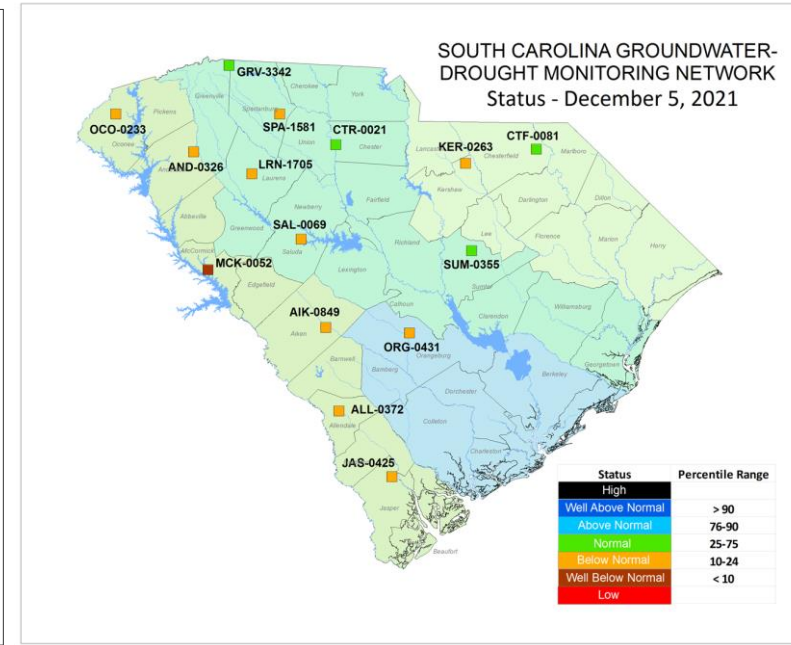
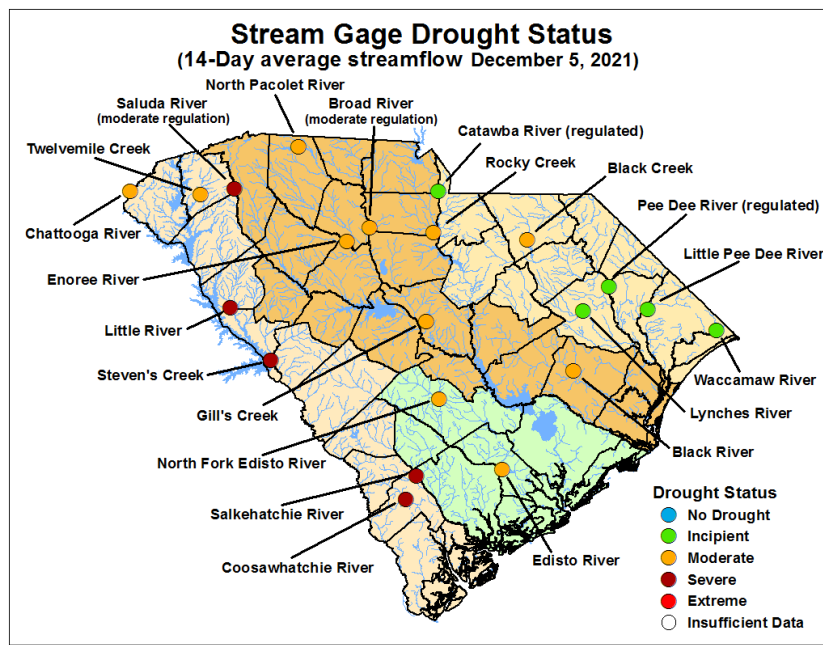
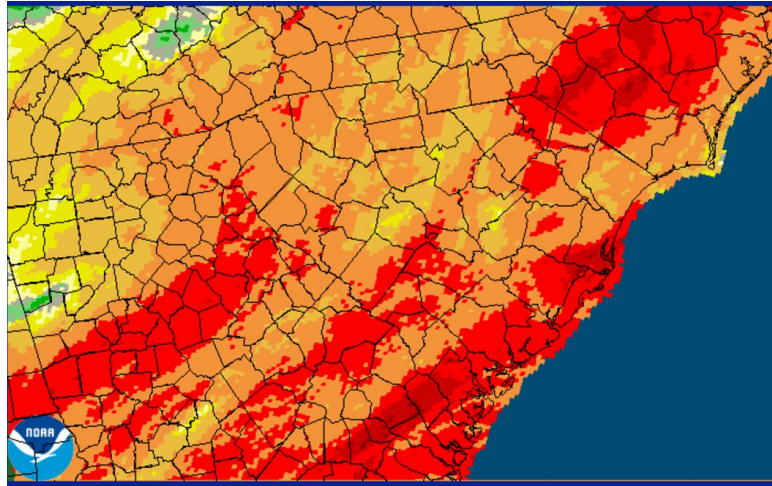


# Temperature

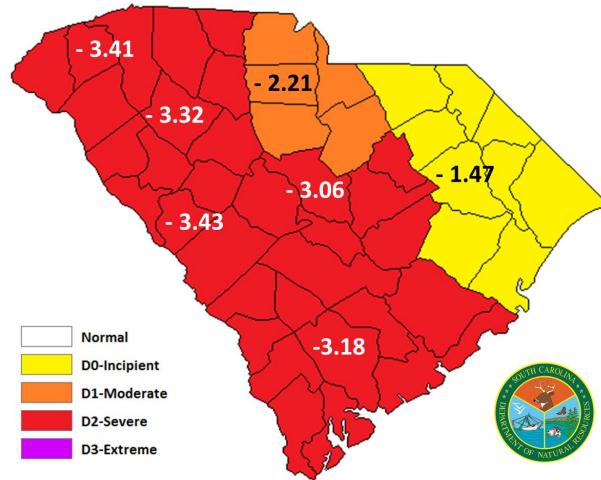
# Precipitation



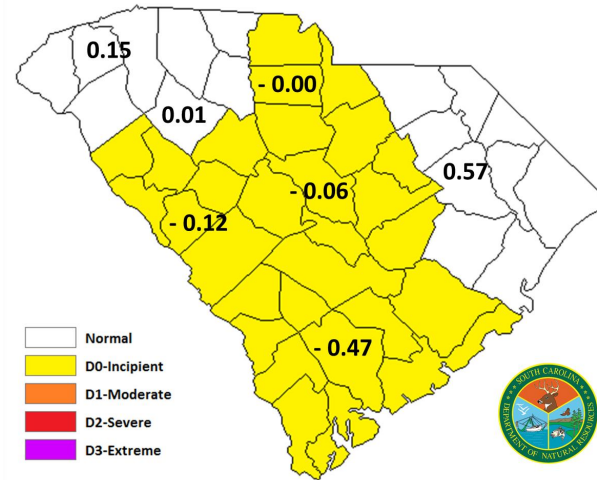
# 60-Day Departure from Normal Rainfall



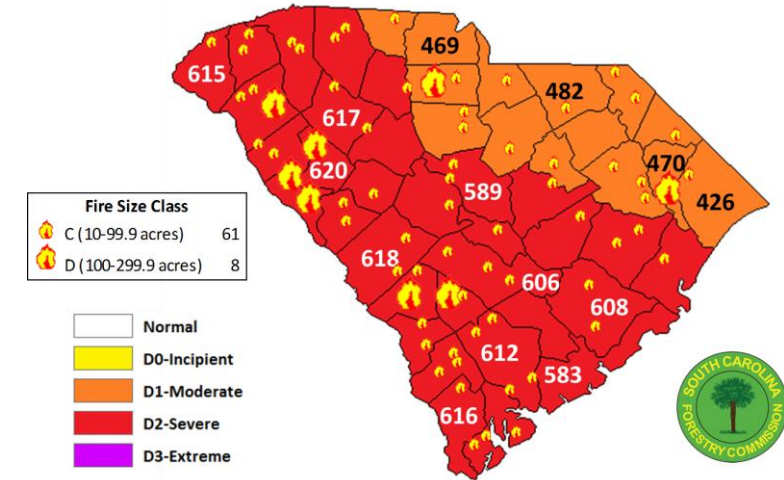
**PALMER DROUGHT SEVERITY INDEX**  
Week ending December 5, 2021



**CROP MOISTURE INDEX**  
Week ending December 5, 2021

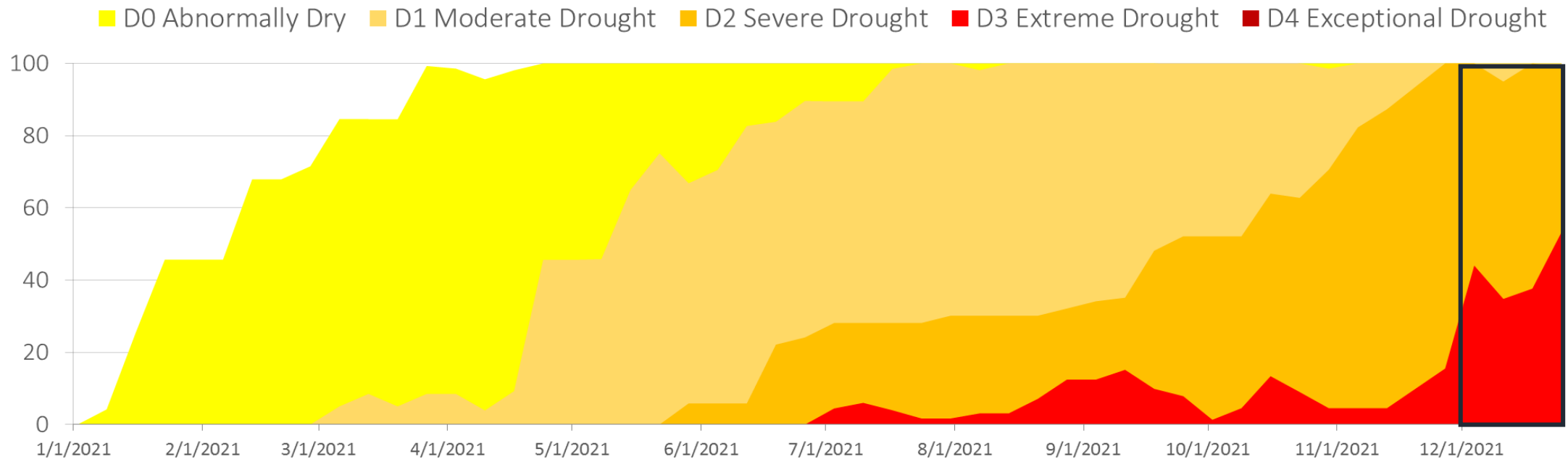


**KEETCH-BYRAM DROUGHT INDEX**  
December 5, 2021



# Impacts:

## South Carolina Percent Drought Area (U.S. Drought Monitor) Scenario Time Point 2: Severe Drought Statewide (December 2021)



Isolated summer thunderstorms and little tropical storm activity through fall – fails to alleviate drought conditions.

Streamflows are <10% of normal for this time of year, unregulated streams are at or near record lows.

GW monitoring wells show continued declines; private well owners encouraged to secure alternate supplies if below-normal rainfall continues.

Reservoir levels continue to drop, all major lakes are below target levels.

Prolonged dry weather expected to increase fire risk during peak fire season (Feb-April); increased # of fires and more intense fires require more personnel and equipment to control.

Poor grazing conditions, lack of feed and forage for livestock, farmers purchasing hay, low levels in irrigation ponds.

Some water systems request mandatory conservation (~25%), some request voluntary conservation (~50%).

DRC cautions about water hazards and navigating on lakes and rivers due to low levels.



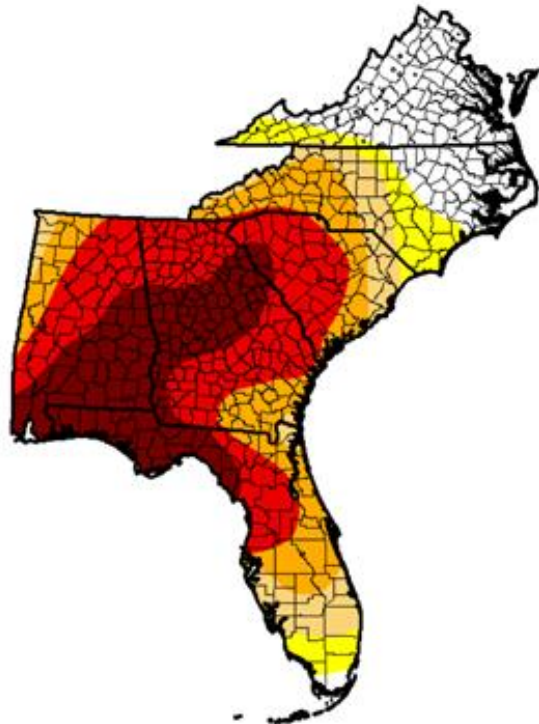
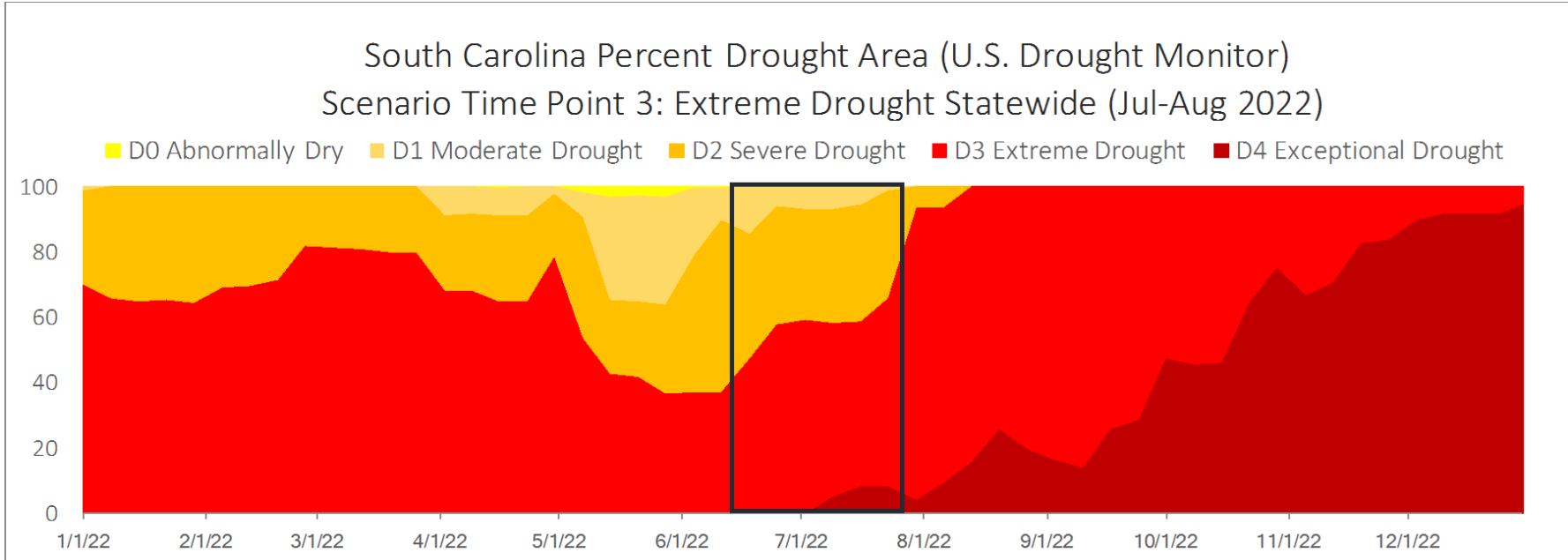
# Scenario Time Point 3

Extreme Drought Statewide

July – August 2022

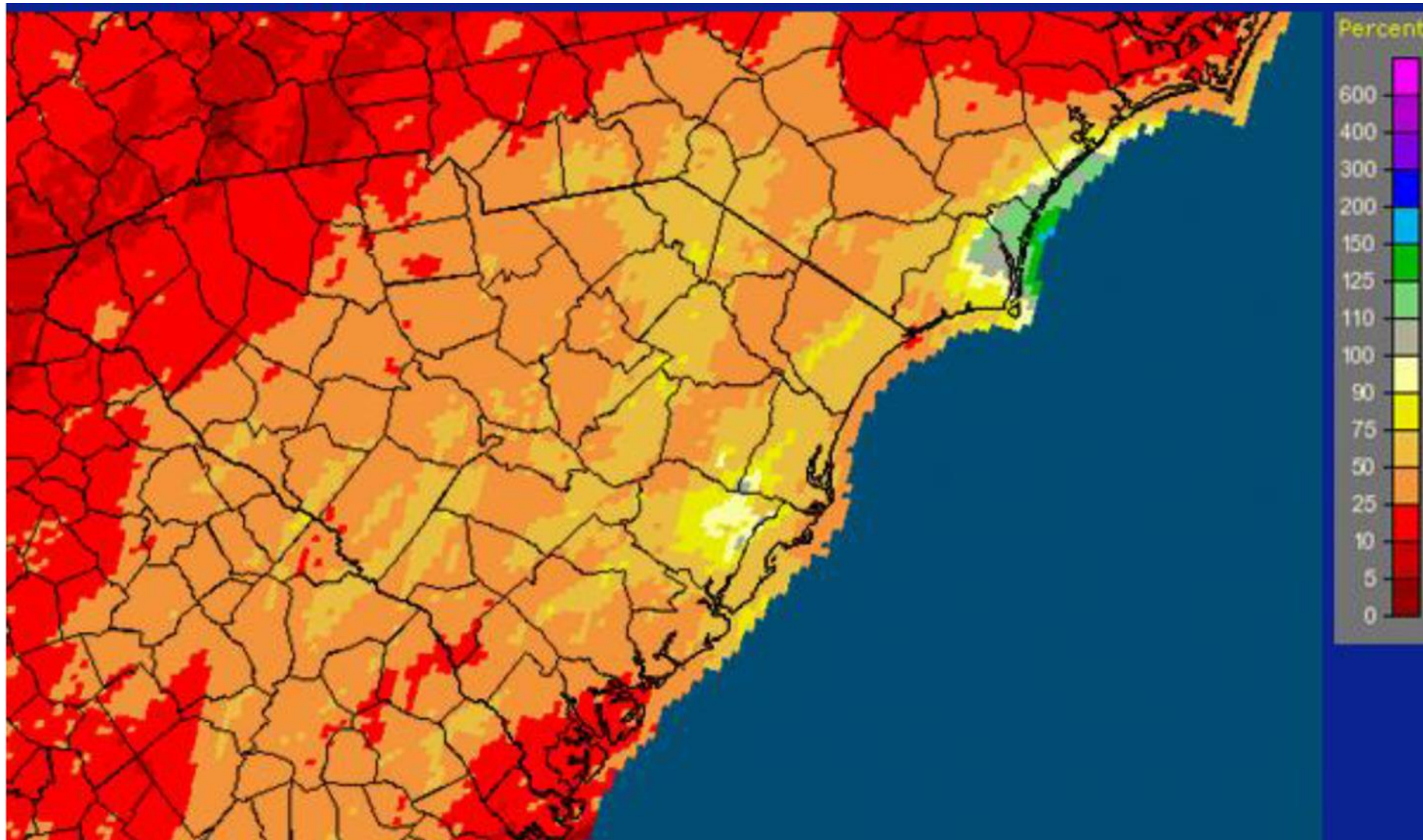
## Extreme Drought – Indicators and Triggers

- Precipitation: departure from normal
- PDSI:  $\leq -4.00$
- CMI:  $\leq -4.00$
- SPI:  $\leq -2.00$
- KBDI:  $\geq 700$
- USDM:  $\geq D3$
- Streamflow
- Lake levels
- Groundwater
- Outlooks



3. Extreme Drought Statewide July – August 2022

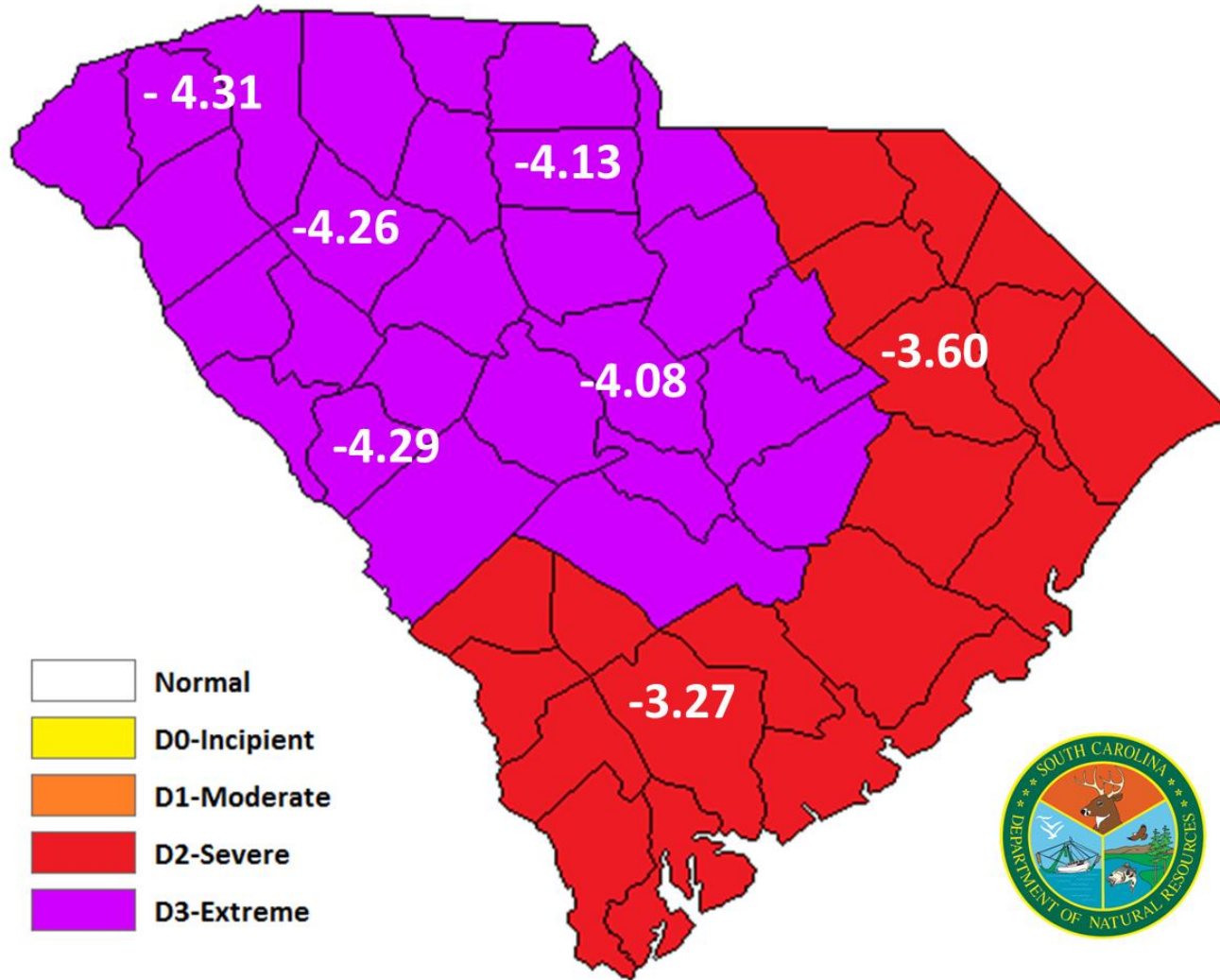
# 60-Day Departure from Normal Rainfall



3. Extreme Drought Statewide July – August 2022

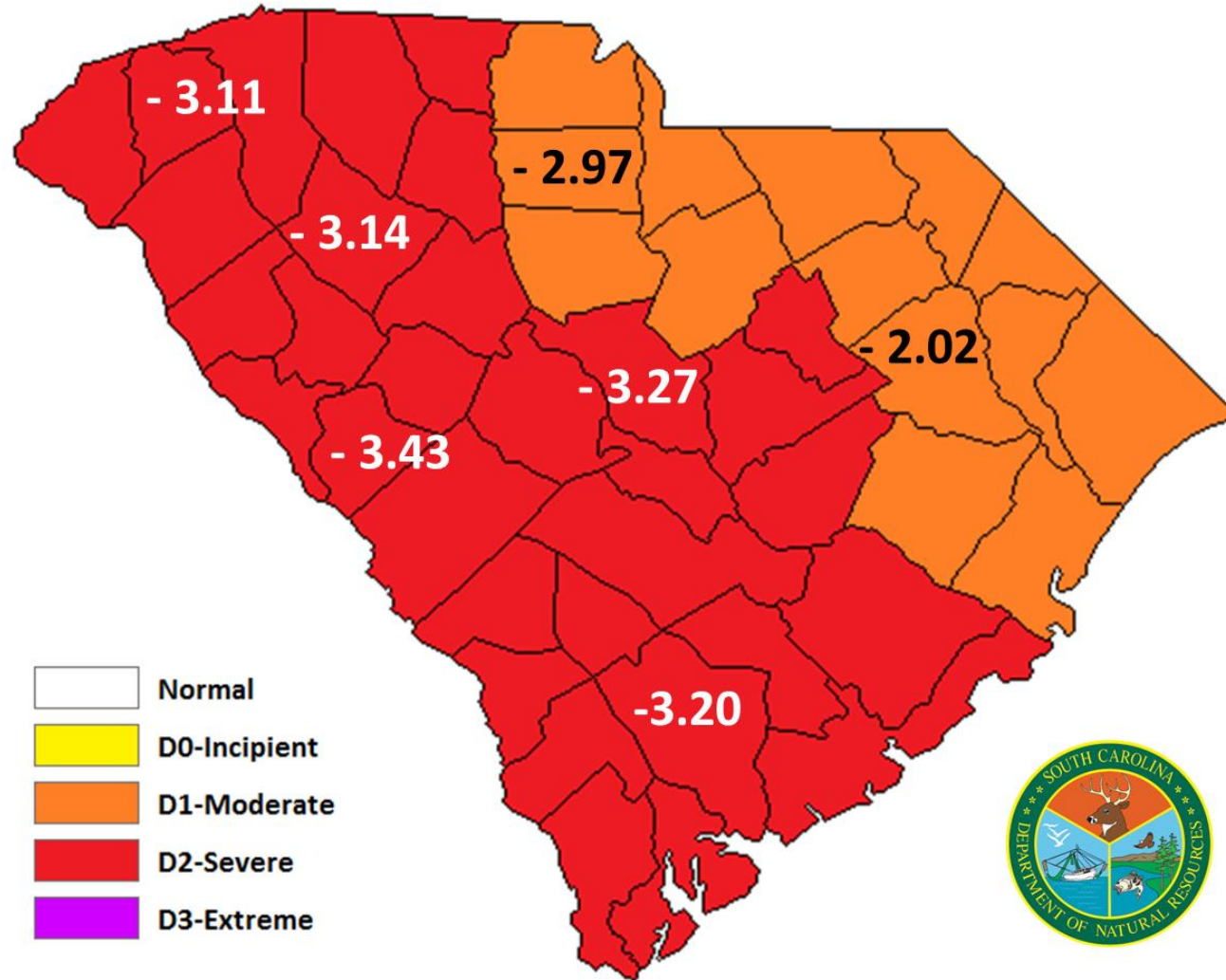
# PALMER DROUGHT SEVERITY INDEX

## Week ending August 7, 2022



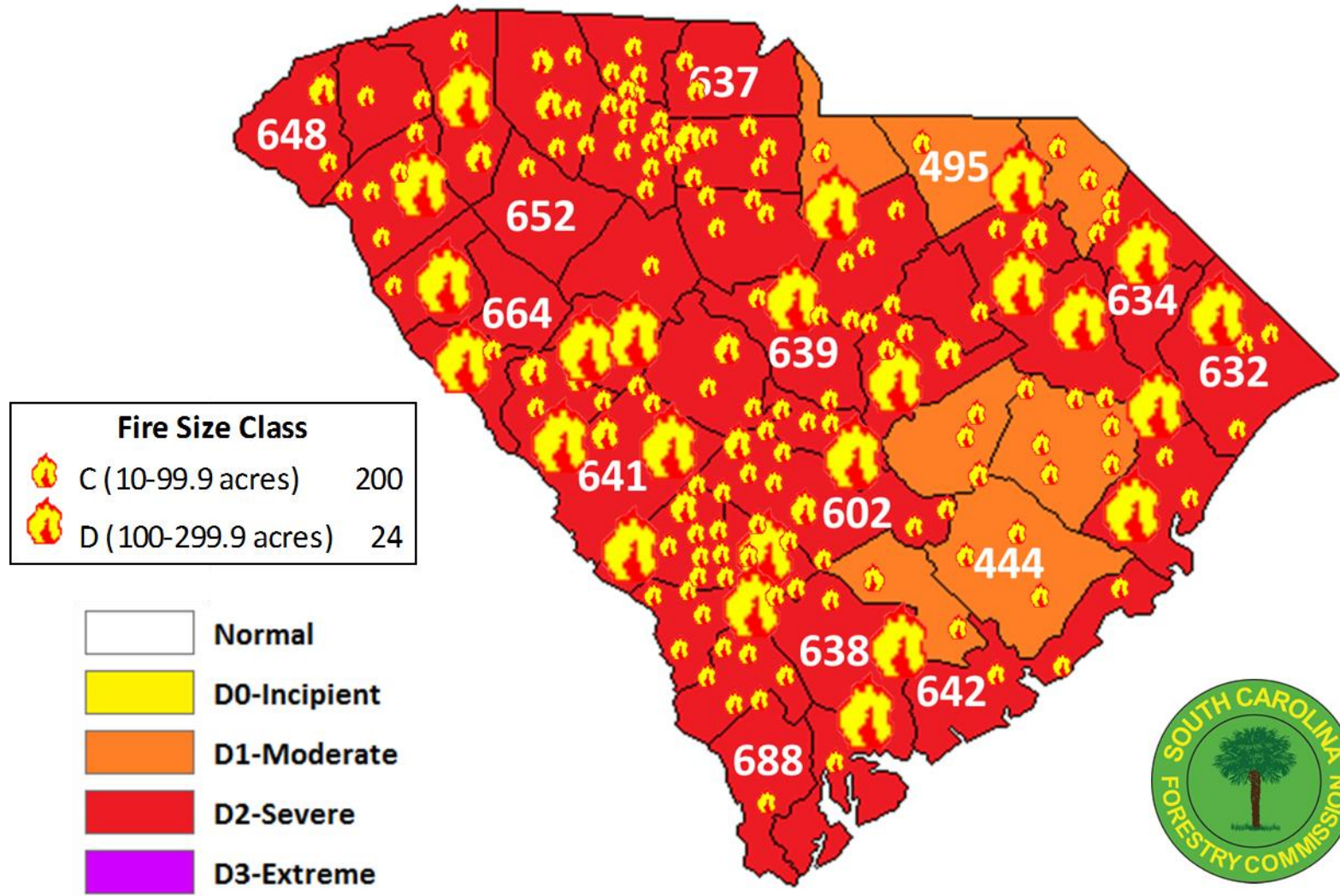
# CROP MOISTURE INDEX

## Week ending August 7, 2022



# KEETCH-BYRAM DROUGHT INDEX

## August 7, 2022

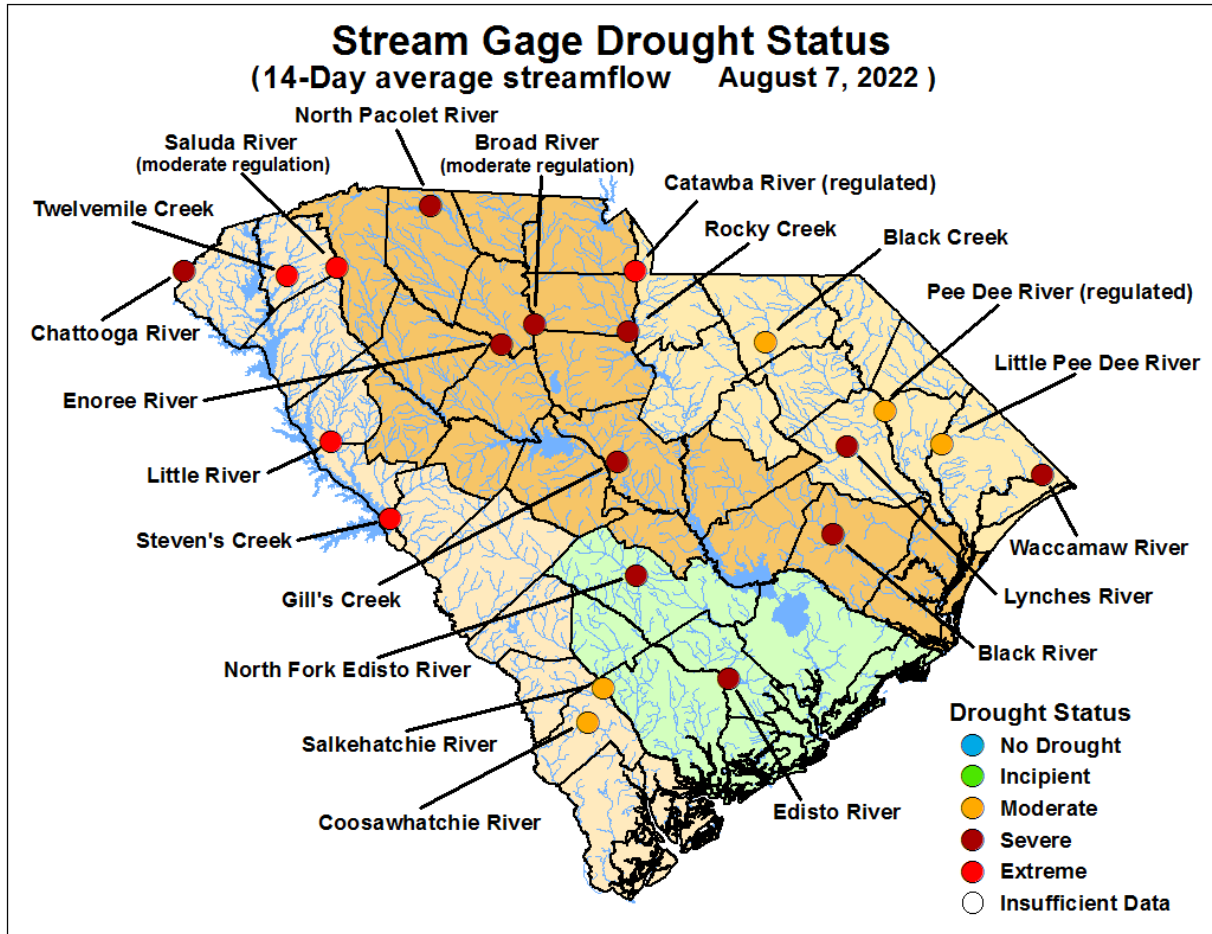


# DNR Hydrology





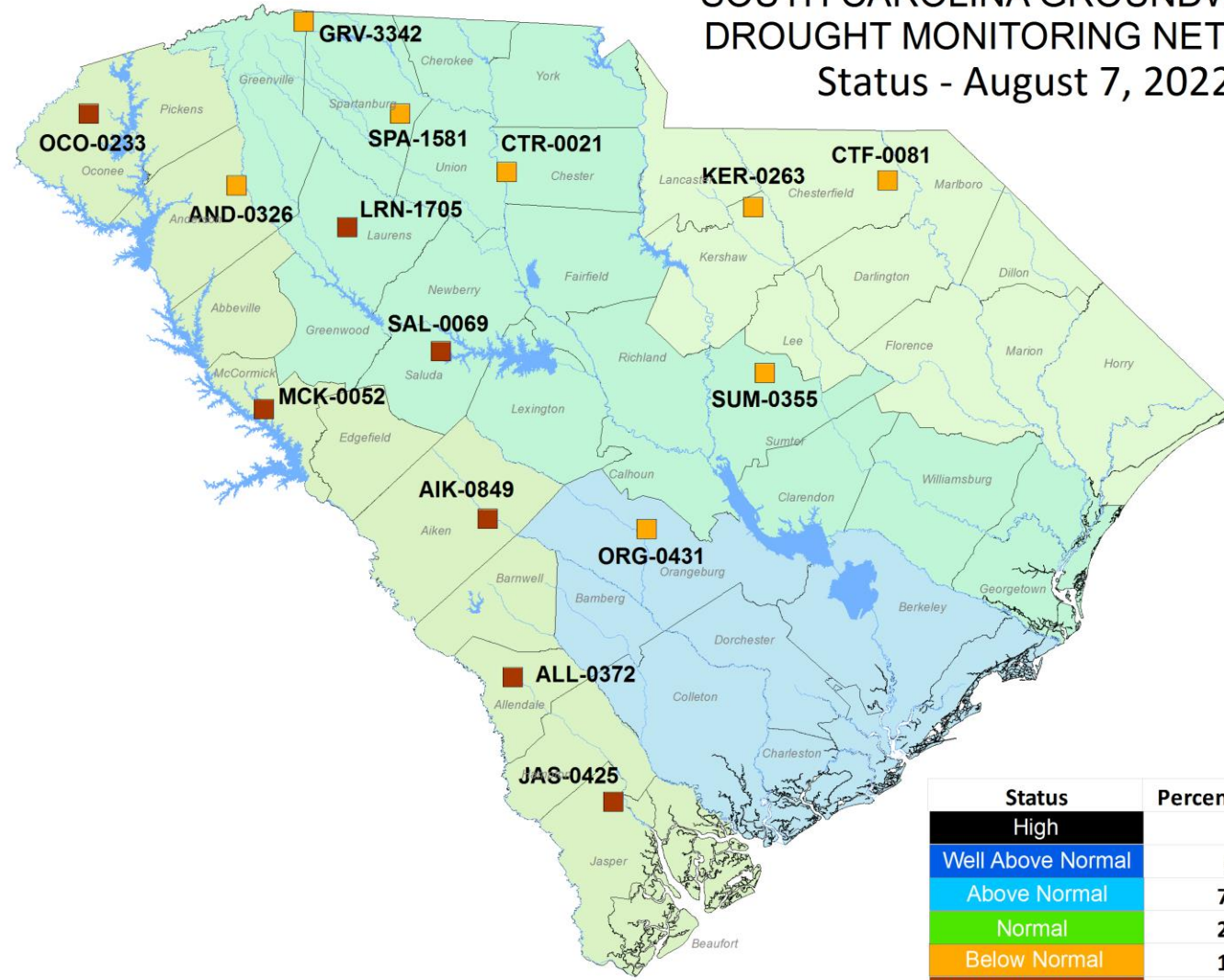
# Streamgage Drought Status



| StreamGage (08/07/2022)  | 14DAvg | 14D%              | Test 1    |
|--|--------|-------------------|-----------|
| Waccamaw_Longs   | 34     | 5                 | severe    |
| PeeDee_PeeDee  | 2300   | 8                 | moderate  |
| Little PeeDee_Galivants  | 418    | 10                | moderate  |
| Lynches_Effingham  | 157    | 5                 | severe    |
| BlackCreek_McBee   | 93     | 10                | moderate  |
| Catawba_Catawba  | 965    | 1                 | extreme   |
| RockyCreek_GreatFalls  | 1      | 5                 | severe    |
| North Pacolet_Fingerville  | 41     | 5                 | severe    |
| Enoree_Whitmire  | 190    | 4                 | severe    |
| Broad_Carlisle   | 442    | 2                 | severe    |
| GillsCreek_Columbia  | 5      | 2                 | severe    |
| Black_Kingstree  | 112    | 5                 | severe    |
| Saluda_Greenville  | 101    | 1                 | extreme   |
| Chattooga_Clayton  | 169    | 5                 | severe    |
| TwelveMileCreek_Liberty  | 20     | 1                 | extreme   |
| Little_MtCarmel  | 35     | 1                 | extreme   |
| StevensCreek_Modoc   | 3      | 1                 | extreme   |
| Salkehatchie_Miley   | 58     | 8                 | moderate  |
| Coosawhatchie_Hampton  | 5      | 10                | moderate  |
| NorthForkEdisto_Orangeburg   | 231    | 5                 | severe    |
| Edisto_Givhans   | 405    | 5                 | severe    |
|  |        | <b>no drought</b> | <b>0</b>  |
|  |        | <b>incipient</b>  | <b>0</b>  |
|  |        | <b>moderate</b>   | <b>5</b>  |
|  |        | <b>severe</b>     | <b>11</b> |
|  |        | <b>extreme</b>    | <b>5</b>  |
| <b>Drought Status based on comparing 14 day average flows to historical values</b> |        | 20th-10th         | incipient |
|  |        | 10th-5th          | moderate  |
|  |        | 5th-2nd           | severe    |
|  |        | <2                | extreme   |

## 3. Extreme Drought Statewide July – August 2022

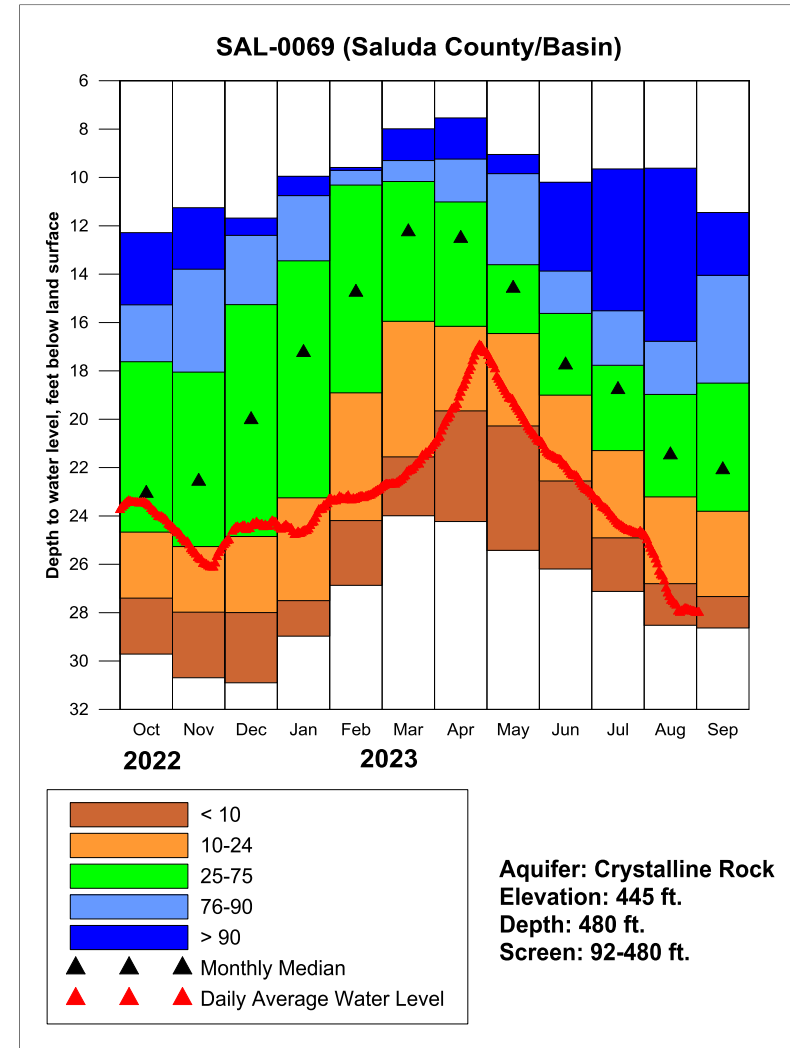
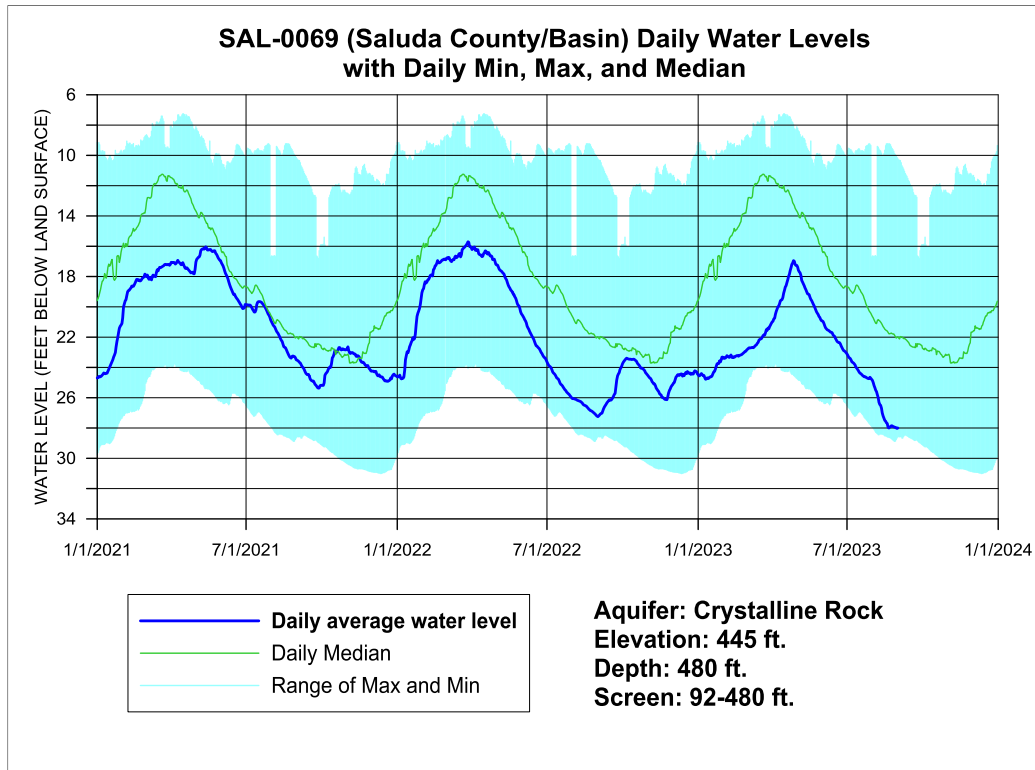
## SOUTH CAROLINA GROUNDWATER- DROUGHT MONITORING NETWORK Status - August 7, 2022



| Status            | Percentile Range |
|-------------------|------------------|
| High              |                  |
| Well Above Normal | > 90             |
| Above Normal      | 76-90            |
| Normal            | 25-75            |
| Below Normal      | 10-24            |
| Well Below Normal | < 10             |
| Low               |                  |

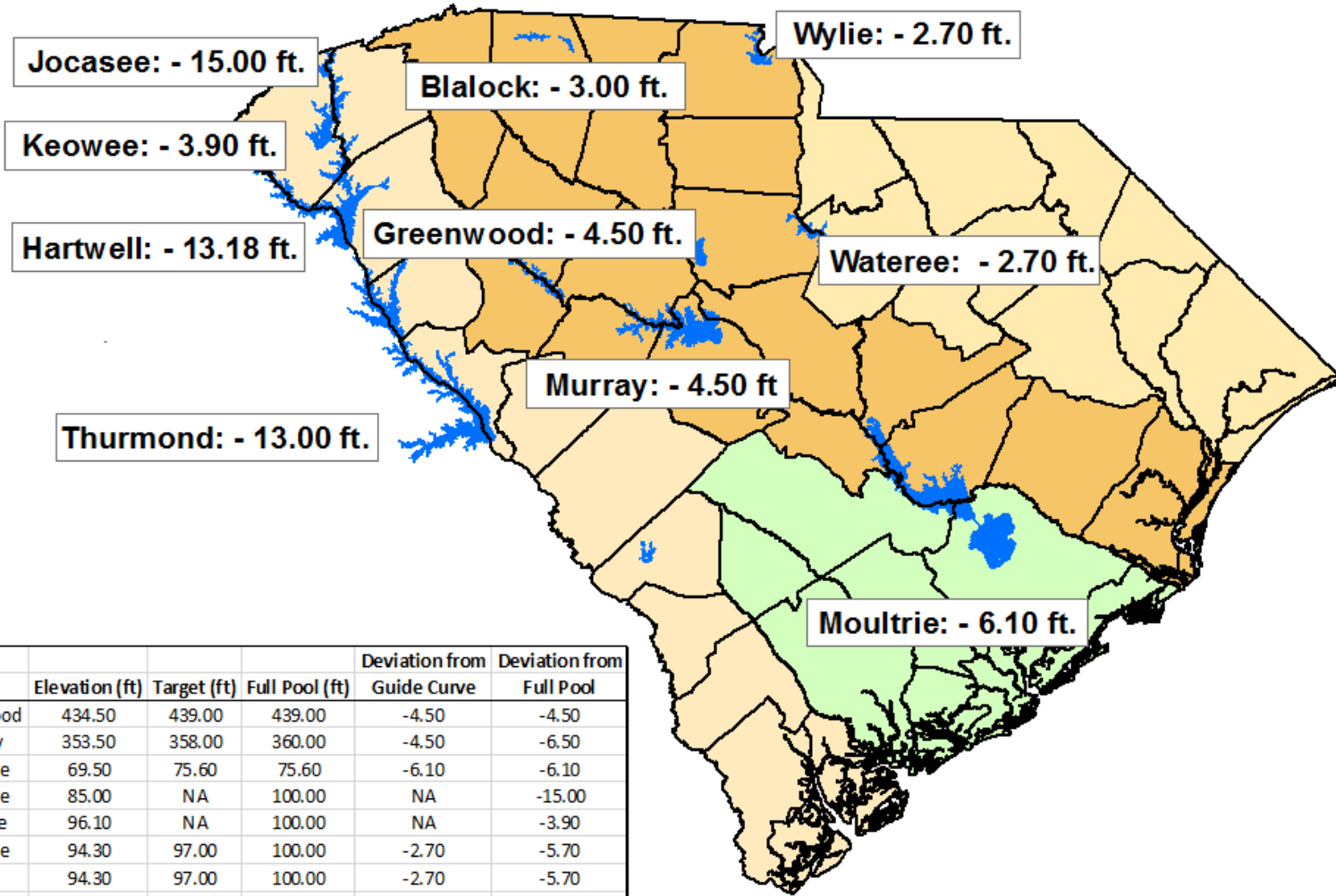
### 3. Extreme Drought Statewide July – August 2022

# Saluda County/Basin Groundwater Levels

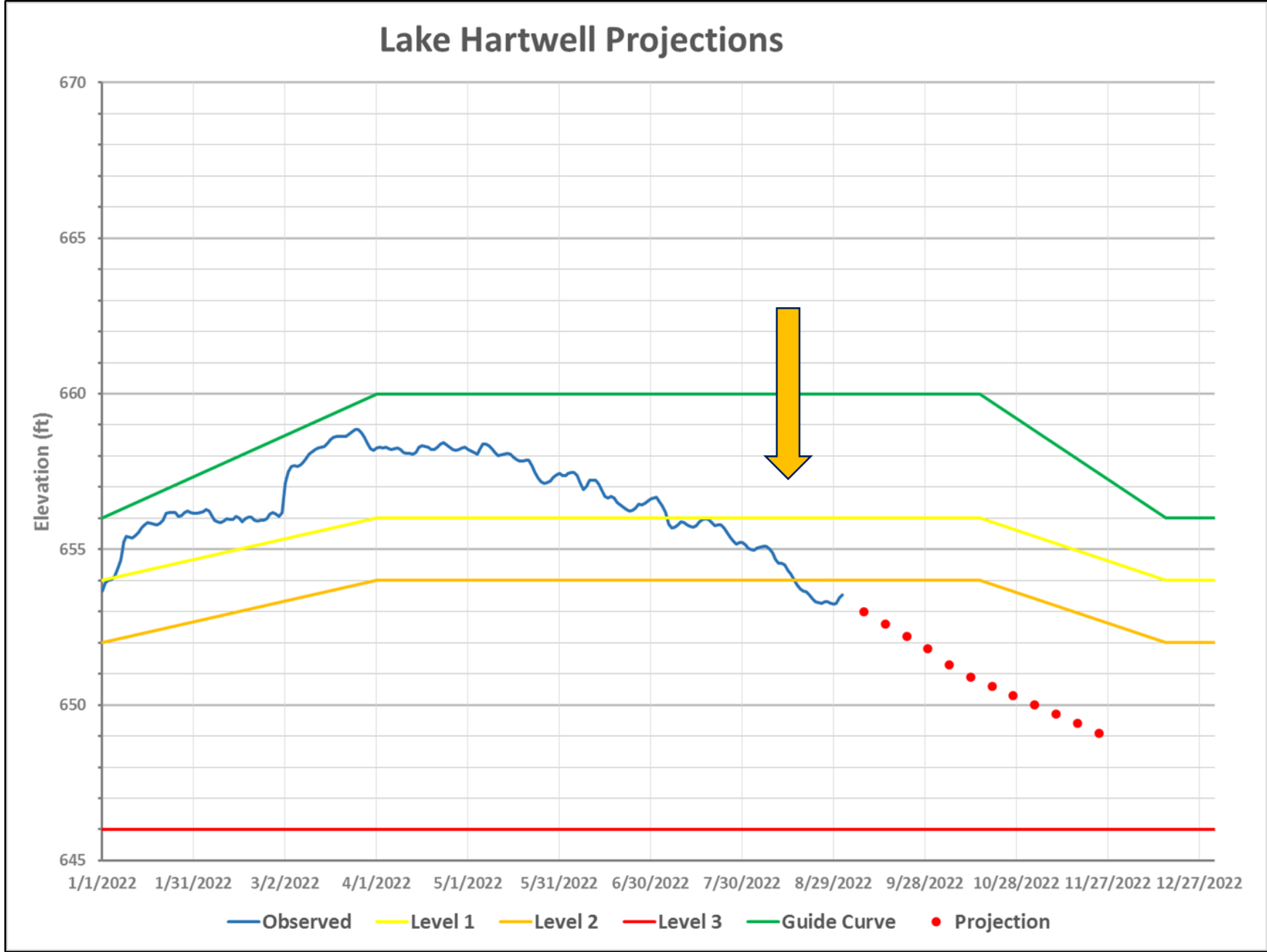


# Lake Level Deficit/Surplus on August 7, 2022

(Deficit/surplus values are referenced to guide curves, except Jocassee and Keowee which are referenced to full pool)



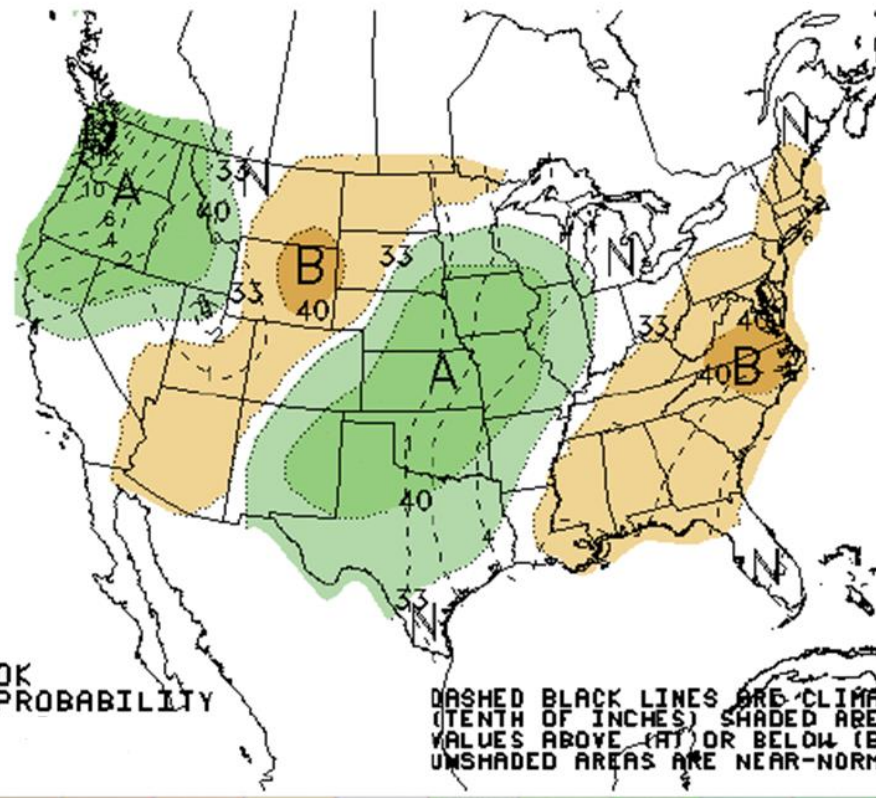
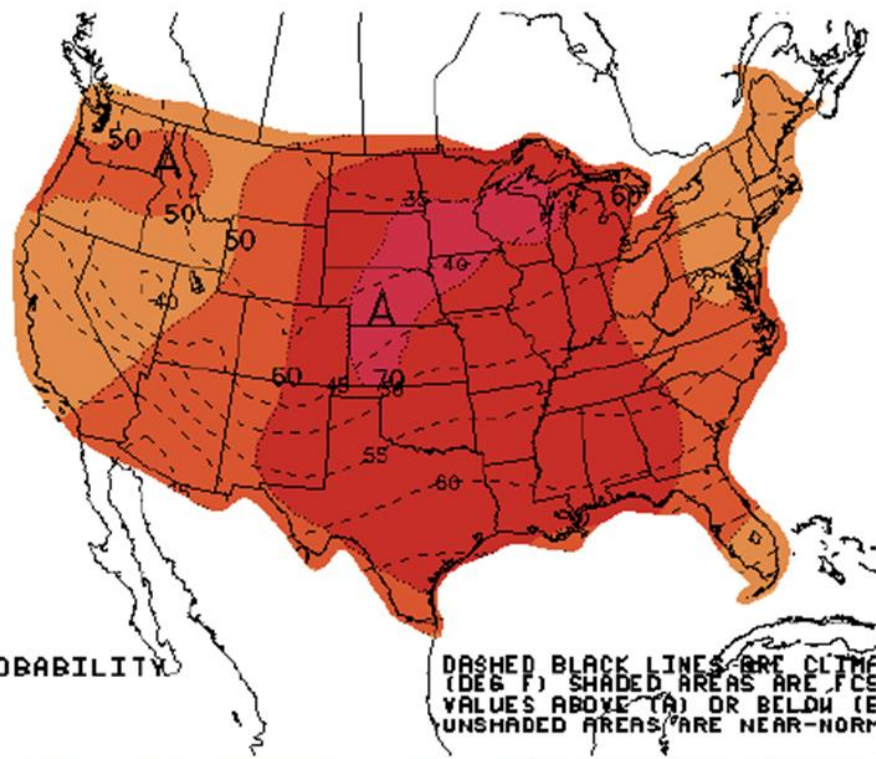
| Lake      | Elevation (ft) | Target (ft) | Full Pool (ft) | Deviation from Guide Curve | Deviation from Full Pool |
|-----------|----------------|-------------|----------------|----------------------------|--------------------------|
| Greenwood | 434.50         | 439.00      | 439.00         | -4.50                      | -4.50                    |
| Murray    | 353.50         | 358.00      | 360.00         | -4.50                      | -6.50                    |
| Moultrie  | 69.50          | 75.60       | 75.60          | -6.10                      | -6.10                    |
| Jocassee  | 85.00          | NA          | 100.00         | NA                         | -15.00                   |
| Keowee    | 96.10          | NA          | 100.00         | NA                         | -3.90                    |
| Wateree   | 94.30          | 97.00       | 100.00         | -2.70                      | -5.70                    |
| Wylie     | 94.30          | 97.00       | 100.00         | -2.70                      | -5.70                    |
| Hartwell  | 646.82         | 660.00      | 660.00         | -13.18                     | -13.18                   |
| Thurmond  | 317.00         | 330.00      | 330.00         | -13.00                     | -13.00                   |
| Blalock   | 707.00         | 710.00      | 710.00         | -3.00                      | -3.00                    |



### 3. Extreme Drought Statewide July – August 2022

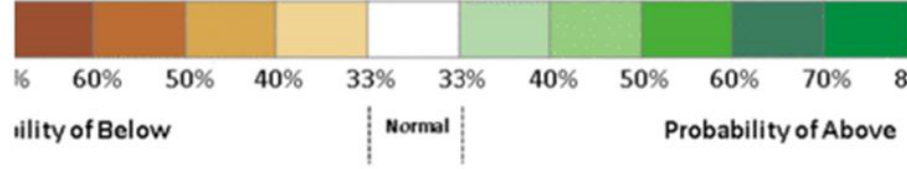
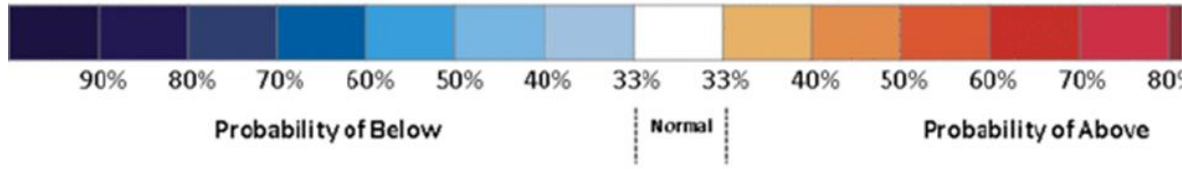
# Temperature

# Precipitation

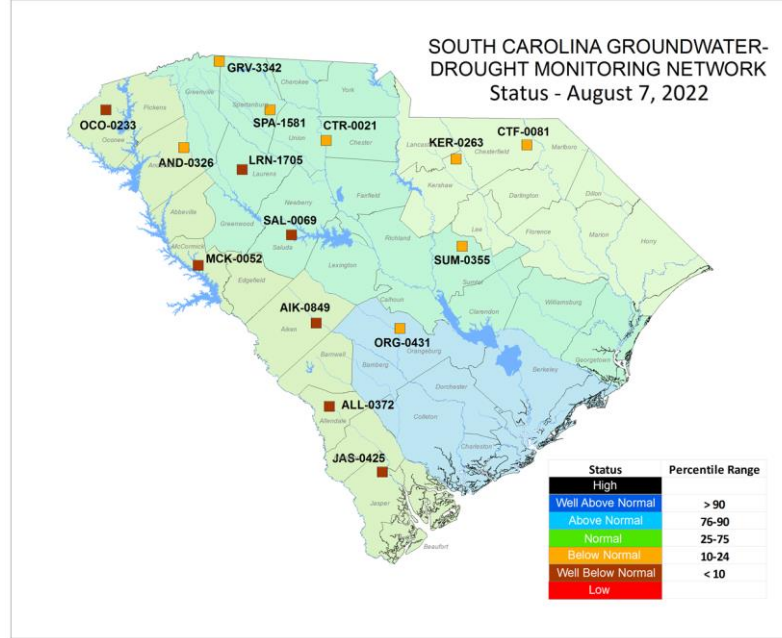
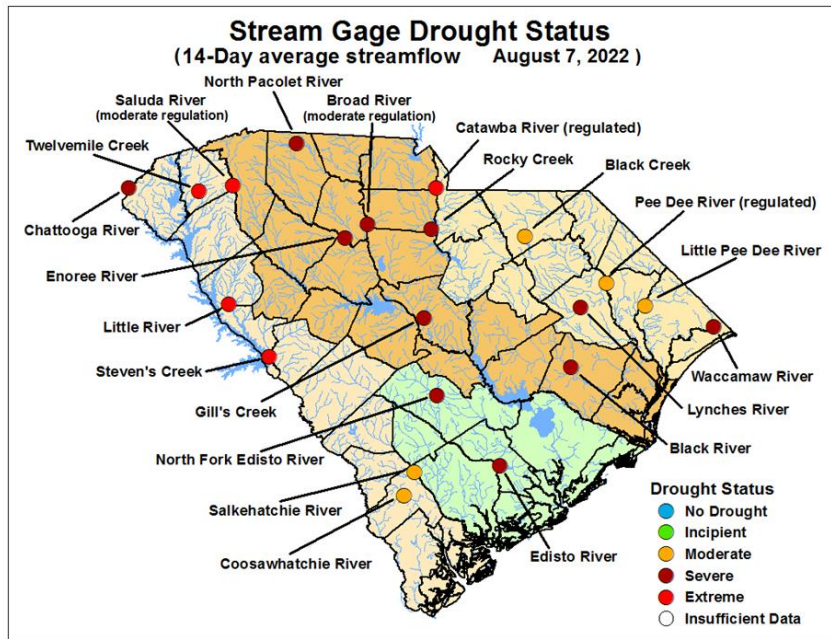
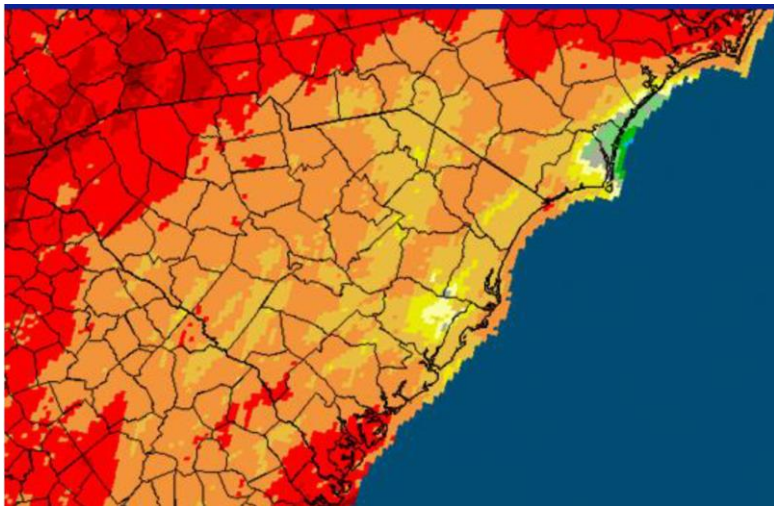


TEMPERATURE PROBABILITY

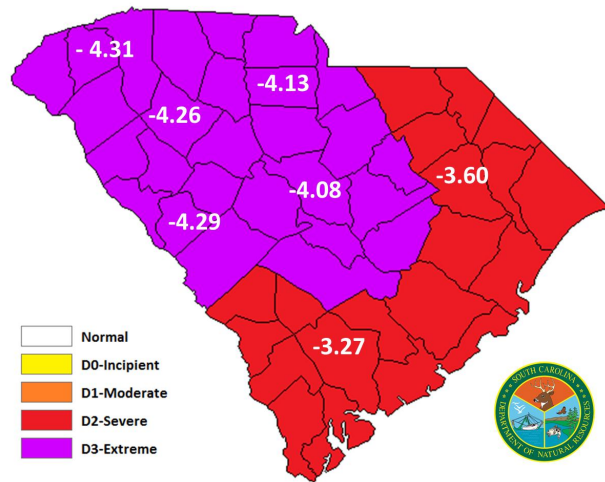
PRECIPITATION PROBABILITY



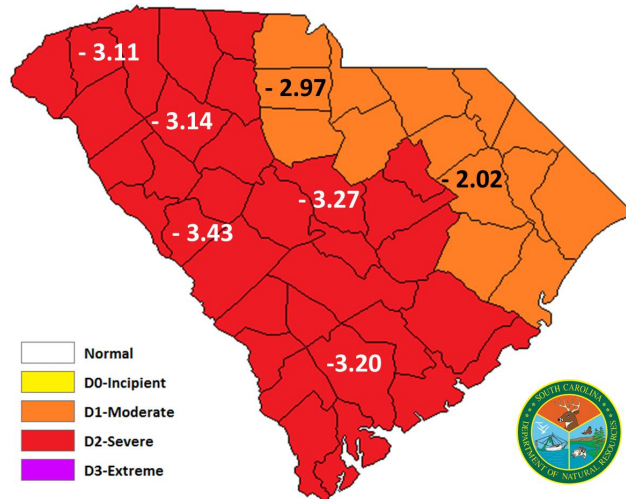
# 60-Day Departure from Normal Rainfall



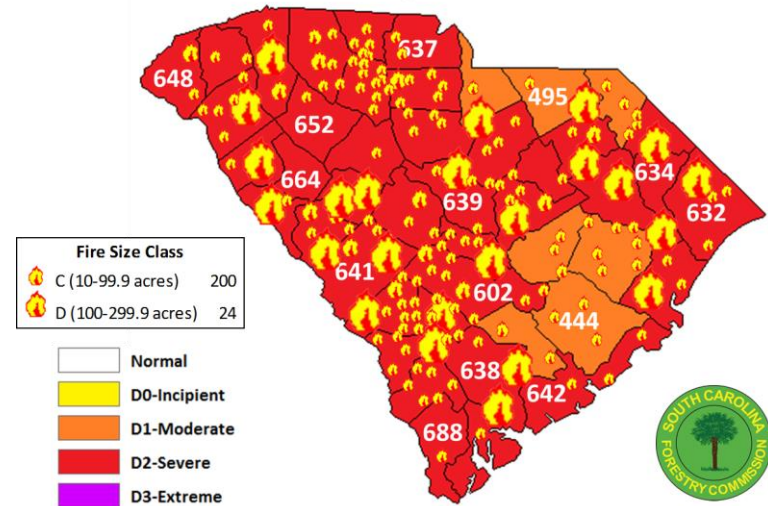
**PALMER DROUGHT SEVERITY INDEX**  
Week ending August 7, 2022



**CROP MOISTURE INDEX**  
Week ending August 7, 2022

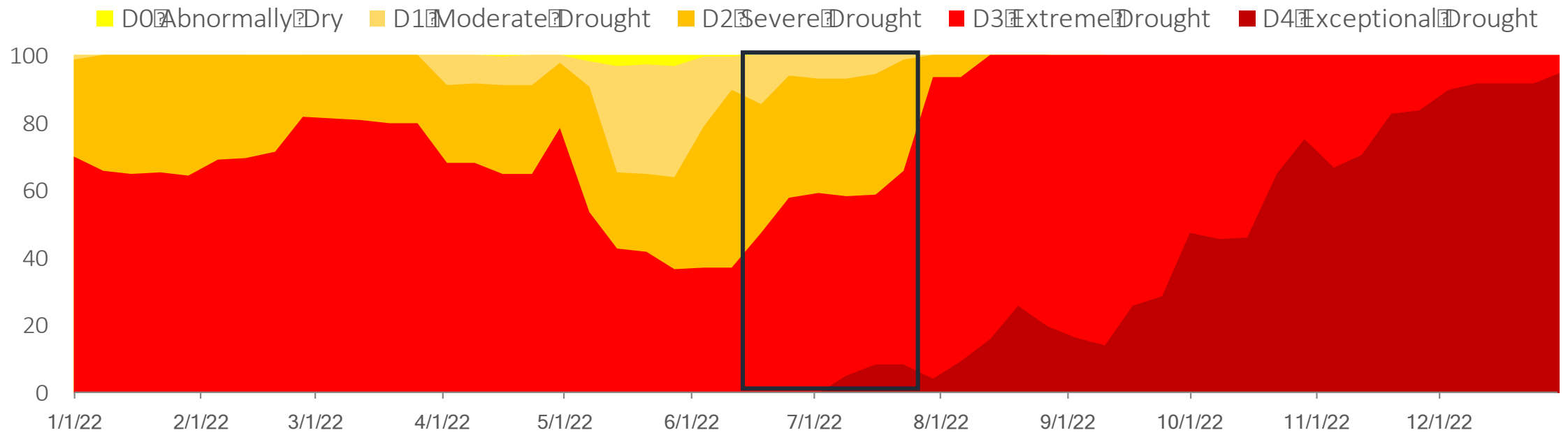


**KEETCH-BYRAM DROUGHT INDEX**  
August 7, 2022



## 3. Extreme Drought Statewide July – August 2022

## South Carolina Percent Drought Area (U.S. Drought Monitor) Scenario Time Point B: Extreme Drought Statewide (Jul-Aug 2022)



### Impacts:

Insufficient rainfall through previous winter and spring to recharge streams, reservoirs, ground water.

Above-normal temps and evaporation rates; summer sets records for # of days w/low humidity, # of days w/temps above 90.

Streamflow gauges show extreme drought levels, record lows.

Reservoir levels continue to drop, all major lakes are below target levels; managers reduce releases.

Higher-than-normal # of wildfires (24 Class D and 200 Class C wildfires, 15,000 acres burned) several damaged or destroyed structures.

Cattle producers bring in hay to feed cattle, 27 counties declared USDA-federal disaster areas; 30% of corn, hay, and pasture crops already lost.

Most water systems have requested voluntary conservation, ~33% are at mandatory

Some water systems and dischargers report water supply and quality concerns, initiate additional conservation and supply plans (lower intakes, deepen wells, expand retention ponds, interconnections)

Low levels reduce recreation opportunities, effect local businesses (marinas, outfitters)



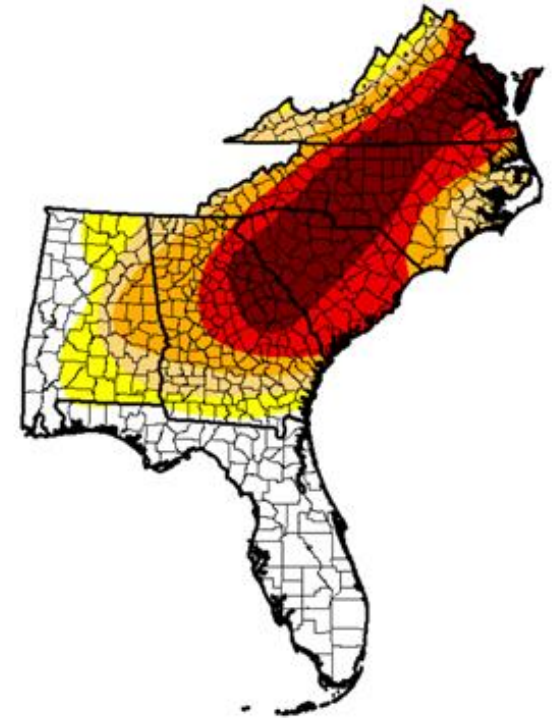
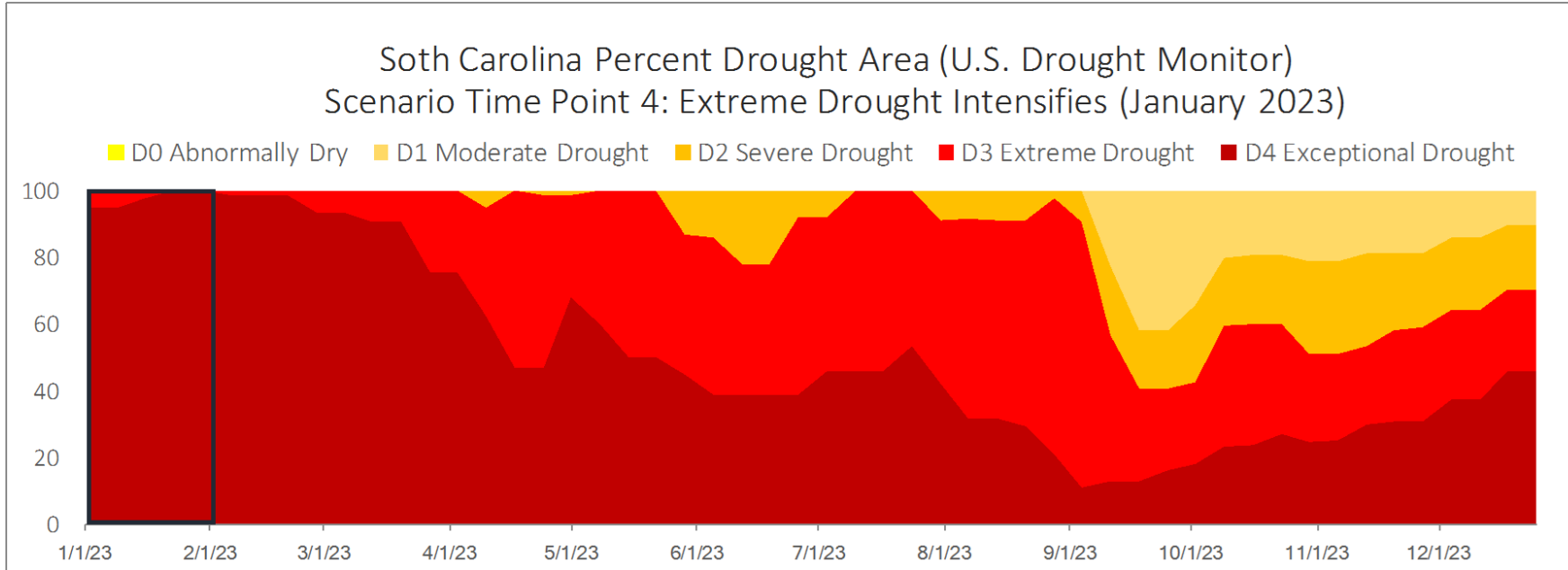
# Scenario Time Point 4

Extreme Drought Intensifies

January 2023

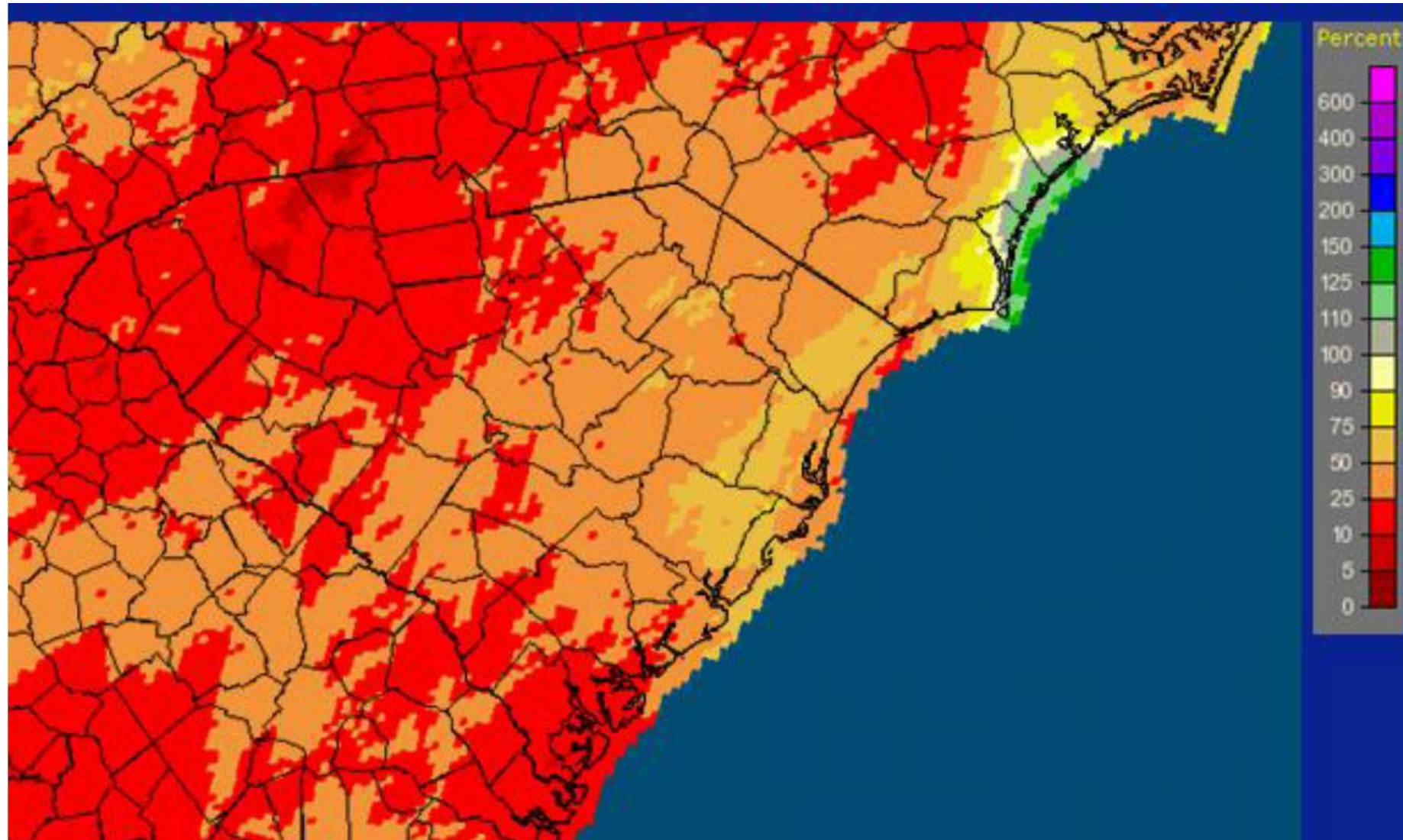
## Extreme Drought – Indicators and Triggers

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>● Precipitation: departure from normal</li><li>● PDSI: <math>\leq -4.00</math></li><li>● CMI: <math>\leq -4.00</math></li><li>● SPI: <math>\leq -2.00</math></li><li>● KBDI: <math>\geq 700</math></li></ul> | <ul style="list-style-type: none"><li>● USDM: <math>\geq D3</math></li><li>● Streamflow</li><li>● Lake levels</li><li>● Groundwater</li><li>● Outlooks</li></ul> |
|--|--|



#### 4. Extreme Drought Intensifies January 2023

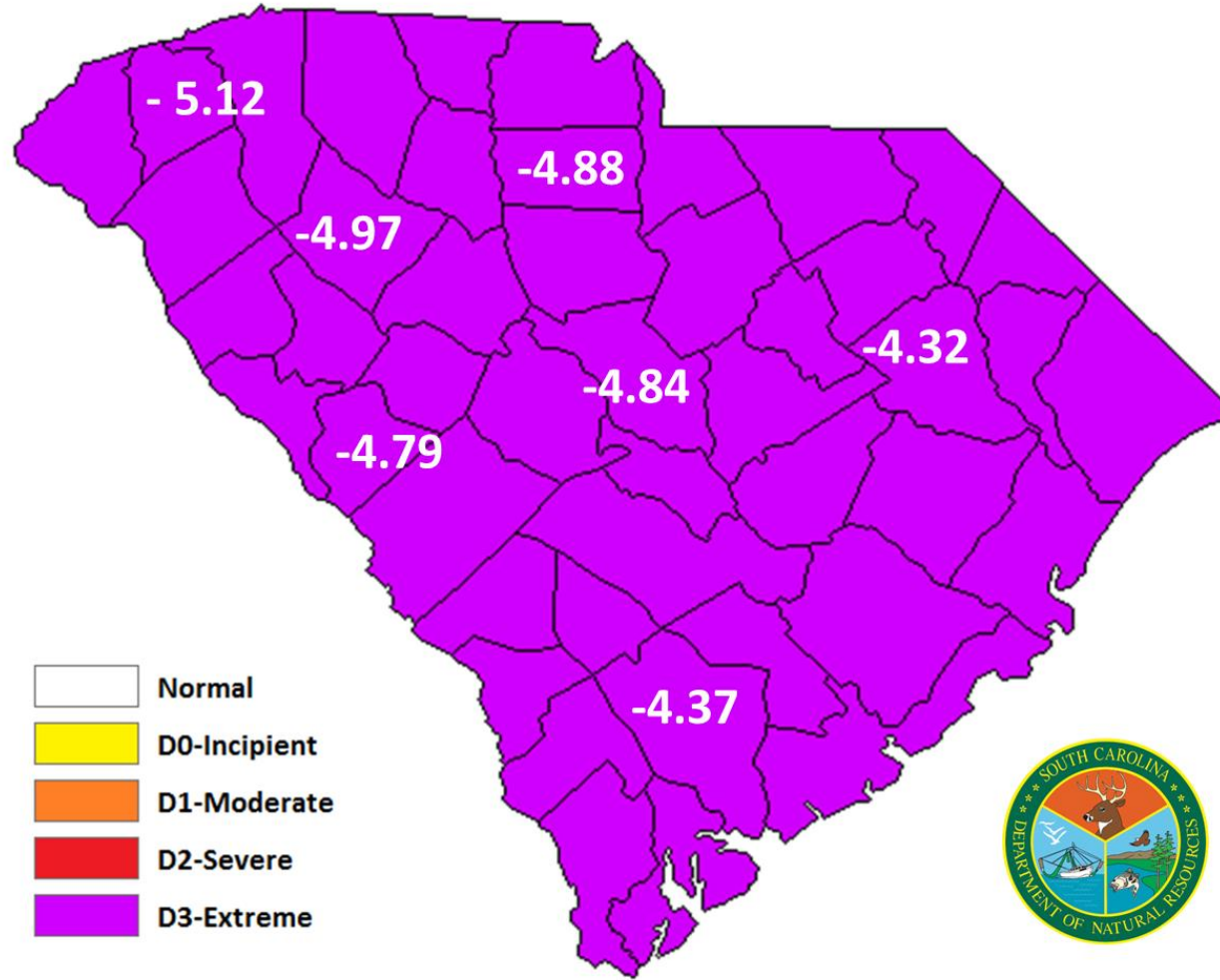
# 60-Day Departure from Normal Rainfall



4. Extreme Drought Intensifies January 2023

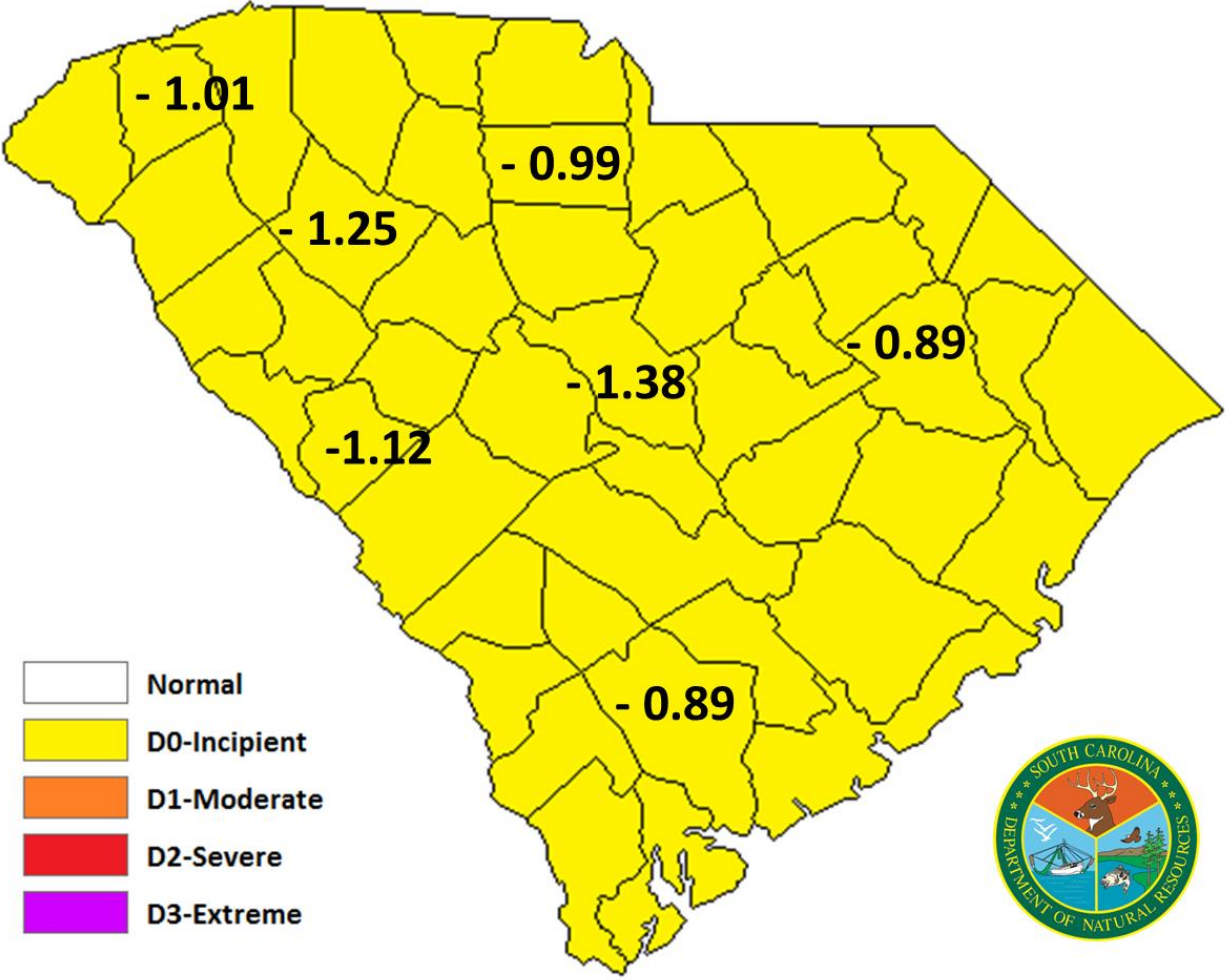
# PALMER DROUGHT SEVERITY INDEX

## Week ending February 12, 2023

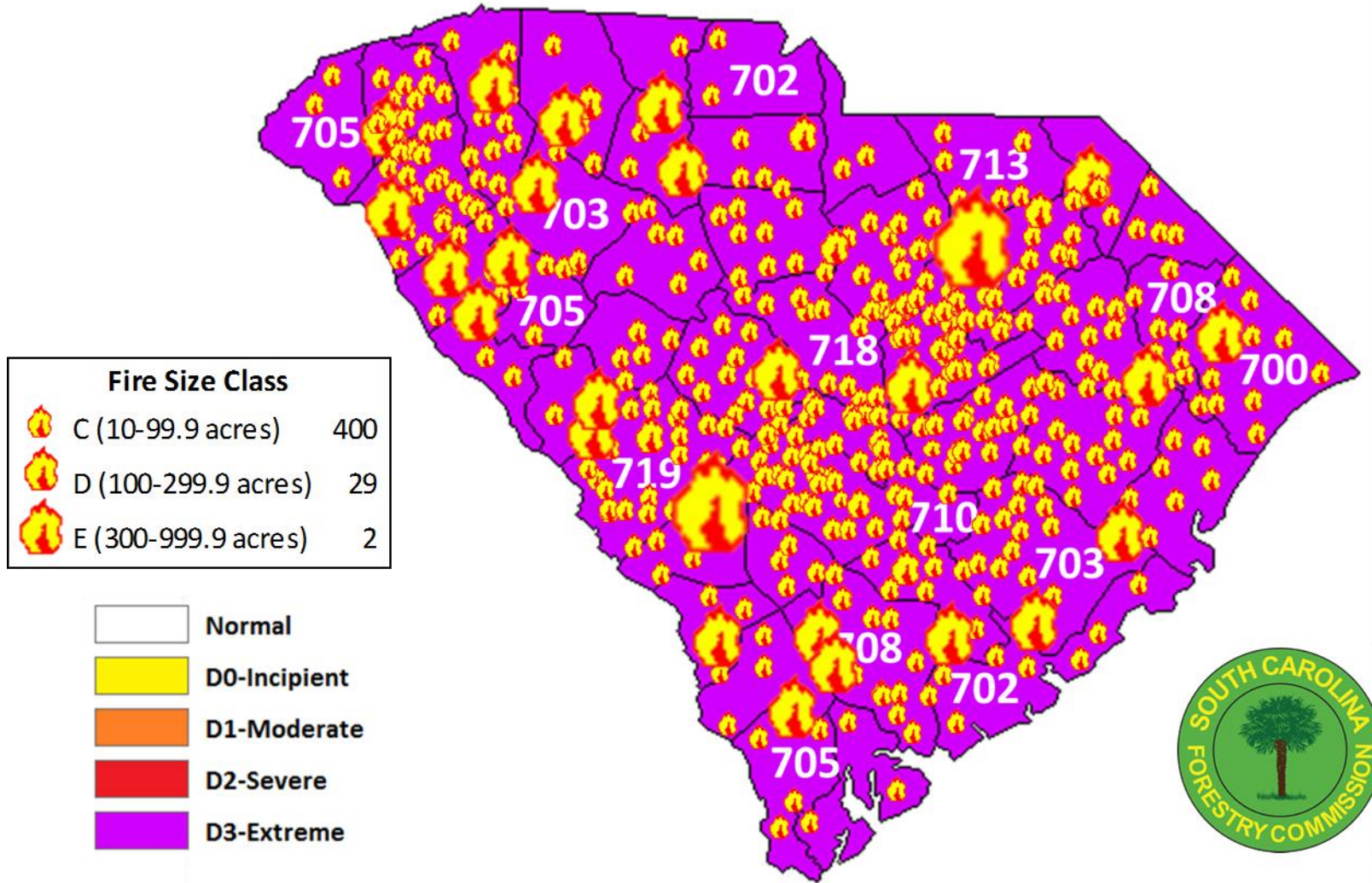


# CROP MOISTURE INDEX

## Week ending February 12, 2023



# KEETCH-BYRAM DROUGHT INDEX February 12, 2023

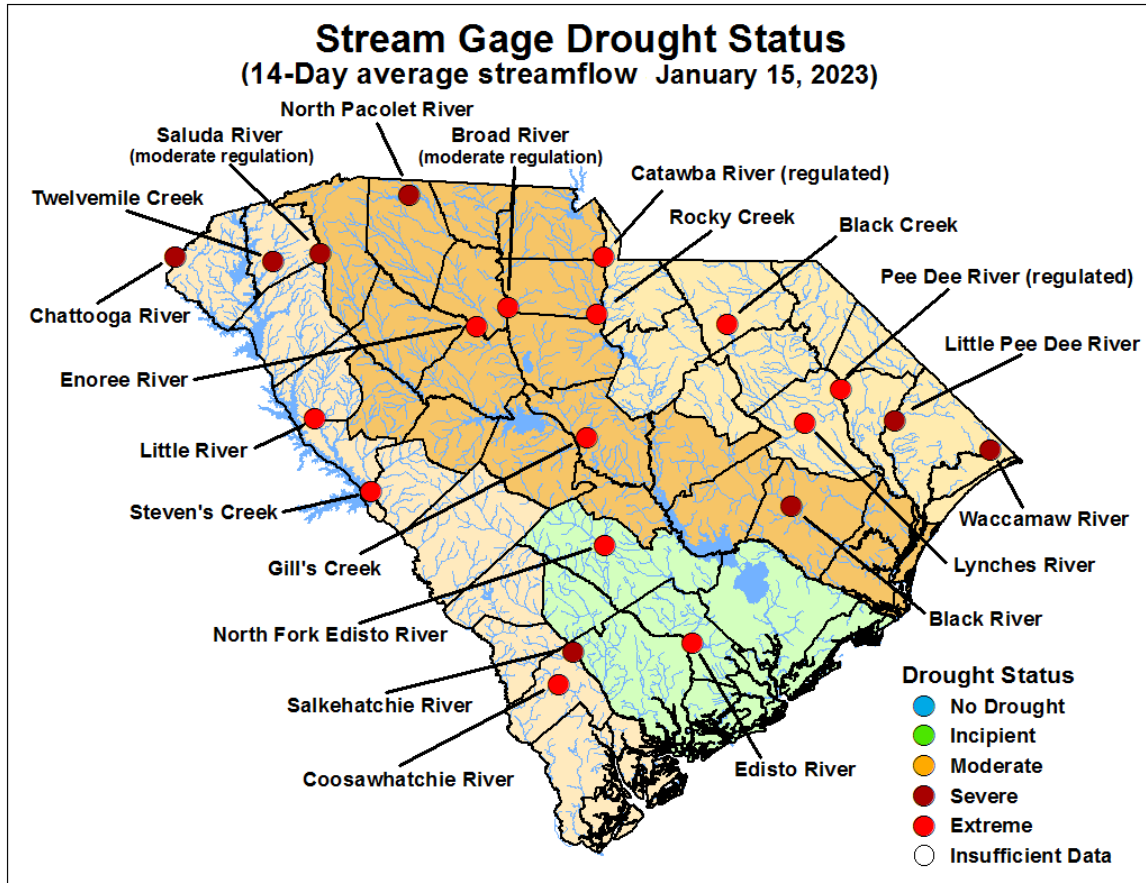


# DNR Hydrology



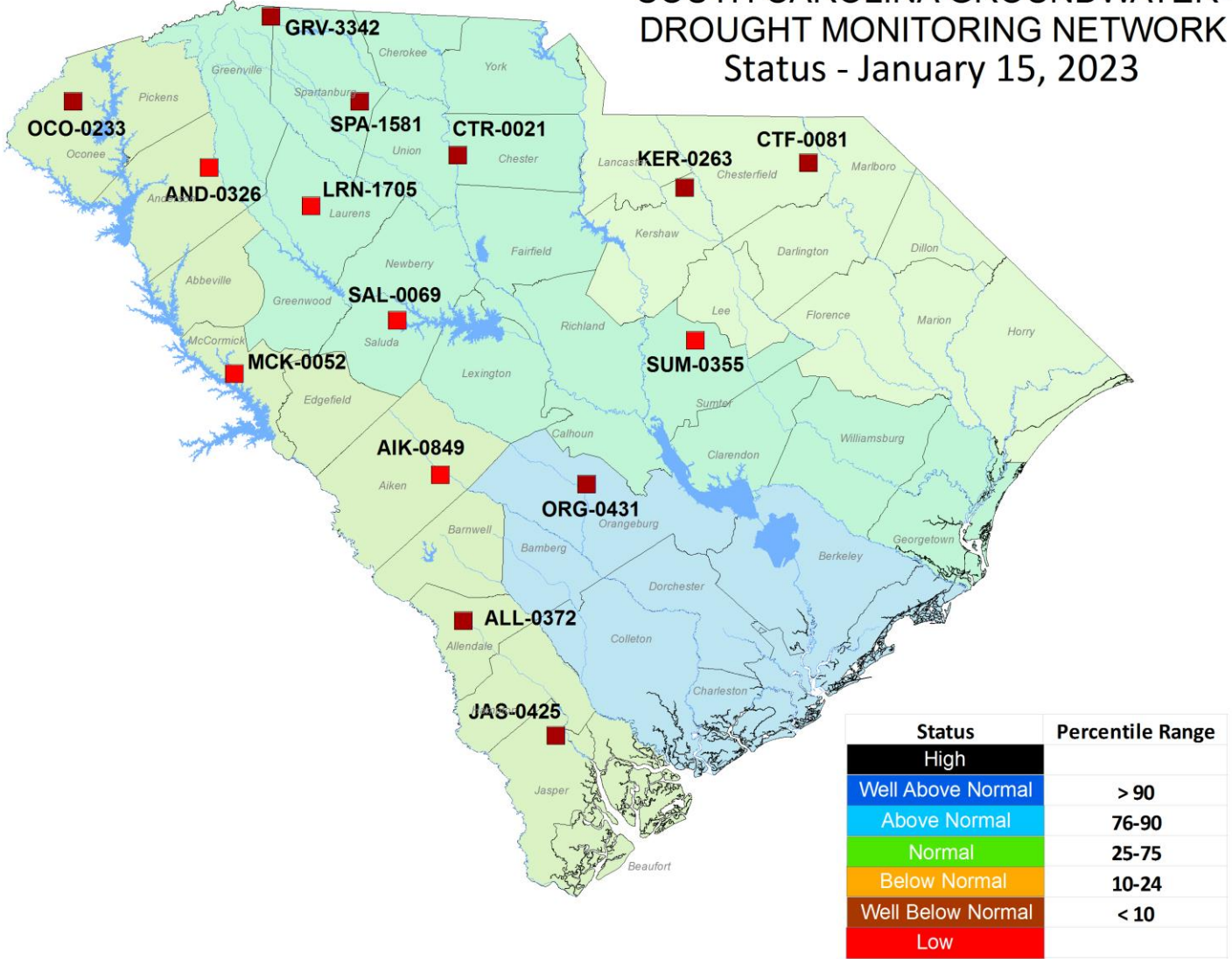


# Streamgage Drought Status



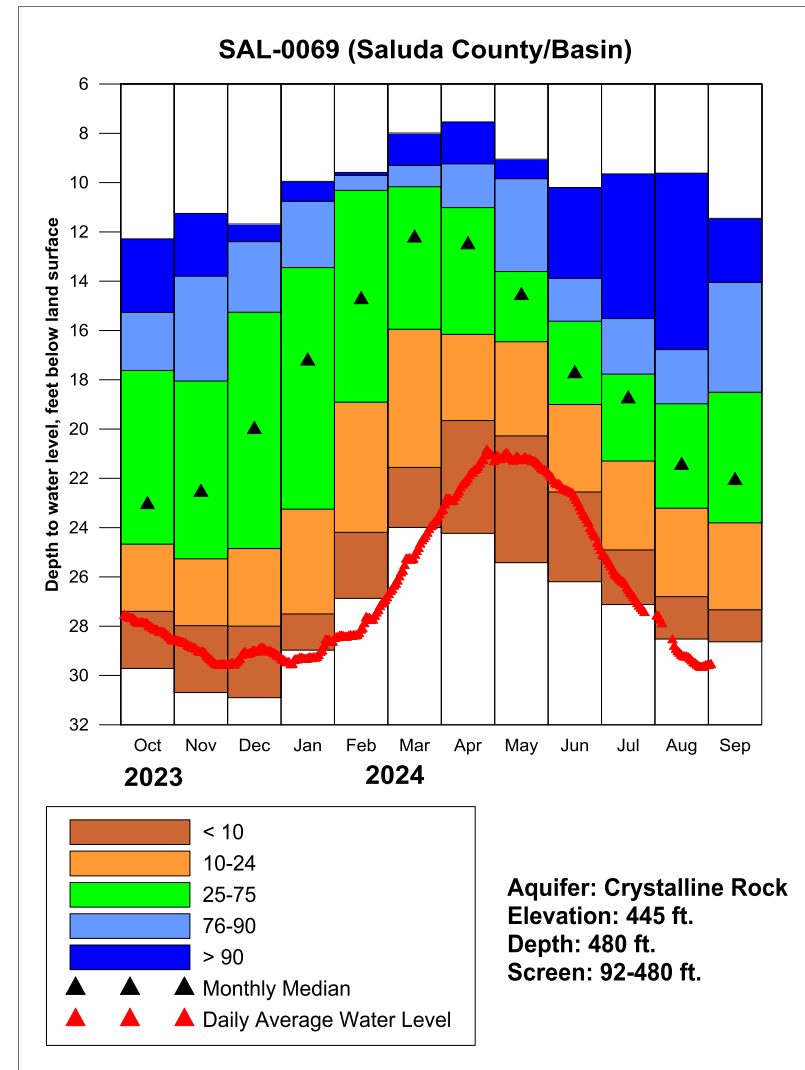
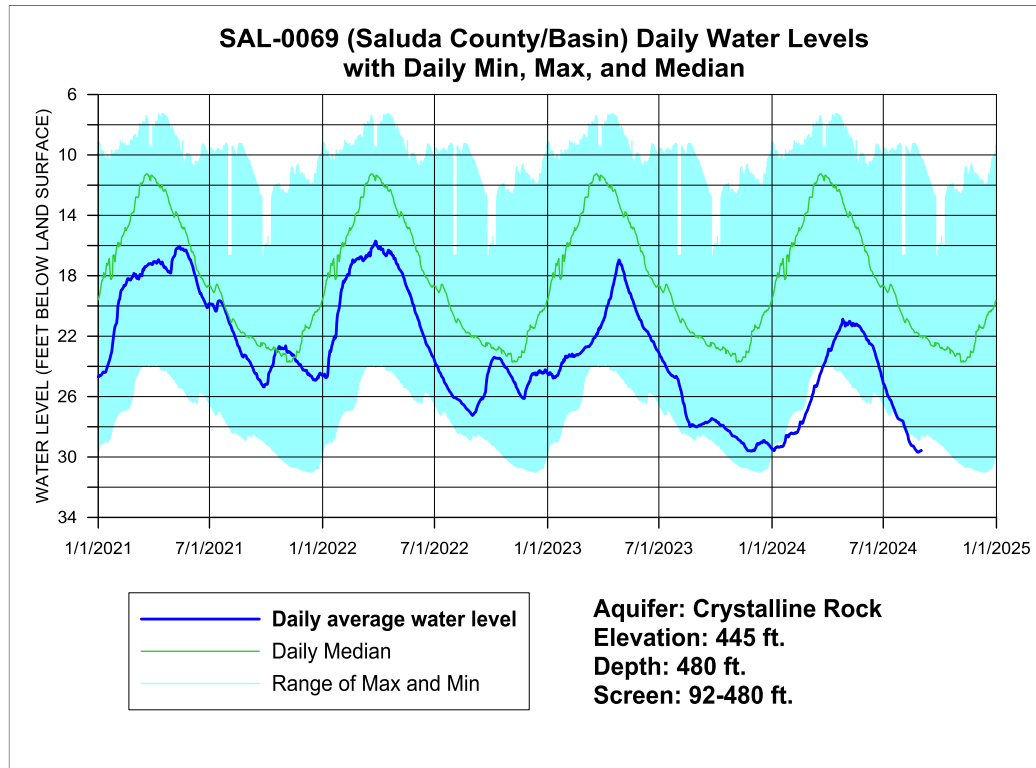
| Streamgage (01/15/2023)                   | 14DAvg | 14D%              | Test 1    |
|---|--------|-------------------|-----------|
| Waccamaw_Longs                            | 83     | 2                 | severe    |
| PeeDee_PeeDee                             | 1262   | 1                 | extreme   |
| Little PeeDee_Galivants                   | 320    | 5                 | severe    |
| Lynches_Effingham                         | 116    | 1                 | extreme   |
| BlackCreek_McBee                          | 21     | 1                 | extreme   |
| Catawba_Catawba                           | 800    | 1                 | extreme   |
| RockyCreek_GreatFalls                     | 0      | 1                 | extreme   |
| North Pacolet_Fingerville                 | 35     | 3                 | severe    |
| Enoree_Whitmire                           | 187    | 1                 | extreme   |
| Broad_Carlisle                            | 420    | 1                 | extreme   |
| GillsCreek_Columbia                       | 3      | 1                 | extreme   |
| Black_Kingstree                           | 55     | 2                 | severe    |
| Saluda_Greenville                         | 104    | 2                 | severe    |
| Chattooga_Clayton                         | 160    | 3                 | severe    |
| TwelveMileCreek_Liberty                   | 21     | 2                 | severe    |
| Little_MtCarmel                           | 30     | 1                 | extreme   |
| StevensCreek_Modoc                        | 3      | 1                 | extreme   |
| Salkehatchie_Miley                        | 50     | 4                 | severe    |
| Coosawhatchie_Hampton                     | 0      | 1                 | extreme   |
| NorthForkEdisto_Orangeburg                | 190    | 1                 | extreme   |
| Edisto_Givhans                            | 294    | 1                 | extreme   |
|   |        | <b>no drought</b> | <b>0</b>  |
|   |        | <b>incipient</b>  | <b>0</b>  |
|   |        | <b>moderate</b>   | <b>0</b>  |
|   |        | <b>severe</b>     | <b>8</b>  |
|   |        | <b>extreme</b>    | <b>13</b> |
| <b>Drought Status based on comparing</b>  |        |                   |           |
| <b>14 day average flows to historical</b> |        |                   |           |
|   |        | 20th-10th         | incipient |
|   |        | 10th-5th          | moderate  |
|   |        | 5th-2nd           | severe    |
|   |        | <2                | extreme   |

# SOUTH CAROLINA GROUNDWATER-DROUGHT MONITORING NETWORK Status - January 15, 2023



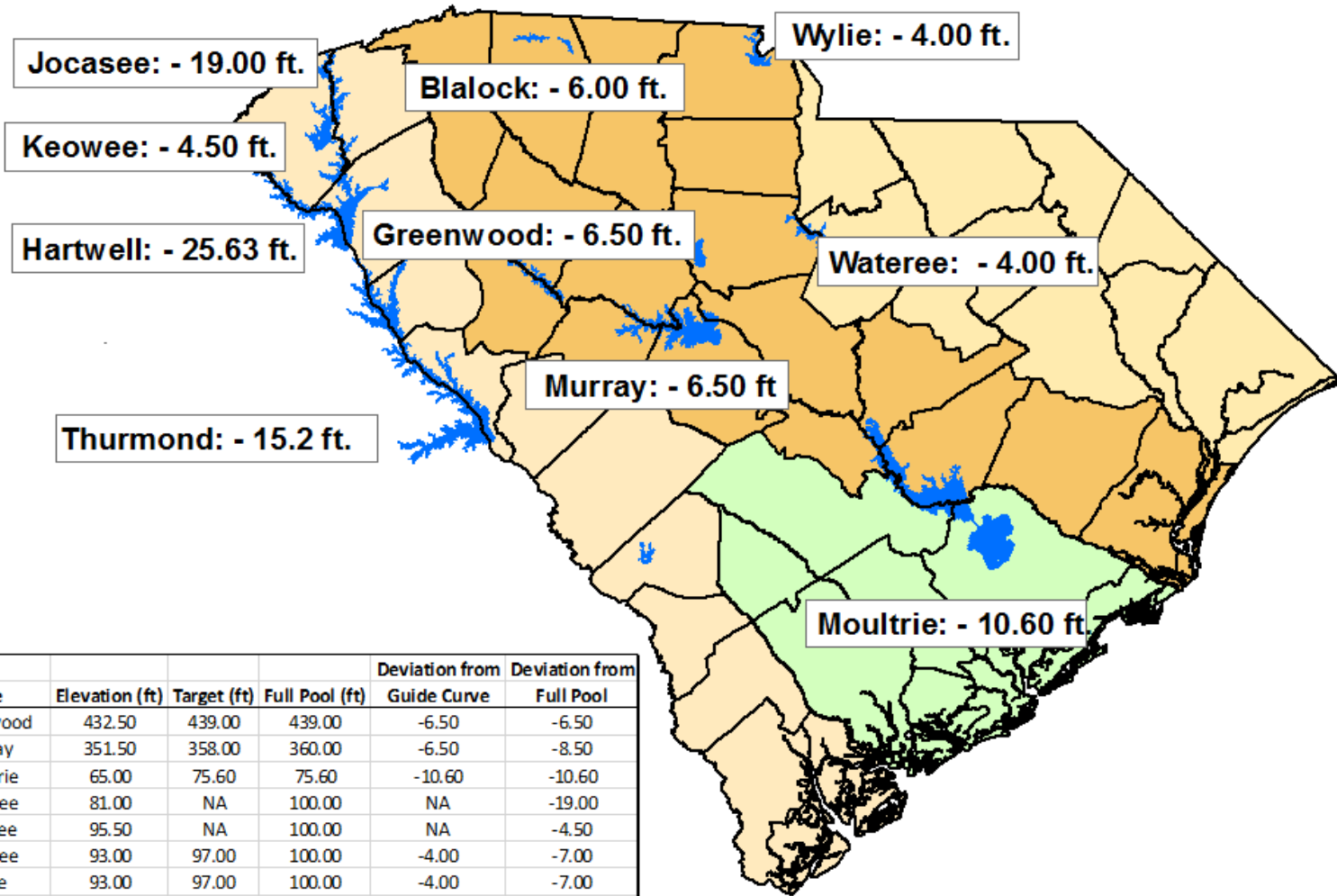
## 4. Extreme Drought Intensifies January 2023

# Saluda County/Basin Groundwater Levels



## Lake Level Deficit/Surplus on January 15, 2023

(Deficit/surplus values are referenced to guide curves, except Jocassee and Keowee which are referenced to full pool)



Jocassee: - 19.00 ft.

Blalock: - 6.00 ft.

Wylie: - 4.00 ft.

Keowee: - 4.50 ft.

Greenwood: - 6.50 ft.

Wateree: - 4.00 ft.

Hartwell: - 25.63 ft.

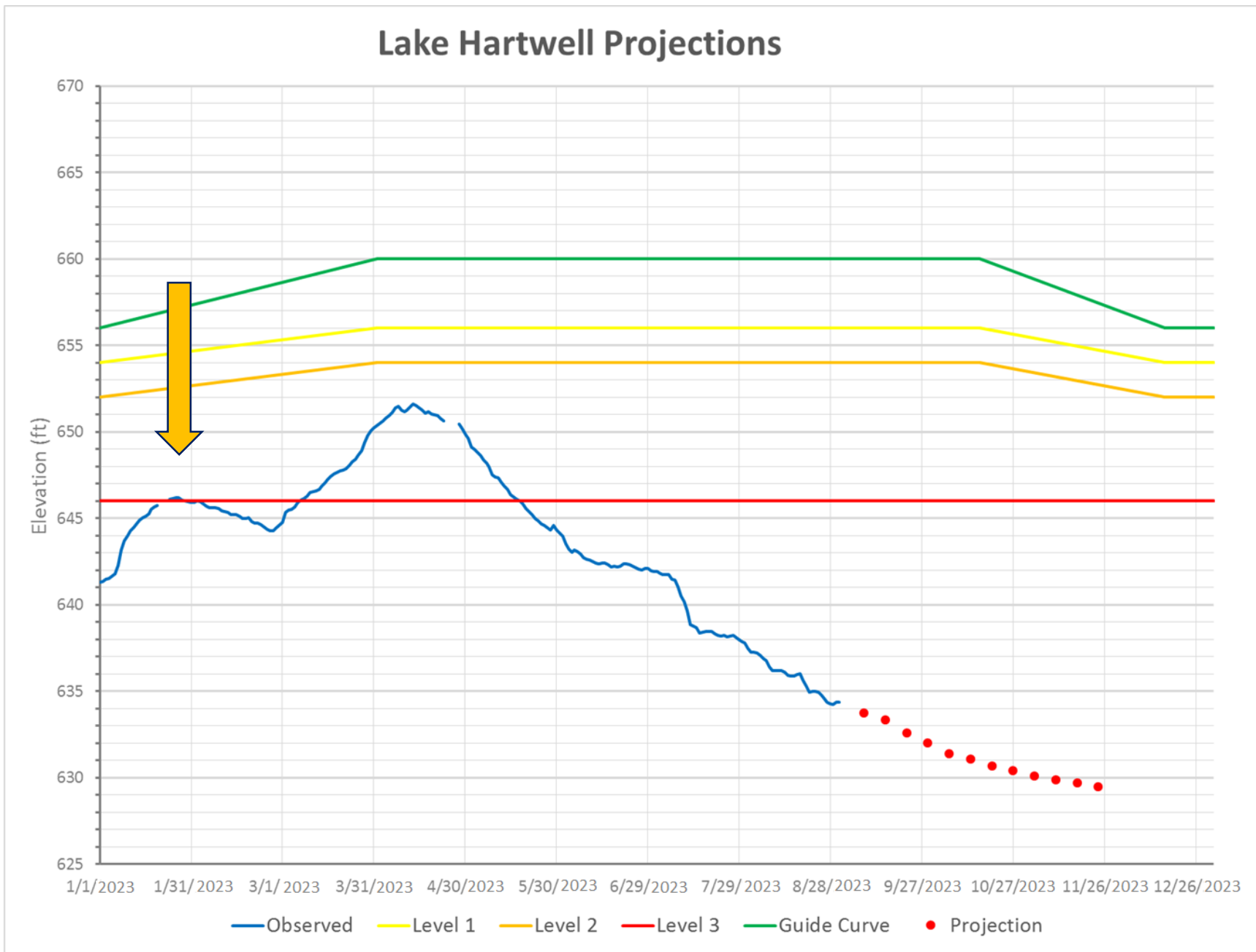
Murray: - 6.50 ft

Thurmond: - 15.2 ft.

Moultrie: - 10.60 ft

| Lake      | Elevation (ft) | Target (ft) | Full Pool (ft) | Deviation from Guide Curve | Deviation from Full Pool |
|-----------|----------------|-------------|----------------|----------------------------|--------------------------|
| Greenwood | 432.50         | 439.00      | 439.00         | -6.50                      | -6.50                    |
| Murray    | 351.50         | 358.00      | 360.00         | -6.50                      | -8.50                    |
| Moultrie  | 65.00          | 75.60       | 75.60          | -10.60                     | -10.60                   |
| Jocassee  | 81.00          | NA          | 100.00         | NA                         | -19.00                   |
| Keowee    | 95.50          | NA          | 100.00         | NA                         | -4.50                    |
| Wateree   | 93.00          | 97.00       | 100.00         | -4.00                      | -7.00                    |
| Wylie     | 93.00          | 97.00       | 100.00         | -4.00                      | -7.00                    |
| Hartwell  | 634.37         | 660.00      | 660.00         | -25.63                     | -25.63                   |
| Thurmond  | 314.80         | 330.00      | 330.00         | -15.20                     | -15.20                   |
| Blalock   | 704.00         | 710.00      | 710.00         | -6.00                      | -6.00                    |

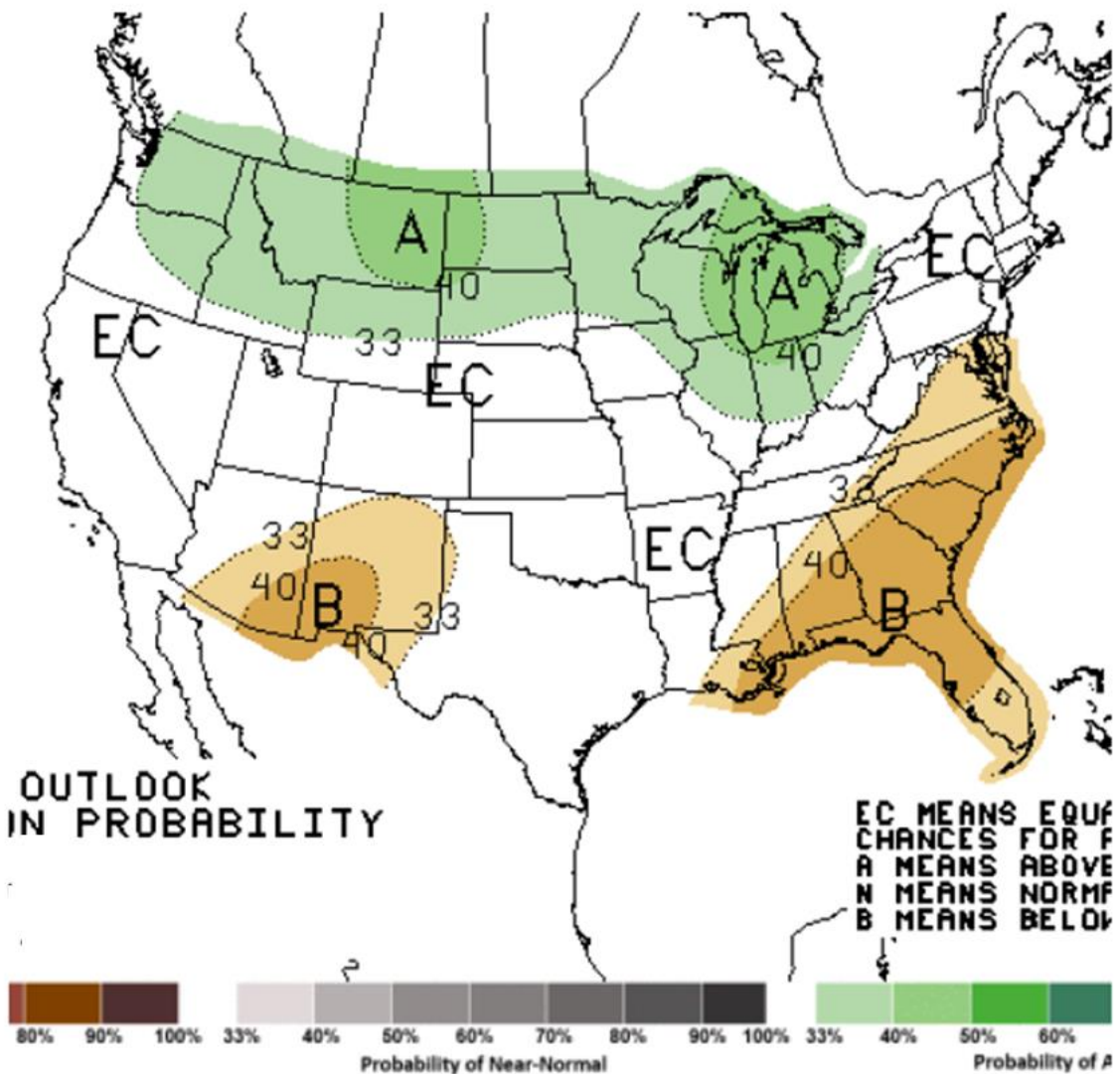
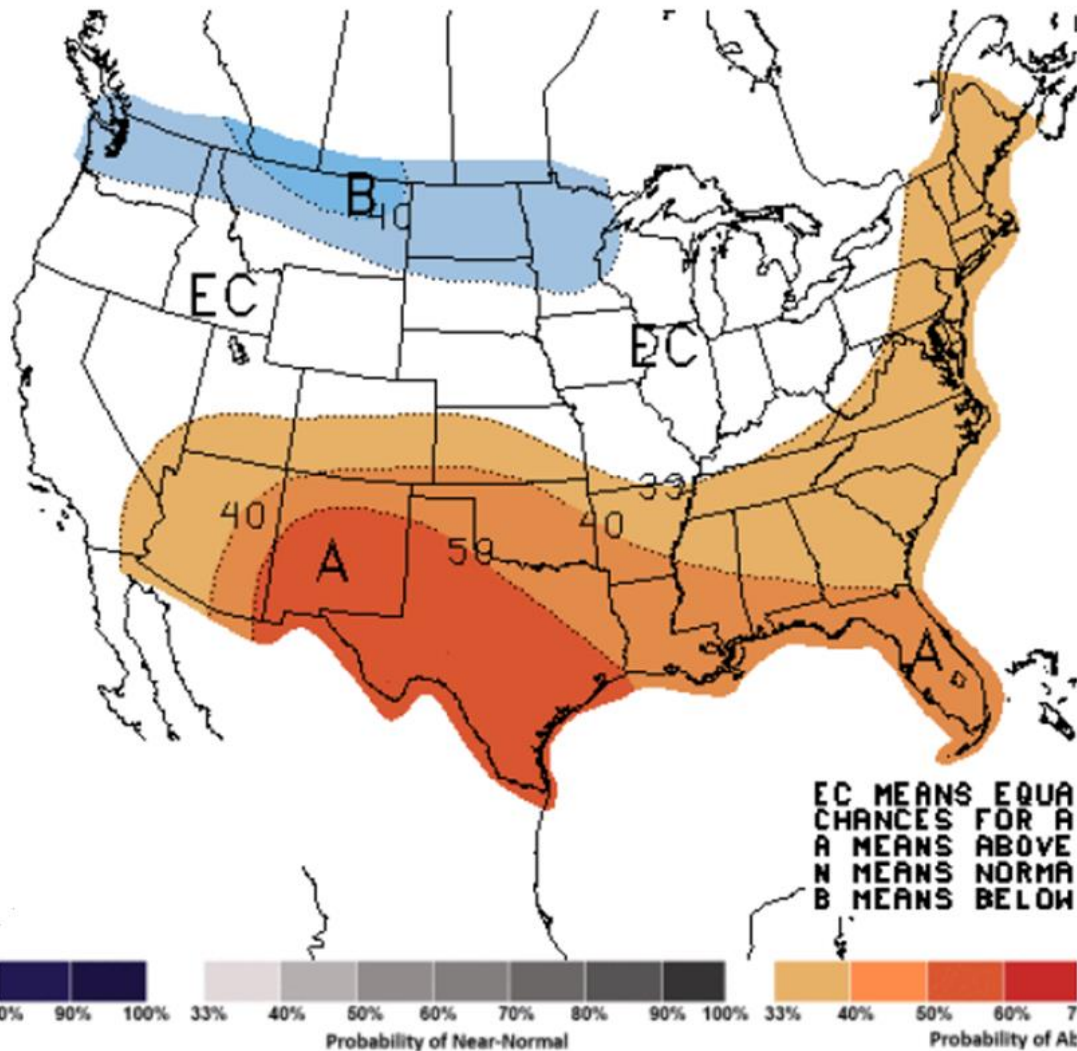
### 4. Extreme Drought Intensifies January 2023



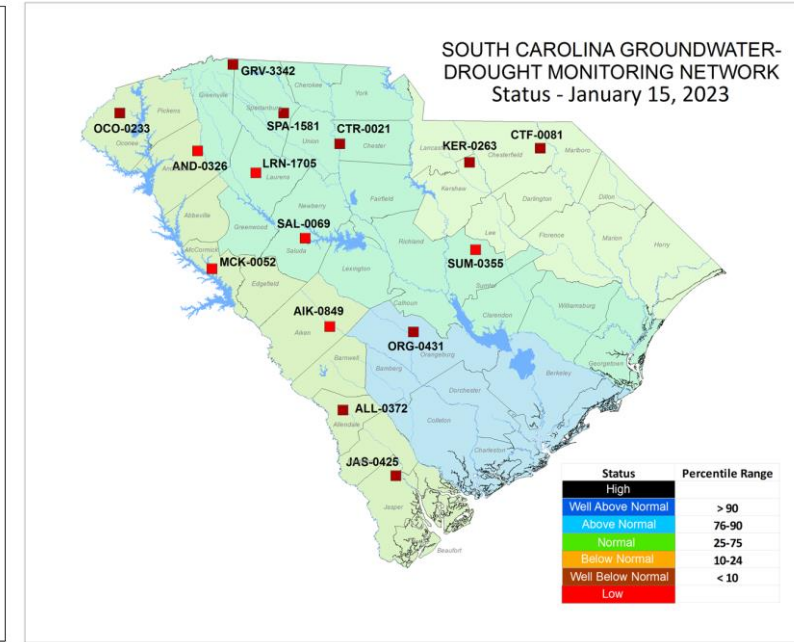
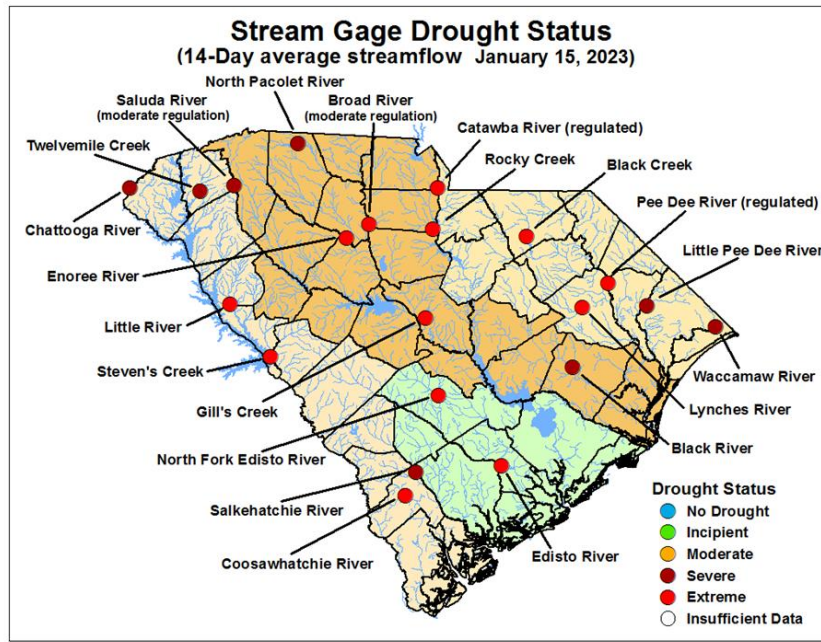
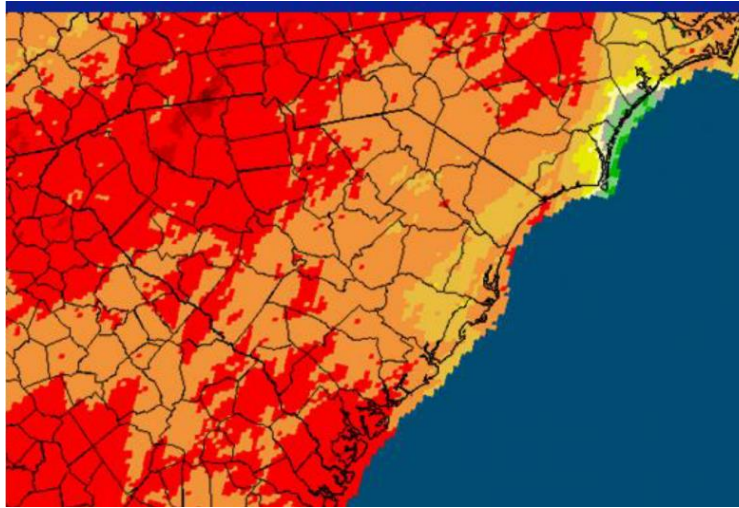
#### 4. Extreme Drought Intensifies January 2023

# Temperature

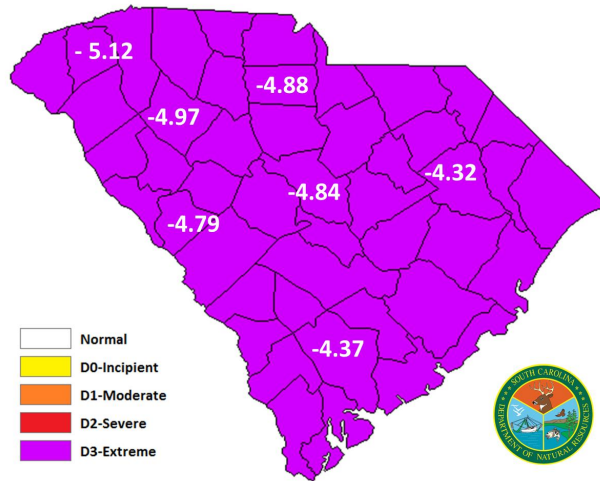
# Precipitation



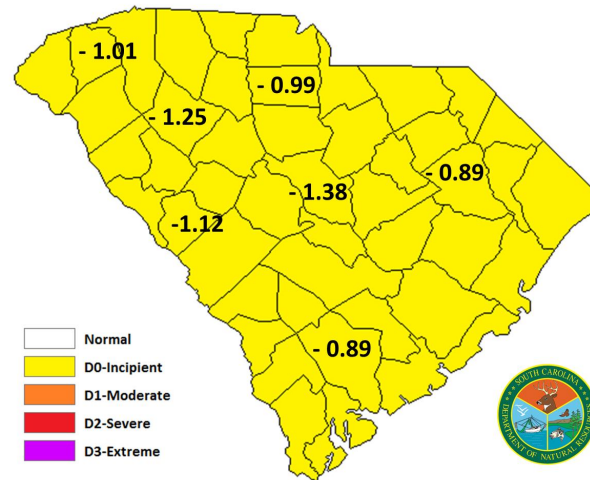
# 60-Day Departure from Normal Rainfall



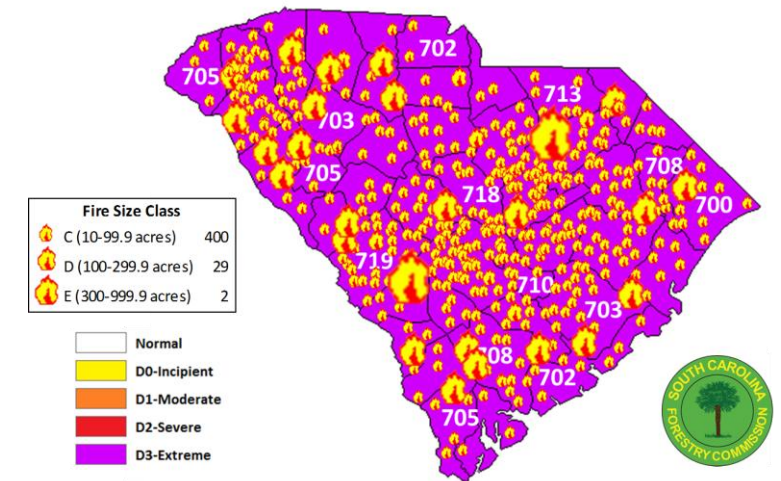
**PALMER DROUGHT SEVERITY INDEX**  
Week ending February 12, 2023



**CROP MOISTURE INDEX**  
Week ending February 12, 2023

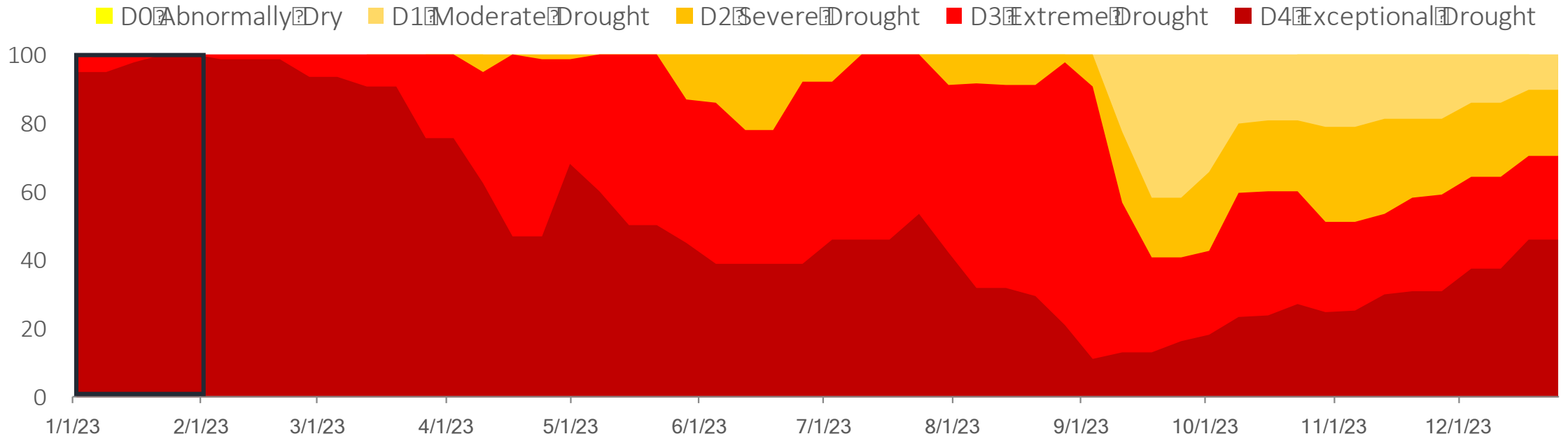


**KEETCH-BYRAM DROUGHT INDEX**  
February 12, 2023



## 4. Extreme Drought Intensifies January 2023

## South Carolina Percent Drought Area (U.S. Drought Monitor) Scenario Time Point 4: Extreme Drought Intensifies (January 2023)



### Impacts:

**Deteriorating conditions - safety, health, or welfare is seriously threatened**

Outlooks show 3rd consecutive winter of below-normal precipitation, not enough rainfall for recharge

LIPs are at highest stage of drought severity

Many water resource indicators (streamflow, reservoirs, ground water) show record lows

Continued increased risk of wildfires, 29 Class D (100-299 acres) 400 Class C (10-99 acres), wildfires are more intense.

Recreational facilities (state parks and forests, boat landings) are closed; upcoming events and competitions are being cancelled

Number of counties given USDA-disaster declarations increases

60 of water systems reporting water supply and quality concerns, some in danger of running out of water (100 days or less of water supply to meet expected demand);

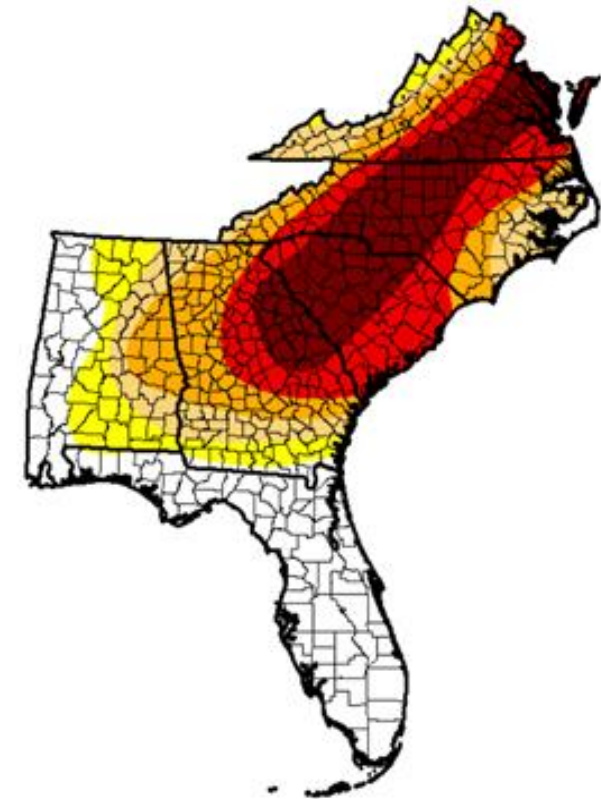
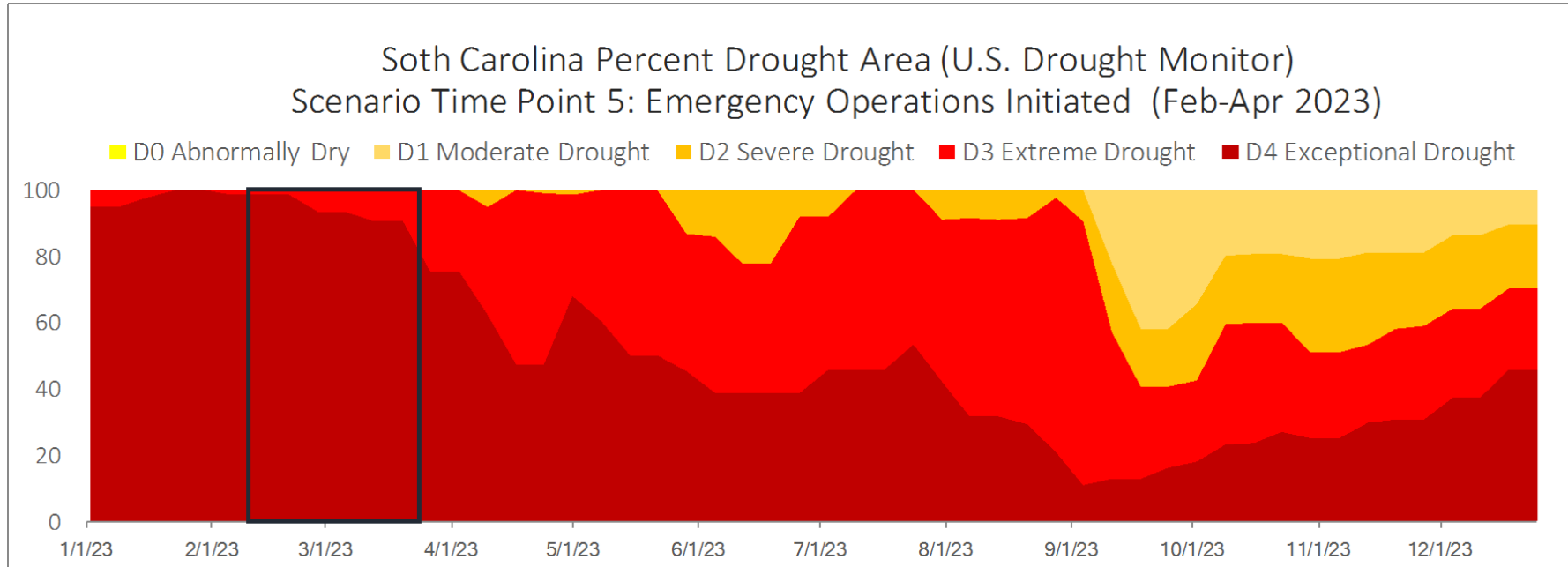
15 of water systems pursuing emergency interconnections, options to increase water storage, truck in water; saltwater intrusion into coastal water supplies



# Scenario Time Point 5

Emergency Operations Plan is Activated

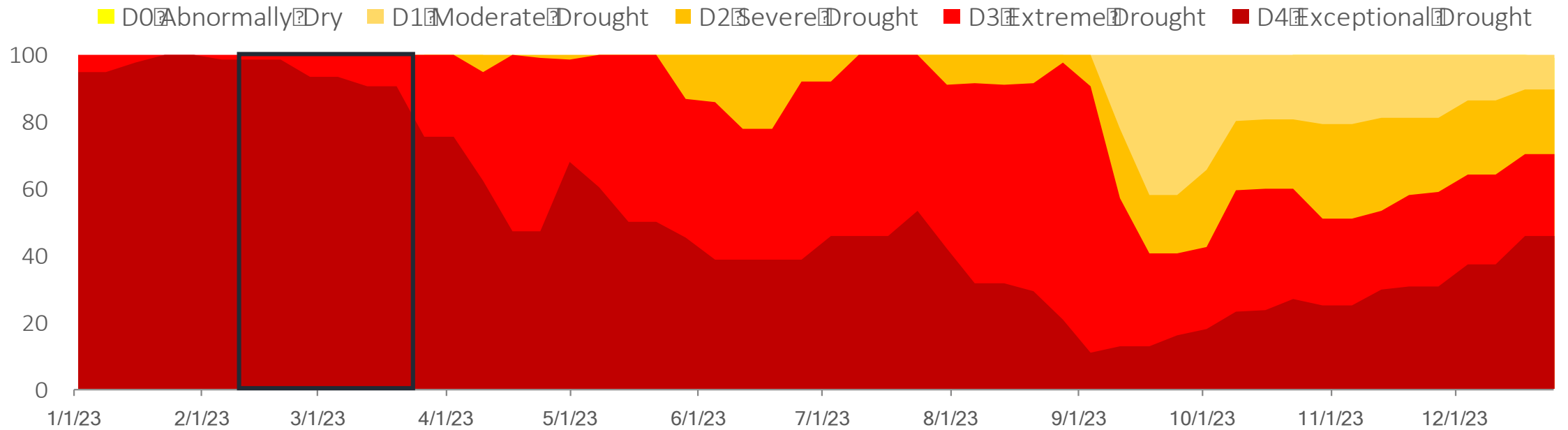
February – April 2023



5. EOP is Activated

February-April 2023

## South Carolina Percent Drought Area (U.S. Drought Monitor) Scenario Time Point 5: Emergency Operations Initiated (Feb-Apr 2023)



### Impacts:

3,894 wildfires burning in the State at the same time

Temporary shelters for citizens without access to water

Coordination between SERT and other agencies (DHEC, FEMA, USACE) to assist with drilling of new water wells, desalinization, purification, or other projects to provide water supplies

Relief assistance to communities and individuals affected by drought

Bottled water distribution

Coordination between SCEMD, Governor, SCDOT, DRC to temporarily exempt overweight/overwidth carriers transporting emergency relief supplies