### **APPENDIX A**

## HAZARD IDENTIFICATION, RISK ASSESSMENT AND VULNERABILTY

### **FLOOD**

Flood plains are relatively flat lands that border streams and rivers that are normally dry, but are covered with water during floods. The severity of a flood is usually measured in terms of depth of flooding. Flooding occurs when the volume of water exceeds the ability of a water body (stream, river, or lake) to contain it within its normal banks. Floodplains serve three major purposes: Natural water storage and conveyance, water quality maintenance, and groundwater recharge. These three purposes are greatly inhibited when floodplains are misused or abused through improper and unsuitable land development. For example, if floodplains are filled in order to construct a building, then valuable water storage areas and recharge areas are lost. This causes unnecessary flooding in previously dry areas and can damage buildings or other structures.

The susceptibility of a stream to flooding is dependent upon several different variables. Among these are topography, ground saturation, rainfall intensity and duration, soil types, drainage, drainage patterns of streams, and vegetative cover. A large amount of rainfall over a short time period can result in flash flood conditions. A small amount of rain can also result in floods in locations where the soil is saturated from a previous wet period or if the rain is concentrated in an area of impermeable surfaces such as large parking lots, paved roadways, etc. Topography and ground cover are contributing factors for floods in that water runoff is greater in areas with steep slopes and little or no vegetation.

Severe flooding within Hancock County is a relatively infrequent event. The county has one lake, 45 rivers/streams and 14 reservoirs. There have been three flooding events recorded in the last 69 years. These events resulted in school closings and roads washing out. The hazard frequency table calculates a 10 percent chance of an annual flooding event. Severe flooding, although relatively rare in occurrence, has the potential to inflict significant damage in Hancock County. Mitigation of flood damage requires the community to know where flood prone areas are, what roads and bridges may be affected, and which facilities fall below anticipated flood levels.

The magnitude of a major flood event could have approximately 25 percent of the county experiencing some damage from flooding. Based on a 20-year hazard cycle the chance of an annual flooding event occurring is:

- 10 percent for all of Hancock County;
- 10 percent for unincorporated areas of Hancock County; and
- 10 percent for Sparta

Based on tax data, parcel and flood maps, all or a portion of 63 known structures/properties valued at approximately \$4.4 million and a population of 191 are located in known floodplains.

# Critical Facilities by Flood Hazard Score

| 14                     | 2                    | Essential                | Enforcement,<br>Sheriff      | 0                       | 2014                       | 2500                        | 2014          | 4406220          | 0                 | Hancock<br>County<br>Sheriff's Office  | Hancock<br>County |
|------------------------|----------------------|--------------------------|------------------------------|-------------------------|----------------------------|-----------------------------|---------------|------------------|-------------------|--|-------------------|
|                        |                      | Vulnerable Population    | VoTech                       |                         | ,                          | 000                         | ,<br>,        | ,<br>,<br>,<br>, | C                 | County Service<br>Center               | County            |
|                        | )<br>I               | 3005                     | Court House                  |                         | 2014                       | 36.00                       | 2014          | 201062           | 5                 | Magistrate                             | Land              |
|                        | 9                    | Important                | Law<br>Enforcement,          | 0                       | 2014                       | 8000                        | 2014          | 800000           | 0                 | Hancock<br>County                      | Hancock<br>County |
|                        | 65                   | Important                | 0 Education,<br>Library      | 0                       | 907608 2014                | 7575                        | 2014          | 1478909          | 0                 | Hancock<br>County Library              | Hancock<br>County |
|                        |                      | LITERITOR                | water/sewer                  |                         |                            |                             |               |                  |                   | Department                             | county            |
|                        | 60                   | Essential,               | 0 Government,                | 0                       | 10977 2014                 | 6360                        | 2014          | 818284           | 0                 | Hancock                                | Hancock           |
|                        |                      |                          | Services, Fire<br>Fighters   |                         |                            |                             |               |                  |                   | County Fire<br>Station #2              | County            |
|                        | 0                    | Essential                |                              | 0                       | 250000 2014                | 2400                        | 2014          | 75000            | 0                 | Hancock                                | Hancock           |
|                        |                      |                          | Fighters                     |                         |                            |                             |               |                  |                   | Station Station                        | County            |
|                        | ъ                    | Essential                |                              | 0                       | 9000000 2014               | 2000                        | 2014          | 966215           | 0                 | Hancock                                | Hancock           |
| 2                      | 4                    | Lifeline                 | Water/Sewer                  | C                       | 2014                       | 3000                        | 2014          | 50000            | c                 | County EMS                             | County            |
| )                      | •                    | 1                        | Court House                  |                         |                            |                             |               | 1                | >                 | -                                      |                   |
|                        |                      | Consideration            | Enforcement, Court House,    |                         |                            |                             |               |                  |                   |  |                   |
|                        |                      | Historic                 | Law                          |                         |                            |                             |               |                  |                   | Courthouse                             |                   |
|                        |                      | Potential Loss,          | Enforcement,                 |                         |                            |                             |               |                  |                   | County                                 | County            |
|                        | 18                   | Essential, High          | 0 Law                        | 0                       | 1000000 2018               | 40000                       | 2018          | 8096000          | 0                 | Hancock                                | Hancock           |
|                        |                      | Population               | 12                           |                         |                            |                             |               |                  |                   | Central High                           | County            |
|                        | 455                  | Vulnerable               | 0 Education, K -             | 0                       | 2014                       | 25000                       | 2014          | 800000           | 0                 | Hancock                                | Hancock           |
|                        | 25                   | Vulnerable<br>Population | 0 Government,<br>Water/Sewer | 0                       | 2014                       | 2500                        | 2014          | 582923           | 0                 | Betty Hill<br>Senior Citizen<br>Center | Hancock<br>County |
| Nighttime<br>Occupancy | Daytime<br>Occupancy | Risk                     | Facility type                | Functional Use<br>value | ntent Valuation<br>ue Year | Building size Content value | Replacement I | Value            | Hazard V<br>Score | Name                                   | Jurisdiction      |
|                        |                      | 3                        |                              |                         |                            | =                           |               |                  |                   |  |                   |

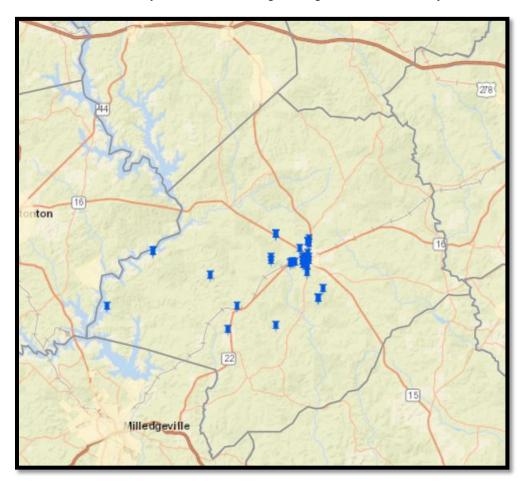
# Critical Facilities by Flood Hazard Score

|           |         |                        | Livate                       |                |            |         |                       |             |         |        |                    |              |
|-----------|---------|------------------------|------------------------------|----------------|------------|---------|-----------------------|-------------|---------|--------|--------------------|--------------|
|           | 2       | Essential              | 0 Government,                | 0              | 2014       |         | 15000                 | 2014        | 30000   | 0      | Sparta City Hall   | Sparta city  |
|           | 15      | Essential,<br>Lifeline | 0 Education,<br>VoTech       | 0              | 2008       |         | 2800                  | 2008        | 450000  | 0      | Robert L<br>Morgan | Sparta city  |
|           |         | Population             | Water/Sewer                  |                |            |         |                       |             |         |        | Nursing Home       |              |
| 45        | 65      | Vulnerable             | 0 Government,                | 0              | 2014       |         | 12000                 | 2014        | 656120  | 0      | Providence         | Sparta city  |
|           |         |                        | VoTech                       |                |            |         |                       |             |         |        | Health Systems     | County       |
|           | 15      | Essential              | 0 Education,                 | 0              | 80000 2014 |         | 3100                  | 2014        | 185000  | 0      | Tri-County         | Hancock      |
|           |         |                        | Enforcement,<br>State Patrol |                |            |         |                       |             |         |        | Commissioner       | County       |
|           | 10      | Important              | 0 Law                        | 0              | 30000 2014 |         | 10000                 | 2014        | 500000  | 0      | Tax                | Hancock      |
|           |         | Population             |                              |                |            |         |                       |             |         |        | School             |              |
|           |         | Vulnerable             | Water/Sewer                  |                |            |         |                       |             |         |        | Elementary         | County       |
|           | 642     | Essential,             | 0 NGO,                       | 0              | 2014       |         | 30000                 | 2014        | 450000  | 0      | Southwest          | Hancock      |
|           |         |                        | Volech                       |                |            |         |                       |             |         |        | School             | County       |
| 60        | 60      | Important              | 0 Education,                 | 0              | 2014       |         | 15200                 | 2014        | 2500000 | 0      | Sandersville       | Hancock      |
|           |         | Population             |                              |                |            |         |                       |             |         |        | School             |              |
|           |         | Vulnerable             | Water/Sewer                  |                |            |         |                       |             |         |        | Elementary         | County       |
|           |         | Essential,             | 0 NGO,                       | 0              | 2014       | )       | 30000                 | 2014        | 450000  | 0      | M.e. Lewis         | Hancock      |
|           |         | Population             | Private                      |                |            |         |                       |             |         |        | Academy            | County       |
|           | 75      | Vulnerable             | Education,                   | 0              | 2014       |         | 1200                  | 2014        | 200000  | 0      | John Hancock       | Hancock      |
|           |         |                        | Fighters                     |                |            |         |                       |             |         |        |                    |              |
|           |         |                        | Services, Fire               |                |            |         |                       |             |         |        | 5-2                | County       |
|           |         | Essential              | 0 Emergency                  | 0              | 9050 2013  |         | 3000                  | 2013        | 108364  | 0      | Holiday Shores     | Hancock      |
|           |         |                        | Fighters                     |                |            |         |                       |             |         |        | Ų.                 | County       |
|           |         | Essential              | 0 Emergency                  | 0              | 3000 2013  |         | 1200                  | 2013        | 35000   | 0      | Holiday Shores     | Hancock      |
|           |         |                        | State Patrol                 |                |            |         |                       |             |         |        | Authority          |              |
|           |         |                        | Enforcement,                 |                |            |         |                       |             |         |        | Development        | County       |
|           | 3       | Important              | 0 Law                        | 0              | 2014       |         | 2500                  | 2014        | 1137489 | 0      | Hanock County      | Hancock      |
|           |         | Population             | Enforcement,<br>State Patrol |                |            |         |                       |             |         |        | Prison             | County       |
| 1575      | 1595    | Vulnerable             | 0 Law                        | 0              | 2014       |         | 35000                 | 2014        | 1500000 | 0      | Hancock State      | Hancock      |
| Occupancy | cy      | , in the second        | ימכווינץ נאסכ                | value          | Year       | value   | 0                     |             |         |        | i d                |              |
| Nighttime | Davtime | Risk                   | nal Use Facility type        | Functional Use | Valuation  | Content | Building size Content | Replacement | Value R | Hazard | Name               | Jurisdiction |

# Critical Facilities by Flood Hazard Score

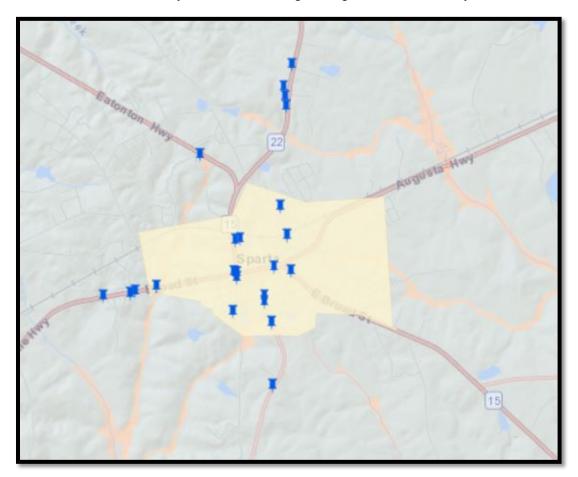
| 1683      | 3172      |            | 0                            | 11290635         | 281535                  |             | 30420487 |        |               |              |
|-----------|-----------|------------|------------------------------|------------------|-------------------------|-------------|----------|--------|---------------|--------------|
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        |               |              |
|           |           | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 250000   | 0      | Water Tower   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        |               |              |
|           | 0         | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 250000   | 0      | Water Tower   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        |               |              |
|           | 0         | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 250000   | 0      | Water Tower   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        |               |              |
|           |           | Essential, | 0 Government,                | 2014             | 2000                    | 2014        | 300000   | 0      | Sparta WPCP   | Sparta city  |
|           |           |            |                              |                  |                         |             |          |        | Pond          |              |
|           |           |            | Water/Sewer                  |                  |                         |             |          |        | Stabilization |              |
|           |           | Essential  | 0 Government,                | 2014             | 2000                    | 2014        | 500000   | 0      | Sparta Waste  | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Pond          |              |
|           |           | Essential, | 0 Government,                | 2014             | 1000                    | 2014        | 250000   | 0      | Sparta Waste  | Sparta city  |
|           |           |            |                              |                  |                         |             |          |        | Station       |              |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Pumping       |              |
|           |           | Essential, | 0 Government,                | 2014             | 1000                    | 2014        | 250000   | 0      | Sparta        | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Station 4     |              |
|           |           | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 100000   | 0      | Sparta Lift   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Station 3     |              |
|           |           | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 100000   | 0      | Sparta Lift   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Station 2     |              |
|           |           | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 100000   | 0      | Sparta Lift   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Station 1     |              |
|           |           | Essential, | 0 Government,                | 2014             | 100                     | 2014        | 100000   | 0      | Sparta Lift   | Sparta city  |
|           |           | Lifeline   | Water/Sewer                  |                  |                         |             |          |        | Care          |              |
|           | 25        | Essential, | 0 Government,                | 2014             | 10000                   | 2014        | 550000   | 0      | Sparta Health | Sparta city  |
|           |           |            |                              |                  |                         |             |          |        | Plant         |              |
|           |           |            |                              |                  |                         |             |          |        | Treatment     |              |
|           |           |            | Water/Sewer                  |                  |                         |             |          |        | Water         |              |
|           | 1         | Essential  | 0 Government,                | 2014             | 2000                    | 2014        | 750000   | 0      | Sparta Fresh  | Sparta city  |
| Occupancy | Occupancy |            | value                        | value Year       | <                       | Value Year  |          | Score  |               |              |
| Nighttime | Daytime   | Risk       | Functional Use Facility type | ontent Valuation | Building size   Content | Replacement | Value    | Hazard | Name          | Jurisdiction |
|           |           |            |                              |                  |                         |             |          |        |               |              |

Hancock County Flood Plains Georgia Mitigation Information System



| Score | Original Value | Description                                    |
|-------|----------------|--|
|       | Floodway       | Floodway (within zone AE)                      |
| 4     | V              | 1% with Velocity no Base Flood Elevation (BFE) |
|       | VE             | 1% with Velocity BFE                           |
|       | A              | 1% Annual Chance no BFE                        |
|       | A99            | 1% Federal flood protection system             |
| 3     | AE             | 1% has BFE                                     |
| 3     | AH             | 1% Ponding has BFE                             |
|       | AO             | 1% Sheet Flow has depths                       |
|       | AR             | 1% Federal flood protection system             |
| 2     | X500           | 0.2% Annual Chance                             |
| 1     | ANI            | Area not included in survey                    |
| 1     | D              | Undetermined but possible                      |
| 0     | UNDES          | Undesignated                                   |
| U     | X              | Outside Flood Zones                            |

Hancock County Flood Plains Georgia Mitigation Information System



| Score | Original Value | Description                                    |
|-------|----------------|--|
|       | Floodway       | Floodway (within zone AE)                      |
| 4     | V              | 1% with Velocity no Base Flood Elevation (BFE) |
|       | VE             | 1% with Velocity BFE                           |
|       | A              | 1% Annual Chance no BFE                        |
|       | A99            | 1% Federal flood protection system             |
| 3     | AE             | 1% has BFE                                     |
| 3     | AH             | 1% Ponding has BFE                             |
|       | AO             | 1% Sheet Flow has depths                       |
|       | AR             | 1% Federal flood protection system             |
| 2     | X500           | 0.2% Annual Chance                             |
| 1     | ANI            | Area not included in survey                    |
| 1     | D              | Undetermined but possible                      |
| 0     | UNDES          | Undesignated                                   |
| U     | X              | Outside Flood Zones                            |

### **Dam Failures**

Dam failures and incidents involve unintended release or surges of impounded water. They can destroy property and cause injury and death downstream. While they may involve the total collapse of a dam, that is not always the case. Damaged spillways, overtopping of a dam or other problems may result in a hazardous situation. Dam failures may be caused by structural deficiencies in the dam itself. Dam failures may also come from other factors including but not limited to debris blocking spillways, flooding, earthquakes, improper operation and vandalism. Dam failures are potentially the worst flood events. When a dam fails, a large quantity of water is suddenly released downstream, destroying anything in its path and posing a threat to life and property.

Dams are classified into three categories:

- High Hazard Dams where failure or disoperation will probably cause loss of human life.
- Significant Hazard Dams where failure or disoperation will probably not result in loss of life, but can cause economic loss, environmental damage, and disruption of lifeline facilities or other concerns.
- Low Hazard Dams where failure or disoperation will probably not result in loss of life and cause only low economic and/or environmental loss.

Dam failures and incidents involve unintended release or surges of impounded water. They can destroy property and cause injury and death downstream. While they may involve total collapse of a dam, that is not always the case. There have been no known dam failures events in the last 69 years. The committee deemed it important to address since there are 15 dams located in the county. The committee recognized the potential for losses caused by dam failure and identified it as a hazard requiring mitigation measures. To summarize, there are approximately 28,230 structures/properties in the county totaling more than \$1 billion with a population of 9,429.

|                        |      | 0                                |                       |                  | 2014              | 450000            | 30000 | Admin. Offices                        | Population   | NGO, Water/Sewer   | 456                            | County            | Elementary                          |
|------------------------|------|----------------------------------|-----------------------|------------------|-------------------|-------------------|-------|---------------------------------------|--|--|--------------------------------|-------------------|-------------------------------------|
|                        |      |                                  |                       |                  |                   |                   |       | Grade Schools and                     | Essential, Vulnerable  |  | HWY 15 RR2 Box                 | Hancock           | M.e. Lewis                          |
|                        | 75   | 0                                |                       |                  | 2014              | 200000            | 1200  | Grade Schools and Admin. Offices      | Vulnerable Population  | Education, Private   | 1100 Linton Road               | Hancock<br>County | John Hancock<br>Academy             |
|                        |      | 0                                | 2013                  | 9050 2013        | 2013              | 108364            | 3000  | Government -<br>Emergency<br>Response | Essential  | Emergency Services,<br>Fire Fighters                       | 3388 Lake Crest                | Hancock           | Holiday Shores 5-                   |
|                        |      | 0                                | 2013                  | 3000 2013        | 2013              | 35000             | 1200  | Government -<br>Emergency<br>Response | Essential  | Emergency Services,<br>Fire Fighters                       | 3388 Lake Crest<br>Drive       | Hancock<br>County | Holiday Shores 5-                   |
|                        | ω    | 0                                |                       |                  | 2014              | 1137489           | 2500  | Government -<br>General Services      | Important  | Law Enforcement,<br>State Patrol                           | Court House<br>Sqaure          | Hancock<br>County | Hanock County Development Authority |
| 1575                   | 1595 | 0                                |                       |                  | 2014              | 1500000           | 35000 | Government -<br>General Services      | Vulnerable Population  | Law Enforcement,<br>State Patrol                           | 701 Prison Blvd                | Hancock<br>County | Hancock State<br>Prison             |
| 1                      | 2    | 0                                |                       |                  | 2014              | 4406220           | 2500  | Government -<br>Emergency<br>Response | Essential  | Law Enforcement,<br>Sheriff                                | 820 Spring St                  | Hancock<br>County | Hancock County<br>Sheriff's Office  |
|                        | 25   | 0                                |                       |                  | 2014              | 394963            | 2500  | Medical Office and<br>Clinic          | Important, Vulnerable<br>Population                          | Education, VoTech  | 75 Boland Circle               | Hancock<br>County | Hancock County<br>Service Center    |
|                        | 9    | 0                                |                       |                  |                   |                   | 8000  | Government -<br>General Services      | Important  | Law Enforcement,<br>Court House                            | Courthouse<br>Square           | ~                 | Hancock County<br>Magistrate        |
|                        | 65   | 0                                | 2008                  | 907608 2008      | 2014              | 1478909           | 7575  | Government -<br>General Services      | Important  | Education, Library   | 8984 E. Broad<br>Street        | Hancock<br>County | Hancock County<br>Library           |
|                        | 60   | 0                                | 2008                  | 10977 2008       | 2014              | 818284            | 6360  | Medical Office and Clinic             | Essential, Lifeline  | Government,<br>Water/Sewer                                 | 516 Boland Street              | Hancock<br>County | Hancock County<br>Health            |
|                        | 0    | 0                                |                       | 250000           | 2014              | 75000             | 2400  | Government -<br>Emergency<br>Response | Essential  | Emergency Services,<br>Fire Fighters                       | 52 Spring Street               | Hancock<br>County | Hancock County<br>Fire Station      |
|                        | 12   | 0                                | 2008                  | 9000000 2008     | 2014              | 966215            | 2000  | Government - Emergency Response       | Essential  | Emergency Services,<br>Fire Fighters                       | 4029 Lake Sinclair<br>Drive    | Hancock<br>County | Hancock County<br>Fire Station #2   |
| 2                      | 4    | 0                                |                       |                  | 2014              | 50000             | 3000  | Government - Emergency Response       | Essential, Lifeline  | Government,<br>Water/Sewer                                 | 656 Linton Road                | Hancock<br>County | Hancock County<br>EMS               |
|                        | 18   | 0                                |                       | 1000000          | 2018              | 8096000           | 40000 | Government -<br>General Services      | Essential, High Potential<br>Loss, Historic<br>Consideration | Law Enforcement, Law Enforcement, Court House, Court House | Courthouse Square,<br>Broad St | Hancock<br>County | Hancock County<br>Courthouse        |
|                        | 455  | 0                                |                       |                  | 2014              | 800000            | 25000 | Grade Schools and Admin. Offices      | Vulnerable Population  | Education, K - 12  | Hwy. 15                        | Hancock<br>County | Hancock Central<br>High             |
|                        | 25   | 0                                |                       |                  | 2014              | 582923            | 2500  | Government -<br>General Services      | Vulnerable Population  | Government,<br>Water/Sewer                                 | 330 Water Works<br>Road        | Hancock<br>County | Betty Hill Senior<br>Citizen Center |
| Nighttime<br>Occupancy | Ċ    | FunctionalV Daytime alue Occupan | Contents<br>ValueYear | Content<br>value | Valuation<br>Year | Building<br>Value | Area  | Occupancy                             | Risk   | FacilityTypes  | Address                        | Jurisdiction      | Name                                |

|                               |                  |             | 00 2014   | 100 250000 | 100     | General Services     | Essential, Lifeline   | Government,<br>Water/Sewer | 14265 Hwy 16 E    | Sparta city  | Water Tower         |
|-------------------------------|------------------|-------------|-----------|------------|---------|----------------------|-----------------------|----------------------------|-------------------|--------------|---------------------|
|                               |                  |             |           |            |         | Government -         |                       | Government,                |                   |              |                     |
|                               |                  |             |           |            |         | ) !                  | _                     |                            | _                 | _            |                     |
|                               |                  |             | 0 2014    |            | 1       | General Services     | Essential, Lifeline   | Water/Sewer                | 295 Lewis Street  | Sparta city  | Water Tower         |
|                               |                  |             |           |            |         | Government -         |                       | Government,                |                   |              |                     |
|                               |                  |             | 0 2014    | 100 250000 | 1(      | General Services     | Essential, Lifeline   | Water/Sewer                | Road              | Sparta city  | Water Tower         |
|                               |                  |             |           |            |         | Government -         |                       | Government,                | 775 Old Eatonton  |              |                     |
| 0 0 0 0                       |                  |             | 0 2014    | 300000     | 2000    | General Services     | Essential, Lifeline   | Water/Sewer                | Road              | Sparta city  | Sparta WPCP         |
| 0 0 0 0                       |                  |             |           |            |         | Government -         |                       | Government,                | 747 Johnny Britt  |              |                     |
| 0 0 0                         |                  |             | 0 2014    | 500000     | 2000    | General Services     | Essential             | Water/Sewer                | Street            | Sparta city  | Stabilization Pond  |
| 0 0 0                         |                  |             |           |            |         | Government -         |                       | Government,                | 116 Hancock       |              | Sparta Waste        |
| 0 0 0                         |                  |             | 0 2014    | 250000     | 1000    | General Services     | Essential, Lifeline   | Water/Sewer                | Road              | Sparta city  | Pond                |
| 0 0 0                         |                  |             |           |            |         | Government -         |                       | Government,                | 747 Johnny Britt  |              | Sparta Waste        |
| 0 0                           |                  |             | 0 2014    | 250000     | 1000    | General Services     | Essential, Lifeline   | Water/Sewer                | Chaple Road       | Sparta city  | Station             |
| 0 0                           |                  |             |           |            |         | Government -         |                       | Government,                | 5992 Warren       |              | Sparta Pumping      |
| 0                             |                  |             | 0 2014    | 100 100000 | 1(      | General Services     | Essential, Lifeline   | Water/Sewer                | 11476 Hwy 22      | Sparta city  | 4                   |
| 0                             |                  |             |           |            |         | Government -         |                       | Government,                |                   |              | Sparta Lift Station |
|                               |                  |             | 0 2014    | 100 100000 | 1(      | General Services     | Essential, Lifeline   | Water/Sewer                | 11051 Hwy 22      | Sparta city  | ω                   |
|                               |                  |             |           |            |         | Government -         |                       | Government,                |                   |              | Sparta Lift Station |
| 0                             |                  |             | 0 2014    | 100 100000 | 1(      | General Services     | Essential, Lifeline   | Water/Sewer                | Hwy 15 N          | Sparta city  | 2                   |
|                               |                  |             |           |            |         | Government -         |                       | Government,                |                   |              | Sparta Lift Station |
| 0                             |                  |             | 0 2014    | 100 100000 | 1(      | General Services     | Essential, Lifeline   | Water/Sewer                | Street            | Sparta city  | 1                   |
|                               |                  |             |           |            |         | Government -         |                       | Government,                | 11962 Broad       |              | Sparta Lift Station |
| 0 25                          |                  |             | 0 2014    | 00 550000  | s 10000 | Profit Organizations | Essential, Lifeline   | Water/Sewer                | 11744 Hwy 22      | Sparta city  | Care                |
|                               |                  |             |           |            |         | Churches and Non-    |                       | Government,                |                   |              | Sparta Health       |
| 0 1                           |                  |             | 0 2014    | 00 750000  | 2000    | General Services     | Essential             | Water/Sewer                | Station Road      | Sparta city  | Treatment Plant     |
|                               |                  |             |           |            |         | Government -         |                       | Government,                | 1427 Pumping      | 7            | Sparta Fresh Water  |
| 0 2                           |                  |             | 0 2014    | 30000      | 15000   | General Services     | Essential             | Private                    | Street            | Sparta city  | Sparta City Hall    |
|                               |                  |             |           |            |         | Government -         |                       | Government,                | 12912 Broad       |              |                     |
| 0 15                          |                  |             | 2008      | 00 450000  | 2800    | Clinic               | Essential, Lifeline   | Education, VoTech          | 432 Boland Street | Sparta city  | Robert L Morgan     |
|                               |                  |             |           |            |         | Medical Office and   |                       |                            |                   |              |                     |
| 0 65 45                       |                  |             | 2014      | 00 656120  | 12000   | Nursing Homes        | Vulnerable Population | Water/Sewer                | Street            | Sparta city  | Nursing Home        |
|                               |                  |             |           |            |         |                      |                       | Government,                | 60 Providence     |              | Providence          |
| 0 15                          | )8               | 80000 2008  | 0 2014    | 00 185000  | 3100    | Clinic               | Essential             | Education, VoTech          | Street            | County       | Systems             |
|                               |                  |             |           |            |         | Medical Office and   |                       |                            | 675 Hamilton      | Hancock      | Tri-County Health   |
| 0 10                          |                  | 30000       | 0 2014    | 500000     | 10000   | General Services     | Important             | State Patrol               | Square            | County       | Commissioner        |
|                               |                  |             |           |            |         | Government -         |                       | Law Enforcement,           | 64 Courthouse     | Hancock      | Tax                 |
| 0 642                         |                  |             | 0 2014    | 00 450000  | 30000   | Admin. Offices       | Population            | NGO, Water/Sewer           | RR1 Box 261       | County       | School              |
|                               |                  |             |           |            |         | Grade Schools and    | Essential, Vulnerable |                            |                   | Hancock      | Elementary          |
|                               |                  |             |           |            |         |                      |                       |                            |                   |              | Southwest           |
| 0 60 60                       |                  |             | 2014      | 00 2500000 | 15200   | Universities         | Important             | Education, VoTech          | 10571 Hwy 15      | County       | Technical School    |
|                               |                  |             |           |            |         | Colleges and         |                       |                            |                   | Hancock      | Sandersville        |
| icy                           |                  |             | Year      | Value      | Area    | Occupancy            | Risk                  | FacilityTypes              | Address           | Jurisdiction | Name                |
| FunctionalV Daytime Nighttime | Contents Functio | Content Cor | Valuation | Building   |         |                      |                       |                            |                   |              |                     |

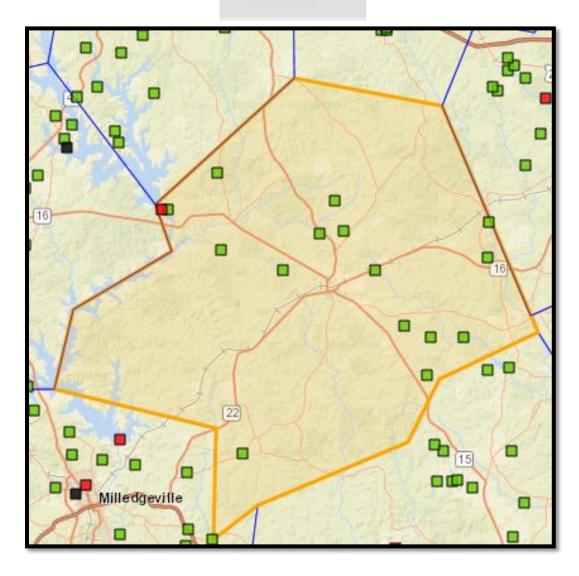
|        | 32 L       |                      |                       | 32            | 660           |                    |                                | HANCOCK | GA02851 | BROWN LAKE                    |
|--------|------------|----------------------|-----------------------|---------------|---------------|--------------------|--------------------------------|---------|---------|-------------------------------|
| Г      | 18         | 14                   |                       | 18            | 595           | 1963               | HOWELL<br>GROVE<br>ENVIRONS    | HANCOCK | GA02850 | HARLEY LAKE<br>DAM            |
| Г      | 24         |                      |                       | 24            | 2960          | 1970               | JEWELL                         | HANCOCK | GA02849 | HATCHERY<br>DAM               |
| Г      | 12         | 12                   |                       | 12            | 660           | 1965               | BEULAH                         | HANCOCK | GA02587 | RAY FAMILY<br>OLD POND<br>DAM |
|        | 30 L       | 23                   |                       | 30            | 660           | 1960               | HOWELL<br>GROVE<br>ENVIRONS    | HANCOCK | GA00392 | DICKENS<br>LAKE DAM           |
| Г      | 14         | 13                   |                       | 14            | 540           | 1950               | GRANITE HILL ENVIRONS          | HANCOCK | GA00391 | BROWN LAKE                    |
| Г      | 31         | 31                   |                       | 30            | 720           |                    |                                | HANCOCK | GA00390 | THE POND<br>DAM               |
| Г      | 19         | 15                   |                       | 19            | 990           | 1960               | ST.PAULS<br>CHURCH<br>ENVIRONS | HANCOCK | GA00389 | GEORGE<br>BROWN<br>POND DAM   |
| Г      | 28         | 23                   |                       | 28            | 520           | 1948               | JEWELL                         | HANCOCK | GA00388 | HALE LAKE<br>DAM              |
| Г      | 23         | 20                   |                       | 23            | 490           | 1972               | SPARTA<br>NORTH<br>ENVIRONS    | HANCOCK | GA00387 | RIVES LAKE<br>DAM             |
| L      | 16         |                      |                       | 16            | 750           |                    |                                | HANCOCK | GA00380 | DEERFIELD<br>LAKE DAM         |
| ٢      | 30         |                      |                       | 30            | 900           |                    |                                | HANCOCK | GA00379 | MOATE LAKE                    |
| HAZARD | NID HEIGHT | HYDRAULIC_<br>HEIGHT | STRUCTURAL_<br>HEIGHT | DAM<br>HEIGHT | DAM<br>LENGTH | YEAR_<br>COMPLETED | СІТҮ                           | COUNTY  | NIDID   | DAM_NAME                      |

|                |         |         |             | YEAR_            | DAM | DAM    | STRUCTURAL_ HYDRAULIC_ NIC | HYDRAULIC_ | NID    |        |
|----------------|---------|---------|-------------|------------------|-----|--------|----------------------------|------------|--------|--------|
| DAM_NAME NIDID | NIDID   | COUNTY  | CITY        | COMPLETED LENGTH |     | HEIGHT | HEIGHT                     | HEIGHT     | HEIGHT | HAZARD |
|                |         |         | BETHEL      |                  |     |        |                            |            |        |        |
| COLEMAN        |         |         | CHURCH      |                  |     |        |                            |            |        |        |
| LAKE DAM       | GA03344 | HANCOCK | ENVIRONS    | 1900             | 460 | 19     |                            | 16         | 19     | -      |
| O'QUINN        |         |         |             |                  |     |        |                            |            |        |        |
| POND DAM       | GA03346 | HANCOCK | OCONEE      | 1957             | 800 | 14     |                            |            | 14     | -      |
| LOVEJOYS       |         |         | MILLEDGEVIL |                  |     |        |                            |            |        |        |
| LAKE DAM       | GA04288 | HANCOCK | LE          | 1940             | 450 | 18     |                            | 14         | 18     | -      |

### **Hancock County Dams**

### Hazard Potential Type

- High
- □ Significant
- □ Low
- Undetermined
   Not Available



### **Drought**

Drought conditions are identified by a prolonged period of moisture deficiency. Climatologists and hydrologists use five indicators of drought: rainfall, soil moisture, stream flows, lake levels and groundwater level. Drought conditions affect the cultivation of crops as well as water availability and water quality. Drought is also a key factor in wildfire development. Wildfire will be addressed in a separate HRV.

In the last 69 years, there have been 31 reported drought events, with four occurring since the last update. Historical data is only for the county as a whole. Agricultural losses due to drought are the primary losses. No critical facilities have sustained any damage or functional downtime due to dry weather conditions. According to the EWG Farm Subsidies Database, from 1995-2019, Hancock County received a total of \$2.89 million in farm subsidy payments of which \$1.47 million was for disaster assistance.

A severe, prolonged drought would mainly affect the 94.8 percent of the county that makes up the timber and agriculture business. This could result in loss of crops, livestock and create the conditions for a major wildfire event. This would also have an impact on the incorporated cities as water restrictions would be enforced. Based on a 20-year hazard cycle history there is a 140 percent chance of an annual drought event for the county as a whole.

In summary, for Hancock County as a whole, there are a total of 4,624 agricultural/forestry properties valued at approximately \$441 million and include 1,348 heads of livestock and an estimated population of 133 which have the greatest potential to be damaged by drought. There is a population of 9,429 and approximately 28,230 structures/properties in the county with a value just slightly more than \$1 billion which could be affected if wildfires break out as a result of drought conditions.

| central Georgia. The driest area was across the central portion of the state from Columbus through Macon into the Louisville, Greensboro and Watkinsville areas. Most cooperative observer sites in this area reported less than an inch of rain. The airport at Macon of recorded only .37 inches, while Columbus recorded 1.20 inches of rainfall for the month. This was the driest February ever recorded at both locations. Other spotty areas with less than an inch of rain for the month were in the east and south Atlanta metro area, and also in Gilmer county. Most of the rest of north and central Georgia received less than 2 inches of rain for the month, which was less than half the normal.  | 0   | 0          | 0        | Drought    | 2/1/2000 Drought  |
|---|-----|------------|----------|------------|-------------------|
| Dry conditions in the later part of July continued through most of August in north and central Georgia. Rainfall deficits were generally between 1.5 and 2.5 inches for the month. Only spotty areas received heavy rain from isolated thunderstorms, which caused their monthly totals to approach normal amounts. There were no figures available to determine what impact the drought had on the agricultural economy of the state. However, according to a newspaper quote attributed to the State Climatologist at the University of Georgia, this was the among the driest Augusts on record. By using the Palmer Drought Severity Index, this places the month in the moderate to severe drought category. Rainfall amounts for the year through August were 6 to 8 inches below normal over much of   | 0   | 0          | 0        | Drought    | 8/1/1999 Drought  |
| Below normal rainfall continued through May. According to the University of Georgia, this was the driest February through May period since the drought of 1925. Most of Georgia was classified as being in a severe drought and on the cusp of an extreme drought. Year-to date rainfall deficits for the year through May were 7.68 inches at Atlanta; 8.20 inches at Macon; and 8.28 inches at Athens. This followed a dry 1998 summer when farmers state-wide lost \$700 million in revenue due to drought. Below normal fall and winter rainfall amounts failed to replenish soil moisture. The dry pattern was due to the cool Pacific Ocean water temperatures of a La Nina event. Although most of Georgia's crops were not in a fragile state yet, without significant rainfall soon, 1999 could be an even worse year than 1998 was for farmers. | 0   | 0          | 0        | Drought    | 5/1/1999 Drought  |
| 277 DROUGHT   | 0   | 0          | 0        | Drought    | 9/22/1997 Drought |
|   | 0   | 0          | 0        | Drought    | 9/1/1997 Drought  |
| 314 Drought   | 0   | 0          | 0        | Drought    | 7/31/1986 Drought |
| CrD   REMARKS   | PrD | FATALITIES | INJURIES | Event Type | DATE              |

| Ithe dry conditions.   |     |            |          |            |                  |
|--|-----|------------|----------|------------|------------------|
| drought, but crops across the state would be in serious trouble without some relief from   |     |            |          |            |                  |
| at between the proof to see I proof to the life in the proof to see I proof to se |     |            |          |            |                  |
| at 37 percent poor to very poor. Dollar amounts were not available at this stage of the  |     |            |          |            |                  |
| corn and soybean crops were rated 43 percent poor to very poor, while cotton was rated   |     |            |          |            |                  |
| the northernmost counties which were placed in first stage drought conditions. In Georgia,   |     |            |          |            |                  |
| drought for May. They classified most of the north as being in a severe drought, except for  |     |            |          |            |                  |
| Department of Agriculture classified most of central Georgia as being in an extreme  |     |            |          |            |                  |
| Georgia were between 7 and 10 inches. The Center for Climate Prediction and the U.S.   |     |            |          | Ċ          | , , , ,          |
| 0 below normal. Rainfall deficits for the year through May for most of north and central   | 0   | 0          | 0        | Drought    | 5/1/2000 Drought |
| Georgia, rainfall amounts were around 2 inches, which was still between 2.5 and 3 inches   |     |            |          |            |                  |
| of rain fell. In Columbus, only .78 inch of rain was recorded for the month. Across north  |     |            |          |            |                  |
| May as the driest May on record. The previous driest May was in 1936 when only .32 inch  |     |            |          |            |                  |
| Macon, the airport recorded only .30 inch of rain for the entire month, establishing this  |     |            |          |            |                  |
| percent of normal, while 50 to 75 percent of normal amounts fell across the north. In  |     |            |          |            |                  |
| over north and central Georgia. Rainfall amounts in central Georgia were only about 25   |     |            |          |            |                  |
| The dry conditions, that had persisted for most of a 2 year period, continued through May  |     |            |          |            |                  |
| show Georgia experiencing the 2nd driest such period statewide with over 20.5 inches   |     |            |          |            |                  |
| order of 12 to 15 inches below normal. Long-term precipitation anomalies since May 1998  |     |            |          |            |                  |
| except the northwestern counties. Overall rainfall amounts for the past year are on the  |     |            |          |            |                  |
| inches in west central Georgia and between 1.7 and 2.6 inches for much of north Georgia  |     |            |          |            |                  |
| 0 portion. Rainfall amounts in April averaged less than an inch in central Georgia, less than 2  | 0   | 0          | 0        | Drought    | 4/1/2000 Drought |
| both indicated a severe drought for nearly all of Georgia except the extreme northern  |     |            |          |            |                  |
| part of 2 years. The Center for Climate Prediction and the U.S. Agriculture Department   |     |            |          |            |                  |
| April saw a return to the below normal rainfall pattern that had persisted for the better  |     |            |          |            |                  |
| Although rainfall amounts in March slowed the deficit across north and central Georgia,  |     |            |          |            |                  |
| CrD REMARKS  | PrD | FATALITIES | INJURIES | Event Type | DATE             |
| -  |     |            |          |            |                  |

| 3162 DROUGHT   | 0 | 0        |                   | 0        | Drought    | 6/30/2000 Drought |
|--|---|----------|-------------------|----------|------------|-------------------|
| Extremely dry conditions continued across north and central Georgia through the month of June. These same dry conditions had persisted for most of the last 2 years. All rainfall was from spotty convective activity, with no widespread general rains occurring during the month. Most of the convection was concentrated across the southeast parts of WFO Peachtree City's County Warning Area. The west central and north central portions received only 25 to 50 percent of normal rainfall with northwest and east central portions fairing slightly better with 50 to 75 percent of normal. At the major airports in north and central Georgia, Atlanta reported 1.11 inches, Athens 1.98 inches, Macon 2.86 inches, and Columbus only 0.51 inches of rain for the month of June. These amounts were 2.45 inches, 1.95 inches, 0.72 inches, and 3.56 inches below normal, respectively. Yearly rainfall totals for most cooperative observer stations in north and central Georgia were between 10 and 15 inches below normal. The 2 year deficit exceeded 20 inches across much of the same area. The center for Climate Prediction and the U.S. Department of Agriculture classified most of central Georgia in an exceptional drought and most of north Georgia in an extreme drought status. Water supplies continued to dwindle in most areas. Streamflows were at or below the lowest 10th percentile of the historical distribution for June at 90 percent of Georgia's observing sites. Twenty-nine percent of Georgia's cotton crop was rated in a poor to very poor condition. University of Georgia cumulative crop damage estimates for the whole state were placed at \$689 million dollars, plus another \$50 million dollars in increased irrigation costs, for a total estimate of \$739 million in heachtree City CWA. Of those counties, Sumter county suffered the most with over \$20 million, and Dooly county had almost \$16.5 million in losses. | 0 | <u> </u> | <u>_</u>          | 0        | Drought    | 6/1/2000 Drought  |
| CrD REMARKS  |   | :S PrD   | <b>FATALITIES</b> | INJURIES | Event Type | DATE              |
| -  |   | 1        | 1                 |          |            |                   |

| Measurable rain fell on only one day at many locations throughout the region, with monthly rainfall less than one inch at most reporting stations. Rainfall deficits exceeding 3 inches were common across most of north Georgia, with rainfall deficits around 2 inches common in the central portion of the state. Of the four major reporting stations in north Georgia, monthly rainfall totals of only 0.23 inch were observed at Athens, 0.87 at Atlanta, 0.62 at Columbus, and 1.08 at Macon, with deficits of 3.05 inches, 2.18 inches, 1.60 inches, and 1.10 inches respectively.   | 0   |     | 0                 | 0        | Drought    | 10/1/2000 Drought |
|--|-----|-----|-------------------|----------|------------|-------------------|
| Drought conditions continued during July over most of WFO Peachtree City's County Warning Area. Rainfall amounts were higher in July than in June. However climatological normals also increased during July, so there was still a substantial shortfall from the monthly normal precipitation. Total rainfall for the month was generally in the 2 to 3 inch range, however spotty areas received between 4 and 6 inches, while other areas received an inch or less for the month. The net effect was too little, too late for farmers across North and Central Georgia. As of the end of July, the U.S. Department of Agriculture placed all of the CWA in the range of severe to exceptional drought. The area with the largest departure from normal precipitation during July was a swath from west central Georgia across the state, generally along and south of a line from Atlanta to Athens, and north of a line from Columbus to Macon to Augusta. No new crop damage or loss estimates were available, but the previous estimates in June seem to represent the entire 2000 growing season. That estimate placed the total for Peachtree City's county warning area at \$306.7 million. An increase in precipitation toward the latter part of the month, and forecasts for the continued weakening of La Nina. brought hope that drought conditions that had lasted for over 2 years were beginning to ease. The latest 90 day forecasts called for near normal precipitation over the southeastern U.S. | 0   |     | 0                 | 0        | Drought    | 7/1/2000 Drought  |
| REMARKS  | CrD | PrD | <b>FATALITIES</b> | INJURIES | Event Type | DATE              |

| DATE |                  | Fvent Type | INIURIES | ΕΔΤΔΙ ΙΤΙΕς | PrD | CrD | REMARKS  |
|------|------------------|------------|----------|-------------|-----|-----|--|
|      | 4/1/2002 Drought |            | 0        | 0           | 0   | 0   | A summerlike weather pattern dominated north Georgia much of the month, resulting in several days of above normal temperatures and a lack of organized precipitation producing systems. Most major weather systems were shunted to the northwest of Georgia during the month, resulting in below normal rainfall at most reporting stations. The rainfall deficits were most noticeable across the northern part of the state with Atlanta recording only 1.83 inches of rain during the month, 1.79 inches below normal, and Athens recording only 1.65 inches of rain during the month, which was 1.70 inches below normal. These rainfall deficits continued to add to the overall rainfall deficit which had been prevalent across north and central Georgia since mid-summer 1998.  |
| 8/   | 8/1/2002 Drought | Drought    | 0        | 0           | 0   | 0   | Very dry conditions persisted across much of north and central Georgia during the month. Rainfall totals of less than one inch were observed at several reporting stations. Athens received only 0.14 inch of rain during the month making it the 2nd driest August on record. Atlanta was close with only 0.77 inch of rain, marking it as the 3rd driest August on record. Other locations in north and central Georgia receiving less than one inch of rain for the month included Fairmont with 0.01 inch, Byron with 0.09 inch, Mareitta with 0.26 inch, Peachtree City with 0.35 inch, Atlanta Bolton with 0.51 inch, Experiment (Griffin) with 0.53 inch, Woodbury with 0.59 inch, Gainesville with 0.73 inch, Barnesville with 0.79 inch, Mableton with 0.83 inch, Resaca with 0.94 inch, and Fulton County Airport with 0.98 inch. These rainfall amounts average between two and three inches below normal for the month of August. The minimal rainfall amounts simply aggravate the long term drought conditions that had persisted across north and central Georgia since 1998. Annual rainfall deficits were in excess of 10 inches at many locations. The June through August period was ranked for the state as a whole as the driest June through August period in history. Despite these facts, however, as typical for summer in the southeast, some locations received copious amounts of rainfall from isolated thunderstorms, especially in the extreme southeast portion of Middle Georgia and the northwest corner of the state. Lyons received an impressive 9.81 inches of rain during the month, while Cartersville recorded 5.09 inches and Summerville with 6.50 inches. There were several other locations, mainly in the far north part of the state, with rainfall in excess of four inches. Much of this rainfall at these locations was received during a single thunderstorm. |

| Drought conditions continued to worsen across the entire state during May. Rainfall deficits across many counties of north and central Georgia continued to grow as well as the number of counties classified in severe and extreme drought conditions. By the end of May 2007, 74 Georgia counties were classified as being in extreme drought, 79 in severe drought, and six in moderate drought. Counties within the Peachtree City, Georgia forecast area classified as being in extreme drought include Bartow, Carroll, Catoosa, Chattooga, Cherokee, Clayton, Cobb, Coweta, Dade, DeKalb, Douglas, Fannin, Fayette, Floyd, Fulton, Gilmer, Gordon, Haralson, Harris, Heard, Meriwether, Murray, Paulding, Pickens, Polk, Towns, Troup, Union, Walker and Whitfield. Drought conditions in all remaining counties within the Peachtree City, Georgia forecast area were classified as  | 0   | 0                 | 0        | Drought           | 5/1/2007 Drought |
|--|-----|-------------------|----------|-------------------|------------------|
| North and Central Georgia endured one of the driest March's on record. With only near to slightly below normal rainfall during January and February, by the end of March, most of the area was classified in a mild drought. Most areas of the state only received around one inch of rain during the entire month. Climatologically, March is the wettest month of the year across most of the area. Columbus recorded their driest March ever since records began in the late 1800s with only 0.56 inch of rain. This is 5.19 inches below normal for the month. The other major reporting sites all reported similar stories. Atlanta received only 1.04 inches of rain, which is 4.34 inches below normal for the month and the third driest March since records began in the late 1800s. Athens recorded only 1.05 inches of rain, which is 3.94 inches below normal for the month and the second driest March on record and leaving that site 4.47 inches below normal for the month. In addition, with the exception of Macon, the January through March 2004 period ranked as being in the top driest 10 for this period since records began.  | 0   | 0                 | 0        | Drought           | 3/1/2004 Drought |
| A large Polar vortex, anchored over the Hudson Bay region of Canada and the northeastern United States, dominated the eastern United States nearly the entire month. As a result, a cold, dry northwest flow prevailed into the southeastern United States throughout the month. Gulf moisture was virtually shut off from weather systems as disturbances moved down into the area from the Northern Plains and Ohio Valley. This pattern resulted in very little precipitation during the first 28 days of the month. During the last three days of the month, a stronger southern jet stream brought rain back into the area. Many locations in north and central Georgia were having their driest January in history prior to the 29th, when 1.00 to 2.00 inches of rain fell across much of the area. For the first 28 days of the month, many areas had not even received 0.50 inch of rain or liquid equivalent of snow. Nonetheless, the lack of rain during the first 28 days left most areas with a substantial rainfall deficit for the month, including Macon with a deficit of 3.55 inches, Atlanta with a deficit of 3.03 inches, Athens with a deficit of 2.95 inches, and Columbus with a deficit of 2.66 inches. January is normally a rainy month for north and central Georgia with normal rainfall amounts in the 4.00 to 5.00 inch range. | 0   | 0                 | 0        | Drought           | 1/1/2003 Drought |
| CrD REMARKS  | PrD | <b>FATALITIES</b> | INJURIES | <b>Event Type</b> | DATE             |

| lake and river levels across north and central Georgia continued near all time record low levels. Above ground water supplies were severely taxed. Lake Lanier in northeast Georgia, the main water source for metropolitan Atlanta reached a new record low level of 1052.63 feet on November 20th. This was the lowest reading recorded since December 24th of 1981, when a level of 1052.66 feet was observed. Lake Allatoona in northwest Georgia and West Point Lake in west central Georgia were also nearing record levels, but fell several feet short of record values. Significant water restrictions remained in place across many counties in north Georgia. Only a minor recovery from the record low stream gage levels recorded on creeks and rivers in north and central Georgia during October was | 0   | 0                 | 0        | Drought    | 11/1/2007 Drought |
|---|-----|-------------------|----------|------------|-------------------|
| Drought conditions continued to worsen across north and central Georgia during November. Rainfall deficits continued to grow, with many locations across the north and central part of the state reporting rainfall deficits of 15 to 20 inches. With the exception of the Columbus area and the far northern part of the state, most of north and central Georgia received only about 50 percent of their normal rainfall during the month. Many   |     |                   |          |            |                   |
| O nearing all time record low levels and above ground water supplies were being significantly impacted in many of the larger cities, especially Atlanta. A number of stream gage locations on creeks and river in north and central Georgia had established new record low water levels during October, including the major river basins of the Coosa, Chattahoochee, upper Oconee, upper Ocmulgee and Flint. Significant water conservation measures were being implemented in many cities across north and central Georgia.   | 0   | 0                 | 0        | Drought    | 10/1/2007 Drought |
| Drought conditions persisted and actually worsened during September and October. October, climatologically the driest month of the year anyway, fell even short of normal values at most locations in north and central Georgia. Rainfall deficits of 15 to 20 inches were common in the north and rainfall deficits of 6 to 12 inches were common in central areas. Most areas of the state had only received 30 to 40 percent of normal annual rainfall by the end of October. Many lakes and rivers across north and central Georgia were  |     |                   |          |            |                   |
| Onorth and west Georgia were common, with many of these areas only having received 30 to 40 percent of normal rainfall. Many lakes were nearing all time record low levels and above ground water supplies were being significantly impacted in many of the larger cities, especially Atlanta.  | 0   | 0                 | 0        | Drought    | 9/1/2007 Drought  |
| Drought conditions continued to worsen through the summer months across north and central Georgia. Many areas of the state were nearing historical drought conditions by the end of the summer. By the end of September, rainfall deficits of 15 to 20 inches across  |     |                   |          | :          |                   |
| CrD REMARKS   | PrD | <b>FATALITIES</b> | INJURIES | Event Type | DATE              |

| The drought conditions continued to worsen over Georgia through October, with all of north and a majority of central Georgia in D2 Severe to D4 Exceptional drought conditions. By the end of October the Exceptional drought spread to include 33 counties. North and central Georgia received 25 percent or less of the normal precipitation for the month, with many locations observing no rain for the entire period. The area was so dry, in fact, that O Atlanta began a record-breaking 43 days of no measurable rainfall in mid-October. The previous record was in 1884. The rainfall deficit for the previous six months worsened to 11 to 14 inches below normal across north and central Georgia.   The D2 Severe to D4 Extreme drought conditions encompassed an area north and west of a line from Cordele, to Sandersville, to Warrenton. The drought continued to persist through the end of the year, spreading to include most of Georgia, and peaking in November.   | 0   | 0                 | 0        | Drought           | 10/1/2016 Drought |
|--|-----|-------------------|----------|-------------------|-------------------|
| 0  | 0   | 0                 | 0        | Drought           | 9/1/2016 Drought  |
| 0  | 0   |                   |          | Drought           | 7/12/2012         |
| Hancock County declared Primary Natural Disaster Area from summer months of excessive 0 heat and drought, which essentially began April 15, 2011. Crop loss was deemed at the 30 percent or greater level.   | 0   | 0                 | 0        | Drought           | 9/1/2011 Drought  |
| Drought conditions persisted and actually continued to worsen during December. This was especially true during the first half of the month when unseasonably warm, dry weather prevailed across the region thanks to a large upper-level ridge of high pressure. Rainfall deficits continued to grow during this time and lake levels fell to record or near record low levels. Lake Lanier in northeast Georgia and the main water supply for the Atlanta metropolitan area, dropped to its lowest level in history on December 28, 2007 with a reading of 1050.75 feet. New records were set nearly every day after November 20th, when the previous record low-level of 1052.63 feet was reached. Lake Allatoona in northwest Georgia and West Point Lake in west central Georgia were also near record low levels, but never reached previously established record low levels. While rivers and streams remained near record low levels as well, lower evaporation rates and slightly better overall rainfall allowed minor rises at many locations. Significant water conservation measures were being implemented in many cities across north and central Georgia. | 0   | 0                 | 0        | Drought           | 12/1/2007 Drought |
| CrD REMARKS  | PrD | <b>FATALITIES</b> | INJURIES | <b>Event Type</b> | DATE              |

| 74  | 0 4374  | 0          | 0        |                   |         |
|---|---------|------------|----------|-------------------|---------|
| Through the month of January, a more active pattern provided above normal rainfall to the majority of the state, and improving drought conditions across the state enough to remove the D4 Exceptional drought category entirely. By the end of the month, the remaining D3 Extreme drought area stretched a small area from Ellijay, to Blairsville, to Helen in the NE Georgia mountains. The D2 Severe drought area retreated northward, only including areas north of a line from Franklin, to Acworth, to Athens, to Elberton.  [  Even with the January rainfall, the long term drought remained a concern into the late winter months, with 365 day normal rainfall departures of 9 to 20 inches across north  | 0       | 0          | 0        | 1/1/2017 Drought  | 1/1/20  |
| The D4 Exceptional drought conditions improved slightly over Georgia through the month of December as a more active atmospheric pattern set up over the region. The most significant improvement occurred over the southern Atlanta metropolitan area, with some portions of Coweta, Fayette, Clayton, and Henry counties improving from the D4 Exceptional to D2 Severe drought level. Far north Georgia counties along the Tennessee border also improved from D4 Exceptional to D3 Extreme drought. Elsewhere across north and central Georgia, the drought persisted through the month with little to no improvement.    At the end of the year, annual normal rainfall departures were generally 9 to 15 inches across north Georgia, and 1 to 6 inches across central Georgia. Lake levels were heavily impacted by the drought with Lake Lanier and Carters Lake nearly 10 feet below seasonal pool levels. Although the drought conditions peaked in November, the long term drought persisted into 2017. | 0       | 0          | 0        | 12/1/2016 Drought | 12/1/20 |
| of November. By the end of the month, all but two counties in north and central Georgia were in the D2 Severe to D4 Exceptional drought area. The drought conditions were greatly impacted by well below rainfall for the month, particularly across southern and eastern portions of the state. These areas only received 25 percent or less of the normal November rainfall.   The area was so dry, in fact, that Atlanta ended the record-breaking 0 43 days of no measurable rainfall on November 29. The previous record was in 1884. Rome broke the record with 61 days of no measurable rainfall on November 29 and inches below normal across north and central Georgia.   The D2 Severe to D4 Extreme drought conditions encompassed an area north and west of a line from McRae, to Swainsboro, to Augusta. Although the drought conditions were at the peak at the end of November, the drought persisted through the end of the year and into 2017.   | 0       | 0          | 0        | 11/1/2016 Drought | 11/1/20 |
| REMARKS   | PrD CrD | FATALITIES | INJURIES | Event Type        | DATE    |

| MapDate              | None  | D0             | D1             | D2 | D3 | D4 | ValidStart              | ValidEnd                 |
|----------------------|-------|----------------|----------------|----|----|----|-------------------------|--------------------------|
| 20190625             | 100   | 0              | 0              | 0  | 0  | 0  | 6/25/2019               | 7/1/2019                 |
| 20190618             | 100   | 0              | 0              | 0  | 0  | 0  | 6/18/2019               | 6/24/2019                |
| 20190611             | 0     | 100            | 0              | 0  | 0  | 0  | 6/11/2019               | 6/17/2019                |
| 20190604             | 0     | 0              | 100            | 0  | 0  | 0  | 6/4/2019                | 6/10/2019                |
| 20190528             | 0     | 87.04          | 12.96          | 0  | 0  | 0  | 5/28/2019               | 6/3/2019                 |
| 20190521             | 0     | 87.04          | 12.96          | 0  | 0  | 0  | 5/21/2019               | 5/27/2019                |
| 20190514             | 0     | 100            | 0              | 0  | 0  | 0  | 5/14/2019               | 5/20/2019                |
| 20190507             | 0     | 96.14          | 3.86           | 0  | 0  | 0  | 5/7/2019                | 5/13/2019                |
| 20190430             | 0     | 96.14          | 3.86           | 0  | 0  | 0  | 4/30/2019               | 5/6/2019                 |
| 20190423             | 0     | 100            | 0              | 0  | 0  | 0  | 4/23/2019               | 4/29/2019                |
| 20190416             | 0     | 100            | 0              | 0  | 0  | 0  | 4/16/2019               | 4/22/2019                |
| 20190409             | 0     | 100            | 0              | 0  | 0  | 0  | 4/9/2019                | 4/15/2019                |
| 20190402             | 0     | 100            | 0              | 0  | 0  | 0  | 4/2/2019                | 4/8/2019                 |
| 20190326             | 68.29 | 31.71          | 0              | 0  | 0  | 0  | 3/26/2019               | 4/1/2019                 |
| 20190319             | 87.54 | 12.46          | 0              | 0  | 0  | 0  | 3/19/2019               | 3/25/2019                |
| 20190312             | 97.63 | 2.37           | 0              | 0  | 0  | 0  | 3/12/2019               | 3/18/2019                |
| 20190305             | 100   | 0              | 0              | 0  | 0  | 0  | 3/5/2019                | 3/11/2019                |
| 20190226             | 100   | 0              | 0              | 0  | 0  | 0  | 2/26/2019               | 3/4/2019                 |
| 20190219             | 100   | 0              | 0              | 0  | 0  | 0  | 2/19/2019               | 2/25/2019                |
| 20190212             | 100   | 0              | 0              | 0  | 0  | 0  | 2/12/2019               | 2/18/2019                |
| 20190205             | 100   | 0              | 0              | 0  | 0  | 0  | 2/5/2019                | 2/11/2019                |
| 20190129             | 100   | 0              | 0              | 0  | 0  | 0  | 1/29/2019               | 2/4/2019                 |
| 20190122             | 100   | 0              | 0              | 0  | 0  | 0  | 1/22/2019               | 1/28/2019                |
| 20190115             | 100   | 0              | 0              | 0  | 0  | 0  | 1/15/2019               | 1/21/2019                |
| 20190108             | 100   | 0              | 0              | 0  | 0  | 0  | 1/8/2019                | 1/14/2019                |
| 20190101             | 100   | 0              | 0              | 0  | 0  | 0  | 1/1/2019                | 1/7/2019                 |
| 20181225             | 100   | 0              | 0              | 0  | 0  | 0  | 12/25/2018              | 12/31/2018               |
| 20181218             | 100   | 0              | 0              | 0  | 0  | 0  | 12/18/2018              | 12/24/2018               |
| 20181211             | 100   | 0              | 0              | 0  | 0  | 0  | 12/11/2018              | 12/17/2018               |
| 20181204             | 100   | 0              | 0              | 0  | 0  | 0  | 12/4/2018               | 12/10/2018               |
| 20181127             | 100   | 0              | 0              | 0  | 0  | 0  | 11/27/2018              | 12/3/2018                |
| 20181120             | 100   | 0              | 0              | 0  | 0  | 0  | 11/20/2018              | 11/26/2018               |
| 20181113             | 100   | 0              | 0              | 0  | 0  | 0  | 11/13/2018              | 11/19/2018               |
| 20181106             | 72.66 | 27.34          | 0              | 0  | 0  | 0  | 11/6/2018               | 11/12/2018               |
| 20181030             | 72.66 | 27.34          | 0              | 0  | 0  | 0  | 10/30/2018              | 11/5/2018                |
| 20181023             | 4.82  | 68.05          | 27.13          | 0  | 0  | 0  | 10/23/2018              | 10/29/2018               |
| 20181016<br>20181009 | 4.82  | 68.05<br>30.37 | 27.13          | 0  | 0  | 0  | 10/16/2018<br>10/9/2018 | 10/22/2018<br>10/15/2018 |
| 20181009             | 0     | 30.37          | 69.63<br>69.63 | 0  | 0  | 0  | 10/9/2018               | 10/15/2018               |
| 20181002             | 0     | 33.6           | 66.4           | 0  | 0  | 0  | 9/25/2018               | 10/8/2018                |
| 20180923             | 21.36 | 75.01          | 3.63           | 0  | 0  | 0  | 9/23/2018               | 9/24/2018                |
| 20180918             | 21.36 | 78.64          | 3.03           | 0  | 0  | 0  | 9/18/2018               | 9/24/2018                |
| 20180911             | 24.01 | 75.99          | 0              | 0  | 0  | 0  | 9/11/2018               | 9/17/2018                |
| 20180904             | 100   | 73.99          | 0              | 0  | 0  | 0  | 8/28/2018               | 9/3/2018                 |
| 20180828             | 100   | 0              | 0              | 0  | 0  | 0  | 8/21/2018               | 8/27/2018                |
| 20180821             | 100   | 0              | 0              | 0  | 0  | 0  | 8/14/2018               | 8/20/2018                |
| 20100014             | 100   | U              | U              | U  | U  | U  | 0/ 14/ 2010             | 0/ 20/ 2018              |

| 20180807         100         0         0         0         0         0         8/7/2018         8/13/2018           20180731         100         0         0         0         0         7/31/2018         8/6/2018           20180717         100         0         0         0         0         7/14/2018         7/33/2018           20180710         100         0         0         0         0         7/11/2018         7/33/2018           20180703         100         0         0         0         0         0         7/16/2018         7/9/2018           20180612         100         0         0         0         0         6/19/2018         6/52/2018           20180612         100         0         0         0         0         6/19/2018         6/18/2018           20180512         100         0         0         0         0         6/19/2018         6/18/2018           20180515         100         0         0         0         5/22/2018         6/18/2018           20180515         0         100         0         0         5/12/2018         5/28/2018           20180515         0         100   | MapDate  | None | D0    | D1    | D2 | D3 | D4 | ValidStart | ValidEnd  |
|---|----------|------|-------|-------|----|----|----|------------|-----------|
| 20180731         100         0         0         0         7/31/2018         8/6/2018           20180717         100         0         0         0         7/24/2018         7/30/2018           20180710         100         0         0         0         7/24/2018         7/32/2018           20180703         100         0         0         0         0         7/31/2018         7/9/2018           20180626         100         0         0         0         0         6/26/2018         7/2/2018           20180612         100         0         0         0         6/19/2018         6/25/2018           20180605         100         0         0         0         6/19/2018         6/18/2018           20180605         100         0         0         0         6/18/2018         6/11/2018           20180505         100         0         0         0         5/22/2018         6/4/2018           20180515         0         100         0         0         5/22/2018         5/12/2018           20180515         0         100         0         0         5/12/2018         5/12/2018           20180520         0         <   | •        |      |       |       |    |    |    |            |           |
| 20180724   100  |          |      |       |       |    |    |    |            |           |
| 20180717         100         0         0         0         7/17/2018         7/23/2018           20180710         100         0         0         0         0         7/10/2018         7/16/2018           20180762         100         0         0         0         0         7/3/2018         7/9/2018           20180626         100         0         0         0         0         6/26/2018         7/2/2018           20180612         100         0         0         0         6/12/2018         6/12/2018         6/12/2018           20180529         100         0         0         0         0         6/5/2018         6/12/2018           20180529         100         0         0         0         0         5/22/2018         5/28/2018           20180521         100         0         0         0         5/51/2018         5/21/2018           20180515         0         100         0         0         0         5/12/2018         5/21/2018           20180515         0         100         0         0         0         5/12/2018         5/12/2018           20180521         0         100         0         0  | -        |      |       |       |    |    |    |            |           |
| 20180710         100         0         0         0         7/10/2018         7/16/2018           20180703         100         0         0         0         0         7/3/2018         7/9/2018           20180619         100         0         0         0         0         6/26/2018         7/2/2018           20180619         100         0         0         0         6/12/2018         6/15/2018         6/15/2018           20180612         100         0         0         0         6/5/2018         6/11/2018           20180529         100         0         0         0         5/29/2018         6/4/2018           20180515         0         100         0         0         0         5/22/2018         5/21/2018           20180515         0         100         0         0         0         5/12/2018         5/14/2018           20180515         0         100         0         0         0         5/12/2018         5/14/2018           20180424         0         100         0         0         0         4/17/2018         4/23/2018           20180417         0         6.265         37.35         0         0   |          |      |       |       |    |    |    |            |           |
| 20180703         100         0         0         0         7/3/2018         7/9/2018           20180626         100         0         0         0         0         6/26/2018         7/2/2018           20180619         100         0         0         0         6/26/2018         7/2/2018           20180612         100         0         0         0         6/19/2018         6/18/2018           20180625         100         0         0         0         6/5/2018         6/11/2018           20180522         100         0         0         0         5/22/2018         6/4/2018           20180525         100         0         0         0         5/22/2018         5/28/2018           20180505         0         100         0         0         0         5/15/2018         5/21/2018           20180505         0         100         0         0         5/15/2018         5/21/2018           2018040         0         100         0         0         5/14/2018         5/14/2018           20180417         0         62.65         37.35         0         0         4/17/2018         4/23/2018           20180417  |          |      |       |       |    |    |    |            |           |
| 20180626         100         0         0         0         6/26/2018         7/2/2018           20180619         100         0         0         0         0         6/19/2018         6/25/2018           20180612         100         0         0         0         0         6/12/2018         6/18/2018           20180529         100         0         0         0         0         5/29/2018         6/42/2018           20180521         100         0         0         0         0         5/22/2018         5/28/2018           20180515         0         100         0         0         0         5/15/2018         5/21/2018           20180505         0         100         0         0         0         5/5/2018         5/21/2018           20180507         0         100         0         0         0         5/8/2018         5/14/2018           20180417         0         100         0         0         0         4/14/2018         4/3/2018           20180417         0         62.65         37.35         0         0         0         4/16/2018         4/16/2018           20180403         0         98.32  |          | 100  | 0     | 0     | 0  | 0  | 0  |            |           |
| 20180612   100  | 20180626 | 100  | 0     | 0     | 0  | 0  | 0  |            |           |
| 20180605   100   0   0   0   0   0   0   5/29/2018   6/11/2018   20180529   100   0   0   0   0   0   0   0   5/29/2018   6/4/2018   20180522   100   0   0   0   0   0   0   0   5/22/2018   5/28/2018   20180515   0   100   0   0   0   0   0   0   5/15/2018   5/28/2018   20180508   0   100   0   0   0   0   0   5/15/2018   5/21/2018   20180501   0   100   0   0   0   0   0   5/15/2018   5/14/2018   20180501   0   100   0   0   0   0   0   0   5/12/2018   5/14/2018   20180424   0   100   0   0   0   0   0   0   4/17/2018   4/30/2018   20180417   0   62.65   37.35   0   0   0   0   4/10/2018   4/16/2018   20180410   0   0   100   0   0   0   0   4/10/2018   4/16/2018   20180430   0   98.32   1.68   0   0   0   0   4/3/2018   4/9/2018   20180327   0   98.32   1.68   0   0   0   3/27/2018   4/2/2018   20180330   0   98.32   1.68   0   0   0   3/20/2018   3/26/2018   20180333   0   70.32   29.68   0   0   0   3/3/2018   3/19/2018   20180333   0   70.32   29.68   0   0   0   3/3/2018   3/19/2018   20180320   0   98.35   12.15   0   0   0   0   3/6/2018   3/12/2018   20180320   0   100   0   0   0   0   0   2/27/2018   3/5/2018   20180237   0   100   0   0   0   0   0   2/27/2018   3/5/2018   20180237   0   100   0   0   0   0   0   2/27/2018   3/5/2018   20180233   100   0   0   0   0   0   0   2/6/2018   2/19/2018   2018023   100   0   0   0   0   0   0   2/6/2018   2/19/2018   20180123   0   99.46   0.54   0   0   0   0   1/30/2018   2/19/2018   20180123   0   99.46   0.54   0   0   0   0   1/30/2018   1/29/2018   20180109   0   78.98   21.02   0   0   0   1/26/2017   1/12/2018   20180102   13.93   65.05   21.02   0   0   0   1/2/2018   1/15/2018   20180102   13.93   65.05   21.02   0   0   0   1/2/2017   1/2/2018   20171226   13.93   65.05   21.02   0   0   0   1/2/2017   1/2/2018   20171212   0   29.33   70.67   0   0   0   1/2/2017   1/2/2017   20171124   0   29.33   70.67   0   0   0   1/2/2017   1/2/2017   20171124   0   29.33   70.67   0   0   0   1/1/2017   1/2/2017   20171124   0   20.3   30.8   0   0   0 | 20180619 | 100  | 0     | 0     | 0  | 0  | 0  | 6/19/2018  | 6/25/2018 |
| 20180529         100         0         0         0         5/29/2018         6/4/2018           20180522         100         0         0         0         0         5/22/2018         5/28/2018           20180515         0         100         0         0         0         5/15/2018         5/21/2018           20180508         0         100         0         0         0         5/8/2018         5/14/2018           20180501         0         100         0         0         0         5/1/2018         5/7/2018           20180417         0         62.65         37.35         0         0         0         4/17/2018         4/23/2018           20180410         0         0         0         0         4/17/2018         4/23/2018           201804327         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180327         0         98.32         1.68         0         0         3/20/2018         3/12/2018           20180331         0         70.32         29.68         0         0         3/3/20/2018         3/12/2018           20180227         0         1   | 20180612 | 100  | 0     | 0     | 0  | 0  | 0  | 6/12/2018  | 6/18/2018 |
| 20180522         100         0         0         0         5/22/2018         5/28/2018           20180515         0         100         0         0         0         5/15/2018         5/21/2018           20180508         0         100         0         0         0         5/8/2018         5/14/2018           20180501         0         100         0         0         0         5/1/2018         5/7/2018           20180424         0         100         0         0         0         4/24/2018         4/30/2018           20180417         0         62.65         37.35         0         0         4/17/2018         4/26/2018           20180403         0         98.32         1.68         0         0         4/16/2018         4/9/2018           20180327         0         98.32         1.68         0         0         3/27/2018         4/2/2018           20180330         0         98.32         1.68         0         0         3/6/2018         3/12/2018           20180303         0         87.85         12.15         0         0         3/6/2018         3/12/2018           20180303         0         87.85  | 20180605 | 100  | 0     | 0     | 0  | 0  | 0  | 6/5/2018   | 6/11/2018 |
| 20180515         0         100         0         0         5/15/2018         5/21/2018           20180508         0         100         0         0         0         5/8/2018         5/14/2018           20180501         0         100         0         0         0         5/1/2018         5/7/2018           20180424         0         100         0         0         0         4/24/2018         4/30/2018           20180410         0         62.65         37.35         0         0         0         4/17/2018         4/23/2018           20180410         0         0         100         0         0         0         4/17/2018         4/25/2018           20180403         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180327         0         98.32         1.68         0         0         0         3/20/2018         3/26/2018           20180313         0         70.32         29.68         0         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018  | 20180529 | 100  | 0     | 0     | 0  | 0  | 0  | 5/29/2018  | 6/4/2018  |
| 20180508         0         100         0         0         5/8/2018         5/14/2018           20180501         0         100         0         0         0         5/1/2018         5/7/2018           20180424         0         100         0         0         0         4/24/2018         4/30/2018           20180417         0         62.65         37.35         0         0         0         4/17/2018         4/23/2018           20180403         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180320         0         98.32         1.68         0         0         0         3/27/2018         4/2/2018           20180320         0         98.32         1.68         0         0         3/20/2018         3/26/2018           20180306         0         87.85         12.15         0         0         3/6/2018         3/19/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180223         100         0         0         0         2/213/2018         2/12/2018           20180233 <t< td=""><td>20180522</td><td>100</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>5/22/2018</td><td>5/28/2018</td></t<>   | 20180522 | 100  | 0     | 0     | 0  | 0  | 0  | 5/22/2018  | 5/28/2018 |
| 20180501         0         100         0         0         5/1/2018         5/7/2018           20180424         0         100         0         0         0         4/24/2018         4/30/2018           20180417         0         62.65         37.35         0         0         0         4/17/2018         4/23/2018           20180403         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180327         0         98.32         1.68         0         0         0         3/27/2018         4/2/2018           20180320         0         98.32         1.68         0         0         0         3/20/2018         3/26/2018           20180320         0         98.32         1.68         0         0         0         3/20/2018         3/26/2018           20180313         0         70.32         29.68         0         0         0         3/31/2018         3/19/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180213         100         0         0         0         2/20/2018         2/12/20   | 20180515 | 0    | 100   | 0     | 0  | 0  | 0  | 5/15/2018  | 5/21/2018 |
| 20180424         0         100         0         0         4/24/2018         4/30/2018           20180417         0         62.65         37.35         0         0         4/17/2018         4/23/2018           20180410         0         0         0         0         4/10/2018         4/23/2018           20180403         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180320         0         98.32         1.68         0         0         0         3/27/2018         4/2/2018           20180313         0         70.32         29.68         0         0         0         3/3/2018         3/19/2018           20180306         0         87.85         12.15         0         0         3/6/2018         3/12/2018           20180220         0         100         0         0         0         2/27/2018         3/5/2018           20180213         100         0         0         0         2/13/2018         2/19/2018           20180123         100         0         0         0         2/6/2018         2/12/2018           20180130         0         100         <   | 20180508 | 0    | 100   | 0     | 0  | 0  | 0  | 5/8/2018   | 5/14/2018 |
| 20180417         0         62.65         37.35         0         0         4/17/2018         4/23/2018           20180410         0         0         100         0         0         4/10/2018         4/16/2018           20180403         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180327         0         98.32         1.68         0         0         0         3/27/2018         4/2/2018           20180313         0         70.32         29.68         0         0         0         3/13/2018         3/19/2018           20180306         0         87.85         12.15         0         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180220         0         100         0         0         0         2/27/2018         3/5/2018           20180213         100         0         0         0         2/3/2018         2/12/2018           20180203         59.49         40.51         0         0         0         2/6/2018         2/12/2018   | 20180501 | 0    | 100   | 0     | 0  | 0  | 0  | 5/1/2018   | 5/7/2018  |
| 20180410         0         0         100         0         0         4/10/2018         4/16/2018           20180403         0         98.32         1.68         0         0         0         4/3/2018         4/9/2018           20180327         0         98.32         1.68         0         0         0         3/27/2018         4/2/2018           20180313         0         70.32         29.68         0         0         0         3/13/2018         3/19/2018           20180306         0         87.85         12.15         0         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180213         100         0         0         0         0         2/26/2018         2/26/2018           20180205         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180103         0         100         0         0         0         2/6/2018         2/12/2018           20180103         0         100         0         0         0         1/30/2018         1/22/2018 <td>20180424</td> <td>0</td> <td>100</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>4/24/2018</td> <td>4/30/2018</td>  | 20180424 | 0    | 100   | 0     | 0  | 0  | 0  | 4/24/2018  | 4/30/2018 |
| 20180403         0         98.32         1.68         0         0         4/3/2018         4/9/2018           20180327         0         98.32         1.68         0         0         0         3/27/2018         4/2/2018           20180313         0         70.32         29.68         0         0         0         3/13/2018         3/19/2018           20180306         0         87.85         12.15         0         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180223         100         0         0         0         0         2/26/2018         2/26/2018           20180223         10         100         0         0         0         2/26/2018         2/26/2018           20180203         100         0         0         0         2/13/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180103         0         100         0         0         1/33/2018         1/22/2018           20180105   | 20180417 | 0    | 62.65 | 37.35 | 0  | 0  | 0  | 4/17/2018  | 4/23/2018 |
| 20180327         0         98.32         1.68         0         0         3/27/2018         4/2/2018           20180320         0         98.32         1.68         0         0         0         3/20/2018         3/26/2018           20180313         0         70.32         29.68         0         0         0         3/13/2018         3/19/2018           20180327         0         100         0         0         0         2/27/2018         3/5/2018           20180220         0         100         0         0         0         2/20/2018         2/26/2018           20180213         100         0         0         0         0         2/13/2018         2/19/2018           20180206         59.49         40.51         0         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180102         0         99.46         0.54         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         1/2/2018         1/15/2018   | 20180410 | 0    | 0     | 100   | 0  | 0  | 0  | 4/10/2018  | 4/16/2018 |
| 20180320         0         98.32         1.68         0         0         3/20/2018         3/26/2018           20180313         0         70.32         29.68         0         0         0         3/13/2018         3/19/2018           20180306         0         87.85         12.15         0         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180220         0         100         0         0         0         2/20/2018         2/26/2018           20180213         100         0         0         0         0         2/6/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180116         0         99.46         0.54         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         1/2/2018         1/5/2018 <t< td=""><td>20180403</td><td>0</td><td>98.32</td><td>1.68</td><td>0</td><td>0</td><td>0</td><td>4/3/2018</td><td>4/9/2018</td></t<>  | 20180403 | 0    | 98.32 | 1.68  | 0  | 0  | 0  | 4/3/2018   | 4/9/2018  |
| 20180313         0         70.32         29.68         0         0         3/13/2018         3/19/2018           20180306         0         87.85         12.15         0         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180220         0         100         0         0         0         2/20/2018         2/26/2018           20180213         100         0         0         0         0         2/6/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180123         0         99.46         0.54         0         0         0         1/23/2018         1/29/2018           20180102         78.98         21.02         0         0         1/9/2018         1/15/2018           20171226         13.93         65.05         21.02         0         0         1/2/26/2017         1/1/2018           20171219 </td <td>20180327</td> <td>0</td> <td>98.32</td> <td>1.68</td> <td>0</td> <td>0</td> <td>0</td> <td>3/27/2018</td> <td>4/2/2018</td>   | 20180327 | 0    | 98.32 | 1.68  | 0  | 0  | 0  | 3/27/2018  | 4/2/2018  |
| 20180306         0         87.85         12.15         0         0         3/6/2018         3/12/2018           20180227         0         100         0         0         0         2/27/2018         3/5/2018           20180220         0         100         0         0         0         2/20/2018         2/26/2018           20180213         100         0         0         0         0         2/13/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180133         0         99.46         0.54         0         0         0         1/30/2018         2/5/2018           20180103         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         1/2/2018         1/8/2018  |          |      |       |       |    |    |    |            |           |
| 20180227         0         100         0         0         2/27/2018         3/5/2018           20180220         0         100         0         0         0         2/20/2018         2/26/2018           20180213         100         0         0         0         0         2/13/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180123         0         99.46         0.54         0         0         0         1/23/2018         1/29/2018           2018016         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20171226         13.93         65.05         21.02         0         0         0         1/2/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         12/19/2017         12/25/2017   | -        |      |       |       |    |    |    |            |           |
| 20180220         0         100         0         0         2/20/2018         2/26/2018           20180213         100         0         0         0         0         2/13/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180123         0         99.46         0.54         0         0         0         1/23/2018         1/29/2018           20180116         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171216         13.93         65.05         21.02         0         0         0         12/19/2017         12/12/2018           20171212         0         29.33         70.67         0         0         12/19/2017   | -        |      |       | 12.15 |    |    |    |            |           |
| 20180213         100         0         0         0         2/13/2018         2/19/2018           20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180123         0         99.46         0.54         0         0         0         1/23/2018         1/29/2018           20180116         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         0         12/19/2017         12/25/2017           20171219         0         29.33         70.67         0         0         12/19/2017         12/18/2017           20171205         0         29.33         70.67         0         0         11/28/2  |          |      |       |       |    |    |    |            |           |
| 20180206         59.49         40.51         0         0         0         2/6/2018         2/12/2018           20180130         0         100         0         0         0         1/30/2018         2/5/2018           20180123         0         99.46         0.54         0         0         0         1/23/2018         1/29/2018           20180116         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/18/2017           20171212         0         29.33         70.67         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |          |      |       |       |    |    |    |            |           |
| 20180130         0         100         0         0         1/30/2018         2/5/2018           20180123         0         99.46         0.54         0         0         0         1/23/2018         1/29/2018           20180116         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0         0         0         11/28/2017         12/4/2017           20171114         0         100         0  |          |      |       |       |    |    |    |            | , ,       |
| 20180123         0         99.46         0.54         0         0         1/23/2018         1/29/2018           20180116         0         99.46         0.54         0         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         12/5/2017         12/18/2017           20171128         0         99.9         0.1         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171104         0         100         0         0         0   |          |      |       |       |    |    |    |            | , ,       |
| 20180116         0         99.46         0.54         0         0         1/16/2018         1/22/2018           20180109         0         78.98         21.02         0         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         0         12/5/2017         12/18/2017           20171128         0         29.33         70.67         0         0         11/28/2017         12/14/2017           20171128         0         99.9         0.1         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171107         68.02         31.98         0         0         <  |          |      |       |       |    |    |    |            |           |
| 20180109         0         78.98         21.02         0         0         1/9/2018         1/15/2018           20180102         13.93         65.05         21.02         0         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/28/2017         12/4/2017           20171124         0         100         0         0         0         11/21/2017         11/27/2017           20171107         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171031         68.02         31.98         0         0         0<  |          |      |       |       |    |    |    |            |           |
| 20180102         13.93         65.05         21.02         0         0         1/2/2018         1/8/2018           20171226         13.93         65.05         21.02         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         0         12/5/2017         12/18/2017           20171205         0         29.33         70.67         0         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/7/2017         11/20/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0   |          |      |       |       |    |    |    |            |           |
| 20171226         13.93         65.05         21.02         0         0         12/26/2017         1/1/2018           20171219         0         29.32         70.68         0         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         0         12/12/2017         12/18/2017           20171128         0         29.9         0.1         0         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         11/7/2017         11/13/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/17/2017         10/30/2017           20171010         100         0         0         0         10/10/2017         10/16/2017 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td>  |          |      |       |       |    |    |    |            | -         |
| 20171219         0         29.32         70.68         0         0         12/19/2017         12/25/2017           20171212         0         29.33         70.67         0         0         0         12/12/2017         12/18/2017           20171205         0         29.33         70.67         0         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/17/2017         10/30/2017           20171010         100         0         0         0         10/10/2017         10/16/2017  |          |      |       |       |    |    |    |            |           |
| 20171212         0         29.33         70.67         0         0         12/12/2017         12/18/2017           20171205         0         29.33         70.67         0         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         11/7/2017         11/6/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171003         100         0         0         0         10/10/2017         10/16/2017   | -        |      |       |       |    |    |    |            |           |
| 20171205         0         29.33         70.67         0         0         12/5/2017         12/11/2017           20171128         0         99.9         0.1         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171003         100         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         10/3/2017         10/9/2017  |          |      |       |       |    |    |    |            |           |
| 20171128         0         99.9         0.1         0         0         11/28/2017         12/4/2017           20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         11/7/2017         11/6/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171001         100         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         10/3/2017         10/9/2017   |          |      |       |       |    |    |    |            |           |
| 20171121         0         100         0         0         0         11/21/2017         11/27/2017           20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         11/7/2017         11/13/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171010         100         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         10/3/2017         10/9/2017   |          |      |       |       |    |    |    |            |           |
| 20171114         0         100         0         0         0         11/14/2017         11/20/2017           20171107         68.02         31.98         0         0         0         11/7/2017         11/13/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171010         100         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         10/3/2017         10/9/2017  |          |      |       |       |    |    |    |            |           |
| 20171107         68.02         31.98         0         0         0         11/7/2017         11/13/2017           20171031         68.02         31.98         0         0         0         10/31/2017         11/6/2017           20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171010         100         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         10/3/2017         10/9/2017   |          |      |       |       |    |    |    |            |           |
| 20171031       68.02       31.98       0       0       0       10/31/2017       11/6/2017         20171024       67.85       32.15       0       0       0       10/24/2017       10/30/2017         20171017       0       100       0       0       0       10/17/2017       10/23/2017         20171010       100       0       0       0       0       10/10/2017       10/16/2017         20171003       100       0       0       0       0       10/3/2017       10/9/2017   |          |      |       |       |    |    |    |            |           |
| 20171024         67.85         32.15         0         0         0         10/24/2017         10/30/2017           20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171010         100         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         10/3/2017         10/9/2017   | -        |      |       |       |    |    |    |            |           |
| 20171017         0         100         0         0         0         10/17/2017         10/23/2017           20171010         100         0         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         0         10/3/2017         10/9/2017  | -        |      |       |       |    |    |    |            |           |
| 20171010         100         0         0         0         0         10/10/2017         10/16/2017           20171003         100         0         0         0         0         10/3/2017         10/9/2017   | -        |      |       |       |    |    |    |            |           |
| 20171003 100 0 0 0 0 10/3/2017 10/9/2017  |          |      |       |       |    |    |    |            |           |
|   |          |      |       |       |    |    |    |            |           |
| = 0 = 1   | 20171005 | 100  | 0     | 0     | 0  | 0  | 0  | 9/26/2017  | 10/2/2017 |

| MapDate              | None           | D0             | D1             | D2    | D3    | D4    | ValidStart             | ValidEnd               |
|----------------------|----------------|----------------|----------------|-------|-------|-------|------------------------|------------------------|
| 20170919             | 100            | 0              | 0              | 0     | 0     | 0     | 9/19/2017              | 9/25/2017              |
| 20170912             | 100            | 0              | 0              | 0     | 0     | 0     | 9/12/2017              | 9/18/2017              |
| 20170905             | 100            | 0              | 0              | 0     | 0     | 0     | 9/5/2017               | 9/11/2017              |
| 20170829             | 100            | 0              | 0              | 0     | 0     | 0     | 8/29/2017              | 9/4/2017               |
| 20170822             | 100            | 0              | 0              | 0     | 0     | 0     | 8/22/2017              | 8/28/2017              |
| 20170815             | 100            | 0              | 0              | 0     | 0     | 0     | 8/15/2017              | 8/21/2017              |
| 20170808             | 100            | 0              | 0              | 0     | 0     | 0     | 8/8/2017               | 8/14/2017              |
| 20170801             | 100            | 0              | 0              | 0     | 0     | 0     | 8/1/2017               | 8/7/2017               |
| 20170725             | 100            | 0              | 0              | 0     | 0     | 0     | 7/25/2017              | 7/31/2017              |
| 20170718             | 100            | 0              | 0              | 0     | 0     | 0     | 7/18/2017              | 7/24/2017              |
| 20170711             | 100            | 0              | 0              | 0     | 0     | 0     | 7/11/2017              | 7/17/2017              |
| 20170704             | 100            | 0              | 0              | 0     | 0     | 0     | 7/4/2017               | 7/10/2017              |
| 20170627             | 25.67          | 74.33          | 0              | 0     | 0     | 0     | 6/27/2017              | 7/3/2017               |
| 20170620<br>20170613 | 40.93<br>40.93 | 46.12<br>46.12 | 12.95<br>12.95 | 0     | 0     | 0     | 6/20/2017<br>6/13/2017 | 6/26/2017<br>6/19/2017 |
| 20170613             | 40.93          | 46.12          | 12.95          | 0     | 0     | 0     | 6/6/2017               | 6/19/2017              |
| 20170530             | 40.93          | 46.02          | 13.04          | 0     | 0     | 0     | 5/30/2017              | 6/5/2017               |
| 20170530             | 1.58           | 85.38          | 13.04          | 0     | 0     | 0     | 5/23/2017              | 5/29/2017              |
| 20170516             | 2.67           | 84.29          | 13.04          | 0     | 0     | 0     | 5/16/2017              | 5/22/2017              |
| 20170509             | 2.67           | 84.29          | 13.04          | 0     | 0     | 0     | 5/9/2017               | 5/15/2017              |
| 20170502             | 2.67           | 84.29          | 13.04          | 0     | 0     | 0     | 5/2/2017               | 5/8/2017               |
| 20170425             | 2.67           | 84.29          | 13.04          | 0     | 0     | 0     | 4/25/2017              | 5/1/2017               |
| 20170418             | 0              | 86.96          | 13.04          | 0     | 0     | 0     | 4/18/2017              | 4/24/2017              |
| 20170411             | 0              | 100            | 0              | 0     | 0     | 0     | 4/11/2017              | 4/17/2017              |
| 20170404             | 0              | 100            | 0              | 0     | 0     | 0     | 4/4/2017               | 4/10/2017              |
| 20170328             | 0              | 100            | 0              | 0     | 0     | 0     | 3/28/2017              | 4/3/2017               |
| 20170321             | 0              | 100            | 0              | 0     | 0     | 0     | 3/21/2017              | 3/27/2017              |
| 20170314             | 78.44          | 21.56          | 0              | 0     | 0     | 0     | 3/14/2017              | 3/20/2017              |
| 20170307             | 78.72          | 21.28          | 0              | 0     | 0     | 0     | 3/7/2017               | 3/13/2017              |
| 20170228             | 78.72          | 21.28          | 0              | 0     | 0     | 0     | 2/28/2017              | 3/6/2017               |
| 20170221             | 78.72          | 21.28          | 0              | 0     | 0     | 0     | 2/21/2017              | 2/27/2017              |
| 20170214             | 78.72          | 21.28          | 0              | 0     | 0     | 0     | 2/14/2017              | 2/20/2017              |
| 20170207             | 0              | 76.52          | 23.48          | 0     | 0     | 0     | 2/7/2017               | 2/13/2017              |
| 20170131 20170124    | 0              | 76.52<br>76.52 | 23.48          | 0     | 0     | 0     | 1/31/2017<br>1/24/2017 | 2/6/2017<br>1/30/2017  |
| 20170124             | 0              | 70.32          | 70.1           | 29.9  | 0     | 0     | 1/17/2017              | 1/23/2017              |
| 20170117             | 0              | 0              | 70.1           | 29.9  | 0     | 0     | 1/10/2017              | 1/16/2017              |
| 20170110             | 0              | 0              | 32.62          | 67.38 | 0     | 0     | 1/3/2017               | 1/9/2017               |
| 20170103             | 0              | 0              | 0              | 07.38 | 34.07 | 65.93 | 12/27/2016             | 1/2/2017               |
| 20161220             | 0              | 0              | 0              | 0     | 34.07 | 65.93 | 12/20/2016             | 12/26/2016             |
| 20161213             | 0              | 0              | 0              | 0     | 33.98 | 66.02 | 12/13/2016             | 12/19/2016             |
| 20161206             | 0              | 0              | 0              | 0     | 33.98 | 66.02 | 12/6/2016              | 12/12/2016             |
| 20161129             | 0              | 0              | 0              | 0     | 46    | 54    | 11/29/2016             | 12/5/2016              |
| 20161122             | 0              | 0              | 0              | 0     | 46    | 54    | 11/22/2016             | 11/28/2016             |
| 20161115             | 0              | 0              | 0              | 0.91  | 99.09 | 0     | 11/15/2016             | 11/21/2016             |
| 20161108             | 0              | 0              | 0.09           | 65.64 | 34.27 | 0     | 11/8/2016              | 11/14/2016             |

| MapDate  | None  | D0    | D1    | D2    | D3    | D4 | ValidStart | ValidEnd   |
|----------|-------|-------|-------|-------|-------|----|------------|------------|
| 20161101 | 0     | 0     | 0.09  | 65.64 | 34.27 | 0  | 11/1/2016  | 11/7/2016  |
| 20161025 | 0     | 0     | 0.09  | 65.64 | 34.27 | 0  | 10/25/2016 | 10/31/2016 |
| 20161018 | 0     | 0     | 0.09  | 66.86 | 33.05 | 0  | 10/18/2016 | 10/24/2016 |
| 20161011 | 0     | 0     | 1.72  | 65.23 | 33.05 | 0  | 10/11/2016 | 10/17/2016 |
| 20161004 | 0     | 0     | 1.72  | 66.43 | 31.85 | 0  | 10/4/2016  | 10/10/2016 |
| 20160927 | 0     | 0     | 1.73  | 66.42 | 31.85 | 0  | 9/27/2016  | 10/3/2016  |
| 20160920 | 0     | 0     | 2.21  | 91.01 | 6.78  | 0  | 9/20/2016  | 9/26/2016  |
| 20160913 | 0     | 0     | 34.8  | 65.2  | 0     | 0  | 9/13/2016  | 9/19/2016  |
| 20160906 | 0     | 0     | 100   | 0     | 0     | 0  | 9/6/2016   | 9/12/2016  |
| 20160830 | 0     | 0     | 100   | 0     | 0     | 0  | 8/30/2016  | 9/5/2016   |
| 20160823 | 0     | 0     | 100   | 0     | 0     | 0  | 8/23/2016  | 8/29/2016  |
| 20160816 | 0     | 0     | 100   | 0     | 0     | 0  | 8/16/2016  | 8/22/2016  |
| 20160809 | 0     | 48.04 | 51.96 | 0     | 0     | 0  | 8/9/2016   | 8/15/2016  |
| 20160802 | 0     | 100   | 0     | 0     | 0     | 0  | 8/2/2016   | 8/8/2016   |
| 20160726 | 0     | 100   | 0     | 0     | 0     | 0  | 7/26/2016  | 8/1/2016   |
| 20160719 | 0     | 100   | 0     | 0     | 0     | 0  | 7/19/2016  | 7/25/2016  |
| 20160712 | 0     | 100   | 0     | 0     | 0     | 0  | 7/12/2016  | 7/18/2016  |
| 20160705 | 0     | 100   | 0     | 0     | 0     | 0  | 7/5/2016   | 7/11/2016  |
| 20160628 | 0     | 100   | 0     | 0     | 0     | 0  | 6/28/2016  | 7/4/2016   |
| 20160621 | 0     | 100   | 0     | 0     | 0     | 0  | 6/21/2016  | 6/27/2016  |
| 20160614 | 9.9   | 90.1  | 0     | 0     | 0     | 0  | 6/14/2016  | 6/20/2016  |
| 20160607 | 52.09 | 47.91 | 0     | 0     | 0     | 0  | 6/7/2016   | 6/13/2016  |
| 20160531 | 52.09 | 47.91 | 0     | 0     | 0     | 0  | 5/31/2016  | 6/6/2016   |
| 20160524 | 52.09 | 47.91 | 0     | 0     | 0     | 0  | 5/24/2016  | 5/30/2016  |
| 20160517 | 52.09 | 47.91 | 0     | 0     | 0     | 0  | 5/17/2016  | 5/23/2016  |
| 20160510 | 79.2  | 20.8  | 0     | 0     | 0     | 0  | 5/10/2016  | 5/16/2016  |
| 20160503 | 75.58 | 24.42 | 0     | 0     | 0     | 0  | 5/3/2016   | 5/9/2016   |
| 20160426 | 100   | 0     | 0     | 0     | 0     | 0  | 4/26/2016  | 5/2/2016   |
| 20160419 | 100   | 0     | 0     | 0     | 0     | 0  | 4/19/2016  | 4/25/2016  |
| 20160412 | 100   | 0     | 0     | 0     | 0     | 0  | 4/12/2016  | 4/18/2016  |
| 20160405 | 100   | 0     | 0     | 0     | 0     | 0  | 4/5/2016   | 4/11/2016  |
| 20160329 | 0     | 100   | 0     | 0     | 0     | 0  | 3/29/2016  | 4/4/2016   |
| 20160322 | 8.07  | 91.93 | 0     | 0     | 0     | 0  | 3/22/2016  | 3/28/2016  |
| 20160315 | 100   | 0     | 0     | 0     | 0     | 0  | 3/15/2016  | 3/21/2016  |
| 20160308 | 100   | 0     | 0     | 0     | 0     | 0  | 3/8/2016   | 3/14/2016  |
| 20160301 | 100   | 0     | 0     | 0     | 0     | 0  | 3/1/2016   | 3/7/2016   |
| 20160223 | 100   | 0     | 0     | 0     | 0     | 0  | 2/23/2016  | 2/29/2016  |
| 20160216 | 100   | 0     | 0     | 0     | 0     | 0  | 2/16/2016  | 2/22/2016  |
| 20160209 | 100   | 0     | 0     | 0     | 0     | 0  | 2/9/2016   | 2/15/2016  |
| 20160202 | 100   | 0     | 0     | 0     | 0     | 0  | 2/2/2016   | 2/8/2016   |
| 20160126 | 100   | 0     | 0     | 0     | 0     | 0  | 1/26/2016  | 2/1/2016   |
| 20160119 | 100   | 0     | 0     | 0     | 0     | 0  | 1/19/2016  | 1/25/2016  |
| 20160112 | 100   | 0     | 0     | 0     | 0     | 0  | 1/12/2016  | 1/18/2016  |
| 20160105 | 100   | 0     | 0     | 0     | 0     | 0  | 1/5/2016   | 1/11/2016  |
| 20151229 |       | 0     | 0     | 0     | 0     | 0  | 12/29/2015 | 1/4/2016   |
| 20151222 | 100   | 0     | U     | U     | U     | 0  | 12/22/2015 | 12/28/2015 |

| MapDate  | None  | D0    | D1    | D2 | D3 | D4 | ValidStart | ValidEnd   |
|----------|-------|-------|-------|----|----|----|------------|------------|
| 20151215 | 100   | 0     | 0     | 0  | 0  | 0  | 12/15/2015 | 12/21/2015 |
| 20151208 | 100   | 0     | 0     | 0  | 0  | 0  | 12/8/2015  | 12/14/2015 |
| 20151201 | 100   | 0     | 0     | 0  | 0  | 0  | 12/1/2015  | 12/7/2015  |
| 20151124 | 100   | 0     | 0     | 0  | 0  | 0  | 11/24/2015 | 11/30/2015 |
| 20151117 | 100   | 0     | 0     | 0  | 0  | 0  | 11/17/2015 | 11/23/2015 |
| 20151110 | 100   | 0     | 0     | 0  | 0  | 0  | 11/10/2015 | 11/16/2015 |
| 20151103 | 100   | 0     | 0     | 0  | 0  | 0  | 11/3/2015  | 11/9/2015  |
| 20151027 | 99.4  | 0.6   | 0     | 0  | 0  | 0  | 10/27/2015 | 11/2/2015  |
| 20151020 | 99.4  | 0.6   | 0     | 0  | 0  | 0  | 10/20/2015 | 10/26/2015 |
| 20151013 | 99.4  | 0.6   | 0     | 0  | 0  | 0  | 10/13/2015 | 10/19/2015 |
| 20151006 | 99.4  | 0.6   | 0     | 0  | 0  | 0  | 10/6/2015  | 10/12/2015 |
| 20150929 | 95.46 | 4.54  | 0     | 0  | 0  | 0  | 9/29/2015  | 10/5/2015  |
| 20150922 | 95.3  | 4.7   | 0     | 0  | 0  | 0  | 9/22/2015  | 9/28/2015  |
| 20150915 | 95.3  | 4.7   | 0     | 0  | 0  | 0  | 9/15/2015  | 9/21/2015  |
| 20150908 | 12.96 | 81.34 | 5.7   | 0  | 0  | 0  | 9/8/2015   | 9/14/2015  |
| 20150901 | 12.96 | 81.34 | 5.7   | 0  | 0  | 0  | 9/1/2015   | 9/7/2015   |
| 20150825 | 0     | 10.37 | 89.63 | 0  | 0  | 0  | 8/25/2015  | 8/31/2015  |
| 20150818 | 0     | 0     | 100   | 0  | 0  | 0  | 8/18/2015  | 8/24/2015  |
| 20150811 | 0     | 0     | 100   | 0  | 0  | 0  | 8/11/2015  | 8/17/2015  |
| 20150804 | 0     | 0     | 100   | 0  | 0  | 0  | 8/4/2015   | 8/10/2015  |
| 20150728 | 0     | 93.12 | 6.88  | 0  | 0  | 0  | 7/28/2015  | 8/3/2015   |
| 20150721 | 42.14 | 57.86 | 0     | 0  | 0  | 0  | 7/21/2015  | 7/27/2015  |
| 20150714 | 73.09 | 26.91 | 0     | 0  | 0  | 0  | 7/14/2015  | 7/20/2015  |
| 20150707 | 97.55 | 2.45  | 0     | 0  | 0  | 0  | 7/7/2015   | 7/13/2015  |
| 20150630 | 97.55 | 2.45  | 0     | 0  | 0  | 0  | 6/30/2015  | 7/6/2015   |
| 20150623 | 97.55 | 2.45  | 0     | 0  | 0  | 0  | 6/23/2015  | 6/29/2015  |
| 20150616 | 100   | 0     | 0     | 0  | 0  | 0  | 6/16/2015  | 6/22/2015  |
| 20150609 | 100   | 0     | 0     | 0  | 0  | 0  | 6/9/2015   | 6/15/2015  |
| 20150602 | 100   | 0     | 0     | 0  | 0  | 0  | 6/2/2015   | 6/8/2015   |
| 20150526 | 100   | 0     | 0     | 0  | 0  | 0  | 5/26/2015  | 6/1/2015   |
| 20150519 | 100   | 0     | 0     | 0  | 0  | 0  | 5/19/2015  | 5/25/2015  |
| 20150512 | 100   | 0     | 0     | 0  | 0  | 0  | 5/12/2015  | 5/18/2015  |
| 20150505 | 100   | 0     | 0     | 0  | 0  | 0  | 5/5/2015   | 5/11/2015  |
| 20150428 | 100   | 0     | 0     | 0  | 0  | 0  | 4/28/2015  | 5/4/2015   |
| 20150421 | 100   | 0     | 0     | 0  | 0  | 0  | 4/21/2015  | 4/27/2015  |
| 20150414 | 98.27 | 1.73  | 0     | 0  | 0  | 0  | 4/14/2015  | 4/20/2015  |
| 20150407 | 98.27 | 1.73  | 0     | 0  | 0  | 0  | 4/7/2015   | 4/13/2015  |
| 20150331 | 98.27 | 1.73  | 0     | 0  | 0  | 0  | 3/31/2015  | 4/6/2015   |
| 20150324 | 100   | 0     | 0     | 0  | 0  | 0  | 3/24/2015  | 3/30/2015  |
| 20150317 | 100   | 0     | 0     | 0  | 0  | 0  | 3/17/2015  | 3/23/2015  |
| 20150310 | 100   | 0     | 0     | 0  | 0  | 0  | 3/10/2015  | 3/16/2015  |
| 20150303 | 100   | 0     | 0     | 0  | 0  | 0  | 3/3/2015   | 3/9/2015   |
| 20150224 | 100   | 0     | 0     | 0  | 0  | 0  | 2/24/2015  | 3/2/2015   |
| 20150217 | 100   | 0     | 0     | 0  | 0  | 0  | 2/17/2015  | 2/23/2015  |
| 20150210 | 100   | 0     | 0     | 0  | 0  | 0  | 2/10/2015  | 2/16/2015  |
| 20150203 | 100   | 0     | 0     | 0  | 0  | 0  | 2/3/2015   | 2/9/2015   |

| MapDate              | None       | D0    | D1   | D2 | D3 | D4 | ValidStart             | ValidEnd              |
|----------------------|------------|-------|------|----|----|----|------------------------|-----------------------|
| 20150127             | 100        | 0     | 0    | 0  | 0  | 0  | 1/27/2015              | 2/2/2015              |
| 20150120             | 100        | 0     | 0    | 0  | 0  | 0  | 1/20/2015              | 1/26/2015             |
| 20150113             | 100        | 0     | 0    | 0  | 0  | 0  | 1/13/2015              | 1/19/2015             |
| 20150106             | 100        | 0     | 0    | 0  | 0  | 0  | 1/6/2015               | 1/12/2015             |
| 20141230             | 99.29      | 0.71  | 0    | 0  | 0  | 0  | 12/30/2014             | 1/5/2015              |
| 20141223             | 0          | 99.33 | 0.67 | 0  | 0  | 0  | 12/23/2014             | 12/29/2014            |
| 20141216             | 0          | 99.33 | 0.67 | 0  | 0  | 0  | 12/16/2014             | 12/22/2014            |
| 20141209             | 6.8        | 92.53 | 0.67 | 0  | 0  | 0  | 12/9/2014              | 12/15/2014            |
| 20141202             | 6.82       | 93.18 | 0    | 0  | 0  | 0  | 12/2/2014              | 12/8/2014             |
| 20141125             | 6.82       | 93.18 | 0    | 0  | 0  | 0  | 11/25/2014             | 12/1/2014             |
| 20141118             | 0          | 100   | 0    | 0  | 0  | 0  | 11/18/2014             | 11/24/2014            |
| 20141111             | 34.9       | 65.1  | 0    | 0  | 0  | 0  | 11/11/2014             | 11/17/2014            |
| 20141104             | 77.24      | 22.76 | 0    | 0  | 0  | 0  | 11/4/2014              | 11/10/2014            |
| 20141028             | 77.24      | 22.76 | 0    | 0  | 0  | 0  | 10/28/2014             | 11/3/2014             |
| 20141021             | 77.24      | 22.76 | 0    | 0  | 0  | 0  | 10/21/2014             | 10/27/2014            |
| 20141014             | 96.15      | 3.85  | 0    | 0  | 0  | 0  | 10/14/2014             | 10/20/2014            |
| 20141007             | 95.07      | 4.93  | 0    | 0  | 0  | 0  | 10/7/2014              | 10/13/2014            |
| 20140930             | 92.39      | 7.61  | 0    | 0  | 0  | 0  | 9/30/2014              | 10/6/2014             |
| 20140923             | 92.39      | 7.61  | 0    | 0  | 0  | 0  | 9/23/2014              | 9/29/2014             |
| 20140916             | 92.39      | 7.61  | 0    | 0  | 0  | 0  | 9/16/2014              | 9/22/2014             |
| 20140909             | 92.39      | 7.61  | 0    | 0  | 0  | 0  | 9/9/2014               | 9/15/2014             |
| 20140902             | 46.11      | 53.89 | 0    | 0  | 0  | 0  | 9/2/2014               | 9/8/2014              |
| 20140826             | 100        | 0     | 0    | 0  | 0  | 0  | 8/26/2014              | 9/1/2014              |
| 20140819             | 100        | 0     | 0    | 0  | 0  | 0  | 8/19/2014              | 8/25/2014             |
| 20140812             | 100        | 0     | 0    | 0  | 0  | 0  | 8/12/2014              | 8/18/2014             |
| 20140805             | 100        | 0     | 0    | 0  | 0  | 0  | 8/5/2014               | 8/11/2014             |
| 20140729             | 100        | 0     | 0    | 0  | 0  | 0  | 7/29/2014              | 8/4/2014              |
| 20140722             | 100        | 0     | 0    | 0  | 0  | 0  | 7/22/2014              | 7/28/2014             |
| 20140715             | 2.67       | 97.33 | 0    | 0  | 0  | 0  | 7/15/2014              | 7/21/2014             |
| 20140708             | 2.67       | 97.33 | 0    | 0  | 0  | 0  | 7/8/2014               | 7/14/2014             |
| 20140701             | 99.61      | 0.39  | 0    | 0  | 0  | 0  | 7/1/2014               | 7/7/2014              |
| 20140624             | 99.59      | 0.41  | 0    | 0  | 0  | 0  | 6/24/2014              | 6/30/2014             |
| 20140617             | 100        | 0     | 0    | 0  | 0  | 0  | 6/17/2014              | 6/23/2014             |
| 20140610             | 100        | 0     | 0    | 0  | 0  | 0  | 6/10/2014              | 6/16/2014             |
| 20140603             | 100        | 0     | 0    | 0  | 0  | 0  | 6/3/2014               | 6/9/2014              |
| 20140527             | 100        | 0     | 0    | 0  | 0  | 0  | 5/27/2014              | 6/2/2014              |
| 20140520             | 100        | 0     | 0    | 0  | 0  | 0  | 5/20/2014<br>5/13/2014 | 5/26/2014             |
| 20140513<br>20140506 | 100        | 0     | 0    | 0  | 0  | 0  | 5/6/2014               | 5/19/2014             |
|                      | 100        |       | 0    | 0  | 0  |    | 4/29/2014              | 5/12/2014             |
| 20140429<br>20140422 | 100        | 0     | 0    | 0  | 0  | 0  | 4/29/2014              | 5/5/2014<br>4/28/2014 |
| 20140422             | 100<br>100 | 0     | 0    | 0  | 0  | 0  | 4/22/2014              | 4/28/2014             |
| 20140413             | 100        | 0     | 0    | 0  | 0  | 0  | 4/15/2014              | 4/21/2014             |
| 20140408             | 100        | 0     | 0    | 0  | 0  | 0  | 4/8/2014               | 4/14/2014             |
| 20140401             | 100        | 0     | 0    | 0  | 0  | 0  | 3/25/2014              | 3/31/2014             |
| 20140323             | 100        | 0     | 0    | 0  | 0  | 0  | 3/23/2014              | 3/24/2014             |
| 20140318             | 100        | U     | U    | U  | U  | U  | 3/10/2014              | 3/24/2014             |

| MapDate              | None       | D0    | D1 | D2 | D3 | D4 | ValidStart            | ValidEnd              |
|----------------------|------------|-------|----|----|----|----|-----------------------|-----------------------|
| 20140311             | 100        | 0     | 0  | 0  | 0  | 0  | 3/11/2014             | 3/17/2014             |
| 20140304             | 100        | 0     | 0  | 0  | 0  | 0  | 3/4/2014              | 3/10/2014             |
| 20140225             | 100        | 0     | 0  | 0  | 0  | 0  | 2/25/2014             | 3/3/2014              |
| 20140218             | 100        | 0     | 0  | 0  | 0  | 0  | 2/18/2014             | 2/24/2014             |
| 20140211             | 100        | 0     | 0  | 0  | 0  | 0  | 2/11/2014             | 2/17/2014             |
| 20140204             | 100        | 0     | 0  | 0  | 0  | 0  | 2/4/2014              | 2/10/2014             |
| 20140128             | 100        | 0     | 0  | 0  | 0  | 0  | 1/28/2014             | 2/3/2014              |
| 20140121             | 100        | 0     | 0  | 0  | 0  | 0  | 1/21/2014             | 1/27/2014             |
| 20140114             | 100        | 0     | 0  | 0  | 0  | 0  | 1/14/2014             | 1/20/2014             |
| 20140107             | 100        | 0     | 0  | 0  | 0  | 0  | 1/7/2014              | 1/13/2014             |
| 20131231             | 100        | 0     | 0  | 0  | 0  | 0  | 12/31/2013            | 1/6/2014              |
| 20131224             | 17.86      | 82.14 | 0  | 0  | 0  | 0  | 12/24/2013            | 12/30/2013            |
| 20131217             | 0          | 100   | 0  | 0  | 0  | 0  | 12/17/2013            | 12/23/2013            |
| 20131210             | 0          | 100   | 0  | 0  | 0  | 0  | 12/10/2013            | 12/16/2013            |
| 20131203             | 0          | 100   | 0  | 0  | 0  | 0  | 12/3/2013             | 12/9/2013             |
| 20131126             | 0          | 100   | 0  | 0  | 0  | 0  | 11/26/2013            | 12/2/2013             |
| 20131119             | 0          | 100   | 0  | 0  | 0  | 0  | 11/19/2013            | 11/25/2013            |
| 20131112             | 9.48       | 90.52 | 0  | 0  | 0  | 0  | 11/12/2013            | 11/18/2013            |
| 20131105             | 19.35      | 80.65 | 0  | 0  | 0  | 0  | 11/5/2013             | 11/11/2013            |
| 20131029             | 19.35      | 80.65 | 0  | 0  | 0  | 0  | 10/29/2013            | 11/4/2013             |
| 20131022             | 98.76      | 1.24  | 0  | 0  | 0  | 0  | 10/22/2013            | 10/28/2013            |
| 20131015             | 100        | 0     | 0  | 0  | 0  | 0  | 10/15/2013            | 10/21/2013            |
| 20131008             | 100        | 0     | 0  | 0  | 0  | 0  | 10/8/2013             | 10/14/2013            |
| 20131001             | 100        | 0     | 0  | 0  | 0  | 0  | 10/1/2013             | 10/7/2013             |
| 20130924             | 100        | 0     | 0  | 0  | 0  | 0  | 9/24/2013             | 9/30/2013             |
| 20130917             | 100        | 0     | 0  | 0  | 0  | 0  | 9/17/2013             | 9/23/2013             |
| 20130910             | 100        | 0     | 0  | 0  | 0  | 0  | 9/10/2013             | 9/16/2013             |
| 20130903             | 100        | 0     | 0  | 0  | 0  | 0  | 9/3/2013              | 9/9/2013              |
| 20130827             | 100        | 0     | 0  | 0  | 0  | 0  | 8/27/2013             | 9/2/2013              |
| 20130820             | 100        | 0     | 0  | 0  | 0  | 0  | 8/20/2013             | 8/26/2013             |
| 20130813             | 100        | 0     | 0  | 0  | 0  | 0  | 8/13/2013             | 8/19/2013             |
| 20130806             | 100        | 0     | 0  | 0  | 0  | 0  | 8/6/2013              | 8/12/2013             |
| 20130730             | 100        | 0     | 0  | 0  | 0  | 0  | 7/30/2013             | 8/5/2013              |
| 20130723             | 100        | 0     | 0  | 0  | 0  | 0  | 7/23/2013             | 7/29/2013             |
| 20130716             | 100        | 0     | 0  | 0  | 0  | 0  | 7/16/2013             | 7/22/2013             |
| 20130709             | 100        | 0     | 0  | 0  | 0  | 0  | 7/9/2013              | 7/15/2013             |
| 20130702             | 100        | 0     | 0  | 0  | 0  | 0  | 7/2/2013<br>6/25/2013 | 7/8/2013              |
| 20130625<br>20130618 | 100        | 0     | 0  | 0  | 0  | 0  | 6/25/2013             | 7/1/2013<br>6/24/2013 |
| 20130618             | 100<br>100 | 0     | 0  | 0  | 0  | 0  | 6/18/2013             | 6/24/2013             |
| 20130611             |            | 0     | 0  | 0  | 0  | 0  | 6/4/2013              | 6/17/2013             |
| 20130604             | 100<br>100 | 0     | 0  | 0  | 0  | 0  | 5/28/2013             | 6/3/2013              |
| 20130528             | 100        | 0     | 0  | 0  | 0  | 0  | 5/28/2013             | 5/27/2013             |
| 20130521             | 100        | 0     | 0  | 0  | 0  | 0  | 5/21/2013             | 5/20/2013             |
| 20130514             | 100        | 0     | 0  | 0  | 0  | 0  | 5/7/2013              | 5/13/2013             |
| 20130307             | 100        | 0     | 0  | 0  | 0  | 0  | 4/30/2013             | 5/6/2013              |
| 20130430             | 100        | U     | U  | U  | U  | U  | 4/30/2013             | 3/0/2013              |

| MapDate              | None  | D0   | D1  | D2  | D3   | D4    | ValidStart               | ValidEnd                 |
|----------------------|-------|------|-----|-----|------|-------|--------------------------|--------------------------|
| 20130423             | 93.03 | 6.97 | 0   | 0   | 0    | 0     | 4/23/2013                | 4/29/2013                |
| 20130416             | 9.4   | 90.6 | 0   | 0   | 0    | 0     | 4/16/2013                | 4/22/2013                |
| 20130409             | 0     | 100  | 0   | 0   | 0    | 0     | 4/9/2013                 | 4/15/2013                |
| 20130402             | 0     | 0    | 100 | 0   | 0    | 0     | 4/2/2013                 | 4/8/2013                 |
| 20130326             | 0     | 0    | 100 | 0   | 0    | 0     | 3/26/2013                | 4/1/2013                 |
| 20130319             | 0     | 0    | 0   | 100 | 0    | 0     | 3/19/2013                | 3/25/2013                |
| 20130312             | 0     | 0    | 0   | 100 | 0    | 0     | 3/12/2013                | 3/18/2013                |
| 20130305             | 0     | 0    | 0   | 100 | 0    | 0     | 3/5/2013                 | 3/11/2013                |
| 20130226             | 0     | 0    | 0   | 100 | 0    | 0     | 2/26/2013                | 3/4/2013                 |
| 20130219             | 0     | 0    | 0   | 0   | 100  | 0     | 2/19/2013                | 2/25/2013                |
| 20130212             | 0     | 0    | 0   | 0   | 100  | 0     | 2/12/2013                | 2/18/2013                |
| 20130205             | 0     | 0    | 0   | 0   | 0    | 100   | 2/5/2013                 | 2/11/2013                |
| 20130129             | 0     | 0    | 0   | 0   | 0    | 100   | 1/29/2013                | 2/4/2013                 |
| 20130122             | 0     | 0    | 0   | 0   | 0    | 100   | 1/22/2013                | 1/28/2013                |
| 20130115             | 0     | 0    | 0   | 0   | 0    | 100   | 1/15/2013                | 1/21/2013                |
| 20130108             | 0     | 0    | 0   | 0   | 0    | 100   | 1/8/2013                 | 1/14/2013                |
| 20130101             | 0     | 0    | 0   | 0   | 0    | 100   | 1/1/2013                 | 1/7/2013                 |
| 20121225             | 0     | 0    | 0   | 0   | 0    | 100   | 12/25/2012               | 12/31/2012               |
| 20121218             | 0     | 0    | 0   | 0   | 0    | 100   | 12/18/2012               | 12/24/2012               |
| 20121211             | 0     | 0    | 0   | 0   | 0    | 100   | 12/11/2012               | 12/17/2012               |
| 20121204             | 0     | 0    | 0   | 0   | 0    | 100   | 12/4/2012                | 12/10/2012               |
| 20121127             | 0     | 0    | 0   | 0   | 0    | 100   | 11/27/2012               | 12/3/2012                |
| 20121120             | 0     | 0    | 0   | 0   | 0    | 100   | 11/20/2012               | 11/26/2012               |
| 20121113             | 0     | 0    | 0   | 0   | 0    | 100   | 11/13/2012               | 11/19/2012               |
| 20121106             | 0     | 0    | 0   | 0   | 0    | 100   | 11/6/2012                | 11/12/2012               |
| 20121030             | 0     | 0    | 0   | 0   | 0    | 100   | 10/30/2012               | 11/5/2012                |
| 20121023<br>20121016 | 0     | 0    | 0   | 0   | 0    | 100   | 10/23/2012<br>10/16/2012 | 10/29/2012<br>10/22/2012 |
| 20121016             | 0     | 0    | 0   | 0   | 0    | 100   | 10/16/2012               | 10/22/2012               |
| 20121003             | 0     | 0    | 0   | 0   | 0    | 100   | 10/3/2012                | 10/13/2012               |
| 20121002             | 0     | 0    | 0   | 0   | 0    | 100   | 9/25/2012                | 10/3/2012                |
| 20120923             | 0     | 0    | 0   | 0   | 0    | 100   | 9/18/2012                | 9/24/2012                |
| 20120911             | 0     | 0    | 0   | 0   | 0    | 100   | 9/11/2012                | 9/17/2012                |
| 20120911             | 0     | 0    | 0   | 0   | 0    | 100   | 9/4/2012                 | 9/10/2012                |
| 20120304             | 0     | 0    | 0   | 0   | 0    | 100   | 8/28/2012                | 9/3/2012                 |
| 20120821             | 0     | 0    | 0   | 0   | 0    | 100   | 8/21/2012                | 8/27/2012                |
| 20120814             | 0     | 0    | 0   | 0   | 0    | 100   | 8/14/2012                | 8/20/2012                |
| 20120807             | 0     | 0    | 0   | 0   | 0    | 100   | 8/7/2012                 | 8/13/2012                |
| 20120731             | 0     | 0    | 0   | 0   | 0    | 100   | 7/31/2012                | 8/6/2012                 |
| 20120724             | 0     | 0    | 0   | 0   | 0    | 100   | 7/24/2012                | 7/30/2012                |
| 20120717             | 0     | 0    | 0   | 0   | 0    | 100   | 7/17/2012                | 7/23/2012                |
| 20120710             | 0     | 0    | 0   | 0   | 0    | 100   | 7/10/2012                | 7/16/2012                |
| 20120703             | 0     | 0    | 0   | 0   | 0    | 100   | 7/3/2012                 | 7/9/2012                 |
| 20120626             | 0     | 0    | 0   | 0   | 0    | 100   | 6/26/2012                | 7/2/2012                 |
| 20120619             | 0     | 0    | 0   | 0   | 1.16 | 98.84 | 6/19/2012                | 6/25/2012                |
| 20120612             | 0     | 0    | 0   | 0   | 1.16 | 98.84 | 6/12/2012                | 6/18/2012                |

| MapDate           | None | D0 | D1 | D2   | D3    | D4    | ValidStart              | ValidEnd                |
|-------------------|------|----|----|------|-------|-------|-------------------------|-------------------------|
| 20120605          | 0    | 0  | 0  | 0    | 1.16  | 98.84 | 6/5/2012                | 6/11/2012               |
| 20120529          | 0    | 0  | 0  | 0    | 0     | 100   | 5/29/2012               | 6/4/2012                |
| 20120522          | 0    | 0  | 0  | 0    | 0     | 100   | 5/22/2012               | 5/28/2012               |
| 20120515          | 0    | 0  | 0  | 0    | 0     | 100   | 5/15/2012               | 5/21/2012               |
| 20120508          | 0    | 0  | 0  | 0    | 98.31 | 1.69  | 5/8/2012                | 5/14/2012               |
| 20120501          | 0    | 0  | 0  | 0    | 98.31 | 1.69  | 5/1/2012                | 5/7/2012                |
| 20120424          | 0    | 0  | 0  | 0    | 100   | 0     | 4/24/2012               | 4/30/2012               |
| 20120417          | 0    | 0  | 0  | 0    | 100   | 0     | 4/17/2012               | 4/23/2012               |
| 20120410          | 0    | 0  | 0  | 0    | 100   | 0     | 4/10/2012               | 4/16/2012               |
| 20120403          | 0    | 0  | 0  | 0    | 100   | 0     | 4/3/2012                | 4/9/2012                |
| 20120327          | 0    | 0  | 0  | 0    | 100   | 0     | 3/27/2012               | 4/2/2012                |
| 20120320          | 0    | 0  | 0  | 0    | 100   | 0     | 3/20/2012               | 3/26/2012               |
| 20120313          | 0    | 0  | 0  | 0    | 100   | 0     | 3/13/2012               | 3/19/2012               |
| 20120306          | 0    | 0  | 0  | 0    | 100   | 0     | 3/6/2012                | 3/12/2012               |
| 20120228          | 0    | 0  | 0  | 0    | 100   | 0     | 2/28/2012<br>2/21/2012  | 3/5/2012<br>2/27/2012   |
| 20120221          | 0    | 0  | 0  | 0    | 100   | 0     | 2/21/2012               | 2/27/2012               |
| 20120214          | 0    | 0  | 0  | 0    | 100   | 0     | 2/14/2012               | 2/20/2012               |
| 20120207          | 0    | 0  | 0  | 0    | 100   | 0     | 1/31/2012               | 2/6/2012                |
| 20120131          | 0    | 0  | 0  | 0    | 100   | 0     | 1/24/2012               | 1/30/2012               |
| 20120127          | 0    | 0  | 0  | 0    | 100   | 0     | 1/17/2012               | 1/23/2012               |
| 20120110          | 0    | 0  | 0  | 0    | 100   | 0     | 1/10/2012               | 1/16/2012               |
| 20120103          | 0    | 0  | 0  | 0    | 100   | 0     | 1/3/2012                | 1/9/2012                |
| 20111227          | 0    | 0  | 0  | 0    | 100   | 0     | 12/27/2011              | 1/2/2012                |
| 20111220          | 0    | 0  | 0  | 0    | 100   | 0     | 12/20/2011              | 12/26/2011              |
| 20111213          | 0    | 0  | 0  | 0    | 100   | 0     | 12/13/2011              | 12/19/2011              |
| 20111206          | 0    | 0  | 0  | 0    | 100   | 0     | 12/6/2011               | 12/12/2011              |
| 20111129          | 0    | 0  | 0  | 0    | 100   | 0     | 11/29/2011              | 12/5/2011               |
| 20111122          | 0    | 0  | 0  | 0    | 100   | 0     | 11/22/2011              | 11/28/2011              |
| 20111115          | 0    | 0  | 0  | 0    |       |       | 11/15/2011              | 11/21/2011              |
| 20111108          | 0    | 0  | 0  | 0.22 | 99.78 | 0     | 11/8/2011               | 11/14/2011              |
| 20111101          | 0    | 0  | 0  | 0.22 | 99.78 | 0     | 11/1/2011               | 11/7/2011               |
| 20111025          | 0    | 0  | 0  | 0.22 | 99.78 | 0     | 10/25/2011              | 10/31/2011              |
| 20111018          | 0    | 0  | 0  | 0    | 100   | 0     | 10/18/2011              | 10/24/2011              |
| 20111011 20111004 | 0    | 0  | 0  | 0    | 100   | 0     | 10/11/2011<br>10/4/2011 | 10/17/2011              |
| 20111004          | 0    | 0  | 0  | 0    | 100   | 0     | 9/27/2011               | 10/10/2011<br>10/3/2011 |
| 20110927          | 0    | 0  | 0  | 0    | 100   | 0     | 9/20/2011               | 9/26/2011               |
| 20110320          | 0    | 0  | 0  | 0    | 100   | 0     | 9/13/2011               | 9/19/2011               |
| 20110913          | 0    | 0  | 0  | 0    | 100   | 0     | 9/6/2011                | 9/12/2011               |
| 20110300          | 0    | 0  | 0  | 0    | 100   | 0     | 8/30/2011               | 9/5/2011                |
| 20110823          | 0    | 0  | 0  | 4.59 | 95.41 | 0     | 8/23/2011               | 8/29/2011               |
| 20110816          | 0    | 0  | 0  | 4.59 | 95.41 | 0     | 8/16/2011               | 8/22/2011               |
| 20110809          | 0    | 0  | 0  | 4.59 | 95.41 | 0     | 8/9/2011                | 8/15/2011               |
| 20110802          | 0    | 0  | 0  | 4.59 | 95.41 | 0     | 8/2/2011                | 8/8/2011                |
| 20110726          | 0    | 0  | 0  | 4.59 | 95.41 | 0     | 7/26/2011               | 8/1/2011                |

| MapDate           | None | D0    | D1             | D2    | D3    | D4 | ValidStart              | ValidEnd                 |
|-------------------|------|-------|----------------|-------|-------|----|-------------------------|--------------------------|
| 20110719          | 0    | 0     | 0              | 4.59  | 95.41 | 0  | 7/19/2011               | 7/25/2011                |
| 20110712          | 0    | 0     | 0              | 4.59  | 95.41 | 0  | 7/12/2011               | 7/18/2011                |
| 20110705          | 0    | 0     | 0              | 4.59  | 95.41 | 0  | 7/5/2011                | 7/11/2011                |
| 20110628          | 0    | 0     | 0              | 4.59  | 95.41 | 0  | 6/28/2011               | 7/4/2011                 |
| 20110621          | 0    | 0     | 0              | 4.59  | 95.41 | 0  | 6/21/2011               | 6/27/2011                |
| 20110614          | 0    | 0     | 3.32           | 96.68 | 0     | 0  | 6/14/2011               | 6/20/2011                |
| 20110607          | 0    | 0     | 3.32           | 96.68 | 0     | 0  | 6/7/2011                | 6/13/2011                |
| 20110531          | 0    | 0     | 3.32           | 96.68 | 0     | 0  | 5/31/2011               | 6/6/2011                 |
| 20110524          | 0    | 0     | 40.65          | 59.35 | 0     | 0  | 5/24/2011               | 5/30/2011                |
| 20110517          | 0    | 0     | 40.65          | 59.35 | 0     | 0  | 5/17/2011               | 5/23/2011                |
| 20110510          | 0    | 0.53  | 99.47          | 0     | 0     | 0  | 5/10/2011               | 5/16/2011                |
| 20110503          | 0    | 0.76  | 99.24          | 0     | 0     | 0  | 5/3/2011                | 5/9/2011                 |
| 20110426          | 0    | 0.28  | 99.72          | 0     | 0     | 0  | 4/26/2011               | 5/2/2011                 |
| 20110419          | 0    | 0.28  | 99.72          | 0     | 0     | 0  | 4/19/2011               | 4/25/2011                |
| 20110412 20110405 | 0.28 | 0.28  | 99.72<br>99.72 | 0     | 0     | 0  | 4/12/2011<br>4/5/2011   | 4/18/2011<br>4/11/2011   |
| 20110405          | 0.28 | 6.76  | 93.24          | 0     | 0     | 0  | 3/29/2011               | 4/11/2011                |
| 20110329          | 0    | 0.70  | 100            | 0     | 0     | 0  | 3/23/2011               | 3/28/2011                |
| 20110322          | 0    | 0     | 100            | 0     | 0     | 0  | 3/15/2011               | 3/21/2011                |
| 20110313          | 0    | 0     | 100            | 0     | 0     | 0  | 3/8/2011                | 3/14/2011                |
| 20110301          | 0    | 0     | 100            | 0     | 0     | 0  | 3/1/2011                | 3/7/2011                 |
| 20110222          | 0    | 0     | 100            | 0     | 0     | 0  | 2/22/2011               | 2/28/2011                |
| 20110215          | 0    | 0     | 100            | 0     | 0     | 0  | 2/15/2011               | 2/21/2011                |
| 20110208          | 0    | 0     | 100            | 0     | 0     | 0  | 2/8/2011                | 2/14/2011                |
| 20110201          | 0    | 0     | 100            | 0     | 0     | 0  | 2/1/2011                | 2/7/2011                 |
| 20110125          | 0    | 0     | 100            | 0     | 0     | 0  | 1/25/2011               | 1/31/2011                |
| 20110118          | 0    | 0     | 100            | 0     | 0     | 0  | 1/18/2011               | 1/24/2011                |
| 20110111          | 0    | 0     | 100            | 0     | 0     | 0  | 1/11/2011               | 1/17/2011                |
| 20110104          | 0    | 0     | 100            | 0     | 0     | 0  | 1/4/2011                | 1/10/2011                |
| 20101228          | 0    | 0     | 100            | 0     | 0     | 0  | 12/28/2010              | 1/3/2011                 |
| 20101221          | 0    | 0     | 100            | 0     | 0     | 0  | 12/21/2010              | 12/27/2010               |
| 20101214          | 0    | 0     | 100            | 0     | 0     | 0  | 12/14/2010              | 12/20/2010               |
| 20101207          | 0    | 0     | 100            | 0     | 0     | 0  | 12/7/2010               | 12/13/2010               |
| 20101130          | 0    | 0     | 100            | 0     | 0     | 0  | 11/30/2010              | 12/6/2010                |
| 20101123          | 0    | 100   | 100            | 0     | 0     | 0  | 11/23/2010              | 11/29/2010               |
| 20101116 20101109 |      | 100   | 0              | 0     | 0     | 0  | 11/16/2010<br>11/9/2010 | 11/22/2010<br>11/15/2010 |
| 20101109          | 0    | 100   | 0              | 0     | 0     | 0  | 11/9/2010               |                          |
| 20101102          | 0.02 | 99.98 | 0              | 0     | 0     | 0  | 10/26/2010              | 11/8/2010<br>11/1/2010   |
| 20101020          | 0.02 | 99.99 | 0              | 0     | 0     | 0  | 10/19/2010              | 10/25/2010               |
| 20101013          | 0.01 | 99.99 | 0              | 0     | 0     | 0  | 10/12/2010              | 10/18/2010               |
| 20101012          | 0.01 | 99.99 | 0              | 0     | 0     | 0  | 10/5/2010               | 10/11/2010               |
| 20100928          | 0.01 | 100   | 0              | 0     | 0     | 0  | 9/28/2010               | 10/4/2010                |
| 20100921          | 0    | 100   | 0              | 0     | 0     | 0  | 9/21/2010               | 9/27/2010                |
| 20100914          | 0    | 100   | 0              | 0     | 0     | 0  | 9/14/2010               | 9/20/2010                |
| 20100907          | 100  | 0     | 0              | 0     | 0     | 0  | 9/7/2010                | 9/13/2010                |

| MapDate  | None       | D0   | D1 | D2 | D3 | D4 | ValidStart            | ValidEnd               |
|----------|------------|------|----|----|----|----|-----------------------|------------------------|
| 20100831 | 100        | 0    | 0  | 0  | 0  | 0  | 8/31/2010             | 9/6/2010               |
| 20100824 | 100        | 0    | 0  | 0  | 0  | 0  | 8/24/2010             | 8/30/2010              |
| 20100817 | 92.5       | 7.5  | 0  | 0  | 0  | 0  | 8/17/2010             | 8/23/2010              |
| 20100810 | 92.92      | 7.08 | 0  | 0  | 0  | 0  | 8/10/2010             | 8/16/2010              |
| 20100803 | 92.92      | 7.08 | 0  | 0  | 0  | 0  | 8/3/2010              | 8/9/2010               |
| 20100727 | 92.54      | 7.46 | 0  | 0  | 0  | 0  | 7/27/2010             | 8/2/2010               |
| 20100720 | 92.61      | 7.39 | 0  | 0  | 0  | 0  | 7/20/2010             | 7/26/2010              |
| 20100713 | 100        | 0    | 0  | 0  | 0  | 0  | 7/13/2010             | 7/19/2010              |
| 20100706 | 100        | 0    | 0  | 0  | 0  | 0  | 7/6/2010              | 7/12/2010              |
| 20100629 | 100        | 0    | 0  | 0  | 0  | 0  | 6/29/2010             | 7/5/2010               |
| 20100622 | 100        | 0    | 0  | 0  | 0  | 0  | 6/22/2010             | 6/28/2010              |
| 20100615 | 100        | 0    | 0  | 0  | 0  | 0  | 6/15/2010             | 6/21/2010              |
| 20100608 | 100        | 0    | 0  | 0  | 0  | 0  | 6/8/2010              | 6/14/2010              |
| 20100601 | 100        | 0    | 0  | 0  | 0  | 0  | 6/1/2010              | 6/7/2010               |
| 20100525 | 100        | 0    | 0  | 0  | 0  | 0  | 5/25/2010             | 5/31/2010              |
| 20100518 | 100        | 0    | 0  | 0  | 0  | 0  | 5/18/2010             | 5/24/2010              |
| 20100511 | 100        | 0    | 0  | 0  | 0  | 0  | 5/11/2010             | 5/17/2010              |
| 20100504 | 100        | 0    | 0  | 0  | 0  | 0  | 5/4/2010              | 5/10/2010              |
| 20100427 | 100        | 0    | 0  | 0  | 0  | 0  | 4/27/2010             | 5/3/2010               |
| 20100420 | 100        | 0    | 0  | 0  | 0  | 0  | 4/20/2010             | 4/26/2010              |
| 20100413 | 100        | 0    | 0  | 0  | 0  | 0  | 4/13/2010             | 4/19/2010              |
| 20100406 | 100        | 0    | 0  | 0  | 0  | 0  | 4/6/2010              | 4/12/2010              |
| 20100330 | 100        | 0    | 0  | 0  | 0  | 0  | 3/30/2010             | 4/5/2010               |
| 20100323 | 100        | 0    | 0  | 0  | 0  | 0  | 3/23/2010             | 3/29/2010              |
| 20100316 | 100<br>100 | 0    | 0  | 0  | 0  | 0  | 3/16/2010<br>3/9/2010 | 3/22/2010<br>3/15/2010 |
| 20100309 | 100        | 0    | 0  | 0  | 0  | 0  | 3/9/2010              | 3/15/2010              |
| 20100302 | 100        | 0    | 0  | 0  | 0  | 0  | 2/23/2010             | 3/1/2010               |
| 20100223 | 100        | 0    | 0  | 0  | 0  | 0  | 2/23/2010             | 2/22/2010              |
| 20100210 | 100        | 0    | 0  | 0  | 0  | 0  | 2/9/2010              | 2/15/2010              |
| 20100203 | 100        | 0    | 0  | 0  | 0  | 0  | 2/2/2010              | 2/8/2010               |
| 20100126 | 100        | 0    | 0  | 0  | 0  | 0  | 1/26/2010             | 2/1/2010               |
| 20100119 | 100        | 0    | 0  | 0  | 0  | 0  | 1/19/2010             | 1/25/2010              |
| 20100112 | 100        | 0    | 0  | 0  | 0  | 0  | 1/12/2010             | 1/18/2010              |
| 20100105 | 100        | 0    | 0  | 0  | 0  | 0  | 1/5/2010              | 1/11/2010              |
| 20091229 | 100        | 0    | 0  | 0  | 0  | 0  | 12/29/2009            | 1/4/2010               |
| 20091222 | 100        | 0    | 0  | 0  | 0  | 0  | 12/22/2009            | 12/28/2009             |
| 20091215 | 100        | 0    | 0  | 0  | 0  | 0  | 12/15/2009            | 12/21/2009             |
| 20091208 | 100        | 0    | 0  | 0  | 0  | 0  | 12/8/2009             | 12/14/2009             |
| 20091201 | 100        | 0    | 0  | 0  | 0  | 0  | 12/1/2009             | 12/7/2009              |
| 20091124 | 100        | 0    | 0  | 0  | 0  | 0  | 11/24/2009            | 11/30/2009             |
| 20091117 | 100        | 0    | 0  | 0  | 0  | 0  | 11/17/2009            | 11/23/2009             |
| 20091110 | 100        | 0    | 0  | 0  | 0  | 0  | 11/10/2009            | 11/16/2009             |
| 20091103 | 100        | 0    | 0  | 0  | 0  | 0  | 11/3/2009             | 11/9/2009              |
| 20091027 | 100        | 0    | 0  | 0  | 0  | 0  | 10/27/2009            | 11/2/2009              |
| 20091020 | 100        | 0    | 0  | 0  | 0  | 0  | 10/20/2009            | 10/26/2009             |

| MapDate              | None       | D0    | D1    | D2    | D3    | D4 | ValidStart            | ValidEnd               |
|----------------------|------------|-------|-------|-------|-------|----|-----------------------|------------------------|
| 20091013             | 100        | 0     | 0     | 0     | 0     | 0  | 10/13/2009            | 10/19/2009             |
| 20091006             | 100        | 0     | 0     | 0     | 0     | 0  | 10/6/2009             | 10/12/2009             |
| 20090929             | 100        | 0     | 0     | 0     | 0     | 0  | 9/29/2009             | 10/5/2009              |
| 20090922             | 100        | 0     | 0     | 0     | 0     | 0  | 9/22/2009             | 9/28/2009              |
| 20090915             | 0.17       | 99.83 | 0     | 0     | 0     | 0  | 9/15/2009             | 9/21/2009              |
| 20090908             | 0          | 100   | 0     | 0     | 0     | 0  | 9/8/2009              | 9/14/2009              |
| 20090901             | 0          | 100   | 0     | 0     | 0     | 0  | 9/1/2009              | 9/7/2009               |
| 20090825             | 0          | 100   | 0     | 0     | 0     | 0  | 8/25/2009             | 8/31/2009              |
| 20090818             | 0          | 100   | 0     | 0     | 0     | 0  | 8/18/2009             | 8/24/2009              |
| 20090811             | 0          | 100   | 0     | 0     | 0     | 0  | 8/11/2009             | 8/17/2009              |
| 20090804             | 0          | 100   | 0     | 0     | 0     | 0  | 8/4/2009              | 8/10/2009              |
| 20090728             | 0          | 100   | 0     | 0     | 0     | 0  | 7/28/2009             | 8/3/2009               |
| 20090721             | 0          | 100   | 0     | 0     | 0     | 0  | 7/21/2009             | 7/27/2009              |
| 20090714             | 0          | 100   | 0     | 0     | 0     | 0  | 7/14/2009             | 7/20/2009              |
| 20090707             | 0          | 100   | 0     | 0     | 0     | 0  | 7/7/2009              | 7/13/2009              |
| 20090630             | 100        | 0     | 0     | 0     | 0     | 0  | 6/30/2009             | 7/6/2009               |
| 20090623             | 100        | 0     | 0     | 0     | 0     | 0  | 6/23/2009             | 6/29/2009<br>6/22/2009 |
| 20090616<br>20090609 | 100<br>100 | 0     | 0     | 0     | 0     | 0  | 6/16/2009<br>6/9/2009 | 6/22/2009              |
| 20090609             | 100        | 0     | 0     | 0     | 0     | 0  | 6/2/2009              | 6/8/2009               |
| 20090526             | 100        | 0     | 0     | 0     | 0     | 0  | 5/26/2009             | 6/1/2009               |
| 20090519             | 100        | 0     | 0     | 0     | 0     | 0  | 5/19/2009             | 5/25/2009              |
| 20090512             | 100        | 0     | 0     | 0     | 0     | 0  | 5/12/2009             | 5/18/2009              |
| 20090505             | 100        | 0     | 0     | 0     | 0     | 0  | 5/5/2009              | 5/11/2009              |
| 20090428             | 100        | 0     | 0     | 0     | 0     | 0  | 4/28/2009             | 5/4/2009               |
| 20090421             | 100        | 0     | 0     | 0     | 0     | 0  | 4/21/2009             | 4/27/2009              |
| 20090414             | 100        | 0     | 0     | 0     | 0     | 0  | 4/14/2009             | 4/20/2009              |
| 20090407             | 100        | 0     | 0     | 0     | 0     | 0  | 4/7/2009              | 4/13/2009              |
| 20090331             | 0          | 100   | 0     | 0     | 0     | 0  | 3/31/2009             | 4/6/2009               |
| 20090324             | 0          | 0     | 100   | 0     | 0     | 0  | 3/24/2009             | 3/30/2009              |
| 20090317             | 0          | 0     | 100   | 0     | 0     | 0  | 3/17/2009             | 3/23/2009              |
| 20090310             | 0          | 0     | 100   | 0     | 0     | 0  | 3/10/2009             | 3/16/2009              |
| 20090303             | 0          | 0     | 100   | 0     | 0     | 0  | 3/3/2009              | 3/9/2009               |
| 20090224             | 0          | 0     | 100   | 0     | 0     | 0  | 2/24/2009             | 3/2/2009               |
| 20090217             | 0          | 100   | 0     | 0     | 0     | 0  | 2/17/2009             | 2/23/2009              |
| 20090210             | 0          | 100   | 0     | 0     | 0     | 0  | 2/10/2009             | 2/16/2009              |
| 20090203             | 100        | 0     | 0     | 0     | 0     | 0  | 2/3/2009              | 2/9/2009               |
| 20090127             | 100        | 0     | 0     | 0     | 0     | 0  | 1/27/2009             | 2/2/2009               |
| 20090120             | 100        | 0     | 0     | 0     | 0     | 0  | 1/20/2009             | 1/26/2009              |
| 20090113             | 100        | 0     | 0     | 0     | 0     | 0  | 1/13/2009             | 1/19/2009              |
| 20090106             | 49.44      | 50.56 | 0     | 0     | 0     | 0  | 1/6/2009              | 1/12/2009              |
| 20081230             | 49.44      | 50.56 | 0     | 0     | 0     | 0  | 12/30/2008            | 1/5/2009               |
| 20081223             | 49.44      | 50.56 | 0     | 0     | 0     | 0  | 12/23/2008            | 12/29/2008             |
| 20081216             | 49.44      | 50.56 | 0     | 47.02 | 0     | 0  | 12/16/2008            | 12/22/2008             |
| 20081209             | 0          | 4.27  | 48.71 | 47.02 | 0     | 0  | 12/9/2008             | 12/15/2008             |
| 20081202             | 0          | 0     | 6.19  | 50.55 | 43.26 | 0  | 12/2/2008             | 12/8/2008              |

| MapDate  | None | D0   | D1    | D2             | D3             | D4 | ValidStart            | ValidEnd               |
|----------|------|------|-------|----------------|----------------|----|-----------------------|------------------------|
| 20081125 | 0    | 0    | 0     | 56.74          | 43.26          | 0  | 11/25/2008            | 12/1/2008              |
| 20081118 | 0    | 0    | 0     | 56.74          | 43.26          | 0  | 11/18/2008            | 11/24/2008             |
| 20081111 | 0    | 0    | 0     | 30.74          | 69.26          | 0  | 11/11/2008            | 11/17/2008             |
| 20081104 | 0    | 0    | 0     | 30.74          | 69.26          | 0  | 11/4/2008             | 11/10/2008             |
| 20081028 | 0    | 0    | 0     | 30.74          | 69.26          | 0  | 10/28/2008            | 11/3/2008              |
| 20081021 | 0    | 0    | 0     | 0.01           | 99.99          | 0  | 10/21/2008            | 10/27/2008             |
| 20081014 | 0    | 0    | 0     | 0.01           | 99.99          | 0  | 10/14/2008            | 10/20/2008             |
| 20081007 | 0    | 0    | 0     | 0              | 100            | 0  | 10/7/2008             | 10/13/2008             |
| 20080930 | 0    | 0    | 0     | 0              | 100            | 0  | 9/30/2008             | 10/6/2008              |
| 20080923 | 0    | 0    | 0     | 100            | 0              | 0  | 9/23/2008             | 9/29/2008              |
| 20080916 | 0    | 0    | 0     | 100            | 0              | 0  | 9/16/2008             | 9/22/2008              |
| 20080909 | 0    | 0    | 0     | 100            | 0              | 0  | 9/9/2008              | 9/15/2008              |
| 20080902 | 0    | 0    | 0     | 100            | 0              | 0  | 9/2/2008              | 9/8/2008               |
| 20080826 | 0    | 0    | 0     | 100            | 16.06          | 0  | 8/26/2008             | 9/1/2008               |
| 20080819 | 0    | 0    | 0     | 83.04          | 16.96          | 0  | 8/19/2008             | 8/25/2008              |
| 20080812 | 0    | 0    | 0     | 83.04<br>99.99 | 16.96<br>0.01  | 0  | 8/12/2008             | 8/18/2008<br>8/11/2008 |
| 20080805 | 0    | 0    | 0     | 99.99          | 0.01           | 0  | 8/5/2008<br>7/29/2008 | 8/4/2008               |
| 20080723 | 0    | 0    | 0     | 99.99          | 0.01           | 0  | 7/23/2008             | 7/28/2008              |
| 20080722 | 0    | 0    | 0     | 99.99          | 0.01           | 0  | 7/22/2008             | 7/28/2008              |
| 20080713 | 0    | 0    | 0     | 99.99          | 0.01           | 0  | 7/8/2008              | 7/21/2008              |
| 20080701 | 0    | 0    | 0     | 99.99          | 0.01           | 0  | 7/1/2008              | 7/7/2008               |
| 20080624 | 0    | 0    | 100   | 0              | 0              | 0  | 6/24/2008             | 6/30/2008              |
| 20080617 | 0    | 0    | 100   | 0              | 0              | 0  | 6/17/2008             | 6/23/2008              |
| 20080610 | 0    | 0    | 100   | 0              | 0              | 0  | 6/10/2008             | 6/16/2008              |
| 20080603 | 0    | 0    | 100   | 0              | 0              | 0  | 6/3/2008              | 6/9/2008               |
| 20080527 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 5/27/2008             | 6/2/2008               |
| 20080520 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 5/20/2008             | 5/26/2008              |
| 20080513 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 5/13/2008             | 5/19/2008              |
| 20080506 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 5/6/2008              | 5/12/2008              |
| 20080429 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 4/29/2008             | 5/5/2008               |
| 20080422 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 4/22/2008             | 4/28/2008              |
| 20080415 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 4/15/2008             | 4/21/2008              |
| 20080408 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 4/8/2008              | 4/14/2008              |
| 20080401 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 4/1/2008              | 4/7/2008               |
| 20080325 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 3/25/2008             | 3/31/2008              |
| 20080318 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 3/18/2008             | 3/24/2008              |
| 20080311 | 0    | 2.47 | 97.53 | 0              | 0              | 0  | 3/11/2008             | 3/17/2008              |
| 20080304 | 0    | 0    | 19.77 | 80.23          | 0              | 0  | 3/4/2008              | 3/10/2008              |
| 20080226 | 0    | 0    | 19.77 | 80.23          | 25.96          | 0  | 2/26/2008             | 3/3/2008               |
| 20080219 | 0    | 0    | 0.39  | 73.75          | 25.86          | 0  | 2/19/2008             | 2/25/2008              |
| 20080212 | 0    | 0    | 0.39  | 69.32<br>69.32 | 30.29<br>30.29 | 0  | 2/12/2008<br>2/5/2008 | 2/18/2008<br>2/11/2008 |
| 20080203 | 0    | 0    | 0.39  | 69.32          | 30.29          | 0  | 1/29/2008             | 2/11/2008              |
| 20080129 | 0    | 0    | 0.39  | 69.32          | 30.29          | 0  | 1/29/2008             | 1/28/2008              |
| 20080122 | 0    | 0    | 0.39  | 9.68           | 90.32          | 0  | 1/15/2008             | 1/23/2008              |
| 20000113 | U    | U    | U     | 5.00           | 50.52          | U  | 1/13/2008             | 1/21/2008              |

| MapDate              | None  | D0         | D1             | D2             | D3        | D4    | ValidStart              | ValidEnd                |
|----------------------|-------|------------|----------------|----------------|-----------|-------|-------------------------|-------------------------|
| 20080108             | 0     | 0          | 0              | 9.68           | 90.32     | 0     | 1/8/2008                | 1/14/2008               |
| 20080101             | 0     | 0          | 0              | 9.68           | 90.32     | 0     | 1/1/2008                | 1/7/2008                |
| 20071225             | 0     | 0          | 0              | 0              | 10.99     | 89.01 | 12/25/2007              | 12/31/2007              |
| 20071218             | 0     | 0          | 0              | 0              | 10.99     | 89.01 | 12/18/2007              | 12/24/2007              |
| 20071211             | 0     | 0          | 0              | 0              | 10.99     | 89.01 | 12/11/2007              | 12/17/2007              |
| 20071204             | 0     | 0          | 0              | 8              | 73.95     | 18.05 | 12/4/2007               | 12/10/2007              |
| 20071127             | 0     | 0          | 0              | 35.81          | 64.13     | 0.07  | 11/27/2007              | 12/3/2007               |
| 20071120             | 0     | 0          | 0              | 35.81          | 64.13     | 0.07  | 11/20/2007              | 11/26/2007              |
| 20071113             | 0     | 0          | 0              | 35.81          | 64.13     | 0.07  | 11/13/2007              | 11/19/2007              |
| 20071106             | 0     | 0          | 20.68          | 59.42          | 19.9      | 0     | 11/6/2007               | 11/12/2007              |
| 20071030             | 0     | 0          | 20.68          | 59.42          | 19.9      | 0     | 10/30/2007              | 11/5/2007               |
| 20071023             | 0     | 0          | 20.68          | 59.42          | 19.9      | 0     | 10/23/2007              | 10/29/2007              |
| 20071016<br>20071009 | 0     | 0<br>14.29 | 20.68<br>61.71 | 59.42<br>23.99 | 19.9<br>0 | 0     | 10/16/2007<br>10/9/2007 | 10/22/2007              |
| 20071009             | 0     | 14.29      | 78.7           | 23.99          | 0         | 0     | 10/9/2007               | 10/15/2007<br>10/8/2007 |
| 20071002             | 0     | 0          | 78.7           | 21.3           | 0         | 0     | 9/25/2007               | 10/8/2007               |
| 20070918             | 0     | 0          | 78.7           | 21.3           | 0         | 0     | 9/18/2007               | 9/24/2007               |
| 20070911             | 0     | 0          | 10.6           | 89.4           | 0         | 0     | 9/11/2007               | 9/17/2007               |
| 20070904             | 0     | 0          | 34.26          | 65.74          | 0         | 0     | 9/4/2007                | 9/10/2007               |
| 20070828             | 0     | 0          | 0              | 50.54          | 49.46     | 0     | 8/28/2007               | 9/3/2007                |
| 20070821             | 0     | 0          | 0              | 45.4           | 54.6      | 0     | 8/21/2007               | 8/27/2007               |
| 20070814             | 0     | 0          | 49.68          | 50.32          | 0         | 0     | 8/14/2007               | 8/20/2007               |
| 20070807             | 0     | 0          | 54.57          | 45.43          | 0         | 0     | 8/7/2007                | 8/13/2007               |
| 20070731             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 7/31/2007               | 8/6/2007                |
| 20070724             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 7/24/2007               | 7/30/2007               |
| 20070717             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 7/17/2007               | 7/23/2007               |
| 20070710             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 7/10/2007               | 7/16/2007               |
| 20070703             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 7/3/2007                | 7/9/2007                |
| 20070626             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 6/26/2007               | 7/2/2007                |
| 20070619             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 6/19/2007               | 6/25/2007               |
| 20070612             | 0     | 0          | 96.65          | 3.35           | 0         | 0     | 6/12/2007               | 6/18/2007               |
| 20070605 20070529    | 0     | 0          | 100            | 100            | 0         | 0     | 6/5/2007<br>5/29/2007   | 6/11/2007<br>6/4/2007   |
| 20070523             | 0     | 0          | 0              | 100            | 0         | 0     | 5/22/2007               | 5/28/2007               |
| 20070522             | 0     | 0          | 100            | 0              | 0         | 0     | 5/15/2007               | 5/21/2007               |
| 20070508             | 0     | 0          | 100            | 0              | 0         | 0     | 5/8/2007                | 5/14/2007               |
| 20070501             | 0     | 0          | 100            | 0              | 0         | 0     | 5/1/2007                | 5/7/2007                |
| 20070424             | 0     | 0          | 100            | 0              | 0         | 0     | 4/24/2007               | 4/30/2007               |
| 20070417             | 0     | 100        | 0              | 0              | 0         | 0     | 4/17/2007               | 4/23/2007               |
| 20070410             | 0     | 100        | 0              | 0              | 0         | 0     | 4/10/2007               | 4/16/2007               |
| 20070403             | 0     | 100        | 0              | 0              | 0         | 0     | 4/3/2007                | 4/9/2007                |
| 20070327             | 0     | 100        | 0              | 0              | 0         | 0     | 3/27/2007               | 4/2/2007                |
| 20070320             | 0     | 100        | 0              | 0              | 0         | 0     | 3/20/2007               | 3/26/2007               |
| 20070313             | 43.28 | 56.72      | 0              | 0              | 0         | 0     | 3/13/2007               | 3/19/2007               |
| 20070306             | 100   | 0          | 0              | 0              | 0         | 0     | 3/6/2007                | 3/12/2007               |
| 20070227             | 0     | 100        | 0              | 0              | 0         | 0     | 2/27/2007               | 3/5/2007                |

| MapDate  | None  | D0         | D1    | D2    | D3 | D4 | ValidStart            | ValidEnd               |
|----------|-------|------------|-------|-------|----|----|-----------------------|------------------------|
| 20070220 | 0     | 100        | 0     | 0     | 0  | 0  | 2/20/2007             | 2/26/2007              |
| 20070213 | 100   | 0          | 0     | 0     | 0  | 0  | 2/13/2007             | 2/19/2007              |
| 20070206 | 100   | 0          | 0     | 0     | 0  | 0  | 2/6/2007              | 2/12/2007              |
| 20070130 | 100   | 0          | 0     | 0     | 0  | 0  | 1/30/2007             | 2/5/2007               |
| 20070123 | 100   | 0          | 0     | 0     | 0  | 0  | 1/23/2007             | 1/29/2007              |
| 20070116 | 100   | 0          | 0     | 0     | 0  | 0  | 1/16/2007             | 1/22/2007              |
| 20070109 | 0     | 100        | 0     | 0     | 0  | 0  | 1/9/2007              | 1/15/2007              |
| 20070102 | 0     | 100        | 0     | 0     | 0  | 0  | 1/2/2007              | 1/8/2007               |
| 20061226 | 0     | 100        | 0     | 0     | 0  | 0  | 12/26/2006            | 1/1/2007               |
| 20061219 | 0     | 100        | 0     | 0     | 0  | 0  | 12/19/2006            | 12/25/2006             |
| 20061212 | 0     | 100        | 0     | 0     | 0  | 0  | 12/12/2006            | 12/18/2006             |
| 20061205 | 100   | 0          | 0     | 0     | 0  | 0  | 12/5/2006             | 12/11/2006             |
| 20061128 | 100   | 0          | 0     | 0     | 0  | 0  | 11/28/2006            | 12/4/2006              |
| 20061121 | 46.93 | 53.07      | 0     | 0     | 0  | 0  | 11/21/2006            | 11/27/2006             |
| 20061114 | 0     | 52.08      | 47.92 | 0     | 0  | 0  | 11/14/2006            | 11/20/2006             |
| 20061107 | 0     | 52.08      | 47.92 | 0     | 0  | 0  | 11/7/2006             | 11/13/2006             |
| 20061031 | 0     | 52.08      | 47.92 | 0     | 0  | 0  | 10/31/2006            | 11/6/2006              |
| 20061024 | 0     | 0          | 100   | 0     | 0  | 0  | 10/24/2006            | 10/30/2006             |
| 20061017 | 0     | 0          | 100   | 0     | 0  | 0  | 10/17/2006            | 10/23/2006             |
| 20061010 | 0     | 0          | 100   | 0     | 0  | 0  | 10/10/2006            | 10/16/2006             |
| 20061003 | 0     | 0          | 100   | 0     | 0  | 0  | 10/3/2006             | 10/9/2006              |
| 20060926 | 0     | 4.45       | 95.55 | 0     | 0  | 0  | 9/26/2006             | 10/2/2006              |
| 20060919 | 0     | 4.45       | 95.55 | 0     | 0  | 0  | 9/19/2006             | 9/25/2006              |
| 20060912 | 0     | 0          | 80.47 | 19.53 | 0  | 0  | 9/12/2006             | 9/18/2006              |
| 20060905 | 0     | 0          | 80.47 | 19.53 | 0  | 0  | 9/5/2006              | 9/11/2006              |
| 20060829 | 0     | 0          | 80.47 | 19.53 | 0  | 0  | 8/29/2006             | 9/4/2006               |
| 20060822 | 0     | 0          | 3.8   | 96.2  | 0  | 0  | 8/22/2006             | 8/28/2006              |
| 20060815 | 0     | 0          | 96.95 | 3.05  | 0  | 0  | 8/15/2006             | 8/21/2006              |
| 20060808 | 0     | 0          | 96.95 | 3.05  | 0  | 0  | 8/8/2006              | 8/14/2006              |
| 20060801 | 0     | 0          | 73.39 | 26.61 | 0  | 0  | 8/1/2006              | 8/7/2006               |
| 20060725 | 0     | 0          | 72.26 | 27.74 | 0  | 0  | 7/25/2006             | 7/31/2006              |
| 20060718 | 0     | 0          | 100   | 0     | 0  | 0  | 7/18/2006             | 7/24/2006              |
| 20060711 | 0     | 0          | 100   | 0     | 0  | 0  | 7/11/2006             | 7/17/2006              |
| 20060704 | 0     | 0          | 100   | 0     | 0  | 0  | 7/4/2006<br>6/27/2006 | 7/10/2006              |
| 20060627 | 0     | 0          | 100   | 0     | 0  | 0  | 6/20/2006             | 7/3/2006<br>6/26/2006  |
| 20060620 | 0     |            | 100   |       | 0  | 0  |                       |                        |
| 20060613 | 0     | 0<br>42.85 | 57.15 | 0     | 0  | 0  | 6/13/2006<br>6/6/2006 | 6/19/2006<br>6/12/2006 |
| 20060530 | 0     | 100        | 0     | 0     | 0  | 0  | 5/30/2006             | 6/5/2006               |
| 20060530 | 0     | 100        | 0     | 0     | 0  | 0  | 5/23/2006             | 5/29/2006              |
| 20060525 | 0     | 100        | 0     | 0     | 0  | 0  | 5/16/2006             | 5/22/2006              |
| 20060510 | 0     | 100        | 0     | 0     | 0  | 0  | 5/9/2006              | 5/15/2006              |
| 20060502 | 0     | 100        | 0     | 0     | 0  | 0  | 5/2/2006              | 5/8/2006               |
| 20060302 | 0     | 100        | 0     | 0     | 0  | 0  | 4/25/2006             | 5/1/2006               |
| 20060423 | 0     | 100        | 0     | 0     | 0  | 0  | 4/18/2006             | 4/24/2006              |
| 20060413 | 0     | 100        | 0     | 0     | 0  | 0  | 4/11/2006             | 4/17/2006              |
| 20000711 | U     | 100        |       | J     |    | U  | 7, 11, 2000           | 7/1//2000              |

| MapDate N | None       | D0    | D1 | D2 | D3 | D4 | ValidStart            | ValidEnd              |
|-----------|------------|-------|----|----|----|----|-----------------------|-----------------------|
| 20060404  | 0          | 100   | 0  | 0  | 0  | 0  | 4/4/2006              | 4/10/2006             |
| 20060328  | 100        | 0     | 0  | 0  | 0  | 0  | 3/28/2006             | 4/3/2006              |
| 20060321  | 100        | 0     | 0  | 0  | 0  | 0  | 3/21/2006             | 3/27/2006             |
| 20060314  | 100        | 0     | 0  | 0  | 0  | 0  | 3/14/2006             | 3/20/2006             |
| 20060307  | 100        | 0     | 0  | 0  | 0  | 0  | 3/7/2006              | 3/13/2006             |
| 20060228  | 100        | 0     | 0  | 0  | 0  | 0  | 2/28/2006             | 3/6/2006              |
| 20060221  | 100        | 0     | 0  | 0  | 0  | 0  | 2/21/2006             | 2/27/2006             |
| 20060214  | 100        | 0     | 0  | 0  | 0  | 0  | 2/14/2006             | 2/20/2006             |
| 20060207  | 100        | 0     | 0  | 0  | 0  | 0  | 2/7/2006              | 2/13/2006             |
| 20060131  | 100        | 0     | 0  | 0  | 0  | 0  | 1/31/2006             | 2/6/2006              |
| 20060124  | 100        | 0     | 0  | 0  | 0  | 0  | 1/24/2006             | 1/30/2006             |
| 20060117  | 100        | 0     | 0  | 0  | 0  | 0  | 1/17/2006             | 1/23/2006             |
| 20060110  | 100        | 0     | 0  | 0  | 0  | 0  | 1/10/2006             | 1/16/2006             |
| 20060103  | 100        | 0     | 0  | 0  | 0  | 0  | 1/3/2006              | 1/9/2006              |
| 20051227  | 100        | 0     | 0  | 0  | 0  | 0  | 12/27/2005            | 1/2/2006              |
| 20051220  | 100        | 0     | 0  | 0  | 0  | 0  | 12/20/2005            | 12/26/2005            |
| 20051213  | 100        | 0     | 0  | 0  | 0  | 0  | 12/13/2005            | 12/19/2005            |
| 20051206  | 100        | 0     | 0  | 0  | 0  | 0  | 12/6/2005             | 12/12/2005            |
| 20051129  | 100        | 0     | 0  | 0  | 0  | 0  | 11/29/2005            | 12/5/2005             |
|           | 10.55      | 89.45 | 0  | 0  | 0  | 0  | 11/22/2005            | 11/28/2005            |
|           | 23.04      | 76.96 | 0  | 0  | 0  | 0  | 11/15/2005            | 11/21/2005            |
| 20051108  | 100        | 0     | 0  | 0  | 0  | 0  | 11/8/2005             | 11/14/2005            |
| 20051101  | 100        | 0     | 0  | 0  | 0  | 0  | 11/1/2005             | 11/7/2005             |
| 20051025  | 100        | 0     | 0  | 0  | 0  | 0  | 10/25/2005            | 10/31/2005            |
| 20051018  | 100        | 0     | 0  | 0  | 0  | 0  | 10/18/2005            | 10/24/2005            |
| 20051011  | 100        | 0     | 0  | 0  | 0  | 0  | 10/11/2005            | 10/17/2005            |
| 20051004  | 100        | 0     | 0  | 0  | 0  | 0  | 10/4/2005             | 10/10/2005            |
|           | 99.84      | 0.16  | 0  | 0  | 0  | 0  | 9/27/2005             | 10/3/2005             |
| 20050920  | 100        | 0     | 0  | 0  | 0  | 0  | 9/20/2005             | 9/26/2005             |
| 20050913  | 100        | 0     | 0  | 0  | 0  | 0  | 9/13/2005             | 9/19/2005             |
| 20050906  | 100<br>100 | 0     | 0  | 0  | 0  | 0  | 9/6/2005<br>8/30/2005 | 9/12/2005<br>9/5/2005 |
| 20050830  | 100        | 0     | 0  | 0  | 0  | 0  | 8/23/2005             | 8/29/2005             |
| 20050825  | 100        | 0     | 0  | 0  | 0  | 0  | 8/16/2005             | 8/22/2005             |
| 20050810  | 100        | 0     | 0  | 0  | 0  | 0  | 8/9/2005              | 8/15/2005             |
| 20050803  | 100        | 0     | 0  | 0  | 0  | 0  | 8/2/2005              | 8/8/2005              |
| 20050726  | 100        | 0     | 0  | 0  | 0  | 0  | 7/26/2005             | 8/1/2005              |
| 20050719  | 100        | 0     | 0  | 0  | 0  | 0  | 7/19/2005             | 7/25/2005             |
| 20050712  | 100        | 0     | 0  | 0  | 0  | 0  | 7/13/2005             | 7/18/2005             |
| 20050712  | 100        | 0     | 0  | 0  | 0  | 0  | 7/5/2005              | 7/10/2005             |
| 20050628  | 100        | 0     | 0  | 0  | 0  | 0  | 6/28/2005             | 7/4/2005              |
| 20050621  | 100        | 0     | 0  | 0  | 0  | 0  | 6/21/2005             | 6/27/2005             |
| 20050614  | 100        | 0     | 0  | 0  | 0  | 0  | 6/14/2005             | 6/20/2005             |
| 20050607  | 100        | 0     | 0  | 0  | 0  | 0  | 6/7/2005              | 6/13/2005             |
| 20050531  | 100        | 0     | 0  | 0  | 0  | 0  | 5/31/2005             | 6/6/2005              |
| 20050524  | 100        | 0     | 0  | 0  | 0  | 0  | 5/24/2005             | 5/30/2005             |

| 20050517   100   | MapDate  | None | D0  | D1 | D2 | D3 | D4 | ValidStart | ValidEnd  |
|--|----------|------|-----|----|----|----|----|------------|-----------|
| 20050503   | 20050517 | 100  | 0   | 0  | 0  | 0  | 0  | 5/17/2005  | 5/23/2005 |
| 20050426   | 20050510 | 100  | 0   | 0  | 0  | 0  | 0  | 5/10/2005  | 5/16/2005 |
| 20050419   | 20050503 | 100  | 0   | 0  | 0  | 0  | 0  | 5/3/2005   | 5/9/2005  |
| 20050412         100         0         0         0         4/12/2005         4/18/2005           20050329         100         0         0         0         0         3/29/2005         4/12/2005           20050322         100         0         0         0         0         3/22/2005         3/28/2005           20050315         100         0         0         0         0         3/15/2005         3/21/2005           20050308         100         0         0         0         0         3/8/2005         3/14/2005           20050301         100         0         0         0         0         3/1/2005         3/7/2005           20050215         100         0         0         0         0         2/21/2005         2/28/2005           20050208         100         0         0         0         0         2/14/2005         2/14/2005           20050201         100         0         0         0         0         2/12/2005         2/14/2005           20050125         100         0         0         0         0         1/18/2005         1/17/2005           20050118         100         0         0  | 20050426 | 100  | 0   | 0  | 0  | 0  | 0  | 4/26/2005  | 5/2/2005  |
| 20050405         100         0         0         0         4/5/2005         4/11/2005           20050329         100         0         0         0         0         3/29/2005         4/4/2005           20050315         100         0         0         0         0         3/15/2005         3/28/2005           20050308         100         0         0         0         0         3/15/2005         3/14/2005           20050308         100         0         0         0         0         3/1/2005         3/1/2005           20050321         100         0         0         0         0         2/22/2005         2/28/2005           20050215         100         0         0         0         0         2/15/2005         2/21/2005           20050208         100         0         0         0         0         2/15/2005         2/14/2005           20050201         100         0         0         0         0         2/12/2005         2/27/2005           20050118         100         0         0         0         0         1/18/2005         1/17/2005           20041221         100         0         0         0   | 20050419 | 100  | 0   | 0  | 0  | 0  | 0  | 4/19/2005  | 4/25/2005 |
| 20050329         100         0         0         0         3/22/2005         3/28/2005           20050322         100         0         0         0         0         3/22/2005         3/28/2005           20050315         100         0         0         0         0         3/15/2005         3/21/2005           20050308         100         0         0         0         0         3/8/2005         3/14/2005           20050301         100         0         0         0         0         3/1/2005         3/72005           20050215         100         0         0         0         0         2/1/2005         2/21/2005           20050215         100         0         0         0         0         2/1/2005         2/14/2005           20050201         100         0         0         0         0         2/1/2005         2/14/2005           20050118         100         0         0         0         0         1/15/2005         1/31/2005           20050111         100         0         0         0         0         1/11/2005         1/17/2005           20041221         100         0         0         0 <td>20050412</td> <td>100</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>4/12/2005</td> <td>4/18/2005</td>    | 20050412 | 100  | 0   | 0  | 0  | 0  | 0  | 4/12/2005  | 4/18/2005 |
| 20050322         100         0         0         0         3/22/2005         3/28/2005           20050315         100         0         0         0         0         3/15/2005         3/21/2005           20050308         100         0         0         0         0         3/12/2005         3/14/2005           20050301         100         0         0         0         0         2/22/2005         2/28/2005           20050215         100         0         0         0         2/15/2005         2/21/2005         2/21/2005           20050208         100         0         0         0         0         2/15/2005         2/71/2005           20050201         100         0         0         0         0         2/12/2005         2/7/2005           20050125         100         0         0         0         0         1/18/2005         1/24/2005           20050118         100         0         0         0         0         1/18/2005         1/31/2005           20050111         100         0         0         0         0         1/1/2005         1/10/2005           20041228         100         0         0   | 20050405 | 100  | 0   | 0  | 0  | 0  | 0  | 4/5/2005   | 4/11/2005 |
| 20050315         100         0         0         0         3/15/2005         3/21/2005           20050308         100         0         0         0         0         3/8/2005         3/14/2005           20050301         100         0         0         0         0         3/1/2005         3/7/2005           20050215         100         0         0         0         0         2/15/2005         2/21/2005           20050208         100         0         0         0         0         2/8/2005         2/14/2005           20050201         100         0         0         0         0         2/1/2005         2/7/2005           20050215         100         0         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/11/2005         1/24/2005           20050111         100         0         0         0         0         1/11/2005         1/17/2005           2005111         100         0         0         0         0         1/4/2005         1/24/2005           20041228         100         0         0         0 <td>20050329</td> <td>100</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>3/29/2005</td> <td>4/4/2005</td>      | 20050329 | 100  | 0   | 0  | 0  | 0  | 0  | 3/29/2005  | 4/4/2005  |
| 20050308         100         0         0         0         3/8/2005         3/14/2005           20050301         100         0         0         0         0         3/1/2005         3/7/2005           20050215         100         0         0         0         0         2/215/2005         2/218/2005           20050208         100         0         0         0         0         2/8/2005         2/14/2005           20050201         100         0         0         0         0         2/8/2005         2/14/2005           20050125         100         0         0         0         0         1/25/2005         1/31/2005           20050125         100         0         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/14/2005         1/24/2005           20050111         100         0         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         1/21/2004         12/27/2004           20041214         100         0         0  | 20050322 | 100  | 0   | 0  | 0  | 0  | 0  | 3/22/2005  | 3/28/2005 |
| 20050301         100         0         0         0         3/1/2005         3/7/2005           20050222         100         0         0         0         0         2/22/2005         2/28/2005           20050215         100         0         0         0         0         2/15/2005         2/21/2005           20050201         100         0         0         0         0         2/12/2005         2/72/2005           20050215         100         0         0         0         0         1/25/2005         1/31/2005           20050125         100         0         0         0         0         1/18/2005         1/31/2005           20050118         100         0         0         0         0         1/18/2005         1/17/2005           20050111         100         0         0         0         0         1/14/2005         1/10/2005           20041228         100         0         0         0         0         1/24/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041204         100         0         0 <t< td=""><td>20050315</td><td>100</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3/15/2005</td><td>3/21/2005</td></t<> | 20050315 | 100  | 0   | 0  | 0  | 0  | 0  | 3/15/2005  | 3/21/2005 |
| 20050222         100         0         0         0         2/22/2005         2/28/2005           20050215         100         0         0         0         0         2/15/2005         2/21/2005           20050208         100         0         0         0         0         2/18/2005         2/14/2005           20050201         100         0         0         0         0         2/12/2005         2/7/2005           20050125         100         0         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/18/2005         1/17/2005           20050111         100         0         0         0         0         1/14/2005         1/10/2005           2005104         100         0         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         12/21/2004         1/3/2005           20041221         100         0         0         0         0         12/14/2004         12/20/2004           20041130         100         0         0 <t< td=""><td>20050308</td><td>100</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3/8/2005</td><td>3/14/2005</td></t<>  | 20050308 | 100  | 0   | 0  | 0  | 0  | 0  | 3/8/2005   | 3/14/2005 |
| 20050215         100         0         0         0         2/15/2005         2/21/2005           20050208         100         0         0         0         0         2/8/2005         2/14/2005           20050201         100         0         0         0         0         2/12/2005         2/7/2005           20050125         100         0         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/18/2005         1/24/2005           20050111         100         0         0         0         1/11/2005         1/17/2005           20050104         100         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         1/4/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         12/7/2004         12/21/2004         12/20/2004           20041123         100         0         0         0         11/30/200  | 20050301 | 100  | 0   | 0  | 0  | 0  | 0  | 3/1/2005   | 3/7/2005  |
| 20050208         100         0         0         0         2/8/2005         2/14/2005           20050201         100         0         0         0         0         2/1/2005         2/7/2005           20050125         100         0         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/18/2005         1/24/2005           20050111         100         0         0         0         0         1/11/2005         1/17/2005           20050104         100         0         0         0         0         1/4/2005         1/17/2005           20041228         100         0         0         0         0         12/24/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041221         100         0         0         0         0         12/71/2004         12/6/2004           20041120         100         0         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         <   | 20050222 | 100  | 0   | 0  | 0  | 0  | 0  | 2/22/2005  | 2/28/2005 |
| 20050201         100         0         0         0         2/1/2005         2/7/2005           20050125         100         0         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/18/2005         1/24/2005           20050111         100         0         0         0         0         1/11/2005         1/17/2005           20050104         100         0         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         12/21/2004         1/3/2005           20041221         100         0         0         0         0         12/14/2004         12/27/2004           20041207         100         0         0         0         0         12/74/2004         12/20/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         0         0         11/23/2004         11/22/2004           20041104         100         0         0   | 20050215 | 100  | 0   | 0  | 0  | 0  | 0  | 2/15/2005  | 2/21/2005 |
| 20050125         100         0         0         0         1/25/2005         1/31/2005           20050118         100         0         0         0         0         1/18/2005         1/24/2005           20050111         100         0         0         0         0         1/11/2005         1/17/2005           20050104         100         0         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         1/2/28/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         0         12/7/2004         12/21/2004           20041207         100         0         0         0         0         12/7/2004         12/21/3/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041101         100         0         0         0         0         11/16/2004         11/12/2004           20041102         100         0         0  | 20050208 | 100  | 0   | 0  | 0  | 0  | 0  | 2/8/2005   | 2/14/2005 |
| 20050118         100         0         0         0         1/18/2005         1/24/2005           20050111         100         0         0         0         0         1/11/2005         1/17/2005           20050104         100         0         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         12/28/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         0         12/7/2004         12/20/2004           20041207         100         0         0         0         0         12/7/2004         12/20/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041101         100         0         0         0         11/23/2004         11/29/2004           20041102         100         0         0         0         11/26/2004         11/22/2004           20041102         100         0         0         0         11/26/20  | 20050201 | 100  | 0   | 0  |    | 0  | 0  | 2/1/2005   |           |
| 20050111         100         0         0         0         1/11/2005         1/17/2005           20050104         100         0         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         12/28/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         0         12/14/2004         12/20/2004           20041207         100         0         0         0         0         12/7/2004         12/20/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         0         0         11/23/2004         11/29/2004           20041116         100         0         0         0         0         11/9/2004         11/15/2004           20041109         100         0         0         0         11/2/2004         11/15/2004           20041016         100         0         0         0  |          | 100  | 0   | 0  | 0  |    | 0  |            | 1/31/2005 |
| 20050104         100         0         0         0         1/4/2005         1/10/2005           20041228         100         0         0         0         0         12/28/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         0         12/7/2004         12/20/2004           20041207         100         0         0         0         0         12/7/2004         12/20/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         0         0         11/23/2004         11/29/2004           20041109         100         0         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         11/2/2004         11/15/2004           20041010         100         0         0         0         11/2/2004         11/18/2004           20041019         100         0         0         0         10/19/  |          |      |     |    |    |    |    |            |           |
| 20041228         100         0         0         0         12/28/2004         1/3/2005           20041221         100         0         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         0         12/14/2004         12/20/2004           20041207         100         0         0         0         0         12/7/2004         12/3/2004           20041130         100         0         0         0         0         11/3/2004         12/6/2004           20041113         100         0         0         0         0         11/23/2004         11/29/2004           20041116         100         0         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         11/9/2004         11/15/2004           20041010         100         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         10/19/2004         <  |          |      |     |    |    |    |    |            |           |
| 20041221         100         0         0         0         12/21/2004         12/27/2004           20041214         100         0         0         0         0         12/14/2004         12/20/2004           20041207         100         0         0         0         0         12/7/2004         12/3/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         0         0         11/23/2004         11/29/2004           20041106         100         0         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                       |          |      |     |    |    |    |    |            |           |
| 20041214         100         0         0         0         12/14/2004         12/20/2004           20041207         100         0         0         0         0         12/7/2004         12/13/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041116         100         0         0         0         0         11/16/2004         11/29/2004           20041109         100         0         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041005         100         0         0         0         0         10/12/2004         10/18/2004           20040928         100         0         0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                       |          |      |     |    |    |    |    |            |           |
| 20041207         100         0         0         0         12/7/2004         12/13/2004           20041130         100         0         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         0         0         11/23/2004         11/29/2004           20041116         100         0         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/19/2004         10/18/2004           20040928         100         0         0         0         0         10/5/2004         10/11/2004           20040921         100         0         0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                       |          |      |     |    |    |    |    |            |           |
| 20041130         100         0         0         0         11/30/2004         12/6/2004           20041123         100         0         0         0         0         11/23/2004         11/29/2004           20041116         100         0         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/19/2004         10/25/2004           20041005         100         0         0         0         0         10/12/2004         10/18/2004           20040928         100         0         0         0         0         10/52004         10/4/2004           20040921         100         0         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                             |          |      |     |    |    |    |    |            |           |
| 20041123         100         0         0         0         11/23/2004         11/29/2004           20041116         100         0         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/15/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/19/2004         10/25/2004           20041005         100         0         0         0         0         10/12/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                       |          |      |     |    |    |    |    |            |           |
| 20041116         100         0         0         0         11/16/2004         11/22/2004           20041109         100         0         0         0         11/9/2004         11/12/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/12/2004         10/18/2004           20041005         100         0         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         9/7/2004         9/20/2004           20040831         76.65         23.35         0         0  |          |      |     |    |    |    |    |            |           |
| 20041109         100         0         0         0         11/9/2004         11/15/2004           20041102         100         0         0         0         0         11/2/2004         11/15/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/12/2004         10/18/2004           20041005         100         0         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         9/7/2004         9/13/2004           20040831         76.65         23.35         0         0         0         8/31/2004         8/6/2004           20040810         0         100         0         0         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                             |          |      |     |    |    |    |    |            |           |
| 20041102         100         0         0         0         11/2/2004         11/8/2004           20041026         100         0         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/12/2004         10/18/2004           20041005         100         0         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         9/14/2004         9/20/2004           20040907         100         0         0         0         9/7/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/10/20  |          |      |     |    |    |    |    |            |           |
| 20041026         100         0         0         0         10/26/2004         11/1/2004           20041019         100         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         10/12/2004         10/18/2004           20041005         100         0         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         0         9/7/2004         9/20/2004           20040931         76.65         23.35         0         0         0         9/7/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0  |          |      |     |    |    |    |    |            |           |
| 20041019         100         0         0         0         10/19/2004         10/25/2004           20041012         100         0         0         0         0         10/12/2004         10/18/2004           20041005         100         0         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         0         9/7/2004         9/20/2004           20040907         100         0         0         0         9/7/2004         9/6/2004           20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/10/2004         8/16/2004           20040830         0         100         0         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                             |          |      |     |    |    |    |    |            |           |
| 20041012         100         0         0         0         10/12/2004         10/18/2004           20041005         100         0         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         0         9/14/2004         9/20/2004           20040907         100         0         0         0         0         9/7/2004         9/6/2004           20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040830         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0  |          |      |     |    |    |    |    |            |           |
| 20041005         100         0         0         0         10/5/2004         10/11/2004           20040928         100         0         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         0         9/14/2004         9/20/2004           20040907         100         0         0         0         0         9/7/2004         9/13/2004           20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0  |          |      |     |    |    |    |    |            |           |
| 20040928         100         0         0         0         9/28/2004         10/4/2004           20040921         100         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         0         9/14/2004         9/20/2004           20040907         100         0         0         0         0         9/7/2004         9/13/2004           20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/10/2004         8/23/2004           20040810         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0   |          |      |     |    |    |    |    |            |           |
| 20040921         100         0         0         0         9/21/2004         9/27/2004           20040914         100         0         0         0         0         9/14/2004         9/20/2004           20040907         100         0         0         0         0         9/7/2004         9/13/2004           20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040810         0         100         0         0         0         8/3/2004         8/9/2004           20040803         0         100         0         0         0         7/27/2004         8/2/2004           20040727         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004  |          |      |     |    |    |    |    |            |           |
| 20040914         100         0         0         0         9/14/2004         9/20/2004           20040907         100         0         0         0         0         9/7/2004         9/13/2004           20040831         76.65         23.35         0         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/13/2004         7/19/2004   |          |      |     |    |    |    |    |            |           |
| 20040907         100         0         0         0         9/7/2004         9/13/2004           20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/10/2004         8/23/2004           20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004   |          |      |     |    |    |    |    |            |           |
| 20040831         76.65         23.35         0         0         0         8/31/2004         9/6/2004           20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004   |          |      |     |    |    |    |    |            |           |
| 20040824         0         100         0         0         0         8/24/2004         8/30/2004           20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004   |          |      |     |    |    |    |    |            |           |
| 20040817         0.82         99.18         0         0         0         8/17/2004         8/23/2004           20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004  |          |      |     |    |    |    |    |            |           |
| 20040810         0         100         0         0         0         8/10/2004         8/16/2004           20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004  |          |      |     |    |    |    |    |            |           |
| 20040803         0         100         0         0         0         8/3/2004         8/9/2004           20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004   |          |      |     |    |    |    |    |            |           |
| 20040727         0         100         0         0         0         7/27/2004         8/2/2004           20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004  |          |      |     |    |    |    |    |            |           |
| 20040720         0         100         0         0         0         7/20/2004         7/26/2004           20040713         0         100         0         0         0         7/13/2004         7/19/2004  |          |      |     |    |    |    |    |            |           |
| 20040713 0 100 0 0 0 0 7/13/2004 7/19/2004   |          |      |     |    |    |    |    |            |           |
|  |          |      |     |    |    |    |    |            |           |
|  | 20040713 | 0    | 100 | 0  | 0  | 0  | 0  | 7/13/2004  | 7/13/2004 |

| MapDate  | None       | D0  | D1  | D2  | D3 | D4 | ValidStart             | ValidEnd                |
|----------|------------|-----|-----|-----|----|----|------------------------|-------------------------|
| 20040629 | 0          | 0   | 100 | 0   | 0  | 0  | 6/29/2004              | 7/5/2004                |
| 20040622 | 0          | 0   | 0   | 100 | 0  | 0  | 6/22/2004              | 6/28/2004               |
| 20040615 | 0          | 0   | 0   | 100 | 0  | 0  | 6/15/2004              | 6/21/2004               |
| 20040608 | 0          | 0   | 0   | 100 | 0  | 0  | 6/8/2004               | 6/14/2004               |
| 20040601 | 0          | 0   | 0   | 100 | 0  | 0  | 6/1/2004               | 6/7/2004                |
| 20040525 | 0          | 0   | 0   | 100 | 0  | 0  | 5/25/2004              | 5/31/2004               |
| 20040518 | 0          | 0   | 100 | 0   | 0  | 0  | 5/18/2004              | 5/24/2004               |
| 20040511 | 0          | 0   | 100 | 0   | 0  | 0  | 5/11/2004              | 5/17/2004               |
| 20040504 | 0          | 0   | 100 | 0   | 0  | 0  | 5/4/2004               | 5/10/2004               |
| 20040427 | 0          | 0   | 100 | 0   | 0  | 0  | 4/27/2004              | 5/3/2004                |
| 20040420 | 0          | 0   | 100 | 0   | 0  | 0  | 4/20/2004              | 4/26/2004               |
| 20040413 | 0          | 100 | 0   | 0   | 0  | 0  | 4/13/2004              | 4/19/2004               |
| 20040406 | 0          | 100 | 0   | 0   | 0  | 0  | 4/6/2004               | 4/12/2004               |
| 20040330 | 0          | 100 | 0   | 0   | 0  | 0  | 3/30/2004              | 4/5/2004                |
| 20040323 | 0          | 100 | 0   | 0   | 0  | 0  | 3/23/2004              | 3/29/2004               |
| 20040316 | 100        | 0   | 0   | 0   | 0  | 0  | 3/16/2004              | 3/22/2004               |
| 20040309 | 100        | 0   | 0   | 0   | 0  | 0  | 3/9/2004               | 3/15/2004               |
| 20040302 | 100        | 0   | 0   | 0   | 0  | 0  | 3/2/2004               | 3/8/2004                |
| 20040224 | 100        | 0   | 0   | 0   | 0  | 0  | 2/24/2004              | 3/1/2004                |
| 20040217 | 100        | 0   | 0   | 0   | 0  | 0  | 2/17/2004              | 2/23/2004               |
| 20040210 | 100        | 0   | 0   | 0   | 0  | 0  | 2/10/2004              | 2/16/2004               |
| 20040203 | 100        | 0   | 0   | 0   | 0  | 0  | 2/3/2004               | 2/9/2004                |
| 20040127 | 100        | 0   | 0   | 0   | 0  | 0  | 1/27/2004              | 2/2/2004                |
| 20040120 | 100        | 0   | 0   | 0   | 0  | 0  | 1/20/2004              | 1/26/2004               |
| 20040113 | 100        | 0   | 0   | 0   | 0  | 0  | 1/13/2004              | 1/19/2004               |
| 20040106 | 100        | 0   | 0   | 0   | 0  | 0  | 1/6/2004               | 1/12/2004               |
| 20031230 | 100        | 0   | 0   | 0   | 0  | 0  | 12/30/2003             | 1/5/2004                |
| 20031223 | 100        | 0   | 0   | 0   | 0  | 0  | 12/23/2003             | 12/29/2003              |
| 20031216 | 100        | 0   | 0   | 0   | 0  | 0  | 12/16/2003             | 12/22/2003              |
| 20031209 | 100<br>100 | 0   | 0   | 0   | 0  | 0  | 12/9/2003<br>12/2/2003 | 12/15/2003<br>12/8/2003 |
| 20031202 | 100        | 0   | 0   | 0   | 0  | 0  | 11/25/2003             | 12/8/2003               |
| 20031123 | 100        | 0   | 0   | 0   | 0  | 0  | 11/23/2003             | 11/24/2003              |
| 20031118 | 100        | 0   | 0   | 0   | 0  | 0  | 11/11/2003             | 11/24/2003              |
| 20031111 | 100        | 0   | 0   | 0   | 0  | 0  | 11/4/2003              | 11/17/2003              |
| 20031104 | 100        | 0   | 0   | 0   | 0  | 0  | 10/28/2003             | 11/3/2003               |
| 20031020 | 100        | 0   | 0   | 0   | 0  | 0  | 10/21/2003             | 10/27/2003              |
| 20031021 | 100        | 0   | 0   | 0   | 0  | 0  | 10/14/2003             | 10/20/2003              |
| 20031017 | 100        | 0   | 0   | 0   | 0  | 0  | 10/7/2003              | 10/13/2003              |
| 20030930 | 100        | 0   | 0   | 0   | 0  | 0  | 9/30/2003              | 10/6/2003               |
| 20030933 | 100        | 0   | 0   | 0   | 0  | 0  | 9/23/2003              | 9/29/2003               |
| 20030916 | 100        | 0   | 0   | 0   | 0  | 0  | 9/16/2003              | 9/22/2003               |
| 20030910 | 100        | 0   | 0   | 0   | 0  | 0  | 9/9/2003               | 9/15/2003               |
| 20030902 | 100        | 0   | 0   | 0   | 0  | 0  | 9/2/2003               | 9/8/2003                |
| 20030826 | 100        | 0   | 0   | 0   | 0  | 0  | 8/26/2003              | 9/1/2003                |
| 20030819 | 100        | 0   | 0   | 0   | 0  | 0  | 8/19/2003              | 8/25/2003               |

| MapDate  | None       | D0    | D1  | D2  | D3 | D4 | ValidStart             | ValidEnd               |
|----------|------------|-------|-----|-----|----|----|------------------------|------------------------|
| 20030812 | 100        | 0     | 0   | 0   | 0  | 0  | 8/12/2003              | 8/18/2003              |
| 20030805 | 100        | 0     | 0   | 0   | 0  | 0  | 8/5/2003               | 8/11/2003              |
| 20030729 | 100        | 0     | 0   | 0   | 0  | 0  | 7/29/2003              | 8/4/2003               |
| 20030722 | 100        | 0     | 0   | 0   | 0  | 0  | 7/22/2003              | 7/28/2003              |
| 20030715 | 100        | 0     | 0   | 0   | 0  | 0  | 7/15/2003              | 7/21/2003              |
| 20030708 | 100        | 0     | 0   | 0   | 0  | 0  | 7/8/2003               | 7/14/2003              |
| 20030701 | 100        | 0     | 0   | 0   | 0  | 0  | 7/1/2003               | 7/7/2003               |
| 20030624 | 100        | 0     | 0   | 0   | 0  | 0  | 6/24/2003              | 6/30/2003              |
| 20030617 | 100        | 0     | 0   | 0   | 0  | 0  | 6/17/2003              | 6/23/2003              |
| 20030610 | 100        | 0     | 0   | 0   | 0  | 0  | 6/10/2003              | 6/16/2003              |
| 20030603 | 100        | 0     | 0   | 0   | 0  | 0  | 6/3/2003               | 6/9/2003               |
| 20030527 | 100        | 0     | 0   | 0   | 0  | 0  | 5/27/2003              | 6/2/2003               |
| 20030520 | 100        | 0     | 0   | 0   | 0  | 0  | 5/20/2003              | 5/26/2003              |
| 20030513 | 100        | 0     | 0   | 0   | 0  | 0  | 5/13/2003              | 5/19/2003              |
| 20030506 | 100        | 0     | 0   | 0   | 0  | 0  | 5/6/2003               | 5/12/2003              |
| 20030429 | 100        | 0     | 0   | 0   | 0  | 0  | 4/29/2003              | 5/5/2003               |
| 20030422 | 100        | 0     | 0   | 0   | 0  | 0  | 4/22/2003              | 4/28/2003              |
| 20030415 | 100        | 0     | 0   | 0   | 0  | 0  | 4/15/2003              | 4/21/2003              |
| 20030408 | 100        | 0     | 0   | 0   | 0  | 0  | 4/8/2003               | 4/14/2003              |
| 20030401 | 100        | 0     | 0   | 0   | 0  | 0  | 4/1/2003               | 4/7/2003               |
| 20030325 | 100        | 0     | 0   | 0   | 0  | 0  | 3/25/2003              | 3/31/2003              |
| 20030318 | 64.69      | 35.31 | 0   | 0   | 0  | 0  | 3/18/2003              | 3/24/2003              |
| 20030311 | 71.17      | 28.83 | 0   | 0   | 0  | 0  | 3/11/2003              | 3/17/2003              |
| 20030304 | 99.92      | 0.08  | 0   | 0   | 0  | 0  | 3/4/2003               | 3/10/2003              |
| 20030225 | 78.13      | 21.87 | 0   | 0   | 0  | 0  | 2/25/2003              | 3/3/2003               |
| 20030218 | 79.9       | 20.1  | 0   | 0   | 0  | 0  | 2/18/2003              | 2/24/2003              |
| 20030211 | 93.62      | 6.38  | 0   | 0   | 0  | 0  | 2/11/2003              | 2/17/2003              |
| 20030204 | 92.76      | 7.24  | 0   | 0   | 0  | 0  | 2/4/2003               | 2/10/2003              |
| 20030128 | 100        | 0     | 0   | 0   | 0  | 0  | 1/28/2003              | 2/3/2003               |
| 20030121 | 100<br>100 | 0     | 0   | 0   | 0  | 0  | 1/21/2003<br>1/14/2003 | 1/27/2003<br>1/20/2003 |
| 20030114 | 100        | 0     | 0   | 0   | 0  | 0  | 1/7/2003               | 1/13/2003              |
| 20030107 | 100        | 0     | 0   | 0   | 0  | 0  | 12/31/2002             | 1/6/2003               |
| 20021231 | 0          | 100   | 0   | 0   | 0  | 0  | 12/24/2002             | 12/30/2002             |
| 20021224 | 0          | 100   | 0   | 0   | 0  | 0  | 12/17/2002             | 12/23/2002             |
| 20021217 | 0          | 0     | 100 | 0   | 0  | 0  | 12/10/2002             | 12/25/2002             |
| 20021213 | 0          | 0     | 100 | 0   | 0  | 0  | 12/3/2002              | 12/9/2002              |
| 20021205 | 0          | 0     | 100 | 0   | 0  | 0  | 11/26/2002             | 12/2/2002              |
| 20021120 | 0          | 0     | 100 | 0   | 0  | 0  | 11/19/2002             | 11/25/2002             |
| 20021113 | 0          | 0     | 100 | 0   | 0  | 0  | 11/12/2002             | 11/18/2002             |
| 20021112 | 0          | 0     | 0   | 100 | 0  | 0  | 11/5/2002              | 11/11/2002             |
| 20021103 | 0          | 0     | 0   | 100 | 0  | 0  | 10/29/2002             | 11/4/2002              |
| 20021022 | 0          | 0     | 0   | 100 | 0  | 0  | 10/22/2002             | 10/28/2002             |
| 20021015 | 0          | 0     | 0   | 100 | 0  | 0  | 10/15/2002             | 10/21/2002             |
| 20021008 | 0          | 0     | 0   | 100 | 0  | 0  | 10/8/2002              | 10/14/2002             |
| 20021001 | 0          | 0     | 0   | 100 | 0  | 0  | 10/1/2002              | 10/7/2002              |

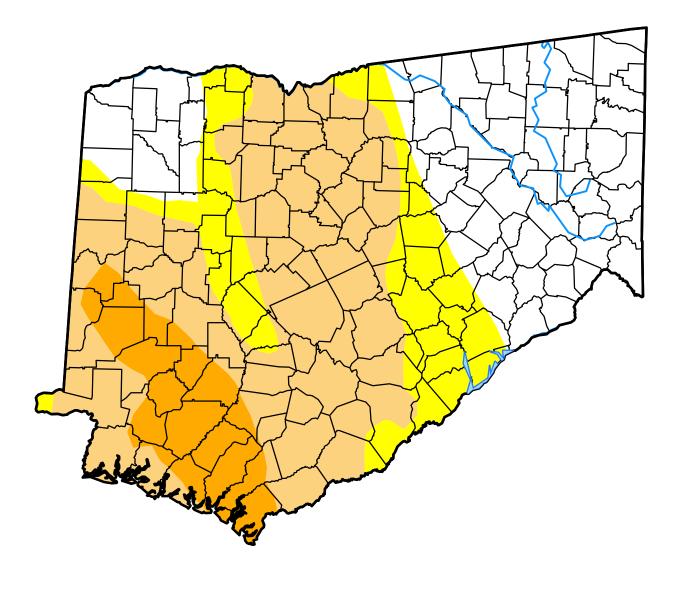
| MapDate           | None | D0 | D1 | D2            | D3             | D4    | ValidStart             | ValidEnd              |
|-------------------|------|----|----|---------------|----------------|-------|------------------------|-----------------------|
| 20020924          | 0    | 0  | 0  | 100           | 0              | 0     | 9/24/2002              | 9/30/2002             |
| 20020917          | 0    | 0  | 0  | 0             | 100            | 0     | 9/17/2002              | 9/23/2002             |
| 20020910          | 0    | 0  | 0  | 0             | 0.05           | 99.95 | 9/10/2002              | 9/16/2002             |
| 20020903          | 0    | 0  | 0  | 0             | 0              | 100   | 9/3/2002               | 9/9/2002              |
| 20020827          | 0    | 0  | 0  | 0             | 0              | 100   | 8/27/2002              | 9/2/2002              |
| 20020820          | 0    | 0  | 0  | 0             | 0              | 100   | 8/20/2002              | 8/26/2002             |
| 20020813          | 0    | 0  | 0  | 0             | 0              | 100   | 8/13/2002              | 8/19/2002             |
| 20020806          | 0    | 0  | 0  | 0             | 100            | 0     | 8/6/2002               | 8/12/2002             |
| 20020730          | 0    | 0  | 0  | 0             | 100            | 0     | 7/30/2002              | 8/5/2002              |
| 20020723          | 0    | 0  | 0  | 0             | 100            | 0     | 7/23/2002              | 7/29/2002             |
| 20020716          | 0    | 0  | 0  | 0             | 100            | 0     | 7/16/2002              | 7/22/2002             |
| 20020709          | 0    | 0  | 0  | 0             | 100            | 0     | 7/9/2002               | 7/15/2002             |
| 20020702          | 0    | 0  | 0  | 0             | 100            | 0     | 7/2/2002               | 7/8/2002              |
| 20020625          | 0    | 0  | 0  | 0             | 100            | 0     | 6/25/2002              | 7/1/2002              |
| 20020618          | 0    | 0  | 0  | 21.27         | 78.73          | 0     | 6/18/2002              | 6/24/2002             |
| 20020611          | 0    | 0  | 0  | 42.28         | 57.72          | 0     | 6/11/2002              | 6/17/2002             |
| 20020604          | 0    | 0  | 0  | 26.7<br>13.16 | 73.3           | 0     | 6/4/2002               | 6/10/2002             |
| 20020528 20020521 | 0    | 0  | 0  | 2.61          | 86.84<br>97.39 | 0     | 5/28/2002<br>5/21/2002 | 6/3/2002<br>5/27/2002 |
| 20020521          | 0    | 0  | 0  | 17.89         | 82.11          | 0     | 5/21/2002              | 5/20/2002             |
| 20020514          | 0    | 0  | 0  | 30.74         | 69.26          | 0     | 5/7/2002               | 5/13/2002             |
| 20020307          | 0    | 0  | 0  | 89.92         | 10.08          | 0     | 4/30/2002              | 5/6/2002              |
| 20020423          | 0    | 0  | 0  | 100           | 0              | 0     | 4/23/2002              | 4/29/2002             |
| 20020416          | 0    | 0  | 0  | 100           | 0              | 0     | 4/16/2002              | 4/22/2002             |
| 20020409          | 0    | 0  | 0  | 100           | 0              | 0     | 4/9/2002               | 4/15/2002             |
| 20020402          | 0    | 0  | 0  | 100           | 0              | 0     | 4/2/2002               | 4/8/2002              |
| 20020326          | 0    | 0  | 0  | 0             | 100            | 0     | 3/26/2002              | 4/1/2002              |
| 20020319          | 0    | 0  | 0  | 0             | 100            | 0     | 3/19/2002              | 3/25/2002             |
| 20020312          | 0    | 0  | 0  | 0             | 100            | 0     | 3/12/2002              | 3/18/2002             |
| 20020305          | 0    | 0  | 0  | 0             | 100            | 0     | 3/5/2002               | 3/11/2002             |
| 20020226          | 0    | 0  | 0  | 0             | 100            | 0     | 2/26/2002              | 3/4/2002              |
| 20020219          | 0    | 0  | 0  | 0             | 100            | 0     | 2/19/2002              | 2/25/2002             |
| 20020212          | 0    | 0  | 0  | 0             | 100            | 0     | 2/12/2002              | 2/18/2002             |
| 20020205          | 0    | 0  | 0  | 0             | 100            | 0     | 2/5/2002               | 2/11/2002             |
| 20020129          | 0    | 0  | 0  | 43.44         | 56.56          | 0     | 1/29/2002              | 2/4/2002              |
| 20020122          | 0    | 0  | 0  | 58.65         | 41.35          | 0     | 1/22/2002              | 1/28/2002             |
| 20020115          | 0    | 0  | 0  | 68            | 32             | 0     | 1/15/2002              | 1/21/2002             |
| 20020108          | 0    | 0  | 0  | 64.73         | 35.27          | 0     | 1/8/2002               | 1/14/2002             |
| 20020101          | 0    | 0  | 0  | 0             | 100            | 0     | 1/1/2002               | 1/7/2002              |
| 20011225          | 0    | 0  | 0  | 100           | 0              | 0     | 12/25/2001             | 12/31/2001            |
| 20011218          | 0    | 0  | 0  | 100           | 0              | 0     | 12/18/2001             | 12/24/2001            |
| 20011211          | 0    | 0  | 0  | 100           | 0              | 0     | 12/11/2001             | 12/17/2001            |
| 20011204          | 0    | 0  | 0  | 100           | 0              | 0     | 12/4/2001              | 12/10/2001            |
| 20011127          | 0    | 0  | 0  | 100           | 0              | 0     | 11/27/2001             | 12/3/2001             |
| 20011120          | 0    | 0  | 0  | 100           | 0              | 0     | 11/20/2001             | 11/26/2001            |
| 20011113          | 0    | 0  | 0  | 100           | 0              | 0     | 11/13/2001             | 11/19/2001            |

| MapDate              | None  | D0    | D1         | D2    | D3 | D4 | ValidStart            | ValidEnd               |
|----------------------|-------|-------|------------|-------|----|----|-----------------------|------------------------|
| 20011106             | 0     | 0     | 0          | 100   | 0  | 0  | 11/6/2001             | 11/12/2001             |
| 20011030             | 0     | 0     | 6.25       | 93.75 | 0  | 0  | 10/30/2001            | 11/5/2001              |
| 20011023             | 0     | 0     | 100        | 0     | 0  | 0  | 10/23/2001            | 10/29/2001             |
| 20011016             | 0     | 0.65  | 99.35      | 0     | 0  | 0  | 10/16/2001            | 10/22/2001             |
| 20011009             | 0     | 6.78  | 93.22      | 0     | 0  | 0  | 10/9/2001             | 10/15/2001             |
| 20011002             | 0     | 10.64 | 89.36      | 0     | 0  | 0  | 10/2/2001             | 10/8/2001              |
| 20010925             | 0     | 100   | 0          | 0     | 0  | 0  | 9/25/2001             | 10/1/2001              |
| 20010918             | 0     | 100   | 0          | 0     | 0  | 0  | 9/18/2001             | 9/24/2001              |
| 20010911             | 96.08 | 3.92  | 0          | 0     | 0  | 0  | 9/11/2001             | 9/17/2001              |
| 20010904             | 96.08 | 3.92  | 0          | 0     | 0  | 0  | 9/4/2001              | 9/10/2001              |
| 20010828             | 96.08 | 3.92  | 0          | 0     | 0  | 0  | 8/28/2001             | 9/3/2001               |
| 20010821             | 100   | 0     | 0          | 0     | 0  | 0  | 8/21/2001             | 8/27/2001              |
| 20010814             | 100   | 0     | 0          | 0     | 0  | 0  | 8/14/2001             | 8/20/2001              |
| 20010807             | 100   | 0     | 0          | 0     | 0  | 0  | 8/7/2001              | 8/13/2001              |
| 20010731             | 40.58 | 59.42 | 0          | 0     | 0  | 0  | 7/31/2001             | 8/6/2001               |
| 20010724             | 32.78 | 67.22 | 0          | 0     | 0  | 0  | 7/24/2001             | 7/30/2001              |
| 20010717             | 60.49 | 39.51 | 0          | 0     | 0  | 0  | 7/17/2001             | 7/23/2001              |
| 20010710             | 60.49 | 39.51 | 0          | 0     | 0  | 0  | 7/10/2001             | 7/16/2001              |
| 20010703             | 52.04 | 47.96 | 0          | 0     | 0  | 0  | 7/3/2001              | 7/9/2001               |
| 20010626             | 53.59 | 46.41 | 0          | 0     | 0  | 0  | 6/26/2001             | 7/2/2001               |
| 20010619             | 53.59 | 46.41 | 0          | 0     | 0  | 0  | 6/19/2001             | 6/25/2001              |
| 20010612             | 0     | 0     | 55.66      | 44.34 | 0  | 0  | 6/12/2001             | 6/18/2001              |
| 20010605             | 0     | 0     | 56.25      | 43.75 | 0  | 0  | 6/5/2001              | 6/11/2001              |
| 20010529             | 0     | 0     | 53.31      | 46.69 | 0  | 0  | 5/29/2001             | 6/4/2001               |
| 20010522             | 0     | 0     | 53.33      | 46.67 | 0  | 0  | 5/22/2001             | 5/28/2001              |
| 20010515             | 0     | 0     | 53.31      | 46.69 | 0  | 0  | 5/15/2001             | 5/21/2001              |
| 20010508             | 0     | 0     | 100        | 0     | 0  | 0  | 5/8/2001              | 5/14/2001              |
| 20010501             | 0     | 0     | 100        | 0     | 0  | 0  | 5/1/2001              | 5/7/2001               |
| 20010424             | 0     | 0     | 100        | 0     | 0  | 0  | 4/24/2001             | 4/30/2001              |
| 20010417             | 0     | 0     | 100        | 0     | 0  | 0  | 4/17/2001             | 4/23/2001              |
| 20010410             | 0     | 0     | 100        | 0     | 0  | 0  | 4/10/2001             | 4/16/2001              |
| 20010403             | 0     | 0     | 100        | 0     | 0  | 0  | 4/3/2001<br>3/27/2001 | 4/9/2001               |
| 20010327             | 0     | 0     | 100        |       | 0  | 0  |                       | 4/2/2001               |
| 20010320             | 0     | 0     | 100        | 0     | 0  | 0  | 3/20/2001             | 3/26/2001              |
| 20010313<br>20010306 | 0     | 0     | 100<br>100 | 0     | 0  | 0  | 3/13/2001<br>3/6/2001 | 3/19/2001<br>3/12/2001 |
| 20010306             | 0     | 0     | 13.62      | 86.38 | 0  | 0  | 2/27/2001             | 3/12/2001              |
| 20010227             | 0     | 0     | 13.62      | 86.38 | 0  | 0  | 2/27/2001             | 2/26/2001              |
| 20010220             | 0     | 0     | 13.62      | 86.38 | 0  | 0  | 2/20/2001             | 2/20/2001              |
| 20010213             | 0     | 0     | 15.88      | 84.12 | 0  | 0  | 2/13/2001             | 2/13/2001              |
| 20010200             | 0     | 0     | 15.88      | 84.12 | 0  | 0  | 1/30/2001             | 2/5/2001               |
| 20010130             | 0     | 0     | 15.88      | 84.12 | 0  | 0  | 1/23/2001             | 1/29/2001              |
| 20010123             | 0     | 0     | 8.27       | 91.73 | 0  | 0  | 1/16/2001             | 1/22/2001              |
| 20010110             | 0     | 0     | 8.27       | 91.73 | 0  | 0  | 1/9/2001              | 1/15/2001              |
| 20010103             | 0     | 0     | 0.27       | 100   | 0  | 0  | 1/2/2001              | 1/8/2001               |
| 20010102             | 0     | 0     | 16.9       | 83.1  | 0  | 0  | 12/26/2000            | 1/1/2001               |
| 20001220             | U     | U     | 10.9       | 03.1  | U  | U  | 12/20/2000            | 1/1/2001               |

| MapDate  | None | D0 | D1   | D2    | D3    | D4             | ValidStart             | ValidEnd               |
|----------|------|----|------|-------|-------|----------------|------------------------|------------------------|
| 20001219 | 0    | 0  | 1.81 | 98.19 | 0     | 0              | 12/19/2000             | 12/25/2000             |
| 20001212 | 0    | 0  | 0    | 100   | 0     | 0              | 12/12/2000             | 12/18/2000             |
| 20001205 | 0    | 0  | 0    | 100   | 0     | 0              | 12/5/2000              | 12/11/2000             |
| 20001128 | 0    | 0  | 0    | 100   | 0     | 0              | 11/28/2000             | 12/4/2000              |
| 20001121 | 0    | 0  | 0    | 100   | 0     | 0              | 11/21/2000             | 11/27/2000             |
| 20001114 | 0    | 0  | 0    | 4.97  | 95.03 | 0              | 11/14/2000             | 11/20/2000             |
| 20001107 | 0    | 0  | 0    | 4.97  | 95.03 | 0              | 11/7/2000              | 11/13/2000             |
| 20001031 | 0    | 0  | 0    | 4.97  | 95.03 | 0              | 10/31/2000             | 11/6/2000              |
| 20001024 | 0    | 0  | 0    | 100   | 0     | 0              | 10/24/2000             | 10/30/2000             |
| 20001017 | 0    | 0  | 0    | 100   | 0     | 0              | 10/17/2000             | 10/23/2000             |
| 20001010 | 0    | 0  | 0    | 100   | 0     | 0              | 10/10/2000             | 10/16/2000             |
| 20001003 | 0    | 0  | 0    | 100   | 0     | 0              | 10/3/2000              | 10/9/2000              |
| 20000926 | 0    | 0  | 0    | 100   | 0     | 0              | 9/26/2000              | 10/2/2000              |
| 20000919 | 0    | 0  | 0    | 0     | 100   | 0              | 9/19/2000              | 9/25/2000              |
| 20000912 | 0    | 0  | 0    | 0     | 100   | 0              | 9/12/2000              | 9/18/2000              |
| 20000905 | 0    | 0  | 0    | 0     | 100   | 0              | 9/5/2000               | 9/11/2000              |
| 20000829 | 0    | 0  | 0    | 0     | 53.65 | 46.35          | 8/29/2000              | 9/4/2000               |
| 20000822 | 0    | 0  | 0    | 0     | 53.65 | 46.35          | 8/22/2000              | 8/28/2000              |
| 20000815 | 0    | 0  | 0    | 0     | 55.07 | 44.93          | 8/15/2000              | 8/21/2000              |
| 20000808 | 0    | 0  | 0    | 0     | 55.07 | 44.93          | 8/8/2000               | 8/14/2000              |
| 20000801 | 0    | 0  | 0    | 0     | 0     | 100            | 8/1/2000               | 8/7/2000               |
| 20000725 | 0    | 0  | 0    | 0     | 0     | 100            | 7/25/2000              | 7/31/2000              |
| 20000718 | 0    | 0  | 0    | 0     | 0     | 100            | 7/18/2000              | 7/24/2000              |
| 20000711 | 0    | 0  | 0    | 0     | 0     | 100            | 7/11/2000              | 7/17/2000              |
| 20000704 | 0    | 0  | 0    | 0     | 0     | 100            | 7/4/2000               | 7/10/2000              |
| 20000627 | 0    | 0  | 0    | 0     | 0.42  | 99.58          | 6/27/2000              | 7/3/2000               |
| 20000620 | 0    | 0  | 0    | 0     | 4.91  | 95.09<br>89.87 | 6/20/2000<br>6/13/2000 | 6/26/2000<br>6/19/2000 |
| 20000613 | 0    | 0  | 0    | 0     | 10.13 | 09.87          | 6/6/2000               | 6/12/2000              |
| 20000530 | 0    | 0  | 0    | 0.39  | 99.61 | 0              | 5/30/2000              | 6/5/2000               |
| 20000530 | 0    | 0  | 0    | 100   | 0     | 0              | 5/23/2000              | 5/29/2000              |
| 20000516 | 0    | 0  | 0    | 100   | 0     | 0              | 5/16/2000              | 5/22/2000              |
| 20000510 | 0    | 0  | 0    | 100   | 0     | 0              | 5/9/2000               | 5/15/2000              |
| 20000502 | 0    | 0  | 0    | 100   | 0     | 0              | 5/2/2000               | 5/8/2000               |
| 20000425 | 0    | 0  | 0    | 100   | 0     | 0              | 4/25/2000              | 5/1/2000               |
| 20000418 | 0    | 0  | 0    | 100   | 0     | 0              | 4/18/2000              | 4/24/2000              |
| 20000411 | 0    | 0  | 100  | 0     | 0     | 0              | 4/11/2000              | 4/17/2000              |
| 20000404 | 0    | 0  | 100  | 0     | 0     | 0              | 4/4/2000               | 4/10/2000              |
| 20000328 | 0    | 0  | 100  | 0     | 0     | 0              | 3/28/2000              | 4/3/2000               |
| 20000321 | 0    | 0  | 100  | 0     | 0     | 0              | 3/21/2000              | 3/27/2000              |
| 20000314 | 0    | 0  | 100  | 0     | 0     | 0              | 3/14/2000              | 3/20/2000              |
| 20000307 | 0    | 0  | 100  | 0     | 0     | 0              | 3/7/2000               | 3/13/2000              |
| 20000229 | 0    | 0  | 100  | 0     | 0     | 0              | 2/29/2000              | 3/6/2000               |
| 20000222 | 0    | 0  | 100  | 0     | 0     | 0              | 2/22/2000              | 2/28/2000              |
| 20000215 | 0    | 0  | 100  | 0     | 0     | 0              | 2/15/2000              | 2/21/2000              |
| 20000208 | 0    | 0  | 100  | 0     | 0     | 0              | 2/8/2000               | 2/14/2000              |

| MapDate  | None | D0 | D1    | D2    | D3 | D4 | ValidStart | ValidEnd  |
|----------|------|----|-------|-------|----|----|------------|-----------|
| 20000201 | 0    | 0  | 100   | 0     | 0  | 0  | 2/1/2000   | 2/7/2000  |
| 20000125 | 0    | 0  | 100   | 0     | 0  | 0  | 1/25/2000  | 1/31/2000 |
| 20000118 | 0    | 0  | 97.48 | 2.52  | 0  | 0  | 1/18/2000  | 1/24/2000 |
| 20000111 | 0    | 0  | 97.48 | 2.52  | 0  | 0  | 1/11/2000  | 1/17/2000 |
| 20000104 | 0    | 0  | 10.55 | 89.45 | 0  | 0  | 1/4/2000   | 1/10/2000 |

#### U.S. Drought Monitor Georgia



# March 20, 2018

(Released Thursday, Mar. 22, 2018)

Valid 8 a.m. EDT

|   | Dro    | ught Co | ondition | Drought Conditions (Percent Area) | cent Ar | ea)  |
|---|--------|---------|----------|-----------------------------------|---------|------|
|   | None   | D0-D4   | D1-D4    | D0-D4 D1-D4 D2-D4 D3-D4           | D3-D4   | D4   |
| Current                                 | 33.92  | 66.08   | 49.86    | 10.42                             | 0.00    | 0.00 |
| Last Week<br>03-13-2018                 | 31.80  | 68.20   | 51.71    | 7.46                              | 0.00    | 0.00 |
| 3 Months Ago<br>12-19-2017              | 23.87  | 76.13   | 38.44    | 0.00                              | 0.00    | 0.00 |
| Start of<br>Calendar Year<br>01-02-2018 | 12.14  | 87.86   | 40.66    | 0.00                              | 0.00    | 0.00 |
| Start of<br>Water Year<br>09-26-2017    | 100.00 | 0.00    | 0.00     | 0.00                              | 0.00    | 0.00 |
| One Year Ago<br>03-21-2017              | 38.50  | 61.50   | 26.89    | 19.08                             | 6.94    | 0.00 |

#### <u>Intensity:</u>

D0 Abnormally Dry

D3 Extreme Drought

D1 Moderate Drought

D2 Severe Drought

D4 Exceptional Drought

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

#### NCEI/NESDIS/NOAA Chris Fenimore

Author:



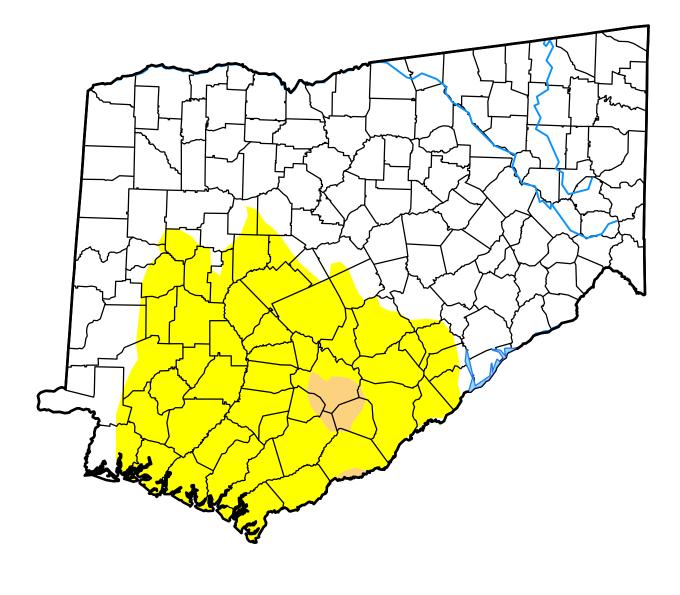






http://droughtmonitor.unl.edu/

#### U.S. Drought Monitor Georgia



# March 19, 2019

(Released Thursday, Mar. 21, 2019) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

|   |        | D0-D4 | D1-D4 | D0-D4 D1-D4 D2-D4 D3-D4 | D3-D4 |   |
|---|--------|-------|-------|-------------------------|-------|---|
| Current                                 | 66.71  | 33.29 | 1.27  | 0.00                    | 0.00  | 0 |
| Last Week<br>03-12-2019                 | 72.77  | 27.23 | 0.00  | 0.00                    | 0.00  | 0 |
| 3 Months Ago<br>12-18-2018              | 100.00 | 0.00  | 0.00  | 0.00                    | 0.00  | 0 |
| Start of<br>Calendar Year<br>01-01-2019 | 100.00 | 0.00  | 0.00  | 0.00                    | 0.00  | 0 |
| Start of<br>Water Year<br>09-25-2018    | 70.95  | 29.05 | 6.72  | 0.00                    | 0.00  |   |
| One Year Ago<br>03-20-2018              | 33.92  | 66.08 | 49.86 | 10.42                   | 0.00  |   |
|   |        |       |       |                         |       |   |

#### <u>Intensity:</u>

D0 Abnormally Dry

D3 Extreme Drought

D4 Exceptional Drought

D2 Severe Drought D1 Moderate Drought

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

#### Jessica Blunden NCEI/NOAA

Author:









http://droughtmonitor.unl.edu/

#### Wildfire

A wildfire is any uncontrolled fire occurring on undeveloped land that needs fire suppression. The potential for wildfire is influenced by three factors: the presence of fuel, the area's topography and air mass. There are three different classes of wildland fires. A surface fire is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire is usually started by lightning and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around. Wildfires by lightning have a very strong probability of occurring during drought conditions. Drought conditions make natural fuels (grass, brush, trees, dead vegetation) more fire-prone.

Hancock County is comprised of 306,560 acres with acres 31,963 (10.4 percent) dedicated to agricultural and 258,542 acres (84.4 percent) dedicated to forestry. Given the right weather conditions and variables, wildfire due to natural causes creates a potential threat to the lives and property of residents in the planning area. According to Georgia Forestry data, from 1957 to 2018, there have been 2,493 fire events burning a total of 17,730 acres for an average extent of 7.1 acres. Of these 2,493 fire events, 123 were a result of lightning strikes which burned 2,977 acres. Based on best available data, 123 wildfire events as a result of lightning occurred in the unincorporated areas of the county. Based on a 20-year hazard cycle there is a 245 percent chance of an annual wildfire due to a lightning strike or statistically the county can expect 2.45 wildfires as a result of lightning annually.

The 31 critical facilities with a wildfire hazard score greater than zero have an estimated potential loss of more than \$24 million. The loss for all critical facilities is \$30,420,487. According to FEMA Worksheet #3a there are 28,230 structures/properties with a population of 9,429 with a value of slightly more than \$1 billion worth of assets countywide.

### Wildfire By Acres and Cause

| CY         TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         BAIL         CHILD         MISC           1957         0.00         <   | 0.34   | 3.59  | 0.00  | 10.06  | 37.38  | 89.27  | 0.81   | 0.75   | 15.03  | 157.23 | 1988 |
|---|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|------|
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBR         ARSON         RAIL         CHILD           0.00  | 5.16   | 0.00  | 0.00  | 171.71 | 41.53  | 281.11 | 11.15  | 7.21   | 68.22  | 586.09 | 1987 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBR         ARSON         RAIL         CHILD           0.00  | 12.43  | 0.00  | 0.00  | 99.34  | 250.12 | 81.96  | 9.83   | 0.74   | 350.11 | 804.53 | 1986 |
| TOTAL         LIGHT         MACHI         CAMP         SYMOKE         DEBRI         ARSON         RAIL         CHILD           0.000         0.00         | 19.42  | 2.30  | 0.00  | 66.07  | 88.06  | 219.82 | 46.73  | 0.16   | 0.30   | 442.86 | 1985 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         BAIL         CHILD           0.000         | 26.74  | 14.07 | 3.90  | 105.91 | 90.96  | 330.95 | 3.21   | 2.25   | 3.54   | 581.53 | 1984 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 4.93   | 0.00  | 0.00  | 2.04   | 38.29  | 43.56  | 0.00   | 4.96   | 14.78  | 108.56 | 1983 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBR         ARSON         RAIL         CHILD           0.00  | 32.97  | 2.67  | 0.00  | 23.97  | 112.80 | 67.61  | 0.00   | 19.47  | 0.00   | 259.49 | 1982 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 93.94  | 5.25  | 0.00  | 25.23  | 114.80 | 122.71 | 23.42  | 25.49  | 5.39   | 416.23 | 1981 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 40.42  | 1.20  | 0.00  | 47.30  | 65.79  | 44.55  | 0.00   | 16.20  | 6.90   | 222.36 | 1980 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 18.00  | 36.85 | 0.00  | 0.00   | 50.40  | 42.90  | 1.00   | 93.57  | 0.00   | 242.72 | 1979 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 36.42  | 8.59  | 0.00  | 35.75  | 235.45 | 198.57 | 127.11 | 2.67   | 0.10   | 644.66 | 1978 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 163.63 | 23.27 | 0.00  | 157.72 | 99.72  | 21.76  | 0.00   | 132.01 | 10.66  | 608.77 | 1977 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 77.86  | 44.77 | 0.00  | 0.80   | 58.22  | 19.41  | 0.00   | 3.21   | 0.50   | 204.77 | 1976 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 2.89   | 1.15  | 0.10  | 7.81   | 21.66  | 13.14  | 0.00   | 0.10   | 1.75   | 48.60  | 1975 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 37.54 | 8.33   | 38.48  | 64.43  | 0.00   | 6.01   | 0.25   | 155.04 | 1974 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 85.72 | 0.24   | 33.50  | 75.23  | 1.84   | 12.57  | 0.00   | 209.10 | 1973 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 8.70  | 78.95  | 3.86   | 9.70   | 0.00   | 6.46   | 2.07   | 109.74 | 1972 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 21.17 | 91.40  | 11.30  | 41.69  | 0.00   | 5.90   | 0.00   | 171.46 | 1971 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 47.14 | 179.64 | 47.20  | 10.61  | 14.21  | 9.37   | 0.00   | 308.17 | 1970 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD         CHILD         COMID         0.00         0.00         CHILD         CHI | 0.00   | 0.00  | 10.10 | 15.04  | 37.21  | 83.37  | 6.25   | 2.00   | 89.60  | 243.57 | 1969 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD         CHILD           0.00  | 0.00   | 0.00  | 0.00  | 22.29  | 16.82  | 58.69  | 0.00   | 18.11  | 0.00   | 115.91 | 1968 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD         CHILD           0.00  | 0.00   | 0.00  | 27.18 | 23.21  | 91.28  | 46.95  | 2.00   | 3.63   | 0.00   | 194.25 | 1967 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 30.76 | 46.70  | 110.75 | 59.00  | 1.20   | 60.34  | 00.0   | 308.75 | 1966 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1965 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 00.0   | 0.00   | 1964 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1963 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1962 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1961 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1960 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 00.0   | 0.00   | 1959 |
| TOTAL         LIGHT         MACHI         CAMP         SMOKE         DEBRI         ARSON         RAIL         CHILD           0.00   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1958 |
| TOTAL LIGHT MACHI CAMP SMOKE DEBRI ARSON RAIL CHILD   | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 1957 |
|   | MISC   | CHILD | RAIL  | ARSON  | DEBRI  | SMOKE  | CAMP   | MACHI  | LHBIT  | TOTAL  | Q    |

### Wildfire By Acres and Cause

| 52.11     17.70       136.96     51.27       77.48     37.81       59.44     60.61       49.63     15.47       52.97     52.97       131.65     34.60       74.32     39.65       110.81     107.72       37.43     1.39       41.18     13.27       73.21     0.00       57.25     2.27       271.35     57.05       15.15     70.41       76.47     12.09 |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>28.33<br>6.39<br>61.40<br>19.22<br>33.11<br>33.11 | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82 0.00 121.68 0.00 25.22 0.00 | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>237.03<br>403.87<br>303.22<br>78.93<br>288.34<br>78.74<br>442.32<br>218.70 | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1998<br>1999<br>2000<br>2001<br>2001<br>2003<br>2003<br>2004 |
|---|--------------|----------|--|--|---|--|
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>28.33<br>6.39<br>61.40<br>19.22<br>3.37           | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82 0.00 121.68 0.00 25.22 0.00 | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>403.87<br>303.22<br>78.93<br>288.34<br>78.74<br>442.32                     | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1997<br>1998<br>2000<br>2000<br>2001<br>2002<br>2003<br>2004 |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>28.33<br>6.39<br>61.40<br>19.22                   | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82 0.00 121.68 0.00            | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>403.87<br>303.22<br>78.93<br>288.34<br>78.74                               | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1998<br>1999<br>2000<br>2001<br>2001<br>2003                 |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>28.33<br>6.39<br>61.40                            | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82 0.00 121.68                 | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>403.87<br>303.22<br>78.93<br>288.34  | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1998<br>1999<br>2000<br>2000<br>2001                         |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>14.22<br>28.33<br>6.39                            | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82 0.00                        | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>403.87<br>303.22<br>78.93  | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1997<br>1998<br>1999<br>2000<br>2001                         |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>28.33<br>6.39                                     | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82                             | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>403.87<br>303.22<br>78.93  | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1998<br>1999<br>2000   |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22<br>28.33   | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73 180.82                             | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03<br>403.87   | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1998<br>1999   |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20<br>14.22  | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52 4.73                                    | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03   | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997<br>1998   |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71<br>40.20   | 0.00 3.03 361.46 5.51 253.32 0.22 0.10 70.52   | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90<br>237.03   | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997   |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15<br>70.71  | 0.00<br>3.03<br>361.46<br>5.51<br>253.32<br>0.22                                     | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05<br>334.90   | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996<br>1997   |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07<br>4.15   | 0.00<br>3.03<br>361.46<br>5.51<br>253.32<br>0.22                                     | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04<br>184.05   | 1990<br>1991<br>1992<br>1993<br>1994<br>1995<br>1996   |
|   |              |          | 142.50<br>25.80<br>3.23<br>39.07   | 0.00<br>3.03<br>361.46<br>5.51<br>253.32   | 259.60<br>92.85<br>341.38<br>621.26<br>169.16<br>391.04   | 1990<br>1991<br>1992<br>1993<br>1994<br>1995   |
|   |              |          | 142.50<br>25.80<br>3.23  | 0.00<br>3.03<br>361.46<br>5.51   | 259.60<br>92.85<br>341.38<br>621.26<br>169.16   | 1990<br>1991<br>1992<br>1993<br>1994   |
|   |              |          | 142.50   | 0.00<br>3.03<br>361.46   | 259.60<br>92.85<br>341.38<br>621.26   | 1990<br>1991<br>1992<br>1993   |
|   |              |          | 142.50   | 0.00<br>3.03   | 259.60<br>92.85<br>341.38   | 1990<br>1991<br>1992   |
|   |              |          | 1.10   | 0.00   | 259.60<br>92.85   | 1990<br>1991   |
|   |              |          | 1 15   |  | 259.60  | 1990   |
| 47.46 85.03   | 71 66 47 46  |          | 17.99  | 27.48  |   |  |
| 5.19 41.35  | 8.05 5.19    | 0.00     | 9.98   | 0.00   | 68.09   | 1989   |
| 37.38 10.06   | 89.27 37.38  | 0.81 8   | 0.75   | 15.03  | 157.23  | 1988   |
| 41.53 171.71  | 281.11 41.53 | 11.15 28 | 7.21   | 68.22  | 586.09  | 1987   |
| 54.84 0.00  | 33.80 54.84  | 0.00 3:  | 6.74   | 4.56   | 212.74  | 1999   |
|   | 6.05 74.35   | 0.00 6   | 40.20  | 70.52  | 237.03  | 1998   |
| 131.65 34.60  | 47.18 131.65 | 11.92 4  | 70.71  | 0.10   | 334.90  | 1997   |
| 52.97 52.97   | 0.88 52.97   | 44.21 C  | 4.15   | 0.22   | 184.05  | 1996   |
| 49.63 15.47   | 32.37 49.63  | 0.00 3:  | 39.07  | 253.32   | 391.04  | 1995   |
| 59.44 58.47   | 36.93 59.44  | 0.00 3   | 3.23   | 5.51   | 169.16  | 1994   |
| 77.48 37.81   | 59.33 77.48  | 8.24 5   | 25.80  | 361.46   | 621.26  | 1993   |
| 136.96 51.05  | 3.91 136.96  | 0.00 3   | 142.50   | 3.03   | 341.38  | 1992   |
| 52.11 15.42   | 21.04 52.11  | 0.08 2   | 1.15   | 0.00   | 92.85   | 1991   |
| 47.46 84.33   | 71.66 47.46  | 1.03 7   | 17.99  | 27.48  | 259.60  | 1990   |
| 5.19 39.37  | 8.05 5.19    | 0.00     | 9.98   | 0.00   | 68.09   | 1989   |
| DEBRI ARSON   | SMOKE DEBRI  | CAMP SN  | MACHI  | LIGHT  | TOTAL   | CY   |

### Wildfire By Acres and Cause

|        |       |      |       |        |       |       |       | 2977.50 | 17729.96 |      |
|--------|-------|------|-------|--------|-------|-------|-------|---------|----------|------|
| 0.00   | 0.00  | 0.00 | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00    | 0.00     | 2019 |
| 3.50   | 0.00  | 0.00 | 0.00  | 1.00   | 0.00  | 0.00  | 0.10  | 0.00    | 4.60     | 2018 |
| 3.00   | 0.00  | 0.00 | 0.00  | 75.65  | 0.00  | 0.00  | 47.50 | 10.10   | 136.25   | 2017 |
| 20.02  | 0.10  | 0.00 | 0.00  | 24.48  | 2.00  | 55.92 | 29.65 | 0.00    | 132.17   | 2016 |
| 1.45   | 0.00  | 0.00 | 0.00  | 13.30  | 0.00  | 1.00  | 0.10  | 10.60   | 26.45    | 2015 |
| 137.90 | 0.00  | 0.00 | 3.00  | 57.20  | 10.20 | 0.00  | 14.40 | 8.70    | 231.40   | 2014 |
| 27.96  | 0.00  | 0.00 | 0.00  | 138.08 | 0.00  | 4.20  | 3.00  | 0.00    | 173.24   | 2013 |
| 55.43  | 0.00  | 0.00 | 2.33  | 120.17 | 0.00  | 3.10  | 34.10 | 31.50   | 246.63   | 2012 |
| 75.55  | 14.40 | 0.00 | 3.60  | 194.78 | 0.12  | 0.00  | 18.51 | 279.63  | 586.59   | 2011 |
| 2.55   | 0.00  | 0.00 | 4.70  | 69.79  | 0.00  | 0.00  | 26.15 | 0.00    | 103.19   | 2010 |
| 13.70  | 0.00  | 0.00 | 14.80 | 46.96  | 0.00  | 0.00  | 36.04 | 16.50   | 128.00   | 2009 |
| 3.80   | 6.36  | 0.00 | 1.10  | 162.19 | 0.00  | 0.00  | 26.09 | 82.63   | 282.17   | 2008 |
| MISC   | CHILD | RAIL | ARSON | DEBRI  | SMOKE | CAMP  | MACHI | LIGHT   | TOTAL    | СҮ   |

# Wildfire by # of Annual Events and Cause

| 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977   | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 | 1957     | СУ      |
|------|------|------|------|------|------|------|------|------|------|------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|---------|
| 3 56 | 7 83 | 5 90 | 5 86 | 4 85 | 33   | 2 40 | 1 77 | ) 58 | 9 41 | 84   | 7 93   | 5 48 | 5 22 | 1 60 | 3 58 | 2 28 | 1 41 | ) 45 | 9 44 | 3 43 | 7 39 | 5 50 | 0    | 1 0  | 3 0  | 2 0  | 0    | 0    | 9 0  | 0    | 7 0      | Total   |
| 4    | 5    | 13   | 1    | 1    | 2    | 0    | 1    | 3    | 0    | 1    | 2      | 1    | 1    | 1    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | LIGHT   |
|      |      |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |          | MACHI   |
| 7    | 7    | 5    | 2    | 2    | ω    | ω    | 4    | 2    | 2    | 4    | 8      | ω    | 1    | 4    | 6    | 5    | 8    | 4    | 1    | 9    | 2    | 11   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | CAMP    |
| 2    | 5    | 1    | 3    | 2    | 0    | 0    | 4    | 0    | 2    | ω    | 0      | 0    | 0    | 0    | 1    | 0    | 0    | ω    | 2    | 0    | 1    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | SMOKE   |
| 14   | 24   | 17   | 20   | 31   | 10   | 7    | 13   | 7    | 12   | 23   | 17     | 9    | 6    | 25   | 26   | 6    | 6    | 7    | 14   | 15   | 16   | 17   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        |         |
| 17   | 19   | 26   | 29   | 19   | 13   | 13   | 15   | 20   | 11   | 29   | 24     | 20   | 6    | ∞    | 14   | 4    | 9    | 12   | 12   | 12   | 10   | 11   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | DEBRI   |
| 3    | 8    | 13   | 18   | 12   | ω    | 5    | 18   | 9    | 0    | 4    | 12     | 2    | 3    | 11   | 1    | 8    | 13   | 11   | 12   | 7    | 5    | 3    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | ARSON   |
|      |      |      |      |      |      |      |      |      |      |      |        |      |      | 11   | 10   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | RAIL    |
| 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 1    | 1    | 0    | 4    | 5    | ∞    | 2    | 0    | 5    | 6    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        |         |
| ω    | 0    | 0    | 1    | ω    | 0    | ω    | 4    | 2    | 7    | 4    | ر<br>ت | ㅂ    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | CHILD M |
| 6    | 15   | 15   | 12   | 14   | 2    | 9    | 18   | 15   | 7    | 16   | 25     | 12   | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | MISC    |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-RES   |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-AG    |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-SIT   |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-HOU   |
|      |      |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-LC    |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-XRX   |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | <u> </u> |         |
| 0    | 0    |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | D-OTH   |

# Wildfire by # of Annual Events and Cause

|       |        |       |      |       |              |        |   |    |  |           |   |    | 123      | 2493 |      |
|-------|--------|-------|------|-------|--------------|--------|---|----|--|-----------|---|----|----------|------|------|
| 0     | 0 0    | 0     | 0    | 0     | 0            | 0      | 0 | 0  | 0                                      | 0         | 0 | 0  | 0        | 0    | 2019 |
| 1     | 0 0    | 0     | 0    | 0     | 2            | 0      | 0 | 0  | ъ                                      | 0         | 0 | 1  | 0        | 4    | 2018 |
| ω     | 1 2    | 2     | 2    | 2     | 4            | 0      | 0 | 0  | 12                                     | 0         | 0 | 4  | 1        | 21   | 2017 |
| ω     | 1 0    | 2     | 1    |       | 12           | Ъ      | 0 | 0  | 11                                     | ъ         | 2 | 5  | 0        | 32   | 2016 |
| 1     | 0 0    | 0     | 0    | 2     | 1            | 0      | 0 | 0  | ω                                      | 0         | ㅂ | 1  | 1        | 7    | 2015 |
| 7     | 0 0    | 1     | 0    |       | 12           | 0      | 0 | 2  | 15                                     | ₽         | 0 | ω  | ъ        | 34   | 2014 |
| 8     |        | 0     | 2    | 2     | 4            | 0      | 0 | 0  | 12                                     | 0         | 1 | ω  | 0        | 20   | 2013 |
| 6     | 1 0    | 2     | 0    |       | 19           | 0      | 0 | 2  | 14                                     | 0         | 2 | 2  | ω        | 42   | 2012 |
| 22    | 0 0    | 1     | ω    |       | 16           | 2      | 0 | 2  | 29                                     | ₽         | 0 | 14 | 11       | 75   | 2011 |
| 9     |        | 1     |      | 1     | G.           | 0      | 0 | ω  | 12                                     | 0         | 0 | 14 | 0        | 34   | 2010 |
| 4     | 0 0    | 0     | 0    |       | <sub>σ</sub> | 0      | 0 | 7  | <sub>σ</sub>                           | 0         | 0 | 5  | 1        | 23   | 2009 |
| 11    |        | 1     |      |       | 2            | Ь      | 0 | 2  | 22                                     | 0         | 0 | 7  | ∞        | 42   | 2008 |
| 11    | 0 2    | 0     |      |       | ω            | 0      | 0 | 2  | 24                                     | 0         | 2 | 5  | 6        | 42   | 2007 |
| 4     | 0 2    | 2     | ω    | 5     | ω            | 0      | 0 | 6  | 17                                     | 0         | ㅂ | 9  | 2        | 38   | 2006 |
| 5     |        | 2     | 0    |       | 1            | 0      | 0 | ₽  | 12                                     | 0         | 0 | 20 | 0        | 34   | 2005 |
| 11    | 0 1    | 4     | 2    |       | 8            | 1      | 1 | 2  | 27                                     | 4         | 1 | 6  | 1        | 51   | 2004 |
| 1     |        | ω     |      | ω     | 0            | 0      | 0 | 2  | 12                                     | 0         | 0 | ∞  | 0        | 22   | 2003 |
| 0     | 0 0    | 1     | 0    | 0 (   | 6            | 2      | 0 | 0  | 20                                     | 0         | 0 | 17 | 3        | 48   | 2002 |
| 0     |        | 0     |      |       | 5            | 0      | 1 | 3  | 14                                     | 2         | 2 | 10 | 0        | 37   | 2001 |
| 0     |        | 0     | 0    |       | 11           | 1      | 1 | 1  | 20                                     | 2         | 0 | 5  | <b>∞</b> | 49   | 2000 |
| 0     | 0 0    | 0     | 0    | 0     | 10           | 0      | ω | 2  | 30                                     | ω         | 2 | 6  | ω        | 59   | 1999 |
| 0     | 0 0    | 0     | 0    | 0 (   | 10           | 2      | 0 | 6  | 20                                     | 1         | 0 | 10 | 5        | 54   | 1998 |
| 0     | 0 0    | 0     | 0    | 0 (   | 6            | 3      | 0 | 8  | 22                                     | 1         | 2 | 5  | 1        | 48   | 1997 |
| 0     | 0 0    | 0     | 0    | 0     | 8            | 1      | 1 | 2  | 22                                     | 2         | 2 | 9  | 2        | 49   | 1996 |
| 0     | 0 0    | 0     | 0    | 0     | 4            | 1      | 0 | 4  | 19                                     | 6         | 0 | 7  | ω        | 44   | 1995 |
| 0     | 0 0    | 0     | 0    | 0     | 3            | 0      | 0 | 7  | 14                                     | 5         | 0 | 4  | 2        | 35   | 1994 |
| 0     | 0 0    | 0     | 0    | 0     | 7            | 0      | 2 | 18 | 16                                     | <u></u>   | Ь | 4  | 11       | 67   | 1993 |
| 0     | 0 0    | 0     | 0    | 0     | ω            | 0      | 0 | 10 | 14                                     | 6         | 0 | 1  | ω        | 37   | 1992 |
| 0     | 0 0    | 0     | 0    | 0     | 6            | 0      | 0 | 9  | 17                                     | 6         | Ь | 4  |          | 44   | 1991 |
| 0     | 0 0    | 0     | 0    | 0 (   | 5            | 1      | 0 | 16 | 15                                     | 11        | 1 | 4  | 6        | 59   | 1990 |
| 0     | 0 0    | 0     | 0    | 0 (   | 9            | 0      | 0 | 7  | 7                                      | 6         | 0 | 7  | 2        | 38   | 1989 |
| 7-XXX | ר<br>ר | 7-1-0 | 7-01 | D-A-O | ט-אנט        | ולוט כ |   |    | ָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָר | טואוס זיר |   |    | -        | - 0  | -    |

# Critical Facilites by Wildfire Hazard Score

| Jurisdiction      | Name                                | Hazard<br>Score Value | Replacement<br>Value Year | Building<br>size | Content Functional Use value | Facility type  | Risk Da  | Daytime Nighttime Occupancy |
|-------------------|-------------------------------------|-----------------------|---------------------------|------------------|------------------------------|--|--|-----------------------------|
| Hancock<br>County | Betty Hill Senior Citizen<br>Center | 0 582923              | 3 2014                    | 2500             |                              | 0 Government, Water/Sewer                                    | Vulnerable<br>Population                       | 25                          |
| Hancock           | Hancock Central High                | 3 800000              | ) 2014                    | 25000            |                              | 0 Education, K - 12  | Vulnerable<br>Population                       | 455                         |
| Hancock<br>County | Hancock County<br>Courthouse        | 3 8096000             |                           |                  | 1000000                      | Law Enforcement, Law Enforcement, Court House, O Court House | Essential, High<br>Potential Loss,<br>Historic | 18                          |
| Hancock<br>County | Hancock County EMS                  | 1 50000               | 2014                      | 3000             |                              | 0 Government, Water/Sewer                                    | Essential, Lifeline                            | 4 2                         |
| Hancock<br>County | Hancock County Fire<br>Station      | 3 966215              | 5 2014                    | 2000             | 9000000                      | Emergency Services, Fire O Fighters                          | Essential                                      | 1                           |
| Hancock<br>County | Hancock County Fire<br>Station #2   | 2 75000               | 2014                      | 2400             | 250000                       | Emergency Services, Fire O Fighters                          | Essential                                      | 0                           |
| Hancock<br>County | Hancock County Health Department    | 3 818284              | 1 2014                    | 6360             | 10977 1631                   | 1 Government, Water/Sewer                                    | Essential, Lifeline                            | 60                          |
| Hancock<br>County | Hancock County Library              | 3 1478909             | 9 2014                    | 7575             | 907608                       | O Education, Library   | Important                                      | 65                          |
| Hancock           | Hancock County Magistrate           | 3 800000              | ) 2014                    | 8000             |                              | Law Enforcement, Court  O House                              | Important                                      | 9                           |
| Hancock<br>County | Hancock County Service<br>Center    | ω                     |                           |                  |                              | 0 Education, VoTech  | Important, Vulnerable Population               | 25                          |
| Hancock<br>County | Hancock County Sheriff's Office     | 3 4406220             | 2014                      | 2500             |                              | 0 Law Enforcement, Sheriff                                   | Essential                                      | 2                           |
| Hancock<br>County | Hancock State Prison                | 0 1500000             | 2014                      | 35000            |                              | Law Enforcement, State  O Patrol                             | Vulnerable<br>Population                       | 1595 1575                   |
| Hancock<br>County | Hanock County Development Authority | 3 1137489             | 9 2014                    | 2500             |                              | Law Enforcement, State  O Patrol                             | Important                                      | ω                           |
| Hancock<br>County | Holiday Shores 5-1                  | 1 35000               | 2013                      | 1200             | 3000                         | Emergency Services, Fire O Fighters                          | Essential                                      |                             |

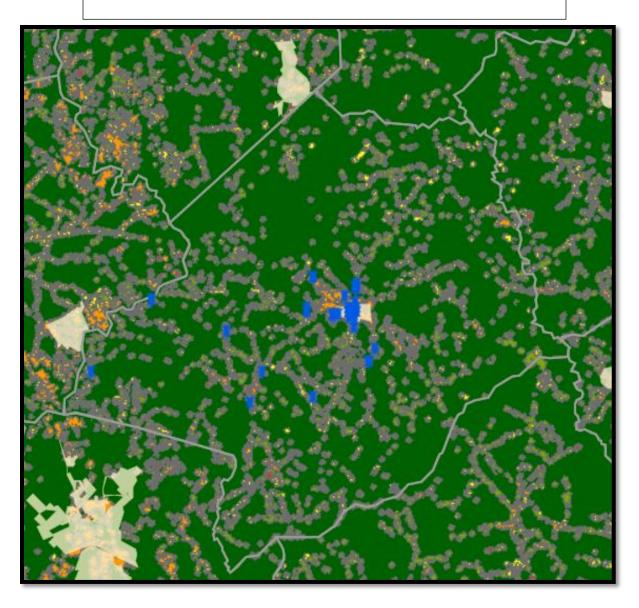
# Critical Facilites by Wildfire Hazard Score

| Jurisdiction      | Name                      | Hazard<br>Score | Value    | Replacement B | Building | Content | Functional Use  <br>                | Risk  | Daytime  | Nighttime<br>Occupancy |
|-------------------|---------------------------|-----------------|----------|---------------|----------|---------|-------------------------------------|---|----------|------------------------|
| Hancock<br>County | Holiday Shores 5-2        |                 | 1 108364 | 2013          | 3000     | 9050    | Emergency Services, Fire 0 Fighters | Essential   |          |                        |
| Hancock<br>County | John Hancock Academy      |                 | 2 200000 | 2014          | 1200     |         | 0 Education, Private                | Vulnerable<br>Population  | 75       |                        |
| Hancock           | M.e. Lewis Elementary     |                 |          |               |          |         |                                     | Essential,<br>Vulnerable  |          |                        |
| County            | School                    |                 | 0 450000 | 2014          | 30000    |         | 0 NGO, Water/Sewer                  | Population  |          |                        |
| Hancock           | Sandersville Technical    |                 | 250000   | 2012          | 15200    |         | O Edination VoTech                  |   | n<br>O   | n<br>O                 |
|                   |                           |                 |          |               |          |         |                                     | Essential,  |          |                        |
| ~                 | Southwest Elementary      |                 |          |               |          |         |                                     | Vulnerable  | 1        |                        |
| County            | School                    |                 | 4 450000 | 2014          | 30000    |         | 0 NGO, Water/Sewer                  | Population  | 642      |                        |
| Hancock<br>County | Tax Commissioner          |                 | 3 500000 | 2014          | 10000    | 30000   | Law Enforcement, State              | Important   | 10       |                        |
| Hancock           | Tri-County Health Systems |                 | 185000   | 2012          | 2100     | 80000   | O Edingation Votoch                 | Free Property of the Property | <b>1</b> |                        |
| ,                 | ,                         |                 |          |               |          |         |                                     | Vulnerable  |          |                        |
| Sparta city       | Providence Nursing Home   |                 | 3 656120 | 2014          | 12000    |         | 0 Government, Water/Sewer           | Population  | 65       | 45                     |
| Sparta city       | Robert L Morgan           |                 | 3 450000 | 2008          | 2800     |         | 0 Education, VoTech                 | Essential, Lifeline   | 15       |                        |
| Sparta city       | Sparta City Hall          |                 | 3 30000  | 2014          | 15000    |         | 0 Government, Private               | Essential   | 2        |                        |
| Sports City       | Sparta Fresh Water        |                 | 0 75,000 | 2017          | 2000     |         | O Government Water/Sewer            | Freential   | <b>ا</b> |                        |
| סטמו נמ כונץ      |                           |                 |          | 1             | 1        |         | 0                                   | 1000  | ,        |                        |
| Sparta city       | Sparta Health Care        |                 | 3 550000 | 2014          | 10000    |         | 0 Government, Water/Sewer           | Essential, Lifeline   | 25       |                        |
| Sparta city       | Sparta Lift Station 1     |                 | 4 100000 | 2014          | 100      |         | 0 Government, Water/Sewer           | Essential, Lifeline   |          |                        |
| Sparta city       | Sparta Lift Station 2     |                 | 0 100000 | 2014          | 100      |         | 0 Government, Water/Sewer           | Essential, Lifeline   |          |                        |
| Sparta city       | Sparta Lift Station 3     |                 | 3 100000 | 2014          | 100      |         | 0 Government, Water/Sewer           | Essential, Lifeline   |          |                        |
| Sparta city       | Sparta Lift Station 4     |                 | 3 100000 | 2014          | 100      |         | 0 Government, Water/Sewer           | Essential, Lifeline   | U        |                        |
| Sparta city       | Sparta Pumping Station    |                 | 1 250000 | 2014          | 1000     |         | 0 Government, Water/Sewer           | Essential, Lifeline   |          |                        |

# Critical Facilites by Wildfire Hazard Score

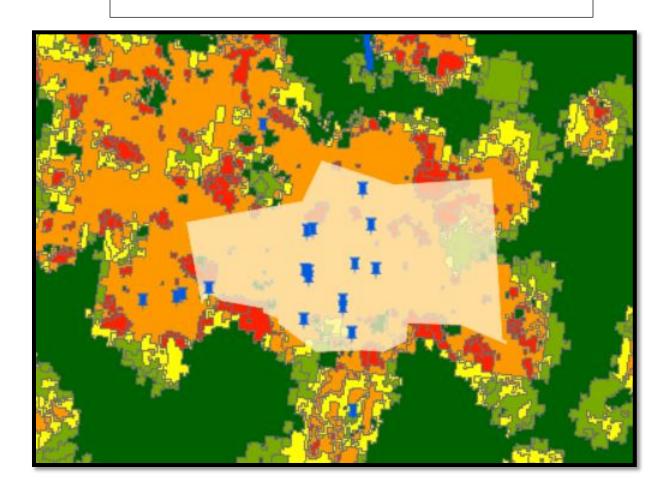
| 72 1683                  | 3172                 |   | 1631                 | 281535 11290635             |                           | 30420487 |                 |                                 |              |
|--------------------------|----------------------|---|----------------------|-----------------------------|---------------------------|----------|-----------------|---------------------------------|--------------|
|                          |                      | 0 Government, Water/Sewer Essential, Lifeline   | 0                    | 100                         | 2014                      | 3 250000 | ω               | Water Tower                     | Sparta city  |
| 0                        |                      | O Government, Water/Sewer Essential, Lifeline   | 0                    | 100                         | 2014                      | 250000   | ь               | Water Tower                     | Sparta city  |
| 0                        |                      | 0 Government, Water/Sewer Essential, Lifeline   | 0                    | 100                         | 2014                      | 250000   | 2               | Water Tower                     | Sparta city  |
|                          |                      | 0 Government, Water/Sewer   Essential, Lifeline | 0                    | 2000                        | 2014                      | 300000   | 1               | Sparta WPCP                     | Sparta city  |
|                          |                      | 0 Government, Water/Sewer   Essential           | 0                    | 2000                        | 2014                      | 500000   | 3               | Sparta Waste Stabilization Pond | Sparta city  |
|                          |                      | 0 Government, Water/Sewer   Essential, Lifeline | 0                    | 1000                        | 2014                      | 250000   | 1               | Sparta city Sparta Waste Pond   | Sparta city  |
| Nighttime<br>V Occupancy | Daytime<br>Occupancy | Facility type Risk                              | Functional Use value | Building Content size value | Replacement<br>Value Year | Value    | Hazard<br>Score | Name                            | Jurisdiction |

#### HANCOCK COUNTY GMIS WILDFIRE RISK MAP

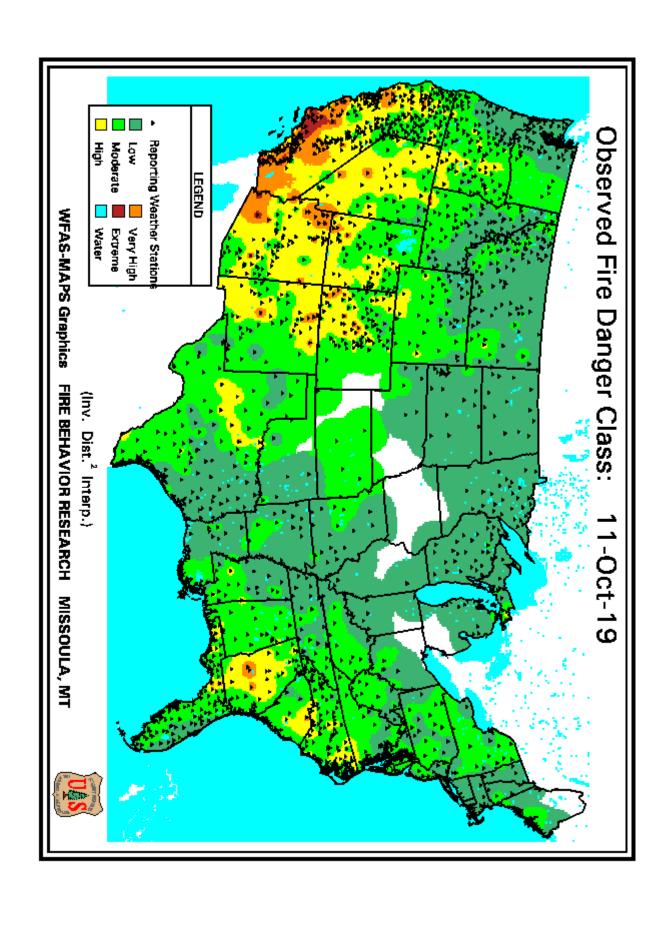


| Score | Description |
|-------|-------------|
| 4     | High        |
| 3     | Moderate    |
| 2     | Low         |
| 1     | Very Low    |
|       | No Houses   |
| 0     | Agriculture |
| U     | Water       |
|       | City        |

#### **SPARTA GMIS WILDFIRE RISK MAP**



| Score | Description |
|-------|-------------|
| 4     | High        |
| 3     | Moderate    |
| 2     | Low         |
| 1     | Very Low    |
|       | No Houses   |
| 0     | Agriculture |
| U     | Water       |
|       | City        |



#### **Severe Weather**

The Hancock County Pre-Disaster Hazard Mitigation Committee reviewed historical data from the county's own weather database, the National Climatic Data Center, newspapers and citizen interviews in researching the past effects of severe weather in Hancock County. The month of February marks the beginning of the severe weather season in the South, which can last until the month of August. Five types of severe weather were identified by the mitigation team: (1) tornados, (2) tropical storms, (3) thunderstorm winds, (4) lightning, and (5) hail.

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm or the result of a hurricane and is produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and wind-blown debris. Tornados are among the most unpredictable and destructive of weather phenomena and can strike at any time of the year if the essential conditions are present. The positions of the subtropical and polar jet streams often are conducive to the formation of storms in the Gulf region.

The second type of severe weather is tropical storms. Tropical Storms are an organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39–73 MPH (34–63 knots). In this area they generally occur as a result of a hurricane or tropical system that has come inland.

The third severe weather event, thunderstorm winds, can cause death and injury, power outages, property damage, and can disrupt telephone service, severely affect radio communications and surface/air transportation which may seriously impair the emergency management capabilities of the affected jurisdictions.

Thunderstorm winds are winds that arise from convection (with or without lightning), with speeds of at least 50 knots (58 mph), or winds of any speed producing a fatality, injury, or damage. Severe thunderstorms develop powerful updrafts and downdrafts. An updraft of warm, moist air helps to fuel a towering cumulonimbus cloud reaching tens of thousands of feet into the atmosphere. A downdraft of relatively cool, dense air develops as precipitation begins to fall through the cloud. Winds in the downdraft can reach in excess of 100 miles per hour. When the downdraft reaches the ground it spreads out forming a gust front: the strong wind that kicks up just before the storm hits. As the thunderstorm moves through the area, the full force of the downdraft in a severe thunderstorm can be felt as horizontal, straight-line winds with speeds well over 50 miles per hour. Straight-line winds are often responsible for most of the damage associated with a severe thunderstorm. Damaging straight-line winds occur over a range of scales. At one extreme, a severe single-cell thunderstorm may cause localized damage from a microburst, a severe downdraft extending not more than about two miles across. In contrast, a powerful thunderstorm complex that develops as a squall line can produce damaging winds that carve a path as much as 100 miles wide and 500 miles long.

The fourth severe weather event is lightning. Lightning results from the buildup and discharge of electrical energy between positively and negatively charged areas. Rising and descending air within a thunderstorm separates these positive and negative charges. Water and ice particles also

affect charge distribution. A cloud-to-ground lightning strike begins as an invisible channel of electrically charged air moving from the cloud toward the ground. When one channel nears an object on the ground, a powerful surge of electricity from the ground moves upward to the clouds and produces the visible lightning strike. Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall.

The final severe weather event is hail. Hailstones are created when strong rising currents of air called updrafts carry water droplets high into the upper reaches of thunderstorms where they freeze. These frozen water droplets fall back toward the earth in downdrafts. In their descent, these frozen droplets bump into and coalesce with unfrozen water droplets and are then carried back up high within the storm where they refreeze into larger frozen drops. This cycle may repeat itself several times until the frozen water droplets become so large and heavy that the updraft can no longer support their weight. Eventually, the frozen water droplets fall back to earth as hailstones.

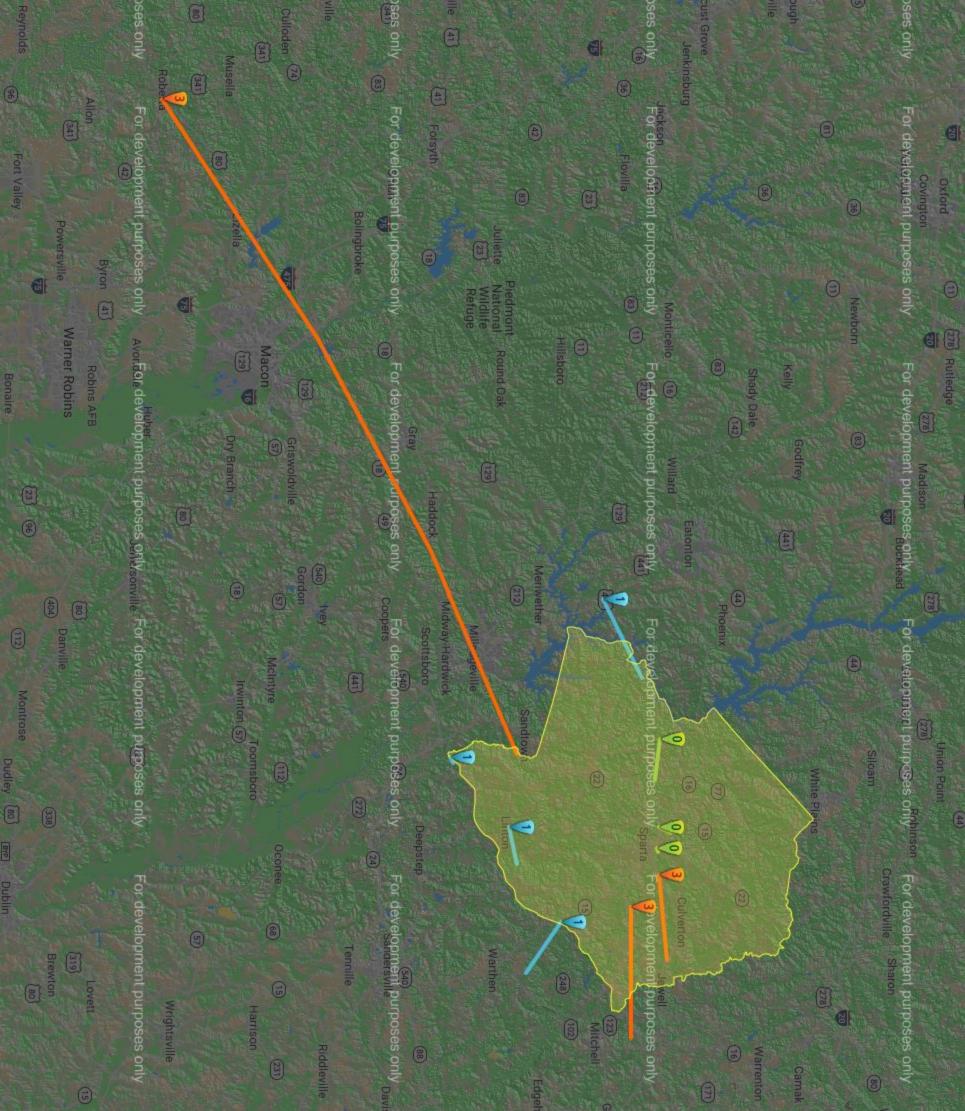
Hail can also be a destructive aspect of severe thunderstorms. Hail causes more monetary loss than any other type of thunderstorm-spawned severe weather in the United States, annually producing about one billion dollars in crop damage. Storms that produce hailstones only the size of a dime can produce dents in the tops of vehicles, damage roofs, break windows and cause significant injury or even death.

| Weather Event      | #   | Fatalities | Injuries | Approximate<br>Property/Crop<br>Damage |
|--------------------|-----|------------|----------|--|
| Tornados           | 10  | 5          | 9        | \$1,400,000                            |
| Tropical Storms    | 18  | 0          | 0        | \$51,400                               |
| Thunderstorm Winds | 86  | 0          | 1        | \$501,228                              |
| Lightning          | 135 | 0          | 0        | \$3,750                                |
| Hail               | 31  | 0          | 0        | \$12,000                               |

To summarize, there are approximately 28,230 structures/properties in the county totaling more than \$1.1 billion with a population of 9,429.

### Tornado Event History Table

| 1560000  | 250000    | 1310000   |       | ъ          | 9        |              |                 |                   |
|--|-----------|-----------|-------|------------|----------|--------------|-----------------|-------------------|
|  | \$0       | \$20,000  | EF0   | 0          | 0        | SHOULDERBONE | Tornado         | 4/3/2017          |
|  | \$0       | \$5,000   | EF1   | 0          | 0        | FRIENDSHIP   | Tornado         | 1/21/2017         |
| \$0 Damage within Hancock county was mostly confined to dozens of snapped or uprooted trees and several downed power lines. Some minor structural damage was reported to homes along the lake. There were no fatalities or injuries reported anywhere with this tornado. | \$0       | \$15,000  | 0 EF0 | 0          | 0        | SANDY RUN    | Tornado         | 4/28/2011 Tornado |
| pecan orchard on Hickory Grove road were flattened. These were owned by a resident adjacent to one of the damaged homes on Hickory Grove Road. One of the homeowners also lost a Shetland pony during the tornado.   |           |           |       |            |          |              |                 |                   |
| other nearby homes on Dunn suffered minor damage and two additional homes on Youngblood Road toward Jewell suffered extensive roof damage. A swath of 116 mature pecan trees at a  |           |           |       |            |          |              |                 |                   |
| resident of this home suffered serious injuries. Another nearby double-wide mobile home was also completely destroyed. Two   |           |           |       |            |          |              |                 |                   |
| home was completely destroyed. The debris from the home was scattered across an area up to 400 feet downstream. A  |           |           |       |            |          |              |                 |                   |
| \$250,000 Along the path of the tornado, one 4000 square foot site-built   | \$250,000 | \$500,000 | EF3   | 1          | 0        | SUNSHINE     | Tornado         | 4/10/2009 Tornado |
| \$0 Numerous large trees were down along the path of the tornado in a primarily rural area. No structural damage was noted in association with this tornado.   | \$0       | \$7,000   | 0 EFO | 0          | 0        | GRANITE HILL | Tornado         | 4/10/2009         |
| \$0 One mobile home suffered moderate damage to its roof, siding, and windows.   | \$0       | \$10,000  | EF0   | 0          | 0        | SPARTA       | Tornado         | 4/10/2009         |
| completely destroyed in the Hickory Grove Community. Hundreds of trees were either uprooted or snapped along the path of the tornado.  |           |           |       |            |          |              |                 |                   |
| A church, two site-built homes, and four mobile homes were   | \$0       | \$500,000 | EF3   | 3          | 1        | CULVERTON    | Tornado         | 2/18/2009         |
| \$0 an EF2 tornado developed in Cherokee county and caused extensive damage to hundreds of homes.  | \$0       | \$500     | 0 EFO | 0          | 0        | EUREKA       | Tornado         | 5/20/2008 Tornado |
|  | \$0       | \$250,000 |       | 1          | 8        | Hancock      | Tornado         | 12/25/1964        |
|  | \$0       | \$2,500   |       | 0          | 0        | Hancock      |                 | 8/12/1956         |
| REMARKS  | CrD       | PrD       | Mag   | FATALITIES | INJURIES | NAME         | Event Type NAME | DATE              |



| HURRICANE AGNES  HURRICANE AGNES  HURRICANE AGNES  Allison, which originated in the Gulf of Mexico near the Texas coast during the heavy rain and flooding to many counties in central and east central Georgia from gh the afternoon of the 13th. While wind was not a problem with this storm, very from the beginning. Spiral bands of heavy rain and some thunderstorms began le Georgia during the afternoon of the 11th, with additional development of heavy scially in eastern areas. The heaviest rain fell from the evening of the 12th through 13th in an area generally bounded by Athens, Eatonton, Milledgeville, In these areas, 24 rainfall amounts of 5 to 8 inches were common, with 10 inches railed the five river miles southeast of Washington in Wilkes county. Two to three day les in several places in this area. The Little River crested at 28.4 feet, exceeding the orded of 26.4 feet. Flooding was also observed on the Oconee River at 25 residents of the Lake Oconee Point Royal neighborhood stranded. These heriff patrol boat to their homes. Over 20 roads were under water in Greene county aliaferro counties were also hard hit with numerous secondary roads and even sornal secondary roads had to be closed, a few of which were even washed out. In authwest part of the county was washed out leaving a 10 foot canyon where the road Animal Hospital had to be evacuated when a nearby creek rising out of its banks. Several rivers, reached or exceeded flood stage, and several flood gates had to be 11 Lake Oconee dams. There were even some reports of downed trees and power 11 Lake Oconee dams. There were even some reports of downed trees and power 11 Lake Oconee dams. | The remnants of Tropical Storm Allison.  first few days of June, brought heavy rai the afternoon of the 11th through the aft heavy rain had been a problem from the affecting east central and middle Georgi rain on the 12th and 13th, especially in the early morning hours of the 13th in au Crawfordville, and Lexington. In these a observed in 24 hours on the Little River rainfall totals exceeded 10 inches in seve previous highest stage ever recorded of 2 Milledgeville with a crest of 33.7, two fe Milledgeville with a crest of 33.7, two fe of flooding rainfall with many roads and br bridge was washed out leaving 25 reside residents had to be ferried by Sheriff pat alone. Putnam, Baldwin, and Taliaferro state highways flooded. Several seconda Pulaski county, a road in the southwest p used to be. In Milledgeville, an Animal I threatened to flood the facility. Several r opened at the Lake Sinclair and Lake Oc | 0 0 0 310 | Hurricane/ |
|--|--|-----------|------------|
|--|--|-----------|------------|

| southern portions of middle Georgia. Athens reported 3.54 inches on September 14th alone, with a 3-day total of 5.03 inches. The average rainfall amount for north Georgia stations for the month was in excess of 7 inches, and was nearly 5 inches for middle Georgia. These rainfall amounts are approximately 3.5 and 1.5 inches above normal, respectively. Several stations, particularly in north Georgia had in excess of 10 inches of rain during the month, with 12.47 inches at Carrollton, 11.23 inches at Embry, 11.02 inches at Alto, 10.10 inches at Hiawassee, and 10.06 inches at Taylorsville. Despite the heavy rainfall, flooding problems were minimal, since north and central Georgia had been in a 4-year drought.  Tropical Depression Bill, which was earlier Tropical Storm Bill, tracked across north and central Georgia during the day bringing heavy rain, flooding, wind damage, and even an isolated tornado to the region. The storm, which formed in the Gulf of Mexico Sunday morning. June 29th, moved inland between New Orleans, Louisiana and Mobile, Alabama on Monday June 30th, then tracked northeast to near Tuscaloosa, Alabama by the morning of July 30th, then turned east-northeast and accelerated. The depression moved between Birmingham, Alabama and Atlanta, Georgia during the aftermoon of July 1st, exiting northeast Georgia after midnight on July 2nd. Twenty-four rainfall totals of four to six inches were common on July 1st across much of north and portions of central Georgia, roughly north of a line from Columbus to Athens. Rainfall amounts were generally in the 1 to 2 inch range south of this line. There were numerous reports of flooding, especially in the Atlanta metropolitan area, and a number of roads were rendered impassable and closed. The ground across north and central Georgia was saturated from a number of weeks of above normal rainfall and the tropical storm rainfall just exacebated the situation. As the center of circulation associated with the tropical storm area central Georgia, a brief file of the proper |
|---|
| Georgia around 2 AM EDT Sunday morning, then exited the state near Clayton, Georgia Sunday morning, Georgia around 2 AM EDT Sunday morning, then exited the state near Clayton, Georgia Sunday morning, Georgia around 2 AM EDT Sunday morning, then exited the state near Clayton, Georgia Sunday morning, September 15th, around 10 am EDT. While the heaviest rain and wind associated with Hanna did not affect north and central Georgia area, a significant northwest -southeast oriented feeder band associated with Hanna moved across north and central Georgia during the mid and late afternoon Saturday. Wind gusts of 45 to 50 mph and very heavy tropical thunderstorms accompanied the feeder band. Numerous trees and power lines were blown down as the feeder band moved rapidly northeast through the afternoon. Many residents of north Georgia were left without power. There were also scattered areas of urban and street flooding as up to 2 inches or more of rain fell in association with the feeder band in a one to two hour period. The heaviest rain fell across the counties north of a line from Atlanta to Athens. Additional rain fell across the region Saturday night and Sunday morning, but was considerably less intense, confined mainly to central Georgia, and was not accompanied with damaging winds. Three day rainfall totals in association with Hanna were in excess of 3 inches across much of northeast, east central, and the   |
| Tropical Storm Hanna moved inland near Mobile, Alabama around 5 pm EDT Saturday, September 14, 2002. The remnants of Hanna then moved northeast across central Alabama during the day Saturday and then across north  |
| PrD CrD   |

| 9/16/2004  | 9/6/2004   | DATE                |
|--|--|---------------------|
| 9/16/2004 Tropical Storm   | 9/6/2004 Tropical Storm  | Event Type          |
| 0  | 0  | INJURIES            |
| 0  | 0  | INJURIES FATALITIES |
| )  |  | Mag                 |
| 0  | 0  | PrD                 |
| 0  | 0  | CrD                 |
| Hurricane Ivan, a classic long-lived Cape Verde hurricane and at three times within its life cycle a category five hurricane, developed from a tropical wave which moved off the African coast on August 31st. The system became a tropical depression on September 2nd, and tropical storm on September 3rd, and a hurricane early on September 5th. Later that same day, it became a major hurricane. Ivan moved westward for several days and passed over the southern Windward islands, then moved west-northwest through the southern Caribbean passing just north of Venezuela and the Netherlands Antilles. The hurricane reached category five strength on September 9th as it neared Jamaica. The storm passed near Grand Cayman and the west tip of Cuba from September 19th as it to a category for storm. The storm passed near Grand Cayman and the west tip of Cuba from September 11th to the 12th as mostly a category four hurricane. The storm then turned to the northwest and moved through the Yucatan Channel. It briefly regained category five strength one more time as it moved through the Caulf, but weakened to a category three hurricane by the time it struck the U.S. Gulf Coast near Gulf Shores, Alabama around 2 am September 16th. From here, the weakening hurricane moved nearly due north to near Birmingham by the evening of the 16th. By this time it had weakened to a tropical storm. The storm then turned northeast across northwest Georgia during the early morning hours of the 17th as it weakened to a tropical depression. Ivan brought tornadoes, high winds, and significant to record flooding to north and central Georgia. The track of Ivan across central and northeast Alabama also put much of central and eastern Georgia in the favorable quadrant for strong spiral feeder bands and tomadoes. Six tornadoes were confirmed with Ivan causing an estimated \$1.4 million ortheast Georgia, with one F10 tornado sightings were reported, but no other tornado touchdowns were confirmed. Flooding was extensive and widespread across the west central, north | Hurricane Frances, at one point a category four hurricane (on the Saffir-Simpson scale) with sustained winds of 145 mph, reached the east coast of Florida just north of West Palm Beach, Florida early on September 5th. The storm weakened to a Tropical Storm as it continued west-northwest across the Central Florida Peninsula reemerging over the northwest Gulf of Mexico early on September 6th. The storm then took on more of a northwestward movement, making landfall later on the 6th near Saint Marks Florida along the Florida Panhandle Gulf Coast. Continuing north-northwestward from this point, Tropical Storm Frances entered far southwest Georgia near Bainbridge late in the evening on the 6th. The storm continued moving north-northwest through far western Georgia on the 7th to near Atlanta around midnight on the 7th, then to near Chattanooga, Tennessee early on the 8th. By far the most significant problem with Frances for Georgia was strong, sustained winds of 35 to 40 mph with gusts in excess of 50 mph. Most of the high winds were concentrated in a large east-west oriented rain band that moved north across Georgia during the evening of the 6th and the early morning hours of the 7th. It was during this period of time that significant damage occurred across many Central, East Central, and North Central Georgia counties. The strongest winds and most significant damage occurred in the areas east and south of a line from Americus, to Atlanta, to Athens. Many of the counties within this area suffered extensive wind damage. Dozens to hundreds of trees were blown down, also bringing down dozens to hundreds of power lines. Nearly 300,000 people were left without power during the storm, several thousand for several days. | REMARKS             |

| Tropical Storm Arlene, which formed on June 8th near the northeast coast of Honduras, became a tropical storm on the 9th southwest of Grand Cayman. Arlene moved slowly northward and steadily intensified as it crossed western Cuba. The storm continued northward over the eastern Gulf of Mexico where it reached its peak intensity with a wind speed of 70 mph. The storm made landfall near Pensacola, Florida with 60 mph on the 10th. The storm moved slowly northward through central and western Alabama on the 11th and 12th. Damage to Georgia from the storm was minimal. While rain occurred in many areas, only one flash flooding event was reported in association with Arlene, namely in Towns county on the 12th.  |        | 0              | 0           | 6/12/2005 Tropical Storm | 6/12/2005 |
|--|--------|----------------|-------------|--------------------------|-----------|
| Hurricane Jeanne was the third major southeast U.S. land falling hurricane to affect Georgia within a three week period, following just 10 days after Hurricane Ivan, which followed just 10 days after Hurricane Frances. Jeanne caused the least damage to north and central Georgia counties of the three tropical systems to affect the state during the month of September. High winds were limited mainly to the southeast portions of middle Georgia and flooding rains were limited to mado-producing spiral feeder bands remained well east over the Carolinas and western Atlantic. Hurricane Jeanne developed on September 13th from a tropical wave over the Leeward Islands. Jeanne moved slowly across the Virgin Islands and Puerto Rico on the 15th, then slowly over the Dominican Republic and Haiti the 16th and 17th. Most of this time, the storm maintained only strong tropical storm. From this point, Jeanne meandered through a slow clockwise loop from the 20th through 23rd, when the both westward track on the 23rd and strengthened to a category two hurricane. Jeanne then began a slow westward track on the 23rd and strengthened to a category three hurricane. Jeanne then began a slow westward track on the 23rd and strengthened to a category three hurricane. Jeanne then began a slow prior. Jeanne weakened to a tropical storm as it turned north-northwest across central Florida on the 25th and then weakened into a tropical depression as it moved into southern Georgia carly on the 27th. The storm tracked from near Valdosta during the early morning hours of the 27th, reaching Macon around sunset on the 27th, then accelerating into northeast Georgia near Athens by midnight and out of the state early on the 28th. High winds of 35 to 40 mph with some higher gusts were confined mainly to the central and southeast portions of middle Georgia, but flooding problems observed in these areas were minor. However, during the evening, a deformation zone developed on the northwest side of the center of circulation around Jeanne over the Atlanta metro |        | 0              | 0           | 9/26/2004 Tropical Storm | 9/26/2004 |
| CrD REMARKS  | ag PrD | FATALITIES Mag | INJURIES F. | Event Type               | DATE      |

### Tropical Storm Event History Table

| 8/21/2008 Тп  | 10/5/2005 Tr  | 8/29/2005 <mark>Н</mark> ъ  | DATE Ev     |
|---|---|---|-------------|
| Tropical Storm  | Tropical Storm  | Hurricane<br>(Typhoon)  | Event Type  |
| 0   | 0   | 0   | INJURIES F. |
| 0   | 0   | 0   | FATALITIES  |
|   |   |   | Mag         |
| 0   | 0   | 0   | PrD CrD     |
| Tropical Storm Fay will be remembered from the catastrophic rainfall that it brought to much of Florida as well as being one of the longer lived tropical systems to affect the U.S. Tropical Storm Fay formed from a tropical wave on August 15th along the east coast of Hispaniola. The storm moved west along the south coast of Cuba before reaching a weakness in the subtropical ridge to its north causing it turn north-northwestward into central Cuba by the 17th. Fay continued to track north-northwest through the Florida straits and Florida Keys on the 18th before turning northeast toward the Florida peninsula. The storm made landfall on August 19th in southwest Florida at Cape Romano as a tropical storm with winds of 60 mph. Fay continued to move very slowly northeast across the central Florida peninsula, well maintaining its strength along the way, reaching the northeast coast of Florida on August 21st. At this point, a strengthening subtropical ridge and surface high over the mid-Atlantic region forced Fay to take a sharp westward turn toward the Florida panhandle. The storm tracked west to west-northwest from the 22nd through the 25th into extreme southeast Louisiana before reaching the western end of the subtropical ridge and an approaching frontal system. Thus, Fay once again turned back toward the northeast across central Mississippi and central/northern Alabama before finally becoming absorbed into the mean flow and a frontal system located across the Tennessee Valley. | Tropical storm Tammy developed just east of the central Florida coast on the 5th of October as the result of a complex interaction between an upper-level low and a tropical wave. The storm quickly strengthened from tropical depression status to a tropical storm early on the 5th about 20 miles east of Cape Canaveral, Florida. The storm moved north-northwest parallel to the Florida coast most of the 5th until it turned northwest and made landfall along the northeast Florida coast near Mayport, Florida late on the 5th. Its maximum sustained winds were only 50 mph. Tammy moved west across south Georgia and southwest Alabama on the 6th before becoming absorbed into an extratropical low pressure area over the Florida Panhandle. The main effects of Tammy on north and central Georgia consisted of approximately two days of a steady light to moderate rain. However from late on the 5th through much of the 6th, bands of heavier rain showers affected much of eastern Georgia. Two-day rainfall totals of three to five inches were common across east Georgia, mostly east of a line from Athens to Dublin. Areas immediately west of this line received generally one to two inches of rain, while the western most counties of Georgia against the Alabama border received less than one inch of rain in association with tropical storm Tammy. No tornadoes occurred and no wind damage or flooding was reported in north or central Georgia in association with Tammy. The rain that fell as a result of Tammy followed a period of nearly 40 days during which most of the region had received less than 0.10 inch of rain. Wind associated with this system across north and central Georgia was for the most part 15 mph or less. | Hurricane Katrina, a horrific category 4 hurricane with winds of 140 mph made landfall just east of New Orleans around 8 am August 29th, continued north-northeast as a hurricane across eastern Mississippi during the day on the 29th, then moved into western and middle Tennessee by early morning on August 30th. While this storm will be most remembered for the extensive devastation that was done to southeast Louisiana, particularly New Orleans, and eastward along the Mississippi Gulf Coast, Katrina was a very large and powerful storm with far reaching effects to the east. By mid-afternoon on August 29th, strong spiral bands of showers and thunderstorms made their way into west Georgia. These spiral bands gradually propagated eastward through the state during the evening and overnight hours. Between 4 pm EDT and 1 am EDT, a total of 16 confirmed tornadoes touched down in north and central Georgia. The first tornado struck northern Heard county at 424 pm EDT, while the last tornado struck the town of Helen in the northeast Georgia mountains shortly after midnight at 1230 am EDT. All together there were three F2 tornadoes, three F1 tornadoes, and ten F0 tornadoes within north and central Georgia. These tornadoes resulted in one fatality and six injuries. Dozens of homes and businesses were destroyed with property damage estimated at \$12,860,000. The poultry industry was particularly hard hit, especially in west Georgia, where the tornadoes in Heard and Carroll counties destroyed over 300,000 chickens in nearly a dozen chicken houses. Strong thunderstorms with damaging winds were also reported in several counties that did not experience any tornadoes. Overall damage associated with Katrina in north and central Georgia was approximately \$14,000,000. |             |
| rought to much of Florida as well as n Fay formed from a tropical wave ag the south coast of Cuba before northwestward into central Cuba by d Florida Keys on the 18th before ugust 19th in southwest Florida at we very slowly northeast across the g the northeast coast of Florida on over the mid-Atlantic region forced toked west to west-northwest from the western end of the subtropical ward the northeast across central and the mean flow and a frontal   | Sth of October as the result of a m quickly strengthened from tropical pe Canaveral, Florida. The storm ned northwest and made landfall kimum sustained winds were only 50 e 6th before becoming absorbed into ts of Tammy on north and central n. However from late on the 5th rm Georgia. Two-day rainfall totals from Athens to Dublin. Areas lle the western most counties of ociation with tropical storm Tammy. or central Georgia in association rly 40 days during which most of the em across north and central Georgia  | le landfall just east of New Orleans iern Mississippi during the day on August 30th. While this storm will Louisiana, particularly New Orleans, owerful storm with far reaching owers and thunderstorms made their ugh the state during the evening and ornadoes touched down in north and T, while the last tornado struck the 30 am EDT. All together there were central Georgia. These tornadoes destroyed with property damage cially in west Georgia, where the early a dozen chicken houses. Strong at did not experience any tornadoes.  |             |

### Tropical Storm Event History Table

|        | 10/10/2018  | 9/11/2017   | 9/4/2011   | 11/10/2009  | DATE                |
|--------|---|---|--|---|---------------------|
|        | Tropical Storm  | 9/11/2017 Tropical Storm  | 9/4/2011 Tropical Storm  | 11/10/2009 Tropical Storm   | Event Type          |
|        | 0   | 0   | 0  | 0   | INJURIES FATALITIES |
|        | 0   | 0   | 0  | 0   |                     |
|        |   |   |  |   | Mag                 |
| 51,114 | 0   | 50,000  | 0  | 0   | PrD                 |
| 420    |   | (   |  |   | CrD                 |
| 51,534 | A National Weather Service survey consisting of an analysis of measured wind data, along with reports from Emergency Managers and various other local, state and federal officials, found that tropical storm conditions occurred in the county. There were numerous reports of trees and power lines blown down. Wind speeds were 0 estimated between 30 and 40 mph. | The news media reported numerous trees and power lines blown down across the county. No injuries were 0 reported. | The remnants of Tropical Storm Lee impact north and central Georgia. | Hurricane Ida moved inland near Mobile, Alabama early on the 10th and then tracked east-northeast across southern Alabama, southern Georgia, and the Florida Panhandle before emerging off the east coast as a strong low pressure system. The remnants of the hurricane combined with a cold air wedge across north Georgia to bring abundant Atlantic and Gulf moisture into the region. Twelve to 18-hour rainfall totals of 4-5 inches across north Georgia aggrevated totally saturated soils from an on of the wettest September and October periods on record to result in widespread creek, stream, and river flooding. The generaly light to moderate intensity of the rainfall and its persistence over a long period of time resulted in limited flash flooding. Damages from Hurricane Ida to Georgia were confined to minor flooding, mostly adjacent to rivers, creeks, and streams. Some locations experienced flooding subsequently for several days. Only 15 to 20 mph winds with some gusts to 25 mph were observed with the remnants of Ida as the tightly concentric wind field weakened rapidly with the inland movement. In addition, no tornadoes were observed with the remnants of Ida as it tracked across the region. Total damages from Ida within the Peachtree City, Georgia forecast area were well less than \$100,000. | REMARKS             |

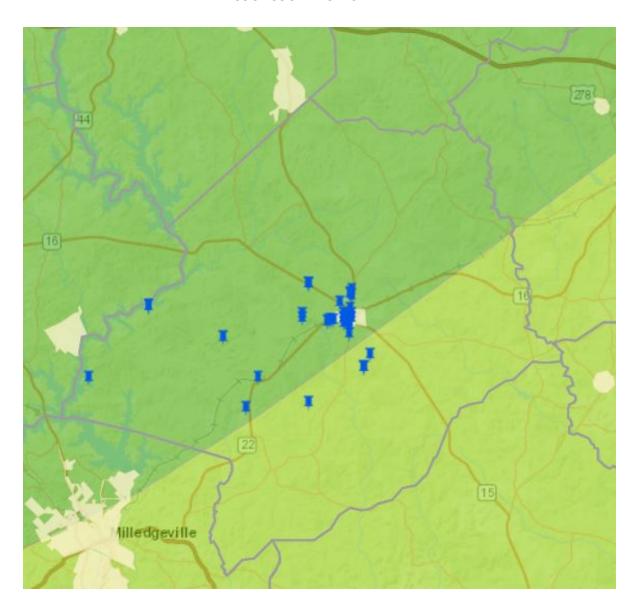
| Wind Hancock 0 0  Thunderstorm Hancock 0 0  Wind Hancock 0 0  Wind Hancock 0 0  Thunderstorm Hancock 0 0 |
|--|
| Hancock 0 Hancock 0  |
| Hancock 0  |
| Hancock 0  |
|  |
| Wind Hancock 0 0   |
| Thunderstorm   |
| Thunderstorm   |
| Hancock 0 0  |
| Thunderstorm   |
| Thunderstorm 0 0   |
| Hancock 0 0  |
|  |
| Thunderstorm 0 0   |
| Hancock 0 0  |
| Thunderstorm   |
| Wind Hancock 0 0   |
| Hancock 0 0  |
|  |
| Hancock 0 0  |
|  |
| Hancock 0 0  |
|  |
| Wind Hancock 0 0   |
| Hancock 0 0  |
| Thunderstorm   |
| NAME INJURIES FATALITIES Mag   |

| 7/31/2002 Wind | 6/3/2001 Wind | 6/3/2001   | 1/19/2001 Wind       | 1/19/2001 Wind | 7/6/1999 Wind   | 7/6/1999 Wind | 7/27/1997                       | 7/27/1997 Wind | 4/22/1997  | 4/22/1997 | 9/21/1996 Wind | 6/8/1996 Wind        | 6/8/1996 Wind                                     |   | 7/26/1995 |  | 7/26/1995            | 5/15/1994 Wind      |   | 5/1/1994 Wind                                       | 3/22/1993 Wind |              | 2/22/1993 Wind                        |              | DATE       |
|----------------|---------------|--|----------------------|----------------|-----------------|---------------|---------------------------------|----------------|--|-----------|----------------|----------------------|---|---|-----------|--|----------------------|---------------------|---|---|----------------|--------------|---------------------------------------|--------------|------------|
| Wind           | Wind          | Wind   | Thunderstorm<br>Wind | Wind           | Wind            | Wind          | Wind                            | Wind           | Wind   | Wind      | Wind           | Wind                 | Wind  | Thunderstorm                                  | Wind      | Thunderstorm   | Thunderstorm<br>Wind | Wind                | Thunderstorm  | Wind  | Wind           | Thunderstorm | Wind                                  | Thunderstorm | Event Type |
| Hancock        | Hancock       | COUNTYWIDE                                       | SPARTA               | Hancock        | SPARTA          | Hancock       | SPARTA                          | Hancock        | SPARTA   | Hancock   | LINTON         | Hancock              | DEVEREUX  |   | Sparta    |  | Hancock              | Sparta              |   | Linton  | Sparta         |              | Sparta                                |              | NAME       |
| 0              | 0             | 0  | 0                    | 0              | 0               | 0             | 0                               | 0              | 0  | 0         | 0              | 0                    | 0   |   | 0         |  | 0                    | 0                   |   | 0   | 0              |              | 0                                     |              | INJURIES   |
|                |               |  |                      |                |                 |               |                                 |                |  |           |                |                      |   |   |           |  |                      |                     |   |   |                |              |                                       |              | FATALITIES |
| 0              | 0             | 0  | 0                    | 0              | 0               | 0             | 0                               | 0              | 0  | 0         | 0              | 0                    | 0   |   | 0         |  | 0                    | 0                   |   | 0   | 0 52           |              | 0 52                                  | c            | Mag        |
| 1000           | 7000          | 7000   | 3000                 | 3000           | 2000            | 2000          | 2000                            | 2000           | 4500   | 4500      | 0              | 2000                 | 2000  |   | 50000     |  | 500                  | 5000                |   | 5000  | 0              |              | 5000                                  |              | PrD        |
| 0              | 0             | 0  | 0                    | 0              | 0               | 0             | 0                               | 0              | 0  | 0         | 0              | 0                    | 0   |   | 0         |  | 0                    | 0                   |   | 0   | 0              |              | 0                                     |              | CrD        |
|                |               | and power lines were down all across the county. |                      |                | on power lines. |               | thunderstorm winds in Mayfield. |                | roads in Sparta, and numerous trees were downed in |           |                | TSTM WIND  TSTM WIND | power line. The roof of one home had roof damage. | Thunderstorm winds knocked down trees and one | _         | Thunderstorm winds knocked trees down on power lines | THUNDERSTORM WIND    | Georgia Highway 16. | Thunderstorm winds downed several large trees along | hickory trees 2W of Linton. Between 30 and 40 homes |                |              | Several large tree limbs were downed. |              | REMARKS    |

| reported that dozens of trees were down across the county, including several on homes. Several people       | C   | 100000 | 0 50 kts. EG | 0          | 0        | DEVEREUX         | Thunderstorm 4/5/2011 Wind     | 4/5/20                   |
|---|-----|--------|--------------|------------|----------|------------------|--------------------------------|--------------------------|
|   | C   | 1000   |              | 0          | 0        | Hancock          | Thunderstorm<br>10 Wind        | Thun:<br>11/30/2010 Wind |
| reported that two trees and one power line were down near Lake Sinclair.                                    | C   | 1000   | 39 kts. EG   | 0          | 0        | DEVEREUX         | Thunderstorm<br>10 Wind        | Thun:<br>11/30/2010 Wind |
|   | 0   | 2000   |              | 0          | 0        | Hancock          | Thunderstorm<br>10 Wind        | Thun:<br>7/31/2010 Wind  |
| trees were down, a couple on power lines. Several downbursts were reported resulting in a number of         | 0   | 2000   | 39 kts. EG   | 0          | 0        | SPARTA           | Thunderstorm<br>7/21/2008 Wind | 7/21/20                  |
| Thunderstorm wind (39EG)  | 0   | 2000   |              | 0          | 0        | Hancock          | Thunderstorm<br>08 Wind        | 7/21/2008                |
| trees and power lines were down throughout the county. Radar data supports that a bow echo moved            | 0   | 5000   | 52 kts. EG   | 0          | 0        | SHOULDERBO<br>NE | Thunderstorm<br>08 Wind        | Thun: 5/20/2008 Wind     |
| Thunderstorm Wind (52EG)  | C   | 5000   |              | 0          | 0        | Hancock          | Thunderstorm<br>08 Wind        | Thun: 5/20/2008 Wind     |
| reported that numerous trees and power lines were<br>down along or near Georgia Highways 22 and 16 from     | 0   | 100000 | 52 kts. EG   | 0          | 0        | DEVEREUX         | Thunderstorm<br>3/1/2007 Wind  | 3/1/20                   |
| reported that two large oak trees were down on power lines on Linton Road along the Hancock/Glascock county | 0   | 1500   | 0 39 kts. EG | 0          | 0        | LINTON           | Thunderstorm<br>06 Wind        | 5/14/2006                |
| Thunderstorm Wind (G39)   | 0   | 1500   |              | 0          | 0        | Hancock          | Thunderstorm<br>06 Wind        | Thun:<br>5/14/2006 Wind  |
|   | 0   | 3000   |              | 0          | 0        | Hancock          | Thunderstorm<br>3/22/2003 Wind | 3/22/20                  |
| The Hancock county 911 center reported that several trees and some power lines were blown down.             | 0   | 3000   | 50 kts. EG   | 0          | 0        | SPARTA           | Thunderstorm<br>03 Wind        | Thun:<br>2/22/2003 Wind  |
|   | C   | 3000   |              | 0          | 0        | Hancock          | Thunderstorm<br>03 Wind        | 2/22/2003                |
| thunderstorm winds ripped off a newly installed metal roof at the Sparta High School. This portion of the   | 0   | 10000  |              | 0          | 0        | SPARTA           | Thunderstorm<br>8/1/2002 Wind  | 8/1/20                   |
|   | 0   | 10000  |              | 0          | 0        | Hancock          | 8/1/2002 Wind                  | 8/1/20                   |
| The Hancock county 911 center reported that several trees were down along Georgia Highway 77 northwest      | C   | 1000   |              | 0          | 0        | SPARTA           |                                | 7/31/2002                |
| REMARKS   | CrD | PrD    | Mag          | FATALITIES | INJURIES | NAME             | Event Type                     | DATE                     |

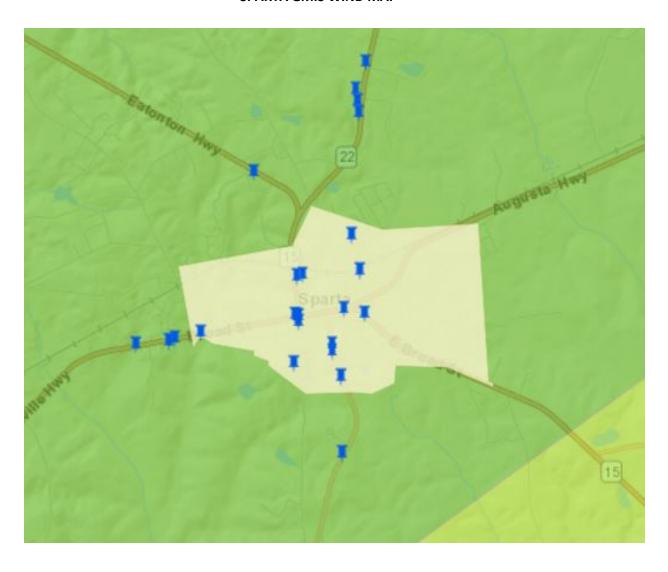
| 681264.47  | 8644.47 | 672620 |            | 0          | 0        |                  |                   |                |
|--|---------|--------|------------|------------|----------|------------------|-------------------|----------------|
|  | 0       | 1000   | 45         | 0          | 0        | SPARTA           | Wind              | 9/26/2018      |
| The Hancock County 911 center reported a tree blown  |         |        |            |            |          |                  | Thunderstorm      |                |
|  | 0       | 6000   | 50         | 0          | 0        | GRANITE HILL     | Wind              | 3/20/2018      |
| power line blown down on Springfield Road near   |         |        |            |            |          |                  | Thunderstorm      |                |
|  |         |        |            |            |          |                  |                   |                |
|  | 0       | 6000   | 50         | 0          | 0        | SPARTA           | Wind              | 4/3/2017       |
| The broadcast media reported trees blown down on Highway 15 between the Dollar General and On-the-   |         |        |            |            |          |                  | Thunderstorm      |                |
| Chapel Road and Highway 16 into downtown Sparta.   | 0       | 12000  | 50         | 0          | 0        | NE               | Wind              | 4/3/2017       |
| blown down from around the intersection of Hunts   |         |        |            |            |          | SHOULDERBO       | Thunderstorm      |                |
| He I I wood Or wat I wood on the Administration of the Administrat |         |        |            |            |          |                  |                   |                |
| blown down and snapped across the county.  | 0       | 20000  | 65         | 0          | 0        | GUM HILL         | Wind              | 3/21/2017 Wind |
| The Washington EMC reported numerous power poles   |         |        |            |            |          |                  | Thunderstorm      |                |
| home.  | 0       | 75000  | 50         | 0          | 0        | GLENFORD         | Wind              | 1/21/2017 Wind |
| west side of Sparta. One tree fell on and destroyed a  |         |        |            |            |          |                  | Thunderstorm      |                |
| numerous trees and power lines blown down on the   |         |        |            |            |          |                  |                   |                |
| The Hancock County Emergency Manager reported  |         |        |            |            |          |                  |                   |                |
| blown down in the Holiday Shores area.   | 0       | 7000   | 50         | 0          | 0        | SANDY RUN        | Wind              | 11/30/2016     |
| The Hancock County 911 center reported several trees   |         |        |            |            |          |                  | Thunderstorm      |                |
| mile post 12.  | 0       | 4000   | 50         | 0          | 0        | NE               | Wind              | 7/6/2016       |
| 16 near Green Springs Road and along Highway 22 near   |         |        |            |            |          | SHOULDERBO       | Thunderstorm      |                |
| trees blown down and blocking the road along Highway   |         |        |            |            |          |                  |                   |                |
| The Georgia Department of Transportation reported  |         |        |            |            |          |                  |                   |                |
|  | 0       | 4000   | 50         | 0          | 0        | MOUNT ZION       | Wind              | 6/28/2016 Wind |
| The Hancock County 911 center reported 6 trees blown   |         |        |            |            |          |                  | Thunderstorm      |                |
| down on Highway 16 near Shoulderbone.  | 0       | 1000   | 45         | 0          | 0        | NE               | Wind              | 8/6/2015       |
| The Hancock County 911 Center reported a tree blown  |         |        |            |            |          | SHOULDERBO       | Thunderstorm      |                |
| couple of large pecan trees blown down in Sparta.  | 0       | 6000   | 50         | 0          | 0        | SPARTA           | Wind              | 6/30/2015      |
| The Hancock County Emergency Manager reported a  |         |        |            |            |          |                  | Thunderstorm      |                |
| The Hancock County 911 Center reported numerous trees down across the county.  | 0       | 5000   | 60 kts. EG | 0          | 0        | SHOULDERBO<br>NE | Thunderstorm Wind | 3/18/2013      |
|  | 0       | 100000 |            | 0          | 0        | Hancock          | Wind              | 4/5/2011       |
|  |         |        |            |            |          |                  | Thunderstorm      |                |
| REMARKS  | CrD     | PrD    | Mag        | FATALITIES | INJURIES | NAME             | Event Type        | DATE           |
|  |         |        |            |            |          |                  |                   |                |

#### HANCOCK COUNTY GMIS WIND MAP



| Score | Original Value   | Description  |
|-------|------------------|--|
| 5     | > 120 mph        | 3 second gust greater than 120 mph   |
| 4     | 110 to 119 mph   |  |
| 3     | 100 to 109 mph   |  |
|       |                  | This score is also given to an area with Zone IV of the "Design Wind Speed |
|       | 90 to 99 mph (or | Map for Community Shelters," representing an area exposed to 250 mph       |
| 2     | ZONE IV)         | winds. This area is the Northwestern corner of the state.                  |
| 1     | < 90 mph         |  |

#### **SPARTA GMIS WIND MAP**



| Score | Original Value   | Description   |
|-------|------------------|---|
| 5     | > 120 mph        | 3 second gust greater than 120 mph  |
| 4     | 110 to 119 mph   |   |
| 3     | 100 to 109 mph   |   |
|       | 90 to 99 mph (or | This score is also given to an area with Zone IV of the "Design Wind Speed Map for Community Shelters," representing an area exposed to 250 mph |
| 2     | ZONE IV)         | winds. This area is the Northwestern corner of the state.   |
| 1     | < 90 mph         |   |

#### Hail Event History Table

| 4/10/2009 Hail   | 7/21/2008 Hail  | 6/15/2008 Hail   | 3/29/2008 Hail                          | 3/15/2008 Hail   | 12/4/2005 Hail                                 | 5/2/2003 Hail   | 5/3/2002 Hail   | 6/4/1999 Hail  | 6/26/1998 Hail | 5/7/1996 Hail   | 3/17/1996 Hail | 4/23/1971 Hail                         | 6/2/1968 Hail               | 7/9/1967 Hail                          | 11/22/1965 Hail             | 3/17/1965 Hail  | 5/21/1964 Hail             | 5/27/1963 Hail   | //1//1962 Hail                        | 5/28/1962 Hail      | 5/16/1962 Hail              | 5/26/1960 Hail               | 3/30/1960 Hail     | <b>DATE Event Type</b> 2/10/1960 Hail |
|--|---|--|---|--|--|---|---|--|----------------|---|----------------|--|-----------------------------|--|-----------------------------|-----------------|----------------------------|--|---------------------------------------|---------------------|-----------------------------|------------------------------|--------------------|---------------------------------------|
| SHOULDERBONE   | SPARTA  | LINTON   | DEVEREUX                                | CULVERTON  | CULVERTON                                      | SPARTA  | SPARTA  | DEVEREUX   | MAYFIELD       | SPARTA  | SPARTA         | Hancock                                | Hancock                     | Hancock                                | Hancock                     | Hancock         | Hancock                    | Напсоск  | Hancock                               | Hancock             | Hancock                     | Hancock                      | Hancock            | NAME<br>Hancock                       |
| 0  | 0   | 0  | 0                                       | 0  | 0  | 0   | 0   | 0  | 0              | 0   | 0              | 0                                      | 0                           | 0                                      | 0                           | 0               | 0                          | 0 0  | 0                                     | 0                   | 0.02                        | 0                            | 0                  | INJURIES FAT                          |
| 0 1.75 in.   | 0 0.75 in.  | 0 1.00 in.   | 0 0.75 in.                              | 0 1.00 in.   | 0 1.00 in.                                     | 0 0.75 in.  | 0 1.00 in.  | 0 1.00 in.   | 0 0.75 in.     | 0 1.00 in.  | 0 0.75 in.     | 0                                      | 0                           | 0                                      | 0                           | 0               | 0                          | 0 0  | 0                                     | 0                   | 0                           | 0                            | 0                  | FATALITIES Mag                        |
| 5000   | 0   | 0  | 0                                       | 0  | 0  | 0   | 0   | 0  | 0              | 0   | 0              | 314.47                                 | 314.47                      | 31.45                                  | 31.45                       | 943.4           | 2380.95                    | 66.67  | 31.45                                 | 111.11              | 43.1                        | 31.45                        | 31.45              | PrD CrD                               |
| The Hancock County Emergency Management Director relayed a report from a weather spotter of golf ball-sized hail in the Shoulderbone area. | The Hancock County Emergency Management Director observed penny-sized hail in downtown Sparta at the court house. | A Hancock County Sheriff's Deputy observed quarter-sized hail in the southern part of Hancock county, north of Linton. | 0 The public observed penny-sized hail. | The public observed quarter-sized hail on the east side of Lake Sinclair. Radar supported 0 quarter or larger-sized hail with two separate storms further north, north and northeast of Sparta in the same time frame. | 0 A storm spotter reported quarter-sized hail. | 0 The Hancock county Emergency Management Director reported penny-sized hail. | The Hancock county 911 center reported quarter size hail. | On the morning of June 4th. a moist and unstable airmass was in place across the Southeast states, including Georgia. As a frontal system moved slowly south from Tennessee into north Georgia, a severe thunderstorm outbreak affected most of north and central Georgia. Large hail was the primary threat, with the wet bulb zero around 10,000 feet. The storms began to form in northwest Georgia around 1 pm local time, and spread south and east throughout the afternoon and into the late evening. The worst 0 damage was reported across the extreme southern part of the Peachtree City warning area. Pulaski County, in south central Georgia, sustained over \$300,000 worth of wind and hail damage, mostly to crops. There were other scattered reports of wind damage from this event, but large hail was the primary severe weather occurrence. Reports from the public and 911 centers indicated over 100 reports of 3/4 of an inch or larger hail, including over five dozen reports of 1 inch size or larger, There were even two reports of hail as large as a baseball and softball in northeast Georgia. | 0              | 0 Hancock county sheriff's office reported quarter size hail. | 0              | 314.47 WIND, RAIN, HAIL, AND LIGHTNING | 0 Wind, hail, and lightning | 314.47 Wind, rain, hail, and lightning | 0 electrical, wind and hail | 0 HAIL AND WIND | 238.1 WIND, RAIN, AND HAIL | 5.1 Wind, Itali, dild Italii<br>6.67 Rain, wind, hail and electrical | 31.45 Wind, hall, rain, and lightning | 11.11 WIND AND HAIL | 43.1 WIND, HAIL, ELECTRICAL | 31.45 WIND, HAIL, ELECTRICAL | 0 WIND, HAIL, RAIN | 0 WIND, RAIN, HAIL                    |

#### Hail Event History Table

| 995,92 12409.81  | 11413.89 995.92 |            |   |              |      |                |
|--|-----------------|------------|---|--------------|------|----------------|
| 0 The public reported Penny-sized hail.  | 0               | 0 0.75     | 0 | SHOULDERBONE | Hail | 8/20/2014 Hail |
| 0 The public reported quarter-sized hail south of Devereux.  | 0               | 0 1.00 in. | 0 | DEVEREUX     | Hail | 7/1/2012 Hail  |
| The Hancock County Emergency Management Director relayed a report of quarter-sized hail from just east-northeast of Beulah in the far south central part of the county.  | 0               | 0 1.00 in. | 0 | LINTON       | Hail | 9/27/2011 Hail |
| The local newspaper of Eatonton reported that the public observed quarter-sized hail near and just west of Shoulderbone in extreme northwest Hancock county.   | 0               | 0 1.00 in. | 0 | SHOULDERBONE | Hail | 6/21/2010 Hail |
| The Hancock County Emergency Management Director relayed a report of golf ball-sized 0 hail from the western part of the county, northwest of Sparta. The public observed golf ball-sized hail just north of Devereux, also in western Hancock county. | 2000            | 0 1.75 in. | 0 | DEVEREUX     | Hail | 3/28/2010 Hail |

### Lightning Eveny History Table

| DATE                 | Event Type          | NAME    | INJURIES | FATALITIES | Mag | PrD     | CrD            |         |
|----------------------|---------------------|---------|----------|------------|-----|---------|----------------|---------|
| 5/26/1960            | 5/26/1960 Lightning | Hancock | 0        | 0          |     | 31.45   | 31.45          |         |
| 5/16/1962            | 5/16/1962 Lightning | Hancock | 0.02     | 0          |     | 43.1    | 43.1           |         |
| 7/17/1962            | 7/17/1962 Lightning | Hancock | 0        | 0          |     | 31.45   | 31.45          |         |
| 8/8/1962             | 8/8/1962 Lightning  | Hancock | 0.01     | 0          |     | 427.35  | 0              |         |
| 5/27/1963            |                     | Hancock | 0        | 0          |     | 66.67   | 6.67           |         |
| 11/22/1965 Lightning |                     | Hancock | 0        | 0          |     | 31.45   | 0              |         |
| 7/9/1967             | 7/9/1967 Lightning  | Hancock | 0        | 0          |     | 31.45   | 314.47         |         |
| 7/22/1967            |                     | Hancock | 0        | 0          |     | 420.17  | 0              |         |
| 6/2/1968             | 6/2/1968 Lightning  | Hancock | 0        | 0          |     | 314.47  | 0              |         |
| 6/29/1969            | 6/29/1969 Lightning | Hancock | 0        | 0          |     | 1020.41 | 0              |         |
| 3/22/1970            | 3/22/1970 Lightning | Hancock | 0        | 0          |     | 314.47  | 0              |         |
| 4/23/1972            |                     | Hancock | 0        | 0          |     | 314.47  | 314.47         |         |
|                      |                     |         |          |            |     | 3046.91 | 741.61 3788.52 | 3788.52 |

| 1                      | 2                    | Essential                              | 0 Law Enforcement,<br>Sheriff        | 0                    |                  | 2500             | 2014                      | 4406220 | 1               | Hancock County<br>Sheriff's Office  | Hancock<br>County |
|------------------------|----------------------|--|--------------------------------------|----------------------|------------------|------------------|---------------------------|---------|-----------------|-------------------------------------|-------------------|
|                        | 23                   | Vulnerable Population                  | ס במעכמנוטו, עטופנוו                 | C                    |                  | 2000             | 2014                      | 394903  | F               | Service Center                      | County            |
|                        | <u>ء</u> ۔           | Important                              | Court House                          |                      |                  | 3500             | 2014                      |         | ــر د           | Magistrate  Magistrate              | County            |
|                        | 65                   | Important                              | Education, Library                   | 0                    | 907608           |                  | 2014                      | 1478909 | . Н             | Hancock County<br>Library           | Hancock<br>County |
|                        | 60                   | Essential,<br>Lifeline                 | Government,<br>Water/Sewer           | 1631                 | 10977            | 6360             | 2014                      | 818284  | 1               | Hancock County<br>Health Department | Hancock<br>County |
|                        | 0                    | Essential                              | Emergency Services,<br>Fire Fighters | 0                    | 250000           | 2400             | 2014                      | 75000   | 1               | Hancock County Fire<br>Station #2   | Hancock<br>County |
|                        | 1                    | Essential                              | Emergency Services,<br>Fire Fighters | 0                    | 9000000          | 2000             | 2014                      | 966215  | 1               | Hancock County Fire<br>Station      | Hancock<br>County |
|                        | ፟                    | Potential Loss, Historic Consideration | Court House,                         |                      | TOOODO           | 40000            | 2018                      | 8096000 | <b>⊢</b>        | Courthouse                          | County            |
|                        | 455                  | Vulnerable Population                  | Education, K - 12                    | 0 0                  | 40000            | 25000            | 2014                      | 800000  | , <u> </u>      | Hancock Central High                | Hancock<br>County |
|                        | 25                   | Vulnerable<br>Population               | 0 Government,<br>Water/Sewer         | 0                    |                  | 2500             | 2014                      | 582923  | 1               | Betty Hill Senior<br>Citizen Center | Hancock<br>County |
|                        |                      | Essential,<br>Lifeline                 | 0 Government,<br>Water/Sewer         | 0                    |                  | 2000             | 2014                      | 300000  | 2               | Sparta WPCP                         | Sparta city       |
|                        |                      | Essential,<br>Lifeline                 | 0 Government,<br>Water/Sewer         | 0                    |                  | 1000             | 2014                      | 250000  | 2               | Sparta Waste Pond                   | Sparta city       |
| 1575                   | 1595                 | Vulnerable<br>Population               | 0 Law Enforcement,<br>State Patrol   | 0                    |                  | 35000            | 2014                      | 1500000 | 2               | Hancock State Prison                | Hancock<br>County |
| 2                      | 4                    | Essential,<br>Lifeline                 | 0 Government,<br>Water/Sewer         | 0                    |                  | 3000             | 2014                      | 50000   | 2               | Hancock County EMS                  | Hancock<br>County |
| Nighttime<br>Occupancy | Daytime<br>Occupancy | Risk                                   |                                      | Functional Use value | Content<br>value | Building<br>size | Replacement<br>Value Year | Value   | Hazard<br>Score | Name                                | Jurisdiction      |

|                        | 25                   | Essential,<br>Lifeline           | Government, Water/Sewer              | 0                    |                  | 10000            | 2014                      | 550000  | 1          | Sparta Health Care                    | Sparta city       |
|------------------------|----------------------|----------------------------------|--------------------------------------|----------------------|------------------|------------------|---------------------------|---------|------------|---------------------------------------|-------------------|
|                        | 1                    | Essential                        | Government,<br>Water/Sewer           | 0                    |                  | 2000             | 2014                      | 750000  | 1          | Sparta Fresh Water<br>Treatment Plant | Sparta city       |
|                        | 2                    | Essential                        | Government, Private                  | 0                    |                  | 15000            | 2014                      | 30000   | 1          | Sparta City Hall                      | Sparta city       |
|                        | 15                   | Essential,<br>Lifeline           | Education, VoTech                    | 0                    |                  | 2800             | 2008                      | 450000  | ь          | Robert L Morgan                       | Sparta city       |
| 45                     | 65                   | Vulnerable<br>Population         | Government,<br>Water/Sewer           | 0                    |                  | 12000            | 2014                      | 656120  | 1          | Providence Nursing<br>Home            | Sparta city       |
|                        | 15                   | Essential                        | Education, VoTech                    | 0                    | 80000            | 3100             | 2014                      | 185000  | Н          | Tri-County Health Systems             | Hancock<br>County |
|                        | 10                   | Important                        | Law Enforcement,<br>State Patrol     | 0                    | 30000            | 10000            | 2014                      | 500000  | 1          | Tax Commissioner                      | Hancock<br>County |
|                        | 7+0                  | Vulnerable Population            | NGO, water/Jewer                     | c                    |                  | 0000             | +107                      | 430000  | F          | Elementary School                     | County            |
| 60                     | 60                   | Important                        | Education, VoTech                    | 0                    |                  | 15200            | 2014                      | 2500000 | <u>د</u> د | Sandersville Technical School         | Hancock<br>County |
|                        |                      | Essential, Vulnerable Population | NGO, Water/Sewer                     | 0                    |                  | 30000            | 2014                      | 450000  | ı          | M.e. Lewis<br>Elementary School       | Hancock<br>County |
|                        | 75                   | Vulnerable<br>Population         | Education, Private                   | 0                    |                  | 1200             | 2014                      | 200000  | Ь          | John Hancock<br>Academy               | Hancock<br>County |
|                        |                      | Essential                        | Emergency Services,<br>Fire Fighters | 0                    | 9050             | 3000             | 2013                      | 108364  | Д          | Holiday Shores 5-2                    | Hancock<br>County |
|                        |                      | Essential                        | Emergency Services,<br>Fire Fighters | 0                    | 3000             | 1200             | 2013                      | 35000   | щ          | Holiday Shores 5-1                    | Hancock<br>County |
|                        | ω                    | Important                        | Law Enforcement,<br>State Patrol     | 0                    |                  | 2500             | 2014                      | 1137489 | ц          | Hanock County Development Authority   | Hancock<br>County |
| Nighttime<br>Occupancy | Daytime<br>Occupancy | Risk                             | Facility type                        | Functional Use value | Content<br>value | Building<br>size | Replacement<br>Value Year | Value   | Hazard V   | Name                                  | Jurisdiction      |

| 1683      | 3172                |            |               | 1631           | 11290635 | 281535   |             | 30420487 |        |                       |              |
|-----------|---------------------|------------|---------------|----------------|----------|----------|-------------|----------|--------|-----------------------|--------------|
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 250000   | 1      | Water Tower           | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           | 0                   | Essential, | Government,   | 0              |          | 100      | 2014        | 250000   | ь      | Water Tower           | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           | 0                   | Essential, | Government,   | 0              |          | 100      | 2014        | 250000   | ь      | Water Tower           | Sparta city  |
|           |                     |            | Water/Sewer   |                |          |          |             |          |        | Stabilization Pond    |              |
|           |                     | Essential  | Government,   | 0              |          | 2000     | 2014        | 500000   | ь      | Sparta Waste          | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        | Station               |              |
|           |                     | Essential, | Government,   | 0              |          | 1000     | 2014        | 250000   | ы      | Sparta Pumping        | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | ы      | Sparta Lift Station 4 | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | ы      | Sparta Lift Station 3 | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | ы      | Sparta Lift Station 2 | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | 1      | Sparta Lift Station 1 | Sparta city  |
| Occupancy | Occupancy Occupancy |            |               | value          | value    | size     | Value Year  |          | Score  |                       |              |
| Nighttime | Daytime             | Risk       | Facility type | Functional Use | Content  | Building | Replacement | Value    | Hazard | Name                  | Jurisdiction |
|           |                     |            |               |                |          |          |             |          |        |                       |              |

| 1                      | 2                    | Essential                              | 0 Law Enforcement,<br>Sheriff        | 0                    |                  | 2500             | 2014                      | 4406220 | 1               | Hancock County<br>Sheriff's Office  | Hancock<br>County |
|------------------------|----------------------|--|--------------------------------------|----------------------|------------------|------------------|---------------------------|---------|-----------------|-------------------------------------|-------------------|
|                        | 23                   | Vulnerable Population                  | ס במעכמנוטו, עטופנוו                 | C                    |                  | 2000             | 2014                      | 394903  | F               | Service Center                      | County            |
|                        | <u>ء</u> ۔           | Important                              | Court House                          |                      |                  | 3500             | 2014                      |         | ــر د           | Magistrate  Magistrate              | County            |
|                        | 65                   | Important                              | Education, Library                   | 0                    | 907608           |                  | 2014                      | 1478909 | . Н             | Hancock County<br>Library           | Hancock<br>County |
|                        | 60                   | Essential,<br>Lifeline                 | Government,<br>Water/Sewer           | 1631                 | 10977            | 6360             | 2014                      | 818284  | 1               | Hancock County<br>Health Department | Hancock<br>County |
|                        | 0                    | Essential                              | Emergency Services,<br>Fire Fighters | 0                    | 250000           | 2400             | 2014                      | 75000   | 1               | Hancock County Fire<br>Station #2   | Hancock<br>County |
|                        | 1                    | Essential                              | Emergency Services,<br>Fire Fighters | 0                    | 9000000          | 2000             | 2014                      | 966215  | 1               | Hancock County Fire<br>Station      | Hancock<br>County |
|                        | ፟                    | Potential Loss, Historic Consideration | Court House,                         |                      | TOOODO           | 40000            | 2018                      | 8096000 | <b>⊢</b>        | Courthouse                          | County            |
|                        | 455                  | Vulnerable Population                  | Education, K - 12                    | 0 0                  | 40000            | 25000            | 2014                      | 800000  | , <u> </u>      | Hancock Central High                | Hancock<br>County |
|                        | 25                   | Vulnerable<br>Population               | 0 Government,<br>Water/Sewer         | 0                    |                  | 2500             | 2014                      | 582923  | 1               | Betty Hill Senior<br>Citizen Center | Hancock<br>County |
|                        |                      | Essential,<br>Lifeline                 | 0 Government,<br>Water/Sewer         | 0                    |                  | 2000             | 2014                      | 300000  | 2               | Sparta WPCP                         | Sparta city       |
|                        |                      | Essential,<br>Lifeline                 | 0 Government,<br>Water/Sewer         | 0                    |                  | 1000             | 2014                      | 250000  | 2               | Sparta Waste Pond                   | Sparta city       |
| 1575                   | 1595                 | Vulnerable<br>Population               | 0 Law Enforcement,<br>State Patrol   | 0                    |                  | 35000            | 2014                      | 1500000 | 2               | Hancock State Prison                | Hancock<br>County |
| 2                      | 4                    | Essential,<br>Lifeline                 | 0 Government,<br>Water/Sewer         | 0                    |                  | 3000             | 2014                      | 50000   | 2               | Hancock County EMS                  | Hancock<br>County |
| Nighttime<br>Occupancy | Daytime<br>Occupancy | Risk                                   |                                      | Functional Use value | Content<br>value | Building<br>size | Replacement<br>Value Year | Value   | Hazard<br>Score | Name                                | Jurisdiction      |

|                        | 25                   | Essential,<br>Lifeline           | Government, Water/Sewer              | 0                    |                  | 10000            | 2014                      | 550000  | 1          | Sparta Health Care                    | Sparta city       |
|------------------------|----------------------|----------------------------------|--------------------------------------|----------------------|------------------|------------------|---------------------------|---------|------------|---------------------------------------|-------------------|
|                        | 1                    | Essential                        | Government,<br>Water/Sewer           | 0                    |                  | 2000             | 2014                      | 750000  | 1          | Sparta Fresh Water<br>Treatment Plant | Sparta city       |
|                        | 2                    | Essential                        | Government, Private                  | 0                    |                  | 15000            | 2014                      | 30000   | 1          | Sparta City Hall                      | Sparta city       |
|                        | 15                   | Essential,<br>Lifeline           | Education, VoTech                    | 0                    |                  | 2800             | 2008                      | 450000  | ь          | Robert L Morgan                       | Sparta city       |
| 45                     | 65                   | Vulnerable<br>Population         | Government,<br>Water/Sewer           | 0                    |                  | 12000            | 2014                      | 656120  | 1          | Providence Nursing<br>Home            | Sparta city       |
|                        | 15                   | Essential                        | Education, VoTech                    | 0                    | 80000            | 3100             | 2014                      | 185000  | Н          | Tri-County Health Systems             | Hancock<br>County |
|                        | 10                   | Important                        | Law Enforcement,<br>State Patrol     | 0                    | 30000            | 10000            | 2014                      | 500000  | 1          | Tax Commissioner                      | Hancock<br>County |
|                        | 7+0                  | Vulnerable Population            | NGO, water/Jewer                     | c                    |                  | 0000             | +107                      | 430000  | F          | Elementary School                     | County            |
| 60                     | 60                   | Important                        | Education, VoTech                    | 0                    |                  | 15200            | 2014                      | 2500000 | <u>د</u> د | Sandersville Technical School         | Hancock<br>County |
|                        |                      | Essential, Vulnerable Population | NGO, Water/Sewer                     | 0                    |                  | 30000            | 2014                      | 450000  | ı          | M.e. Lewis<br>Elementary School       | Hancock<br>County |
|                        | 75                   | Vulnerable<br>Population         | Education, Private                   | 0                    |                  | 1200             | 2014                      | 200000  | Ь          | John Hancock<br>Academy               | Hancock<br>County |
|                        |                      | Essential                        | Emergency Services,<br>Fire Fighters | 0                    | 9050             | 3000             | 2013                      | 108364  | Д          | Holiday Shores 5-2                    | Hancock<br>County |
|                        |                      | Essential                        | Emergency Services,<br>Fire Fighters | 0                    | 3000             | 1200             | 2013                      | 35000   | щ          | Holiday Shores 5-1                    | Hancock<br>County |
|                        | ω                    | Important                        | Law Enforcement,<br>State Patrol     | 0                    |                  | 2500             | 2014                      | 1137489 | ц          | Hanock County Development Authority   | Hancock<br>County |
| Nighttime<br>Occupancy | Daytime<br>Occupancy | Risk                             | Facility type                        | Functional Use value | Content<br>value | Building<br>size | Replacement<br>Value Year | Value   | Hazard V   | Name                                  | Jurisdiction      |

| 1683      | 3172                |            |               | 1631           | 11290635 | 281535   |             | 30420487 |        |                       |              |
|-----------|---------------------|------------|---------------|----------------|----------|----------|-------------|----------|--------|-----------------------|--------------|
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 250000   | 1      | Water Tower           | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           | 0                   | Essential, | Government,   | 0              |          | 100      | 2014        | 250000   | ь      | Water Tower           | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           | 0                   | Essential, | Government,   | 0              |          | 100      | 2014        | 250000   | ь      | Water Tower           | Sparta city  |
|           |                     |            | Water/Sewer   |                |          |          |             |          |        | Stabilization Pond    |              |
|           |                     | Essential  | Government,   | 0              |          | 2000     | 2014        | 500000   | ь      | Sparta Waste          | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        | Station               |              |
|           |                     | Essential, | Government,   | 0              |          | 1000     | 2014        | 250000   | ы      | Sparta Pumping        | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | ы      | Sparta Lift Station 4 | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | ы      | Sparta Lift Station 3 | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | ы      | Sparta Lift Station 2 | Sparta city  |
|           |                     | Lifeline   | Water/Sewer   |                |          |          |             |          |        |                       |              |
|           |                     | Essential, | Government,   | 0              |          | 100      | 2014        | 100000   | 1      | Sparta Lift Station 1 | Sparta city  |
| Occupancy | Occupancy Occupancy |            |               | value          | value    | size     | Value Year  |          | Score  |                       |              |
| Nighttime | Daytime             | Risk       | Facility type | Functional Use | Content  | Building | Replacement | Value    | Hazard | Name                  | Jurisdiction |
|           |                     |            |               |                |          |          |             |          |        |                       |              |

#### Winter Storm

Southeastern snow or ice storms often form when an area of low pressure moves eastward across the northern Gulf of Mexico. To produce a significant winter storm in the south, not only must temperatures be cold enough, but there must also be enough moisture in the atmosphere to produce adequate precipitation. A major winter storm can last for several days and be accompanied by high winds, ice and freezing rain, heavy snowfall, and cold temperatures. These conditions can make driving conditions very dangerous, as well as bring down trees and power lines.

There have been 31 recorded winter storms. There is a 75 percent chance of an annual winter storm event. Winter storms can be more accurately predicted than most other natural hazards, making it possible to give advance warning to communities. The National Weather Service issues winter storm warnings and advisories as these storms make their way south. Given the infrequency of these types of storms, southern communities are still not properly equipped to sustain the damage and destruction caused by severe winter storms. To summarize, there are approximately 28,230 structures/properties in the county totaling slightly more than \$1.1 billion with a population of 9,429.

|                                 |         |   | ATAI ITIES | Pro      | 3       | REMARKS   |
|---------------------------------|---------|---|------------|----------|---------|---|
| 5/1961 Winter Weather           | Hancock | 0 | 0          | 314.46   |         | 0 GLAZE AND SLEET   |
|                                 | Hancock | 0 | 0          | 238.1    | 0       | 0 Glaze   |
| 12/13/1962 Winter Weather       | Hancock | 0 | 0          | 314.47   | 3.14    | 3.14 Cold wave  |
| 1/25/1963 Winter Weather        | Hancock | 0 | 0          | 31.45    | 31.45   | Cold wave   |
| 12/31/1963 Winter Weather       | Hancock | 0 | 0          | 31446.54 | 0       | 0 SNOW AND ICE STORM  |
| 1/13/1964 Winter Weather        | Hancock | 0 | 0          | 3.14     | 0       | 0 Snow and sleet  |
| 3/31/1964 Winter Weather        | Hancock | 0 | 0          | 31.45    | 3144.65 | Cold wave   |
| 2/25/1965 Wind - Winter Weather | Hancock | 0 | 0          | 314.47   |         | WIND AND COLD   |
| 1/31/1966 Winter Weather        | Hancock | 0 | 0          | 314.47   | 314.47  | 314.47 SNOW AND COLDWAVE  |
|                                 | Hancock | 0 | 0          | 314.46   | 0       | DVAW G100   |
| Winter Weather                  | Hancock | 0 | 0          | 40000    | 0       | 0 SNOWSTORM   |
|                                 | Hancock | 0 | 0          | 31446.54 | 0       | 0 Extreme Cold  |
| Winter Weather                  | Hancock | 0 | 0          | 5208.33  | 520.83  | snow and sleet  |
| 2/6/1980 Winter Weather         | Hancock | 0 | 0          | 549.45   | 0       | 0 Snow  |
| 1/21/1983 Winter Weather        | Hancock | 0 | 0          | 5208.33  | 0       | 0 Winter Storm  |
| 1/15/1994 Winter Weather        | Hancock | 0 | 0          | 515.46   | 0       | FREEZE  |
| 1/28/2000 Ice Storm             | HANCOCK | 0 | 0          | 32790    |         | A series of short waves in the upper air pattern produced periods of mostly   |
|                                 |         |   |            |          |         | light to occasionally moderate precipitation over the north half of Georgia from<br>Friday morning to Sunday afternoon. Patchy light snow began in west central   |
|                                 |         |   |            |          |         | and northwest Georgia around daybreak on the 28th. There was a light dusting on the ground by mid morning from Troup to Carroll county, east to Fayette county. Due to the dry layer of air aloft, much of the precipitation evaporated |
|                                 |         |   |            |          |         | slow. By evening a mixture of light snow, sleet and freezing rain became more   |
|                                 |         |   |            |          |         | widespread over west central and northwest Georgia. Although the  |
| _                               |         |   |            |          |         | precipitation remained light and temperatures hovered in the low to mid 30s,  |
|                                 |         |   |            |          |         | ice began to accumulate on roads, bridges and overpasses. There was a 47 car<br>pile-up on I-20 in downtown Atlanta late Fridav night that backed up traffic into   |
|                                 |         |   |            |          |         | early Saturday morning. By Saturday morning, the 29th, temperatures had   |
|                                 |         |   |            |          |         | slowly fallen to near or just below the freezing mark over the north half of<br>Georgia with a mix of light freezing drizzle freezing rain, and cleet with light  |
|                                 |         |   |            |          |         | snow in the mountains. The last batch of significant precipitation moved from   |
|                                 |         |   |            |          |         | Alabama into west central Georgia and on into the Atlanta metro area on   |
|                                 |         |   |            |          |         | county. Overall, the event generally produced 1/4 to 1/2 inch of ice  |
|                                 |         |   |            |          |         | accumulation, with isolated areas getting 1/2 to 1 inch of ice. The main  |
|                                 |         |   |            |          |         | problems seemed to be traffic accidents due to icy roads and bridges. There   |
|                                 |         |   |            |          |         | were scattered areas of trees and power lines down, but damage from this  |
|                                 |         |   |            |          |         | storm was nowhere as much as that from the storm the previous weekend.  |
|                                 |         |   |            |          |         |   |
|                                 | Hancock | 0 | 0          | 33333.33 | 0       | ICE STORM   |

| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the Pad, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern united States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm ranged from four to six inches in a large approximately 100 mile wide area centered along a line from La Grange, to Atlanta, to Athens, to Homer. Some areas between Carrollton and Newnan and between Luthersville and Thomaston received from six to eight inches of snow as well as did a few spots in the northeast between Gainesville and Homer. For the southern | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated thro southeastern United States early on the 3rd bringing a burst of north and central Georgia. Snowfall amounts of three to five ir a period of approximately six to eight hours. Total snowfall amounds of three to five ir a period of approximately six to eight hours. Total snowfall amounds area centered along a line from La Grange, to Atlanta, to Homer. Some areas between Carrollton and Newnan and betwend Thomaston received from six to eight inches of snow as we spots in the northeast between Gainesville and Homer. For the  |
|---|--|
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the Znd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm ranged from four to six inches in a large approximately 100 mile wide area centered along a line from La Grange, to Atlanta, to Athens, to Homer. Some areas between Carrollton and Newnan and between Luthersville and Thomaston received from six to eight inches of snow as well as did a few  | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated thro southeastern United States early on the 3rd bringing a burst oil north and central Georgia. Snowfall amounts of three to five in a period of approximately six to eight hours. Total snowfall amound two-day storm ranged from four to six inches in a large approximate wide area centered along a line from La Grange, to Atlanta, to Homer. Some areas between Carrollton and Newnan and betwal and Thomaston received from six to eight inches of snow as well as the control of the control o |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm range from La Grange, to Atlanta, to Athens, to Homer. Some areas between Carrollton and Newnan and between Luthersville  | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated throe southeastern United States early on the 3rd bringing a burst of north and central Georgia. Snowfall amounts of three to five ir a period of approximately six to eight hours. Total snowfall amounds of two-day storm ranged from four to six inches in a large approx wide area centered along a line from La Grange, to Atlanta, to Homer. Some areas between Carrollton and Newnan and betw  |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm ranged from four to six inches in a large approximately 100 mile wide area centered along a line from La Grange, to Atlanta, to Athens, to  | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated throe southeastern United States early on the 3rd bringing a burst of north and central Georgia. Snowfall amounts of three to five ir a period of approximately six to eight hours. Total snowfall amounds of two-day storm ranged from four to six inches in a large approx wide area centered along a line from La Grange, to Atlanta, to   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the Znd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the two-day storm ranged from four to six inches in a large approximately 100 mille   | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated thro southeastern United States early on the 3rd bringing a burst of north and central Georgia. Snowfall amounts of three to five ir a period of approximately six to eight hours. Total snowfall amounds of two-day storm ranged from four to six inches in a large approx   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in a period of approximately six to eight hours. Total snowfall amounts for the   | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated thro southeastern United States early on the 3rd bringing a burst of north and central Georgia. Snowfall amounts of three to five ir a period of approximately six to eight hours. Total snowfall am  |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to north and central Georgia. Snowfall amounts of three to five inches occurred in  | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated throsoutheastern United States early on the 3rd bringing a burst of north and central Georgia. Snowfall amounts of three to five in   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the southeastern United States early on the 3rd bringing a burst of heavy snow to  | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated thro southeastern United States early on the 3rd bringing a burst of  |
| during the two-day event. Modified Arctic air invaded the southeast on  December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward Tennessee. However, a strong upper-level system rotated through the   | day on the 2nd, the heaviest snow, from one to three inches o narrow band that extended from La Grange, to Thomaston, to Snowfall amounts in the Atlanta and Athens area were genera inch on the 2nd, with only trace amounts reported further nor Tennessee. However, a strong upper-level system rotated thro  |
| during the two-day event. Modified Arctic air invaded the southeast on  December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one inch on the 2nd, with only trace amounts reported further north toward   | day on the 2nd, the heaviest snow, from one to three inches o<br>narrow band that extended from La Grange, to Thomaston, to<br>Snowfall amounts in the Atlanta and Athens area were genera<br>inch on the 2nd, with only trace amounts reported further nor  |
| during the two-day event. Modified Arctic air invaded the southeast on  December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson. Snowfall amounts in the Atlanta and Athens area were generally around one  | day on the 2nd, the heaviest snow, from one to three inches o<br>narrow band that extended from La Grange, to Thomaston, to<br>Snowfall amounts in the Atlanta and Athens area were genera   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a narrow band that extended from La Grange, to Thomaston, to Jackson.   | day on the 2nd, the heaviest snow, from one to three inches o<br>narrow band that extended from La Grange, to Thomaston, to  |
| during the two-day event. Modified Arctic air invaded the southeast on  December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the day on the 2nd, the heaviest snow, from one to three inches occurred within a  | day on the 2nd, the heaviest snow, from one to three inches o  |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central Georgia, where a mixture of sleet, snow, and freezing rain occurred. During the   |  |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the precipitation fell as snow, except for the far southeastern counties of central   | Georgia, where a mixture of sleet, snow, and freezing rain occu  |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the southern sections of north Georgia throughout the day on the 2nd. Most of the   | precipitation fell as snow, except for the far southeastern cour   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of light to moderate frozen precipitation across all of central Georgia and the   | southern sections of north Georgia throughout the day on the   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the warm Gulf air over the colder surface air provided for an extended period of  | light to moderate frozen precipitation across all of central Geo   |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east toward Florida. Weak to moderate upper-level support and overrunning of the   | warm Gulf air over the colder surface air provided for an exten  |
| during the two-day event. Modified Arctic air invaded the southeast on December 30, 2001. Then, on Near Year's day a surface low quickly moved east   | toward Florida. Weak to moderate upper-level support and ov  |
| during the two-day event. Modified Arctic air invaded the southeast on  | December 30, 2001. Then, on Near Year's day a surface low qu   |
|   | during the two-day event. Modified Arctic air invaded the sout   |
| large areas of north and central Georgia receiving three to four inches of snow   | large areas of north and central Georgia receiving three to fou  |
| half a foot of snow fell in some areas just south and southwest of Atlanta, with  | half a foot of snow fell in some areas just south and southwest  |
| 1993 began early on the 2nd and continued through mid-day on the 3rd. Over a  | 1993 began early on the 2nd and continued through mid-day c  |
| 1/2/2002 Heavy Snow HANCOCK 0 0 0 0 0 ne of the biggest snow storms to affect north and central Georgia since March   | 0 0 0 0 One of the biggest snow  |
| Event Type NAME INJURIES FATALITIES PrD CrD REMARKS   | FATALITIES PrD CrD   |

| DATE      | Event Type           | NAME    | INJURIES | INJURIES FATALITIES | PrD | CrD | REMARKS  |
|-----------|----------------------|---------|----------|---------------------|-----|-----|--|
| 10/6/2002 | 10/6/2002 Heavy Rain | HANCOCK | 0        | 0                   | 0   | 0   | 0 Above normal rainfall was observed at many locations across north and central    |
|           |                      |         |          |                     |     |     | Georgia during the month. Most of the rain fell during three events on the 7th,    |
|           |                      |         |          |                     |     |     | the 13th, and the 28th. The rainfall on the 7th and 13th was largely caused by     |
|           |                      |         |          |                     |     |     | the combination of residual tropical moisture and stationary frontal systems,      |
|           |                      |         |          |                     |     |     | while the event on the 28th resulted from the remnants of Pacific hurricane        |
|           |                      |         |          |                     |     |     | Kenna, which traveled across mainly the northern one-third of the state. While     |
|           |                      |         |          |                     |     |     | above normal rainfall was not observed uniformly, many stations, especially in     |
|           |                      |         |          |                     |     |     | north Georgia, recorded rainfall totals for the month of October which             |
|           |                      |         |          |                     |     |     | exceeded normal amounts by three inches or more. Atlanta, for example,             |
|           |                      |         |          |                     |     |     | recorded its 10th wettest October on record (since the late 1800s) , with 5.94     |
|           |                      |         |          |                     |     |     | inches of rain falling during the month, which is 2.83 inches above the normal     |
|           |                      |         |          |                     |     |     | rainfall of 3.11 inches. Only a handful of stations reported below normal rainfall |
|           |                      |         |          |                     |     |     | during the month, and even in these cases the rainfall amounts were still within   |
|           |                      |         |          |                     |     |     | one inch of normal. Athens was the only major reporting station with below         |
|           |                      |         |          |                     |     |     | normal rainfall during the month, and even here it was only 0.17 inch below        |
|           |                      |         |          |                     |     |     | normal.  |
|           |                      |         |          |                     |     |     |  |
|           |                      |         |          |                     |     |     |  |

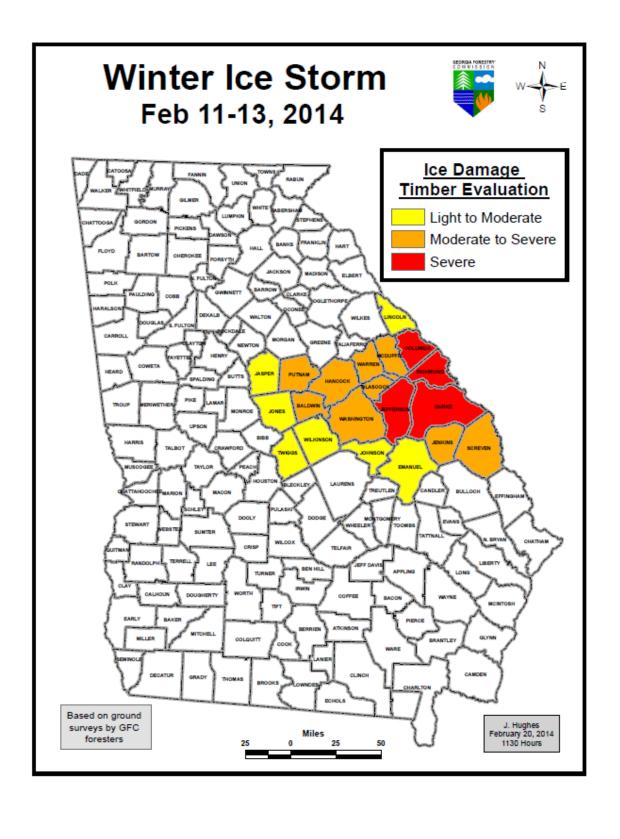
| 0 The Hancock County 911 Center reported only a trace of snowfall across most of the county.  | 0       | 0          |          | HANCOCK    | 2/10/2011 Winter Weather  | 2/10/2011  |
|---|---------|------------|----------|------------|---------------------------|------------|
| 0 The Hancock County 911 Center reported less than 2.0 inches of snow and sleet accumulation across the north part of the county, with ice accumulations from freezing rain/freezing drizzle of less than 0.10 inch.  | 0       | 0          |          | HANCOCK    | 1/10/2011 Winter Storm    | 1/10/2011  |
| 0 The Hancock County 911 Center reported average snowfall across the county of 1.5 inches, with a range of 0.5 to 1.75 inches.  |         | 0          |          | HANCOCK    | 12/25/2010 Winter Weather | 12/25/2010 |
| 0 The Hancock County 911 Center reported 3.0 inches of snow.  | 0       | 0          |          | HANCOCK    | 2/12/2010 Heavy Snow      | 2/12/2010  |
| 00 0 Heavy Snow   | 0 26200 | 0          |          | Hancock    | 3/1/2009 Winter Weather   | 3/1/2009   |
| 0.00K The maximum snowfall reported was 2.0 inches. A few trees and power lines were down.  | 0 3000  | 0          |          | HANCOCK    | 3/1/2009 Heavy Snow       | 3/1/2009   |
| 66 0 Winter Storm   | 979     | 0          |          | Hancock    | 1/30/2005 Winter Weather  | 1/30/2005  |
| North and Central Georgia from the evening of Friday January 28th to late morning on Sunday January 30th. The winter storm affected mearly all of North and Central Georgia from the evening of Friday January 28th to late morning on Sunday January 30th. The winter storm was a result of a very strong and very cold Arctic surface high pressure system located across the Mid-Atlantic states and an upper-level disturbance moving across the region from the west. North of a line from La Grange, to Thomaston, to Sandersville, the precipitation fell mostly as a mixture of sleet and freezing rain, with typical accumulations of one-half inch glaze ice and one to two inches of sleet. Some areas in North Central and Northeast Georgia experienced significant glaze ice accumulations of three-fourths to one inch. Further south, mainly south of a La Grange, to Thomaston, to Sandersville line, most of the frozen precipitation fell as freezing rain, with 1/4 to 1/2 inch accumulations of glaze ice common as far south as McRae, Abbeville, and Americus. In the southern areas, however, the ice accumulations were generally confined to trees, power lines, and other exposed objects with little or no accumulation of ice on the ground. Extensive damage to trees and power lines were reported throughout the area, especially in North Central, Northeast, and Central Georgia. Damage estimates were in the millions. Numerous vehicle accidents were also reported on the slick ice and sleet accumulations by county for this event as well as damage information received for that county. The ice and sleet accumulations by county for this event as well as damage mort Directors. The damage information was provided by the local county/city newspaper. Hancock: 1/2 inch of glaze ice, < 1.0 inch of sleet - A number of trees and power lines down throughout the county. | 150000  | 0          |          | HANCOCK (Z | 1/28/2005 Winter Storm    | 1/28/2005  |
| CrD   |         | FATALITIES | INJURIES | NAME       | Event Type                | DATE       |
|   | 1       |            |          |            |                           |            |

| DATE      | Event Type               | NAME    | INJURIES FATALITIES | :ATALITIES | PrD | CrD | REMARKS   |
|-----------|--------------------------|---------|---------------------|------------|-----|-----|---|
| 1/28/201  | 1/28/2014 Winter Storm   | HANCOCK | 0                   | 0          | 0   |     | 0 A significant winter storm impacted north and central Georgia on the 28th.      |
|           |                          |         |                     |            |     |     | Snow and sleet began Tuesday evening, accumulating to widespread amounts          |
|           |                          |         |                     |            |     |     | of 1 to 3 inches of snow.   |
| 2/12/201  | 2/12/2014 Ice Storm      | HANCOCK | 0                   | 0          | 0   |     | 0 A significant winter storm impacted north and portions of central Georgia on    |
|           |                          |         |                     |            |     |     | Tuesday the 11th and Wednesday the 12th. For areas south of the Atlanta           |
|           |                          |         |                     |            |     |     | Metropolitan area and into central Georgia, the event began Wednesday             |
|           |                          |         |                     |            |     |     | morning the 12th. Rain mixed with and changed over to freezing rain through       |
|           |                          |         |                     |            |     |     | the morning hours, resulting in catastrophic ice accretions of a half to one inch |
|           |                          |         |                     |            |     |     | of ice, with localized higher amounts, especially along the Interstate 20         |
|           |                          |         |                     |            |     |     | corridor. Thousands of trees were downed and widespread power outages             |
|           |                          |         |                     |            |     |     | were reported, with some customers without power for days. The event ended        |
|           |                          |         |                     |            |     |     | as a round of light snow Wednesday evening.                                       |
| 1/17/2018 | 1/17/2018 Winter Weather | HANCOCK | 0                   | 0          | 0   |     | 0 The Hancock County Emergency reported a half of an inch of snow                 |
|           |                          |         |                     |            |     |     | accumulation in Sparta.   |
|           |                          |         |                     |            |     |     |   |

459491.1 4014.54 463505.65

|                        |      | 0                                |                       |                  | 2014              | 450000            | 30000 | Admin. Offices                        | Population   | NGO, Water/Sewer   | 456                            | County            | Elementary                          |
|------------------------|------|----------------------------------|-----------------------|------------------|-------------------|-------------------|-------|---------------------------------------|--|--|--------------------------------|-------------------|-------------------------------------|
|                        |      |                                  |                       |                  |                   |                   |       | Grade Schools and                     | Essential, Vulnerable  |  | HWY 15 RR2 Box                 | Hancock           | M.e. Lewis                          |
|                        | 75   | 0                                |                       |                  | 2014              | 200000            | 1200  | Grade Schools and Admin. Offices      | Vulnerable Population  | Education, Private   | 1100 Linton Road               | Hancock<br>County | John Hancock<br>Academy             |
|                        |      | 0                                | 2013                  | 9050 2013        | 2013              | 108364            | 3000  | Government -<br>Emergency<br>Response | Essential  | Emergency Services,<br>Fire Fighters                       | 3388 Lake Crest                | Hancock           | Holiday Shores 5-                   |
|                        |      | 0                                | 2013                  | 3000 2013        | 2013              | 35000             | 1200  | Government -<br>Emergency<br>Response | Essential  | Emergency Services,<br>Fire Fighters                       | 3388 Lake Crest<br>Drive       | Hancock<br>County | Holiday Shores 5-                   |
|                        | ω    | 0                                |                       |                  | 2014              | 1137489           | 2500  | Government -<br>General Services      | Important  | Law Enforcement,<br>State Patrol                           | Court House<br>Sqaure          | Hancock<br>County | Hanock County Development Authority |
| 1575                   | 1595 | 0                                |                       |                  | 2014              | 1500000           | 35000 | Government -<br>General Services      | Vulnerable Population  | Law Enforcement,<br>State Patrol                           | 701 Prison Blvd                | Hancock<br>County | Hancock State<br>Prison             |
| 1                      | 2    | 0                                |                       |                  | 2014              | 4406220           | 2500  | Government -<br>Emergency<br>Response | Essential  | Law Enforcement,<br>Sheriff                                | 820 Spring St                  | Hancock<br>County | Hancock County<br>Sheriff's Office  |
|                        | 25   | 0                                |                       |                  | 2014              | 394963            | 2500  | Medical Office and<br>Clinic          | Important, Vulnerable<br>Population                          | Education, VoTech  | 75 Boland Circle               | Hancock<br>County | Hancock County<br>Service Center    |
|                        | 9    | 0                                |                       |                  |                   |                   | 8000  | Government -<br>General Services      | Important  | Law Enforcement,<br>Court House                            | Courthouse<br>Square           | ~                 | Hancock County<br>Magistrate        |
|                        | 65   | 0                                | 2008                  | 907608 2008      | 2014              | 1478909           | 7575  | Government -<br>General Services      | Important  | Education, Library   | 8984 E. Broad<br>Street        | Hancock<br>County | Hancock County<br>Library           |
|                        | 60   | 0                                | 2008                  | 10977 2008       | 2014              | 818284            | 6360  | Medical Office and Clinic             | Essential, Lifeline  | Government,<br>Water/Sewer                                 | 516 Boland Street              | Hancock<br>County | Hancock County<br>Health            |
|                        | 0    | 0                                |                       | 250000           | 2014              | 75000             | 2400  | Government -<br>Emergency<br>Response | Essential  | Emergency Services,<br>Fire Fighters                       | 52 Spring Street               | Hancock<br>County | Hancock County<br>Fire Station      |
|                        | 12   | 0                                | 2008                  | 9000000 2008     | 2014              | 966215            | 2000  | Government - Emergency Response       | Essential  | Emergency Services,<br>Fire Fighters                       | 4029 Lake Sinclair<br>Drive    | Hancock<br>County | Hancock County<br>Fire Station #2   |
| 2                      | 4    | 0                                |                       |                  | 2014              | 50000             | 3000  | Government - Emergency Response       | Essential, Lifeline  | Government,<br>Water/Sewer                                 | 656 Linton Road                | Hancock<br>County | Hancock County<br>EMS               |
|                        | 18   | 0                                |                       | 1000000          | 2018              | 8096000           | 40000 | Government -<br>General Services      | Essential, High Potential<br>Loss, Historic<br>Consideration | Law Enforcement, Law Enforcement, Court House, Court House | Courthouse Square,<br>Broad St | Hancock<br>County | Hancock County<br>Courthouse        |
|                        | 455  | 0                                |                       |                  | 2014              | 800000            | 25000 | Grade Schools and Admin. Offices      | Vulnerable Population  | Education, K - 12  | Hwy. 15                        | Hancock<br>County | Hancock Central<br>High             |
|                        | 25   | 0                                |                       |                  | 2014              | 582923            | 2500  | Government -<br>General Services      | Vulnerable Population  | Government,<br>Water/Sewer                                 | 330 Water Works<br>Road        | Hancock<br>County | Betty Hill Senior<br>Citizen Center |
| Nighttime<br>Occupancy | Ċ    | FunctionalV Daytime alue Occupan | Contents<br>ValueYear | Content<br>value | Valuation<br>Year | Building<br>Value | Area  | Occupancy                             | Risk   | FacilityTypes  | Address                        | Jurisdiction      | Name                                |

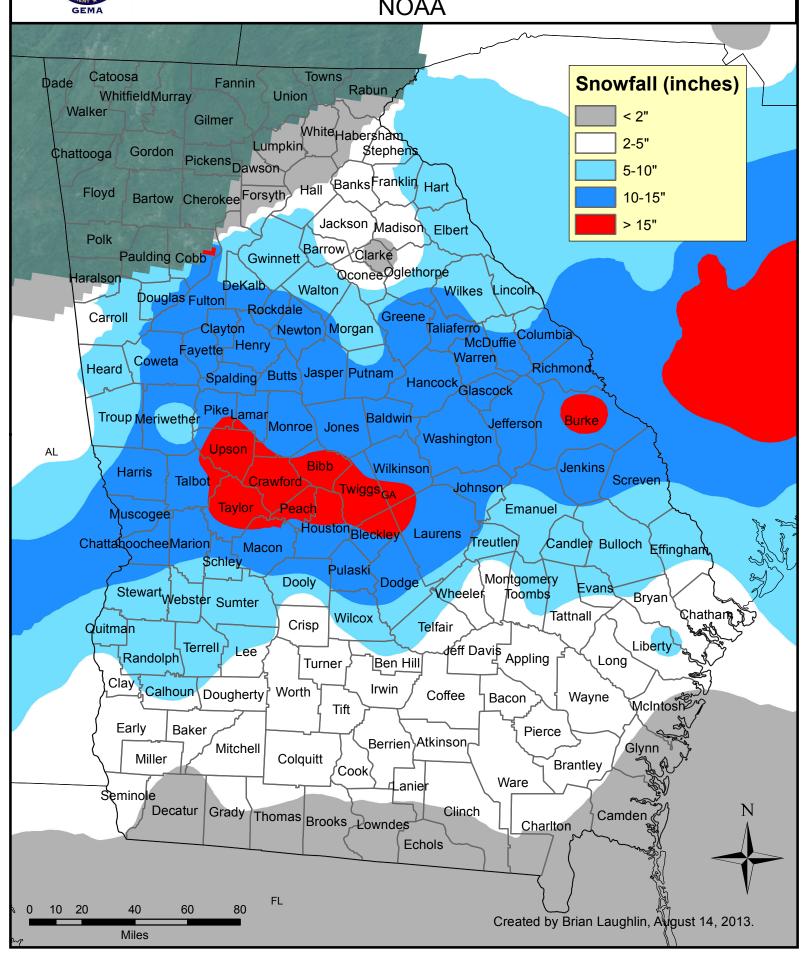
|           |           | 0                   |            |         | 0 2014    | 100 250000 | 10    | General Services     | Essential, Lifeline   | Water/Sewer       | 14265 Hwy 16 E    | Sparta city  | Water Tower         |
|-----------|-----------|---------------------|------------|---------|-----------|------------|-------|----------------------|-----------------------|-------------------|-------------------|--------------|---------------------|
|           |           |                     | _          |         |           |            |       |                      | -                     |                   |                   |              |                     |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       |                   |              |                     |
|           | 0         | 0                   |            |         | 0 2014    | 250000     | 100   | General Services     | Essential, Lifeline   | Water/Sewer       | 295 Lewis Street  | Sparta city  | Water Tower         |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       |                   |              |                     |
|           | 0         | 0                   |            |         | 0 2014    | 100 250000 | 1(    | General Services     | Essential, Lifeline   | Water/Sewer       | Road              | Sparta city  | Water Tower         |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 775 Old Eatonton  |              |                     |
|           |           | 0                   |            |         | 0 2014    | 300000     | 2000  | General Services     | Essential, Lifeline   | Water/Sewer       | Road              | Sparta city  | Sparta WPCP         |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 747 Johnny Britt  |              |                     |
|           |           | 0                   |            |         | 0 2014    | 500000     | 2000  | General Services     | Essential             | Water/Sewer       | Street            | Sparta city  | Stabilization Pond  |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 116 Hancock       |              | Sparta Waste        |
|           |           | 0                   |            |         | 0 2014    | 250000     | 1000  | General Services     | Essential, Lifeline   | Water/Sewer       | Road              | Sparta city  | Pond                |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 747 Johnny Britt  |              | Sparta Waste        |
|           |           | 0                   |            |         | 0 2014    | 250000     | 1000  | General Services     | Essential, Lifeline   | Water/Sewer       | Chaple Road       | Sparta city  | Station             |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 5992 Warren       |              | Sparta Pumping      |
|           |           | 0                   |            |         | 0 2014    | 100000     | 100   | General Services     | Essential, Lifeline   | Water/Sewer       | 11476 Hwy 22      | Sparta city  | 4                   |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       |                   |              | Sparta Lift Station |
|           |           | 0                   |            |         | 0 2014    | 100000     | 100   | General Services     | Essential, Lifeline   | Water/Sewer       | 11051 Hwy 22      | Sparta city  | ω                   |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       |                   |              | Sparta Lift Station |
|           |           | 0                   |            |         | 0 2014    | 100 100000 | 10    | General Services     | Essential, Lifeline   | Water/Sewer       | Hwy 15 N          | Sparta city  | 2                   |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       |                   |              | Sparta Lift Station |
|           |           | 0                   |            |         | 0 2014    | 100 100000 | 1(    | General Services     | Essential, Lifeline   | Water/Sewer       | Street            | Sparta city  | 1                   |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 11962 Broad       |              | Sparta Lift Station |
|           | 25        | 0                   |            |         | 0 2014    | 550000     | 10000 | Profit Organizations | Essential, Lifeline   | Water/Sewer       | 11744 Hwy 22      | Sparta city  | Care                |
|           |           |                     |            |         |           |            |       | Churches and Non-    |                       | Government,       |                   |              | Sparta Health       |
|           | 1         | 0                   |            |         | 0 2014    | 750000     | 2000  | General Services     | Essential             | Water/Sewer       | Station Road      | Sparta city  | Treatment Plant     |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 1427 Pumping      | 7            | Sparta Fresh Water  |
|           | 2         | 0                   |            |         | 0 2014    | 30000      | 15000 | General Services     | Essential             | Private           | Street            | Sparta city  | Sparta City Hall    |
|           |           |                     |            |         |           |            |       | Government -         |                       | Government,       | 12912 Broad       |              |                     |
|           | 15        | 0                   |            |         | 0 2008    | 00 450000  | 2800  | Clinic               | Essential, Lifeline   | Education, VoTech | 432 Boland Street | Sparta city  | Robert L Morgan     |
|           |           |                     |            |         |           |            |       | Medical Office and   |                       |                   |                   |              |                     |
| 45        | 65        | 0                   |            |         | 0 2014    | 00 656120  | 12000 | Nursing Homes        | Vulnerable Population | Water/Sewer       | Street            | Sparta city  | Nursing Home        |
|           |           |                     |            |         |           |            |       |                      |                       | Government,       | 60 Providence     |              | Providence          |
|           | 15        | 0                   | 80000 2008 | 800     | 0 2014    | 00 185000  | 3100  | Clinic               | Essential             | Education, VoTech | Street            | County       | Systems             |
|           |           |                     |            |         |           |            |       | Medical Office and   |                       |                   | 675 Hamilton      | Hancock      | Tri-County Health   |
|           | 10        | 0                   | 00         | 30000   | 0 2014    | 500000     | 10000 | General Services     | Important             | State Patrol      | Square            | County       | Commissioner        |
|           |           |                     |            |         |           |            |       | Government -         |                       | Law Enforcement,  | 64 Courthouse     | Hancock      | Tax                 |
|           | 642       | 0                   |            |         | 0 2014    | 00 450000  | 30000 | Admin. Offices       | Population            | NGO, Water/Sewer  | RR1 Box 261       | County       | School              |
|           |           |                     |            |         |           |            |       | Grade Schools and    | Essential, Vulnerable |                   |                   | Hancock      | Elementary          |
|           |           |                     |            |         |           |            |       |                      |                       |                   |                   |              | Southwest           |
| 60        | 60        | 0                   |            |         | 0 2014    | 2500000    | 15200 | Universities         | Important             | Education, VoTech | 10571 Hwy 15      | County       | Technical School    |
|           |           |                     |            |         |           |            |       | Colleges and         |                       |                   |                   | Hancock      | Sandersville        |
| Occupancy | Occupancy | alue                | -          |         | Year      | Value      | Area  | Occupancy            | Risk                  | FacilityTypes     | Address           | Jurisdiction | Name                |
| Nighttime | Daytime   | FunctionalV Daytime | Contents   | Content | Valuation | Building   |       |                      |                       |                   |                   |              |                     |





#### February 9-11, 1973 Winter Storm

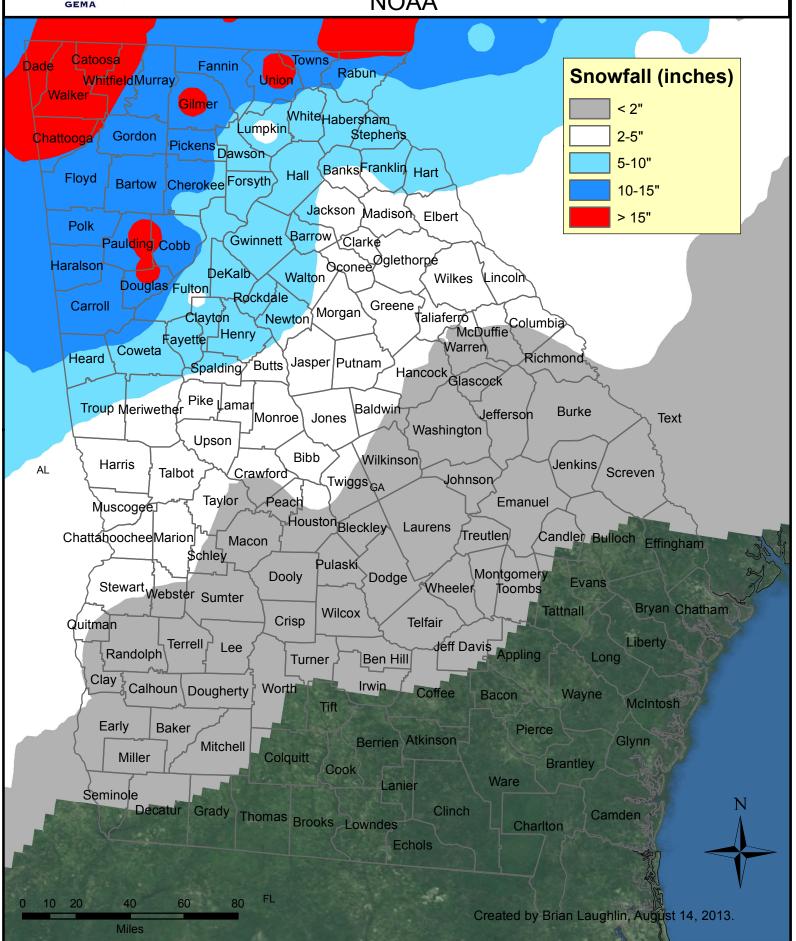
RSI = 12.52, Category 4 NOAA





#### March 12-15, 1993 Winter Storm

RSI = 20.572, Category 5 NOAA





#### January 9-11, 2011 Winter Storm

RSI = 4.158, Category 2 NOAA

