



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Georgia Emergency Response for the Water Sector

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Emergency Preparedness and Response,
ESF 3 Coordinator

**Annual Water Resources
Partnership Meeting**
05/01/2019



EMERGENCY SUPPORT FUNCTION 3 (ESF3)

Emergency Support Function (ESF) for Public Works and Engineering and includes:

- **Drinking Water**
- **Wastewater**
- **Dams**
- **Roads and Bridges (DOT)**
- **Debris Removal (DOT)**





ESF#3: PUBLIC WORKS AND ENGINEERING

- **National Response Framework (NRF)**
- **The Georgia Department of Natural Resources (DNR) Environmental Protection Division (EPD) is responsible for public works and the coordination of safe water and sewer systems during disaster-related incidents.**
- **The Georgia Department of Transportation (GDOT) is tasked with engineering responsibilities and is charged with coordinating the repair, replacement and restoration of public infrastructure (including public roadways and buildings) that have been damaged during a disaster.**

Emergency Support Functions

Lead Agencies

| | | | | |
|---|---|--|---|---|
| #1 Transportation | #2 Communications | #3 Public Works | #4 Fire Fighting | #5 Emergency Mgt |
|  |  |  |  |  |

| | | | | |
|---|---|---|---|---|
| #6 Mass Care | #7 Resource Support | #8 Public Health | #9 Search & Rescue | #10 HAZMAT |
|  |   |  |  |  |

| | | | | |
|--|---|--|--|---|
| #11 Agriculture | #12 Energy | #13 Public Safety | #14 Recovery | #15 External Affairs |
|   |   |    <p>Governor's Office of Consumer Affairs</p> |  |   |



The State Operations Center (SOC) is...

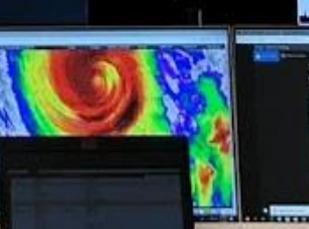
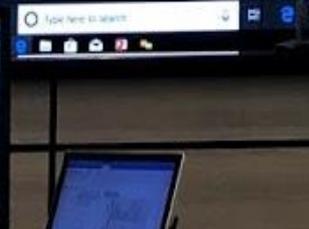
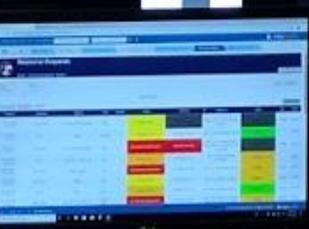
- 24 Hour State Warning Point (SWP)
- Multi-Agency Coordination Center
- Responsive to All Hazards
- Activated Incrementally
- Staffed by Personnel from GEMA / HS, State Agencies, Volunteer Agencies & Private Sector Organizations
- Managed Using ESF Concept







News and weather widgets. Includes a 'You' button, NOAA logo, and a 'JT' button. A news article titled 'HURRICANE MICHAEL' is visible, along with a weather forecast for 115°F and a video showing 'MICHAEL'S STORM SURGE DEVASTATES COAST'.





Responsive to All Hazards

- **Natural Threats:**
 - **Tropical Systems**
 - **Tornados**
 - **Flooding**
 - **Wildfires**
 - **Winter Storms**
 - **Earthquake**
 - **Drought**



Responsive to All Hazards

- **Manmade Threats:**
 - **Terrorism**
 - Foreign
 - Domestic
 - **Technology / Industrial**
 - Industrial Accident – Fixed Facility
 - Industrial Accident - Transportation
 - Failure of Critical Infrastructure Component
 - **National Special Security Events**
 - Presidential Visits
 - Olympics
 - World Series, Super Bowl



Managed Using Emergency Support Function (ESF) Concept

- ESFs provide the structure for coordinating state interagency support for response to an incident
- Individual ESFs are activated based on the scope and magnitude of the incident
- ESFs are mechanisms for grouping functions most frequently used to provide state support to counties
- Each ESF has a lead agency coordinating assistance from supporting state agencies



Multi-Agency Coordinating Center

A System Not a Facility



On-Scene Command

Multiagency Coordination



**Emergency
Ops Centers/
Dispatch**



**Resource
Coordination
Centers**



**Coordination Groups/Department
Operations Centers**





ACTIVATION OF THE STATE OPERATIONS CENTER

- **If a disaster warrants SOC activation, some or all of ESFs may be activated.**
- **The scope, scale, and magnitude of the threat/incident will dictate which primary agencies will assign personnel to the SOC, and the relevant support agencies that will be requested for support.**
- **The ESF Coordinator will oversee all operations and will serve as the principal point of contact for ESF#3**

SOC Activation Levels

Activates Incrementally

LEVEL 1 (RED) – FULL SCALE ACTIVATION

All Primary and Alternate Emergency Coordinators, GEMA Staff, and local EMA directors are notified of full scale activation. All ESFs and appropriate supporting State / Volunteer Agency Coordinators are directed to report to and staff the SOC. All GEMA SOC positions are staffed.

LEVEL 2 (YELLOW) – ELEVATED ACTIVATION

All Primary and Alternate Emergency Coordinators, GEMA Staff, and local EMA Director's are notified of an Elevated Activation. The necessary State Agency Coordinators and necessary GEMA Staff are directed to report to and staff the SOC.

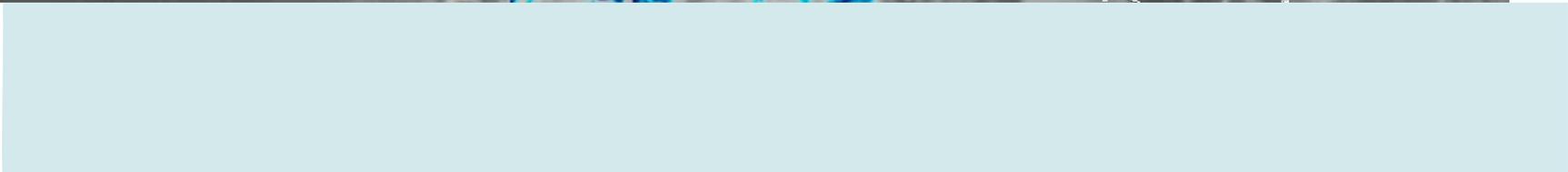
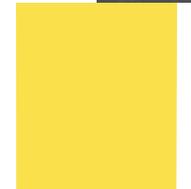
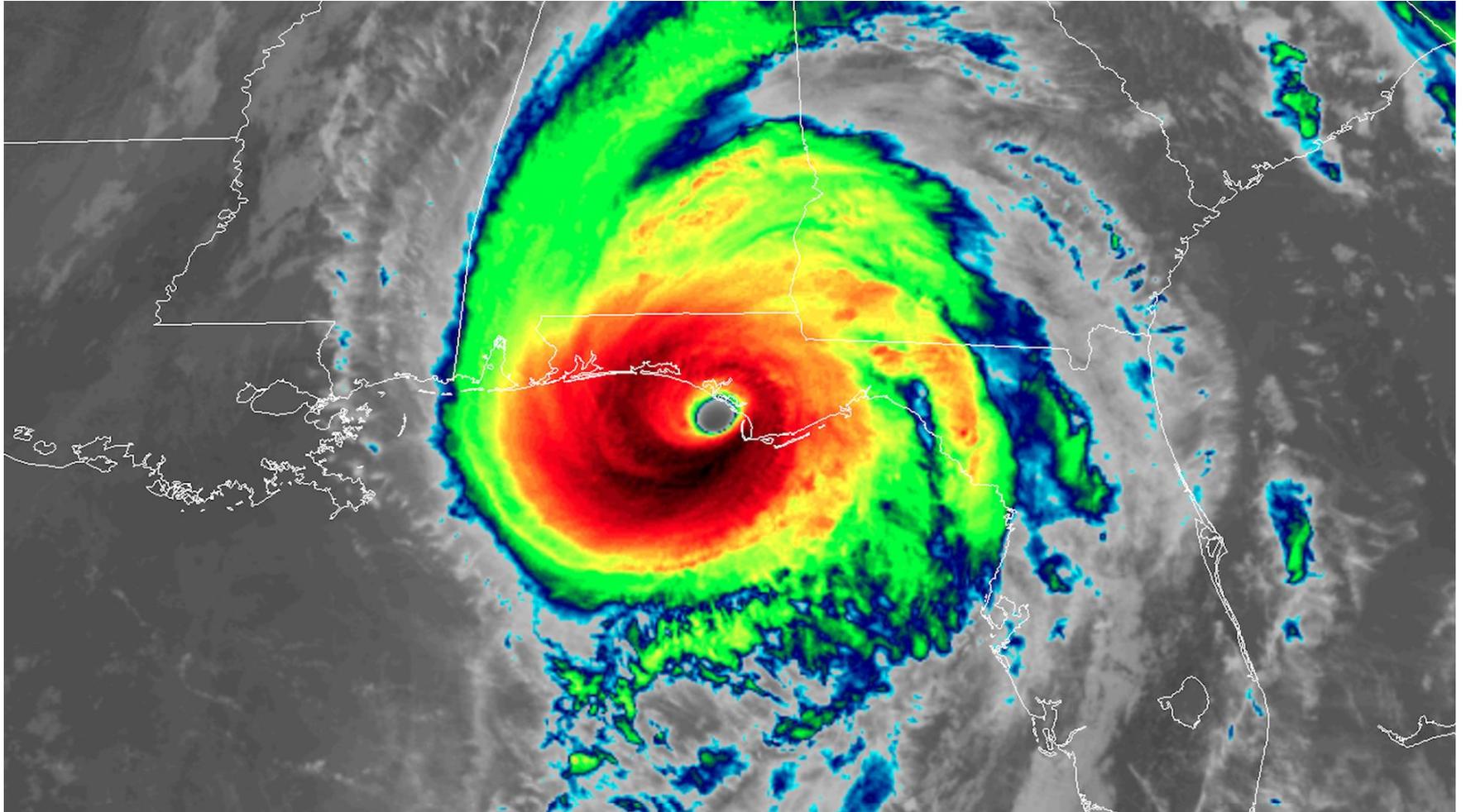
LEVEL 3 (GREEN) – ACTIVE MONITORING

GEMA is operating under normal day-to-day operations. The GEMA Communications Center is actively monitoring all events and reporting them to the appropriate personnel who respond accordingly.



HURRICANE MICHAEL

October 2018



MOST INTENSE HURRICANES

▶ RANKED BY PRESSURE



| | | |
|-------------------|---------|--------|
| 1. Labor Day 1935 | 185 mph | 892 mb |
| 2. Camille 1969 | 175 mph | 909 mb |
| 3. Michael 2018 | 155 mph | 919 mb |
| 4. Katrina 2005 | 125 mph | 920 mb |
| 5. Andrew 1992 | 175 mph | 922 mb |



STRONGEST HURRICANES

MAKING LANDFALL IN UNITED STATES



1. "LABOR DAY HURRICANE" 1935, FL, 185MPH

2. CAMILLE, 1969, MS, 173MPH

3. ANDREW, 1992, FL, 167MPH

4. MICHAEL, 2018, FL, 155MPH

5. INDIANOLA, 1886, TX, 150MPH

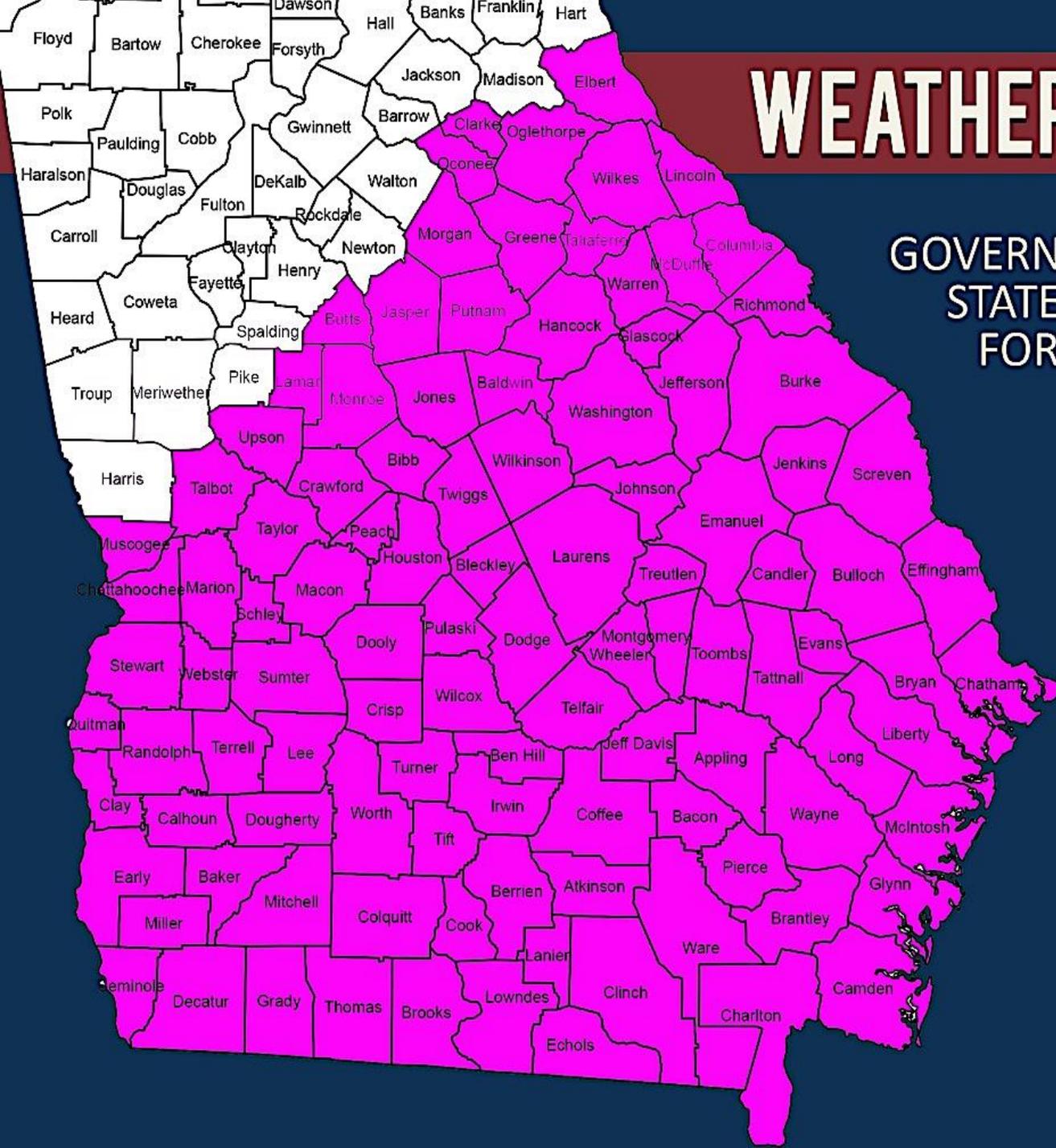


WEATHER ALERT

GOVERNOR DEAL DECLARES STATE OF EMERGENCY FOR 108 COUNTIES

Gov. Nathan Deal has expanded the state of emergency in response to Hurricane Michael to include a total of 108 Georgia counties effective Oct. 10, 2018.

Pay close attention to local updates and heed all official guidance.





COUNTIES UNDER STATE OF EMERGENCY

- **1752 Drinking Water Systems (Public and Private, Community and NTNC)**
- **408 Wastewater Systems (Includes Municipal and Industrial NPDES, WPCP)**
- **176 Total Boil Water Advisories Issued**
- **60 Generators deployed and managed (Utilities/Mutual Aid, GRWA, EMAC)**



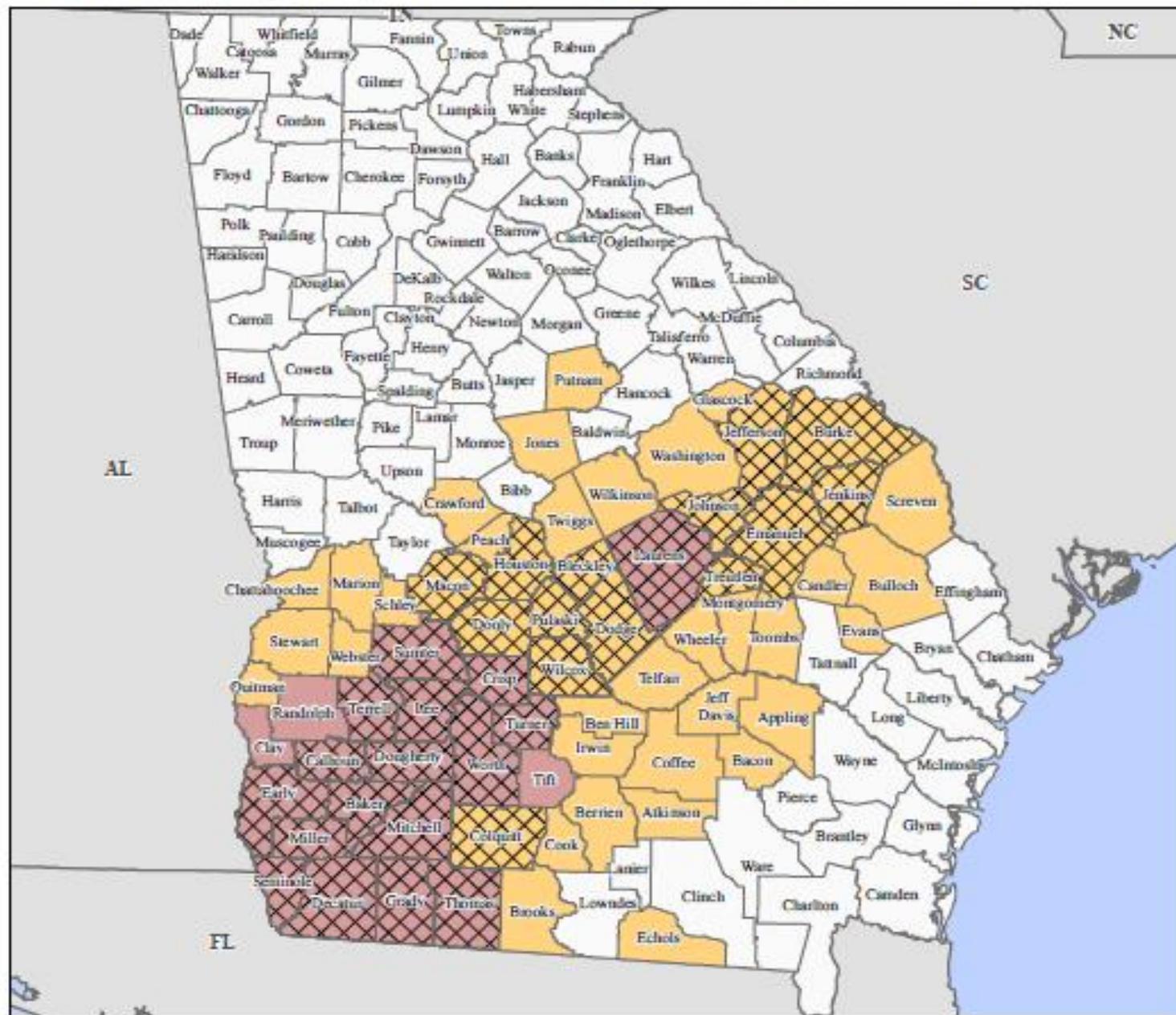
Drinking Water

| | 10/11/2018 | 10/12/2018 | 10/14/2018 |
|------------------------------|------------|------------|------------|
| Non-Operational | 48 | 76 | 42 |
| Partially Operational | 39 | 34 | 28 |
| Operating on Generator Power | 27 | 41 | 41 |
| Total | 114 | 151 | 111 |

Wastewater

| | 10/11/2018 | 10/12/2018 | 10/14/2018 |
|------------------------------|------------|------------|------------|
| Non-Operational | 6 | 8 | 0 |
| Operating on Generator Power | 22 | 21 | 20 |
| Total | 28 | 29 | 20 |

FEMA-4400-DR, Georgia Disaster Declaration as of 11/07/2018

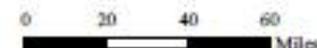


Data Layer/Map Description:
The types of assistance that have been designated for selected areas in the State of Georgia.

All designated areas in the State of Georgia are eligible to apply for assistance under the Hazard Mitigation Grant Program.

Designated Counties:

- No Designation
- Public Assistance
- Individual Assistance and Public Assistance
- Individual Assistance and Public Assistance (Categories A- G)
- Public Assistance (Categories A- G)



Data Sources:
 FEMA, ESRI
 Initial Declaration: 10/14/2018
 Disaster Federal Registry Notice: Amendment#3, 11/07/2018
 Datum: North American 1983
 Projection: Transverse Mercator



RESOURCE REQUESTS

Resource requirements will be primarily determined by affected county Emergency Management Agency (EMA) Directors, working with assigned GEMA/HS Field Coordinators, and the emergency coordinators of affected state agencies. Resource requests flow from the County EMA Director or the GEMA/HS Field Coordinator to the SOC. Existing state resources, **intrastate mutual aid**, donations, GA VOAD and NGOs (Private Sector) provide the initial source of personnel, vehicles, equipment, supplies and services to fulfill resource requests. Resource requests that exceed the capability of these sources may be fulfilled through state purchasing and contracting, interstate mutual aid (EMAC) or federal government assistance.

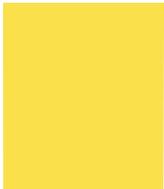
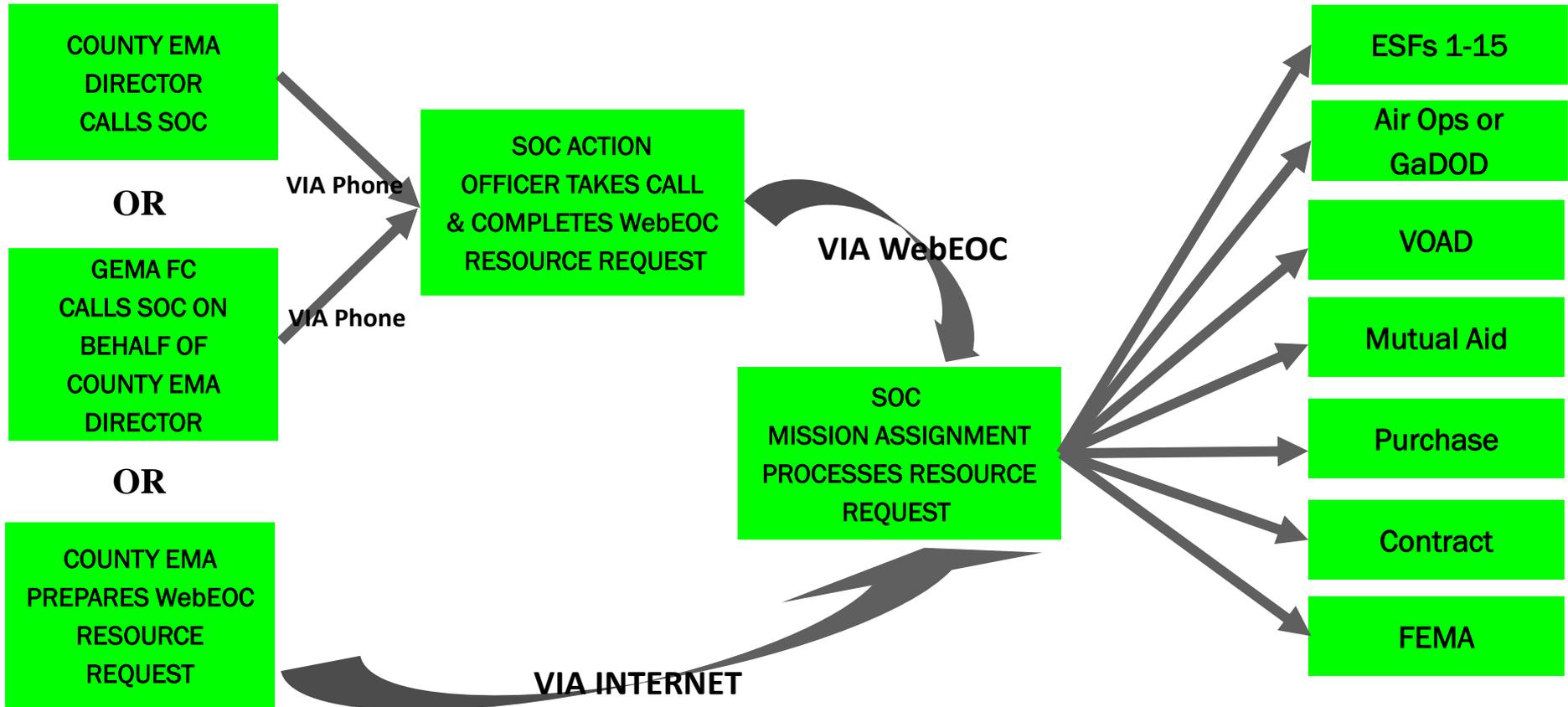


RESOURCE REQUESTS

The ESF#3 Coordinator serves as the point of contact for requests for assistance for ESF#3 that are received by the GEMA/HS State Operations Center (SOC) and is responsible for delegating mission assignments to the appropriate ESF#3 partner agency. The partner agency then ensures mission assignment completion through direct support or by delegation to the appropriate support agency.



Process Flow





Statewide Significant Events ✕
ESF-03 Edit ✕
File Library - Incident ✕
SOC Significant Events ✕
SOC Situation Reports >

Notifications



Amy
Rammo
Kuhs

System-wide Message

1. For fastest response, PLEASE send all assistance requests to WebEOCHelpdesk@gema.ga.gov. Requests sent to personal emails and voicemails may not receive immediate action.
2. Please do NOT use Microsoft Edge for interacting with WebEOC. Current versions of Microsoft Edge have a confirmed issue (#15181565) with processing onchange events resulting anomalies. The preferred browser for computers is Chrome. The preferred browser for mobile devices is the native browser, i.e. Safari for iOS.



Operations Event Log

[+ New Record](#)

Weather - 2018 Hurricane Michael - October 7

[Position Log](#)

[Branch Log](#)

[Section Log](#)

Priority:

Show All ▼

[Search](#)

[Clear Search](#)

| | | | | |
|--------------------------|--|--|--|--|
| Record #: | 119442 | <p>Currently, ESF-3 has 81 still impacted Active Public and Private Drinking Water Systems (33 non-operational, 32 on generator power, and 16 partially operational), and 9 known Active Wastewater Systems that are operating on generators. One wastewater system (Po Boy BBQ Inc), a RV park/fish camp near Lake Seminole, is non-operational indefinitely, because the area was severely damaged by the hurricane.</p> <p>SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator - Sung Won at 18:07:16 on 10/17/2018</p> <p>Attached is the current boil water advisory list for ESF-3. Currently there are 45 systems on the list.</p> <p>SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator - Chris Bruegge at 18:03:44 on 10/17/2018</p> | | |
| Jurisdiction: | ESF-3 | | | |
| Event Type: | Situation Report | | | |
| Position: | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | | | |
| Name: | Chris Bruegge | | | |
| Phone: | 6147958367 | | | |
| Date: | 10/17/2018 18:07:16 | | | |
| Attachments: | w | | | |
| Map: | | | | |
| Address/Location: | Priority Medium | | | |



Resource Requests

Weather - 2018 Hurricane Michael - October 7

Export

Actions ▾

Status:

Priority:

Show All ▾

Show All ▾

Search

Clear Search

Record Count: 72

My Assignments

My Requests

View All

+ New Record

Default Sort

| Tracking # | Jurisdiction | Resource | UOM | Quantity | Priority | Time Due | Assigned To | Status | Xcode | Map | Details |
|----------------------------|--------------|-----------|------|----------|--------------------|------------------------|--|-----------|-------|-----|---------|
| CRIS-1660806 10/12/2018 | Crisp County | Generator | Each | 1 | Priority (12 hrs.) | 10/13/2018 06:20:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | | Map | View |
| SOC-4181185 10/12/2018 | ESF-13 | Generator | Each | 1 | Priority (12 hrs.) | 10/12/2018 23:25:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | | | View |
| SOC-2914318 10/12/2018 | ESF-13 | Generator | Each | 1 | Priority (12 hrs.) | 10/12/2018 23:14:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | | Map | View |

| | | | | | | | | | |
|----------------------------|-----------------|-----------|------|---|--------------------------------|---------------------|--|-----------|--|
| SOC-2166559 10/11/2018 | Seminole County | Generator | Each | 1 | Priority (12 hrs.) | 10/12/2018 01:18:00 | Support Branch (ESF 3) Public Works Coordinator | Completed | |
| SOC-5750567 10/11/2018 | Early County | Generator | Each | 1 | Priority (12 hrs.) | 10/12/2018 02:48:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | |
| SOC-3200471 10/17/2018 | Early County | Generator | Each | 1 | Priority (12 hrs.) | 10/18/2018 00:20:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | |
| SOC-9675881 10/12/2018 | Early County | Generator | Each | 1 | Priority (12 hrs.) | 10/13/2018 03:28:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | |
| JOHN-8552875 10/11/2018 | Johnson County | Generator | Each | 1 | Life Safety/Immediate (4 hrs.) | 10/11/2018 16:21:00 | SOC - OPS Infrastructure Support Branch (ESF 3) Public Works Coordinator | Completed | ESF-3-0001  Map |
| | | | | | | | SOC - OPS Infrastructure | | |



Resource Request

Incident: Weather - 2017 Hurricane Irma - September 5

Print Form

Generate PDF

Update Record

Return to List

Resource Request

Incident Name

Weather - 2017 Hurricane Irma - September 5

Request Date/Time

09/11/2017 20:22:12

Tracking

WILK-9276603

Requestor

Requesting Position

WILKI - EXEC EMA Director (ESF 5)

Requesting User

Gary Brown

Primary Contact

Chris Thomas

Primary Contact

478-595-1091

Secondary Contact

478-933-5257

Primary Email

garybrown0301@yahoo.com

Alternate Contact

Gary Brown

Alternate Contact

478-960-6909

Secondary Contact

478-946-2236

Alternate Email

garybrown0301@yahoo.com

Jurisdiction:

Wilkinson County

Details

Resource Requested

Generator

Unit of Measure

Each

Quantity

1

Mission / Coordinating Instructions

Three phase Generator
for a 277 amp pump



Requestor

Primary Contact *Required

Primary Contact # *Required

Secondary Contact #

Primary Email

Alternate Contact

Alternate Contact #

Secondary Contact #

Alternate Email

Requesting Jurisdiction:

 *Required

Details

Resource Name

 *Required

Unit of Measure

 *Required

Quantity

 *Required Use Nims Typed Resource

Mission / Coordinating Instructions

(List any special requirements such as the need for personal protective equipment, food, fuel, supplies, etc.)

*Required

Attachment 1:

| | | | | |
|--|----------------|---|------------------------|--|
| PS Infrastructure Branch (ESF 3) Works Coordinator | Amy Rammo Kuhs | 404-463-8011 | 10/15/2018 12:34:27 | <p>The following generators have been delivered, installed and working in Calhoun County, delivered and installed yesterday. I have been coordinating all information on deliveries and installation updates with Radar (Robert Summers):</p> <p>City of Leary, (3) 75KW generators installed for wastewater lift stations. (Generators Provided by State of New Jersey via EMAC and Yancy Power)</p> <p>City of Edison: (3) 75KW generators installed for wastewater lift stations. (Generators Provided by State of New Jersey via EMAC and Yancy Power)</p> <p>City of Morgan: (1) 75KW generator installed for wastewater lift stations. (Generators Provided by State of New Jersey via EMAC and Yancy Power)</p> <p>City of Morgan Drinking Water: Per Yancy Power: generator could not be installed. The DW well is not operable due to failure of pump on motor. New motor should be arriving Wednesday. No generator for drinking water was installed</p> <p>City of Arlington: needed a 30kw for their DW. They did have a generator but it was not working. GRWA offered technical assistance to them. System was able to replace fuel filters and the generator is working now. No additional generators were given to City of Arlington.</p> <p>Calhoun County received a total of 8 generators total from Yancy (Through EMAC from</p> |
|--|----------------|---|------------------------|--|



G 160





Dalton Utilities 350 kw generator at Bainbridge well





OKW

50KW

EP
Water

KINEDYNE

EP

EP

EP

EP

EP

LET THE GENERATOR RUN
AT ALL TIMES
DURING THE
REPAIR PERIOD





**EMERGENCY
RESPONSE TEAM**
GEORGIA RURAL WATER

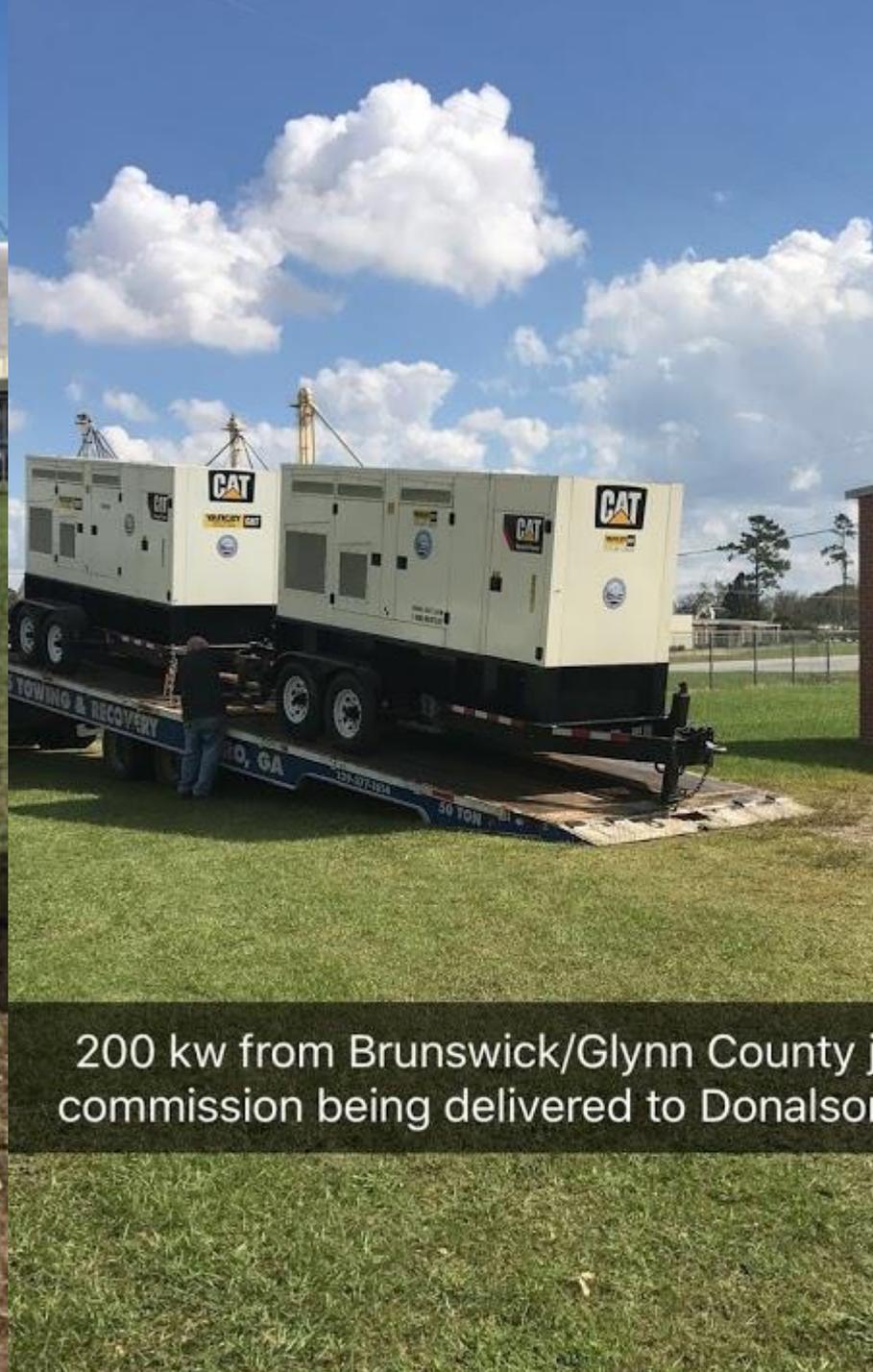








New Jersey generator powering lift station in Donalsonville Ga



200 kw from Brunswick/Glynn County commission being delivered to Donalsonville



70 kw from Augusta Utilities on well in Brinson



Bypass pump from Zebulon Ga being put in at Donalsonville lift station

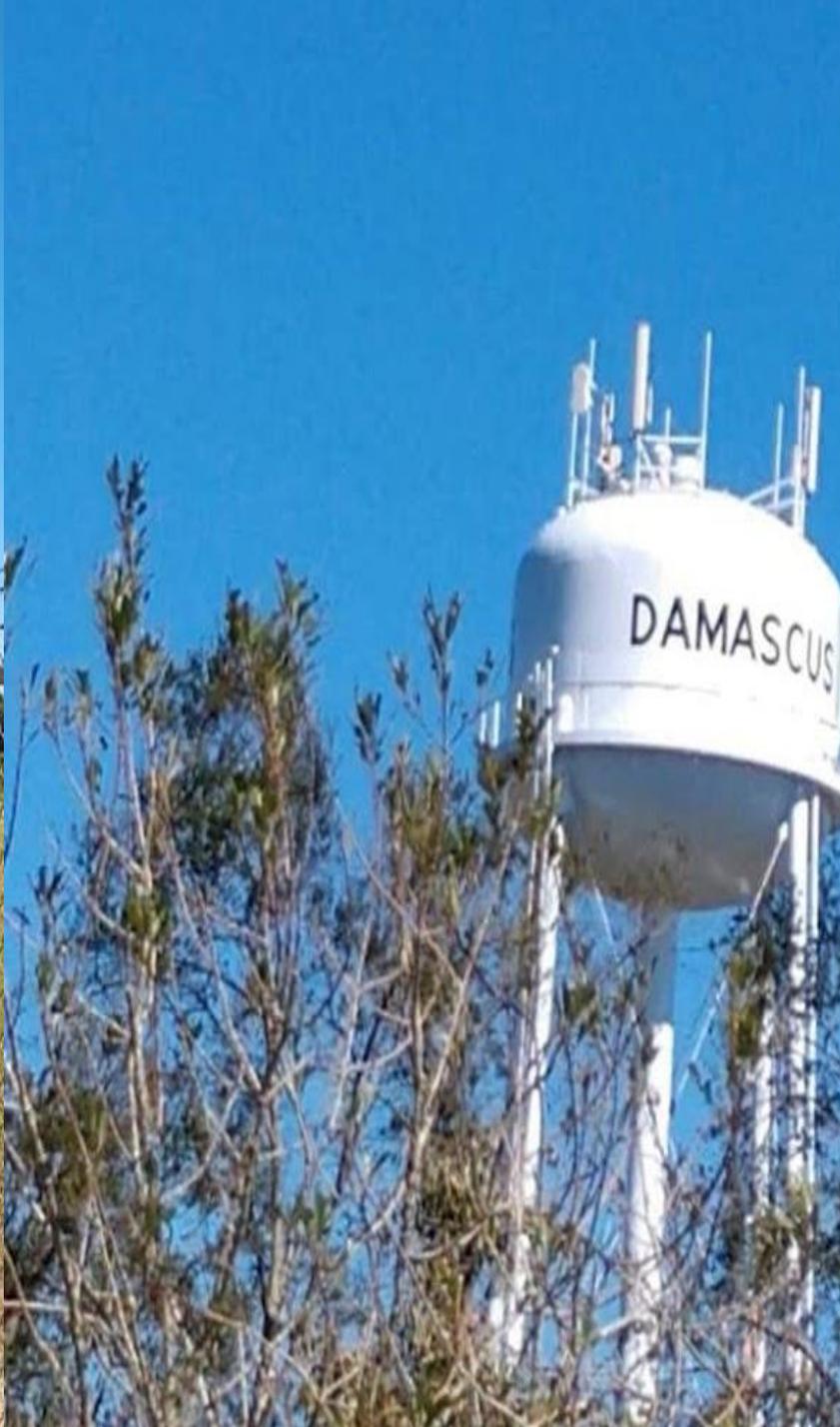


5kw generator powering lift station in Blak
Ga



UNIVERSITY
Rental Power
UNIVERSITY
Power Systems
-941-2424
CAT















ARWA
ALABAMA
RURAL WATER
ASSOCIATION

911

POLICE
PEMBROKE







STELLAR 1802

Augusta
UTILITIES





800-10-8215

OWER

DIESEL
FUEL ONLY



THE WATERSHED PROTECTION BRANCH'S RESPONSE DURING EMERGENCIES

- Staff the State Emergency Operations Center (SOC)
- Providing technical assistance to impacted water and wastewater systems
- Offer Sampling Assistance and perform water quality monitoring
- Respond to incoming resource requests and maintain status of impacted systems.
- Issue/Oversee Public Advisories as needed
- Coordinate and share information with other sectors as well as support agencies



SOC- HURRICANE MICHAEL RESPONSE

- 24/7 operations
- Pre-landfall: Preparations and situational awareness updates
- Coordination of information from the ESF 3 lead with different EPD personnel as well as other agencies including , GRWA, GAWP, GAWARN and water and wastewater systems in the declared emergencies counties
- Attend ESF and County calls to discuss objectives and updated weather briefings
- Post landfall: Assess the situation and compile information on the status of critical water and wastewater infrastructure
- Respond to resource requests as they are received from the impacted areas. Issue advisories as needed
- Documentation of all actions and updates into the State Operations Center Data Base (WebEOC)



BE PREPARED!!

- ✓ **Update your Emergency Response Plan**
- ✓ **Understand your vulnerabilities**
- ✓ **Know your county EMA director**
- ✓ **Keep a current contact list (EPD, GRWA, Fire, EMS, local Public Health, Power)**
- ✓ **Know your critical customers served and build a relationship with them**
- ✓ **Have a mutual aid agreement (GAWARN)**
- ✓ **Resource Assistance**

OTHER CONSIDERATIONS



❖ Transportation

- ❖ Can effect large area
- ❖ May make Re-Entry to impacted areas and responding to resource requests difficult (Generator assistance for loss of power)

❖ Staff

- ❖ Personnel effected/ Continuity of Operations
- ❖ Long Shifts

❖ Communication- Key to positive response!!



AMERICA'S WATER INFRASTRUCTURE ACT OF 2018

- **New Risk Assessment and Emergency Response Plan Requirements**
- **All Community Water Systems (CWSs) Serving More Than 3,300 Persons MUST Conduct a New Risk & Resiliency Assessment (RRA) and Emergency Response Plan (ERP) by July 2021: “American Water Infrastructure Act” (Public Law 115-270).**
- **On October 23, 2018, America's Water Infrastructure Act (AWIA) was signed into law. The law requires community water systems serving more than 3,300 persons to develop or update risk assessments and emergency response plans (ERPs).**



AMERICA'S WATER INFRASTRUCTURE ACT OF 2018

- **This new legislation includes several provisions designed to support an all-hazards approach to risk and resilience management in the water sector. This is based on modifications to the requirements placed on community water systems serving more than 3,300 under the Bioterrorism Act of 2002. In addition, AWIA includes several provisions to enhance source water protection.**
- **Water systems certify to EPA that they completed the risk assessment, rather than sending directly to EPA**
- **The following certification deadlines:**
 - **Population served 100,000 or more, March 31, 2020**
 - **Population served between 50,000 - 99,999, Dec 31, 2020**
 - **Population served between 3,300 - 49,999, June 30, 2021**



AMERICA'S WATER INFRASTRUCTURE ACT OF 2018

The new assessment must include a review of six elements:

- 1. The CWS's risk from malevolent acts and natural hazards;***
- 2. The resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the cyber security of such systems) utilized by the CWS;***
- 3. The community water system monitoring practices;***
- 4. The financial infrastructure of the community water system, including cyber protections, for infrastructure of the CWS;***
- 5. The CWS's use, storage, or handling of various chemicals; and***
- 6. The CWS's operation and maintenance.***



QUESTIONS?

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