

ESF-3: PUBLIC WORKS AND ENGINEERING

AGENCIES RESPONSIBLE

Federal: U.S. Army Corps of Engineers
Federal Emergency Management Agency (FEMA)

State: Florida Division of Emergency Management (FDEM)
Florida Department of Transportation (FDOT)
Florida Department of Environmental Protection (DEP)

County: Growth Management Community Development Department and the Collier County Public Utilities Department (PUD)
(Lead Agencies)

Collier County Growth Management Community Development and Transportation Services Departments:

Coastal Issues, Damage Assessment, Emergency Permits and Building Inspections, Post-storm NFIP/CRS flood support, Stormwater Management, Emergency Temporary Housing, Traffic Signaling & Lighting (Emergency Signage), Transportation Infrastructure Issues (Road & Bridge Inspection and repair), County Airports, Infrastructure Engineering Matters, Waterway Debris (Assessment and Removal)

Collier County Public Utilities Department (PUD):

County Water Systems (Plants and Distribution system inspection/repair), Wastewater Systems (Plants and Collection system inspection/repair), Solid & Hazardous Waste Management (Land-Borne Debris and Hazardous Material Issues)

Support Departments & Agencies:

Collier County Emergency Management	District (SFWMD)
Division	Florida Power & Light (FPL)
Collier County Emergency Medical Services	Lee County Electric Cooperative (LCEC)
Collier County Fire & EMS Chiefs' Association	TECO
South Florida Water Management	Collier County Fleet Management

MUTUAL AID

Statewide Mutual Aid Agreement
Florida Fire Mutual Aid Agreement and FLAWarn Mutual Aid Agreement

PURPOSE

1. Provide and coordinate infrastructure and engineering services to the County's emergency management effort during all phases of emergency management.
2. Provide Emergency Support Function 3 (ESF-3) resources (human, technical, equipment, facility, materials and supplies) upon notification, or activation of the Emergency Operations Center (EOC.) ESF-3 may also obtain resources (human, technical, equipment, facility, materials, and supplies) through agency contractors, vendors, and suppliers. Resources may also be obtained from agency related local, State, regional, national, public, private associations and/or groups.
3. Develop and initiate emergency collection, sorting and debris routes and sites for debris clearance from public and private property.
4. Prioritize and initiate recovery efforts to restore, repair and mitigate damage to all Public Utility infrastructure.

ORGANIZATION

The ESF-3 is organized utilizing personnel from both the Growth Management and Public Utilities Departments depending on their respective areas of responsibility and expertise, as outlined below.

Public Utilities Department:

- Engineering and Project Management Division (Project Management and Inspections)
- Water Division (Water Plants, Compliance, Power Systems, Well Field and Water Distribution)
- Wastewater Division (Water Reclamation Plants, Power Systems, Irrigation Quality System and Collections)
- Solid & Hazardous Waste Division
- Facilities Management Division (Inspections, Prepare Reports, Secure Sites and Coordinate (Repairs)

Growth Management Community Development and Transportation Services Departments:

- Capital Project Planning, Impact Fees & Program Management Division (Impact Fees, Stormwater, Transportation Planning, Coastal Zone Management, Pollution Control and Prevention)
- Development Services Division (Regulatory Management, Development Review, Building, Zoning and Code Enforcement)
- Operations Division (County Airports, Media Relations, Budget)
- Road Maintenance Division (Road Maintenance & Inspection, Landscape, Survey)
- Transportation Engineering Division (Roads & Bridges, Right of Way, Traffic Lighting and Signals)

RESPONSIBILITIES

The ESF-3 area of responsibility is focused and responsible for those County; Infrastructure (Roads, Bridges, Causeways, Public buildings, Airports, Stormwater facilities), Waterways (Man-made & Natural Canals, Beaches & Shorelines, Estuaries and other bodies of water), Utilities (Water, Wastewater and Solid Waste facilities), as well as the assessment and reporting of damages to all public and private property within the County. In addition, execute emergency contract support for lifesaving and life-sustaining services, provide technical assistance to include engineering expertise, construction management and contracting for real estate services.

- Emergency repair, rerouting or closure of damaged infrastructure.
- Emergency repair or closure of potable water, raw water, sanitary sewer, irrigation quality, power systems, solid waste facilities, storm waste collection, generators and electrical distribution system.
- Respond to customer calls for assistance regarding service restoration.
- Establish temporary staging and sorting sites.
- prioritize debris clearance relative to infrastructure restoration.
- Perform initial survey of utility infrastructure damage and prioritize preliminary repairs,
- Allocate debris clearing and public works equipment and process all requests for debris clearing.
- Execute emergency contracts to support lifesaving & life-sustaining services
- Provide technical assistance to include engineering expertise, construction management and contracting for real estate services.

Public Utilities Department:

- Land-borne Debris Assessment & Removal Mission
- Maintain fueling operations for the utilities and government infrastructures
- Hazardous Material Issues
- Public Information – Status of potable water and wastewater service to customers.
- Water Distribution System – Water mains (raw and potable), services and fire hydrant damage assessment and testing of potable water within distribution system.
- Wastewater System – Force Main and gravity main, master pump stations and lift station damage assessment.
- Public Utilities Engineering – Inspection of project sites and hazard mitigation
- Inspect County facilities for damages
- Prepare damage assessment reports
- Secure facilities

Growth Management Community Development and Transportation Services Departments:

- Damage Assessment of both Public and Private Property
 - Buildings – Development Services Division
 - Waterways – Capital Projects Planning, Impact Fees & Project Management Division
 - Roads & Bridges – Transportation Engineering and Road Maintenance Divisions
 - County Airports – Operations Support Division (with support from GMD, a required)

- Coastal Issues (Pre & Post Condition Assessment and documentation) – Coastal Zone Management
- Emergency Condemnation and Permitting - Development Services Division
- Localized Flooding - Development Services Division and Road Maintenance Division
 - High Water Marks
 - Roadway Flooding
- Public Information (GMD) - Community and Media Relations
- Roadway Signaling, Signage and Lighting – Transportation Engineering & Road Maintenance Divisions
- Stormwater Issues - Capital Projects Planning, Impact Fees & Project Management Division
 - Weirs, Spillways & Drainage Canals
 - County Retention Lakes/Ponds
- Temporary Housing - Development Services Division
- Waterway Debris Removal and Mitigation - Capital Projects Planning, Impact Fees & Project Management Division

CONCEPT OF OPERATIONS

ACTIONS

PREPAREDNESS

Public Utilities Department:

1. Ensure all personnel have received emergency preparedness training in accordance with the Collier County CEMP, Basic pg 34-35 and Departmental plans and SOPs.
2. Ensure all personnel have their required equipment to perform their assigned responsibilities
3. Ensure Departmental Contact lists for Federal, State, County, Municipalities, Cooperating Agencies and Contractors are up to date and accurate.
4. Ensure that the ESF EOC workstation is operational and contains all required supplies
5. Ensure that the condition of all infrastructure, property and equipment is recorded and documented as required by the Federal, State and Local authorities and partners
6. Ensure that all emergency response equipment (generators, radios, food, water and supplies) are prepared for use
7. Ensure that the Collier County Fleet Management Division has a current list of emergency requirements
8. Ensure all fuel tanks are full, or to the level required
9. Coordinate with private utility systems
10. Comply with FDEP regulations responding, reporting, and resolving any SSO's in accordance to included but not limited to, timeframes to achieve compliance and limit environmental impact.
11. Ensure staff notified of emergency assignments for both pre and post storm.
12. Coordinate with major vendors for assistance post storm.
13. Coordinate staging area for post storm response, including for both staff and vendor response.
14. Pre-inspection of debris sites and approval by all necessary agencies prior to hurricane season.
15. Right of Entry agreements for debris removal obtained for gated communities and others prior to hurricane season.

16. Interlocal agreements executed for debris removal prior to hurricane season.
17. Open purchase orders for all vendors anticipated to be used during the event prior to the storm.
18. Have all portable generators filled and ready for deployment to lift stations.

Growth Management Community Development and Transportation Services Departments:

1. Ensure all personnel have received emergency preparedness training in accordance with the Collier County CEMP, Basic pg 34-35 and Departmental plans and SOPs.
2. Ensure all personnel have their required equipment to perform their assigned responsibilities
3. Ensure Departmental Contact lists for Federal, State, County, Municipalities, Cooperating Agencies and Contractors are up to date and accurate.
4. Ensure that the ESF EOC workstation is operational and contains all required supplies
5. Ensure that the condition of all infrastructure, property and equipment is recorded and documented as required by the Federal, State and Local authorities and partners
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7. Ensure that the Collier County Fleet Management Division has a current list of emergency requirements
8. Ensure all fuel tanks are full, or to the level required

RESPONSE

- First Priority – Restore Water and Wastewater Plants to operation.
- Second Priority – Restore raw water system to supply water plants and master pump stations to service.
- Third Priority – Restore water and wastewater service to hospitals, shelters, and nursing homes.
- Fourth Priority – Restore service utilizing auxiliary power and FPL power to lift stations.
- Fifth Priority – Ensure all compliance requirements are being met for State Reporting and all testing of water and wastewater system events.

Public Utilities Department:

1. Based on information received from initial inspection work through restoration of water and wastewater systems in accordance with prioritize areas established pre-storm.
2. Mobilize vendor assistance to post storm staging area, provide assignments, and document work completed.
3. Organize first push of debris removal from major roadways with Fire and Road & Bridge to allow for emergency vehicle access and transport.
4. Coordinate assistance through the FlaWarn system for resources from other Florida Utilities, organizing response and ensuring tracking of all work completed.
5. Provide Debris removal and processing for the County.
6. Project management of debris removal.
7. Monitor and audit debris removal contractors.
8. Provide Hazardous Material response activities in support as appropriate.
9. Maintain all required documentation of work completed and costs, through use of appropriate records of logs, and work schedules.
10. Mobilize vendor sewage pumper trucks to lift stations that have lost power.

11. Deploy mobile generators to lift stations that have lost power and resource request additional generators as needed.
12. Prepare a draft of after-action issues for EOC
13. Comply with FDEP regulations responding, reporting, and resolving any water or wastewater system issues to include but not be limited to the timeframes to achieve compliance and limit environmental impact.

Growth Management Community Development and Transportation Services Departments:

1. Based on information received from First Responders and other trained sources begin planning for the clearing of priority transportation routes, as directed by the EOC
2. Assist First Responding agencies with Life/Safety priorities as directed by the EOC
3. Make preliminary arrangements for damage assessment team deployment in accordance with the procedures and protocols contained in the Collier County Damage Assessment SOP
4. Contact appropriate partner agencies and authorities for assistance, as required
5. Assess the condition of all transportation signals, signage and lighting and prioritize temporary power, repairs and signage
6. Assess the condition and operational status of the County Airports
7. Generate in a timely manner, information to be included in the County Emergency Operations briefing, situation reports, and/or action plans
8. Provide information and accurate updates to the Emergency Information Center (EOC) and ESF-14 (County Public Information)
9. Provide Hazardous Material response activities in support of PUD
10. Maintain appropriate records of work schedules, logs and costs incurred
11. Prepare a draft of after-action issues for EOC

RECOVERY

The Collier County Post Disaster Recovery Ordinance, 06-38 specifies the protocols, which set priorities for restoration of services after a local disaster.

Public Utilities Department:

1. Complete a thorough damage assessment of the County Utilities in accordance with priorities to provide service to all customers in the water and wastewater system.
2. Provide a status of County Utilities and any urgent concerns to the EOC.
3. Establish a debris removal and recovery timeline for approval by the EOC.
4. Coordinate permanent repairs to utilities infrastructure, providing status updates to EOC as requested.
5. Complete testing of potable water distribution system with updates provided to the EOC.
6. Auditing of expenses and preparation of documentation for FEMA reimbursement.
7. Inspect County facilities and prepare damage assessment reports.

Growth Management Community Development and Transportation Services Departments:

1. Complete a thorough damage assessment of the County in accordance with the priorities and needs set by the EOC (Buildings, Infrastructure, Waterways and Coastal)
2. Coordinate the restoration of the County's stormwater infrastructure, provide updates and status to the EOC as required
3. Coordinate the restoration of the County's road and transportation infrastructure, provide updates

- and status to the EOC as required
4. Coordinate the restoration of the County's building department services, provide updates and status to the EOC as required
 5. Coordinate and provide for temporary housing as required by the EOC
 6. Coordinate and manage waterway debris removal in accordance with the County Disaster Waterway Debris Plan (Coordinate with PUD)
 7. Provide flood response activities as required in support of the NFIP/CRS program and as requested by the EOC
 8. Provide Hazardous Material activities in support of PUD

MITIGATION

1. All activities conducted during a County Emergency or Disaster will be reviewed or considered for future mitigation activities to lessen or prevent future damage or failure
2. All Departments and Divisions with responsibilities outlined in ESF-3 should participate in the County's Local Mitigation Strategy Working Group (before, during and after an event)
3. GMD and PUD will participate with their Division experts in all Federal and State assistance and mitigation meetings held after an event
4. Where feasible, Departments will pursue mitigation grant opportunities in support of ESF-3 responsibilities
5. Department will update plans and procedures after all events to reflect lessons learned and policy changes

INTERFACE

Federal, State, County, Municipal and Partner Agencies as required