



EMERGENCY SUPPORT FUNCTION #3 PUBLIC WORKS & ENGINEERING



COORDINATING AGENCY:

City of Cambridge Engineer's Office

PRIMARY AGENCIES:

Guernsey County Engineer's Office
City of Cambridge Engineer
Guernsey County Water Department
Western Guernsey Water Department
All Municipal Water Departments
All Municipal Sanitation Departments

SUPPORT AGENCIES

Guernsey County Health Department
Guernsey County Emergency Management Agency
Guernsey County Highway Department
Guernsey County Maintenance Department
All Township Trustees
All Municipal Street Departments
Cambridge Parks Department
Guernsey County PIO
Guernsey County Soil & Water Conservation District
All County Fire Departments

STATE & FEDERAL AGENCIES

Ohio EPA
Ohio Department of Health
U.S. Army Corp of Engineers

I. Introduction

A. Purpose

The purpose of this Emergency Support Function (ESF) is to outline the local organization, operational concepts, responsibilities, and procedures to accomplish coordinated public works and engineering activities during emergency situations.

B. Scope

ESF-3 activities include:

1. Facilitating damage assessments to establish priorities and determine needs of water supplies and wastewater treatment systems.
2. Provide for the restoration of water supplies and wastewater treatment systems.
3. Inspection and management of storm water systems.
4. Emergency demolition or stabilization of damaged structures and facilities designated by local government as immediate hazards to public health and safety, or as necessary to facilitate the accomplishment of lifesaving operations.
5. Support emergency clearance of debris for inspection of damaged areas and passage of emergency personnel, supplies and equipment for live saving, life protection, health, and safety purposes during the immediate response phase.

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C. Policies

1. ESF-3 agencies will perform tasks under their own authorities, as applicable, in addition to missions received under the Guernsey County Emergency Operations Plan.
2. Areas impacted will be prioritized based upon impact assessment data.
3. ESF-3 agencies will coordinate with the Guernsey County Commissioners the permanent removal, disposal, and burning of all debris from public property .
4. ESF-3 will coordinate damage assessment data of all public facilities and equipment countywide for submission to the EOC/EMA.
5. ESF-3 will coordinate mutual aid and contractual vendor crews including assembly areas, assignments, and financial tracking.
6. ESF-3 agencies will restore water distribution systems and sewage treatment facilities.
7. ESF-3 will prioritize and implement temporary emergency structural repairs at vital public facilities.

II. Situation & Assumptions

A. Situation

1. Structures, homes, public buildings, bridges and other facilities will be destroyed or damaged and must be reinforced, demolished or isolated to insure safety.
2. The following water systems service Guernsey County:

Community Water Systems: Water Systems that serve the same people year-round (e.g. in homes or businesses).		
Water System Name	Population Served	Primary Water Source Type
Byesville Public Water System	4460	Groundwater UDI Surface water
Cambridge City Public Water System	16220	Surface Water
Cumberland Village Public Water System	470	Groundwater UDI Surface water
Guernsey County Water Department	9002	Purchased Surface Water
Pleasant City Village Public Water System	750	Ground Water
Quaker City Village Public Water System	863	Purchased Surface Water
Western Guernsey Regional Water System	3074	Purchased Surface Water

Non-Transient Non-Community Water Systems: Water Systems that serve the same people, but not year-round (e.g. schools that have their own water system).		
Water System Name	Population Served	Primary Water Source Type
Heritage Christian School	30	Ground Water
ODNR-Salt Fork State Park	205	Surface Water
Salt Fork Utility Company	2000	Ground Water

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Transient Non-Community Water Systems: Water Systems that do not consistently serve the same people (e.g. rest stops, campgrounds, gas stations).		
Water System Name	Population Served	Primary Water Source Type
Big Sky Campground	154	Ground Water
Country Sunset Restaurant	70	Ground Water
Don's Shell PWS	25	Ground Water
Gary's BP	25	Ground Water
Genie Management, LLC PWS	50	Ground Water
I-70 Fuel Mart #727	200	Ground Water
Jackie's Family Restaurant	250	Ground Water
Lighthouse of Faith PWS	65	Ground Water
MWCD Piedmont Camp P2 PWS	240	Ground Water
Paradise Valley Park	50	Ground Water
Spring Valley Campground	200	Ground Water
The Banana Peel Ice Cream PWS	60	Ground Water

3. Approximately 32 percent of all households in Guernsey County obtain their water from private water sources. Additional private water uses include commercial, livestock, and irrigation.
4. The following Waste Water Treatment Plants and Sewer Systems exits in Guernsey County:

Wastewater & Sewer System Name	Population Served	Operated By
Beach Meadows WWTP & Sewer System	593	Guernsey County Sewer & Water Department
Coventry Estates # 1		Guernsey County Sewer & Water Department
Coventry Estates # 2		Guernsey County Sewer & Water Department
Byesville WWTP & Sewer System	2574	Village of Byesville
Cambridge Mental Health Care WWTP	350	Guernsey County Sewer & Water Department
Cambridge WWTP & Sewer System	11520	City of Cambridge
Colonial Heights Sewage Treatment Plant	329	Guernsey County Sewer & Water Department
Pleasant City Sewage Treatment Plant		Village of Pleasant City
Quaker City WWTP & Sewer System	563	Village of Quaker City
Rolling Hills Sewage Treatment Plant	597	
Senecaville WWTP & Sewer System	453	Village of Senecaville

5. Public and Private water and sewer systems usage may be curtailed or otherwise cease to operate due to damage or other emergency conditions.

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B. Assumptions

1. All engineering and public works equipment and personnel would be available to cope with any anticipated disaster.
2. Without assistance, the engineering and public works departments may not have sufficient resources to cope with a disaster.
3. Local contractors may not have enough resources to backup engineering and public works recovery efforts in any foreseen disaster situation.

III. Concept of Operations

A. General

1. The City of Cambridge Engineer's Office is the coordinating agency for ESF #3. The City of Cambridge Engineer or his designee will staff the Guernsey County EOC and coordinate with the appropriate primary and support organizations to answer the needs of the affected communities.
2. Engineering and public works activities will include emergency clearance of debris; emergency restoration of critical public services and facilities; emergency demolition of damaged structures and facilities; and technical assistance and damage assessment of private utility operations.
3. Personnel from ESF-3 Primary and Support Agencies are prepared to staff the Guernsey County EOC as requested on a twenty-four hour basis and provide personnel and equipment as applicable for emergency response and recovery activities at the disaster site.
4. Additional public works and engineering services and equipment may be contracted for on an emergency basis when required for response and recovery operations.
5. Close coordination is maintained between ESF-3 organizations during emergencies in order to:
 - a. Prioritize response and recovery missions
 - b. Share and update information
 - c. Ensure expedient response and recovery actions
 - d. Avoid redundant activities
 - e. Ensure a unified effort when working with federal, local and private organizations
6. Each ESF-3 organization is responsible for providing logistical support to their personnel and for tracking and maintaining equipment and supplies.
7. ESF #3 will coordinate with ESF #7, Resource Support, and ESF #5, Information and Planning, when establishing staging areas for public works and engineering personnel, equipment and supplies.

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B. Organizational Structure

1. The City of Cambridge Engineer will relocate to the Guernsey County Emergency Operations Center during an emergency to advise decision makers and coordinate response efforts with utilities, municipal and village departments, state, federal, and volunteer organizations. If the City Engineer must be at the site of the emergency, he will appoint an employee to represent him at the EOC.
2. Municipal Public Works departments will utilize their existing directives and standard operating procedures in responding to major emergencies/disasters, while working within the framework of the county Emergency Operations Plan (EOP).
3. Primary and Support Agencies for the public works function will coordinate with the City of Cambridge Engineer or his designee in the Guernsey County EOC to ensure the most effective use of personnel and equipment, to avoid redundant activities.
4. As their capabilities allow, the various agencies in the County with public works capabilities will assist each other during an emergency or disaster. Interdepartmental request for assistance will be coordinated through the County's Emergency Operations Center/EOC during the response to a major disaster.
5. Internal resources of all operating departments will be managed by individual departmental procedures and policies.
6. Responding organization will communicate directly with its own field forces, and in turn keep the EOC informed of appropriate information (casualties, damage observations, evacuation status, Biological/Nuclear/Incendiary/Chemical/Explosives (BNICE) levels, chemical exposure, etc.) during emergency operations.
7. State assistance may be requested thru the Guernsey County EMA/EOC.

C. Pre-Incident Actions

1. All ESF-3 agencies are expected to develop standard operating procedures to handle daily situations and larger scale events. This includes:
 - a. Developing and maintaining emergency call-out lists of personnel.
 - b. Maintain and update listings of local private contractors who can provide support during emergencies.
 - c. Participate in the development and exercising of the EOP for major emergencies and disasters.
 - d. Development of mutual aid agreements between agencies, as appropriate.
 - e. Develop contingency plans for providing potable water during long-term problems with water systems.
2. Provide appropriate training to personnel on disaster response, self-preservation techniques, and the incident command system (ICS) a component of NIMS in disaster response.
3. Ensure that employees fully understand their obligation as emergency responders to report to work as soon as possible in the event of major emergency/disaster.
4. Designate a liaison that will be responsible to coordinate with the Guernsey County EMA for the agency's mitigation and preparedness activities. This includes participating in the development, maintenance, and exercise of the County Emergency Operation Plan (EOP).

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5. Designate a resource coordinator who will serve as a member of the County's EOC ESF-3 group as requested whenever the Emergency Operations Center is activated.
6. All ESF-3 agencies will assist the Guernsey County EMA in updating the Guernsey County Resource Manual by identifying sources, locations, and availability of earthmoving equipment, dump trucks, road graders, fuels, etc. that could be used to support disaster response and recovery.
7. Develop and update maps of county and municipal water and sewer lines, and utility service areas.

D. Incident Period Actions

1. Upon request, provide heavy equipment support for search and rescue operations.
2. Provide assistance with emergency clearance of debris for reconnaissance of the damaged areas and passage of emergency personnel and equipment for health and safety purposes.
3. Provide for repair and restoration of critical facilities of water distribution and wastewater facilities.
4. Restrict access to hazardous areas, using barricades and temporary fencing, upon request.
5. Jurisdictional Engineers, building inspectors, and health department personnel will inspect damaged public buildings to determine if they are safe for occupancy.
6. Emergency demolition or stabilization of damaged public structures and facilities designated as immediate hazards to the public health and safety, or as necessary to facilitate the execution of rescue operations.
7. Remove debris from public property
8. Survey areas affected by a hazard, assess damage, and determine the need and priority for expedient repair or protection to prevent further damage. Report damage assessments to the EOC.
9. Coordinate with the Health Department for the provision of potable water.

E. Post Incident Actions

1. Support cleanup and recovery operations.
2. Coordinate utility repair with public and private providers and the PUCO.
3. Inspect, designate, and demolish hazardous structures.
4. Repair or contract for repairs to government-owned buildings and other government infrastructure with available resources and capabilities.
5. Participate in post-incident review of emergency operations and make necessary changes to improve emergency plans and procedures.
6. Participate in post-incident assessments of structures; public works and infrastructure to develop cost estimates, complete written project worksheets, determine priority repair/reconstruction projects.

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IV. Roles and Responsibilities

A. Responsibilities of Coordinating Agency

1. Maintain a roster of all primary and support agency contact persons, make necessary notifications, activate agencies as necessary, and maintain ongoing communications to support mission assignments.
2. Prioritize missions in coordination with the Executive Policy Group (EPG) based on life safety and protection of property and in compliance with the Incident Action Plan.
3. Coordinate mutual aid and private vendor resource needs through the proper resource request procedure and maintain documentation for financial reimbursement once local resource capabilities have been exhausted.
4. Coordinate for the provision of all mutual aid resources to requesting parties outside of the county upon direction of the EOC in accordance with appropriate resource request procedure and available assets.
5. Coordinate with water and sewer departments, the Health Department, and the EPA to ensure the integrity of water supplies and sewage systems from the effects of hazardous materials.
6. Coordinate impact assessment for all county public structures, equipment, and debris immediately following a large scale disaster in order to prioritize the impacted areas and resource needs.

B. Responsibilities of Primary Agencies

1. Provide personnel and equipment for public works/engineering emergency activities.
2. Demolition and/or emergency repairs or stabilization of unsafe public structures
3. Maintain storm sewers.
4. Maintain water pressure.
5. Coordinate with Health Department for water testing.
6. Decontaminate water system.
7. Monitor sewage system during floods and hazardous material releases.
8. Provide temporary sanitary facilities as necessary.
9. Conduct damage assessment for all water utilities including debris removal, protective measures, and damage to facilities and equipment utilizing the required forms and forwarding information to lead agency.
10. Maintain operating procedures and a roster for all emergency support personnel for assigned responsibilities. Ensure staff are trained and exercised to implement emergency plan.
11. Restore treatment plants and potable water distribution system to service and coordinate with lead agency on status of service provision to customers.
12. Contain, direct, and treat wastewater. Coordinate with lead agency on status of service provision.

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13. Assume the responsibility for providing potable water at a water treatment facility connection for loading transport vehicles.
14. Restore water to ensure provision of fire flow and coordinate with lead agency on status of service provision.
15. Provide an inventory to the lead agency of all available resources to support ESF #3 response and recovery operations and any revised procedures annually.

C. Responsibilities of Support Agencies

1. Guernsey County Health Department
 - a. Provide testing of private wells for contamination.
 - b. Provide testing and permits for water haulers and portable water storage tanks.
2. Guernsey County EMA
 - a. Coordinate the collection of damage assessment data for all public assistance damages including structures, equipment, and debris clearance.
 - b. Forward damage assessment forms to the State EOC and coordinate arrival of preliminary damage assessment teams.
 - c. Request state assistance upon request of lead agency and in accordance with resource request requirements outlined in the Statewide Mutual Aid Agreement.
 - d. Coordinate with the Federal Emergency Management Agency (FEMA) Public Assistance Grant program to support the repair and restoration of public property.
3. Guernsey County Highway Department
 - a. Provide equipment and manpower assistance for emergency demolition of unsafe government structures.
 - b. Conduct damage assessment for damage to county facilities and equipment and forward information to lead agency.
4. Guernsey County Maintenance Department
 - a. Inspection of county facilities for damage.
 - b. Provide assistance to the Coordinating Agency as requested.
5. All Municipal Street Departments
 - a. Provide equipment and manpower assistance for emergency demolition of unsafe structures.
6. Cambridge Parks Department
 - a. Conduct damage assessment for all Parks and Recreation related areas including debris removal, protective measures, and damage to facilities and equipment and forward information to lead agency.
 - b. Provide equipment and manpower assistance for emergency demolition of unsafe structures.

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7. Guernsey County PIO
 - a. Provide information to the public on actions to take to assure safety of potable water.
 - b. Provide public information on locations to receive potable water if needed.
 - c. Assure that the public is made aware of public health risks associated with failure of sewer operations
8. County Fire Departments
 - a. Provide tankers for the hauling of potable water as needed.
 - b. Provide hazardous materials personnel to public works as needed.

V. Supporting Plans & Procedures

Guernsey County Resource Manual

Date of last revision: 2006

Available from: Guernsey County EMA

Various Department & Agencies SOP(s)

Date of last revision: N/A

Available from: N/A

Guernsey County ICS Procedures

Date of last revision: 2005

Available from: Guernsey County EMA

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