



## Emergency Support Functions Annex

# ESF-3 PUBLIC WORKS AND ENGINEERING

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**ESF Coordinator:**

Department of General Services

**Section:**

Operations

**Branch:**

Infrastructure

**Group:**

Public Works and Engineering

**Teams:**

Damage Assessment

Debris Management

**Primary Agency:**

Department of General Services

**Support Agencies:**

Department of Building and Development

*Building Code Enforcement / Inspection*

Department of General Services

*Public Works Division*

*Waste Management Division*

Department of Parks, Recreation and

*Community Services*

Loudoun County Health Department

*Environmental Health Services*

Loudoun Water

Town of Hamilton

Town of Hillsboro

Town of Leesburg

*Public Works Department*

Town of Lovettsville

Town of Middleburg

*Public Works*

Town of Purcellville

*Department of Public Works and Capital  
Projects*

*Department of Utilities*

Town of Round Hill

Virginia Department of Transportation

**Community Lifeline(s):**

Food, Water, and Shelter

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## INTRODUCTION

**Purpose**

Emergency Support Function (ESF)-3 Public Works and Engineering provides guidance and direction to designated agencies responsible for managing, assessing, and restoring public facilities and infrastructure during a significant event.

**Scope**

ESF-3 Public Works and Engineering coordinates resources necessary to manage, maintain, and restore public facilities and infrastructure during a significant event. Activities within the

scope of ESF-3 functions include: monitors and reports conditions; conducts damage assessments; manages debris removal; identifies alternative facility and infrastructure solutions; and coordinates and establishes priorities regarding restoration and recovery activities.

For the purpose of this document, damage assessments include functional and structural evaluations on all public works systems except for those associated with ESF-1 Transportation, ESF-2 Communications, ESF-11 Agriculture and Natural Resources, and ESF-12 Energy.

**Relevant Laws, Statutes, Plans, and Policies**

- ▶ Loudoun County Emergency Operations Center (EOC) Policies and Procedures Guide
- ▶ Loudoun County Codified Ordinances
- ▶ Loudoun County Debris Management Plan
- ▶ Loudoun County Damage Assessment Plan
- ▶ Loudoun County Solid Waste Management Facility Emergency Contingency Plan
- ▶ Loudoun County Solid Waste Management Facility Operations Manual
- ▶ Loudoun County Solid Waste Management Facility Safety Plan

**ESF Planning Assumptions**

- ▶ Local public works systems (including but not limited to public water supply, sanitary sewer or storm water systems) will likely sustain damage. The damage, dependent upon the integrity of the public works facilities and systems, will determine the effectiveness and efficiency of response and recovery.
- ▶ Local Virginia Department of Transportation (VDOT) resources may become overwhelmed quickly or be relocated to other areas in the region during an emergency.
- ▶ Damage to public works systems including water and sanitary sewer systems may result in decreased capacity or diminished service.

**ORGANIZATION**

**ESF Responsibilities**

- ▶ Reports to and takes direction from the Infrastructure Branch Director.
- ▶ Provides informational updates to the Planning Section.
- ▶ Develops plans, policies, and procedures necessary to resolve public works and facilities issues during the significant event.
- ▶ Documents information and actions related to public works and engineering missions

and assignments.

- ▶ Utilizes current methods and procedures to process requests for assistance.
- ▶ Submits a detailed record of costs and expenditures to the Finance and Administration Section.

## Agency Roles and Responsibilities

### Department of General Services (DGS)

Public Works Division  
Waste Management Division

- ▶ The agency recognized with ESF Coordination. DGS maintains equipment, personnel and contracts necessary to provide emergency site security, clearance of debris, operation of the County's solid waste management facility, emergency restoration of vital public works and facilities, and gathering of initial damage assessments. Emergency operational policies and procedures developed by DGS provide the framework for carrying out these activities.

### Department of Building and Development (DBD)

Building Code Enforcement / Inspection Division

- ▶ Serves as the agency with primary responsibility for documenting, reporting, and conducting initial damage assessments. Coordinates with DGS to obtain structural engineering assistance as required.

### Loudoun County Health Department (LCHD)

Environmental Health Services

- ▶ Serves as the agency with primary responsibility for documenting, reporting, and conducting inspections on damaged individual well and septic systems, and for coordinating with the Virginia Department of Health's Office of Drinking Water and Virginia Department of Environmental Quality on public water and wastewater systems.
- ▶ Provides guidance on food sanitation and preventing the spread of disease during a significant event.

### Department of Parks, Recreation and Community Services (PRCS)

- ▶ Provides personnel and equipment to assist with debris clearance from public facilities and infrastructure. Coordinates with DGS and VDOT to assist with clearing and opening primary transportation routes.

### Loudoun Water (LW)

- ▶ Performs damage assessment of water and waste water systems and facilitates necessary repairs.

### Town Department of Public Works and Capital Projects

- ▶ Performs damage assessment of town operated storm water systems and facilitates

necessary repairs and/or coordinates with appropriate service provider.

- ▶ Provides personnel and equipment to assist in debris removal operations within corporate limits.
- ▶ Coordinates and facilitates restoration of essential town operated public facilities.

#### **Town Department of Public Works and Capital Projects**

- ▶ Performs damage assessment of town operated water and waste water systems and facilitates necessary repairs and/or coordinates with appropriate service provider.
- ▶ Coordinates and facilitates restoration of essential town operated public facilities.

#### **Virginia Department of Transportation (VDOT)**

- ▶ Maintains primary responsibility for clearing the transportation network throughout Loudoun County. VDOT is responsible for clearing primary and secondary roadways and providing frequent status updates.

### **MISSIONS AND ASSIGNMENTS**

**Mission 1:** Manages resources necessary to monitor, maintain, and restore public facilities and infrastructure.

Assignment 1-1: Identifies, prioritizes, procures, and allocates available resources to maintain and restore essential public works systems and facilities.

Assignment 1-2: Considers future (in the subsequent 12 to 24-hour period) resource requirements and conveys to EOC leadership.

**Mission 2:** Provides situational updates regarding public facilities and infrastructure conditions.

Assignment 2-1: Maintains and updates information related to the critical infrastructure damage, availability of alternative or redundant systems, debris clearance and removal, and restoration activities.

Assignment 2-2: Maintains and updates information related to public facility damage, closure, and restoration activities.

**Mission 3:** Conducts damage assessments and documents, analyzes, and reports results.

Assignment 3-1: Assesses the condition of County facilities, including those deemed “vital.” Coordinates and facilitates the closure of components determined to be unsafe.

Assignment 3-2: Conducts assessments on all damaged residential, commercial, and industrial buildings (public or private). Performs functional and structural evaluations on all public works systems, except as noted.

**Mission 4:** Manages debris removal process and documents, analyzes, and reports results.

Assignment 4-1: Coordinates, assesses, and identifies suitable debris disposal sites and provides guidance in areas affected by contamination.

**Mission 5:** Identifies public facilities and infrastructure alternatives that can be implemented when systems or infrastructure are damaged, unavailable, or overwhelmed.

Assignment 5-1: Maintains an inventory list of public facilities that may be available for alternative uses.

**Mission 6:** Coordinates initial public facilities and infrastructure restoration and recovery activities.

Assignment 6-1: Identifies and prioritizes restoration and recovery initiatives.

## COMMUNITY LIFELINE(S)

### Food, Water, and Shelter

1. Water (Drinking Water Utilities, Wastewater Systems, Commercial Water supply chain)
  - ▶ Identify the status of water resources.
  - ▶ Determine impact response operations and how will the response improve if this component is stabilized.
  - ▶ Identify actions that must be taken to improve water resources.
  - ▶ Evaluate factors that may limit the ability to make improvements.
  - ▶ Establish restoration timeline for water resources.

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