

Preliminary Damage Assessment Team

POCKET GUIDE





SCEMD

Responsibilities in the Declaration Process

Local

- Conducts an initial damage assessment
- Provides a rough estimate of the extent/location of damages
- Notifies the State of unmet needs in the community
- Requests a Joint Preliminary Damage Assessment (PDA)



State

- Verify data submitted by local government
- Request FEMA to perform a Joint PDA
- Governor requests a Presidential Declaration through FEMA within 30 days of the incident



FEMA

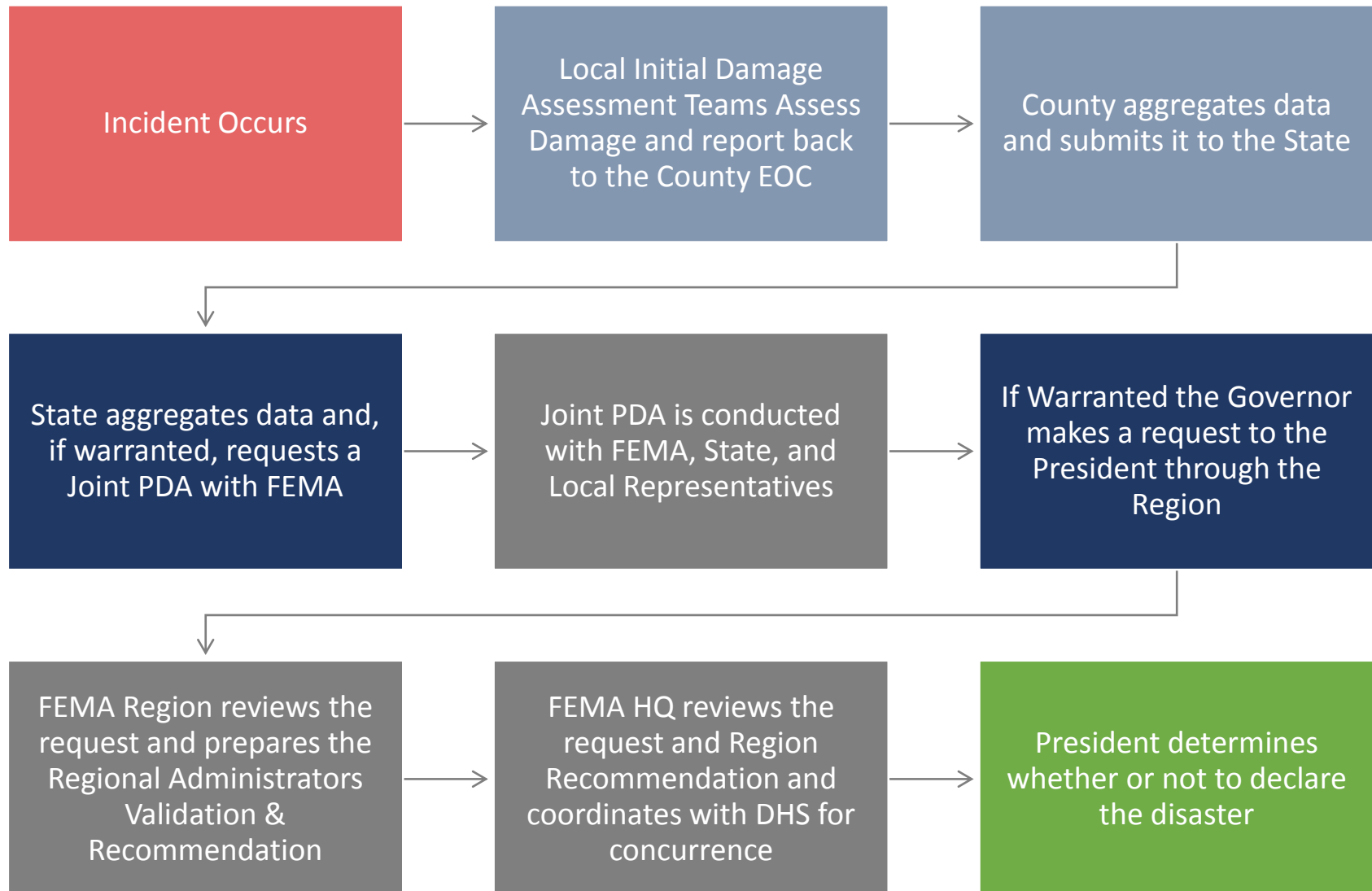
- Coordinates federal team members for the Joint PDA
- Reviews the Governor's request for a Presidential Declaration
- FEMA makes a recommendation to the President



President

- The President makes the decision to issue a Major Disaster Declaration, Emergency Declaration, or deny the request

The Declaration Process



Preliminary Damage Assessment (PDA) Pocket Field Guide

Purpose

This field guide serves as a quick reference tool for Local, State, and Federal Preliminary Damage Assessment Team Members to promote accuracy, consistency, and efficiency in conducting PDAs

Why do a Damage Assessment?

- Determine the impact and magnitude of an event
- Identify unmet needs of individuals, businesses, the public sector, and community as a whole
- Provide off-scene responders the information they need to plan for assistance

Following rare incidents of unusual severity, rapid assessment methods not outlined in this guide may be used to determine the need for Stafford Act Assistance (e.g. expedited declaration). When this is the case, a damage assessment will be conducted **after the declaration** has been granted to determine the scope of the disaster, unmet needs, and organize resources to support response and recovery operations.

Minimum Personal Equipment

- Clothing appropriate for the environment (e.g. heavy duty pants, insulated layers, etc.)
- Comfortable footwear appropriate for the terrain
- Goggles or safety glasses
- Earplugs
- Dust Masks
- Rain Coat or Poncho large enough to fit over clothing
- Safety Vest
- Work Gloves
- Flashlight with extra batteries
- Tape measure (25ft minimum)
- Whistle
- Hard Hat

Team Equipment

- Ipad or smartphone preloaded with damage assessment software (if applicable)
- Digital Camera with extra batteries (if applicable)
- Damage Assessment forms and pens
- Small first aid kit with latex gloves, CPR face shield, and space blanket
- Maps
- Communication (Radio and/or cell phone)

Public Assistance

State's Criteria for Requesting Federal Disaster Assistance

In order for the incident to be eligible for a Public Assistance Declaration, the total costs associated with Emergency Protective Measures, Debris Removal, and Infrastructure Restoration to pre-disaster function, capacity, and design for both the affected counties and the state damage assessment estimates must exceed the annual per capita threshold established by FEMA. The current threshold can be found at <http://scemd.org/recovery-section/pa>

Potential Applicants

- State Government Agencies and Federally Recognized Tribes
- Local Governments
- Certain Private Non-Profits

Categories of Work

Type	Category of Work	
Emergency Work	A	Debris Removal
	B	Emergency Protective Measures
Permanent Work	C	Roads and Bridges
	D	Water Control Facilities
	E	Buildings and Equipment
	F	Utilities
	G	Parks, Recreation, and Other

Cat A: Debris Removal

Activities such as clearance, removal, and disposal of debris that is in the public interest. Public interest is based on whether the work:

- Eliminates immediate threat to lives, public health, and safety;
- Eliminated immediate threats of significant damage to improved public or private property; or,
- Ensures economic recovery of the affected community to the benefit of the community at large



Debris Estimation Guidelines

Conversions

- Construction / Demolition Debris = 1 Ton = 2 CY
- Mixed Debris = 1 Ton = 4 CY
- Vegetative Debris = Hardwoods = 1 Ton = 4 CY
Softwoods = 1 Ton = 6 CY

Note: Debris is typically measures in Cubic Yards (CY)

Visualization Techniques

- 1 Porta-Potty = 2 CY
- 1 Dump Truck = 13 CY
- 1 Recycle Roll Off (15' x 6' x 6') = 20 CY
- 1 Dump Trailer (42' x 8.5' x 6') = 84 CY
- Mobile Home Park = 1 Single Wide = 290 CY
1 Double Wide = 415 CY
- Home without basement = 25-30 CY of personal property
- Home with basement = 45-50 CY of personal property

Formulas

$$\text{General Building} = \frac{L' \times W' \times H' \times .33}{2} = \text{CY}$$

$$\text{Single Family Home} = L' \times W' \times S \times .20 \times 1.3 = \text{CY}$$

*S = Number of stories

$$\text{Mobile Home} = \frac{L' \times W' \times H'}{27} = \text{CY}$$

$$\text{Debris Piles} = \frac{L' \times W' \times H'}{27} = \text{CY}$$

$$\text{In Home Flood Debris} = \text{Sq Footage} \times .02 = \text{CY}$$

Cat B: Emergency Protective Measures

Actions taken before, during, and after a disaster to eliminate or lessen immediate threats to life, public health, or safety, or to eliminate or lessen immediate threats of significant additional damage to improved public and private property. Examples include but are not limited to:

- Search and Rescue
- Firefighting
- Safety Inspections
- Flood Fighting
- Medical Care and Transport
- Evacuation and Sheltering Costs



Cat C: Roads and Bridges

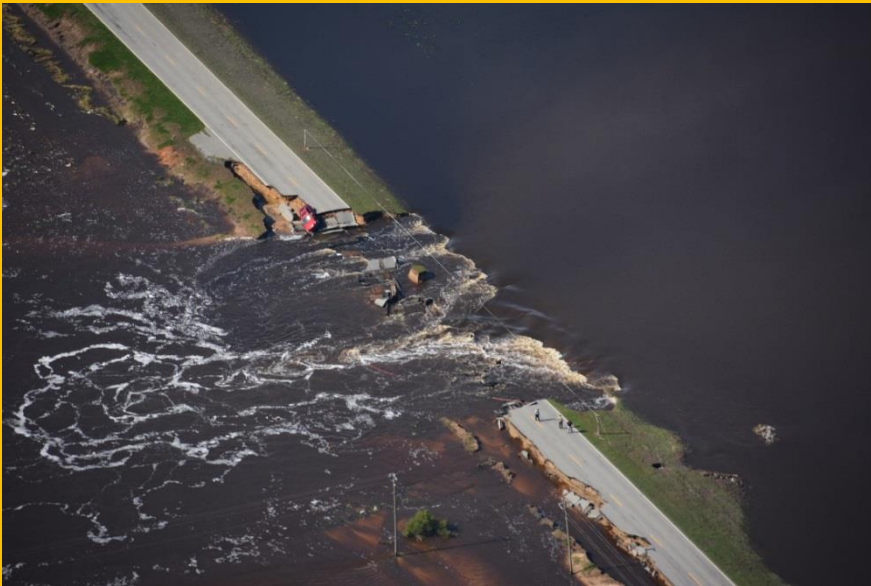
Permanent work done to restore roads (paved, gravel, and dirt), bridges, and their components to their pre-disaster design and function

Example Road Components

- Surfaces
- Bases
- Shoulders
- Ditches
- Culverts
- Low water crossing
- Sidewalks
- Guardrails
- Signs

Example Bridge Components

- Decking
- Guardrails
- Girders
- Pavement
- Abutments
- Pier
- Slope protection
- Approaches
- Sidewalks
- Signs



Cat B & C

Cat D: Water Control Facilities

Work done to restore publicly-owned water control facilities. Water control facilities are those facilities built for the following purposes:

- Channel alignment
- Recreation
- Navigation
- Land reclamation
- Irrigation
- Maintenance of fish and wildlife habitat
- Interior damage
- Erosion prevention
- Flood control
- Storm water management



Cat E: Buildings and Equipment

Activities such as but NOT limited to:

- Repair and replacement of buildings including furnishings and interior systems such as electrical work
- Replacement of library books and publications
- Repair of vehicles and other equipment



Cat F: Utilities

Work required to restore damaged utility facilities to pre-disaster design and function to include:

- Water storage facilities, treatment plants, and delivery systems
- Natural gas transmission and distribution facilities
- Communication systems
- Sewage collection systems and treatment plants
- Power generation, transmission, and distribution facilities (e.g. wind turbines, generators, substations, and power lines)



Cat G: Parks, Recreation, and Other

Activities such as but NOT limited to:

- Repair and restoration of parks, playgrounds and equipment, pools, cemeteries, golf courses and beaches
- Work or facility not characterized by categories A-F



Individual Assistance

State's Criteria for Requesting Federal Disaster Assistance

Small Business Administration (SBA) Declaration only – Disaster Loan Program

There must be a minimum of twenty-five (25) homes and/or businesses with at least 40% uninsured damaged. SBA may make an economic injury declaration if at least five (5) small businesses have suffered substantial economic injury as a result of the disaster.

13 CFR 123.3 (3)

FEMA Individual Assistance Declaration

There is **NO SPECIFIC THRESHOLD** required for Individual Assistance (IA). Factors considered for an IA disaster declaration includes but is not limited to

- Concentration of damage
- Trauma (deaths and injuries, disruption of normal community functions, emergency needs, etc.)
- Impact on populations with greater need
- Ability of Local, State, or Tribal Government, and voluntary organization programs to address needs
- Uninsured/ underinsured home and personal property losses

Evaluating and Documenting Damage to Homes

Types of Homes

- Single Family Residence – any residence designed to accommodate a single family that is built using conventional building methods. This includes modular homes factory-built to uniform construction code standards and assembled on site
- Multi-Family Residence – any residence designed to accommodate more than one family. Each unit should have a separate bathroom, kitchen, and living area (e.g. duplexes, condos, and apartments)
- Manufactured Homes – a structure transportable in one or more sections, which when erected on site is 320 or more square feet, and is built on a permanent chassis and designed to be used as a dwelling with or without permanent foundation when connected to required utilities, and includes the plumbing, heating, air-conditioning and electrical systems contained in the structure

Occupancy

- Primary Residence – a permanent residence occupied more than 6 months out of the year
- Secondary Residence – A vacation home, home under construction or occupied less than 6 months out of the year
- Vacant Property

Homeownership

- Owner
- Renter

Insurance Coverage

- Homeowners Insurance
- Additional insurance (flood, earthquake)

Destroyed

Destroyed: Manufactured Home

The residence is a total loss

- The residence's frame is bent, twisted, or otherwise compromised
- The residence is missing the roof covering and the structural ribbing has collapsed for the majority of the roof system



Destroyed: Conventionally Built Structure

The residence is a total loss; or damaged to such an extent that repair is not feasible.

- Complete failure of two or more structural components (e.g. collapse of basement walls, foundation, load-bearing walls, or roof)
- Only the foundation remains
- A residence that is in imminent threat of collapse because of disaster-related damage or confirmed imminent damage (e.g. impending landslides, mudslides, or sinkholes)



Destroyed

Major

Major: Manufactured Home

The residence has sustained structural or significant damage that requires extensive repairs

- The residence has been displaced from the foundation, block or piers, and other structural components have been damaged
- Water has come into contact with the floor system to include belly board insulation, ductwork, and subflooring



Major: Conventionally Built Structure

The residence has sustained significant structural damage and requires extensive repairs

- Failure or partial failure of
 - Structural elements of the roof (e.g. rafters, ceiling joists, ridge boards, etc.)
 - Structural elements of the walls (e.g. framing, sheathing, etc.)
 - The foundation (e.g. crumbling, bulging, collapsing, 2" and larger horizontal cracks, shifting of the residence on the foundation of more than 6")
- Water line 18" above the floor in an essential living space, above the electrical outlets, or a water line on the first floor when a basement is completely full



***Finished Basements** – if a basement contains any of the following essential rooms; bedroom, bathroom, kitchen, and/or living room consider it to be major damage if the water line is 18" above the floor

Major

Minor

Minor: Manufactured Home

The residence is damaged and requires minimal repairs

- Nonstructural damage (e.g. to windows, doors, and wall coverings, roof, bottom board insulation, ductwork, or utility hookup) without displacement from the foundation
- Water line below the floor system
- HVAC interior mechanical unit is impacted



Minor: Conventionally Built Structure

The residence has damage that does not affect its structural integrity

- Nonstructural damage to
 - Roof components over essential living space (e.g. large areas of shingles, roof covering, fascia board, soffit, flashing, and skylight)
 - Interior wall components (e.g. drywall, insulation) or Exterior wall components (e.g. house wrap, missing doors, broken window framings, missing vinyl, etc.)
- Multiple small vertical cracks in the foundation
- Damage to chimneys (e.g. tilting, fallen, cracks, or separated from residence)
- Damage to or submersion of mechanical components (e.g. HVAC units, hot water heater, electrical panel, etc.)
- Water line less than 18" in an essential living space
- Damage or disaster related contamination to a private well or septic system



***Finished Basements** – if a basement contains any of the following essential rooms; bedroom, bathroom, kitchen, and/or living room consider it to be minor damage if the water line is less than 18" above the floor

Minor

Affected

Affected: Manufactured Home

The residence has cosmetic damage only. It also applies to homes with damage to a porch, carport, garage, and/or outbuilding.



Affected: Conventionally Built Structure

The residence has minimal damage to the exterior and/or non-essential basements

- Partial missing shingles or siding (non-continuous/sporadic) roof structure intact
- Cosmetic damage such as paint discoloration or loose siding
- Broken screens and/or gutter damage and debris
- Damage to an attached structure (e.g. porch, carport, garage, outbuilding etc.)
- Damage to landscaping, retaining walls, or downed trees that don't affect accessibility
- Any waterline in the crawl space or basement when essential living space or mechanical components are not damaged or submerged



Affected

Inaccessible

Inaccessible

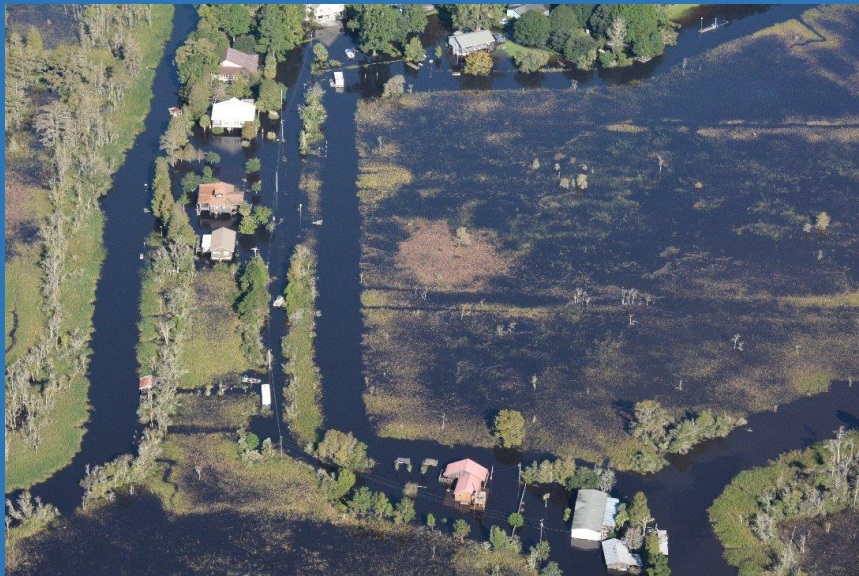
Residences that are inaccessible by reasonable means, due to disaster-related loss of access (e.g. washed out road, bridge out, road flooded or blocked by landslide, etc.)

- Individual apartment units that are not habitable due to damage to lower floors should also be included in the assessment

Additional Guidance for Teams

Take reasonable and safe measure to be able to see the damage when possible. If the PDA team still cannot gain access, estimate the number of inaccessible homes using information from local officials, flyovers or other technology. If the team can gain access but residents reasonably cannot, then mark the damage level seen for destroyed, major, and minorly damaged homes only. **DO NOT MARK INACCESSIBLE. For affected homes that are also inaccessible to the resident, mark inaccessible rather than affected**, to err on the side of the applicant.

Inaccessible



Inaccessible

Recording and Reporting Damage Assessment

Electronic

Some entities utilize electronic based damage assessment programs. Contact your local PDA coordinator to obtain the most up to date user manual and instructions.

Paper-Based

Damage assessment data can also be reported utilizing paper forms. These forms can be found at <http://www.scemd.org/recovery-section>

For Further Information

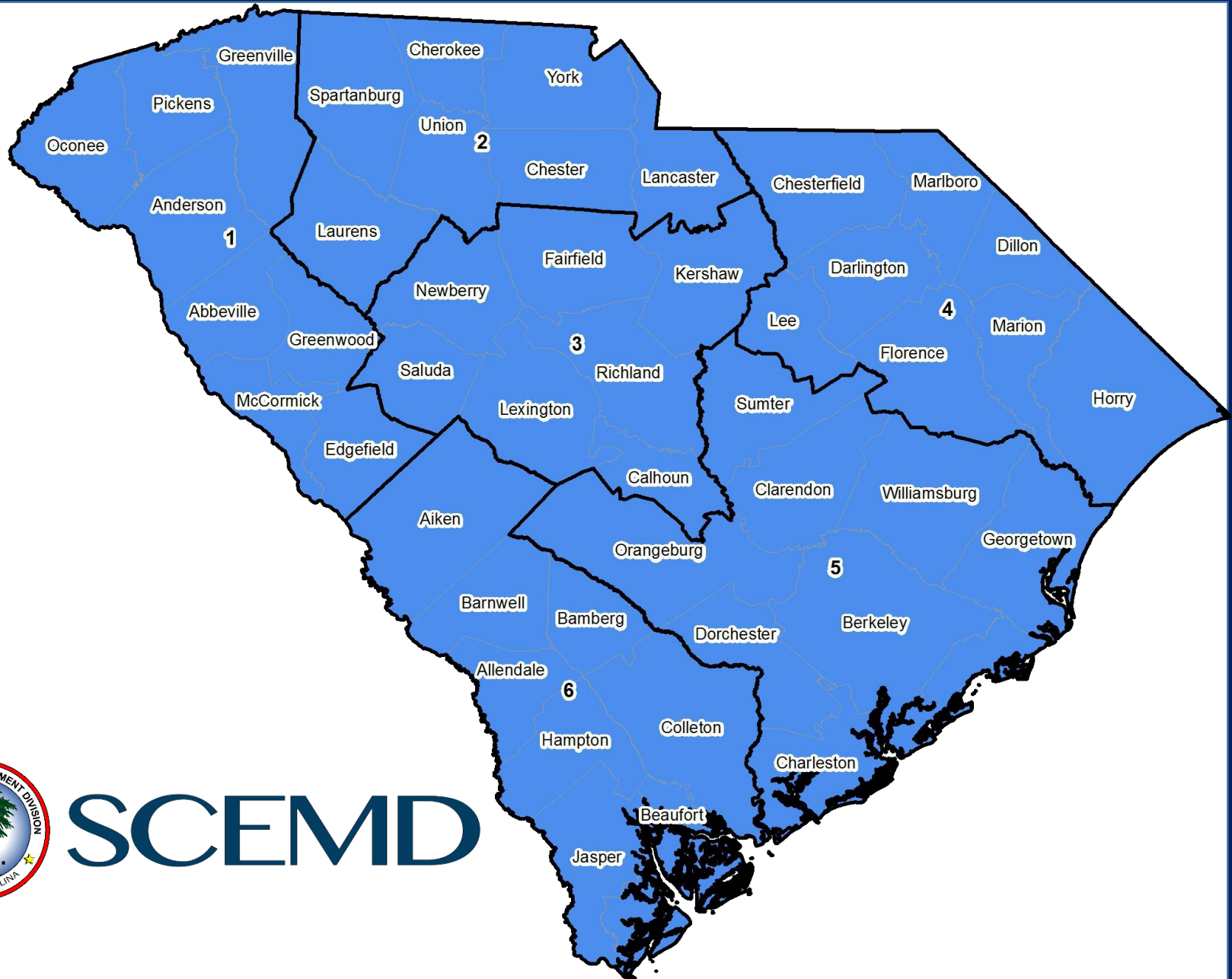
Documents

- FEMA Damage Assessment Operations Manual
- 44 CFR Part 206
- 2 CFR Part 200
- The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended
- FEMA Public Assistance Guide
- SCEMD Recovery Plan

Websites

- www.scemd.org
- www.screcoverygrants.org
- www.fema.gov

Notes



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