

CHATHAM COUNTY EMERGENCY OPERATIONS PLAN

ESF-03 ANNEX
APPENDIX 3-5

DAMAGE ASSESSMENT STRATEGY

NOVEMBER 2013





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ACRONYMS

ARC	American Red Cross
CEMA	Chatham Emergency Management Agency
CFI	Critical Facilities Inventory
DA	Damage Assessment
DAO	Damage Assessment Overview
DAT	Damage Assessment Team
EAS	Emergency Alert System
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
GEMA	Georgia Emergency Management Agency
GIS	Geographic Information System
GPS	Global Positioning System
IDA	Initial (Immediate) Damage Assessment
IDAT	Initial (Immediate) Damage Assessment Team
JPDA	Joint Preliminary Damage Assessment
JPDAT	Joint Preliminary Damage Assessment Team
PDA	Preliminary Damage Assessment
PDAT	Preliminary Damage Assessment Team
PIO	Public Information Officer
RNA	Rapid Needs Assessment
SITREP	Situation Report
TEK	Team Equipment Kits



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RECORD OF CHANGES

- No Changes made 6/13



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I. INTRODUCTION

- A. This Annex was developed to assist Unincorporated Chatham County and Chatham County Municipal Jurisdictions plan for and be prepared to respond to emergency damage assessment situations.
- B. This document outlines components critical to successful damage assessment operations throughout Chatham County (County) and provides key information that will help the County coordinate and effectively manage damage assessment efforts should the County be affected by an event or disaster. Central to the success of damage assessment operations is the understanding of the following elements prior to an activation of the damage assessment program:
 - 1. The parties involved and their roles and responsibilities with regard to the damage assessment operations;
 - 2. Rules, regulations and guidelines enacted by the Federal Emergency Management Agency (FEMA) and other agencies governing damage assessment;
 - 3. The process of collecting damage assessment information;
 - 4. The process(s) used to compile data and generate the necessary report.

II. PURPOSE

- A. To provide organizational structure, guidance, and standards for a County-wide strategy to coordinate the damage assessment operations to mitigate any actual or potential threats to the health, safety, and/or welfare of the population within the impacted areas of the County following an event or major disaster.
- B. To provide a unified and coordinated process of activation, assignment, deployment, and operation of Damage Assessment (DA) Teams to efficiently and as accurately as possible document damage in the Chatham County area. This will assist in determining the need for federal disaster assistance.

III. SCOPE

- A. This Annex provides a coordinated response blueprint for County jurisdictions. To assist County jurisdictions expeditiously recover from an event or major disaster.



- B. Provisions of this Annex shall be implemented to the degree necessary and required to coordinate the management of damage assessments County-wide. This Annex is not intended to replace established County jurisdictional emergency response plans and/or procedures.

IV. ASSUMPTION

- A. Pre-planning for damage assessment is an ongoing process. Procedures and teams must be in place before the disaster event occurs. Successful damage assessment begins immediately and continues through the recovery phase. Damage assessment is conducted separately from lifesaving and property protection operations.
- B. The goal of a damage assessment system is to quickly and efficiently collect, analyze, and summarize data about damages resulting from an emergency or disaster event. Information is gathered to:
 - 1. Identify the needs of victims.
 - 2. Describe and document the type, extent, and location of damages for emergency decision making purposes at all levels of government.
 - 3. Establish disaster recovery priorities and the type and quantity of resources and personnel required during recovery.
 - 4. Determine the need for, and type of State and Federal disaster assistance to ensure Chatham County's short and long-term needs are met.
- C. Damage assessment is not a single event. It is a system comprised of distinct activities conducted at different times and for different purposes after disaster impact.

V. IMPLEMENTATION

- A. In Chatham County, damage assessment is accomplished in four (4) phases:
 - 1. Rapid Needs Assessment (RNA): Initial information as to the nature and extent of a disaster event. Takes place within hours after an incident and focuses on identifying lifesaving needs, imminent hazards, identifying damages and impacts. This assessment is to obtain the big picture and direct first responders to specific locations.



2. Initial (Immediate) Damage Assessment (IDA): An initial survey is accomplished by utilizing information provided by police, fire, public works or other first responders traveling through the affected areas and observing the extent of damage to homes, businesses and public buildings or infrastructures. Within the first 72 hours.
3. Preliminary Damage Assessment (PDA): A detailed inspection and professional assessment conducted by Damage Assessment Teams staffed by personnel from building safety/regulatory/engineering, fire marshals, Board of Assessors, and public works organization. Identifies and fixes dollar amounts to damages. 72 – 96 hours.
4. Joint Preliminary Damage Assessment (JPDA): State and federal damage assessment teams will want to identify and validate damaged property in public infrastructure, define the scope of repairs, and determine repair or replacement costs. 96+ hours.

VI. CONCEPT OF OPERATIONS

A. Minor / Single Event

1. The RNA provides vital information to Chatham Emergency Management Agency (CEMA) and local jurisdictions enabling efficient direction of resources to areas most in need and effectively reducing the impact of the incident or event on residents within Chatham County.
2. A timely and accurate RNA gives CEMA the necessary data to determine if damage from incident or event within Chatham County exceeds available resources.
3. The Damage Assessment Overview (DAO) will be completed quickly and is intended to be an overview estimation of areas within the County that have sustained damage and will need to be surveyed to determine the extent of damage. This overview is made up of maps, list of addresses, and critical facilities.
4. The DAO will be compiled using information from a variety of sources. Information used to compile the DAO will come from reports and logs of Law Enforcement/Fire Rescue/EMS, Public Works and 911 calls. Additional information may come from the American Red Cross (ARC), Georgia Power, National Weather Service, media reports and Emergency Operations Center (EOC) Public Information Office calls.



5. DAO is used to identify a “footprint” of locally damaged areas that will need to be prioritized and assessed in more detail through a house-by-house, street-by-street damage assessment. Based on reports from critical facilities, Damage Assessment Teams will be dispatched for an in-depth safety review. This will comprise the IDA process and yield the data necessary to determine if additional long term resources will be required.

B. Major Disaster

1. The RNA provides vital information to the Emergency EOC enabling efficient direction of resources to areas most in need and effectively reducing the impact of the disaster on residents in Chatham County.
2. A timely and accurate RNA gives CEMA the necessary data to determine if disaster damage within the County exceeds available resources. County and State senior leadership can decide if the event is of sufficient severity to warrant a request for federal disaster assistance.
3. Within 12 hours of the disaster, it will be the responsibility of EOC Planning Section to develop a DAO.
4. This DAO will be completed quickly and is intended to be an overview estimation of areas within the County that have sustained damage and will need to be surveyed to determine the extent of damage. This overview is made up of maps, list of addresses, and critical facilities.
5. The DAO will be compiled using information from a variety of sources. Information used to compile the DAO will come from reports and logs of Law Enforcement/Fire Rescue/EMS, Public Works and 911 calls. Additional information may come from the ARC, Georgia Power, National Weather Service, media reports and EOC Public Information Office calls.
6. CEMA maintains an up-to-date Critical Facilities Inventory (CFI), which includes airports, schools, hospitals, sewage and water treatment facilities, nursing homes and bridges. These facilities may be contacted to identify damage sustained by them, if any. Based on the report on the CFI, Damage Assessment Teams will be dispatched for an in-depth safety review. EOC Planning Section will maintain the CFI of facilities identified on a Geographic Information System (GIS) map layer.



7. EOC Planning Section may decide to do an IDA of affected areas to clarify damage reports. A windshield survey is accomplished by driving through the affected areas and observing the extent of damage to homes, businesses and public buildings or infrastructures. This survey is intended to assess the broad scope of the damage. The Rapid Needs Assessment Form and, or the Preliminary Damage Assessment Field Sheet will be used.
8. EOC staff will use WebEOC to provide operational planning period information. WebEOC assists in establishing planning directions of the EOC Planning Section to direct response resources to critical areas in need of immediate services. In additional, the Damage Assessment findings will be documented in the WebEOC and transmitted to Georgia Emergency Management Agency (GEMA)
9. Updated DAOs are used to identify a “footprint” of locally damaged areas that will need to be prioritized and assessed in more detail through a house-by-house, street-by-street damage assessment. Based on reports from critical facilities, Damage Assessment Teams will be dispatched for an in-depth safety review. This will comprise the IDA process and yield the data necessary to determine if a request by County and State senior leadership members for federal disaster assistance is warranted.
10. EOC Planning Section may request a flyover to observe and photograph damaged or inaccessible areas. This will assist in prioritizing areas needing an IDA. This near real time data can be transmitted to the EOC via radio/video streaming. In the event the flyover identifies severe and widespread damage, this information could be used to justify a request for an immediate Presidential declaration.
11. DA information is sent to GEMA through EOC Manager, by way of a Situation Report (SITREP), after analysis and consolidation. EOC staff will monitor the situation, using GIS to predict areas of probable damage, and will pass this information to the Damage Assessment Teams (DAT) in a DAO. EOC Planning Section will use the SITREP's, GIS mapping and any other data to prioritize affected areas needing an IDA.

C. Damage Assessment Team Operations

1. If an event is expected to cause severe damage, emergency management can pre-deploy the DAT to staging areas where the anticipated disaster and damage is expected if possible. This may facilitate a more timely and accurate RNA and IDA.



2. EOC Planning Section may recommend to EOC Management Section that the DAT's activate and pre-deploy immediately (when safe to do so) after the event or deploy to perform an IDA of damaged and prioritized areas. EOC Planning Section will contact appropriate agencies, as well as designated County/City personnel and instruct them to assemble personnel to staff the DAT's. EOC Planning Section may activate, brief and deploy additional DAT's as the situation warrants and personnel are available.
3. The IDA will be a cooperative effort by DATs composed of a minimum of 2 people:
 - a. A County/City representative
 - b. Other representatives as required or available will perform this joint DA effort. This coordination will ensure adequate personnel and reduce duplicative assessments, the number of people and groups asking disaster victims the same or similar questions.
4. Team Leader Responsibilities.
 - a. Overall performance and appropriate conduct.
 - b. Assignment of roles to team members.
 - c. Accurate and timely assessment of damage levels (hard copy or electronic).
 - d. Maintaining communications with Incident Commander or EOC.
 - e. Plan routes to, through, and from damage assessment sites.
5. DAT personnel will assemble at a designated location for briefing by EOC Planning Section and to receive team assignments. DAT briefings may also be conducted over the radio or cellphone if pre-deployed and services are available.
6. DAT Team Equipment Kits (TEK) will be initially inventoried and issued by the DAT Leader. Once issued, team members will be responsible for security of the kits. TEKs will be stored at the EOC. DATs will review the TEK checklist prior to departure to the field. DATs are responsible for proper use of all equipment.



D. Consolidation of Damage Assessment Data

1. All DATs will report to the Incident Commander or EOC with all collected damage assessment data. EOC Planning Section will be responsible for consolidating data into the WebEOC format.
2. GIS Layers: The consolidated data shall be translated into a GIS map to identify the affected areas and the degree of damage to each of these areas.
 - a. AFFECTED HABITABLE – areas indicated in White
 - b. MINOR DAMAGE - areas indicated in Green.
 - c. MAJOR DAMAGE - areas indicated in Yellow.
 - d. DESTROYED - areas indicated in Red.
3. Data Analysis: The EOC Management and Planning Sections will review and analyze the data to verify individual damage assessments are consistent. If inconsistencies are identified, the DAT responsible for the data in question will be consulted. Reassessment may be requested.
4. The data will be forwarded to all appropriate agencies where an estimated dollar amount of damages to specific areas, including costs for damage to structures, contents, business losses, and public infrastructures. A total dollar amount for the disaster event will also be estimated.
5. The EOC Management Section will review the data and total dollar estimate of all damages and provide information to GEMA. County and State senior leadership will make a recommendation to seek a Federal Declaration of a Major Disaster or an Emergency. PDA data will be used to structure a Joint Preliminary Damage Assessment (JPDA) with FEMA and GEMA.

E. Training Program

1. When disaster strikes, the Incident Commander or EOC needs to deploy DATs to rapidly assess damage. There must be a pool of personnel thoroughly trained and properly equipped to do the job. The Chatham Emergency Management Agency will provide IDA team initial and refresher training to personnel ensuring a cadre of qualified personnel.



2. At a minimum, twenty personnel are to be trained for DATs and may include, but not limited to the following:
 - a. Chatham County
 - b. City of Savannah
 - c. City of Garden City
 - d. City of Tybee Island
 - e. Town of Thunderbolt
 - f. City of Pooler
 - g. City of Port Wentworth
 - h. City of Bloomingdale
3. A DAT training invitation will be sent to any municipality or state agency that may send personnel to assist CEMA in DA.
4. Appropriate personnel for DATs would preferably include Building Inspectors, Engineers, Public Works Personnel, Park and Recreation, Personnel, and Property/Tax/Insurance Assessors.
5. All DAT members should consider having current inoculations for Diphtheria/Tetanus and Hepatitis B.
6. DAT training will cover, at a minimum, the following:
 - a. Overview on damage assessment and DATs.
 - b. What is DA.?
 - c. Why do DA?
 - d. What is DA data used for?
 - e. How are DATs staffed?
 - f. What is the mission/responsibility of the DATs?
 - g. What are the roles of the DAT.?
7. The Federal Response and assistance.
 - a. Preliminary Damage Assessment



- b. Federal Disaster Declaration Process.
- c. Federal Disaster Assistance.
- 8. Review of this Strategy
 - a. DA Concepts and Principles.
 - b. Standardized process to complete IDA.
 - c. County centered and coordinated.
 - d. Joint DA Teams.
 - e. Mutual cooperation among all agencies.
 - f. Damage Assessment Overview (DAO).
 - g. DAT activation and briefing of assignments.
 - h. TEKs will be reviewed to include explanations of and the purpose for each item.
 - i. DAT deployment, communications, and field operations.
 - j. Safety in the field.
 - k. Contact with the public and media.
 - l. Recovery brochures.
 - m. Operation of the Laptop Computers.
 - n. Basic operation, moving through programs and menus, and entering data.
- 9. Damage Assessment Data: Explain the DA data reporting process and WebEOC application. Each data field will be reviewed and explained.
- 10. Estimating Damage.
 - a. Practical guidance will be given with the goal of establishing consistent standards among all DAT personnel. The damage levels (on a scale from 1 to 10) for estimating damage will be reviewed including damage description, things to look for in evaluating a structure, water level assessment guidance when flooding is involved. Category differences of FEMA



and American Red Cross damage levels. Estimating structure contents damage, and the formula to determine the dollar amounts.

- b. With students arranged into simulated DATs, practical exercises in assessment of damage will be conducted. DATs will be provided with written descriptions and photographs of damaged properties. Students will assess damage as a team, decide on a damage level, estimate the dollar amount of damage, and enter all data on the assessment into the appropriate database.
 - c. After the assessment of each property, one DAT will explain to the class their reasoning concerning the assessment made of the property. The instructor will then provide the “textbook” answer for that exercise property.
11. Global Positioning System (GPS): The complete operation of the GPS units or cameras with GPS stamping will be reviewed so that Latitude and Longitude coordinates for assessment sites can be obtained.
12. Brief the students concerning the various communications equipment utilized by the DATs.
- a. Briefing by EOC Public Information Officer (PIO).
 - b. Dealing with the media and the public in the field.
 - c. The types of questions the media or public might ask of the DATs and what to expect from the media.
 - d. How the DATs should answer questions from the media and public.
 - e. To whom should the media and public be referred for more detailed answers to their questions?

F. Damage Assessment Phases

- 1. The ability of local governments to perform damage assessment quickly and accurately is critical to providing an adequate local government response for life-threatening situations and imminent hazards. Coordinated and timely assessments allow local governments to prioritize response activities, allocate resources, request mutual aid, and request state/federal assistance.



2. CEMA's damage assessment system consists of the following phases (See Flowchart at the end of this section).
 - a. Phase 1: Rapid Needs Assessment (RNA). Spot reports by citizens, media, and emergency responders. This is a quick snap shot of the event.
 - 1) During the first few hours following the occurrence of disaster, the CEMA Duty Officer will be the focal point for the initial spot reports from the emergency responders, 911 dispatch centers, the media, and the general public.
 - 2) Key information as to the nature and extent of the disaster and a description of the affected area allows the CEMA Duty Officer to map record and direct response to critical areas.
 - 3) Methods include Spot Reporting, Initial Reports. Information may be obtained by radio and telephone from emergency personnel on scene (rescue, law, fire, public works, home owners, businesses, etc.)
 - 4) Analysis includes identifying:
 - a) Area(s) of impact.
 - b) Threatened area(s).
 - c) What has happened?
 - d) What needs to be done?
 - e) What is needed?
 - f) Status of emergency response to include personnel, equipment, supplies, vehicles, communications, and facilities.
 - g) Estimates of dead, injured, and damages.
 - h) Number of people at risk.
 - i) Public protection actions taken.
 - j) Public protection actions needed.



- b. Phase 2: Initial Damage Assessment Teams (IDAT) activated
 - 1) Local DA Teams are activated to provide a overview of what happened and to report what happened as rapidly as possible to CEMA.
 - 2) These initial first impressions reports form the basis for emergency proclamations, and requests for assistance from the state and federal government.
 - 3) Critical information includes: locations of injuries, deaths, damages; types and extent of damages; impact on people; local resources available; assistance needed. This information will be communicated and filed with the CEMA Duty Officer or EOC.
 - 4) Team Assessment methods include:
 - a) Windshield Assessment/Survey: DAT teams drive through all affected areas visually gathering data using the Preliminary Damage Assessment Field Sheet. The teams will record observed damages and hazards while driving through these areas, periodically stopping to conduct interviews to provide evidence related to insurance coverage, occupancy type (owner or renter), and other significant information.
 - b) Aerial Inspection (Fly Over): Weather permitting, aircraft are utilized for initial damage assessments, and later for more detailed assessments. An estimated number of damaged structures are determined while flying over populated areas. Usually, homes are counted in clusters. Any pictures taken from the fly-over may be used to further analyze the degree of damage. Using maps, flight plans must be briefed and coordinated between the DA Team and flight crew prior to flight. Input can be written observer logs, photos, or video.



- c) Door-to-Door: A higher level of detail and household specific data can be gathered through this method. The teams are dispatched in the usual manner, but once in the affected areas they survey door-to-door. This is labor intensive but highly accurate
- 5) Information is compiled by the EOC's Situation Analysis Unit.
- 6) Immediate analysis will include:
 - a) A description of the disaster.
 - b) Where the disaster struck.
 - c) Approximate number of people affected.
 - d) Demographics of the affected area.
 - e) Whether the disaster is still occurring and other current conditions.
 - f) Any conditions that could affect the ability to carry out relief coordination.
- c. Phase 3: Preliminary Damage Assessment Teams (PDATs) are activated to provide a detailed evaluation of what happened
 - 1) The EOC Damage Assessment Unit coordinates with and directs DATs into specific impact areas to gather data on the number of individual homes, apartments, mobile homes, businesses, public buildings and infrastructure, and critical facilities that have been damaged or destroyed.
 - 2) The DATs provide a more detailed assessment of the damaged areas which includes PDA Field Sheets.
 - 3) Their responsibilities include the following:
 - a) Identify damages to:
 - (i) Public Works infrastructures.
 - (ii) Critical facilities infrastructure.



- (iii) Public buildings.
 - (iv) Private buildings.
 - b) Estimate the amount and types of debris.
 - c) Rate the safety of damaged buildings and structures, and post signage.
 - d) Methods include:
 - (i) Walking through area block by block and street by street.
 - (ii) Detailed engineers reviews and reports
 - (iii) Obtaining a more detailed assessment of the damaged area through telephone or personal interviews.
 - (iv) Use of media reports (print, video).
 - e) Analysis includes:
 - (i) Exact locations of impacts, damages, and debris.
 - (ii) Safety, integrity of buildings, and structures.
 - (iii) Extent of the disaster impact and the dollar amount of damages (necessary for state, and federal assistance application).
- d. Phase 4: Joint Preliminary Damage Assessment Teams (JPDATs).
 - 1) Because federal funding may be involved, and as a part of the public assistance process, state and federal damage assessment teams will want to identify and validate damaged property in public infrastructure, define the scope of repairs, and determine repair or replacement costs.
 - 2) A timely and well managed damage assessment program will demonstrate Chatham County



leadership, and will enable the state/federal assessments teams to do their job in a timely manner, maximizing public assistance benefits.

e. CEMA EOC Actions

1) Phase 1: Rapid Needs Assessment.

- a) Compiles spot reports and damages as per field units' observations and reports from general public, 911, and media.
- b) Makes disaster effects report to the EOC. General information should include:
 - (i) What has happened?
 - (ii) Where did it happen?
 - (iii) What can be done about it?
 - (iv) What is needed?
 - (v) Should the EOC be activated (if not already activated)? Partial or full activation?

2) Phase 2: Initial (Immediate) Damage Assessment.

- a) CEMA Duty Officer: Coordinates with, and receives information from Damage Assessment Teams.
- b) EOC Situation Analysis Unit: Collects and analyzes initial assessment and damage information to include:
 - (i) Locations of damages.
 - (ii) Types and extent of damages.
 - (iii) Impact on people.
 - Identify immediate victim needs (shelters, water availability, etc.).
 - Identify resource requirements in the affected areas.



- Identify local resources available.
 - (iv) Provides preliminary status reports required by state and federal governments to determine eligibility for a Governor/Presidential Disaster Declaration.
 - (v) Provides initial damage assessment data and information.
 - (vi) Prepares an initial situation map illustrating the footprint (location, size, etc.) of the affected area to aid in deploying response and recovery resources.
 - (vii) The footprint may be revised several times during response until the full extent of the impacted area is clearly identified.
 - (viii) Makes recommendations as to actions to be taken based on the assessment information.
 - (ix) Provides a consolidated, overall situation report for responding agencies/departments.
 - (x) Provides information necessary for the Public Information Officer.
- 3) Phase 3: Preliminary Damage Assessment Teams (PDAT) are activated to provide a detailed evaluation of what happened.
- a) The EOC Damage Assessment Unit coordinates and directs PDATs into specific impact areas to validate and gather further data on the number of individual homes, apartments, mobile homes, businesses, public buildings, public infrastructure, critical facilities, etc., that have been damaged or destroyed.
 - b) Each local government should establish PDATs. CEMA will assist with training.



- c) PDATs provide a more detailed assessment of the damaged areas. Specifically they:
 - (i) Identify by GPS and address damaged buildings and structures.
 - (ii) Estimate the extent of damage to each building and structure: destroyed, major, and minor.
 - (iii) Determine and post a safety rating on each building inspected.
 - (iv) Estimate the type and amount of debris.
- d) Methods include:
 - (i) Walking through impacted areas block by block and street by street.
 - (ii) Obtaining a more detailed assessment of the damaged area through telephone or personal interviews.
 - (iii) Use of media reports.
- e) Use of maps and grids of impacted area. As appropriate, the EOC Damage Assessment Unit will assign PDATs to specific areas. Maps will be provided, with travel routes indicated. EOC actions will include:
 - (i) Indicate impact area(s) on a map(s).
 - (ii) Identify areas which have reported damage. Begin with a large area; then further segment into manageable areas. Assign DATs to segments.
- f) Analysis includes:
 - (i) Exact locations of impacts and damages.
 - (ii) Numbers of displaced persons.



- (iii) Extent of the disaster impact and the dollar amount of damages (necessary for state, and federal assistance applications).
- (iv) Location(s), amount, and type of debris.
- (v) Determination of structural integrity and posting of building condition.
 - AFFECTED HABITABLE, no apparent hazards. (White Sign)
 - MINOR DAMAGE, safe to occupy. (Green Sign)
 - MAJOR DAMAGE, portions of building are unsafe. (Yellow Sign)
 - DESTROYED, structure is unsafe to enter. (Red Sign)
 - Note: Use of engineers (structural, if possible) to re-visit the Yellow, and Red tagged buildings for detailed evaluations to determine if the tag is appropriate or if it needs to be changed. Their PDA Field Sheets will be returned to the EOC Damage Assessment Unit for entry into the database or spreadsheet of all addresses/locations that have a tag color change.
- g) Documentation includes:
 - (i) Photos.
 - (ii) Video.
 - (iii) News articles.
 - (iv) Written estimates.
 - (v) Records of expenditures.
 - (vi) Estimated economic impact.
- h) The EOC Damage Assessment Unit will transfer data onto FEMA forms in preparation



for the arrival of Joint Preliminary Damage Assessment Teams (JPDATs) as appropriate.

- i) Impact statements are to be completed by the EOC Planning Section and sent to GEMA.
- 4) Phase 4: Joint Preliminary Damage Assessment Teams (JPDATs).
 - a) The EOC Damage Assessment Unit and Role of the Damage Assessment Unit Leader.
 - (i) Provides appraisers to assist with damage assessment.
 - (ii) Arranges for appraisers to arrive at affected sites.
 - (iii) Coordinates damage assessments with state, and federal agencies as appropriate. Actions include:
 - (iv) Because federal funding may be involved, and a part of the public assistance application process, state and federal damage assessment teams may want to identify and validate damaged property, define scope of repairs, and determine repair or replacement costs.
 - (v) Ensures escort of state and federal damage survey officials on inspection of damaged areas.
 - (vi) Develops map(s) for affected areas.
 - (vii) Sites are numbered on map(s).
 - (viii) Damages are described on forms or separated sheets of paper by numbers corresponding to numbers on maps.
 - (ix) Prioritizes sequences of site visitations to ensure most heavily damaged areas are visited; it may not be necessary to visit isolated damage sites.



- (x) Ensures that the local jurisdiction's operating budget information is available.

G. Preparation for the State/Federal PDA Teams

1. Provide copies of initial assessments performed at the local level and reported to the State.
2. Ensure all damaged areas are surveyed during the PDA.
3. Determine the route the team will take to assess the damaged areas.
4. Assist the state team member in providing required information.
5. Serve as an expert on local issues.
6. Provide cultural or unique considerations of the affected community.
7. Provide an overview of the disaster for team members.
8. Provide maps of damaged areas.
9. Provide insurance information and report underinsured and uninsured properties. It is important to note whether homes in the affected communities have a flood insurance requirement. Address what types of disaster damage are covered by various insurance policies.
10. Concur with the State PDA Team Member on degree of damage to residential structures
11. Provide demographic information, to include affected populations that may have a greater need, such as: populations with functional and access needs, low income populations, the elderly, or the unemployed.
12. Provide a thorough and accurate description of damages and the impact on individuals in the affected areas, including pockets of damage, general home construction types, general price range of homes, type of community, and insurance issues.
13. Economic Impacts information gathered should present an accurate picture of the economic stability of a disaster-impacted community, such as pre and post disaster unemployment, agricultural losses,



business losses, economic losses, etc. Information gathered should include major local or regional employers impacted and how long they may be expected to be closed or function below capacity.

14. Assess damage to businesses and loss of critical business in affected communities as a part of their narrative. The loss of critical business like grocery stores, gas stations, or building suppliers in affected communities can complicate the recovery of those communities. Recovery impacts anticipated from the loss of these critical businesses should be outlined and include:
 - a. Total number of businesses impacted by the disaster
 - b. Number of destroyed businesses
 - c. Number of businesses with major damage
 - d. Number of businesses with minor damage
 - e. Number of affected businesses
 - f. Critical businesses lost due to the disaster
 - g. Anticipated date of reopening
 - h. Recovery impact
 - i. Distance to nearest alternative
15. Impact on local non-profit, faith-based and community-based organizations that provide necessary ongoing support to those with a low income, children, the elderly, and people with access and functional needs like:
 - a. Food banks,
 - b. Soup kitchens,
 - c. Local churches,
 - d. Community development organization,
 - e. Economic development organizations,
 - f. Clinics,
 - g. Non-profit case management organizations,



- h. Non-profit housing corporations, and
 - i. Non-profit care/living facilities
16. Information may include:
- a. Anticipated date when service will be restored
 - b. Services lost
 - c. Number of residents served by the facility
 - d. Whether services are continued through other means
17. Determine the percentage of low income households in the damaged areas.
18. General Issues that affect individuals:
- a. Impacts on public transportation
 - b. Lack of building materials
 - c. Availability of housing resources
 - d. Contractor shortages
 - e. Extreme weather conditions that may impact recovery
 - f. Crisis counseling needs
 - g. Length of time for utility interruptions
 - h. Flood-prone areas
 - i. Access issues related to closed roads or bridges
 - j. Evacuations (estimated durations)
 - k. Length of time for critical businesses to recover and open (grocery stores, fuel stations, discount retailers, etc.)
 - l. Length of time critical infrastructure to be restored (schools, hospitals, nursing homes, utilities, etc.)
 - m. Unemployment issues (either pre-existing or disaster related).



VII. ROLES AND RESPONSIBILITIES

- A. Municipal and County Jurisdictions: Municipal and County Jurisdictions are encouraged to develop their own procedures using this strategy to guide their initial response to emergency events occurring within their jurisdiction. Responsibilities that a local government cannot fulfill can be deferred to the CEMA. Local governments are encouraged to consider the following in their emergency planning efforts:
 - 1. CEMA is the lead agency responsible for organization direction and control, and mobilization and coordination of resources during emergencies. Each local government should identify a point of contact for implementation.
 - 2. Initiate response to emergencies and activate a local on-scene command post and Incident Commander as necessary.
 - 3. Establish, maintain contact with CEMA; request EOC support if necessary.
 - 4. Develop and maintain a local emergency plans and procedures.
 - 5. Provide adequate communication capabilities.
 - 6. Maintain a constant schedule of training, testing, and maintenance: manpower, equipment, supplies.
- B. Chatham Emergency Management Agency
 - 1. Designated to serve as lead agency for direction, control and coordination of emergencies and disasters occurring within Chatham County.
 - 2. Ensures development of and maintains the Chatham County Emergency Operations Plan (EOP).
 - 3. Provides coordination among local, state, federal, private, and volunteer organizations.
 - 4. Maintains liaison with neighboring jurisdictions.
 - 5. Identifies and maintains all necessary human services facilities for emergency use.
 - 6. Ensures a functional EOC.
 - 7. Monitors the situation for EOC activation.



8. Activates EOC when necessary.
9. Advises elected officials, departments and agencies of government and other non-government relief agencies regarding the nature, the magnitude and effects of the emergency.
10. Prepares Emergency Proclamations with the Command Policy Group.
11. Coordinates requests for emergency assistance.
12. Ensures the county Emergency Alert System (EAS) is functional.
13. Establishes and maintains a public information center within the EOC.
14. Develops and maintains appropriate current emergency public information material in support of emergency public protection actions.
15. Disseminates emergency information and instructions to the general public, and coordinates implementing actions of departmental public information officers.
16. Maintains a county-wide comprehensive damage and needs assessment system.
17. Develops and maintains a current personnel roster for EOC staffing.
18. Orients and trains the emergency operations staff.

C. Georgia Emergency Management Agency

1. If local capabilities are exceeded, and a local emergency has been declared, state government agencies can augment assistance to local government to meet the emergency needs of victims during declared emergencies/disasters. Requests for state assistance are processed through CEMA.
2. Documentation showing disaster impacts is vital to the requests for state and federal assistance. As a minimum a request for assistance should include the following:
 - a. Type of disaster.
 - b. Time the disaster occurred or threatens to occur.



- c. Actions already taken.
 - d. Areas and number of people affected.
 - e. Estimates of loss of life and extent of damage.
 - f. Type and amount of assistance needed.
 - 3. GEMA receives and coordinates requests for state assistance. The Governor may declare a state of emergency to authorize use of state resources. Additionally, GEMA may activate the state EOC to coordinate state and federal resources in support of CEMA.
- D. Federal Emergency Management Agency
- 1. Federal government agencies can provide supplemental assistance to local and state government to meet the emergency needs of victims during declared emergencies/disasters. Requests for federal assistance are processed through GEMA.
 - 2. The Federal Emergency Management Agency (FEMA) receives and coordinates requests for federal assistance. The President may make a disaster declaration to authorize use of federal resources.

VIII. ANNEX MANAGEMENT AND MAINTENANCE

- A. Executive Agent: CEMA is the executive agent for Tab management and maintenance. The Tab and supporting documents will be updated periodically as required to incorporate new directives and changes based on lessons learned from exercises and actual events. This section establishes procedures for interim changes and full updates of the Annex.
- B. Types and Changes: Changes include additions of new or supplementary material and deletions. No proposed change should contradict or override authorities or other plans contained in statute, order, or regulation.
- C. Coordination and Approval: Any department or agency with assigned responsibilities within this document may propose a change. CEMA is responsible for coordinating all proposed changes with primary agencies, support agencies and other stakeholders. CEMA will coordinate review and approval for proposed modifications as required.
- D. Notice of Change: After coordination has been accomplished, including receipt of the necessary signed approval supporting the final change language, CEMA will issue an official Notice of Change. The notice will specify the date, number, subject, purpose, background, and action required, and provide the change language on one or more numbered and



dated insert pages that will replace the modified pages in the appropriate document. Once published, the modifications will be considered part of the EOP for operational purposes pending a formal revision and re-issuance of the entire document. Interim changes can be further modified or updated using the above process.

- E. Distribution: CEMA will distribute the Notice of Change to all participating agencies. Notice of Change to other organizations will be provided upon request. Re-issuance of the individual document or the entire EOP will take place as required. Working toward continuous improvement, CEMA is responsible for an annual review of the EOP to include all associated and supporting documents, and a complete update every four years (or more frequently if the County Commission or GEMA deem necessary). The review and update will consider lessons learned and best practices identified during exercises and responses to actual events, and incorporate new information technologies. CEMA will distribute revised EOP documents for the purpose of interagency review and concurrence.



Damage Assessment Team Leader

- A. Reports to the Incident Commander or EOC Damage Assessment Unit Leader.
- B. Supervises the Damage Assessment Team Members
- C. Responsibilities:
 - 1. The Damage Assessment Team Leader's responsibilities are administrative in nature. They are designed to insure that damage assessment strategy is implemented when safety permits.
 - 2. Review and become knowledgeable of the Damage Assessment Strategy.
 - 3. Attend Damage Assessment training provided by CEMA and, or the municipality.
 - 4. Participate in Damage Assessment Exercises.
 - 5. Coordinate assessments using the County strategy.
 - 6. Maintain Damage Assessment Equipment Kit(s) containing copies of Damage Assessment Forms, Placards, Safety Equipment, etc. for immediate deployment to the Damage Assessment Teams.
 - 7. Compile Damage Assessment data and develop a Damage Assessment Overview to include maps, addresses, critical facilities and estimate of level of damage.
 - 8. Assign Damage Assessment Teams to impacted areas.
 - 9. Distribute Map Packets and Damage Assessment Forms.
 - 10. Identify and designate replacement for Shift Change.

Activation Phase

- A. Respond to the designated location or CEMA EOC.
- B. Obtain briefing from the Incident Commander or EOC Damage Assessment Unit Leader.
- C. Load Damage Assessment Equipment Kit(s) for deployment.



Operational Phase

- A. Maintain a Log of Events.
- B. Use spot reports to determine location of disaster.
- C. Plot situation on Damage Assessment Map.
- D. Distribute Damage Assessment Equipment Kit(s) to Team(s).
- E. Compile reports to identify the footprint of damage in the Damage Assessment Overview to include maps, addresses, critical facilities and estimate of level of damage.
- F. Supervise damage assessment operations in the field.
- G. Check status of operations on an ongoing basis.
- H. Collect all reports and photos from the Damage Assessment Team members to be turned into the Incident Commander or EOC Damage Assessment Unit Leader.
- I. Turn over current reports, pictures and records to your replacement, if applicable.

Deactivation Phase

- A. Brief and turn in all reports to the EOC Damage Assessment Unit Leader.



Damage Assessment Team Member

- A. Reports to the Damage Assessment Team Leader
- B. Supervises additional personnel assigned.
- C. Responsibilities:
 - 1. The Damage Assessment Team Member's responsibilities are operational in nature. They are designed to gather damage information.
 - 2. Review and become knowledgeable of the Damage Assessment Strategy.
 - 3. Attend Damage Assessment training provided by CEMA and, or the municipality.
 - 4. Participate in Damage Assessment Exercises.
 - 5. Gather initial assessment information.

Activation Phase

- A. Respond to the designated location or CEMA EOC.
- B. Obtain briefing from the Damage Assessment Unit Leader and receive assignment.
- C. Obtain Damage Assessment Equipment Kit before deployment.

Operational Phase

- A. Respond to disaster site and begin damage assessment operations under the supervision of the Damage Assessment Team Leader.
- B. Utilize appropriate forms for Damage Assessment reporting.
- C. Place the appropriate Placard on the impacted facilities.
- D. Document damage by takes photos with a digital camera.

Deactivation Phase

- A. Reconvene at the EOC or designated location, after the Damage Assessment Team Leader has released you.



EOC Damage Assessment Unit Leader

- A. Reports to the EOC Planning Section Chief.
- B. Supervises the Damage Assessment Team Leader.
- C. Responsibilities:
 - 1. The Damage Assessment Unit Leader, a member of the Planning Section, oversees maintenance of detailed records of damage assessment information and support of the documentation process.
 - 2. These responsibilities require the following actions:
 - a. Collect damage assessment information from the Operations section and other verifiable sources and prepare appropriate reports.
 - b. Provide damage assessment information to the Planning Section Chief.
 - c. Utilize the Chatham County damage assessment procedures and forms.

Activation Phase

- A. Respond to the CEMA EOC.
- B. Obtain briefing from the EOC Planning Section Chief.
- C. Set up your section work station including maps and status boards.
- D. Review your position responsibilities as established by this checklist.
- E. Clarify any issues regarding your authority and assignment and what others in the organization members responsibilities.
- F. Determine staffing requirements to meet 24-hour operational periods (two 12-hour shifts); request additional personnel as required.
- G. Utilizing the Logistics Request Form request additional resources through the appropriate unit in the Logistics Section, as needed.
- H. Ensure that all your incoming unit personnel are fully briefed.
- I. Think ahead and anticipate situations and problems before they occur; based on the existing and forecast situation determine future requirements.



- J. Open and maintain a Significant Event Log ; maintain all required records and documentation to support the After Action Report and the history of the emergency/disaster to include:
 - 1. Messages received.
 - 2. Actions taken.
 - 3. Decisions, justification, and documentation.
 - 4. Requests filed.
 - 5. EOC personnel, time on duty, and assignments.

Note: Precise information is essential to meet requirements for reimbursement by GEMA and FEMA.

Operational Phase

- A. Develop a plan for your unit in support of EOC and field operations as requested; assign specific responsibilities.
- B. Coordinate with all Operations Units (Law Enforcement, Fire, Public Works, Medical/Health, Care and Shelter, and Building and Safety) for preliminary damage assessment.
- C. Keep up to date on the situation and resources associated with your unit; maintain current status reports and charts and maps.
- D. Provide periodic situation or status reports to your Section Chief; keep the Chief advised of your unit status and activity and on any problem areas.
- E. Establish operating procedure with the Communications unit of the Logistics section for use of telephone, radio, and data systems; make any priorities or special requests known.
- F. Review situation reports as they are received; verify information where questions exist.
- G. Anticipate potential situation changes (i.e., severe aftershocks) in all units planning; develop options for all plans and procedures requiring off-site communications.
- H. Determine and anticipate your support needs and forward to your Section Chief.



- I. Conduct periodic briefings for your unit; ensure they are aware of priorities.
- J. Monitor your unit activities and adjust staffing and organization as appropriate to meet current needs.
- K. Use face-to-face communication in the EOC whenever possible and document decisions and policy.
- L. Refer all media contacts to your Section Chief or the PIO.
- M. Be prepared to participate in the Director of Emergency Services action planning meetings and policy decisions if requested.
- N. Ensure that all your unit personnel and equipment time records and record of expendable materials used are provided to your Section Chief at the end of each operational period.
- O. Brief your relief at shift-change time; ensure that in-progress activities are identified and follow-up requirements are known.
- P. Coordinate collection of damage assessment information.
- Q. Collect, record, and total the type, location, and estimated value of damage using the Damage Assessment Report form; provide to the Planning Section Chief for review; post appropriate information on charts.
- R. Use inspection records, videos, photographs, etc. to provide a record trail of damaged structures requiring immediate demolition.
- S. Provide documentation to the Legal Officer on those structures which may need to be demolished in the interest of public safety.
- T. Coordinate with the American Red Cross, utility companies, and other sources for additional damage assessment information.
- U. Provide final damage assessment reports to the Documentation unit.

Deactivation Phase

- A. Ensure that all required forms or reports are completed and turned in to your supervisor prior to your release and departure.
- B. Be prepared to provide input to the After Action Report.
- C. Determine what follow-up to your assignment might be required before you leave; communicate information to the EOC Planning Section Chief.



- D. Deactivate the Damage Assessment position and close out logs when authorized by your Section Chief; return vest and equipment to their original location.
- E. Leave forwarding phone number where you can be reached.



GEMA/FEMA Preliminary Damage Assessment Checklist

- A. Provide copies of initial assessments performed at the local level and reported to the State.
- B. Ensure all damaged areas are surveyed during the PDA.
- C. Determine the route the team will take to assess the damaged areas.
- D. Assist the State team member in providing required information.
- E. Serve as an expert on local issues.
- F. Provide cultural or unique considerations of the affected community.
- G. Provide an overview of the disaster for team members.
- H. Provide maps of damaged areas.
- I. Provide insurance information and report underinsured and uninsured properties. It is important to note whether homes in the affected communities have a flood insurance requirement. Address what types of disaster damage are covered by various insurance policies.
- J. Concur with the State PDA Team Member on degree of damage to residential structures.
- K. Provide demographic information, to include affected populations that may have a greater need, such as: populations with functional and access needs, low income populations, the elderly, or the unemployed.
- L. Provide a thorough and accurate description of damages and the impact on individuals in the affected areas, including pockets of damage, general home construction types, general price range of homes, type of community, and insurance issues.
- M. Economic Impacts information gathered should present an accurate picture of the economic stability of a disaster-impacted community, such as pre and post disaster unemployment, agricultural losses, business losses, economic losses, etc. Information gathered should include major local or regional employers impacted and how long they may be expected to be closed or function below capacity.
- N. Assess damage to businesses and loss of critical business in affected communities as a part of their narrative. The loss of critical business like grocery stores, gas stations, or building suppliers in affected communities can complicate the recovery of those communities. Recovery impacts

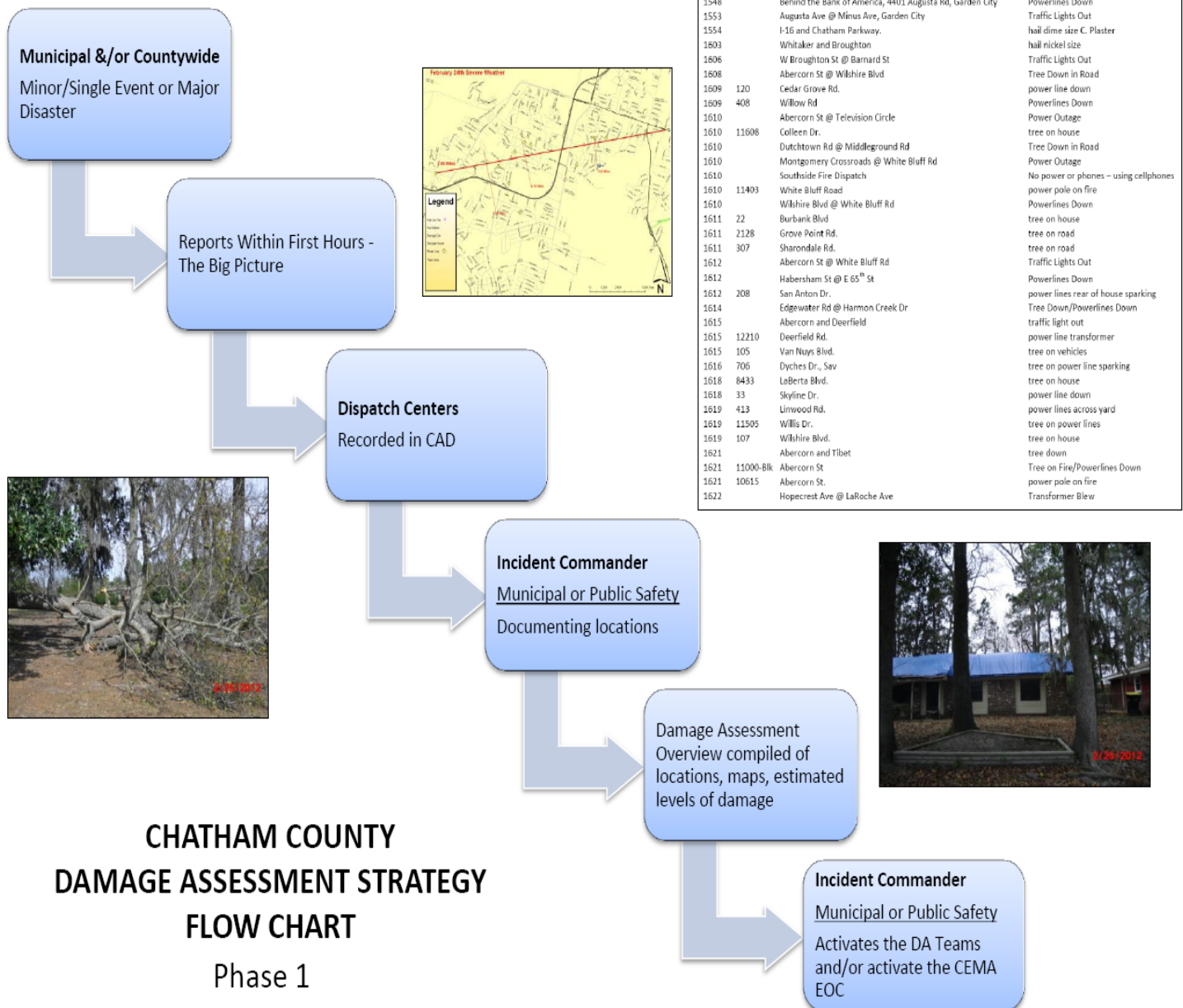


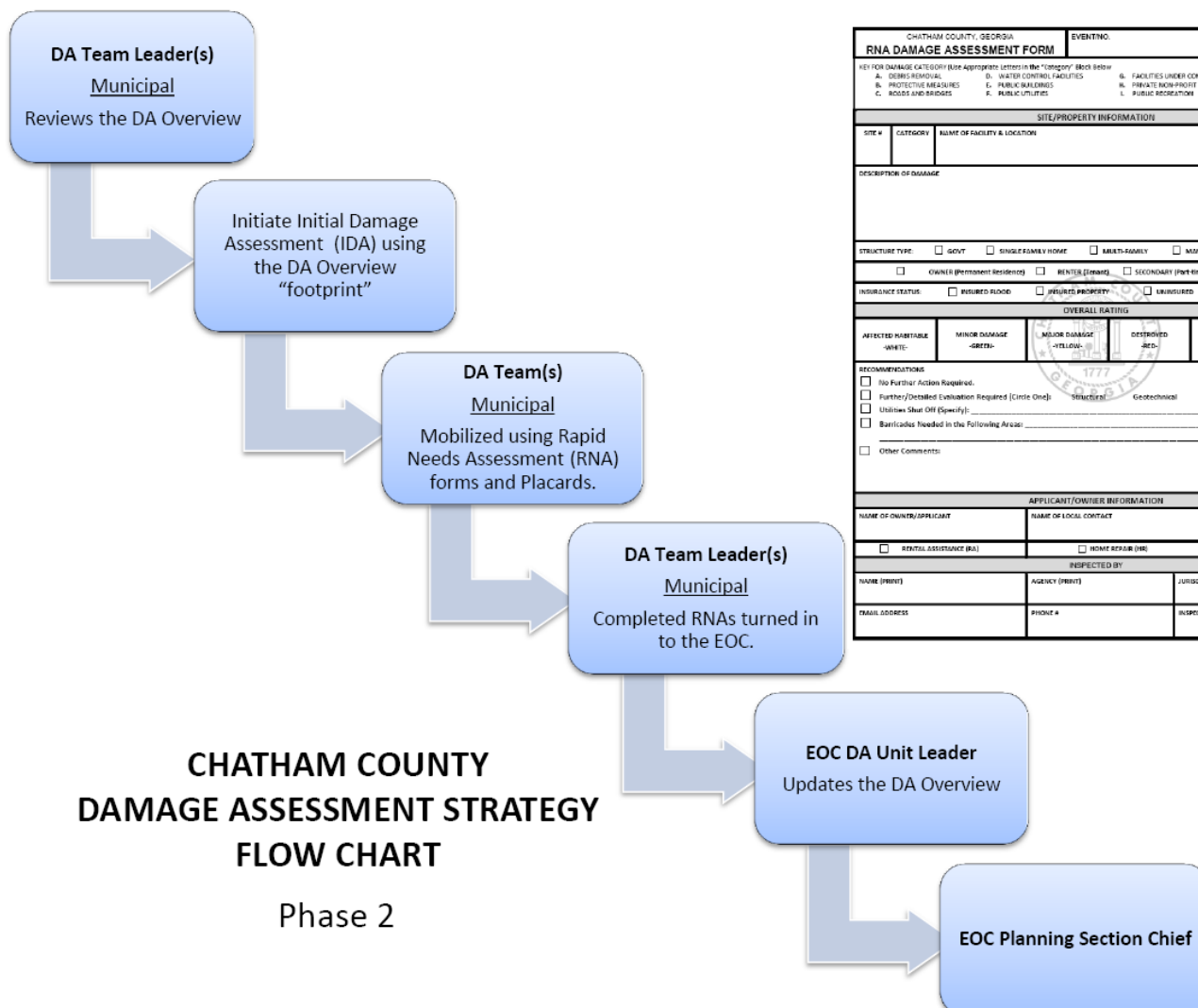
anticipated form the loss of these critical businesses should be outlined and include:

- O. Total number of businesses impacted by the disaster
- P. Number of destroyed businesses
- Q. Number of businesses with major damage
- R. Number of businesses with minor damage
- S. Number of affected businesses
- T. Critical businesses lost due to the disaster
- U. Anticipated date of reopening
- V. Recovery impact
- W. Distance to nearest alternative
- X. Impact on local non-profit, faith-based and community-based organizations that provide necessary ongoing support to those with a low income, children, the elderly, and people with access and functional needs like:
 - 1. food banks
 - 2. soup kitchens
 - 3. local churches
 - 4. community development organization
 - 5. economic development organizations
 - 6. clinics
 - 7. non-profit case management organizations
 - 8. non-profit housing corporations
 - 9. non-profit care/living facilities.
- Y. Information may include:
 - a. Anticipated date when service will be restored

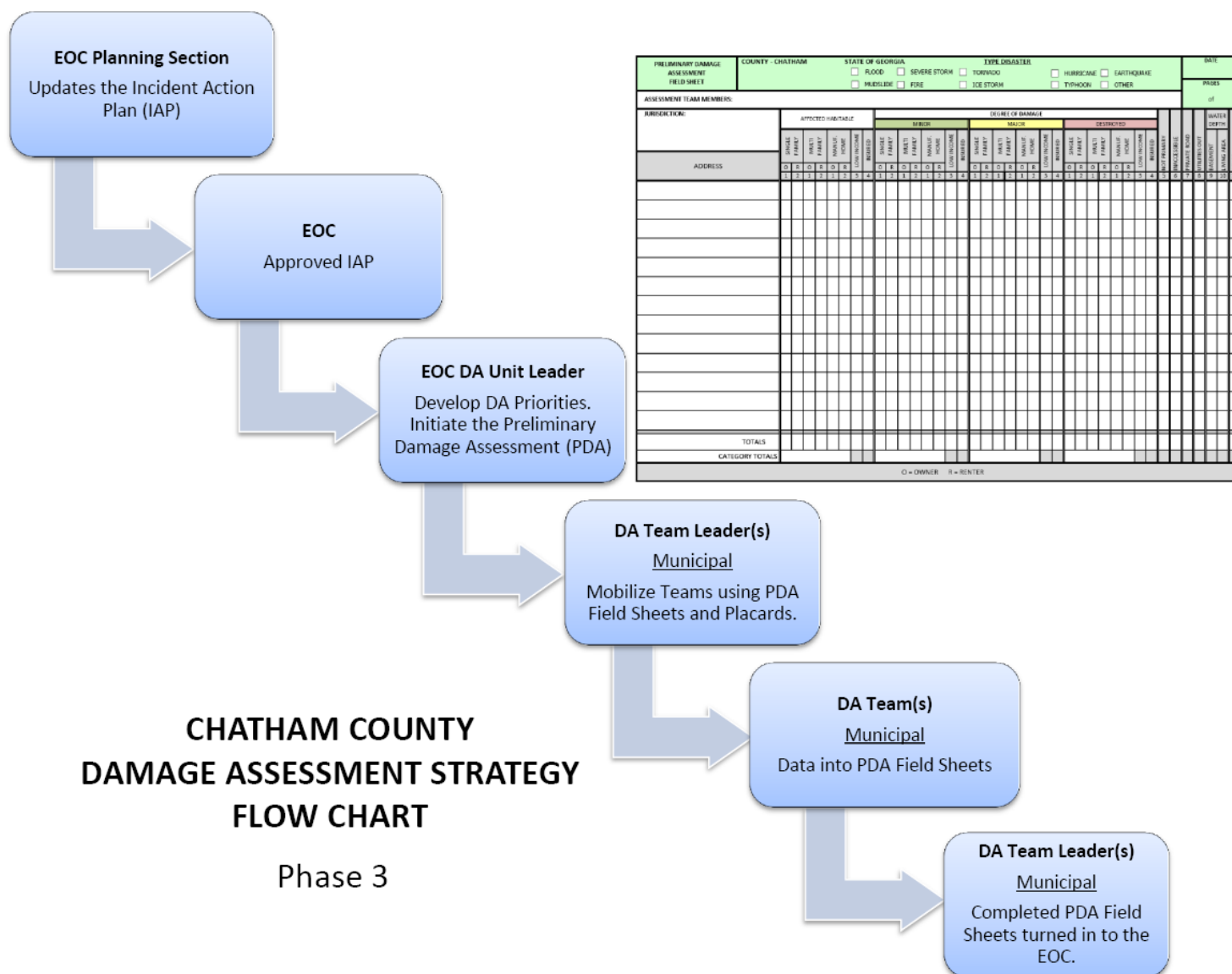


- b. Services lost
 - c. Number of residents served by the facility
 - d. Whether services are continued through other means
- Z. Determine the percentage of low income households in the damaged areas.
- AA. General Issues that affect individuals:
 - 1. Impacts on public transportation
 - 2. Lack of building materials
 - 3. Availability of housing resources
 - 4. Contractor shortages
 - 5. Extreme weather conditions that may impact recovery
 - 6. Crisis counseling needs
 - 7. Length of time for utility interruptions
 - 8. Flood-prone areas
 - 9. Access issues related to closed roads or bridges
 - 10. Evacuations (estimated durations)
 - 11. Length of time for critical businesses to recover and open (grocery stores, fuel stations, discount retailers, etc.)
 - 12. Length of time critical infrastructure to be restored (schools, hospitals, nursing homes, utilities, etc.)
 - 13. Unemployment issues (either pre-existing or disaster related).





CHATHAM COUNTY, GEORGIA			EVENTING: _____		SHEET _____ OF _____ SHEETS	
RNA DAMAGE ASSESSMENT FORM						
KEY FOR DAMAGE CATEGORY (Use appropriate letters in the "Category" block below)						
A. DEBRIS REMOVAL		D. WATER CONTROL FACILITIES		G. FACILITIES UNDER CONSTRUCTION		
B. PROTECTIVE MEASURES		E. PUBLIC BUILDINGS		H. PRIVATE NON-PROFIT		
C. ROADS AND BRIDGES		F. PUBLIC UTILITIES		I. PUBLIC RECREATION		
SITE/PROPERTY INFORMATION						
SITE #	CATEGORY	NAME OF FACILITY & LOCATION			GPS COORDINATES (UTM)	
DESCRIPTION OF DAMAGE						
STRUCTURE TYPE: <input type="checkbox"/> GOVT <input type="checkbox"/> SINGLE FAMILY HOME <input type="checkbox"/> MULTI-FAMILY <input type="checkbox"/> MANUFACTURED HOME <input type="checkbox"/> BUSINESS						
<input type="checkbox"/> OWNER (Permanent Residence) <input type="checkbox"/> RENTER (Seasonal) <input type="checkbox"/> SECONDARY (Part-time Residence, 2nd Home)						
INSURANCE STATUS: <input type="checkbox"/> INSURED HOME <input type="checkbox"/> INSURED PROPERTY <input type="checkbox"/> UNINSURED <input type="checkbox"/> UNKNOWN						
OVERALL RATING						
AFFECTED HAZARDOUS -WHITE-	MINOR DAMAGE -GREEN-	MAJOR DAMAGE -YELLOW-	EXTENSIVE -RED-	UNRECOVERABLE	WATER DEPTH	
RECOMMENDATIONS:						
<input type="checkbox"/> No Further Action Required.						
<input type="checkbox"/> Further/Detailed Evaluation Required (Circle One): <input type="checkbox"/> Structural <input type="checkbox"/> Geotechnical <input type="checkbox"/> Other _____						
<input type="checkbox"/> Unknown Shut Off (Specify): _____						
<input type="checkbox"/> Barricades Needed in the Following Areas: _____						
<input type="checkbox"/> Other Comments: _____						
APPLICANT/OWNER INFORMATION						
NAME OF OWNER/APPLICANT		NAME OF LOCAL CONTACT		PHONE NO.		
<input type="checkbox"/> RENTAL ASSISTANCE (RA)		<input type="checkbox"/> HOME REPAIR (HR)		<input type="checkbox"/> LOW INCOME (LI)		
INSPECTED BY						
NAME (PRINT)		AGENCY (PRINT)		JURISDICTION		
EMAIL ADDRESS		PHONE #		INSPECTION DATE/TIME		



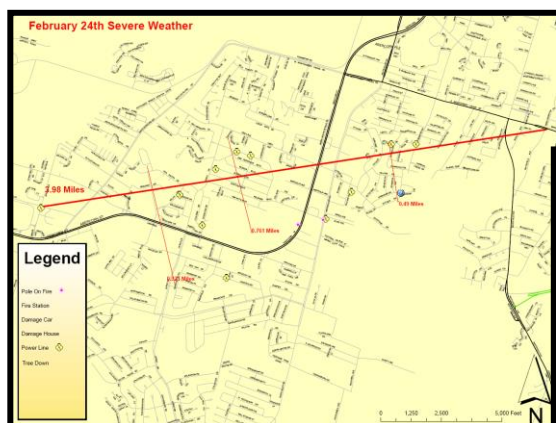
DAMAGE ASSESSMENT OVERVIEW

List of Locations

Time	#	Address	Reported
1548		Behind the Bank of America, 4401 Augusta Rd, Garden City	Powerlines Down
1553		Augusta Ave @ Minus Ave, Garden City	Traffic Lights Out
1554		I-16 and Chatham Parkway.	hail dime size C. Plaster
1603		Whitaker and Broughton	hail nickel size
1606		W Broughton St @ Barnard St	Traffic Lights Out
1608		Abercorn St @ Wilshire Blvd	Tree Down in Road
1609	120	Cedar Grove Rd.	power line down
1609	408	Willow Rd	Powerlines Down
1610		Abercorn St @ Television Circle	Power Outage
1610	11608	Colleen Dr.	tree on house
1610		Dutchtown Rd @ Middleground Rd	Tree Down in Road
1610		Montgomery Crossroads @ White Bluff Rd	Power Outage
1610		Southside Fire Dispatch	No power or phones – using cellphones
1610	11403	White Bluff Road	power pole on fire
1610		Wilshire Blvd @ White Bluff Rd	Powerlines Down
1611	22	Burbank Blvd	tree on house
1611	2128	Grove Point Rd.	tree on road
1611	307	Sharondale Rd.	tree on road
1612		Abercorn St @ White Bluff Rd	Traffic Lights Out
1612		Habersham St @ E 65 th St	Powerlines Down
1612	208	San Anton Dr.	power lines rear of house sparking
1614		Edgewater Rd @ Harmon Creek Dr	Tree Down/Powerlines Down
1615		Abercorn and Deerfield	traffic light out
1615	12210	Deerfield Rd.	power line transformer
1615	105	Van Nuys Blvd.	tree on vehicles
1616	706	Dyches Dr., Sav	tree on power line sparking
1618	8433	LaBerta Blvd.	tree on house
1618	33	Skyline Dr.	power line down
1619	413	Linwood Rd.	power lines across yard
1619	11505	Willis Dr.	tree on power lines
1619	107	Wilshire Blvd.	tree on house
1621		Abercorn and Tibet	tree down
1621	11000-Blk	Abercorn St	Tree on Fire/Powerlines Down
1621	10615	Abercorn St.	power pole on fire
1622		Hopecrest Ave @ LaRoche Ave	Transformer Blew

Maps

Pictures





RNA DAMAGE ASSESSMENT FORM

SHEET ____ OF ____ SHEETS

CHATHAM COUNTY, GEORGIA		EVENT/NO.		EVENT DATE	
RNA DAMAGE ASSESSMENT FORM					
KEY FOR DAMAGE CATEGORY (Use Appropriate Letters in the "Category" Block Below)					
A. DEBRIS REMOVAL		D. WATER CONTROL FACILITIES		G. FACILITIES UNDER CONSTRUCTION	
B. PROTECTIVE MEASURES		E. PUBLIC BUILDINGS		H. PRIVATE NON-PROFIT	
C. ROADS AND BRIDGES		F. PUBLIC UTILITIES		I. PUBLIC RECREATION	
SITE/PROPERTY INFORMATION					
SITE #	CATEGORY	NAME OF FACILITY & LOCATION			GPS COORDINATES (USNG)
DESCRIPTION OF DAMAGE					
STRUCTURE TYPE: <input type="checkbox"/> GOVT <input type="checkbox"/> SINGLE FAMILY HOME <input type="checkbox"/> MULTI-FAMILY <input type="checkbox"/> MANUFACTURED HOME <input type="checkbox"/> BUSINESS					
<input type="checkbox"/> OWNER (Permanent Residence) <input type="checkbox"/> RENTER (Tenant) <input type="checkbox"/> SECONDARY (Part-time Residence, 2 nd Home)					
INSURANCE STATUS: <input type="checkbox"/> INSURED FLOOD <input type="checkbox"/> INSURED PROPERTY <input type="checkbox"/> UNINSURED <input type="checkbox"/> UNKNOWN					
OVERALL RATING					
AFFECTED HABITABLE -WHITE-	MINOR DAMAGE -GREEN-	MAJOR DAMAGE -YELLOW-	DESTROYED -RED-	INACCESSIBLE	WATER DEPTH _____
RECOMMENDATIONS					
<input type="checkbox"/> No Further Action Required.					
<input type="checkbox"/> Further/Detailed Evaluation Required (Circle One): Structural Geotechnical Other _____					
<input type="checkbox"/> Utilities Shut Off (Specify): _____					
<input type="checkbox"/> Barricades Needed in the Following Areas: _____					
<input type="checkbox"/> Other Comments: _____					
APPLICANT/OWNER INFORMATION					
NAME OF OWNER/APPLICANT		NAME OF LOCAL CONTACT		PHONE NO.	
<input type="checkbox"/> RENTAL ASSISTANCE (RA)		<input type="checkbox"/> HOME REPAIR (HR)		<input type="checkbox"/> LOW INCOME (LO)	
INSPECTED BY					
NAME (PRINT)		AGENCY (PRINT)		JURISDICTION	
EMAIL ADDRESS		PHONE #		INSPECTION DATE/TIME	

[illegible]



FEMA DAMAGE ASSESSMENT LEVEL GUIDE

Damage Level	General Description	FEMA Description	Things to Look For	Water Level	Single, Multi Family Homes
10	Structure leveled, foundation, basement damage. Water above the eaves.	DESTROYED Structure is total loss or permanently uninhabitable.	Structure leveled or has major shifting off its foundation or only the foundation remains. Roof is gone with noticeable distortion to walls.	DESTROYED More than 5 feet on first floor. More than 2 feet in mobile home.	More than 8 feet.
9	Structure leveled above foundation. Second floor is gone.	<u>Not economically feasible to rebuild.</u>			7 to 8 feet
8	Water above first floor. Structure moved off foundation. Walls collapsed.	MAJOR Structure is currently uninhabitable. Extensive repairs are necessary to habitable. Will take <u>more than 30 days to repair.</u>	Portions of the roof and deck missing. Twisted, bowed cracked, or collapsed walls. Structure penetrated by large foreign object, such as trees. Damaged foundation.	MAJOR 3 to 5 feet in first floor 6 inches to 2 feet in mobile home with plywood floors 1 inch to 2 feet in mobile home with particle board floors	6 to 7 feet
7	Exterior frame damage. Roof off or collapsed. Accessory/service/outbuildings damaged.				5 to 6 feet
6	Foundation damaged. Insulation damaged. Exterior wall(s) damaged. Production equipment/office equipment damaged.				4 to 5 feet
5	One room destroyed. Exits blocked. Utilities damaged: furnace, water heater, well, septic system.				3 to 4 feet
4	Interior flooring/exterior walls with minor damage. Tree(s) fallen on structure. Business inventory destroyed.	MINOR Structure is damaged, but habitable, will need minor repairs. Will take <u>less than 30 days to repair.</u>	Many missing shingles, broken windows and doors. Loose or missing siding. Minor shifting or settling of foundation. Attached garage damaged. Damaged septic system.	MINOR 2 inches to 3 feet, first floor <u>Basement</u> (summer) 5 feet or more in basement. (winter) 1 foot or more base. <u>No Basement</u> 2" - 3" first floor <u>Crawlspace</u> reach insulation. <u>Sewage</u> 1 ft. or more basement. <u>Mobile Home</u> BB to 6 inches	2 to 3 feet
3	Smoke damage. Fire escape inoperable. Shingles/roof tiles moved or missing. Fleet/vehicles damaged.				6 inches to 2 feet
2	Chimney damaged. Porch damaged. Carpet on first floor soaked. Parking lot damaged.	AFFECTED HABITABLE Structure has received minimal damage and is <u>habitable without repairs.</u>	Few missing shingles, some broken windows. Damage to air conditioning unit/etc. Suspected damage to contents. Some minor basement flooding.	AFFECTED HABITABLE 2 inches or less, first floor Minor basement flooding. Summer less than 5 feet Winter less than 1 foot. Mobile home, no water in belly board.	3 to 6 inches
1	Broken windows. Damage to landscaping. Business signs damaged.				0 to 3 inches

INSURANCE COVERAGE

Insurance Type	Property Covered	Property Not Covered	Perils Covered	Perils Not Covered
Home Owners or Renters	<p><i>Owners:</i> all real property including separate structures; removal of debris deposited by covered peril; personal property. Additional Living Expenses (ALE).</p> <p><i>Renters:</i> all personal property, including personal property away from premises and ALE for covered perils.</p>	Seawalls; retaining walls; washouts (access)	Wind; hail; lightning; falling objects including trees; freezing of plumbing; weight of ice, snow, or sleet; fire; smoke; volcanic eruption; power surge; explosion; riot or civil disturbance	<p>Surface waters or flood; rain through doors, windows, or bad roof; seepage; landslides; mudslides; earthquake; sewer backup.</p> <p>Sewer back up is usually covered in an endorsement to the policy</p>
Manufactured Home	<p>Manufactured home, including separate structures; removal of debris deposited by covered peril; cost of emergency repairs or removal to protect the manufactured home; ALE for covered perils; All personal property, including personal property away from premises</p>	Seawalls; washouts (outside damages)	<p>Wind; hail; lightning; falling objects including trees; freezing of plumbing ; weight of ice, snow or sleet; fire; smoke; volcanic eruption; power surge; explosion; riot or civil disturbance; Flood may or may not be covered depending on the contract</p>	<p>Sewer backup; leakage from rain, snow, or sleet; freezing or electrical failure, mudslide, earthquake; Flood may not may not be covered depending on the contract</p> <p>Electrical failure does not pertain to power surges, only to situations where electrical service stops and there is no damage to the home</p>
Condominium	<p><i>Unit:</i> Structural elements not shared by other tenants or owned by the association, generally from the sheetrock in, including the sheetrock, paneling, wall covering; ALE for covered perils; All personal property, including personal property away from premises</p> <p><i>Master:</i> Structural elements shared by other tenants or</p>	Seawalls; retaining walls; washouts (Access)	Wind; hail; lightning; falling objects including trees; freezing of plumbing; weight of ice, snow, or sleet; fire; smoke; volcanic eruption; power surge explosion; not or civil disturbance	<p>Surface waters or flood; rain through doors, windows, or bad roof; landslides; mudslides; earthquake; sewer backup; leakage from rain, snow, or sleet; freezing or electrical failure</p>



Insurance Type	Property Covered	Property Not Covered	Perils Covered	Perils Not Covered
	owned by the association, generally from the studs out			
Flood	<p><i>Owners Only:</i> all real property from the first floor up; real property in basement below ground level necessary for habitability (e.g., structural wall, furnace, water heater, main panel); separate structures such as storage buildings; cost of preventing flood damage to home; removal of debris deposited by covered peril</p> <p><i>Homeowners and Renters:</i> property in basement necessary for habitability (e.g., washer and dryer), all personal property in dwelling and separate enclosed structures (see property not covered); personal property stored away from premises</p>	<p><i>RP:</i> Water wells; well pumps; oil or propane tanks; septic tanks; seawalls; retaining walls; washouts (access); dikes</p> <p>ALE</p> <p><i>PP:</i> property stored in basements below grade level as identified by the individual policy</p>	<p>General condition of flooding, (e.g., overflow of inland or tidal waters; the unusual and rapid run-off or accumulation of surface waters from any source); mudflow/mudslide; seepage caused by flood (e.g., ground saturation or seeping under doors from rising water)</p>	<p>Anything other than perils listed, e.g., WDR; landslide; sewer backup when no general flood exists; seepage not caused by flood (e.g., melting snow or WDR blowing water under doors)</p>
EQ, SBU and other riders	Any property covered by the policy rider	Any property excluded from coverage under the policy the rider is attached	Only the peril(s) specified on the rider	All perils except those specified by the rider



**DISASTER ASSESSMENT AFFECTED HABITABLE
- WHITE-**

DISASTER ASSESSMENT

AFFECTED HABITABLE

THIS BUILDING IS DEEMED SAFE FOR HUMAN
OCCUPANCY BY THE CHATHAM COUNTY BUILDING
CODE, SECTION _____.

ANY REPAIR OF THE BUILDING REQUIRES A PERMIT FROM THE
BUILDING INSPECTIONS DEPARTMENT PRIOR TO WORK.

JURISDICTION

BUILDING OFFICIAL

DATE _____

Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.



DISASTER ASSESSMENT MINOR DAMAGE
- GREEN-

DISASTER ASSESSMENT

MINOR DAMAGE

THIS BUILDING IS DEEMED SAFE FOR HUMAN
OCCUPANCY BY THE CHATHAM COUNTY BUILDING
CODE, SECTION _____.

ANY REPAIR OF THE BUILDING REQUIRES A PERMIT FROM THE
BUILDING INSPECTIONS DEPARTMENT PRIOR TO WORK.

JURISDICTION

BUILDING OFFICIAL

DATE _____

Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.



**DISASTER ASSESSMENT MAJOR DAMAGE
- YELLOW-**

DISASTER ASSESSMENT

MAJOR DAMAGE

THIS BUILDING IS DEEMED UNSAFE FOR HUMAN
OCCUPANCY BY THE CHATHAM COUNTY BUILDING
CODE, SECTION _____.

ANY REPAIR OF THE BUILDING REQUIRES A PERMIT FROM THE
BUILDING INSPECTIONS DEPARTMENT PRIOR TO WORK.

JURISDICTION

BUILDING OFFICIAL

DATE _____

Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.



DISASTER ASSESSMENT DESTROYED
- RED-

DISASTER ASSESSMENT

DESTROYED

THIS BUILDING IS DEEMED UNSAFE FOR HUMAN
OCCUPANCY BY THE CHATHAM COUNTY BUILDING
CODE, SECTION _____.

ANY DEMOLITION OF THE BUILDING REQUIRES A PERMIT FROM
THE BUILDING INSPECTIONS DEPARTMENT PRIOR TO WORK.

JURISDICTION

BUILDING OFFICIAL

DATE _____

Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.



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Field Safety Guide for Damage Assessment Teams.

A. Safety in the Field.

1. Following disaster, many buildings become so heavily damaged that the danger from collapsed or falling debris can be quite high. Consequently, teams must be conscious of their own safety.
2. Remember the following safety tips:
 - a. Always travel in teams of at least two (2) people.
 - b. Always wear a hard hat.
 - c. Survey the building exterior completely before entering.
 - d. Enter a building only if deemed safe to do so.
 - e. Avoid all areas where a hazardous material release is suspected or confirmed.
 - f. Use available safety equipment when appropriate.
 - g. Be alert for falling objects.
 - h. In case of fire, evacuate the area and alert the fire department immediately.
 - i. Avoid downed power lines and buildings under them.
 - j. In case of gas leaks, shut off the gas (if possible) and report the leak

B. Hazardous Materials.

1. Hazardous materials are very prevalent in any community. Most chemicals are marked for identification and safety purposes. In most communities the fire department is assigned the responsibility for maintaining information on hazardous materials stored in the area. Try to obtain this information before beginning an inspection.
2. Sites that have potential spills should be approached from upwind. If a spill is suspected do not approach. Notify fire department and EOC.
3. Recognition of Hazardous Materials.



4. The type of facility (e.g. building used for chemical storage, industrial plant, and laboratory) is often an indicator that hazardous substances may be found.
 5. Clues to possible hazardous material spills include:
 - a. Breached container.
 - b. Obvious solid or liquid spill
 - c. Unique odors, strange noises, or physical reactions (e.g. nausea, dizziness, eye/skin irritation, dead animals).
 - d. Pipeline rupture.
 6. Damaged fireproofing or broken insulation on pipes and around boilers in older buildings may indicate friable asbestos.
- C. Actions to be Taken When Hazardous Materials Found.
1. Leave, seal off, if possible, and post any area where a chemical spill or asbestos contamination is suspected.
 2. Notify the local fire department or, if unavailable, the EMA Duty Officer/EOC. If possible, make note of the chemical name or any markings on the container.



Damage Assessment Team Equipment List

- A. Minimum personal equipment for short-term operations.
 - 1. Hard Hat.
 - 2. Eye Protection.
 - 3. Gloves.
 - 4. Reflective Vest.
 - 5. Wet Weather gear.
 - 6. Pry Bar tool.
 - 7. First Aid Kit.
 - 8. Damage Assessment Forms.
 - 9. Scratch paper.
 - 10. Laminated maps.
 - 11. Flashlight with spare batteries.
 - 12. Identification for all Damage Assessment Team members.
 - 13. Reflective Spray paint to mark buildings if necessary.
 - 14. Vehicle signs.
 - 15. Clipboard with pencils, pens, and permanent marking pen.
- B. Equipment to be issued by Disaster Assessment Teams upon activation.
 - 1. Cellular or satellite telephones
 - 2. Portable 2-Way radios
 - 3. Geospatial Positioning Systems (GPS)
 - 4. Laptop computer or tablet.
 - 5. Aircard.
 - 6. Portable printers with extra ink cartridges, printer paper



7. Scanner
8. Cameras (Digital, video) and media
9. County map, street maps of the impacted area (Impacted detail maps furnished on activation).
10. One hundred (100), each of Damage tags (Affected Habitable, Minor, Major, Destroyed).
11. Fifty (50) RNA Damage Assessment Forms.
12. Twenty (20) Preliminary Damage Assessment Field Sheets.
13. Plain paper.
14. Two (2) pencils.
15. Two (2) pens.
16. Clipboard.
17. Staple gun with extra staples; thumbtacks.
18. Entry authorization.
19. Official identification/field passes.
20. Yellow Do Not Cross Line tape.
21. Name and phone numbers of emergency personnel.

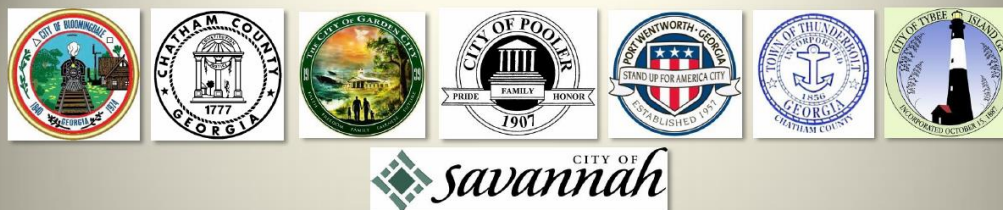


- C. For extended operations, the team member should have enough personal equipment available to be self sustained for seventy-two (72) hours. Consider the following list:

Backpack	Dust mask	Knife, pocket, multi blade
Bag, Duffel	Food, quick energy, no cook, 3 day supply	Lights, both flashlight and headlamp
Bag, leaf, 30-gallon, 2 each	Glasses, extra prescription	Matches, waterproof
Batteries, alkaline	Glasses, sun	Money, credit cards, checks
Boots, heavy duty safety	Gloves, latex, disposable, 10 pair	Pants or chaps, waterproof
Bulbs, spare, for both lights	Gloves, leather	Radio, AM/FM, portable, extra batteries
Calculator, hand-held	Goggles, safety	Repellent, insect
Canteen or water bottle	Hearing protection – ear plugs or ear valve recommended	Respirator, charcoal lined, disposable
Cap, baseball type	Helmet/Hard Hat. OSHA approved, white	Safety vest
Cassette tape recorder, blank tapes, batteries.	Hygiene items, personal, personal medications	Shelter, lightweight tent
Clothing, appropriate extra items	Identification <ul style="list-style-type: none"> • Personal, driver's license • Official 	Stove, backpacking type
Camera media (additional)	Jacket, windshell, with hood	Sunscreen, lotion
Compass	Jacket or parka, waterproof, with hood	Tape measure
Container, water, collapsible	Kit, cooking, with utensils	Toilet tissue
Cord, parachute type, 100 ft.	Kit, first-aid, human or pet	Water purification method
Cup, Sierra	Knee pads	Whistle



- D. Other suggested items.
 - 1. Ladders.
 - 2. Binoculars.
 - 3. Battery operated lanterns and extra batteries.
 - 4. High capacity copier and copy supplies.
 - 5. Assorted tools, hammers, handsaws, crowbars, wire cutters, wrecking bars.
 - 6. Plumb bobs and 200 feet of line.
 - 7. Carpenter's levels/surveyor's hand levels.



County-wide Damage Assessment Strategy



Purpose

This training is for Chatham County and municipality Damage Assessment Teams members with the goal of educating them on the County-wide Damage Assessment Strategy.



Training Objectives

- Understand the Countywide Damage Assessment Strategy and how it the process benefits all municipalities
- Become familiar with the Damage Assessment forms and the importance of completing them.
- Be able to survey impacted facilities and determine the FEMA report level of damage.
- Recognize the data that is required for the GEMA/FEMA Joint Preliminary Damage Assessment Teams
- Review examples of damaged facilities and identify the FEMA Level from the guide.



Damage Assessment Strategy

The Objective of this Strategy:

To enable the County-wide Municipalities and local damage assessment teams understand, conduct and report damage assessments according to County, State and Federal guidelines.



Damage Assessment Strategy

- A coordinated process of activation, assignment, deployment, and operation of Damage Assessment (DA) Teams within Chatham County.
- To assist County jurisdictions quickly recover from an event or major disaster.
- Not intended to replace established County jurisdictional emergency response plans and/or procedures.



Damage Assessment Strategy

- Pre-planning for damage assessment is an ongoing process.
- Procedures and teams must be in place before the disaster event occurs.
- Successful damage assessment begins immediately and continues through the recovery phase.
- Damage assessment is conducted separately from lifesaving and property protection operations.





Photo courtesy of FEMA.
This picture shows actual disaster site work conditions and may not illustrate proper safety and health procedures.



Phase 1 Rapid Needs Assessment



Phase 1

Rapid Needs Assessment (RNA)

- Initial information - the nature and extent of a disaster event. The Big Picture.
- Takes place within hours after an incident
- Focuses on identifying lifesaving needs, imminent hazards, identifying damages and impacts.



Phase 1

Rapid Needs Assessment (RNA)

- The first few hours, the CEMA Duty Officer or local official will receive the initial spot reports from:
 - Emergency responders,
 - 911 Dispatch Centers,
 - Media,
 - General public.



Phase 1

Rapid Needs Assessment Analysis includes identifying:

- Area(s) of impact and threatened area(s).
- What has happened?
- What is needed?
- Status of emergency response to include personnel, equipment, supplies, vehicles, communications, and facilities.
- Estimates of dead, injured, and damages.
- Number of people at risk.
- Public protection actions taken and needed.



Minor / Single Event

- Focus on a specific event that may be able to be handled by a single municipality or require other local resources.
- The Rapid Needs Assessment provides vital information to evaluate the required resources and reducing the impact of the incident or event on residents.
- A timely and accurate assessment to determine if damage from an event within Chatham County exceeds available resources.



Major Disaster

- The Rapid Needs Assessment provides vital information to the Emergency Operations Center (EOC) to determine if disaster damage within the County exceeds available resources.
- County and State senior leadership can decide if the event is of sufficient severity to warrant a request for federal disaster assistance.
- Within 12 hours of the disaster, it will be the responsibility of EOC Planning Section to develop a Damage Assessment Overview (DAO).





RNA Damage Assessment Form

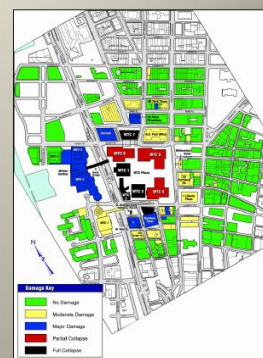
- Upon initiating a Rapid Needs Assessment, the Damage Assessment Form is designed to start documenting details about facilities.
- This Form is designed to use during all Phases of Damage Assessment.
- The more information gathered in Phase 1 will help expedite the Assessment process.

The form is titled 'RNA DAMAGE ASSESSMENT FORM' and includes sections for 'FACILITY INFORMATION', 'DAMAGE INFORMATION', 'CONTACT INFORMATION', and 'ASSESSMENT INFORMATION'. It contains various checkboxes and fields for recording details about a facility and the damage it has sustained.



Damage Assessment Overview

- A summary of areas within the County that have sustained damage. This is made up of maps, list of addresses, and critical facilities.
- Compiled from a variety of sources including reports and logs of Law Enforcement/Fire Rescue/EMS, Public Works and 911 calls.
- Information may come from the American Red Cross (ARC), Georgia Power, National Weather Service, media reports and EOC Public Information Office calls.



“Footprint”

- Updated DAOs are used to identify a “footprint” of locally damaged areas.
- Sites will be prioritized and assessed through a house-by-house, street-by-street damage assessment.
- Based on reports from critical facilities, Damage Assessment Teams will be dispatched for an in-depth safety review.



Phase 2



Initial (Immediate) Damage Assessment





Phase 2

Initial (Immediate) Damage Assessment (IDA)

- This is the preliminary mobilization of local Damage Assessment Teams.
- Local DA Teams are activated to provide an overview of what happened and more detailed reports.
- Within the first 72 hours.
- The Footprint and Damage Assessment Overview is used to dispatch DA Teams.
- Remember, these initial reports are used for emergency proclamations, and requests for assistance from the state and federal government.



Phase 2

Initial Damage Assessment analysis includes identifying:

- A description of the disaster.
- Where the disaster struck?
- Approximate number of people affected.
- Demographics of the affected area.
- Whether the disaster is still occurring and other current conditions.
- Any conditions that could affect the ability to carry out relief coordination.





Phase 2

DA Team Operations

- EOC Planning Section may recommend DA Teams activate and pre-deploy when safe to do so after the event.
- Contact appropriate agencies and instruct them to assemble personnel to staff the DA Teams.
- A cooperative effort comprised of a minimum of 2 people:
 - A County/City representative
 - Other available representatives will assist in this DA effort.
 - Cross jurisdictional support to ensure adequate personnel.



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Phase 2

DA Team Operations

- DA Team personnel will assemble at a designated location
 - Briefed
 - Receive team assignments
 - Deployed by radio or cellphone.
- Activate, brief and deploy additional DA Teams as the situation warrants and personnel are available.



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Phase 2

DA Team Leader responsibilities:

- Overall performance and appropriate conduct.
- Assignment of roles to team members.
- Accurate and timely assessment of damage levels (hard copy or electronic).
- Maintaining communications with Incident Commander or EOC.
- Plan routes to, through, and from damage assessment sites



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Phase 2

DA Team Equipment Kits (TEK)

- Will be issued by the DA Team Leader.
- DA Teams will review the TEK checklist prior to being deployed.
- DA Teams are responsible for proper use of all equipment.
- TEKs will be stored at the EOC or other secure location.
- Once issued, DA Team will be responsible for security of the kits.



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Phase 2

Initial (Immediate) Damage Assessment (IDA) Methods

Windshield Assessment/Survey:

- Drive affected areas visually gathering data.
- Record damages and hazards on Preliminary Damage Assessment Field Sheets.
- Periodically stopping to conduct interviews to provide evidence related to insurance coverage, occupancy type (owner or renter), and other significant information. If possible, document on the RNA Damage Assessment Form.
- This survey is intended to assess the broad scope of the damage.



Phase 2

Initial (Immediate) Damage Assessment (IDA) Methods

Aerial Inspection (weather permitting):

- Aircraft are utilized for IDA and later for more detailed assessments.
- Estimate number of damaged structures determined while flying over populated areas. Homes counted in clusters.
- Any pictures taken may be used to further analyze the degree of damage.
- Using maps, flight plans must be briefed and coordinated between the DA Team and flight crew prior to flight.
- Input can be written observer logs, photos, or video.



Phase 2

Initial (Immediate) Damage Assessment (IDA) Methods

Door-to-Door:

- A higher level of detail and household specific data can be gathered through this method and recorded on RNA Damage Assessment Forms and/or Preliminary Damage Assessment Field Sheet.
- The teams are dispatched in the usual manner, but once in the affected areas they survey door-to-door.
- This is labor intensive but highly accurate.



Preliminary Damage Assessment Field Sheet

- Upon initiating a Rapid Needs Assessment, the Preliminary Damage Assessment Field Sheet is designed to start documenting details about facilities based on streets and location.
- This Form is designed to use during all Phases of Damage Assessment.
- The more information gathered in Phase 1 will help expedite the Assessment process.






Phase 3

Preliminary Damage Assessment



Phase 3

Preliminary Damage Assessment (PDA)

- At this point, it becomes a major operation that is coordinated through the EOC.
- This is a more focused and detailed inspection using professionals assigned to DA Teams.
- Staffed by subject matter personnel from fire marshals, Board of Assessors, building safety / regulatory / inspections, engineering, public works organizations, etc.
- Identifies and fixes dollar amounts to damages.
- 72 – 96 hours.





Phase 3

Preliminary Damage Assessment (PDA)

The EOC Damage Assessment Unit will assign PDA Teams to specific areas. EOC actions will include:

- Indicate impact area(s) on a map(s).
- Identify areas which have reported damage. Begin with a large area and segment into manageable areas.
- Assign PDA Teams to segments.
- The PDA Teams provide a more detailed assessment of the damaged areas which involves completing PDA Field Sheets.



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Phase 3

Preliminary Damage Assessment (PDA)

Responsibilities include the following:

- Identify damages to:
 - ✓ Public Works infrastructures.
 - ✓ Critical facilities infrastructure.
 - ✓ Public buildings.
 - ✓ Private buildings.
- Estimate the amount and types of debris.
- Rate the safety level of damaged buildings and structures, and post a Placard.



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Phase 3

Preliminary Damage Assessment (PDA)

Documentation includes:

- Photos.
- Video.
- News articles.
- Written estimates.
- Records of expenditures.
- Estimated economic impact.

The EOC Damage Assessment Unit will transfer data onto FEMA forms in preparation for the arrival of Joint Preliminary Damage Assessment Teams as appropriate.



Preparation for Joint PDA Teams

- Provide copies of initial assessments performed at the local level and reported to the State.
- Ensure all damaged areas are surveyed during the PDA.
- Prepare and document the route the team will take to assess the damaged areas.
- Assist the State team member in providing required information and serve as an expert on local issues..
- Provide an overview of the disaster for team members.





Preparation for JPDA Teams

- Provide detailed information from the RNA Damage Assessment Forms and Preliminary Damage Assessment Field Sheets.
- Provide maps of impacted areas
- Concur with the State PDA Team Member on degree of damage to residential structures.
- Provide demographic information, such as:
 - Populations with functional and access needs,
 - Low income populations,
 - Elderly,
 - Unemployed.



Preparation for JPDA Teams

- Provide an accurate description of damages including:
 - Pockets of damage,
 - General home construction types
 - General price range of homes
 - Type of community
 - Insurance issues.





Preparation for JPDA Teams

Economic Impacts info should present an accurate picture of the economic stability of a disaster-impacted community

- Pre and post disaster unemployment,
- Agricultural losses,
- Business losses,
- Economic losses, etc.

Assess loss of critical business in affected communities. The loss of grocery stores, gas stations, or building suppliers can complicate recovery.



Preparation for JPDA Teams

Recovery impacts should be outlined and include:

- Total number of businesses impacted by the disaster
- Number of destroyed businesses
- Number of businesses with major damage
- Number of businesses with minor damage
- Number of affected businesses
- Critical businesses lost due to the disaster
- Anticipated date of reopening
- Distance to nearest alternative



Preparation for JPDA Teams

Impact on local non-profit, faith-based and community-based organizations:

- Food banks and soup kitchens,
- Local churches,
- Community development organization,
- Economic development organizations,
- Clinics,
- Non-profit case management organizations,
- Non-profit housing corporations, and care/living facilities



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Phase 4 Joint Preliminary Damage Assessment



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Phase 4

Joint Preliminary Damage Assessment (JPDA):

- For Federal public assistance funding, state and federal damage assessment teams will respond to work directly with the local Damage Assessment Teams with the goal to validate our documentation.
- A well managed damage assessment program will demonstrate Chatham County leadership, and will enable the state/federal assessments teams to do their job in a timely manner, maximizing public assistance benefits
- 96+ hours.



Phase 4

Joint Preliminary Damage Assessment (JPDA):

The EOC Damage Assessment Unit and role of the Damage Assessment Unit Leader:

- Provides appraisers to assist with damage assessment.
- Arranges for appraisers to arrive at affected sites.
- Coordinates damage assessments with state, and federal agencies as appropriate.
- Ensures escort of state and federal damage survey officials on inspection of damaged areas.
- Develops map(s) for affected areas. Sites are numbered on map(s).



Phase 4

Joint Preliminary Damage Assessment (JPDA):

The EOC Damage Assessment Unit and role of the Damage Assessment Unit Leader:

- Damages are described on forms or separated sheets of paper by numbers corresponding to numbers on maps.
- Prioritizes sequences of site visitations to ensure most heavily damaged areas are visited; it may not be necessary to visit isolated damage sites.
- Ensures that the local jurisdiction's operating budget information is available.



Damage Assessment Data and Reporting



Damage Assessment Data

DA Teams will report collected damage assessment data to the Incident Commander or EOC.

EOC Planning Section will be responsible for consolidating data into the WebEOC format.

The consolidated data shall be translated into a GIS map identifying the affected areas and the degree of damage.



Damage Assessment Data

Data Analysis:

- EOC Management and Planning Sections will review and analyze the data to verify individual damage assessments are consistent.
- If inconsistencies are identified, the DA Team responsible for the data in question will be consulted. Reassessment may be requested.
- The data will be forwarded to all appropriate agencies to estimate dollar amount of damage, including costs for damage to structures, contents, business losses, and public infrastructures.
- A total dollar amount for the disaster event will also be estimated.





Damage Assessment Data

EOC Situation Analysis Unit provides:

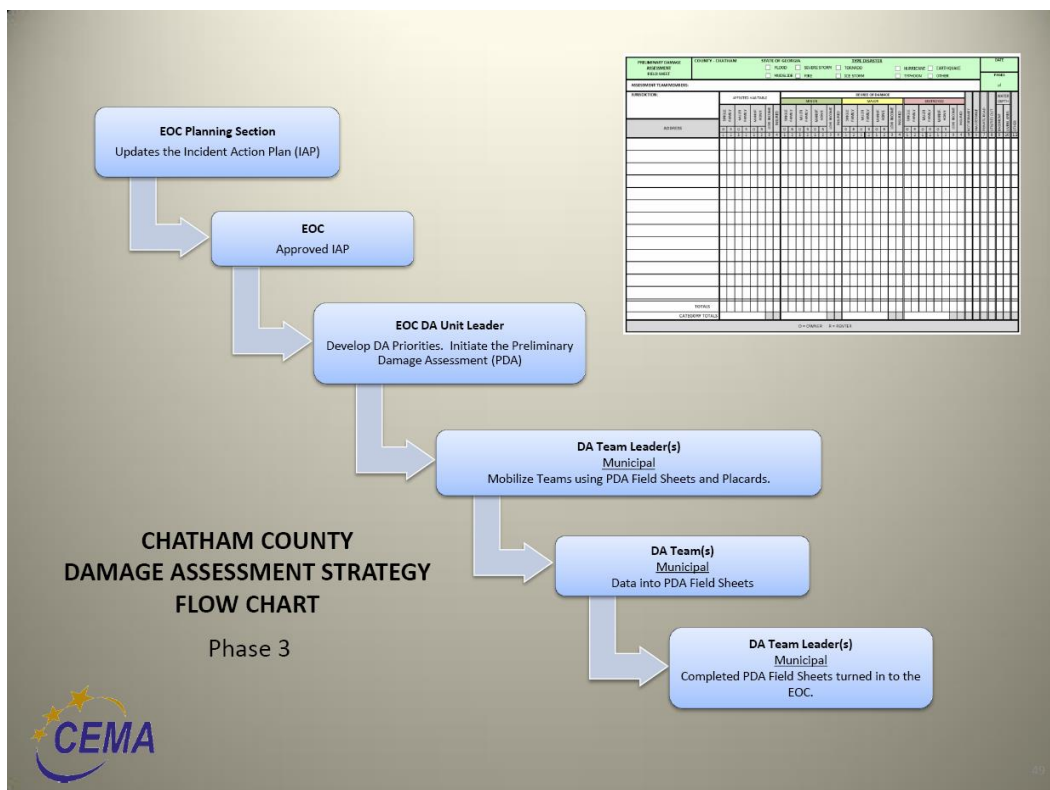
- Initial damage assessment data and information.
- An initial situation map illustrating the footprint of the affected area to aid in deploying response resources. The footprint may be revised several times until the full extent of the impacted area is clearly identified.
- Recommendations as to actions based on the information.
- A consolidated, overall situation report for responding agencies/departments.
- Preliminary status reports to determine eligibility for a Governor/Presidential Disaster Declaration.



Review of the Strategy







RNA DAMAGE ASSESSMENT FORM

CHATHAM COUNTY, GEORGIA

EVENT NO. _____ EVENT DATE _____

KEY FOR DAMAGE CATEGORY (Use Appropriate Letters in the "Category" Block Below)

A. DEBRIS REMOVAL	D. WATER CONTROL FACILITIES	G. FACILITIES UNDER CONSTRUCTION
B. PROTECTIVE MEASURES	E. PUBLIC BUILDINGS	H. PRIVATE NON-PROFIT
C. ROADS AND BRIDGES	F. PUBLIC UTILITIES	I. PUBLIC RECREATION

SITE/PROPERTY INFORMATION

SITE # _____ CATEGORY _____ NAME OF FACILITY & LOCATION _____ GPS COORDINATES (USNG) _____

DESCRIPTION OF DAMAGE

STRUCTURE TYPE: ☐ GOVT ☐ SINGLE FAMILY HOME ☐ MULTI-FAMILY ☐ MANUFACTURED HOME ☐ BUSINESS

☐ OWNER (Permanent Residence) ☐ RENTER (Tenant) ☐ SECONDARY (Part-time Residence, 2nd Home)

INSURANCE STATUS: ☐ INSURED FLOOD ☐ INSURED PROPERTY ☐ UNINSURED ☐ UNKNOWN

OVERALL RATING

AFFECTED HABITABLE -WHITE-	MINOR DAMAGE -GREEN-	MAJOR DAMAGE -YELLOW-	DESTROYED -RED-	INACCESSIBLE	WATER DEPTH _____
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RECOMMENDATIONS

☐ No Further Action Required.

☐ Further/Detailed Evaluation Required (Circle One): Structural Geotechnical Other _____

☐ Utilities Shut Off (Specify): _____

☐ Barricades Needed in the Following Areas: _____

☐ Other Comments: _____

APPLICANT/OWNER INFORMATION

NAME OF OWNER/APPLICANT _____ NAME OF LOCAL CONTACT _____ PHONE NO. _____

☐ RENTAL ASSISTANCE (RA) ☐ HOME REPAIR (HR) ☐ LOW INCOME (LO)

INSPECTED BY

NAME (PRINT) _____ AGENCY (PRINT) _____ JURISDICTION _____

EMAIL ADDRESS _____ PHONE # _____ INSPECTION DATE/TIME _____

[illegible]

FEMA DAMAGE ASSESSMENT LEVEL GUIDE

Damage Level	General Description	FEMA Description	Things to Look For	Water Level	Single, Multi Family Homes
10	Structure leveled, foundation, basement damage. Water above the eaves.	DESTROYED Structure is total loss or permanently uninhabitable.	Structure leveled or has major shifting off its foundation or only the foundation remains. Roof is gone with noticeable distortion to walls.	DESTROYED More than 5 feet on first floor. More than 2 feet in mobile home.	More than 8 feet.
9	Structure leveled above foundation. Second floor is gone.	<u>Not economically feasible to rebuild.</u>			7 to 8 feet
8	Water above first floor. Structure moved off foundation. Walls collapsed.				6 to 7 feet
7	Exterior frame damage. Roof off or collapsed. Accessory/service/outbuildings damaged.	MAJOR Structure is currently uninhabitable. Extensive repairs are necessary to be habitable. Will take <u>more than 30 days to repair.</u>	Portions of the roof and deck missing. Twisted, bowed cracked, or collapsed walls. Structure penetrated by large foreign object, such as trees. Damaged foundation.	MAJOR 3 to 5 feet in first floor 6 inches to 2 feet in mobile home with plywood floors 1 inch to 2 feet in mobile home with particle board floors	5 to 6 feet
6	Foundation damaged. Insulation damaged. Exterior wall(s) damaged. Production equipment/office equipment damaged.				4 to 5 feet
5	One room destroyed. Exits blocked. Utilities damaged: furnace, water heater, well, septic system.				3 to 4 feet
4	Interior flooring/exterior walls with minor damage. Tree(s) fall on structure. Business inventory destroyed.	MINOR Structure is damaged, but habitable, will need minor repairs. Will take <u>less than 30 days to repair.</u>	Many missing shingles, broken windows and doors. Loose or missing siding. Minor shifting or settling of foundation. Attached garage damaged. Damaged septic system.	MINOR 2 inches to 3 feet, first floor <u>Basement</u> (summer) 5 feet or more in basement. (winter) 1 foot or more base. <u>No Basement</u> 2"- 3" first floor <u>Crawlpace</u> reach insulation. <u>Seepage</u> 1 ft. or more basement. <u>Mobile Home</u> . BB to 6 inches	2 to 3 feet
3	Smoke damage. Fire escape inoperable. Shingles/roof tiles moved or missing. Fleet/Vehicles damaged.				6 inches to 2 feet
2	Chimney damaged. Porch damaged. Carpet on first floor soaked. Parking lot damaged.	AFFECTED HABITABLE Structure has received minimal damage and is <u>habitable without repairs.</u>	Few missing shingles, some broken windows. Damage to air conditioning unit/etc. Suspected damage to contents. Some minor basement flooding.	AFFECTED HABITABLE 2 inches or less, first floor Minor basement flooding. Summer less than 5 feet Winter less than 1 foot. Mobile home, no water in belly board.	3 to 6 inches
1	Broken windows. Damage to landscaping. Business signs damaged.				0 to 3 inches

Guidelines for Determining Damage to Manufactured Homes			
This matrix should serve as broad guidance for field staff conducting Preliminary Disaster Assessments (PDA). Actual decisions for awarding disaster assistance are based on individualized, more in-depth inspections. These inspections take into account the age of the unit, pre-disaster conditions, sewage and other contaminants in the flood water, and other disaster specific conditions.			
Degree of Damage	Program Description	Operational Mechanics	
		For Flood Damage	For Damages Other Than Flood (i.e. Wind Driven Rain, Earthquake)
Destroyed	The structure is a total loss; damaged to such an extent that repairs are not economically feasible. ¹ There is no value associated with the structure except for its basic material content (scrap).	A water line higher than 12 inches would equate to a destroyed designation. To be otherwise designated as destroyed, the dwelling's frame must be bent, twisted, or otherwise compromised. The dwelling interior must be so compromised by contamination that clean up is infeasible.	The dwelling's frame must be bent, twisted, or otherwise compromised. The dwelling must be missing the roof or has sustained significant damage to the roof covering, sheathing, and framing.
Major	The structure has sustained structural or significant damages; uninhabitable dwelling that requires extensive repairs. The dwelling is unusable in its current condition and cannot be made habitable in a short period of time.	Water that impacts the floor system (to include belly board insulation, ductwork, subflooring) or a water line of up to 12 inches within the living area would equate to a major designation.	The dwelling's frame is not bent, twisted, or otherwise compromised; however, there is more than minor structural damage (e.g., it has been displaced from the foundation) and other structural components have been damaged (i.e., windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up).
Minor	The structure is damaged and uninhabitable, but may be made habitable in a short period of time with minimal home repairs. The dwelling has some damage, but can be used without significant repair (repairable).	Water line is below the floor system. In general, skirting or HVAC may be impacted.	The dwelling's frame is not bent, twisted, or otherwise compromised; however, there is minor structural damage (e.g., it has not been displaced from the foundation). Other structural components may have sustained minor damage (i.e., windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up).
Affected	The structure has minimal damage; dwelling is habitable without repairs.	No damages affecting habitability; cosmetic damages only.	The dwelling's frame is not bent, twisted, or otherwise compromised. No structural components of the dwelling have been damaged (i.e., windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up).



IDA Tips: Estimating Water Depths



- Brick
2 1/2 inches per course
- Concrete or cinder block
8 inches per course
- Lap or aluminum siding
4 inches or 8 inches per course
- Door knobs
36 inches above floor
- Stair risers
7 inches
- Standard doors
6 feet 8 inches





AFFECTED HABITABLE

LAWFUL OCCUPANCY PERMITTED

THIS BUILDING IS **DEEMED SAFE** FOR HUMAN OCCUPANCY BY THE CHATHAM COUNTY BUILDING CODE, SECTION 115.

PRIOR TO REPAIRING THIS BUILDING, A PERMIT IS REQUIRED FROM THE CHATHAM COUNTY BUILDING SAFETY & REGULATORY SERVICES DEPARTMENT LOCATED AT 1117 EISENHOWER DRIVE, SAVANNAH, GA 31406.

COMMENTS _____

JURISDICTION

UNINCORPORATED CHATHAM COUNTY

ADDRESS _____

BUILDING INSPECTORS

DATE _____ TIME _____

*Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.
(EXAMPLE)*



MINOR DAMAGE

LAWFUL OCCUPANCY PERMITTED

THIS BUILDING IS **DEEMED SAFE** FOR HUMAN OCCUPANCY BY THE CHATHAM COUNTY BUILDING CODE, SECTION 115.

PRIOR TO REPAIRING THIS BUILDING, A PERMIT IS REQUIRED FROM THE CHATHAM COUNTY BUILDING SAFETY & REGULATORY SERVICES DEPARTMENT LOCATED AT 1117 EISENHOWER DRIVE, SAVANNAH, GA 31406.

COMMENTS _____

JURISDICTION

UNINCORPORATED CHATHAM COUNTY

ADDRESS _____

BUILDING INSPECTORS

DATE _____ TIME _____

*Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.
(EXAMPLE)*





MAJOR DAMAGE

ENTRY, OCCUPANCY, & LAWFUL USE ARE RESTRICTED


THIS BUILDING IS **DEEMED UNSAFE** FOR HUMAN OCCUPANCY BY THE CHATHAM COUNTY BUILDING CODE, SECTION 115.

PRIOR TO REPAIRING THIS BUILDING, A PERMIT IS REQUIRED FROM THE CHATHAM COUNTY BUILDING SAFETY & REGULATORY SERVICES DEPARTMENT LOCATED AT 1117 EISENHOWER DRIVE, SAVANNAH, GA 31406.

COMMENTS _____

JURISDICTION <u>UNINCORPORATED CHATHAM COUNTY</u>	BUILDING OFFICIALS/INSPECTORS _____
ADDRESS _____	DATE _____ TIME _____

*Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.
(EXAMPLE)*



DESTROYED

DO NOT ENTER OF OCCUPY

THIS BUILDING IS **DEEMED UNSAFE** FOR HUMAN OCCUPANCY BY THE CHATHAM COUNTY BUILDING CODE, SECTION 115.

PRIOR TO DEMOLITION THIS BUILDING, A PERMIT IS REQUIRED FROM THE CHATHAM COUNTY BUILDING SAFETY & REGULATORY SERVICES DEPARTMENT LOCATED AT 1117 EISENHOWER DRIVE, SAVANNAH, GA 31406.

COMMENTS _____

JURISDICTION <u>UNINCORPORATED CHATHAM COUNTY</u>	BUILDING INSPECTORS _____
ADDRESS _____	DATE _____ TIME _____

*Do Not Remove, Alter, or Cover This Placard until Authorized by Governing Authority.
(EXAMPLE)*





Field Operations

- Field Safety Guide for DA Teams
 - Refer to Strategy
- Damage Assessment Team Equipment Kit (TEK) List
 - Refer to Strategy



Lesson Learned From December Exercise





Radio Dispatching

- Note. Used the Radio or User # such as 794
- Should. Designate each DA Team a number such as Team #1 or Tybee DA Team #1
- Should. When first responding to DA Sites, call in to the Operations Center as Team #__ and identify who is on the team. Bill Jones from Tybee Building / Inspections and Bob James of Chatham County Assessors.



DA Forms

- Note. Forms were incomplete. Some had no times of assessment, no names or Team #s.
- Note. There was some confusion if a site had been assessed. Placards were no placed on facility
- Should. Complete forms as much as possible. It is always necessary to record who is filing the report.
- Should. Once the Assessment is completed, post a Placard on the front side of the facility.





DA Team Equipment Kits (TEK)

- Note. Used bags, but not everyone had a camera. Some sites had to be visited by 2 Teams, only one had a camera.
- Should. Loaded a bag or backpack with everything you need during your Site Assessments. Cameras and extra media is essential when documenting the conditions.



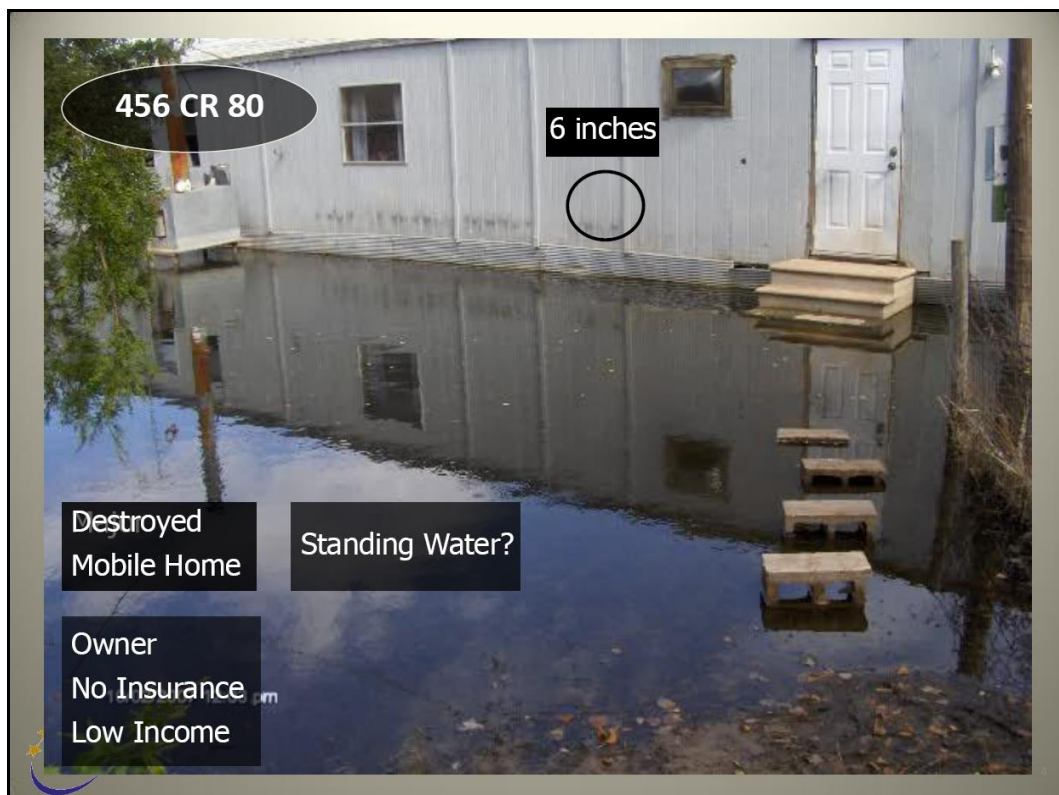
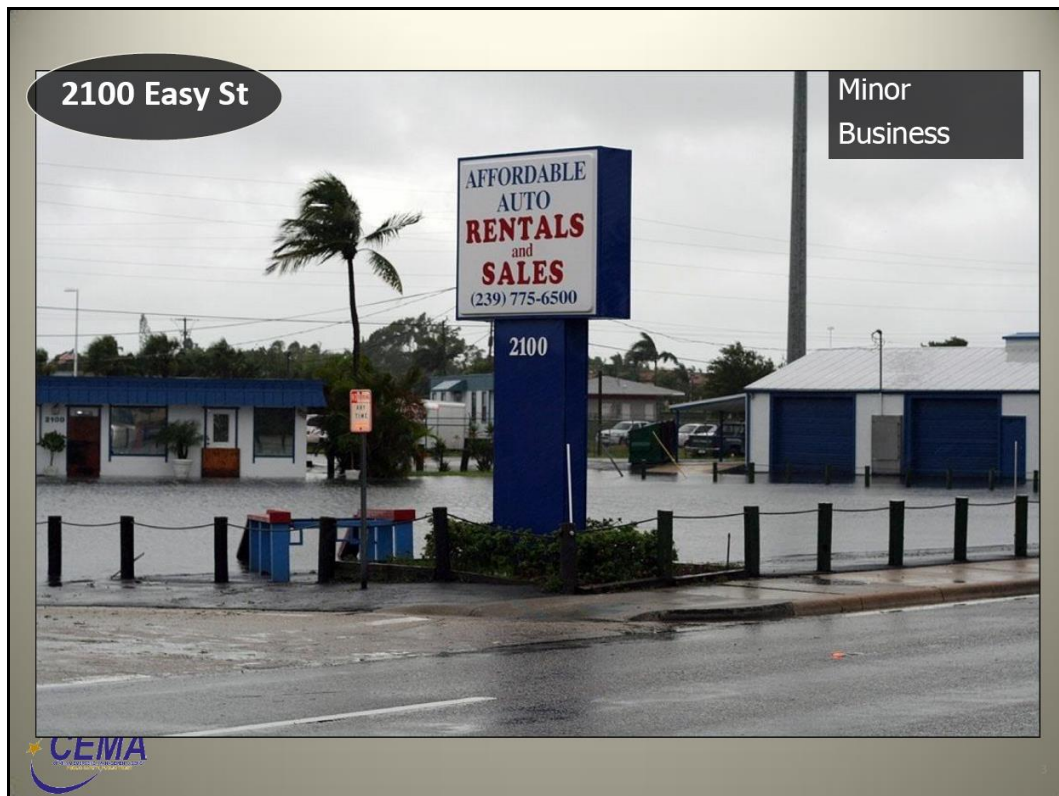
Any Questions?

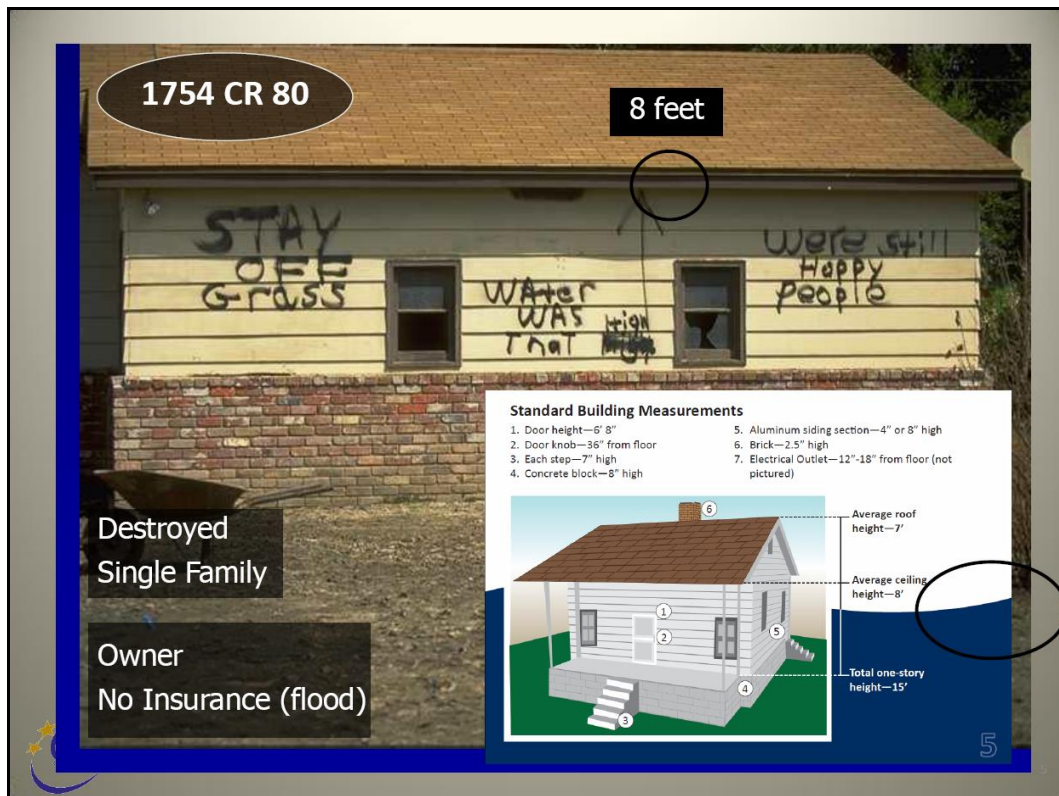


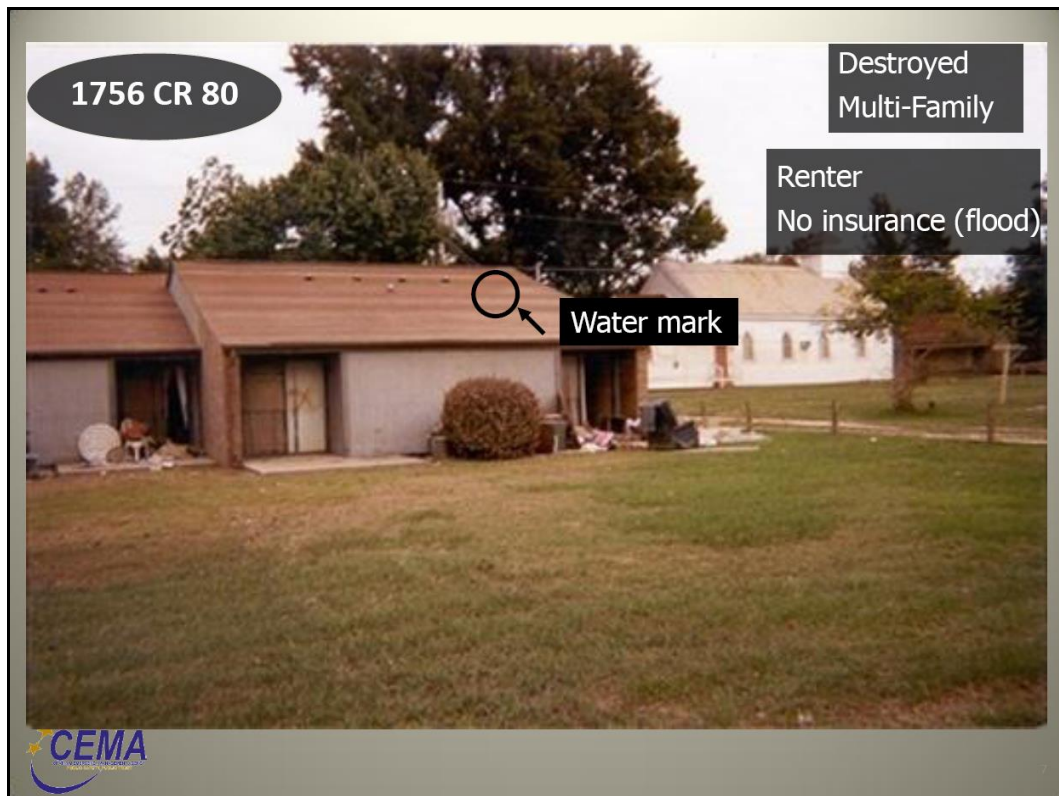
TRAINING CLASS PRACTICE EXERCISE

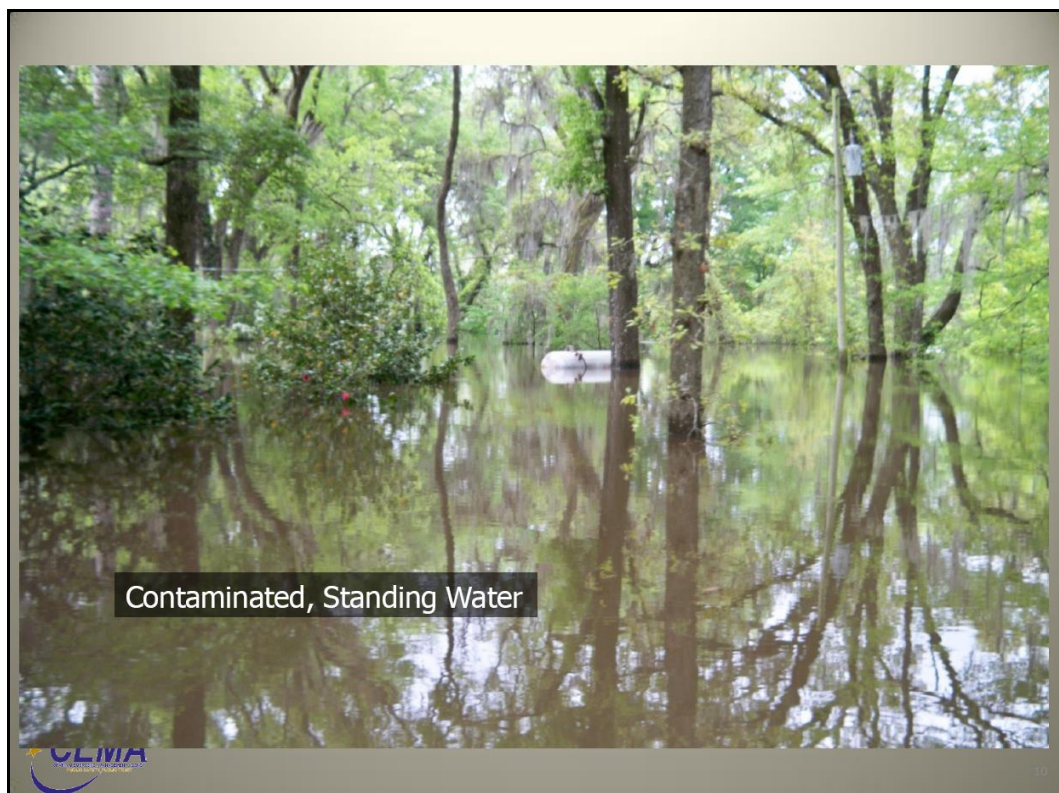
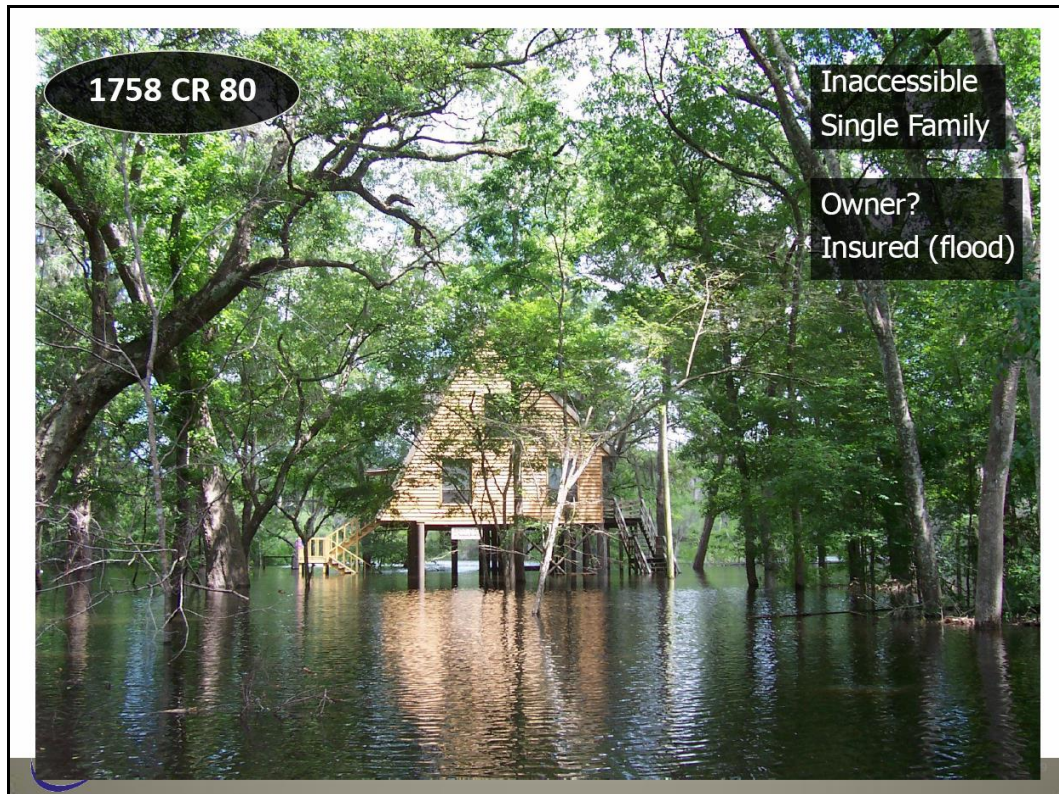
Damage Assessment Strategy Practice Exercise













Wind Events

4523 Robin Rd



Affected
Single Family

Owner
Insured

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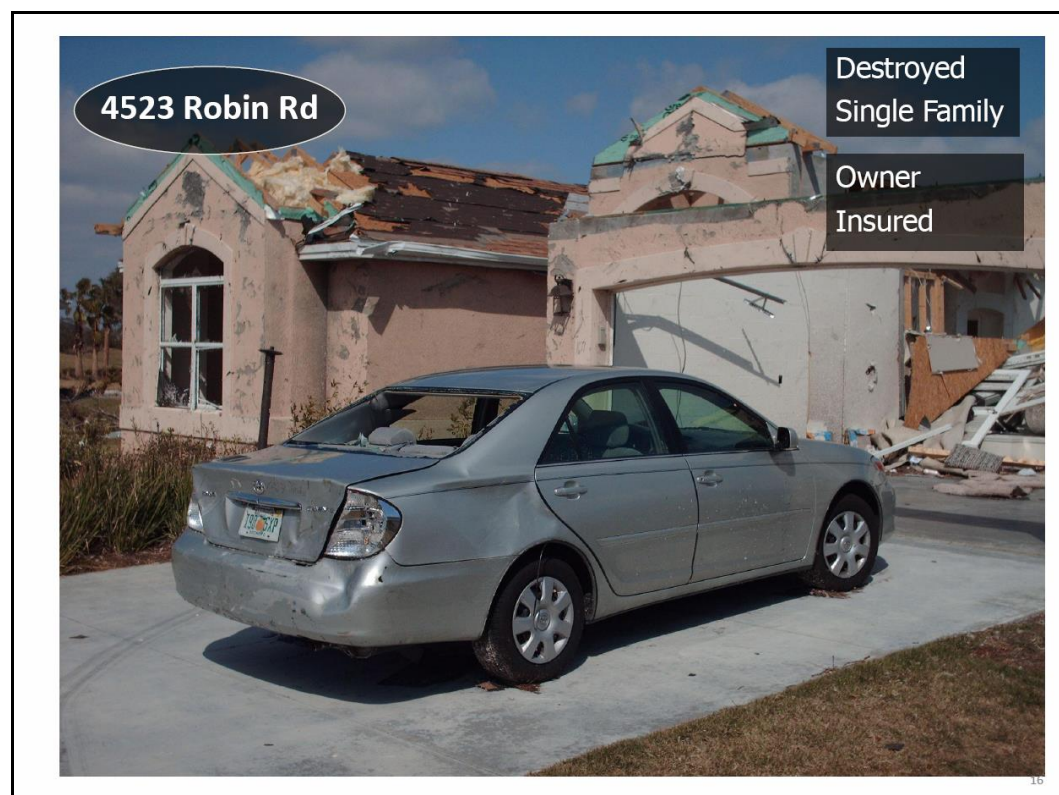
4529 Robin Rd

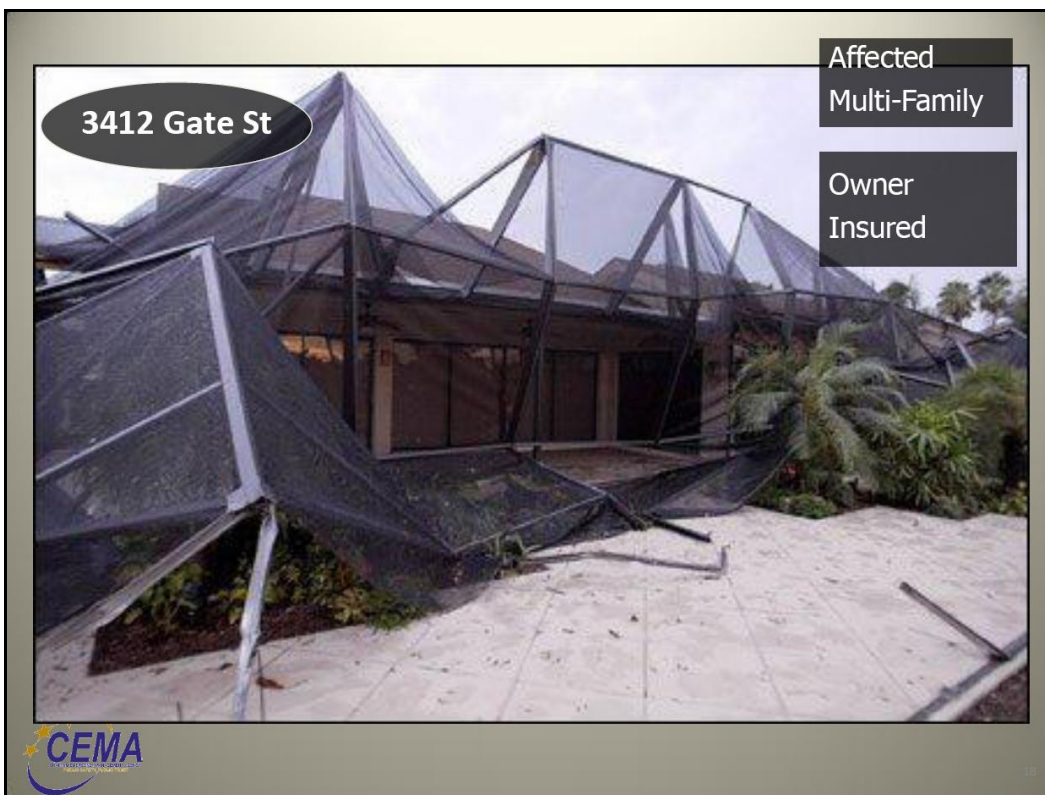


Destroyed
Single Family

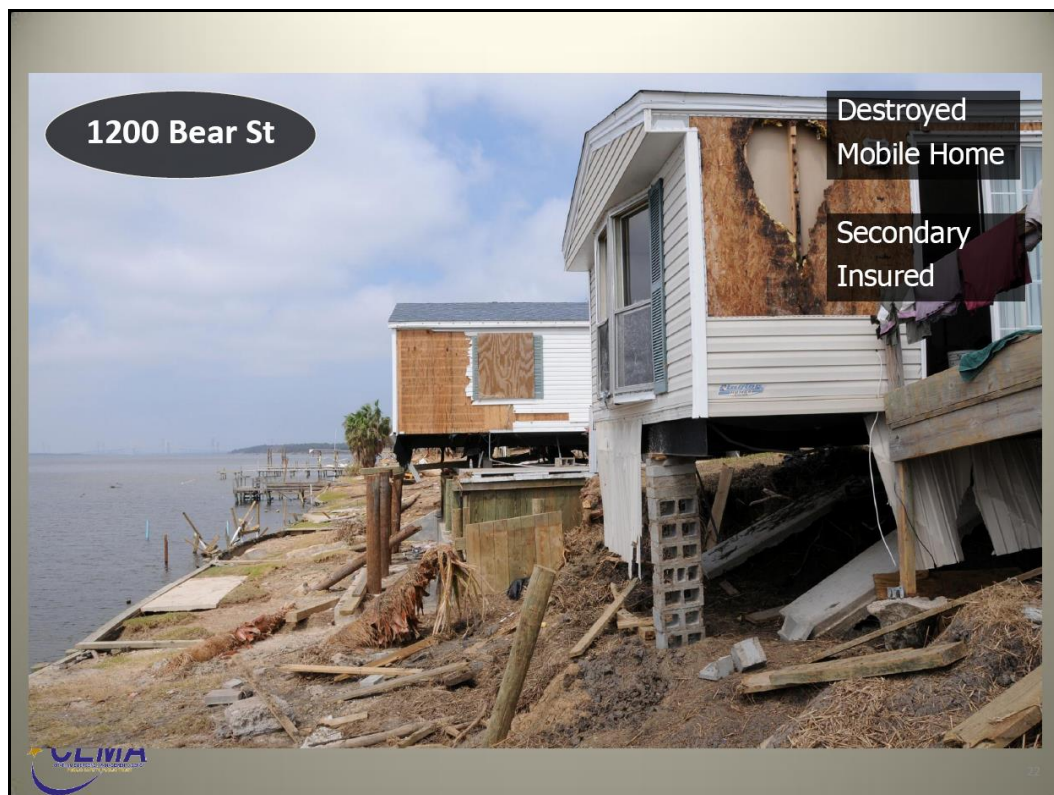
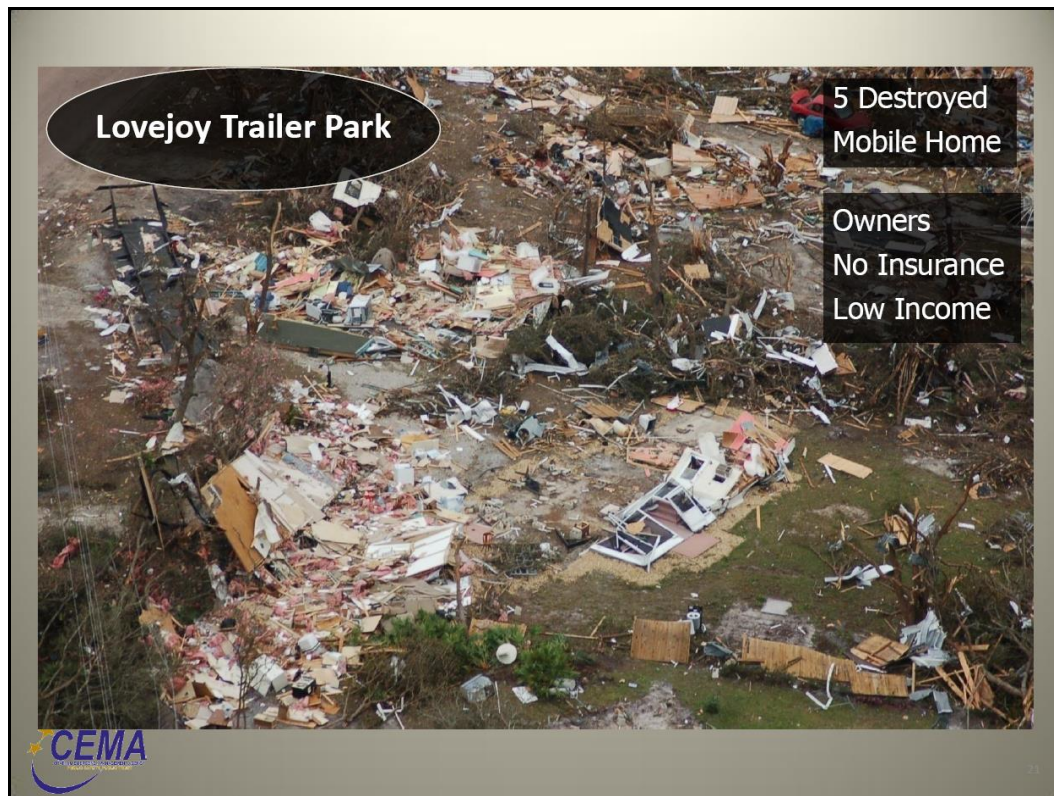
Owner
Insured

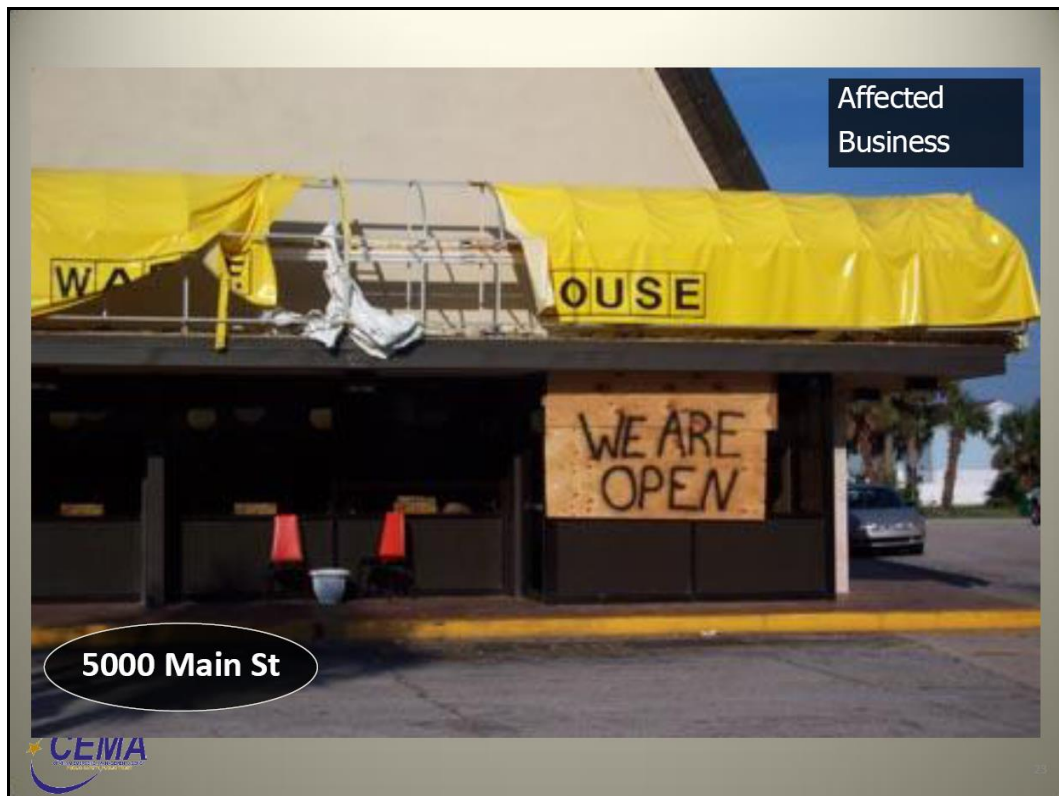
14











Fire Events











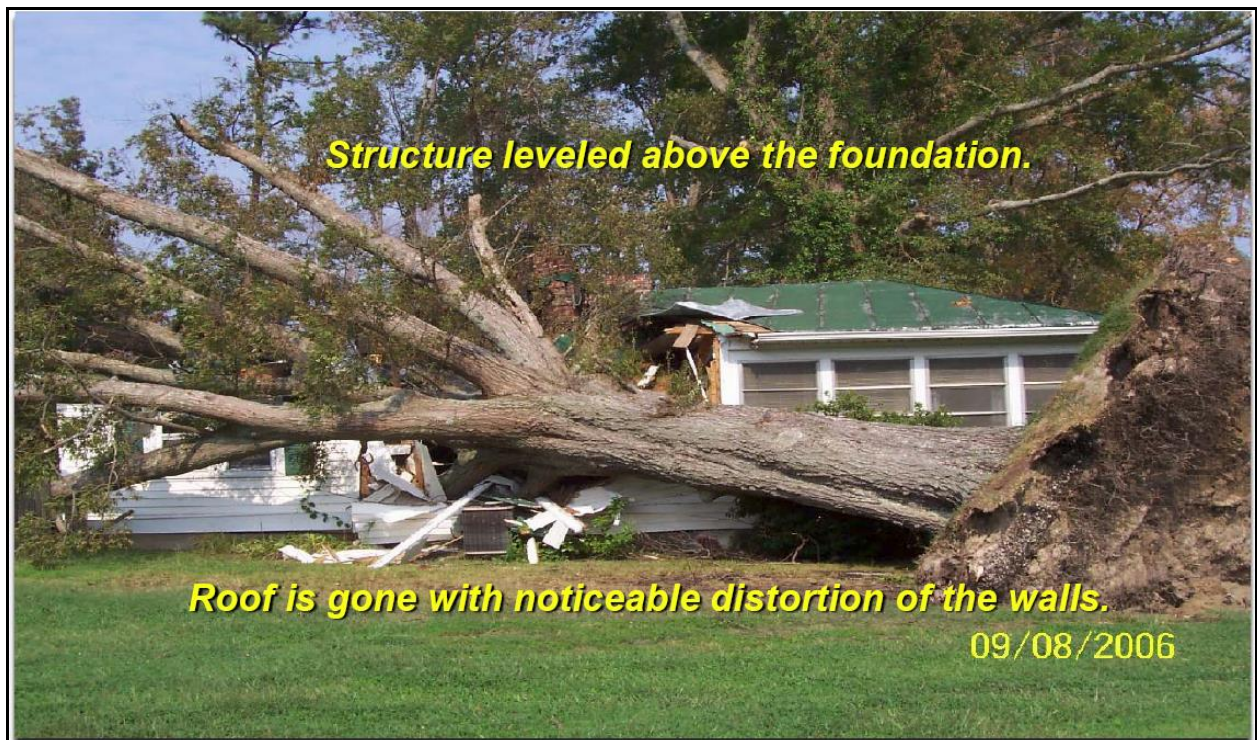
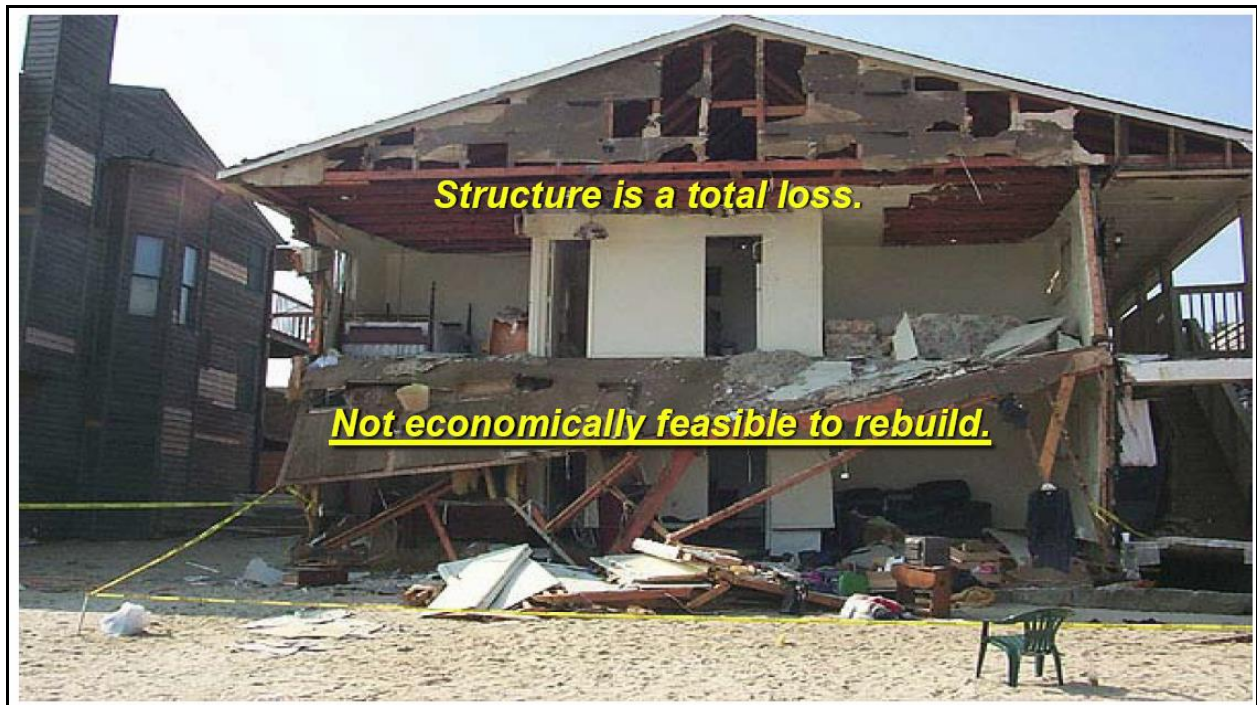
ADDITIONAL FEMA DAMAGE LEVEL EXAMPLES

Individual Assistance Damage Assessment Level Guidelines			
Damage Definitions	General Description	Things to Look For	Water Levels
DESTROYED	DESTROYED	DESTROYED	DESTROYED
Structure is a total loss. <u>Not economically feasible to rebuild.</u>	Structure leveled above the foundation, or second floor is gone. Foundation or basement is significantly damaged.	Structure leveled or has major shifting off it's foundation or only the foundation remains. Roof is gone, with noticeable distortion to walls.	More than 4 feet in first floor. More than 2 feet in mobile home .
MAJOR	MAJOR	MAJOR	MAJOR
Structure is currently uninhabitable. Extensive repairs are necessary to make habitable. <u>Will take more than 30 days to repair.</u>	Walls collapsed. Exterior frame damaged. Roof off or collapsed. Major damage to utilities: furnace, water heater, well, septic system.	Portions of the roof and decking missing. Twisted, bowed, cracked, or collapsed walls. Structure penetrated by large foreign object, such as tree. Damaged foundation.	2 to 4 feet in first floor without basement. 1 foot or more in first floor with basement. 6 inches to 2 feet in mobile home with plywood floors. 1 inch in mobile home with particle board floors.
MINOR	MINOR	MINOR	MINOR
Structure is damaged, and uninhabitable. Minor repairs are necessary to make habitable. <u>Will take less than 30 days to repair.</u>	Interior flooring / exterior walls with minor damage. Tree(s) fallen on structure. Smoke damage. Shingles / roof tiles moved or missing.	Many missing shingles, broken windows and doors. Loose or missing siding. Minor shifting or settling of foundation. Minor damage to septic system.	2 inches to 2 feet in first floor without basement. 1 foot or more in basement. <u>Crawlspace</u> – reached insulation. <u>Sewage</u> - in basement. Mobile home , "Belly Board" to 6 inches.
AFFECTED HABITABLE	AFFECTED HABITABLE	AFFECTED HABITABLE	AFFECTED HABITABLE
Structure has received minimal damage and is <u>habitable without repairs</u> .	Chimney or porch damaged. Carpet on first floor soaked. Broken windows.	Few missing shingles, some broken windows. Damage to air conditioning units / etc. Some minor basement flooding.	Less than 2 inches in first floor Minor basement flooding. Mobile home , no water in "Belly Board".
IDA Tips: Estimating Water Depths			
Brick - 2 1/2 inches per course	Lap or aluminum siding - 4 inches or 8 inches per course	Stair risers - 7 inches	
Concrete or cinder block - 8 inches per course	Door knobs - 36 inches above floor	Standard doors - 6 feet 8 inches	

Destroyed Definition

Damage Definitions	General Description	Things to look for. . .	Where's the water?
<p>Structure is a total loss.</p> <p><u>Not economically feasible to rebuild.</u></p>	<ul style="list-style-type: none"> •Structure leveled above the foundation or second floor is gone. •Foundation or basement damaged significantly. 	<ul style="list-style-type: none"> •Structure is leveled or has <i>Major</i> shifting off its foundation or only the foundation remains. •Roof is gone with noticeable distortion of the walls. 	<div data-bbox="1218 682 1291 756"></div> <p>More than 4 feet on the first floor.</p> <div data-bbox="1201 892 1307 966"></div> <p>More than 2 feet in the mobile home.</p>

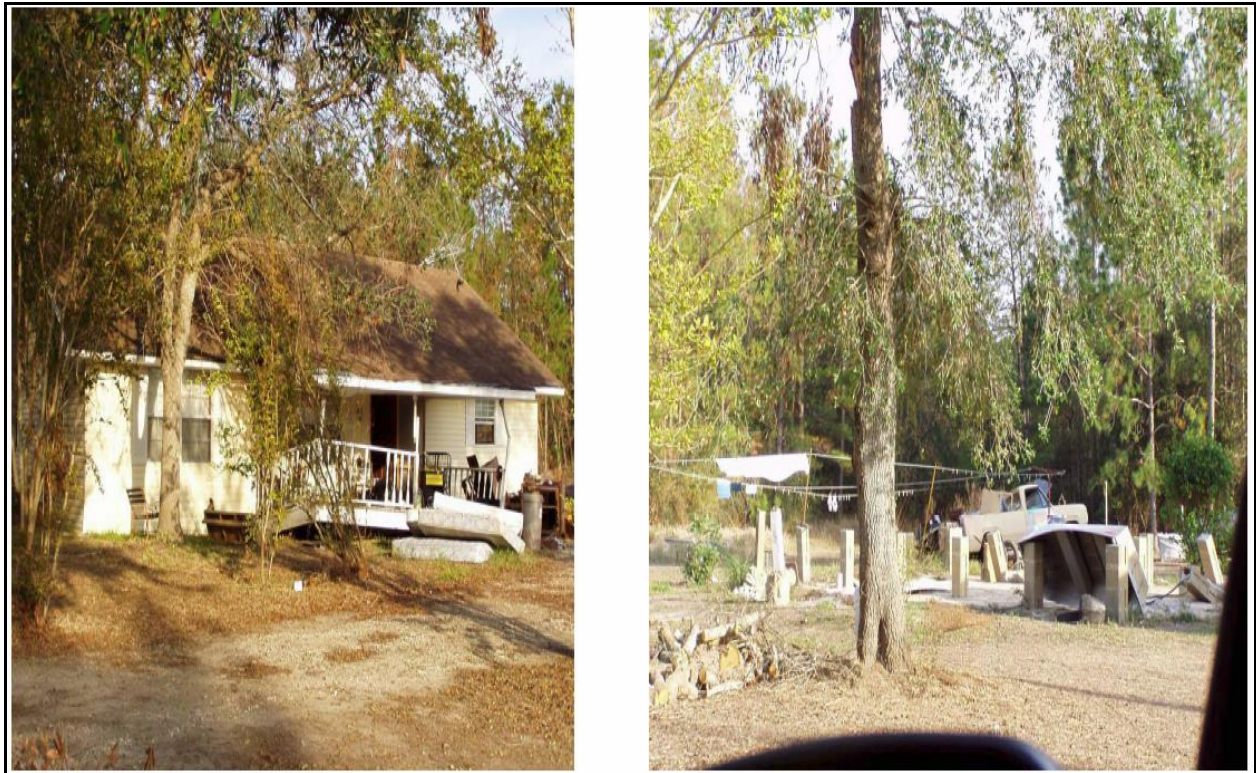
Destroyed



Destroyed



Destroyed



Major Defined



Damage Definitions	General Description	Things to look for. . .	Where's the water?
<p>Structure is currently uninhabitable. Extensive repairs are necessary to make it habitable.</p> <p><u>Will take more than 30 days to repair.</u></p>	<ul style="list-style-type: none"> •Walls collapsed. •Exterior frame damaged. •Roof off or collapsed. •Major damage to utilities: furnace, heater, water heater, well, septic system. 	<ul style="list-style-type: none"> •Portions of roof & decking missing. • Twisted, bowed, cracked, or collapsed walls. • Structure penetrated by large object, such as tree. •Damaged foundation. 	<div data-bbox="1201 567 1274 625" data-label="Image"> </div> <p>2-4 feet in first floor.</p> <p>1 foot or more in first floor with basement.</p> <div data-bbox="1201 877 1312 919" data-label="Image"> </div> <p>6 inches to 2 feet in mobile home with plywood floors – 1 inch with particle board floors.</p>

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Major



Minor Defined

Damage Definitions	General Description	Things to look for. . .	Where's the water?
<p>Structure is damaged and uninhabitable. Minor repairs are necessary to make habitable.</p> <p><u>Will take less than 30 days to repair.</u></p>	<ul style="list-style-type: none"> •Interior flooring /exterior walls with some damage. •Tree(s) fallen on structure. •Smoke damage. •Shingles / roof tiles moved or missing. 	<ul style="list-style-type: none"> •<i>Minor</i> shifting or settling of foundation. •Many missing shingles, broken windows and doors. •<i>Some</i> damage to septic system. •Loose or missing siding. 	 <p>2 inches – 2 feet on the first floor without basement. 1 foot or more in the basement. Crawl space – reached insulation. Sewage in the basement.</p>  <p>“Belly Board” to 6 inches in mobile home.</p> <p>76</p>

Minor



Minor





Minor

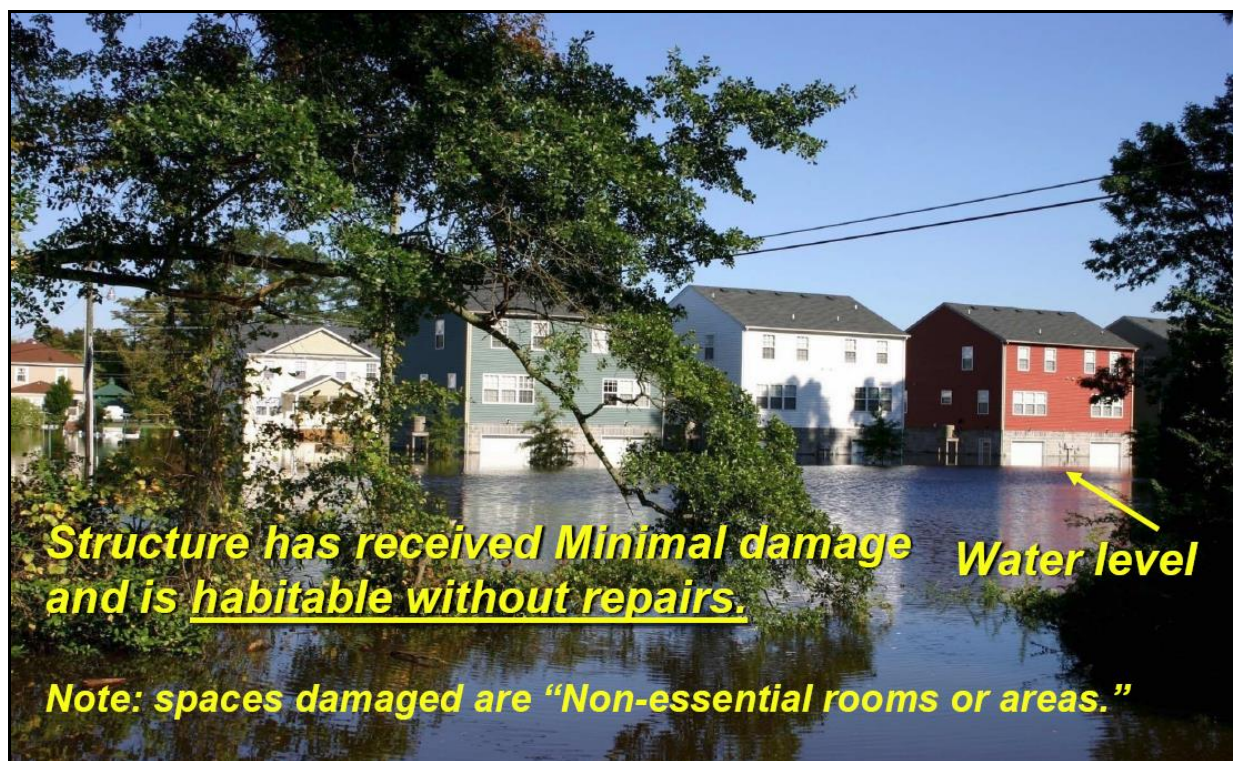




Affected Defined

Damage Definitions	General Description	Things to look for. . .	Where's the water?
Structure has received <i>Minimal</i> damage and is <u>habitable without repairs.</u>	<ul style="list-style-type: none"> • Chimney or porch damaged. • Carpet on first floor soaked. • Broken windows. 	<ul style="list-style-type: none"> • Few missing shingles, some broken windows. • Damage to air conditioning units, etc. • Some <i>minor</i> basement flooding. 	 <ul style="list-style-type: none"> • 2 inches or less on the first floor. • <i>Minor</i> basement flooding.  <ul style="list-style-type: none"> • No water in "Belly Board" of mobile home.

Affected



Inaccessible



**Inaccessible
by normal
Means due
to disaster.**



- Road flooded
- Severe erosion
- Bridge out
- Land slide
- Mud slide
- Wash out
- Etc.

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Multi-Family Buildings

Every unit impacted must be counted within its damage category.





PDA Tips

- Use the damage level guide.
- Destroyed and Major structures will usually have compromised structural components.
- Destroyed, Major, and Minor structures are uninhabitable.
- Choose the higher level of damage when in doubt between two levels.
- Provide descriptions with the numbers that will help visualize disaster impacts.



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