Massachusetts Emergency Management Agency
Damage Assessment Coordination Plan
November 2022

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1.0 INTRODUCTION

1.1 Purpose

The Damage Assessment Coordination Plan provides a framework for a coordinated effort by state agencies, cities and towns, and non-governmental agencies to assess damage to critical infrastructure and public/private property during and after an incident. Accurate and timely damage assessments will assist decision makers in prioritizing response activities and allocating resources immediately after an incident, provide an estimate of financial losses due to the incident, and support requests for federal declarations such as Stafford Act or Small Business Administration disaster declarations.

1.2 Scope and Applicability

This plan is applicable to all agencies and organizations with a role in supporting response and recovery activities related to damage assessment in Massachusetts. The Massachusetts Emergency Management Agency (MEMA) and other state agencies and organizations will use this plan to establish damage assessment criteria/information needs, improve damage assessment situational awareness and unity of effort across agencies, and support response and recovery efforts.

2.0 SITUATION AND PLANNING ASSUMPTIONS

2.1 Situation

The Commonwealth of Massachusetts is subject to a variety of natural, technological, and human caused incidents that could threaten life and may result in extensive damage to critical infrastructure and public and private property. Regardless of the hazard, disasters require a timely and accurate assessment of conditions and impacts to population, property, and critical infrastructure in order to guide response and recovery efforts and provide documentation of financial losses.

2.2 Planning Assumptions

- Incidents requiring damage assessment may occur at any time, with little or no warning.
- Incidents may cause significant disruption to transportation and communications infrastructure in impacted areas.

- Damage assessment activities will be initiated as soon as possible after an incident occurs.
- Damage assessment activities may take place with or without the State Emergency Operations Center being activated.
- Agencies with damage assessment responsibilities have developed internal plans and procedures detailing agency roles and responsibilities.

3.0 CONCEPT OF COORDINATION

3.1 General

Damage assessments may be required for a variety of disaster situations based on the size and scope of the incident and the impacts on a community's population, critical infrastructure, or environment.

3.2 Damage Severity Classifications

When conducting damage assessments, MEMA will follow FEMA guidelines for classifying damage to structures based on severity. Additional information on criteria for damage severity classifications can be found in Appendix A of this plan.

Destroyed: The building is a total loss or damaged to such an extent that repair is not feasible.

Major Damage: The building has sustained significant structural damage and requires extensive repairs.

Minor Damage: The building has sustained damage that does not affect its structural integrity.

Affected: The building has sustained minimal damage to the exterior and/or non-essential basements. The building remains habitable.

Inaccessible: The building is inaccessible by reasonable means due to disaster-related loss of access.

3.3 Damage Assessment Methods

Efficient damage assessments require an understanding of the different methods that can be used to collect damage and impact information. While the information that is gathered to assess damage and evaluate the impact of a disaster is relatively simple and does not change, a one dimensional approach to collection may increase the time required to assess damage or limit the quality of information developed.

The assessment methods used will directly affect staffing and timeline requirements, so care should be taken to select methods that can most efficiently deliver information needed to make disaster declaration decisions. This requires emergency managers to employ methods that balance speed with quality, and to constantly consider information that can be used to verify or validate the ground-level information being obtained.

When evaluating what methods will be used to assess damage and impact, emergency managers should consider the information and timeline requirements and options available. Often, a phased approach that leverages the utility of various methodologies will be used in order to quickly assess and then refine damage and impact information.

Different types of incidents may require different approaches and timelines. While disasters like fires, tornadoes, and hurricanes often produce readily visible damage that can quickly be assessed using windshield assessments, fly-overs, or geospatial analysis, other disasters like basement flooding may require more time and resource intensive door-to-door assessments.

PA and IA programmatic damage assessment requirements also influence how disaster damage is assessed. While information required to make damage determinations for the FEMA IA programs may be able to be gathered quickly with minimal contact with survivors, information and supporting documents needed to accurately assess damage and estimate cost for the FEMA PA program will often require more in-depth site assessments and direct contact with potential applicants. This may limit the effectiveness of certain damage assessment methods or require that they be used in conjunction with others capable of gathering more granular information.

3.2.1 Self-Reporting

Self-reporting may use one or more intake systems such as entries into the WebEOC Situational Awareness Log, updates provided by communities to MEMA Regional offices, entries by local officials and first responders into MEMA’s damage collection application, reports in broadcast media, or reports by members of the public posted on social media.

Self-reporting is used to quickly develop initial damage information and may be helpful in identifying areas of concentrated or heavy damage. While it may not be feasible to confirm all reported damage information, assessment teams should confirm damage to buildings categorized as Major Damage or Destroyed and sample buildings categorized as Minor and Affected to ensure accuracy. Assessment teams confirming damage should take photographs of damage used to assess a home as Major or Destroyed to reduce the time required to verify and/or validate information.

3.2.2 Flyovers

Flyover surveys are an efficient way to assess damage and are used to collect information when damage is visible from the air, when rapid assessments are required, and/or when damage is remote or not easily accessed. Flyovers may be used in disasters where damage is obvious, for initial assessments where information will be confirmed with ground-level assessments, or when large areas must be surveyed quickly.

Because damage assessments require a considerable amount of site-level information, fly-over surveys may only be appropriate for specific categories of work where damage information and cost estimates can be developed from the air. More commonly, information developed from the air is combined with site-level information. Assessment teams conducting fly-overs should take photographs of infrastructure damage to leverage verification and validation efforts.

Fly-over surveys may be used to collect IA damage information when damage is visible from the air. Typically, damaged homes are counted in clusters (e.g. a cluster may equal 5 to 100 homes depending on the magnitude of the disaster, speed of the flight, and the density of the dwellings). It is strongly suggested that some “on the ground verification” be done to confirm damage reported during the fly-over and to collect anecdotal information related to insurance coverage, occupancy type (owner or renter), and other significant information to support census information collected to develop impact statements. Assessment teams conducting fly-over surveys should take photographs of damage clusters containing homes assessed as Major or Destroyed to reduce the time required to verify and/or validate information.

3.2.3 Windshield Survey

Windshield surveys are an efficient way to assess damage from a vehicle and are used to collect field-level information when damage is visible from the road. This assessment method can be used to quickly assess and validate damage but may reduce the quality of information collected for certain types of incidents and PA categories of work.

Because PA damage assessments require a considerable amount of site-level information, windshield surveys may only be appropriate for specific categories of work where damage information and cost estimates can be developed from a vehicle. Local PA assessment teams conducting windshield surveys should take photographs of damage to reduce the time required to verify and validate information. In this case, windshield assessments can leverage other assessment methods (e.g. site assessments) to more efficiently develop required information.

Windshield surveys are often used during IA damage assessment to assess, verify, and validate damage. Assessment teams will record observed damage while driving through impacted areas, periodically stopping to conduct interviews to provide anecdotal evidence related to insurance coverage, occupancy type (owner or renter), and other significant information to support census information collected to develop impact statements. Assessment teams conducting windshield surveys should take photographs of damage used to document a home as Major or Destroyed to reduce the time required to verify and/or validate information. This process is repeated street-by-street for the team's assigned area.

3.2.4 Site Assessment

Door-to-door and site assessments are regularly used to collect field-level information needed to assess damage for the IA and PA programs. This assessment method is labor intensive but highly accurate and is generally used when damage is less visible or when a higher degree of confidence in the information is required.

Because PA damage assessments require a considerable amount of site-level information, local PA damage assessment teams will almost always need to conduct site assessments. The teams conducting site assessments should take photographs of damage to support restoration work and cost estimates and reduce the time required to verify and validate information. If the information, photographs, and supporting documentation developed during these local assessments is adequate to remotely verify and validate damage, program requirements, and cost, local, State or Tribal Government and Federal teams may only be required to conduct site assessments for large projects (adjusted annually) and/or projects that have environmental or historic significance.

IA damage assessment teams will often use door-to-door assessments during appeal PDAs or when damage cannot otherwise be assessed, verified, or validated due to the type of damage. Assessment teams conducting door-to-door assessments should take photographs of damage used to assess a home as Major or Destroyed to reduce the

time required to verify and/or validate information. It is important to note that assessment teams are not required to enter the home during door-to-door assessments – typically information needed to make a damage determination can be gained from the occupant or viewed from outside the home. Teams should only enter damaged dwellings as a last resort, and should do so only with the permission of the occupant and after safety-considerations are evaluated by the team.

3.2.5 Geographic Information Systems (GIS)

Geographic Information Systems (GIS) plays an important role throughout the damage assessment process. Geospatial analysis uses existing and post event satellite or fly-over imagery and data to assess damage and is typically used to expedite damage assessments when more traditional methods will unnecessarily protract the time required to assess damage. GIS can be used to describe damage, perform analysis, and illustrate impact. These tools can greatly improve the efficiency and effectiveness of damage assessments; however, the capacity must be developed prior to a disaster.

GIS datasets can be a great asset during both IA and PA damage assessments, giving emergency managers the ability to analyze damage against information available from other sources (e.g. critical infrastructure networks, hazards, demographic information, and historic damage).

3.3 Plan Activation

The MEMA/SEOC Director activates this plan when there is an actual or potential need to plan for and conduct state supported damage assessments. Once the need for an assessment is determined by the MEMA/SEOC Director, the SEOC will be activated, if it is not already, and an Impact Assessment Group stood up within the Operations Section.

3.4 Direction and Control

The MEMA/SEOC Director activates this plan when there is an actual or potential need to plan for and conduct state supported damage assessments. Once the need for an assessment is determined by the MEMA/SEOC Director, the SEOC will be activated, if it is not already, and an Impact Assessment Unit stood up within the Operations Section.

3.4.1 Notification

Once the MEMA Director or SEOC Manager has determined a potential need to carry out damage assessments, MEMA will notify the points of contact for each responsible agency under this plan to report to the SEOC for coordination and implementation of damage assessment.

- Personnel from notified agencies will report to the SEOC as requested. Each agency supporting this plan is responsible for securing sufficient staff on a continuous basis to carry out activities tasked to their agency.
- Activated agencies may differ from disaster to disaster based on the incident type and its demands.
- Activated agencies will notify their staff and contacts to identify available resources and, if needed, place them on standby.

Local jurisdictions will be notified by the appropriate MEMA Regional Manager that a RIAT is deploying to their jurisdiction and the local jurisdictional point of contact will be provided with team composition and the name and contact information of the Rapid Impact Assessment Team Leader to coordinate information sharing or rendezvous points within the community.

3.5 Organization

The Impact Assessment Unit will operate from the SEOC under the direction of the Deputy Operations Section Chief (ESFs) to support damage assessment activities. The main functions of this unit are to:

- Develop a damage assessment plan, form and staff RIAT's and assign them missions, and coordinate the deployment of RIATs,
- Gather, track, record and process assessment information from responders and local officials deployed in the field,
- Prioritize and fulfill resource requests to support RIAT missions,
- Provide pertinent information regarding damage assessment activities and needs to the Operations Section Chief, and
- Provide the Planning and Recovery Sections with situational awareness information.

The Deputy Operations Section Chief (ESFs) will designate a MEMA representative to serve as the Impact Assessment Unit Leader. The Unit Leader will report directly to the Deputy Operations Sections Chief for ESFs, with indirect reports to the Planning and Recovery Sections for situational awareness information, and will provide direction to, and work in conjunction with, liaisons from all other assigned support agencies that make up the Unit. Designated support agency representatives should have experience

with data collection and analysis, extensive knowledge of the resources and capabilities of their respective agency, and have access to the appropriate authority for committing such resources to support damage assessment activities during the incident.

The composition of the Impact Assessment Unit is flexible and may change based on the nature and needs of the incident. The group is comprised of a Unit Leader, Data Collection/Analysis technical specialists, and a damage assessment Field Support liaison.

i. Data Collection Unit
   The Data Collection Unit is comprised of personnel with training and experience in the collection, analysis and synthesis of damage assessment related information from various sources, to include information from responders in the field. The Data Collection Unit ensures situational awareness and provides the RIA Group Supervisor with any significant information related to RIA activities, issues, or findings.

ii. RIAT Field Support Unit
   The RIAT Field Support Unit will work to ensure that agency representatives and equipment supporting the RIAT mission are working efficiently and effectively throughout the RIA process. The RIAT Field Support Unit works closely with deployed teams or other assets to ensure they have the tools they need to effectively conduct RIA's.

3.6 Rapid Impact Assessment (RIA)

A Rapid Impact Assessment (RIA) is a survey of an impacted area, either from the ground, the air, or a combination of the two. An RIA is carried out as soon as possible after the emergency/impacts occur, with the goal of providing accurate and timely situational awareness for decision makers on the nature, magnitude, and scope of an incident. RIAs are conducted by or in coordination with local officials and will consider local conditions and capacity.

An RIA is intended to quickly gather broad information about impacts, such as estimates of injuries, fatalities, and displaced persons; disruptions to emergency and lifeline services; damage to residential buildings, commercial buildings, and critical infrastructure. Detailed street-by-street examinations, detailed structural inspections, or estimations of financial losses are not conducted during an RIA. Where possible, survey information will be gathered by local personnel such as in-field public safety personnel and elected/appointed municipal officials; state personnel may not be

required to conduct RIAs unless local capabilities are overwhelmed. Information is quickly collated and transmitted to the SEOC through an online GIS tool, so that damage impacts can be reviewed in real time and used to inform immediate actions and determine the need for more in-depth damage assessments such as IDAs and PDAs.

3.6.1 Rapid Impact Assessment Teams

Rapid Impact Assessment Teams (RIATs) are disaster assessment teams which can be deployed to conduct an assessment/estimate damage resulting from a disaster. RIATs are comprised of a cadre of trained individuals with damage assessment experience.

Generally, a RIAT may be comprised of personnel from MEMA, ESF-1 (Transportation), ESF-3 (Public Works and Engineering), ESF-13 (Public Safety and Security), and/or ESF-16 (Military Support). Personnel from other state/local agencies or the private sector may also be assigned to RIATs based on the type of incident or event.

The SEOC Director, in consultation with the Operations Section Chief, will determine the need to activate and deploy RIATs, as well as their composition, mission tasks, assembly location(s), timing of deployment, and assignment location(s).

Prior to RIAT assembly and deployment, a deployment plan will be developed by the Impact Assessment Unit, with direction from the Operations Section Chief or Deputy. The Deployment Plan will be approved by the SEOC Director. At a minimum the deployment plan will detail the following:

- Number of RIATs being deployed,
- Team composition,
- Mission tasks
- Assembly location(s),
- Timing of deployment and assignment locations.
- Team leader contact information

3.6.2 RIAT Organization

RIATs are organized and assigned based on expertise and disaster assessment needs. Each RIAT will consist of a Team Leader and one or more specialists or Subject Matter Experts (SMEs). Possible areas of specialist expertise include:

- Building Assessment
- Infrastructure
- Transportation
- Engineering
- Environmental assessment

- Public Health
- Agriculture

3.6.3 RIAT Notification and Activation

Once the RIAT deployment plan is approved by the SEOC Manager, the Operations Sections Chief will notify the Deputy Operations Section Chief (ESFs) and the SMG Unit Leader and provide a copy to the Planning Section Chief. The Impact Assessment Unit Leader will then notify each RIAT Leader of their assignment and mission location. Each RIAT Leader will be provided with an electronic or paper copy of the deployment plan. Each RIAT Leader will be responsible for assembling and coordinating with their respective team at a designated staging area

At the time of RIAT deployment, the Operations Section Chief will contact the respective MEMA Regional Manager to ensure communications are made with the local emergency management director (EMD) for impacted communities, to notify them of each RIAT mission and approximate time of arrival.

Once a RIAT has arrived at their assigned location, the RIAT Leader will establish contact with the local EMD or other local point of contact to discuss further coordination and execution of RIA activities.

3.6.4 RIAT Direction and Control

- RIAT missions are coordinated and directed by the Impact Assessment Unit Leader, who reports to the Deputy Operations Section Chief (ESFs) at the SEOC.
- In the field, all RIATs will operate under the direction of a RIAT Leader.
- The RIAT Leader will report directly to the RIAT Impact Assessment Unit Leader.

3.6.5 RIAT Activities

- Prioritize and Prepare RIA locations and impact areas
- Collect Information throughout the RIA process
- Analyze Information and ensure completeness of each report
- Disseminate Information to the SEOC via electronic or paper means

3.7 Initial Damage Assessment

The first step in determining the state's potential eligibility for federal disaster assistance is the initiation of the Initial Damage Assessment (IDA) process. The MEMA Disaster Recovery Unit oversees the IDA process in coordination with MEMA Regional Offices, local EMDs, state agencies/authorities, and private non-profit organizations. The IDA gathers preliminary estimates from local officials of event related costs and damages to public infrastructure, emergency response costs, debris removal, as well as impacts to

residential structures and businesses. Because MEMA has only 30 days to apply for federal disaster assistance, IDAs must be completed within that time window.

3.8 Preliminary Damage Assessment

Based on information collected during the IDA process, a recommendation may be made by the Disaster Recovery Unit to the MEMA Director to request a joint FEMA/MEMA Preliminary Damage Assessment (PDA) if there appears to be sufficient damages to meet or exceed thresholds for federal disaster assistance.

A standardized preliminary damage assessment form is completed by community officials and includes the following elements:

- Geographical disaster boundaries
- Status of damage to public infrastructure, such as transportation, communication, medical, and utility system as well as critical facilities and the estimated damage costs associated with such
- Status of damage costs associated with emergency protective measures and debris operations
- Disaster casualty, large scale disruption of normal community functions and services
- Effect on the Access and Functional Needs Community
- Insurance coverage in force
- Unmet major resources needs

The joint Federal/State preliminary damage assessment focuses on damages to individual homes, businesses, public facilities, the infrastructure, and the extent to which the public's immediate emergency needs are being met.

PDA teams will analyze the data to determine whether the extent of damages warrants a request by the Governor for a major disaster declaration by the President. If so, MEMA Disaster Recovery Unit staff members will coordinate with the MEMA Director and General Counsel to provide damage assessment data and prepare the appropriate request for the Governor's signature.

3.8.1 Joint PDA Request Process

The Director of MEMA may request a joint PDA via letter to the FEMA Region I office, which should contain a list of disaster-impacted locations and a basic PDA schedule.

MEMA must provide the following information to the FEMA Regional Recovery Division for planning purposes:

- The type of damage to be surveyed, such as debris damage, emergency protective activities, and/or private and public facilities;
- Location and geographic spread of the damage, urban or rural area, type of terrain, and accessibility to the area;
- Magnitude and severity of damage and all estimates from the IDA;
- Immediate known problems, such as the following:
    - Areas inaccessible because of debris, high water, or damage to streets, roads, and bridges;
    - Serious health hazards;
    - Requirements for emergency protective measures;
    - Damage to critical infrastructure; and
    - Widespread loss of essential utilities and shortages of food, water, medical supplies, and facilities.
- Summary of recent state, tribal, or territorial disaster declarations, including incidents for which a Presidential disaster declaration was not granted (historical, geographical, demographic, etc.) that will be in the requested joint PDA;
- Summary of activities taken by other federal agencies, if any, for coordination.

3.8.2 PDA Plan of Action Development

MEMA, with assistance or consultation from FEMA Region I as requested, is responsible for developing a PDA plan of action to ensure the efficient assessment of facility and infrastructure damage and other damaged sites. The plan of action should include the following information:

- Methodology for validating damage and potential damage cost estimates (e.g., site assessments);
- A list of the most extensive damages and their locations;
- Schedule for visiting and assessing sites or interviewing potential applicants coordinated with local governments, prioritizing the most heavily impacted areas first;
- A list of PDA team members and a list of team requirements (e.g., special considerations that may require additional support from FEMA).

FEMA programmatic representatives will coordinate with MEMA to discuss the verified information submitted as part of the joint PDA request and develop an overall PDA coordination strategy.

3.8.3 Conducting the Joint PDA

Before PDAs begins, MEMA, with support from FEMA, will lead an initial briefing with important information for the joint PDA team such as disaster/impact specifics, team breakdowns, communications and reporting, safety, etc.). After MEMA has communicated the PDA plan of action to local officials, joint PDA operations will begin. Teams consisting of the appropriate local, state, and federal staff and certain PNP organization officials will execute joint PDAs in accordance with the PDA plan of action. These teams will assess and validate IDA information to determine the extent of incident impacts and contribute to decisions on Presidential disaster declaration requests.

4.0 ROLES AND RESPONSIBILITIES

4.1 Local Roles and Responsibilities

- Furnish information about damages and impacts within their communities to MEMA as either rapid impact self-reports or through the IDA process.
- Participate in joint state/federal PDA teams, as requested.

4.2 RIAT Roles and Responsibilities

4.2.1 RIAT Leader

- Communicate and coordinate with the local EMD or other local point of contract on RIAT activities.
- Maintain communication with the SEOC Impact Assessment Unit Leader via designated and appropriate communications pathways.
- Obtain information on essential assessment needs that are beyond the capability of the local government.
- Maintain a chronology of events. The chronology should contain dates, times and a brief description of significant events.
- Supervise and provide direction to RIAT team members.
- Ensure RIAT team safety.
- Ensure RIATs have appropriate PPE and other resources needed to carry out their assignments.

4.2.2 RIAT Personnel

- Report to the RIAT Leader for briefing prior to deployment.
- As directed by the RIAT Leader, conduct assessments for assigned area(s) (e.g. public facilities and infrastructure, private homes and businesses, agriculture, public health, schools, the environment, etc.) and document findings.
- Ensure appropriate use of Survey 123 and Collector Apps through ArcGIS online are utilized wherever possible to ensure reports are submitted rapidly.
- Communicate any potential issues (short and long term), and immediate and long-term resource needs to the RIAT Leader, as needed.
- Document field observations, as appropriate; take photographs, video footage, and/or GPS coordinates of damaged/impacted areas and structures for situational awareness.
- Communicate any areas or conditions of immediate concern to the RIAT Leader.

4.3 State Roles and Responsibilities

4.3.1 Primary Agency - Massachusetts Emergency Management Agency (MEMA)

- Maintain up-to-date, 24-hour emergency contact information for agencies/organizations with damage assessment responsibilities and capabilities.
- Develop capabilities and protocols for Rapid Impact Assessment Teams.
- Ensure that training and equipment for RIATs remains consistent with established standards and best practices.
- Ensure proper training with developed data collection apps, to be used to complete RIAs.
- Develop a RIAT deployment plan for all impacted areas that are to be assessed. Submit the deployment plan to the Deputy Operations Sections Chief (ESFs) for review and approval.
- As additional information becomes available, update and amend the plan to ensure that RIATs are deployed to those localities and regions that have been significantly impacted and have the greatest needs.
- Provide regular updates on ongoing rapid damage assessment needs to the SEOC Operations Section Chief.

- As needed, coordinate with ESFs regarding resources needed to support RIA activities.
- Serve as the point of contact for local communities that have been assigned RIATs.
- As needed, participate in damage assessment related meetings and teleconference calls.
- Incorporate damage assessment related information into AAR's.
- Provide regular updates on ongoing RIA activities and needs to the Deputy Operations Section Chief (ESFs).
- Maintain communication with each RIAT Leader.
- Coordinate with RIAT Leaders regarding needed resources to support RIA activities.
- Review Rapid Damage Assessment reports and identify any critical issues.
- Compile/analyze information from completed Rapid Damage Assessment Forms and/or electronic submissions and utilize this information to develop a Rapid Damage Assessment Summary Report.
- Submit the Rapid Damage Assessment Summary Report to the Deputy Operations Section Chief (ESFs).
- Ensure the safe return of RIATs from their assigned missions.
- Ensure the return of any issued equipment.
- As needed, coordinate mobilization and pre-positioning of RIATs and their resources as directed by the Deputy Operations Section Chief (ESFs).
- Maintain communications with the Operations Section, RIAT Leaders, and the Recovery Section Chief at the SEOC. Obtain status reports and keep the Deputy Operations Section Chief (ESFs) apprised of the progress of assigned tasks.
- Provide situational awareness information for reports and/or statements to the SEOC Planning Section.

4.3.2 All Supporting Agencies

- Participate in appropriate training and exercise opportunities to test and validate the plan.
- Develop and maintain internal agency plans, procedures, resource directories, and emergency contact lists.
- Pre-designate staff to support this plan and SEOC operations.

4.3.3 Massachusetts Department of Transportation (MassDOT)

- As requested, provide personnel to staff RIATs.

- As requested, provide access to DOT facilities to facilitate refueling of RIAT vehicles.
- Facilitate access to impacted areas by clearing roadways.

4.3.4 Office of Public Safety Inspections (OPSI)

- As requested, provide personnel to staff RIATs.

4.3.5 Department of Conservation and Recreation (DCR)

- As requested, provide personnel to staff RIATs.
- Facilitate access to impacted areas by clearing roadways.

4.3.6 American Red Cross (ARC)

- As requested, provide personnel to staff RIATs.
- Share damage assessment information captured through RC Collect application as appropriate.

4.3.7 Civil Air Patrol (CAP)

- As requested, conduct flyovers of impacted areas.

4.3.8 Coastal Zone Management (CZM)

- Activate Coastal Storm Damage Assessment Teams during coastal storm events predicted to have moderate to major impacts to coastlines.
- Receive and enter reports regarding damage to coastlines into MyCoast and WebEOC.

4.3.9 Department of Environmental Protection (DEP)

- As requested, provide personnel to staff RIATs.

4.3.10 Massachusetts State Police (MSP)

- As requested, provide security for deployed RIATs.
- As requested, conduct flyovers of impacted areas

4.3.11 Massachusetts National Guard (MANG)

- As requested, provide assistance with transportation and security of RIATs.
- Support data collection in the field, based on personnel capability and availability of just-in-time training.

4.4 Federal Roles and Responsibilities

4.4.1 Federal Emergency Management Agency (FEMA)

- Prior to a joint PDA request and as requested, provide technical assistance to support efforts to evaluate information submitted by local jurisdictions and/or to

analyze the need for a joint PDA. Technical assistance may include support from the following:
    - Geographic Information System (GIS) analysts;
    - Regional chemical, biological, radiological, nuclear (CBRN) coordinators;
    - Program specialists
    - Other subject matter experts (SMEs) necessary to advise state officials and answer programmatic questions.
- Coordinate with the MEMA Recovery Unit to ensure all necessary information is available prior to approval of joint Preliminary Damage Assessments.
- Identify FEMA joint PDA leadership, deploy staff, and coordinate with other federal agencies needed to successfully complete the PDA.

4.4.2 Other Federal Agencies (OFA)

- Provide information through coordination with the FEMA PDA coordinator or programmatic team lead to help develop efficient and effective damage and impact information.

5.0 COMMUNICATION

5.1 Interoperability

The Rapid Impact Assessment Group Supervisor will coordinate with ESF 2 (Communications) to develop a RIAT Communications Plan to manage communications during RIA missions, and to ensure that all participating agencies and deployed personnel are supported by interoperable communications systems. While in the field, RIAT personnel are required to maintain communications with their respective team members and team leader. RIAT Leaders are required to maintain communications with the SEOC Impact Assessment Unit.

6.0 ADMINISTRATION, FINANCE AND LOGISTICS

6.1 Plan Maintenance

This plan will be reviewed at least once every three years, in accordance with the Emergency Management Program Administrative Policy, by participating agencies and organizations in a manner conforming to the review and maintenance guidelines

contained in the State CEMP Base Plan. The MEMA Planning Unit will provide project management support for the review process.

6.2 Expenditures and Reimbursements

Each agency is responsible for tracking their expenditures for possible reimbursement under a Federal declaration.

6.3 Exercise and Incident Reviews

An emergency deployment exercise will be conducted at least once every three years to demonstrate damage assessment capabilities, ability to deploy in a timely manner, and to identify any shortcomings. Deployment of damage assessment capabilities during an actual event will meet this exercise requirement.

7.0 AUTHORITIES AND REFERENCES

7.1 Federal

- The Federal Civil Defense Act of 1950 (Public Law 920, 81st U.S. Congress) as amended by Public Law 96-342 (September 1980).
- The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended.
- National Response Framework, October 2019
- National Disaster Recovery Framework, June 2016
- FEMA Preliminary Damage Assessment Guide, August 2021
- Homeland Security Act of 2002
- Homeland Security Presidential Directive 5, Management of Domestic Incidents
- Homeland Security Presidential Directive 8, National Preparedness
- Post-Katrina Emergency Reform Act of 2006
- Public Law 104-321, granting the consent of Congress to the Emergency Management Assistance Compact.

7.2 State

- Comprehensive Emergency Management Plan, Massachusetts Emergency Management Agency, February 2019.
- Massachusetts Disaster Recovery Plan, Massachusetts Emergency Management Agency, January 2019

APPENDIX A: DAMAGE SEVERITY CLASSIFICATIONS

Destroyed:

The building is a total loss or damaged to such an extent that repair is not feasible. Any of the following factors may support a status of Destroyed:

- Only foundation remains.
- Complete failure of two or more major structural components (collapse of basement walls, foundation, load-bearing walls, or roof).
- A building that is in imminent threat of collapse because of disaster-related damage or confirmed imminent danger, such as beach erosion, impending landslides, mudslides, or sinkholes.
- For manufactured homes:
    - The residence's frame is bent, twisted, or otherwise compromised
    - The residence is missing the roof covering and the structural ribbing has collapsed for the majority of the roof system

Major Damage:

Buildings with Major damage have sustained significant structural damage and require extensive repairs. Some examples of major damage include:

- Failure or partial failure of structural elements of the roof to include rafters, ceiling joists, ridge boards, etc.
- Failure or partial failure of structural elements of the walls to include framing, sheathing, etc.
- Failure or partial failure of foundation to include crumbling, bulging, collapsing, horizontal cracks of more than two inches, and shifting of the building on the foundation of more than six inches
- Buildings with a water line 18 inches above the floor, a water line above the electrical outlets, or a water line on the first floor when basement is completely full.
- For manufactured homes:
    - The residence has been displaced from the foundation, block or piers, and other structural components have been damaged
    - Water has come into contact with the floor system to include belly board insulation, ductwork, and subflooring

Minor Damage:

Minor damage encompasses a wide range of damage that does not affect the structural integrity of the building. Some examples of minor damage include:

- Nonstructural damage to roof components over essential living space to include large areas of shingles e.g. roof covering, fascia board, soffit, flashing, and skylight
- Nonstructural damage to the interior wall components to include drywall, insulation; exterior components to include house wrap, missing doors, broken window framings; or substantial loss of exterior covering, such as missing siding, vinyl, stucco, etc.
- Multiple small vertical cracks in the foundation
- Damage to chimney to include, tilting, fallen, cracks, or separated from the residence
- Damage to or submersion of mechanical components, e.g. furnace, boiler, water heater, HVAC, electrical panel, pressure tanks or well pressure switch, etc.
- Water line less than 18 inches in an essential living space
- Damage or disaster related contamination to a private well or septic system
- For manufactured homes:
    - Nonstructural components have sustained damage - e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up
    - Water line is below the floor system
    - HVAC interior mechanical unit is impacted

Affected:

This category includes buildings with minimal damage to the exterior and non-essential basements. The buildings remain habitable. Some examples of affected damage include:

- Partial missing shingles or siding (non-continuous/sporadic), but roof structure intact
- Cosmetic damage such as broken screens, paint discoloration, loose siding, or missing skirting
- Gutter damage and debris
- Damage to an attached structure such as a porch, carport, garage, or outbuilding not for commercial use

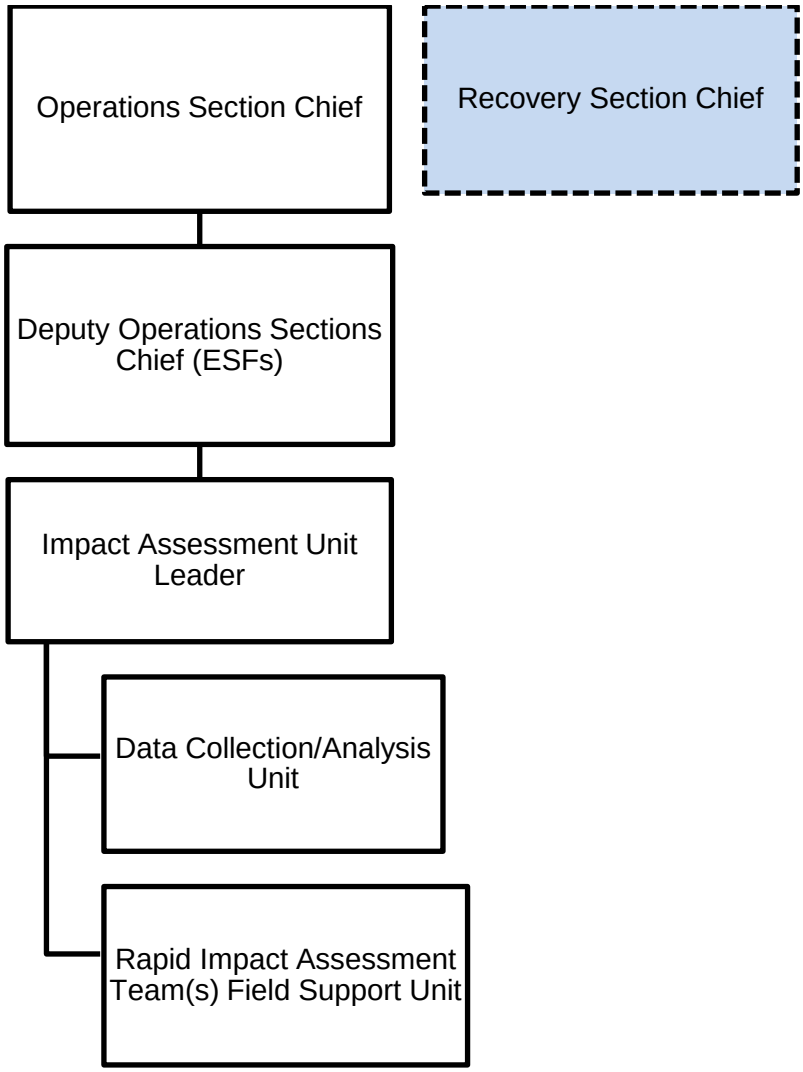
- Damage to landscaping, retaining walls, or downed trees that do not affect access to the residence or has not collapsed into the structure
- Any water line in the crawl space or basement when essential living space or mechanical components are not damaged or submerged

Inaccessible:

Building is inaccessible by reasonable means due to disaster-related loss of access (e.g. bridge out, road flooded or blocked by landslide, mudslide, severe erosion, washed out, etc.).

- Uninhabitable apartment units due to damage on lower floors
- If the building can safely be reached by another route, it should not be considered inaccessible.
- If the building has visible damage, it should instead be classified under the appropriate damage category.

APPENDIX B: SEOC RIA ORGANIZATIONAL STRUCTURE



APPENDIX C: RAPID IMPACT SURVEY FORM

The Rapid Impact Assessment Survey Form was developed to be utilized as a “windshield” style survey, performed 8-12 hours post impact when possible, by a deployed Rapid Impact Assessment Team (RIAT). The information contained in this survey is mirrored in ArcGIS Online collection tools.