

*State of Wisconsin*

**Guidelines  
for  
Assessing and Documenting  
Disaster Damage**



*Department of Military Affairs  
Wisconsin Emergency Management  
2400 Wright St.  
Madison, WI 53707  
608-242-3232*

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# DAMAGE ASSESSMENT

## PURPOSE

Damage assessment is the process of determining the location, nature, and severity of damage sustained by the public and private sectors after a disaster. The typical damage assessment estimates the losses and the impacts of those losses on the affected individuals and communities. Federal, state, county, and local governments share the responsibility of conducting damage assessments. Each level of government must be prepared to carry out its role to complement and support the others. This document focuses on the role of the county and local governmental units in the damage assessment process.

A strong damage assessment supported by accurate information will:

- Identify the needs of individuals and communities affected by the disaster.
- Determine if there exist sufficient county and local resources address recovery needs or if state and federal government resources are required for successful recovery
- Identify, allocate and prioritize the state and federal resources that are needed for the response and recovery efforts.
- Document and substantiate requests for federal assistance.

## PROCESS

Assessing the damage caused by a particular event is essentially a three-phased process. Each phase of the process serves a distinct purpose and will be explained further on subsequent pages.

- **Phase 1** begins **immediately after the disaster**, but in some cases may actually begin during the event. Its purpose is to be prepared to respond to any immediate requests for assistance, such as sandbags or protective measures.
- **Phase 2** is a more detailed look at the needs and usually **occurs prior to a request for federal or state assistance**, so that the most accurate and timely information can be included in the Governor's request.
- **Phase 3** takes place **after receiving a federal or state declaration**. Its purpose it to review and update the information previously gathered in order to prioritize the delivery of assistance.

## ORGANIZATION

A disaster affects many different facets of a community; thus, the collection of disaster information involves many sources by necessity. No single source or agency exists that can provide all of the necessary information. County Emergency Management (EM) Directors develop contacts with all sources and agencies. This leads to strong countywide damage assessment capabilities and enables efficient coordination of the process within the county when required.

The following page provides checklists for key tasks to ensure successful damage assessment for:

- County EM Directors
- Public Damage Assessment Team Members
- Private Damage Assessment Team Members

## *Immediately After the Disaster Begins*

When a disaster occurs anywhere in the State, Wisconsin Emergency Management (WEM) relies on the County EM Director to report on the situation and to provide timely damage assessment information. If the disaster is such that multiple agencies are involved in the response effort, or if it is of such magnitude that state and/or federal assistance may be required, then the County EM Director should immediately notify the WEM Regional Director that such a disaster has occurred. The Regional Director will, in turn, notify WEM Central Office.

### **Uniform Disaster Situation Report (UDSR) - Standard Reporting Form**

- Provides useful summary of disaster situation:
  - **Scope** of event, including damages and injuries
  - **Impacts** of the event and the importance (why it matters to the community)
  - **Necessary resources** to manage and recover from the event
  - **Compelling information** for the Governor to determine assistance requested
  - **Steps taken** for effective response and recovery

WEM recognizes that this first UDSR will consist of the county director's best *estimates*, compiled from information gathered by the public and private sector damage assessment teams. We recognize that it is not possible to get completely accurate estimates of damage in such a short time; however, please provide updated information as soon as possible so WEM can identify requirements for supplementary assistance.

### **County EM Director's Role in UDSR Submission:**

- Submit the UDSR form ASAP to WEM (required within 24 hours of the event)
- Update the UDSR as necessary
- Provide a complete and final UDSR to WEM Central and Regional Director (within 2-3 weeks, or when appropriate)
- Provide in-depth impact statements, as necessary, to WEM Central

[CLICK HERE TO ACCESS CURRENT UDSR FORM](#)  
Scroll to bottom of pages under "Resources" for the form and instructions

### **WEM's Role in UDSR Process:**

- Review UDSRs upon receipt
- Determine if certain thresholds are met by counties and on statewide basis
- Make recommendation about appropriate assistance requests
- Inform FEMA Region V of situation
- Request a Preliminary Damage Assessment (PDA) from FEMA Region V, as necessary

In order for WEM to make any requests for federal assistance, we must be able to:

- Effectively describe the extent of the damage
- Identify the state, county, and local resources in use or already exhausted
- Specify the types of assistance needed to meet needs created by the disaster event

**Based on data from the UDSR forms, WEM will work with the Governor to request a Preliminary Damage Assessment (PDA) from FEMA.**

## ***Preliminary Damage Assessment (PDA)***

The Governor requests a PDA within a week after the disaster to refine and finalize the information on the Uniform Disaster Situation Reports (UDSRs). Ultimately, Federal/State/Local teams will finalize the amount of damage and estimates to bring the facilities back to **PRE-DISASTER FUNCTION AND CONDITION**. Joint PDA field intend to validate damage and impact information that you provided in UDSRs.

Separate PDAs occur for the private (Individual Assistance) and public sectors (Public Assistance). WEM and FEMA determine the number of teams conducting assessments in the field. The goal is for Federal, State, and Local members to agree on a “final dollar amount” that encompasses damages and costs to repair facilities. We try to expedite this process so that WEM may work with the Governor’s office to request Federal Assistance within the specified 30 day timeframe from the onset of the event, assuming that the State hits certain thresholds.

### **PDA Pre-Assessment:**

Prior to the PDA, WEM may perform some pre-assessment to ensure the PDA goes smoothly and quickly. Pre-assessment teams may be deployed to some of the hardest hit townships to discuss large projects that they do not have the expertise and staff to complete on their own. Examples might include:

- Large road re-engineering
- Large culvert washouts (where re-alignment or re-sizing would be necessary)
- Roads on steep slopes that need to be regraded
- Bridges that washed out and need to be repaired or reconstructed
- Projects that might cost above \$70,000

The goal of this pre-assessment is to avoid rushing the local assessment process and do some preliminary scoping. When FEMA arrives, we can have estimates by subject matter experts in Wisconsin.

### **FEMA Expectations from the PDA:**

FEMA’s main goal is to verify and validate damages in the field with accurate documentation provided by locals who experienced the event. Since they are the agency evaluating the need of an area to receive federal aid, their expectations differ from those of the impacted state and local governments. FEMA needs to see that Wisconsin experienced at minimum \$8.2 million in eligible damages statewide, and that counties hit \$3.61 per capita threshold for eligible damages.

- FEMA will require additional information or more supporting documentation types of projects:
  1. Projects expected to cost approximately \$120,000 or more (Note: the threshold to be considered a large project is \$123,100.00)
  2. Projects that, given the circumstances, raise questions about eligibility
- FEMA expects annotated maps showing damage locations at the time of the Joint PDA.
- FEMA expects local governments and agencies to photograph damages.
- FEMA expects local governments and agencies to produce clear damage cost estimates that are backed up by clear calculations, invoices, load tickets, payroll information, volunteer sign-in sheets, etc. (please see the Guidelines for Disaster Documentation appendix at the end of this document).

- **If you DID NOT start work:** you do not need to have these projects fully-scoped and documented at the PDA; you need to start the process of obtaining documentation now.
- **If you started (or completed) work:** you need to have documentation showing the cost that was billed. You do not have to show proof of payment.

### **PDA Preparation:**

Local representatives and County EM Directors should work to ensure that travel for PDAs moves smoothly and quickly.

- Develop routes of travel for the teams, taking into account safe and accessible travel routes.
- Prepare maps that mark the damaged areas.
- Prepare to show the federal and state officials the major damage sites.
- Prepare to show damage sites that are typical of the type and severity of damage that occurred.
- Make copies of project information, damage estimates, and documentation for completed work. **DO NOT GIVE FEMA ORIGINAL COPIES** (see the Documentation Guidelines reference at the end of the document)
- Bring information about extent of insurance coverage, if applicable. **DO NOT GIVE FEMA ORIGINAL COPIES**
- Bring basic socio-economic data on the impacted area (i.e. unemployment data, information about which roads serve as main access points for residents and businesses, environmental information, etc.)
- Develop cost estimates for the team. These **must** be based on:
  - Historic documentation (for similar repairs),
  - Estimates calculated from local commissioners, road experts, local contractors, or estimates developed with cost-estimating software.”**DO NOT GIVE FEMA ORIGINAL COPIES**
- Schedule time to discuss damage, review supporting documentation and conduct site visits

### **PDA Teams:**

- FEMA representative acts as the team leader.
- State representative serves as a mediator between FEMA and the locals or individuals
- County EM Directors typically go around with the FEMA/State team on the PDA.
- County EM Directors reach out to local representatives to explain to FEMA and the State the extent and impact of damages (i.e. “what happened and why it matters”).
  - County Highway Commissioners, Town Road Supervisors, DNR field staff, or representatives from other agencies are great people to meet the PDA team at the site.
  - Make sure that the local representatives are knowledgeable about damage calculations and detailed cost descriptions (i.e. “a ton of gravel in our community costs \$X from Materials Provider”)

**County EM Director:  
designate local  
representatives who  
can explain impacts  
and provide detailed,  
reasonable estimates  
for damages and  
repairs.**

### **What do PDA Teams need to see?**

It is generally not the goal of a PDA to see every single damaged area. Typically, we want to see

culvert washouts, major road washouts, buildings, water treatment facilities, and recreation lands. Minor road or shoulder washouts are not a huge priority.

WEM's main goal of a PDA is to qualify counties and tribes to receive federal assistance, if we receive a declaration. That means we want to meet the \$3.61 per capita threshold by the time we leave your county. We accomplish this by working with the PDA team to agree on the amount of damage and eligibility of damage.

When there is a disagreement about either damage amounts or eligibly, please know that sites may be flagged for further verification by FEMA and WEM. Be sure to follow up with WEM if there are potential eligibility questions, so that WEM can help obtain additional information or documentation to validate damages.

### **Hazard Mitigation - Break the Cycle of Damage**

As you take the FEMA/State team through your damages, please identify opportunities to incorporate mitigation through the repair/reconstruction process. Examples would include:

Hazard Mitigation is any action taken to reduce or eliminate long-term risk to people and property from natural hazards.

- Realigning or upsizing culverts that repeatedly fail
- Elevating utility boxes in flood-prone public buildings
- Demolition and relocation of flood-prone structures
- Improving drainage or regrading a road
- Adding rip-rap or other erosion prevention methods

Make notes as you go through the PDA for mitigation opportunities! Send an email to your County Director with this list of opportunities, so that if we receive Federal Assistance, we discuss these opportunities with FEMA Specialists who will write projects with you.

### **Final Disaster Figures**

The figures of the private and public assessment teams are jointly reviewed and agreed upon by FEMA, WEM and the affected jurisdictions. A recommendation is made to the Governor concerning whether the total damages and their impacts justify a request for Presidential Disaster Assistance under PL 100-707, the Robert T. Stafford Disaster Relief and Emergency Assistance Act. WEM develops the request letter and supporting documentation for the Governor's signature. The deadline to request a Federal Disaster Declaration is 30 days from the onset of the event; this is a short timeframe, which is why WEM moves through the damage assessment process quickly.

If there is not sufficient documented damage to support a request for a Presidential Disaster Declaration, or if it is denied, the damage assessment information can still be used to request reimbursement from the state Wisconsin Disaster Fund. As such, the completion of complete and accurate damage assessment is critical to recovery from an event, no matter the size or scope.

## Appendix 1: Damage Assessment Roles & Responsibilities Checklists

### *County EM Director:*

- Designate teams and team members
- Assign specific damage assessment tasks to team members by geographic location or type of damage
- Act as team leader
- Develop procedures for activation
- Provide training
- Alert team members on how to submit information (via phone, radio, tablet or mobile device, etc.)
- Provide a deadline for submission of data
- Consolidate all information into one report
- Provide data to Wisconsin Emergency Management (WEM) and key decision-makers

### *Public Sector Damage Assessment Team:*

- Comprised of individuals with experience in the public sector, such as:
  - Highway commissioners and department staff
  - Public works directors or engineers
  - Sanitarians
  - Parks and street department representatives
  - Municipal clerks.
- Survey and document damages, as assigned
- Take photographs of damages, noting the location of EM Management Director

### *Private Sector Damage Assessment Team:*

- Comprised of individuals with experience in the private sector, such as:
  - Tax assessors
  - Building inspectors
  - Village and town clerks,
  - Real estate agents
  - Insurance agents
  - Representatives of volunteer agencies, (i.e. Red Cross, etc.)
- Ensure all affected local jurisdictions represented
- Make contact with your local Farm Service Agency (FSA) for agricultural losses (e.g. USDA purposes).
- Coordinate between teams
- Survey and document damages, as assigned
- Take photographs of damages, noting the location of damages on a map
- Report information back to the County EM Director

## Appendix 2: IA Residential Damage Assessment Criteria 2016

Affected – Manufactured Homes	Affected - Conventionally Built
<ul style="list-style-type: none"> <li>No damage affecting habitability; cosmetic damage only.</li> <li>The dwelling's frame is not bent, twisted, or otherwise compromised. <u>No structural components of the dwelling have been damaged</u> (e.g., windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up).</li> </ul>	<ul style="list-style-type: none"> <li>Any water line in the crawl space or basement when essential living space or mechanical components are not damaged or submerged</li> <li>Partial missing shingles or siding.</li> <li>Cosmetic damage such as paint discoloration or loose siding.</li> <li>Broken screens.</li> <li>Gutter damage and debris.</li> <li>Damage to an attached structure such as a porch, carport, garage, or outbuilding not for commercial use.</li> </ul> <p>Damage to landscaping, retaining walls, or downed trees that do not affect access to the residence.</p>
Minor – Manufactured Homes	Minor – Conventionally Built
<ul style="list-style-type: none"> <li>Water line is below the floor system.</li> <li>Skirting or HVAC is impacted.</li> <li>There is no structural damage to the residence and it has not been displaced from the foundation.</li> <li>Nonstructural components have sustained damage - e.g. windows, doors, wall coverings, roof, bottom board insulation, ductwork, and/or utility hook up.</li> </ul>	<ul style="list-style-type: none"> <li>Water line up to 18 inches in an essential living space.</li> <li>Damage to mechanical components (e.g. furnace, boiler, water heater, HVAC, etc.).</li> <li>Nonstructural damage to roof components over essential living space to include shingles e.g. roof covering, fascia board, soffit, flashing, and skylight.</li> <li>Non structural damage to the interior wall components to include drywall, insulation</li> <li>Non structural damage to exterior components</li> <li>Multiple small vertical cracks in the foundation.</li> <li>Damage to chimney to include, tilting, fallen, cracks, or separated from the residence.</li> <li>Damage or disaster related contamination to a private well or septic system.</li> </ul>
Major – Manufactured Homes	Major – Conventionally Built
<ul style="list-style-type: none"> <li>Water has come into contact with the floor system.</li> <li>The residence has been displaced from the foundation, block or piers and other structural components have been damaged</li> </ul>	<ul style="list-style-type: none"> <li>Water line above 18 inches in an essential living space, a water line above the electrical outlets, or a waterline on the first floor of a residence when basement is completely full.</li> <li>Failure or partial failure to structural elements of the roof over required rooms to include rafters, ceiling joists, ridge boards, etc.</li> <li>Failure or partial failure to structural elements of the walls to include framing, sheathing, etc.</li> <li>Failure or partial failure to foundation to include crumbling, bulging, collapsing, horizontal cracks of more than two inches, and shifting of the residence on the foundation of more than six inches.</li> </ul>
Destroyed – Manufactured Homes	Destroyed – Conventionally Built
<ul style="list-style-type: none"> <li>The residence is a total loss.</li> <li>The residence's frame is bent, twisted, or otherwise compromised.</li> <li>The residence is missing the roof covering or the structural ribbing has collapsed for the majority of the roof system.</li> </ul>	<ul style="list-style-type: none"> <li>Complete failure of two or more major structural components (e.g., collapse of basement walls, foundation, walls, or roof).</li> <li>Only foundation remains.</li> <li>A residence that will require immediate demolition or removal because of disaster-related damage or confirmed imminent danger (e.g., impending landslides, mudslides, or sinkholes).</li> </ul>

Damage Category:	Percent Damage:	Damage Factor
Affected/Minor	1-30%	use 15%
Major	31-80%	use 55%
Destroyed	81-100%	use 100%

## Appendix 3: Sample Methodology for Calculating Residential Damage

### Overall average method

1. *Damage Factors:*

Affected/Minor	1-30%	use 15% as median
Major	31-80%	use 55% as median
Destroyed	81-100%	use 100%

2. *For each Category (Affected/Minor, Major, Destroyed):*

Average Market Value of Home in Township/Municipality  
x Number of Homes Damaged per Category  
x Damage Factor  
= Estimated Dollar Damages

3. *Sample Calculation:*

The Average Market Value of a single-family home in Badger County is \$100,000.

12 homes were judged to have minor damage, 2 had major damages and 1 was destroyed.

$\$100,000 \times 12 \times 0.15 = \$180,000$

$\$100,000 \times 2 \times 0.55 = \$110,000$

$\$100,000 \times 1 \times 1 = \$100,000$

Total Damages Estimated At \$390,000

## Appendix 4: Local Government Responsibilities - Damage Assessment and PDA Preparation

- **Maintain accurate disaster-related records.**

In the event that your jurisdiction receives state or federal resources to recover, you will need to be able to document disaster-related expenses (emergency and permanent repairs) in order to request reimbursement. This includes proof of payment, invoices/bills, load tickets for gravel or fill, any engineering or plans.
- **Ensure volunteers sign in and sign out.**

If you use volunteers to fill sandbags, remove debris, or anything else related to disaster response and recovery, have them sign a sheet when they arrive and when they leave.
- **Maintain a list and map of impacted facilities.**

If a Preliminary Damage Assessment (PDA) occurs after the event with FEMA, having a list and map of all of the damaged areas will make PDA preparations easier. During a PDA, a team of federal, state, and local members will come to your jurisdiction and want to tour the damaged sites. You will work with your County EM Director to plan a route based on the type and location of damages.
- **Document the damages **before** you complete work.**

Take photographs of sites during (or immediately following) the event before you start any repair work. These photographs should show the full extent of the damages to that site or facility. Take photographs from all angles that show damage. Share these photographs with your County EM Director.
- **Maintain records of work performed by your own forces.**

State and federal disaster recovery programs refer to this as “Force Account Work.” Similarly, to how you document volunteer labor, make sure that your personnel write down their time that they spend on each of the affected sites. Some road crews simply note “Repair flood damages at Jones Road Culvert 1” so that they can determine what site they work at and that it is repair work from the relevant event. Please see the attached checklist of documentation requirements.
- **Start identify which projects or sites will be fixed using contracts.**

Some damages cannot be repaired using your own forces. If you anticipate using a contractor, start obtaining estimates from contractors and be prepared to show those estimates to state or local personnel during a site visit.
- **Be aware of new codes, specifications or standards.**

If damaged facilities are to be rebuilt to conform to new codes, specifications or standards, be prepared to provide copies of the specifications, local resolutions, ordinances, etc.
- **Locate copies of insurance policies.**

Have information available on insurance coverage such as copies of insurance policies and the amount of any insurance settlement received for damaged sites.
- **Schedule time with your County Director to meet with PDA teams.**

Be a resource for the State/Federal team that comes into your area to conduct Damage Assessment. Share with them the impacts of the damages and the overall event in your area and why it matters. Be prepared to share the damaged sites/locations to the team.

## Appendix 5: Guidelines for Disaster Documentation

<b>Personnel Costs</b>	
<p>What we need to know</p> <ul style="list-style-type: none"> <li>• Who performed the work</li> <li>• Dates and # of hours worked</li> <li>• Rate of pay (regular rate, fringe, overtime rate, benefits)</li> <li>• Job classification</li> <li>• Site work was performed</li> <li>• Any equipment used</li> <li>• Tasks performed</li> </ul>	<p>How you can document it</p> <ul style="list-style-type: none"> <li>• Time cards</li> <li>• Task lists</li> <li>• Payroll records</li> </ul>
<b>Equipment Costs</b>	
<p>What we need to know:</p> <ul style="list-style-type: none"> <li>• Dates and # of hours used</li> <li>• Piece of equipment (name/type)</li> <li>• Tasks performed</li> <li>• Equipment operator name</li> <li>• Site worked on</li> <li>• Equipment rate (hourly or daily)</li> </ul>	<p>How you can document it</p> <ul style="list-style-type: none"> <li>• Equipment log</li> <li>• Equipment rate schedule (use local, county, state, or federal rates, whatever is your normal practice)</li> </ul>
<b>Materials Costs</b>	
<p>What we need to know:</p> <ul style="list-style-type: none"> <li>• Dates used or delivered</li> <li>• Quantity used (tons, cubic yards, etc.) at each site</li> <li>• Site name the materials were delivered</li> <li>• Type of materials used (gravel, sand, breaker run, rip rap, fill, hot mix, etc.)</li> </ul>	<p>How you can document it</p> <ul style="list-style-type: none"> <li>• Load tickets</li> <li>• Materials logs</li> </ul>
<b>Contract Costs</b>	
<p>What we need to know:</p> <ul style="list-style-type: none"> <li>• How much the work will cost</li> <li>• When the estimate was provided</li> <li>• Terms of the contract</li> </ul>	<p>How you can document it</p> <ul style="list-style-type: none"> <li>• Bid specifications</li> <li>• Request for bids</li> <li>• Bid documents</li> <li>• Copy of estimates</li> <li>• Copy of contract</li> <li>• Invoices from the contractor</li> <li>• Checks issued for payment</li> </ul>



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