

PRELIMINARY DAMAGE ASSESSMENT

FIELD GUIDE



INDIANA DEPARTMENT OF
**HOMELAND
SECURITY**



Indiana Department of Homeland Security

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GENERAL INFORMATION

This field guide has been designed to serve as a quick reference tool to be utilized by local officials conducting damage assessments for homes and businesses.

Inside you will find general information and details of the four degrees of damage. In addition, illustrations are provided to offer examples of the different degrees of damage after severe weather incidents.

Why do damage assessments?

Conducting a local damage assessment enables officials to:

- ◆ Determine the severity and magnitude of the event;
- ◆ Quantify homes and businesses impacted by the disaster;
- ◆ Determine whether local resources will be sufficient to effectively respond to and recover from the incident;
- ◆ Help provide information and guidance to the public;
- ◆ Facilitate effective decision-making

Local Damage Assessments

Conducting local damage assessments should be **rapid**, **detailed**, and **accurate**.

Collected data should be completed and submitted to the Indiana Department of Homeland Security within 72 hours of the event, if possible. The data will then be analyzed to determine if supplemental assistance is needed. Due to the tight timeline of the disaster declaration process, submitting information as soon as possible is preferred. Delay in completing the assessments may delay supplemental disaster assistance to those most in need.

Inaccessible residences are those in which damage to the home cannot be visually validated because of disaster-related loss of access. If the number of inaccessible homes represents a significant portion of homes assessed, local officials should consider extending their damage assessment timeline to allow for a more comprehensive assessment.

The Four Degrees of Damage

The FEMA damage assessment matrix classifies damage according to four levels:

AFFECTED

- ◆ Affected – non-structural damage to a home that does not make the home unsafe to enter or occupy

MINOR

- ◆ Minor – repairable, non-structural damage to a home or damage from flood waters when the waterline is below the electrical outlets in an essential living space in a conventionally built home, or when the waterline is in the floor system of a manufactured home

The Four Degrees of Damage *Cont.*

MAJOR

- ◆ Major – structural damage or other significant damage that requires extensive repairs for damage from flood waters when the waterline is at or above the electrical outlets in an essential living space in a conventionally built home, or when the waterline is in the floor system of a manufactured home

DESTROYED

- ◆ Destroyed – significant enough damage that the home is deemed a total loss

— — —

These categories are further defined by flood vs. non-flood damage and manufactured vs. conventionally built homes.

Essential Living Spaces

Per the Individual Assistance Program and Policy Guide, federal assistance is generally limited to essential living spaces. An essential living space is a room within a home that serves the function of a bedroom, bathroom, kitchen, and/or living room that is regularly occupied or used by one or more members of the household and requires repair to bring its functionality back to the home (e.g., kitchens are considered essential as long as there is not another undamaged kitchen in the home).

A residence is considered habitable when it is safe, sanitary and functional, secure from hazards or threats to occupants, and free of health hazards. This definition includes preexisting conditions within the homes that have been further damaged by the disaster.

Damage Assessment Dos

- ◆ Conduct visual inspections to verify damage.
- ◆ Be sensitive when discussing damages with property owners.
- ◆ Determine the extent of insurance coverage, i.e., homeowner's policy vs flood insurance.
- ◆ Submit damage assessment data to the Indiana Department of Homeland Security within 72 hours, if possible.
- ◆ Reports should be accurate; exaggeration of the damages will be detrimental during a joint preliminary damage assessment.
- ◆ Focus on the degrees of damage and habitability, not property value.
- ◆ Look for a waterline or debris-line to determine the depth of water.
- ◆ Use your best judgment based on the information you have available.
- ◆ Include information on impact statements about the area's demographics.

Damage Assessment Don'ts

- ◆ Do not use assessed property values.
- ◆ Do not assume or guess on insurance coverage.
- ◆ Do not forget to include impact statements when submitting data to the state.
- ◆ Do not complete damage assessments alone or in hazardous conditions.
- ◆ Do not report disaster-related damages; deferred maintenance and/or pre-existing damages should not be included in your assessments.

Flood Considerations

- ◆ How long was the water in the structure?
- ◆ What were the weather conditions?
- ◆ What type of construction, i.e. brick, frame, basement, slab, or crawlspace?
- ◆ A basement may be considered an essential living space if there is: an occupied bedroom, the only kitchen, the only bathroom, or the only living room.
- ◆ What kind of insurance policies do the property owners have? Flood insurance, sewer back-up coverage, etc.

REMEMBER:

Focus on the degrees of damage and habitability. Do not become preoccupied with property value. Look for a waterline or debris line to determine the depth of water. Only report disaster-related damages. Deferred maintenance and/or pre-existing damage should not be included in your assessment. Based on criteria, make a judgment call.

MANUFACTURED HOMES

AFFECTED

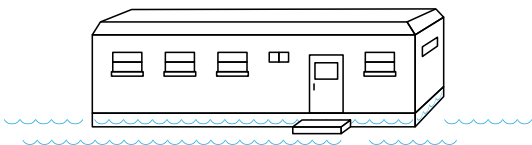
AFFECTED manufactured homes include residences with cosmetic damage only, including damage to a porch, carport, garage, and/or an outbuilding not for commercial use.

Flood Damages, water level is below the floor system:

- ◆ No damage affecting the habitability, cosmetic damage only (e.g., skirting is impacted).
- ◆ Residences with damage to a porch, carport, garage, and/or an outbuilding not for commercial use, etc.

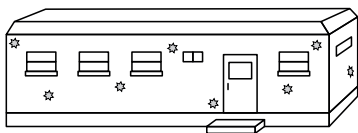
Non-Flood Damages:

- ◆ No damage affecting habitability; cosmetic damage only (e.g., skirting is impacted).
- ◆ Residences with damage to a porch, carport, garage, and/or an outbuilding not for commercial use, etc.



FLOOD DAMAGE examples:

- ◆ Waterline in yard; no damage affecting habitability
- ◆ Cosmetic damage only



NON-FLOOD DAMAGE examples:

- ◆ Frame is not bent, twisted or otherwise compromised
- ◆ Damage to gutters, retaining walls, or downed trees that do not affect access to the residence
- ◆ Cosmetic damage only

MANUFACTURED HOMES

MINOR

Manufactured homes with

MINOR damage have

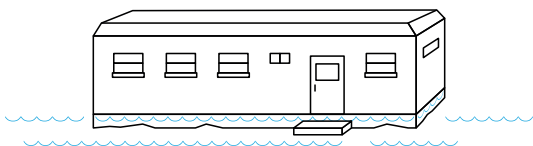
sustained damage and require minimal repairs.

Flood Damages, water level is in the floor system:

- ◆ When the waterline has reached the floor system but has not entered the living space of the unit. Examples of damage include the following:
 - Bottom board, insulation, or ductwork in the floor system
 - Heating, ventilating, and air conditioning (HVAC) is impacted
- ◆ There is no structural damage to the residence, and it has not been displaced from its foundation.

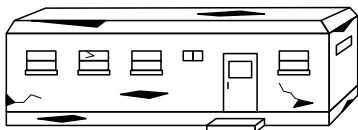
Non-Flood Damages:

- ◆ There is no structural damage to the residence, and it has not been displaced from its foundation.
- ◆ Some of the nonstructural components have sustained damage (e.g., damaged windows, doors, wall coverings, bottom board insulation, ductwork, utility hookups [e.g., water, electricity, gas, telephone/internet and septic] and HVAC).



FLOOD DAMAGE examples:

- ◆ Waterline is below the floor system
- ◆ Skirting or HVAC is impacted
- ◆ No structural damage to the residence and it has not been displaced from the foundation



NON-FLOOD DAMAGE examples:

- ◆ No structural damage to the residence and it has not been displaced from the foundation
- ◆ Nonstructural components have sustained damage (e.g. windows, doors, wall covering, roof, bottom board insulation, ductwork, and/or utility hook up)
- ◆ Skirting or HVAC is impacted

MANUFACTURED HOMES

MAJOR

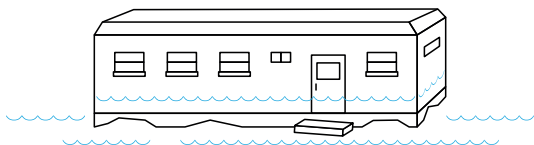
Manufactured homes with **MAJOR** damage have sustained significant damage and require extensive repairs.

Flood Damages, water level is in living spaces:

- ◆ Water has covered the floor system and entered the living space of the residence but is still below the ceiling.
- ◆ The residence has been displaced from its foundation, block, or piers, and other structural components have been damaged.

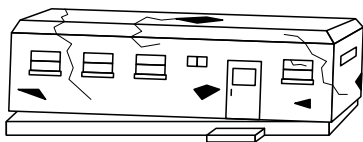
Non-Flood Damages:

- ◆ The residence has been displaced from its foundation, block, or piers, and other structural components have been damaged.
- ◆ The majority of nonstructural components (e.g., windows, doors, wall coverings, bottom board insulation, ductwork, utility hookups [e.g., water, electricity, gas, telephone/internet and septic], and HVAC) have sustained significant damage.
- ◆ The roof is substantially damaged.



FLOOD DAMAGE examples:

- ◆ Water has come into contact with the floor system
- ◆ Residence has been displaced from the foundation, block or piers and other structural components have been damaged



NON-FLOOD DAMAGE examples:

- ◆ Nonstructural components have sustained significant damage (e.g. windows, doors, wall covering, roof, bottom board insulation, ductwork, and/or utility hook up)
- ◆ Residence has been displaced from the foundation, block or piers and other structural components have been damaged

MANUFACTURED HOMES

DESTROYED

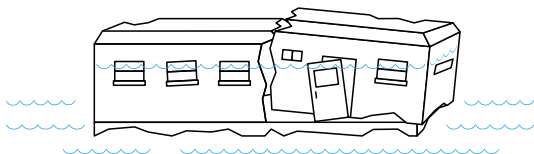
DESTROYED residences are total losses.

Flood Damages, water level above roofline:

- ◆ Waterline is at the roofline or higher.
- ◆ The residence's frame is bent, twisted, or otherwise compromised.

Non-Flood Damages:

- ◆ The residence's frame is bent, twisted, or otherwise compromised.
- ◆ The majority of the structural framing of the roof or the walls has been compromised, exposing the interior.



FLOOD DAMAGE examples:

- ◆ Complete failure of two or more major structural components
- ◆ Residence's frame is bent, twisted, or otherwise compromised



NON-FLOOD DAMAGE examples:

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

CONVENTIONALLY BUILT HOMES

AFFECTED

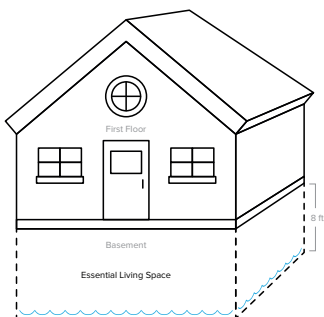
Conventionally built homes that are **AFFECTED** have minimal cosmetic damage to their exteriors and/or interiors.

Flood Damages, waterline in unfinished basement:

- ◆ Waterline in the crawl space or an unfinished basement.
- ◆ Damage to an attached structure (e.g., porch, carport, garage, outbuilding, etc.), gutters, screens, landscaping and retaining walls or downed trees that do not affect access to the residence.
- ◆ Essential living spaces and mechanical components are not damaged or submerged.

Non-Flood Damages:

- ◆ Cosmetic damage, such as paint discoloration or loose siding.
- ◆ Minimal missing shingles or siding.
- ◆ Damage to gutters, retaining walls or downed trees that do not affect access to the residence.

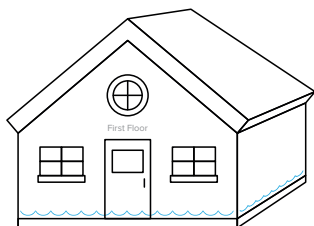


FLOOD DAMAGE examples:

- ◆ Minimal damage to structure or contents
- ◆ Any water line in the crawl space or basement when essential living space or mechanical components are not damaged or submerged
- ◆ Damage to an attached structure (e.g., porch, carport, garage, outbuilding, etc.), gutters, screens, landscaping, and retaining walls or downed trees that do not affect access to the residence

CONVENTIONALLY BUILT HOMES w/ BASEMENT
AFFECTED EXAMPLES

CONVENTIONALLY BUILT HOMES AFFECTED EXAMPLES



FLOOD DAMAGE examples:

- ◆ Minimal damage to structure or contents
- ◆ Any water line in the crawl space when essential living space or mechanical components are not damaged or submerged
- ◆ Damage to an attached structure (e.g., porch, carport, garage, outbuilding, etc.), gutters, screens, landscaping, and retaining walls or downed trees that do not affect access to the residence



NON-FLOOD DAMAGE examples:

- ◆ Partial missing shingles or siding
- ◆ Cosmetic damage such as paint discoloration or loose siding
- ◆ Broken screens, gutter damage or 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

CONVENTIONALLY BUILT HOMES

MINOR

MINOR damage

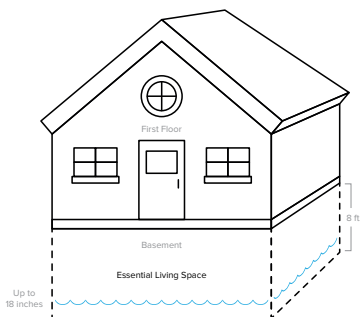
encompasses a wide range of damage that does not affect the structural integrity of the residence.

Flood Damages, waterline is below 18 inches:

- ◆ Waterline is below electrical outlets in the lowest floor with essential living space.

Non-Flood Damages:

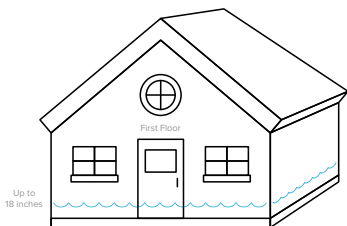
- ◆ Nonstructural damage to roof components over essential living spaces (e.g., shingles, roof covering, fascia board, soffit, flashing, and skylight).
- ◆ Nonstructural damage to the interior wall components, to include drywall and insulation.
- ◆ Nonstructural damage to exterior components.
- ◆ Multiple small vertical cracks in the foundation.
- ◆ Damage to chimney (i.e., tilting, falling, cracking, or separating from the residence).
- ◆ Damage to mechanical components (e.g., furnace, boiler, water heater, HVAC, etc.).
- ◆ Damage or disaster-related contamination to a private well or septic system.



FLOOD DAMAGE examples:

- ◆ Waterline below electrical outlets in an essential living space
- ◆ Damage or disaster-related contamination to a private well or septic system
- ◆ Damage to mechanical components (e.g., furnace, boiler, water heater, HVAC, etc.)

CONVENTIONALLY BUILT HOMES w/ BASEMENT
MINOR EXAMPLES



FLOOD DAMAGE examples:

- ◆ Waterline below electrical outlets in an essential living space
- ◆ Damage or disaster-related contamination to a private well or septic system
- ◆ Damage to mechanical components (e.g., furnace, boiler, water heater, HVAC, etc.)



NON-FLOOD DAMAGE examples:

- ◆ Nonstructural damage to roof components over essential living spaces (e.g., shingles, roof covering, fascia board, soffit, flashing, and skylight)
- ◆ Nonstructural damage to the interior wall components, to include drywall and insulation
- ◆ Nonstructural damage to exterior components
- ◆ Multiple small vertical cracks in the foundation
- ◆ Damage to chimney (i.e., tilting, falling, cracking or separating from the residence)
- ◆ Damage to mechanical components (e.g., furnace, boiler, water heater, HVAC, etc.)
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CONVENTIONALLY BUILT HOMES

MAJOR

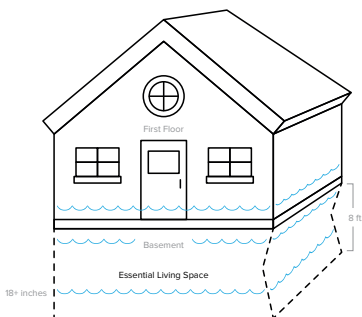
Residences with **MAJOR** damage have sustained significant structural damage and require extensive repairs.

Flood Damages, waterline is at or above 18 inches:

- ◆ Waterline is at or above 18 inches or the electrical outlets in an essential living space.
- ◆ Waterline on the first floor (regardless of depth) of a residence when the basement is completely full.
- ◆ The waterline is at or higher than the ceiling of an above-ground essential living space.

Non-Flood Damages:

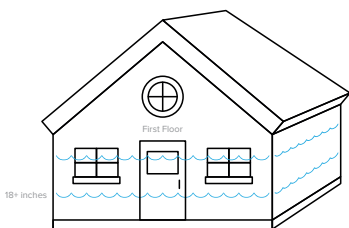
- ◆ Failure or partial failure to structural elements of the roof over essential living spaces to include rafters, ceiling joists, ridge boards, etc.
- ◆ Failure or partial failure to structural elements of the walls, including framing, etc.
- ◆ Failure or partial failure to foundation, to include crumbling, bulging, collapsing, horizontal cracks, and shifting of the residence from its foundation.



FLOOD DAMAGE examples:

- ◆ Waterline above 18 inches in an essential living space
- ◆ Electrical outlets inundated within an essential living space regardless of water depth
- ◆ Waterline on the first floor of a residence when a basement is completely full
- ◆ Partially collapsed or collapsed wall(s)

CONVENTIONALLY BUILT HOMES w/ BASEMENT
MAJOR EXAMPLES



FLOOD DAMAGE examples:

- ◆ Waterline above 18 inches
- ◆ Electrical outlets inundated regardless of water depth
- ◆ Partially collapsed or collapsed wall(s)



NON-FLOOD DAMAGE examples:

- ◆ Failure or partial failure to structural elements of the roof over essential living spaces to include rafters, ceiling joists, ridge boards, etc.
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CONVENTIONALLY BUILT HOMES

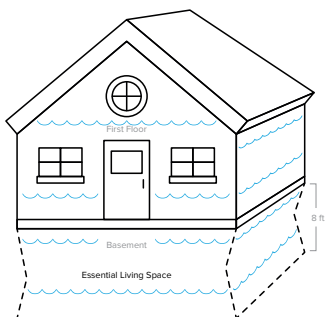
DESTROYED

A residence is

DESTROYED when it is

a total loss or damage to such an extent that repair is not feasible.

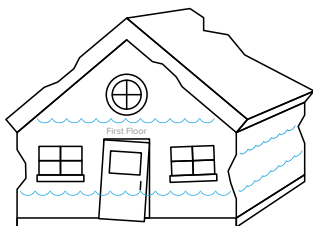
- ◆ Waterline is at or higher than the ceiling of an above-ground essential living space.
- ◆ Only foundation remains.
- ◆ Complete failure of two or more major structural components (e.g., collapse of basement walls, foundation, walls, or roof).
- ◆ The residence has a confirmed imminent danger (e.g., impending landslides, mudslides, or sinkholes).



FLOOD DAMAGE examples:

- ◆ Waterline is at or higher than the ceiling of an above-ground essential living space
- ◆ Two or more walls bowed, missing or collapsed
- ◆ Residence is unsafe and requires immediate demolition

CONVENTIONALLY BUILT HOMES w/ BASEMENT
DESTROYED EXAMPLES

DESTROYED EXAMPLES**FLOOD DAMAGE** examples:

- ◆ Waterline is at or higher than the ceiling of an above-ground essential living space
- ◆ Two or more walls bowed, missing or collapsed
- ◆ Residence is unsafe and requires immediate demolition



NON-FLOOD DAMAGE examples:

- ◆ Only foundation remains
- ◆ Complete failure of two or more major structural components (e.g., collapse of foundation, walls, or roof)
- ◆ The residence is in imminent danger (e.g., impending landslide, mudslide, or sinkhole)

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