



Substantial Damage Determinations (SDD)- The Crucial Gateway to Rebuilding After a Disaster

Texas Floodplain Management Association
Houston, Texas
March 9, 2023


Elizabeth Levitz, PE, PMP, CFM
David Rubenstein, PMP, CFM

Delivering a better world 


Meet our team



Elizabeth Levitz, PE, PMP, CFM
Senior Water Resources Engineer
Houston, Texas

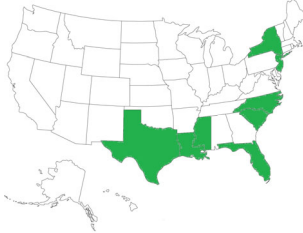


David Rubenstein, PMP, CFM
Senior Program Manager
Dallas, Texas




Substantial Damage Experience

Over 75,000 inspections to date!



- Puerto Rico (Hurricane Fiona) 2022: Training
- Louisiana 2020
- North Carolina 2018
- Texas 2017
- Florida 2017
- Louisiana 2016
- Texas 2016
- South Carolina 2015
- New York/ New Jersey 2013
- Louisiana 2012
- Mississippi 2011




Agenda


-  Before the Storm
-  During the Storm
-  After the Storm




Before the Storm



Delivering a better world




Understand the Policy's



Two policy's to be aware of:

1. Substantial Damage Determinations (from NFIP)
2. FEMA's Public Assistance Program and Section 1206 of Disaster Recovery Reform Act of 2018 (DRRA);

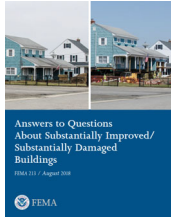


Understand your role – Building official/ floodplain manager

What are Substantial Damage Determinations?



After a presidentially declared disaster, local officials inspect homes damaged by man made or natural disasters to determine whether a structure was damaged to the extent that it will have to meet current building codes and floodplain management regulations when it is repaired.



<https://www.fema.gov/>

[aecom.com](https://www.aecom.com)

Understand your role – Building official/ floodplain manager

What are Substantial Damage Determinations?



- NFIP participating communities are required to determine if structures are Substantial Damaged after a damage event to remain eligible for subsidized flood insurance.
- Substantial Damage Determinations apply to all structures within the Special Flood Hazard Area (SFHA, or 100-year floodplain).
- Substantial Damage is: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damage condition would equal or exceed 50% of the market value of the structure before the damage occurred.

<https://www.fema.gov/>

[aecom.com](https://www.aecom.com)

Understand the Policies

Federal Emergency Management Agency's (FEMA) Public Assistance (PA) Program



- FEMA's Public Assistance Program provides supplemental grants to state, tribal and local governments, and certain private non-profit organizations to help communities quickly respond to and recover from major disasters
- Through FEMA's Public Assistance (PA) Program, Section 1206 of the Disaster Recovery Reform Act of 2018 (DRRA) authorizes FEMA to provide communities with the resources to administer and enforce building code and floodplain management ordinances following a major disaster declaration



[aecom.com](https://www.aecom.com)

Understand the Policies

Disaster Recovery Reform Act of 2018 (DRRA)



In 2018 Disaster Recovery Reform Act (DRRA) amended Sections 402 and 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) authorized FEMA to....

"provide assistance to state and local governments for building code and floodplain administration and enforcement, including inspections for substantial damage compliance" and "base and overtime wages for extra hires to facilitate the implementation and enforcement of adopted building codes for a period of not more than 180 days after the major disaster is declared."



Understand the Policies

To Be Eligible for Public Assistance Grant Funding Made Available Through DRRA 1206, State, Local, Tribal or Territorial Governments Must:



- Be in good standing with the National Flood Insurance Program (NFIP)
- Be authorized for assistance under a major disaster declaration
- Be legally responsible for administering and enforcing adopted building codes and floodplain management regulations
- Report list of impacts to FEMA within 60 days of the Recovery Scoping Meeting
- Submit supporting documentation through the Public Assistance Grants Portal (grantee.fema.gov)



Understand the Policies



Time Limit: Activities occurring up to **180 days** after a major disaster may be eligible for reimbursement



Documentation: Good recordkeeping is critical for reimbursement and PA Grants Portal Submissions; including **Substantial Damage Determinations**



Federal Cost-Share: Eligible costs are reimbursed at the Permanent Work cost-share applicable to the disaster

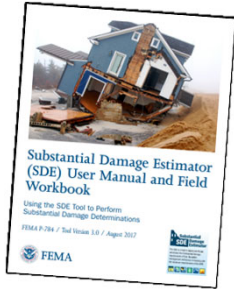
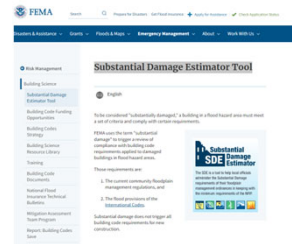


The revenue collected by the applicant is considered program income. The project application will be reduced accordingly during the closeout. If the applicant waives fee or fines following the disaster, FEMA still reduces the eligible costs by the amount of the fee or fines.



Understand your role – Building official/ floodplain manager

FEMA Provides the SDE tool and guidance



<https://www.fema.gov/emergency-managers/risk-management/building-science/substantial-damage-estimator-tool>

What costs are covered?

Eligible SDD Work includes



- Conduct initial field surveys to determine extent of damage.
- Establish damage trends to identify areas to focus building-specific assessment efforts.
- Prepare cost information on repairs and pre-disaster market value estimates for substantial damage estimates.
- Hire, train, supervise, certify and license staff, as required to conduct eligible activities.
- Collect field data for damage assessments.
- Enter damage inventory administrative data into the Substantial Damage Estimator or comparable data collection software.
- Track cumulative substantial damage and repetitive loss for communities, if required.
- Conduct damage inventory of structures.

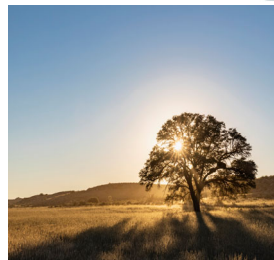


Before the Storm- Sunny Day Actions

Sunny Day Actions




1. Create a Substantial Damage Management Plan
2. Start collecting data in a digital format
 1. Building footprints
 2. Building elevation data
 3. Flood Insurance Rate Map
 4. Non-regulatory data
3. Do you have contract mechanisms in place?
4. ASFPM's DART – Disaster Assistance Response Team




AECOM

During the Storm





Delivering a better world 

During the Storm- Understand your role



1. Stay in contact with Emergency Officials
2. Understand the area of impact: Listen to news report, social media, etc.





AECOM

After the Storm



Delivering a better world 

Understand your role



1. Check on the health and wellbeing of citizens
2. Start coordinating with government officials and contractors
3. Prepare for a road to recovery



aecom.com

Substantial Damage Determinations



Remember:

- NFIP participating communities are required to determine if structures are Substantial Damaged after a damage event to remain eligible for subsidized flood insurance.
- Substantial Damage Determinations apply to all structures within the Special Flood Hazard Area (SFHA, or 100-year floodplain).
- Substantial Damage is: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damage condition would equal or exceed 50% of the market value of the structure before the damage occurred.



aecom.com

Substantial Damage Determinations



Consider the repairs necessary to **return the structure to the pre-damage condition while meeting local code requirements**

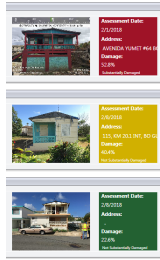


aecom.com

Substantial Damage Determinations



- SDE determinations must be **reasonable** and **defensible**.
- The SDE tool is an efficient way for local officials to estimate SD determinations
 - Inspection criteria in tool helps rapidly collect the data based on visual observations
 - Aids in calculating substantial damage estimates
 - Creates formal report of inspection results



SDE Tool helpline: FEMA-BuildingScienceHelp@fema.dhs.gov
or by calling 866-927-2104



Substantial Damage Determinations



The objective is not to determine if a structure is 55% or 65% damaged.

The **goal** is to determine whether the overall structure damage is above or below 50% and that the damages are reasonable and that SD determination is supported by the data collected for that inspection.



Substantial Damage Determinations



A determination of SD requires that structures *must be brought into compliance* with the local floodplain management ordinance and building codes



Tale of a Successful Structure



aeecom.com

Substantial Damage Determinations



SDD Lessons learned:

- **Have a qualified team in place to perform SDE**
 - Have contract vehicles in place now so you can prepare for the future
- **Identify and prioritize neighborhoods that will require SDD**
 - Use the data you have collected
- **Inform structure owners in a timely manner about:**
 - SDE determination requirements
 - Post-disaster permit requirements
- **Enforce rebuilding requirements**
 - NFIP requirements
 - Local floodplain management ordinances
 - Building codes
 - Including Substantial Improvement/Damage requirements for improvement and repairs of buildings

Substantial Damage Determination	
Address:	10000 1st St, New Orleans, LA 70122
Parcel ID:	10-0000000-0000
Structure:	Single-Family Detached
Year Built:	2000
Area:	1000 sq ft
Value:	\$100,000
Damage:	Substantial Damage
Notes:	...

aeecom.com

One final thought.....

Consistency will lead to validity



aeecom.com

Contact Information

Elizabeth Levitz: elizabeth.levitz@aecom.com

David Rubenstein: david.rubenstein@aecom.com



 aecom.com

AECOM

Thank you.

Delivering a better world

 aecom.com

AECOM Delivering a better world
