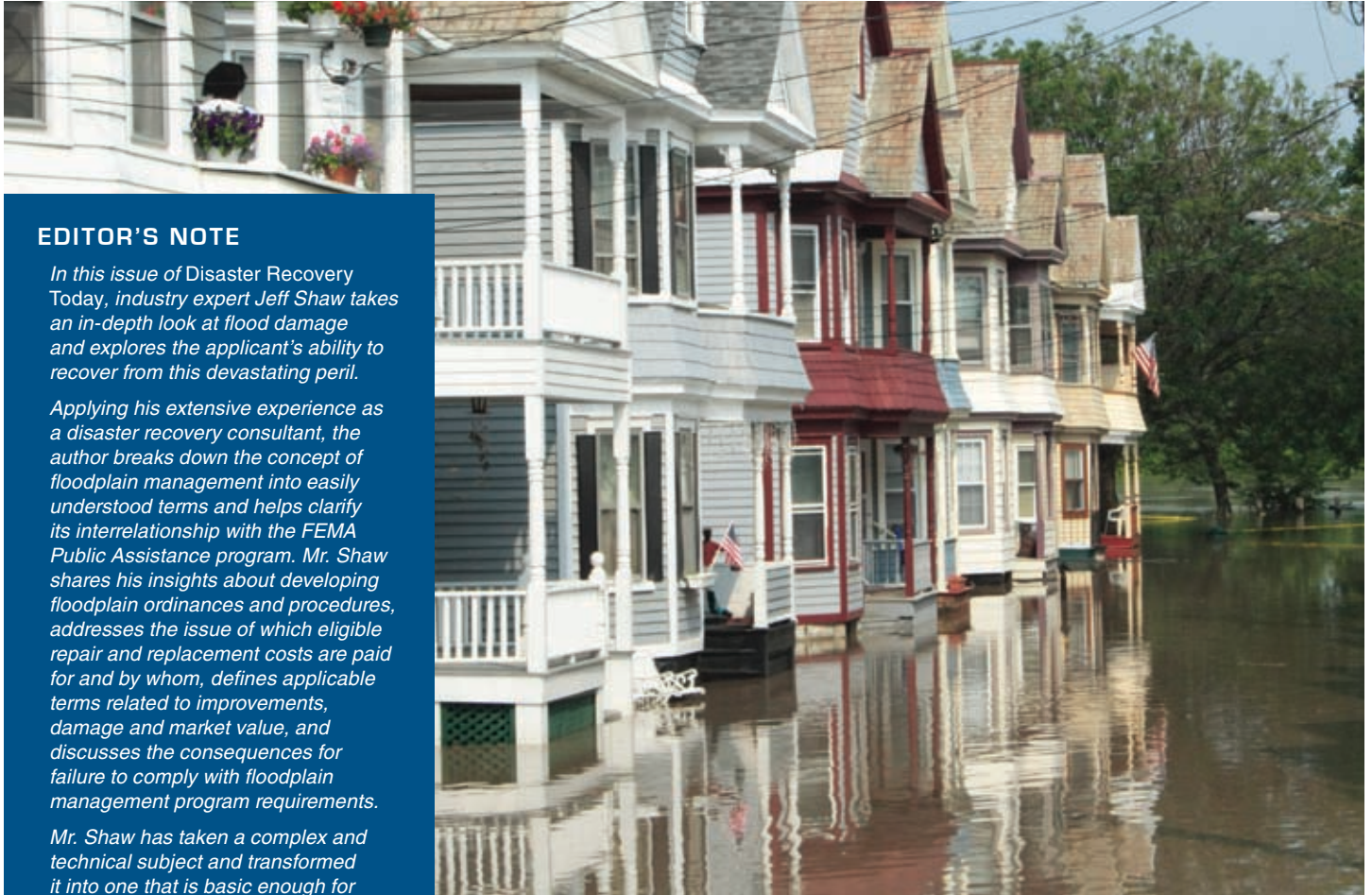


# DISASTER RECOVERY

Adjusters International Disaster Recovery Consulting — FEMA recovery issues for decision-makers and leaders **TODAY**

## Floodplain Management: Sound Techniques to Improve Your Recovery



### EDITOR'S NOTE

*In this issue of Disaster Recovery Today, industry expert Jeff Shaw takes an in-depth look at flood damage and explores the applicant's ability to recover from this devastating peril.*

*Applying his extensive experience as a disaster recovery consultant, the author breaks down the concept of floodplain management into easily understood terms and helps clarify its interrelationship with the FEMA Public Assistance program. Mr. Shaw shares his insights about developing floodplain ordinances and procedures, addresses the issue of which eligible repair and replacement costs are paid for and by whom, defines applicable terms related to improvements, damage and market value, and discusses the consequences for failure to comply with floodplain management program requirements.*

*Mr. Shaw has taken a complex and technical subject and transformed it into one that is basic enough for even those outside of the industry to comprehend. His efforts here are part of an overall effort nationwide to communicate the effectiveness of floodplain management programs that are designed to minimize damage and destruction caused by floods, the most common natural disaster in the U.S.*

*We hope you find the information here enlightening and look forward to receiving your comments so that we can continue to offer a resource that is of value to our readers. As always, we appreciate your readership and interest.*

—Sheila E. Salvatore, Editor

*Severe summer storms caused extensive flooding in central New York state. Under a flood damage prevention ordinance, a community agrees to regulate development in a Special Flood Hazard Area in exchange for federal flood insurance, disaster assistance and federally backed community loans.*

*By Jeff Shaw*

With the most common natural disaster in the United States being floods, exhaustive efforts have been made by Congress to ensure that the damages and destruction created by these events are minimized. The most

prominent of these efforts was the creation of Executive Order 11988, which requires federal agencies to avoid the Special Flood Hazard Area<sup>1</sup> (SFHA) unless there is no practicable alternative, or to mitigate the effect of future

<sup>1</sup> The SFHA is the area where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The SFHA includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE and V.



flooding through measures such as elevating structures.

In this issue of *Disaster Recovery Today*, we will discuss floodplain management and also its impact on FEMA Public Assistance (PA) recoveries.

### **Floodplain Management**

When a community agrees to participate in the National Flood Insurance Program (NFIP), officials sign a flood damage prevention ordinance. In this ordinance, a community agrees to regulate development in the SFHA in exchange for the availability of federal flood insurance, disaster assistance and federally backed community loans.

Primarily, regulating development means to ensure that all new construction or substantial improvement (we will discuss substantial improvement in greater detail later in this issue) has its lowest floor, including basement, above the base flood elevation (BFE). Obviously, since it is impossible to elevate a basement, this would mean no basements in a SFHA. If a BFE has not been determined on your Flood Insurance Rate Map (FIRM), then a community should require buildings to have their lowest floor two feet above the highest adjacent grade.

## **FEMA defines a flood as:**

1. A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is your property) from:
  - a. Overflow of inland or tidal waters;
  - b. Unusual and rapid accumulation or runoff of surface waters from any source;
  - c. Mudflow.
2. Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined in 1.a. above.<sup>2</sup>

To achieve and maintain compliance, communities assign a floodplain administrator who oversees the floodplain development permitting process. Permits are required when performing any of the following activities within a SFHA:

- Building or enlarging a structure
- Substantially improving a structure
- Placing a manufactured home
- Mining, dredging, filling, grading, excavating and landscaping
- Building or repairing roads and bridges

After review, the permit is either denied or approved and is attached to the building permit. To make this determination, the administrator will require an elevation certificate, which documents the BFE in comparison to the structure's lowest floor. Elevation certificates must be prepared and certified by a land surveyor, engineer, or architect who is authorized by commonwealth, state, or local law to certify elevation information. Community officials who are authorized by local law or ordinance to provide floodplain management information may also sign the certificate.

When developing floodplain management ordinances and procedures, it is important to remember that the regulatory requirements set forth by FEMA are the minimum measures acceptable for NFIP participation. More stringent requirements adopted

**Since 2000, NFIP has paid in excess of 327,000 claims totaling more than \$21 billion.<sup>3</sup>**

<sup>2</sup> NFIP Standard Policy.  
<sup>3</sup> NFIP Statistics found at [www.fema.gov](http://www.fema.gov).



by the local community or the state take precedence over the minimum regulatory requirements established for flood insurance, and may benefit the community at large through a reduction in NFIP premiums of up to 45%.

The above description of floodplain management was designed as a lead-in to the discussion of its relevance during a Public Assistance (PA) recovery. For a more detailed description, please visit: [www.fema.gov](http://www.fema.gov).

### ***Disaster Recovery in a SFHA***

With the inevitability that floods often hit the same area numerous times, it can be assumed that communities that suffer damages severe enough for a federal disaster declaration are NFIP communities.

When a federal declaration occurs for flooding in an NFIP community, numerous questions regarding what is paid for, and by whom, become a major issue.

The first source of payment is from the NFIP. Commercial structures, which include municipal buildings of all types, can obtain coverage of up to \$500,000 for the building and \$500,000 for its contents. It is important to remember that if an applicant is in a SFHA and does not carry NFIP, FEMA will reduce the eligible grant by the amount that could have been received if the applicant had coverage, up to the maximum amounts available as outlined above. In addition to the normal coverage available through NFIP, Increased Cost of Compliance (ICC) coverage, which allows for increased costs

due to the enforcement of codes (e.g. floodplain management), is available up to \$30,000.

In a perfect world, flood damages would fall within available NFIP coverage amounts. But as events over the past few years have proven, they often do not. This is where FEMA's PA program steps in.

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As discussed in previous issues of *Disaster Recovery Today*, FEMA will pay eligible repair/replacement costs, less all applicable credits, to include the aforementioned insurance reductions. The difficult question to answer when the damaged facility is in an SFHA however, is what the eligible repair/replacement costs are.





*If a declaration is made by a floodplain administrator that a facility is substantially damaged, a determination must be made quickly regarding actions that will need to be taken to make repairs, or whether the facility must be replaced.*

The first step in making this determination lies with your local codes officials and floodplain administrator, who can help determine if a structure requires **substantial improvement**.

**Substantial improvement**<sup>4</sup> means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures that have incurred “substantial damage,” regardless of the actual repair work performed.<sup>5</sup>

**Substantial damage**<sup>6</sup> means 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 percent of the market value of the structure before the damage occurred.

**Market value**<sup>7</sup> – in common parlance, market value is the price a willing buyer and seller

*agree upon. The market value of a structure reflects its original quality, subsequent improvements, physical age of building components and current condition.*

*However, market value for property can be different than that of the building itself. Market value of developed property varies widely due to the desirability of its location. For example, two houses of similar size, quality and condition will have far different prices if one is on the coast, or in the best school district, or closer to town than the other. But the value of the building materials and labor that went into both houses will be nearly the same.*

*For the purposes of determining substantial improvement, market value pertains only to the structure in question. It does not pertain to the land, landscaping or detached accessory structures on the property. Any value resulting from the location of the property should be attributed to the value of the land, not the building.*

If your floodplain administrator declares a facility substantially damaged, it is important to determine immediately what must be done in order to affect repairs, or if the facility must be replaced. It is noteworthy to stress that this is not a FEMA Public Assistance issue at this point; however, it is very important to advise the state as quickly as possible after a substantial damage designation has been made for a facility.

Once it is known what must be done to bring the damaged facility up to code, it is time to move forward with FEMA. Ideally, local architects and engineers (or contractors) will develop the scope of repairs—including all applicable codes and standards—and this information can be

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**4** 4 CFR 44 59.1.

<sup>5</sup> This does not include the correction of existing violations of state or local health and safety codes; nor does it pertain to historic structures and those structures functionally dependent on their location.

<sup>6</sup> 4 CFR 44 59.1.

<sup>7</sup> NFIP Unit 8.



provided to FEMA for Project Worksheet (PW) development.

Often times however, FEMA decides to use its experts to develop a scope and cost estimate while issues regarding substantial damages are overlooked and/or completely ignored. This results from a combination of factors, including a lack of policy experience and confusing substantial damage with FEMA repair versus replacement policy (50% Rule). Additionally, since elevation and flood-proofing are typically mitigation projects, FEMA

often claims that these are not Codes and Standards but simply mitigation options to be explored under section 406 of the Stafford Act. As has been discussed in previous issues of *Disaster Recovery Today* however, funding for Codes and Standards is not interpretive or optional, whereas the decisions to fund 406 mitigation measures are based on myriad complicated and often misunderstood criterion and can be denied.

The following excerpt from a letter in April 2007 from FEMA's Acting Assistant

Administrator, Disaster Assistance Directorate, sums it up nicely:

*“Structural Repair – Locally adopted floodplain management ordinances that comply with the NFIP meet the criteria for standards found in 44 CFR 206.226(d). Floodplain management ordinances contain provisions that are referred to as ‘triggers.’ This means that a certain level of damage to a structure may require repair to undamaged portions of the structure. For example, a substantially damaged structure must be flood-proofed or elevated*



SOURCE: Jennifer Smits/FEMA Photo Library



*to the base-flood elevation. Since the locally adopted floodplain management ordinances meet the requirements of 44 CFR 206.226(d), the cost to comply with the ordinance is eligible under the Public Assistance Program.”*

In short, floodplain management requirements are to be treated as any other applicable code or standard. To support an applicant’s position to FEMA, it is recommended that the architects and engineers (or contractors) fully understand floodplain management and its effect on building repairs or replacements. Active participation from the codes enforcement office and floodplain administrator is also recommended. This will alleviate many misunderstandings and misinterpretations with FEMA PA staff. For smaller communities that may not have codes officials, it is suggested that the applicant coordinate floodplain management efforts directly with state floodplain managers.

### **Failure to Comply**

It is important to realize that once there is a commitment to floodplain management, and there is participation as an NFIP community, an applicant’s flexibility with regard to implementing proper protocols and procedures in a SFHA is minimal. There are, of course, limited exceptions and exemptions that can be given; but as a whole the program is very precise, and failure to comply can lead to probation and subsequent suspension.



*When attempts to resolve enforcement problems through community assistance or consultation have failed, the FEMA Regional Director may place a community on probation. The probationary period lasts at least until all program deficiencies have been corrected and violations have been remedied to the maximum extent possible, and it may be extended for up to one year after that. Probation has no effect on the continued availability of flood*

*insurance; however, an additional charge of \$50 will be added to the premium for each policy for a period of at least one (1) year.*

*When the community is given the 90-day written notice of probation, there is concurrent notification to the affected congressional delegation, a 90-day notice to each flood insurance policyholder in the community that they will be surcharged \$50 because of actions by their community, and*



***In short, floodplain management requirements are to be treated as any other applicable code or standard.***

***To support an applicant's position to FEMA, it is recommended that the architects and engineers (or contractors) fully understand floodplain management and its effect on building repairs or replacements.***

*a 60-day notice in the form of a press release to local media.*

*If the community fails to take remedial measures during the probationary period, the Regional Director may recommend suspension from the NFIP. A community may also be reinstated on probationary status after having been suspended.<sup>8</sup>*

While these penalties are designed to accommodate dedicated use of floodplain management techniques, they also serve to meet one of FEMA's own

criteria for codes and standards: enforceability. Not only are floodplain management codes and standards not optional, they are enforceable by the same agency that may eventually aid in their implementation as part of a flood-related Public Assistance recovery.

To obtain continually updated information about maintaining and applying proper floodplain management practices, please visit [www.floodsmart.gov](http://www.floodsmart.gov).





## CRS Ratings and You<sup>9</sup>

Based on your community's CRS ratings, you can qualify for up to a 45% discount of your annual flood insurance premium. Here's how.

The National Flood Insurance Program (NFIP) requires communities to maintain a minimum level of floodplain management ordinances for its residents to be eligible to purchase flood insurance.

To encourage communities to exceed these minimum requirements, the NFIP established the Community Rating System (CRS). In exchange for increasing flood preparedness and achieving a CRS rating, the community's residents are offered discounted flood insurance premium rates.

Communities are rated by class, of which there are 10:

**Class 1** requires the most credit points and awards the highest premium reduction. **Class 10** receives no premium reduction and refers to any community in full compliance with the rules and

regulations of the NFIP but has not received a lower CRS rating.

**The CRS identifies 18 creditable activities, organized under four categories.** Each activity is assigned evaluation measures and a corresponding score. A community is rated on the total number of points generated during a particular evaluation.

### Eligible floodplain management activities include:

- **Public Information Activities**—from elevation certificates, flood zone information and outreach projects to hazard disclosure, flood protection information and flood protection assistance.
- **Mapping & Regulatory Activities**—from detailed flood data and open space preservation to flood data maintenance and stormwater management.
- **Flood Damage Reduction Activities**—from floodplain management and acquisition/relocation plans to flood protection and drainage systems maintenance.

- **Flood Preparedness Activities**—from flood warning programs to levee safety to dam safety.

View a chart that details the different scores and premium reduction percentages for each classification at [www.nfip.com](http://www.nfip.com).

Today, more than 1,000 communities participate in CRS and receive discounts on the cost of their flood insurance premiums. Yours may be one. Check the NFIP web site to determine if you may already be eligible for a discount.



Jeff Shaw  
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<sup>9</sup> [www.floodsmart.gov](http://www.floodsmart.gov).



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