ISSUE 13

DISASTER RECOVERY TODAY

Adjusters International Disaster Recovery Consulting — FEMA Recovery Issues for Decision-Makers and Leaders

EDITOR'S NOTE

In previous issues of Disaster Recovery Today *we have discussed various types of disasters, including earthquakes, floods, hurricanes, terrorism and tornados. Although these events are very different, a by-product common to all of them is* ***debris.***

In this issue, author Kevin Cahill addresses the importance of including debris removal in a well-designed disaster recovery plan and highlights some of the pervasive issues that arise during the debris-removal phase of a disaster.

It's information that is both insightful and practical!

Sheila E.Salvatore
Editor

Proper Debris Management — Key to Disaster Recovery *and* FEMA Assistance

Kevin Cahill

Over a recent five-year period, "debris" accounted for approximately 27 percent[1] of the total cost of a disaster. Yet debris management remains one of the most overlooked and least-planned-for components of disaster response and recovery. The removal of debris after a disaster is funded through FEMA's Public Assistance Program under Category A, Debris Removal.

What Debris Work is Eligible?

According to the *FEMA 325 Public Assistance Debris Management Guide,* July 2007, eligible work is defined as "the removal and disposal of debris that was generated by a disaster and which presents an immediate threat to the public interest." However, this definition has been further refined by FEMA's debris policies and regulations, recapped as follows:

Defining "Debris"

Very simply, debris is described as materials — both natural and man-made — generated by a disaster. It can range from boathouses, to gravel bars, to zoo enclosures.

The Federal Emergency Management Agency (FEMA) defines disaster-generated debris as, "Any material, including trees, branches, personal property and building material on public or private property that is directly deposited by the disaster."[2] FEMA often uses the terms "vegetative" for natural debris and "construction and demolition" for man-made debris.

The methods for handling debris are as diverse as the types. Some forms of debris require special handling and disposal, while other forms can be taken directly to a permitted landfill.

The debris classification determines how removal will be handled and each category involves its own unique process.

Vegetative

When major flood, wind, snow or ice events occur, the resulting aftermath often includes a significant quantity of downed trees, broken limbs, uprooted shrubs and broken ground cover. The removal of this "vegetative" debris on a public right-of-way will generally be eligible for funding under FEMA's Public Assistance Program.

Questions to be answered when dealing with vegetative debris are:

- Will the vegetation be taken to a staging area for reduction?
- Will the vegetation be recycled? If so, is there any salvage value for the recycled materials?
- How will debris monitoring be performed? How will the work be documented?
- How will limbs that are hanging ("hangers") be treated?
- How will stumps be treated?
- Can any of the trees be saved?
- How many debris-removal runs/passes will be necessary?

These and other questions must be carefully considered to ensure that the vegetative debris-removal tasks are accomplished effectively and efficiently — and that they qualify for reimbursement under FEMA's debris policies and regulations.

Construction and Demolition (C&D) Debris

When a disaster damages buildings and structures, it results in construction and demolition (C&D) debris.

"Very simply, debris is described as materials — both natural and man-made — generated by a disaster."

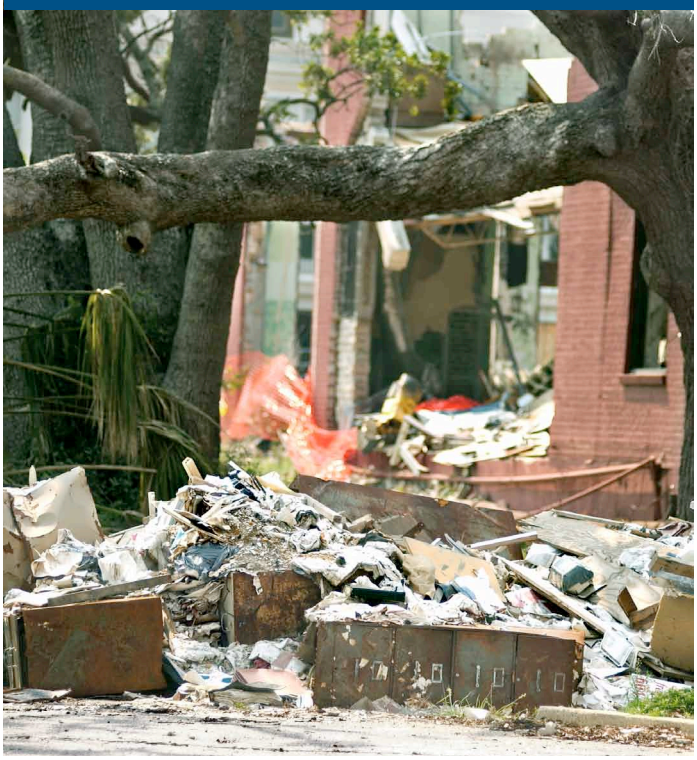
The definition of construction and demolition debris can vary among states however, according to FEMA's debris manual, it encompasses: "damaged components of buildings and structures, such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and floor coverings, window coverings, pipe, concrete, fully cured asphalt, equipment, furnishings, and fixtures."[3]

Debris in Populated Areas

While most disasters produce debris, floods, the most dangerous and costly type of natural disasters in the United States, produce extensive amounts of it — both natural and man-made. After flooding in a populated area subsides, people return to their homes and businesses to begin the cleaning process. That process can often entail gutting affected structures. All of this activity generates a steady stream of debris, which is often placed onto public right-of-ways.

A common error is to incorrectly estimate the amount of debris based on what is immediately visible. However, the amount of debris placed onto right-of-ways will continue to increase as more people return to the area. Sometimes, volunteer groups arrive to assist residents and business owners. If the amount of debris is underestimated, it can significantly slow down the recovery effort simply because there isn't enough equipment onsite to handle the debris removal.

"A common error is to incorrectly estimate the amount of debris based on what is immediately visible."



Three Categories of Debris Removal

Debris removal can be divided into three categories: Public property debris removal, private property debris removal and private property demolitions.

- ***Public property debris removal*** is relatively simple since the debris is located on public property or on a right-of-way and does not require permission from the property owner for removal. The public property can include maintained beaches, parks, golf courses, etc.
- ***Private property debris removal*** can be undertaken in certain circumstances, but significantly more documentation is involved and approval has to be given by the FEMA federal coordinating officer prior to the work being done. The approval process can be very slow when an applicant is fully engaged in disaster response and other recovery work.
- ***Private property demolition*** is the most complicated debris removal category due to the volume of documentation required and the necessary involvement of many different stakeholders.

When a structure creates an immediate threat to the health and safety of the community at large, private property demolition can be authorized by the FEMA Public Assistance group supervisor.

The three main conditions that must be met for the demolition to be funded under the Public Assistance Program are:

"Structures condemned as safety hazards before the disaster are not eligible for demolition and debris removal under Public Assistance grant authority."

1) The structure must have been damaged as a direct result of the disaster;
2) The applicant must show that the structure is an immediate threat to the public;
3) The applicant must have the legal authority to act under law, code or ordinance.

Page 38 of the *FEMA 325 Public Assistance Debris Management Guide,* July 2007, further delineates some of the costs associated with the demolition of private property structures that *are* eligible for FEMA assistance, as well as some of the costs that *are not*.

Eligible costs include:

- Capping wells;
- Pumping and capping septic tanks;
- Filling in basements and swimming pools;
- Testing and removing hazardous materials from unsafe structures, including asbestos and household hazardous wastes;
- Securing utilities (electric, phone, water, sewer, etc.);
- Securing permits, licenses and title searches (fees for permits, licenses and titles issued directly by the applicant are not eligible unless it can be demonstrated that the fees are above and beyond administrative costs);
- Demolition of disaster-damaged outbuildings such as garages, sheds and workshops determined to be unsafe.

Ineligible costs include:

- Removal of slabs or foundations, except in very unusual circumstances, such as when disaster-related erosion under slabs on a hillside causes an immediate public health and safety threat;
- Removal of pads and driveways.

Structures condemned as safety hazards before the disaster are not eligible for demolition and debris removal under Public Assistance grant authority.

The following issues might be encountered by an applicant during the private property demolition process:

- After a disaster, it can be very difficult to contact property owners. However, the owners must be contacted so that a signed Right of Entry Form can be obtained. Recommended ways of contacting property owners include registered mail, publishing notices in local papers and posting notices on the structure itself.

  It is important to document all attempts to contact the property owners. An individual file

for each structure should be created containing copies of all communications and dated photographs of notices posted on structures.

The Right of Entry Form should include:
- The address of the structure and current address of the owner;
- A clause that holds harmless the federal, state and local government from all activities related to the demolition;
- A questionnaire to determine if the owner of the structure is insured or if any grants have been received to fund the demolition. This is important to avoid duplication of benefits.

- The state's historical preservation office should be contacted in writing to find out if the structures slated for demolition have any historic value. Return correspondence should be put in the project's file.

- Depending on the geographical location and age of the structure(s), during demolition contractors may encounter hazardous materials such as fuel oil tanks, propane tanks, asbestos or lead paint. An environmental review may be required. An abatement plan should be established before starting demolition to ensure that the contractors and/or general public are not exposed to dangerous substances. If there are hazardous substances in the structures, the contractor must have the appropriate OSHA certifications to ensure that the correct personal protective equipment is worn and debris is disposed of in an appropriate and legal manner.

- In order to ease concerns about safety, air (and in rare instances, soil) monitoring equipment can be set up in the demolition areas.

- Having uniformed fire and police personnel at the scene of the demolition will help ensure public safety. Prior to the start of a demolition, fire or police personnel can ensure that the structure is clear of animals or humans.

- Especially for the initial demolitions, a viewing area should be designated to accommodate the spectators who will probably want to witness the buildings being razed. FEMA, state, local, historical and environmental officials as well as members of the media could be among those in the viewing audience.

- A communications officer should be at the site during the demolition process to handle media questions.

- The owner of the structure will often request that the contractor attempt to save items in the structure as it is demolished. It is important to have a predetermined plan for removal of such items.

Private property demolition is one of the most complicated areas of reimbursable work under FEMA's Public Assistance Program. One of the best tools available to applicants is the Demolition Checklist found in Appendix F of the *FEMA 325 Debris Management Guide*.

Special Handling Requirements

Regardless of the triggering event, debris has the potential to contain regulated material that could require special handling to comply with federal, state and local regulations. If the debris is not handled and disposed of properly, it is possible that penalties will be imposed that could lead to the denial of FEMA funding.

Common types of debris requiring special handling are:
- C&D debris if it contains lead paint or asbestos;
- Paint cans, gas, solvents and other hazardous materials;
- Computers, televisions and other electronic components and supplies ("e-waste");
- Stoves, refrigerators and other major appliances ("white goods"). [Refrigerators, in particular, can quickly become bio-hazards due to decomposing organic materials stored in them, along with the refrigerant gas in their operating systems.

Decomposing food and refrigerants must be removed prior to disposal.]

Moving to Long-Term Recovery

Following the emergency response phase — or after enough debris has been cleared for streets to be re-opened — it is time to develop a long-term debris recovery strategy. A commonly used approach is to divide the disaster area into grids and then establish a timeline for debris-removal passes.

These debris-removal passes should be widely publicized to ensure that property owners and volunteers know when more space will open up on the right-of-ways. When creating the timeline, an end date for the passes should be projected and then discussed with state and FEMA project specialists.

Procurement

While FEMA typically does not have hands-on involvement in the debris-removal process, the agency does bring in debris specialists to ensure that debris removal is conducted in accordance with FEMA policy.

One task performed by a FEMA debris specialist, assigned to an applicant organization, is a thorough review of debris-removal contracts to determine —

1) If the contracts were properly procured and
2) If the costs are reasonable.

Procurement in accordance with policy[4] is required, and the burden of action and proof for proper procurement of debris contracts falls on the applicant. Pre-disaster selection and procurement of debris contractors helps to ensure adequate compliance. The debris-removal operation is onerous in itself, so it is better to have the proper procurement process in place, should disaster occur. It will also expedite the start of the debris-removal process following a disaster.

How Debris-Removal Contractors Work

There are two main types of debris-removal contractors — local and national. Each has its advantages and disadvantages:

- Local contractors are able to mobilize quickly, but might not have the equipment to conduct large-scale debris removal.
- National contractors might take longer to mobilize, but can often supply more specialized equipment, such as self-loading trucks. Many times they can also provide disaster-experienced personnel.

Types of Contracts

There are many types of debris-removal contracts, however, due to the uncertainties associated with debris (different types and amounts, location, etc.) a unit price contract is generally the best.

If an emergency process is used for selecting a contractor, it is still important that proper procurement procedures be followed and that the aforementioned considerations in establishing a pre-disaster plan be applied. When requesting bids and/or quotes, the approximate quantity of debris and the disposal location(s) should be specified and the following should be obtained:

- The unit price per cubic yard or ton
- Mobilization time and cost
- References and proof of insurance

It is a good idea to specify the type and size of equipment to be used. Also to be considered is whether the contractor should be required to obtain bid and performance bonds.

Additionally, the contract should address salvage. Large amounts of woody debris, for example, can sometimes be sold to an energy company or to a landscaping company to be converted into mulch. Selling the debris not only helps offset the removal cost, it also eliminates tipping fees which can be the most expensive element of debris removal.

If there is salvage, the contract should address which party is entitled to it. The contract should also specify who will pay the tipping fees and if the contractor is to be reimbursed for them. Tipping fees charged by the disposal location(s) should not be marked up.

It is also important that the contract address liability for damages caused during the debris removal. Contractors might be unable to see fire hydrants,

water stop boxes, etc. The contract must address how damage will be assessed and reimbursed.

Finally, the contract must include a termination clause.

Be Aware

Immediately after a disaster strikes, debris-removal contractors might start to contact the applicant to solicit work. Occasionally, some contractors claim connections to — or certifications from — FEMA that *do not exist!*

The contractors might volunteer to supply a "FEMA-approved contract at FEMA rates." Be aware that FEMA does not distribute approved contracts or set rates. All contracts should be carefully reviewed by the applicant's purchasing department and legal counsel. A very useful resource is *FEMA RP9580.201,* which contains detailed information on contracts and has sample bid sheets for debris-removal operations.

Monitoring Required

FEMA requires that all contracted debris removal be monitored to avoid fraud or waste. An applicant's employees can be trained to be debris monitors or outside assistance can be hired (using appropriate procurement methods) from sources who have special expertise in debris monitoring.

The monitors will keep track of trucks in the field and set up inspection stations at the disposal areas. At these stations load tickets should be issued, recording such data as the time, truck number, contents, load size and where the debris was picked up. For more details on this see *FEMA Fact Sheet 9580.203,* titled *Debris Monitoring.*

Debris Management Starts Before a Disaster Strikes

Taking the time to formulate a detailed debris management plan *before* a disaster strikes helps to identify and resolve potential issues that might arise ahead of time, without the pressure and time constraints that would be faced in the immediate aftermath of a disaster. Furthermore, if a disaster does occur, having a careful plan to follow minimizes response times and maximizes recovery efforts.

Elements to include in the plan:
1) Designate disposal or staging areas;
2) Address any permitting issues;
3) Publish a prioritized list of routes that need to be cleared;
4) Document how debris monitoring will be done.

Elements to include in requests for bids/proposals:
1) Specify the type of equipment, e.g., self-loading trucks;

"Be aware that FEMA does not distribute approved contracts or set rates."

2) State how salvage will be handled;
3) Specify how damage will be assessed and reimbursed;
4) Request estimated response time(s);
5) Denote the unit cost per ton or cubic yard;
6) Specify the disposal site(s);
7) Specify what insurance and bonding are required;
8) Ask for references — with contact information.

If There Is No Debris-Management Plan …

If a disaster strikes and there is no debris-management plan in place, an applicant has several options:

- Using force account labor (i.e., an applicant's own employees) for the debris removal; however, only overtime labor is eligible for FEMA reimbursement.
- Utilizing a mutual aid agreement with the state or local governments. Each mutual aid agreement is different, consequently, FEMA funding will depend on the terms and conditions of the agreement.
- Hiring a contractor to perform debris removal. When a debris contractor is used, FEMA will reimburse a percentage of the eligible cost as long as proper procurement procedures have been followed.
- Checking to see if the debris is the responsibility of a government agency. For example, removing debris from a Federal Highway Administration road is not eligible for FEMA funding and the United States Army Corps of Engineers might be responsible if the debris is in a navigable waterway.
- The state can make a formal request to FEMA asking that a federal agency be "Mission Assigned" to provide technical assistance and also perform debris removal. There are several requirements before a Mission Assignment will be made, including that "... the required disaster-related efforts exceed State and local resources."[5] This option should be discussed very early on with FEMA and your disaster-recovery partners.

Conclusion

When a disaster strikes a community, it is almost certain that some form of debris will be generated and that its removal will be required. From the initial clearing of vegetative debris off roads to accommodate emergency vehicles, to the demolition of severely damaged private homes and other structures, having a well-thought-through debris-management plan can help ensure compliance with FEMA's Public Assistance Program and, therefore, reimbursement for debris management and removal expenses.

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[1] *FEMA 325 Debris Management Guide*, Page 43, Published 2007
[2] *FEMA Disaster Assistance Policy 9523.14*, Page 2, Published 2007
[3] *FEMA 325 Debris Management Guide*, Page 147, Published 2007
[4] CFR 44 §13.36
[5] *FEMA 325 Debris Management Guide*, Page 142, Published 2007

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