

Lessons Learned: Plan for Managing Disaster Debris

The following suggestions for disaster debris planning are based on insights from community officials who recently have experienced a major natural disaster.

Make a long-term debris management plan

Every community consulted suggested increasing existing emergency planning to include long-term debris management. Because natural disasters can generate tremendous quantities of debris, communities should plan for the worst case. Any plan should include a detailed strategy for debris collection, temporary storage and staging areas, recycling, disposal, hazardous waste identification and handling, administration, and dissemination of information to the public. Distribute the plan and work with personnel from each agency to ensure that the plan can be implemented quickly and smoothly. Review the plan at least once a year, and revise it as needed. For example, outdated forms, such as time sheets and materials tracking forms, may need to be replaced.

Consider mutual aid arrangements

Mutual aid arrangements allow communities to quickly access specialized personnel or equipment on a short-term basis. Usually the host community pays the expenses for the personnel as well as any maintenance or repair costs for equipment. These agreements can be developed for a local geographic area or can extend to communities in other states. The agreements can be formal or informal.

Implement recycling programs

Implementing a plan for recycling disaster debris is much easier if a community already has a recycling program in place. Permitting, enforcement, collection, processing, and marketing issues already will have been largely resolved. After a disaster, the community will be faced with expanding current recycling practices rather than designing and implementing new practices. It is much easier to expand existing capacities and markets than to start these endeavors in the wake of a disaster.

Update the community's solid waste management plan

It is important that a community's solid waste management plan reflect current practices and policies, especially those that apply in disaster situations. The plan is an official document that often is filed with the state, and when regional solid waste services or facilities are involved, a copy often is provided to neighboring communities as well. It also can be beneficial to share the plan with private contractors and other community agencies (e.g., fire and police) that in the event of a disaster would be involved with solid waste management services. Should a disaster occur, supporting

The Northridge Earthquake



agencies would find the plan useful because it describes established practices and policies, as well as the types, locations, and capacities of existing solid waste recycling and disposal facilities. Reflecting current practices and policies, the plan also would serve as a resource document in negotiating technical and financial assistance with FEMA and other agencies.

Develop a communication strategy

Prepare a communication strategy ahead of time. Government officials will need to tell the community when, where, and how trash collection will resume, as well as provide special instructions for reporting and sorting disaster debris. Many communities have prepared radio announcements and flyers as part of the emergency plan. Depending on the type and severity of the natural disaster, however, a community might lose electricity, telephone service, radio broadcasting capability, or newspaper service. Therefore, communities should prepare for more than one method of communication. Discuss with local media companies the use of free advertising time and space to communicate instructions in the event of a disaster.

Prepare for increased outreach and enforcement staffing needs

In the aftermath of a natural disaster, waste management staff must handle an increased number of telephone calls and requests concerning waste removal. Communities need more staff to train and monitor debris collection contractors, enforce disposal restrictions, and help solve implementation problems. Identify sources of temporary labor and, if your community is culturally diverse, consider the use of a multilingual telephone bank.

Obtain equipment and supplies

Identify in advance the types of equipment and supplies that your crews will need to implement the plan. Plan for quick procurement of these items through mutual aid agreements or standing contracts, or consider stockpiling this equipment. If stockpiling is too expensive for

one community alone, perhaps the state could stockpile the equipment.

Types of equipment that a community might need include chain saws, portable generators, cellular phones, flashlights, batteries, vehicle repair equipment (flat tires occur more often because of glass and metal debris in roads), and extra work clothing. A local government that routinely stores drinking water (e.g., for its solid waste collection crews) might want to make sure that water supplies are well-stocked during the hurricane or flood season.

Select collection and storage sites

The most common suggestion from communities that have experienced natural disasters is to pre-select debris staging sites that will be used for temporary storage and processing of debris. Convenient local sites allow collection crews to reduce travel time when transferring debris to processing or disposal facilities and result in faster street clearing. Site operators can sort debris for recycling or disposal, as well as answer questions from the public. These sites can be used to store green waste before transferring it to another facility, or they can be used to chip and mulch green waste on site. Communities also can use these sites to distribute free mulch or wood to the public.

Select the sites based on planned activities, such as staging, collection, storage, sorting, recycling, landfilling, and burning of debris. Pre-selection of sites speeds the implementation of the debris management plan. Also consider access to heavy equipment, lack of impact on environmentally sensitive areas, and convenience to collection routes. Investigate possible impacts on adjacent housing, since the sites could produce noise at levels deemed unacceptable by residents or attract rodents that may carry disease. Evaluate and document the condition of these sites prior to use. The government agencies involved will be responsible for returning these sites to their original condition. Be sure to establish agreement on the schedule for return of the property to the owners and the degree of rehabilitation to the property.

If residents will be asked to bring disaster debris to collection sites, your community should include these locations in its disaster communication strategy, so that information is

immediately available to the public in the event of a disaster. Schedules and staffing plans for these sites should take into account that the busiest times for residents dropping off home-related debris are likely to be evenings and weekends.

Determine management options and goals

Any disaster debris management plan should include a disposal strategy. Communities need to set priorities for recycling wastes and determine the desired disposal options for the remaining waste.

Segregate hazardous waste

Be prepared to segregate hazardous from nonhazardous disaster debris; otherwise your community might be forced to dispose of the combined waste as hazardous waste. Monitor collected business waste to be certain it does not meet the definition of hazardous waste. Waste handlers must understand these requirements as well as have a plan for controlling and diverting the hazardous waste from the debris stream.

Prepare contracts

Determine what equipment and staff resources your community needs in the event of a disaster. Any assistance that will not be provided by state and other local governments must be obtained through contracts. If contracted work seems likely at the state or community level, consider bidding an emergency contract, as is commonly done for snow removal. The request for proposals (RFP) may include service for debris collection, storage, sorting, processing, marketing, and disposal. Investigate FEMA reimbursement policies and ensure that the terms described in the RFP are likely to meet FEMA and state requirements in the event that your community qualifies for federal or state reimbursement.

Plan for FEMA and state reimbursement

Consider staffing needs to meet the record-keeping requirements for FEMA reimbursement of disaster debris management costs. Some states reimburse some costs even if the disaster does not qualify for federal reimbursement funds. Discuss recordkeeping requirements with your state emergency planning agency. Your community, particularly if it is small, might benefit from identifying in advance people who have experience in obtaining reimbursement.

The Midwest Floods

