Planning for Disaster Debris

U.S. Environmental Protection Agency

Office of Solid Waste

About This Guide

This guide highlights the need for communities to plan for the cleanup of debris after a major natural disaster. Based on lessons learned from communities that have experienced such disasters, this guide contains information to help communities prepare for and recover more quickly from the increased solid waste generated by a natural disaster.

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Introduction

Every year natural disasters, such as fires, floods, earthquakes, hurricanes, and tornadoes, challenge American communities. These natural disasters have generated large amounts of debris, causing considerable disposal challenges for local public officials. If you answer yes to any of the following questions, your community could benefit from the advice and information presented in this guide.

- Is your community at risk of significant damage from a natural disaster?
- Does your emergency plan ignore disaster debris cleanup or rely on open burning or unengineered burial of the debris?
- Has your community updated its solid waste management[1] plans with recycling policies that are not included in your emergency response plan?
- Does your emergency plan need updating to reflect recent changes in the community's solid waste management practices and facilities (e.g., landfill closures, new recycling programs, or regionalization of services)?

In the past, debris from disasters was simply buried or burned in the community. As demonstrated by recent disasters, burying or burning debris as a means of waste management may not be acceptable. Citizens do not want to inhale the smoke from open burning. Municipalities do not want to risk contamination of drinking water and soil from uncontrolled burial of debris. Under normal circumstances, much municipal solid waste is recycled. The remainder is disposed of in sanitary landfills or in sophisticated combustors, both of which are equipped with devices to control pollutants. Often, however, these standard waste disposal options are not sufficient to handle the overwhelming amount of debris left after a disaster. Further adding to the disposal dilemma is the fact that many municipalities are reluctant to overburden or deplete their existing disposal capacity with disaster debris.

Any community likely to be faced with significant debris from a natural disaster should develop a debris management plan. To facilitate coordination, this plan could be a specific task under the community's general emergency plan. This guide, based on experiences of other communities, suggests some helpful planning considerations. It describes steps a community can take to prepare for dealing with the waste created by natural disasters and to speed recovery after such disasters. It also describes ways communities can reduce the burden on their municipal solid waste management systems in the event of a natural disaster.

This guide does not provide all the tools a planner will need to write a debris management plan, however. The development of a disaster debris management plan usually requires input from neighboring communities, state officials, local contractors, and a variety of local agencies. This guide is intended to help a planner begin the development process.

Hurricane Andrew

[1] In this guide, the term "solid waste management" refers to all phases of nonhazardous solid waste removal and handling, including collection, transportation, sorting, processing, recycling, reduction, combustion, and landfilling.