



U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

Enforcement and Compliance

EPA Has Developed Guidance for Disaster Debris but Has Limited Knowledge of State Preparedness

Report No. 16-P-0219

June 29, 2016



This is one of our products associated with EPA oversight of states authorized to implement environmental programs. The Office of Inspector General cited absence of robust oversight of states as one of the EPA's key fiscal year 2015 management challenges. For details go to our [report on management challenges](#).

Report Contributors:

Alisha Chugh
Steve Hanna
Tina Lovingood
Nirvair Stein

Abbreviations

C&D	Construction and Demolition
EPA	U.S. Environmental Protection Agency
ESF	Emergency Support Function
GAO	U.S. Government Accountability Office
OIG	Office of Inspector General
OLEM	Office of Land and Emergency Management
ORCR	Office of Resource Conservation and Recovery
USACE	U.S. Army Corps of Engineers

Cover photo: Aftermath of the May 22, 2011, tornado in Joplin, Missouri. (EPA photo)

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At a Glance

Why We Did This Review

We evaluated whether the U.S. Environmental Protection Agency's (EPA's) Office of Land and Emergency Management (OLEM) has worked with appropriate federal agencies and verified states have planned for disaster debris management.

The EPA published *Planning for Natural Disaster Debris* guidance in 2008 in response to a U.S. Government Accountability Office report recommendation. The document was developed to provide detailed guidance to state and local entities involved with managing debris disposal after a disaster, to better ensure protection of public health and the environment, and to prevent the creation of future Superfund sites.

This report addresses the following EPA goals or cross-agency strategies:

- Addressing climate change and improving air quality.
- Cleaning up communities and advancing sustainable development.
- Ensuring the safety of chemicals and preventing pollution.

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Listing of [OIG reports](#).

EPA Has Developed Guidance for Disaster Debris but Has Limited Knowledge of State Preparedness

What We Found

The EPA has worked with other federal agencies in response to natural disasters. However, according to EPA staff, the agency has limited information on the types of, volumes of and disposal sites for disaster debris that is not hazardous waste.

Disaster debris can contain an unsegregated mixture of hazardous and solid waste debris that may ultimately fall under EPA regulatory authority. By obtaining information on the types of, volumes of and disposal sites for disaster debris, the EPA is positioned to communicate and help guide the management of potential risks to humans and the environment.

OLEM has not determined that states have planned for disaster debris management consistent with EPA guidance. Based on interviews with all 10 EPA regional offices, we found that, except for Regions 4 and 5, EPA regions are unaware of the status or content of state disaster debris plans, and do not know whether the plans address the components defined in the EPA's 2008 guidance.

According to the EPA, states are not federally required to develop debris management plans, and the EPA has no authority to ensure that states have adequate plans or that they follow their plans during a disaster response. However, without determining the adequacy of state plans, the EPA cannot assess states' readiness to manage disaster debris, and scenarios where disaster debris is not managed or disposed of in an environmentally sound manner could result. The EPA's effectiveness in helping communities to become more resilient to the effects of climate change and extreme weather events could be impacted, which is also an element of the agency's climate change adaptation plans.

EPA Regions 4 and 5 have examples of good practices for disaster debris management. Region 4 established a team to provide disaster debris assistance to states. Region 5 developed a disaster debris website that includes links to state plans and guidance within the region.

Recommendations and Planned Agency Corrective Actions

We recommended that OLEM establish procedures for EPA regions to obtain available information for the types, volumes and disposal sites for disaster debris in future disasters. We also recommended that OLEM develop a plan to provide assistance to states to address the major elements identified in EPA guidance. The EPA agreed with all recommendations and provided planned corrective actions and completion dates. All recommendations are resolved.

Debris from natural disasters has contributed to contamination of at least one Superfund site, which has cost the EPA an estimated \$55 million. The EPA can reduce the risk of future unsafe debris disposal practices by improving its understanding and awareness of the quality and completeness of state disaster debris management plans.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

June 29, 2016

MEMORANDUM

SUBJECT: EPA Has Developed Guidance for Disaster Debris but Has Limited Knowledge of State Preparedness
Report No. 16-P-0219

FROM: Arthur A. Elkins Jr.

A handwritten signature in black ink, appearing to read "Arthur A. Elkins Jr.", is written over the printed name.

TO: Mathy Stanislaus, Assistant Administrator
Office of Land and Emergency Management

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). The project number for this evaluation was OPE-FY15-0012. This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The Office of Resource Conservation and Recovery within the Office of Land and Emergency Management is responsible for the issues noted in this report.

Action Required

In accordance with EPA Manual 2750, your office provided planned corrective actions in response to the OIG recommendations. All recommendations are considered resolved. You are not required to provide a written response to this final report because you provided agreed-to corrective actions and a planned completion date for the report recommendations. Should you choose to provide a final response, we will post your response on the OIG's public website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal along with corresponding justification.

We will post this report to our website at www.epa.gov/oig.

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Chapter 1

Introduction

Purpose

The U.S. Environmental Protection Agency (EPA), Office of Inspector General (OIG), conducted this evaluation to determine whether the EPA's Office of Land and Emergency Management (OLEM) has worked with appropriate federal agencies and verified states have planned for disaster debris management.

Background

Disasters Can Create Large Volumes of Debris

Natural disasters in the United States can create enormous volumes of debris that should be rapidly managed. Examples of debris volume include:

- Hurricane Andrew (1992), more than 43 million cubic yards.
- Hurricane Katrina (2005), more than 100 million cubic yards.
- Joplin, Missouri, tornado (2011), more than 1.5 million cubic yards.
- Hurricane Sandy (2012), more than 5 million cubic yards.

Disaster preparedness and response is performed at all levels of government. Federal, state and local agencies segregate the debris, to the extent feasible, and manage the segregated debris through disposal or recycling. Segregated debris has been placed into the following categories in prior disasters:



Searching for hazardous containers among Hurricane Sandy's debris. (EPA photo)

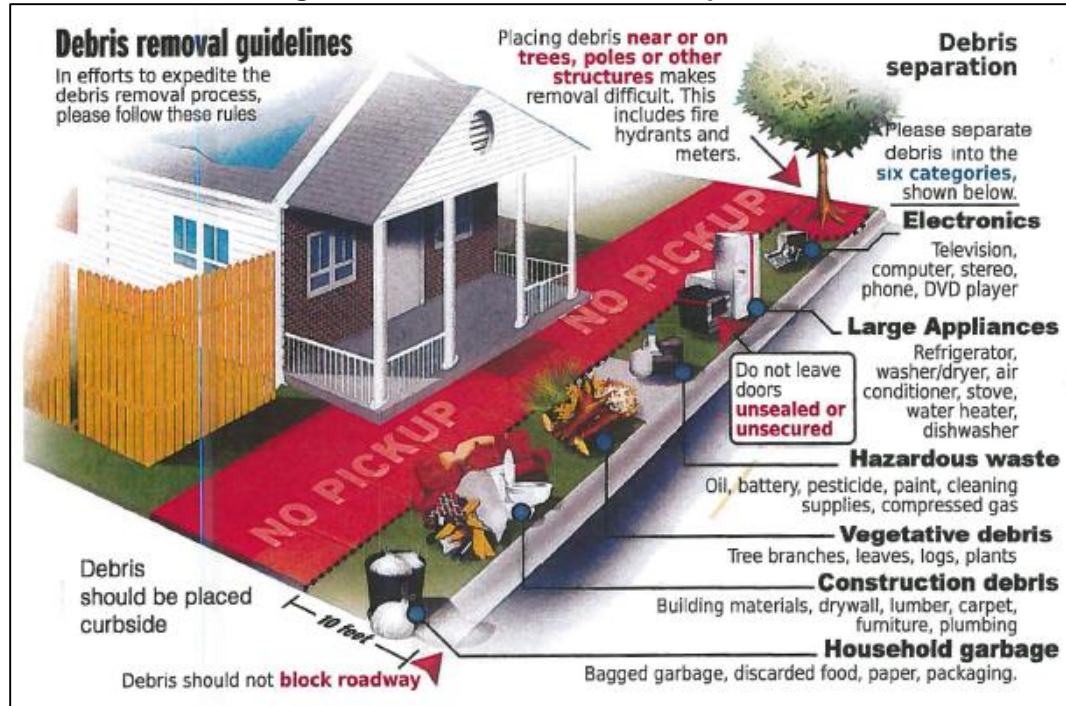


Household hazardous waste. (EPA photo)

- Municipal solid waste (e.g., typical household garbage or trash).
- Construction and demolition (C&D) debris (e.g., building materials such as drywall, lumber, carpet and plumbing).
- Vegetative debris (e.g., trees, branches, shrubs and logs).
- Household hazardous waste (e.g., oil, pesticides, paints and cleaning agents).
- White goods (e.g., refrigerators, freezers, washers, dryers, stoves, etc.).
- Electronic waste (e.g., computers, televisions, stereos, etc.).

Instructions for separation of debris appear in the following infographic.

FEMA debris removal guidance distributed after the Joplin, Missouri, tornado



Source: Federal Emergency Management Agency.

EPA's Responsibilities for Coordinating Disaster Debris Management

The EPA has a role in responding to certain types of natural disasters. Information found on the EPA's web page titled "[EPA's Role in Emergency Response](#)" states:

EPA's emergency response program responds to chemical, oil, biological, and radiological releases and large-scale national emergencies, including homeland security incidents. EPA provides support when requested or when state and local first responder capabilities have been exceeded. Through coordinating and implementing a wide range of activities, EPA conducts removal actions to protect human health and the environment. This is done by either funding response actions directly or overseeing and enforcing actions conducted by potentially responsible parties.

States, not the EPA, have primary responsibility for managing nonhazardous solid waste. According to the EPA's *Resource Conservation and Recovery Act (RCRA) Orientation Manual 2014*, "EPA regulates hazardous solid wastes and may authorize states to do so. Nonhazardous solid waste is predominately regulated by state and local governments."

In addition, the U.S. Department of Homeland Security's *National Response Framework* serves as a guide to how the nation responds to all types of disasters and emergencies. This framework defines 15 emergency support functions (ESFs). The federal government and many state governments organize their response resources and capabilities under the ESF system. Each ESF is composed of a department or agency that has been designated as the ESF coordinator, along with a number of primary and support agencies. Following a natural disaster, the EPA can have responsibilities for disaster debris response under two of the following ESFs:

- **ESF #3, Public Works and Engineering.** Addresses managing contaminated debris and waste through debris removal and disposal operations. The U.S. Army Corps of Engineers (USACE) is the ESF coordinator for this function, with the EPA serving as a supporting agency. The EPA's role includes providing assistance to state solid waste agencies regarding municipal solid waste landfills and C&D landfills.
- **ESF #10, Oil and Hazardous Materials Response.** Addresses the cleanup of oil and hazardous materials. According to the EPA, this role includes storage, treatment and disposal of oil and hazardous materials, including contaminated debris. It also includes monitoring debris disposal. The EPA is the ESF coordinator for this function. EPA responsibilities under this ESF include:
 - Coordinating support in response to an actual or potential discharge and/or release of oil or hazardous materials.
 - Environmental assessment of the nature and extent of oil and hazardous materials contamination.
 - Environmental decontamination and cleanup.

EPA Includes Disaster Debris Management in Its Climate Change Adaptation Plans

In the EPA's 2014 Climate Change Adaptation Plan, the agency specifically recognized disaster debris management as a potential vulnerability in its climate change planning efforts by stating: "Increased frequency and intensity of extreme weather events may affect EPA's capacity to manage debris and respond to emergencies."

Draft climate change adaptation plans have been developed by OLEM and all EPA regions. The OLEM plan, and many of the regional plans, also identify potential disaster debris issues or vulnerabilities associated with climate change and identify actions to address the issues. Observations of vulnerabilities identified in these climate change adaptation plans include:

- More powerful storms may increase debris volumes.
- Current waste management capacity may be inadequate for both hazardous and solid wastes.

- Current regional debris management plans may rely on historical climate assumptions and may not address the increasing uncertainty in climatic extreme events.
- Siting of staging areas for debris management and segregation may be difficult due to flooding and other conditions that may affect usable land space.

Actions proposed to address the vulnerabilities identified in climate change adaptation plans are to:

- Finalize a Four-Step Waste Management Planning Process document.
- Incorporate climate change impacts into debris management plans.
- Develop a database/resource guide for reuse and recycling of disaster debris.
- Conduct outreach with states and municipalities to encourage development of disaster debris management plans.
- Work with states to assess landfill capacity for surges in disposal of hazardous and municipal waste generated by extreme storm events.
- Maintain and improve available information on managing disaster debris to support planning and emergency response.

Responsible Office

The Office of Resource Conservation and Recovery (ORCR) within OLEM is responsible for the subjects covered in this report.

Scope and Methodology

We conducted our work from December 2014 to April 2016. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed the EPA's March 2008 guidance, *Planning for Natural Disaster Debris*. We also reviewed the climate change adaptation plans for OLEM and all EPA regions. In addition, we reviewed the EPA's 2014 Policy Statements on Climate Change Adaptation. Further, the *National Response Framework* was reviewed, as well as other reports and documents on natural disasters, including Hurricane Katrina; Hurricane Sandy; and the 2011 Joplin, Missouri, tornado.

We interviewed EPA staff and management in two OLEM offices: ORCR and the Office of Emergency Management. We also interviewed EPA emergency response staff in all regions, staff of the USACE, and staff from selected state agencies.

Prior Report

The U.S. Government Accountability Office (GAO) identified concerns about disaster debris management in its 2007 report, *Hurricane Katrina: EPA's Current and Future Environmental Protection Efforts Could Be Enhanced by Addressing Issues and Challenges Faced on the Gulf Coast*. In the 2007 report, the GAO recommended that the EPA:

Provide more detailed guidance to state and local entities on managing debris disposal following disasters to better ensure protection of public health and the environment and prevent the creation of future Superfund sites. This guidance should address the selection of landfill sites for disaster debris, including advance selection of potential landfill sites, and practices to consider when making special accommodations for debris disposal in emergency situations.

In response to the GAO recommendation, the EPA published *Planning for Natural Disaster Debris* in 2008. The guidance identified possible components of a debris management plan, including:

- Identify debris types and forecast amounts.
- Identify inventory of current capacity.
- Develop debris tracking mechanisms.
- Pre-select debris storage sites.
- Create a communication plan.
- Create a debris prevention and removal strategy.

Chapter 2

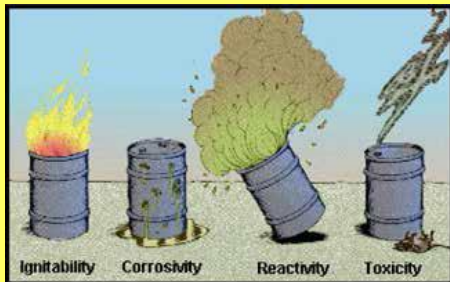
EPA Has Limited Knowledge of Disaster Debris and State Planning Efforts

The EPA has worked with other federal agencies in responses to natural disasters. However, according to EPA staff, the agency has limited information on the types of, volumes of and disposal sites for disaster debris that is not hazardous waste.

Hazardous Waste

According to the EPA, hazardous waste includes waste that exhibits at least one of four characteristics:

- **Ignitable** – Can readily catch fire.
- **Corrosive** – Acidic or alkaline.
- **Reactive** – Unstable under “normal” conditions.
- **Toxic** – Harmful or fatal when ingested or absorbed.



(EPA image)

The EPA also lists specific wastes as hazardous, including wastes from specific industrial processes, industries, and discarded commercial chemical products. Treatment, storage and disposal of hazardous wastes must be managed in facilities permitted by the EPA or delegated state programs.

Disaster debris can contain an unsegregated mixture of hazardous and solid waste debris that may ultimately fall under EPA regulatory authority. By obtaining information on the types of, volumes of and disposal sites for disaster debris, the EPA is positioned to communicate and help guide the management of potential risks to humans and the environment.

OLEM has not determined that states have planned for disaster debris management consistent with EPA guidance. Based on our interviews with all 10 EPA regional offices, we found that, except for Regions 4 and 5, EPA regions are unaware of the status or content of state disaster debris plans, and do not know whether the plans address the components defined in the EPA’s 2008 guidance.

According to the EPA, states are not federally required to develop debris management plans, and the EPA has no authority to ensure that states have adequate plans or that they follow their plans during a disaster response. However, without determining the adequacy of state plans, the EPA cannot assess states’ readiness to manage disaster debris, and scenarios where disaster debris is not managed or disposed of in an environmentally sound manner could result. The EPA’s effectiveness in helping communities become more resilient to the effects of climate change and

extreme weather events could be impacted, which is also an element of the EPA’s climate change adaptation plans.

EPA Regions 4 and 5 have examples of good practices for disaster debris management. Region 4 established a team to provide disaster debris assistance to states. Region 5 developed a disaster debris website that includes links to state plans and guidance within the region.

EPA Coordinates With Other Federal Agencies but Has Incomplete Knowledge of the Volume or Disposal of Disaster Debris

While the EPA directly oversees the management of hazardous waste from natural disasters under ESF #10, the agency has only a support role in the management of other debris types under ESF #3. Debris not readily characterized as hazardous waste is managed under ESF #3 and has USACE oversight. Segregated nonhazardous debris is managed by state and local governments under EPA regulations for nonhazardous solid waste, and state regulations for other waste such as C&D and vegetative debris.

However, some debris cannot be readily segregated and is considered mixed debris. According to the EPA's 2008 guidance, "Mixed debris typically includes a mixture of all types of debris. Due to its diversity, this debris stream is sometimes



A debris field that resulted from a Hurricane Katrina storm surge through a residential neighborhood in Waveland, Mississippi. (EPA OIG photo)

too mixed for cost-effective segregation." In particularly powerful weather events, such as Hurricane Katrina, it can be virtually impossible to segregate much of the debris. One state staff person we interviewed agreed that complete segregation of mixed debris is difficult, as illustrated in the adjacent photo.

States may allow the disposal of mixed debris in C&D landfills. The regulatory requirements for C&D landfills are established by states, and criteria vary from state to state. For example, some states require a synthetic liner at all C&D landfills, while other states do not.

In disaster situations, demands for increased debris disposal capacity may lead to emergency siting of C&D landfills, which could be subject to less stringent siting requirements. For example, the Mississippi Department of Environmental Quality worked with local governments to site 13 new landfills to accommodate Hurricane Katrina debris. In addition to requiring a subsequent siting review to ensure protection of the environment, the Mississippi Department of Environmental Quality installed groundwater monitoring systems to detect the contamination of groundwater.

With the exception of segregated hazardous waste, the EPA has no information on the types of, volumes of and disposal sites for disaster debris. EPA regional staff we interviewed had no information on debris volumes or disposal sites from Hurricane Katrina, Hurricane Sandy, or the Joplin tornado, except for segregated hazardous waste.

The EPA does not have primary authority for nonhazardous debris management under the *National Response Framework*, and there are no requirements for the agency to track nonhazardous debris. However, the USACE has information available on the volumes of nonhazardous debris generated from natural disasters, and the disposal sites used for such debris. The USACE said it would readily provide the information to the EPA, if requested.

The EPA’s 2014 Policy Statements on Climate Change Adaptation states that the EPA will coordinate with other federal agencies on climate change adaptation challenges that cut across agency jurisdictions. The policy also states that to improve the efficiency and effectiveness of a combined federal effort, the EPA will coordinate its activities with other federal agencies when working in the same communities. Coordination with the USACE to acquire information on the types, volumes and disposal destinations of disaster debris facilitates EPA awareness of, and ability to manage, potential risks from debris disposal. These risks can include groundwater contamination.

At least one site on the EPA’s Superfund National Priorities List (see sidebar), and one contaminated C&D landfill, contain debris from natural disasters. In a 2011 report, the GAO estimated the EPA had spent about \$55 million to clean up the Superfund site.

**Agriculture Street Landfill
Superfund Site**

According to the EPA:

“The Agriculture Street Landfill site is located in New Orleans, Louisiana. A dump began operating on site in 1909, when the City of New Orleans phased out the dumping of municipal wastes and trash into various nearby canals and the Mississippi River. The landfill remained in use until the city constructed its Florida Avenue and Seventh Street incinerators in 1957. The landfill reopened in 1965 for one year for use as a burning and disposal area for debris from Hurricane Betsy. Facility operations contaminated soil and groundwater with hazardous chemicals. Following cleanup, operation and maintenance activities and monitoring are ongoing.”

EPA Has Not Determined the Existence or Adequacy of State Disaster Debris Management Plans

The EPA has published disaster debris management guidance and has identified disaster debris management as a potential vulnerability in its climate change planning efforts. According to the EPA, states are not federally required to develop debris management plans, and the EPA has no authority to ensure that states have adequate plans or that they follow their plans during a disaster response. However, despite the recognition of the importance of planning for disaster debris management, OLEM has not determined that states have planned for disaster debris management consistent with EPA guidance.

EPA Has Not Determined the Adequacy of State Disaster Debris Management Plans

During interviews with staff from all 10 EPA regions, we found that most EPA regions were unaware of the status of debris management plans for all of the states in their regions, and were unaware of any existing plans to address the criteria defined in the 2008 EPA guidance. One exception was Region 5 staff, who had knowledge of planning efforts for all of the states in the region. In addition, Region 4 staff stated that although all of the states in the region may not have formal disaster debris plans, the states have done some form of disaster debris planning.

OLEM issued the disaster debris guidance in 2008, but it has not determined or requested that EPA regions verify the status of state disaster debris management plans. OLEM could provide no documentation of directions given to EPA regions accompanying the 2008 guidance. Further, several staff we interviewed in EPA regions could not recall receiving any OLEM communications meant to verify the existence and adequacy of state disaster debris management plans.

EPA Regions 4 and 5 Have Established Good Practices to Assist States With Their Management of Disaster Debris

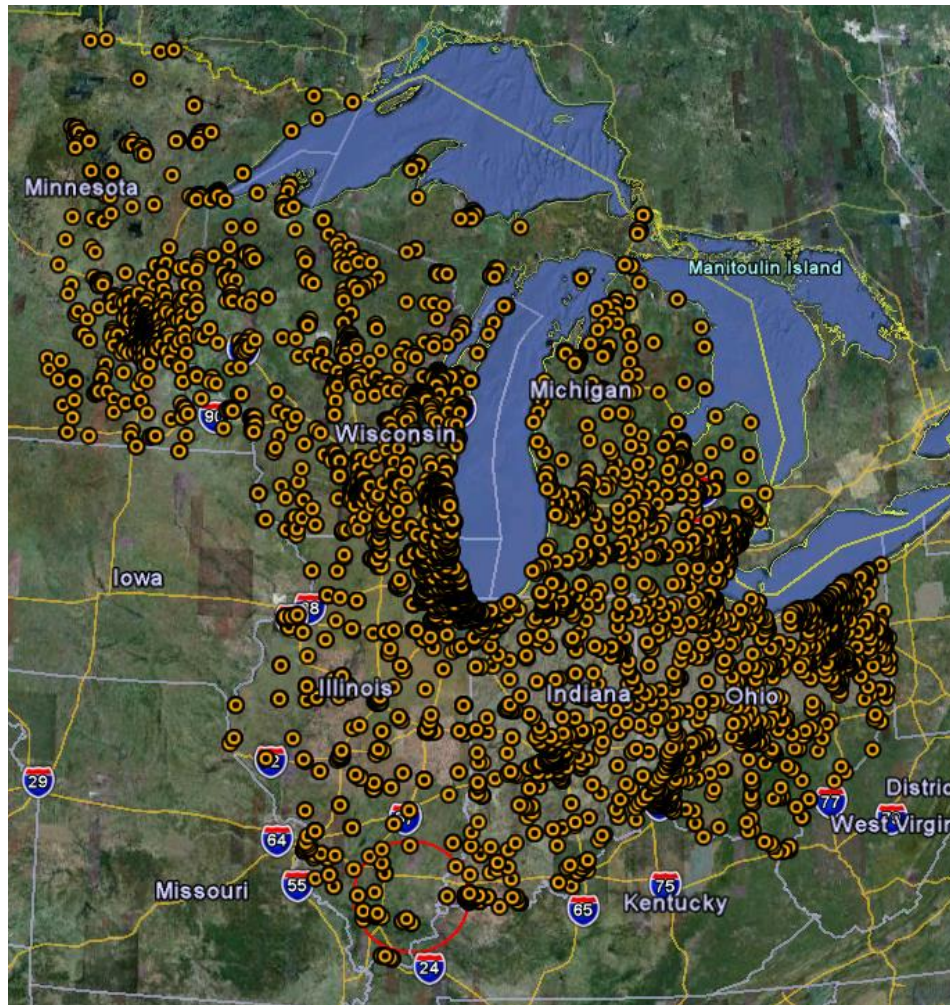
Region 4 staff said all of their states have done some form of disaster debris planning, although the states may not have formal debris management plans. Region 4 staff also said they have knowledge of some of their states' disaster debris management programs, such as the one in Florida. In the aftermath of Hurricane Katrina, the region developed a Landfill Specialty Team consisting of 11 Region 4 Resource Conservation and Recovery Act staff. The purpose of the team is to provide assistance to state and local governments, and assure proper management and disposition of disaster debris with a focus on proper segregation and land disposal practices. The team provides pre-incident support that includes training, evaluation of states' needs, and sharing of pertinent information. The team also provides post-incident support, including assistance with hydrogeologic assessments of proposed landfill sites and establishing monitoring protocols. The team provides additional hands-on EPA assistance through the team's support of ESF #3.

EPA Region 5 staff also addressed disaster debris management with states in the region. [Region 5's Disaster Debris Management](#) website includes links to disaster debris management information for all states in Region 5. In addition, Region 5 has identified more than 3,700 facilities within the region that could receive disaster debris. These facilities include hazardous waste, solid waste and C&D landfills, as well as haulers, composters and demolition contractors. The following state plans and guidance appear as links on Region 5's website:

- Illinois Disaster Recovery Plan, September 2011.
- Indiana Disaster Mitigation and Recovery.

- Michigan Disaster Debris Management Plan, April 2008; and Local Disaster Debris Management Planning Handbook, April 2008.
- Minnesota Disaster Management Handbook, March 2010.
- Ohio Debris Management.
- Wisconsin - Coping with Cleanup.

Region 5 also developed an interactive mapping tool that can be used to identify the closest facilities in the event of a disaster, as shown in the following image.



Map image of Region 5 disaster debris facilities derived from mapping tool. Each dot represents a facility. (EPA image)

Conclusions

Mixed disaster debris may contain hazardous substances if adequate segregation is not done or is not feasible. While the EPA coordinates with USACE to manage hazardous waste debris, the agency currently does not track nonhazardous debris. Doing so will augment the EPA's ability to identify, communicate and assist with managing risks in partnership with states and under the agency's own authority.

In response to a recommendation from the GAO 2007 report, the EPA invested in the development of disaster debris management guidance for states. More recently, the EPA has recognized the need to include disaster debris as a vulnerability in many of the agency's climate change adaptation plans. For example, OLEM's draft June 2013 Climate Change Adaptation Plan states:

Current waste management capacity, including interim capacity, may be insufficient to handle surges in necessary treatment and disposal of hazardous and municipal wastes, as well as mixed wastes generated from climate events.

Investments and effort by the EPA to develop guidance with the goal of enhancing environmental protection, aiding risk management, and increasing the public's ability to effectively adapt and respond to extreme or catastrophic weather events will not be effective without an assessment of state progress on disaster debris planning. The extent to which states are prepared for a disaster could be largely influenced by the completeness of individual state plans.

Recommendations

We recommend that the Assistant Administrator for Land and Emergency Management:

1. Establish and implement procedures for EPA regions to obtain available natural disaster debris information from the U.S. Army Corp of Engineers for future natural disaster responses. Information obtained should include the types, volumes and disposal sites for solid waste and mixed disaster debris for possible EPA follow-up and monitoring.
2. Develop and implement a plan to provide assistance to all states on developing disaster debris management plans that address the major elements identified in EPA's guidance.

Agency Response and OIG Evaluation

The agency agreed with Recommendation 1. The agency initially disagreed with Recommendation 2 but agreed to a revised recommendation. All recommendations are resolved. The agency provided corrective action plans with milestone dates for all recommendations. Based on the agency's response, all recommendations are open with corrective actions underway. Appendix A contains the agency's response to our draft report and planned actions to address our recommendations. We reviewed the agency's technical comments and made revisions to the report as appropriate.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed-To Amount
1	11	Establish and implement procedures for EPA regions to obtain available natural disaster debris information from the U.S. Army Corp of Engineers for future natural disaster responses. Information obtained should include the types, volumes and disposal sites for solid waste and mixed disaster debris for possible EPA follow-up and monitoring.	O	Assistant Administrator for Land and Emergency Management	9/30/16		
2	11	Develop and implement a plan to provide assistance to all states on developing disaster debris management plans that address the major elements identified in EPA's guidance.	O	Assistant Administrator for Land and Emergency Management	9/30/17		

¹ O = Recommendation is open with agreed-to corrective actions pending.
 C = Recommendation is closed with all agreed-to actions completed.
 U = Recommendation is unresolved with resolution efforts in progress.

Agency Response to Draft Report

(Dated May 3, 2016)

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report No. OPE-FY15-0012
“EPA’s Limited Knowledge of Disaster Debris Preparedness Impedes
Implementation of Effective Risk Management and Climate Change Adaptation
Plans,” dated April 4, 2016

FROM: Mathy Stanislaus
Assistant Administrator
Office of Land and Emergency Management

TO: Arthur A. Elkins, Jr.
Inspector General

Thank you for the opportunity to respond to the issues and recommendations in the subject audit report. Following is a summary of the agency’s overall position, along with its position on each of the report recommendations. For those report recommendations with which the agency agrees, we have provided high-level intended corrective actions and estimated completion dates to the extent we can. For those report recommendations with which the agency does not agree, we have explained our position, and proposed alternatives to recommendations. For your consideration, we have included a Technical Comments Attachment to supplement this response.

AGENCY’S OVERALL POSITION

EPA agrees that natural disaster debris should be managed in a way that protects human health and the environment. Therefore, EPA has developed resources to help states plan for disaster debris and create pre-incident waste management plans, which should include potential waste streams and their volumes and pre-identified waste management sites and facilities. In addition, EPA is developing additional resources to encourage and help states plan for disaster debris. However, the states are not federally required to develop debris management plans, and EPA has no authority to ensure that states have adequate plans or that they follow their plans during a disaster response.

AGENCY’S RESPONSE TO REPORT RECOMMENDATIONS

Agreements

No.	Recommendation	High-Level Intended Corrective Action(s)	Estimated Completion by Quarter and FY
1	Establish and implement procedures for EPA regions to obtain available natural disaster debris information from the U.S. Army Corp of Engineers for future natural disaster responses. Information obtained should include the types, volumes and disposal sites for solid waste and mixed disaster debris for possible EPA follow-up and monitoring.	ORCR will establish and implement procedures to obtain available natural disaster debris information (e.g., types, volumes, and disposal sites for solid waste and mixed disaster debris) from the U.S. Army Corp of Engineers on future natural disasters. Procedures will address making this information available to the regions.	End of 4 th Quarter FY16

Disagreements

No.	Recommendation	Agency Explanation/Response	Proposed Alternative
2	Develop and implement a plan to ensure that all states have addressed the major elements identified in EPA guidance.	EPA agrees that states should develop adequate debris management plans, but EPA has no authority to “ensure” that states have disaster debris management plans or, if the plans exist, that they have addressed the major elements identified in EPA guidance or are followed during incident responses.	By end of 1 st quarter FY17, EPA will develop and implement a plan to work with FEMA to incorporate EPA guidance on disaster debris into FEMA’s debris management guidance and training for state and local officials. This plan will also include how EPA will work with ASTSWMO to identify how ASTSWMO can encourage that all states have addressed the major elements identified in EPA guidance.

OIG Response: ORCR and OIG have agreed to a revised definition and corrective action for Recommendation 2. The revised recommendation is: “Develop and implement a plan to provide assistance to all states on developing disaster debris management plans that address the major elements identified in EPA’s guidance.” The revised corrective action is: “By end of 4th quarter FY17, EPA will develop and implement a plan to work with FEMA [Federal Emergency Management Agency] to incorporate EPA guidance on disaster debris into FEMA’s debris management guidance and training for state and local officials. This plan will also include how EPA will work with ASTSWMO [Association of State and Territorial Solid Waste Management Officials] to provide assistance to all states to address the major elements identified in EPA guidance on disaster debris planning and to increase EPA regional awareness of state planning efforts. The plan will also describe how EPA will provide assistance to states on pre-incident all-hazards waste management planning as it implements assistance on disaster debris planning.”

CONTACT INFORMATION

If you have any questions regarding this response, please have a member of your staff contact Kim Kirkland of the Office of Resources Conservation and Recovery on (703) 308-0490.

Attachment

cc: Barry Breen
Nitin Natarajan
Barnes Johnson
Kathleen Salyer
Ross Elliott
Kim Kirkland
Deana Nisbett
Kecia Thornton

Distribution

Office of the Administrator
Assistant Administrator for Land and Emergency Management
Agency Follow-Up Official (the CFO)
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Director, Office of Resource Conservation and Recovery, Office of Land and
Emergency Management
Audit Follow-Up Coordinator, Office of Land and Emergency Management