



Highlights of GAO-07-651, a report to congressional committees

June 2007

## HURRICANE KATRINA

# EPA's Current and Future Environmental Protection Efforts Could Be Enhanced by Addressing Issues and Challenges Faced on the Gulf Coast

### Why GAO Did This Study

In 2005, Hurricane Katrina's impact on the Gulf Coast included damage to the environment from chemical and hazardous materials releases. Also, the widespread demolition and renovation activities still under way in New Orleans may release asbestos fibers into the air, posing a potential additional health risk. This report, conducted at the Comptroller General's initiative, addresses (1) the Environmental Protection Agency's (EPA) actions to assess and mitigate Katrina's environmental impacts, (2) the extent to which EPA has assurance that public health is protected from asbestos inhalation risks in New Orleans, (3) the extent to which EPA's environmental health risk communications provided useful information to the public, and (4) challenges EPA faces in addressing environmental impacts.

### What GAO Recommends

GAO recommends that EPA develop an asbestos air monitoring plan for New Orleans, improve its communications on environmental risks for future disasters, and take steps to address several challenges EPA has faced. EPA agreed with all but one recommendation, commenting that other agencies should address the challenge of obtaining timely funding for the removal of hazardous materials from federal lands after disasters. GAO modified its recommendation to include additional relevant agencies with which EPA should work to address the problem GAO identified.

[www.gao.gov/cgi-bin/getrpt?GAO-07-651](http://www.gao.gov/cgi-bin/getrpt?GAO-07-651).

To view the full product, including the scope and methodology, click on the link above. For more information, contact John Stephenson at (202) 512-3841 or [stephensonj@gao.gov](mailto:stephensonj@gao.gov).

### What GAO Found

Under challenging circumstances, EPA worked with federal and state partners to respond to chemical and oil spills, collect abandoned chemical containers, coordinate recycling of damaged appliances, and collect and recycle electronic waste. EPA also conducted air, water, sediment, and soil sampling; helped assess drinking water and wastewater infrastructures; and issued timely information to the public on a variety of environmental health risks.

However, as cleanup continues, EPA's assurance that public health is protected from risks associated with inhalation of asbestos fibers is limited because the agency has not deployed air monitors in and around New Orleans neighborhoods where demolition and renovation activities are concentrated. While EPA took steps to monitor asbestos after the hurricane—for example, more than doubling the number of ambient (outdoor) air monitors and monitoring emissions at debris reduction sites—monitors were not placed in areas undergoing substantial demolition and renovation, such as the Ninth Ward. This is problematic because monitors effectively detect releases of asbestos from demolition activities only if they are located immediately adjacent to demolition sites. Further, many thousands of homes being demolished and renovated by or for individual homeowners are generally not subject to EPA's asbestos emissions standards aimed at limiting releases of fibers into the air.

While EPA provided useful environmental health risk information to the public via flyers, public service announcements, and the EPA Web page, the communications were at times unclear and inconsistent on how to mitigate exposure to some contaminants, particularly asbestos and mold. Further, the usefulness of three key reports on EPA's environmental sampling in New Orleans—developed with, among others, the Louisiana Department of Environmental Quality to address potential health risks from exposure to floodwaters, sediments, and air—was limited by a lack of timeliness and insufficient disclosures about EPA's sampling program. For example, EPA did not state until August 2006 that its December 2005 report—which said that the great majority of the data showed that adverse health effects would not be expected from exposure to sediments from previously flooded areas—applied to short-term visits, such as to view damage to homes.

Mitigating several challenges EPA faces addressing Hurricane Katrina could better protect the environment in the future. First, EPA did not remove hazardous materials from national wildlife refuges in a timely manner as part of its response in part because disaster assistance funding generally is not used for debris cleanups on federal lands. Second, because states generally have authority over landfill decisions, EPA does not have an effective role in emergency debris disposal decisions that could cause pollution. Finally, lack of clarity in federal debris management plans and protocols precluded the timely and safe disposal of some appliances and electronic waste.