



OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Evaluation Report

EPA's and Mississippi's Efforts to Assess and Restore Public Drinking Water Supplies after Hurricane Katrina

Report No. 2006-P-00011

February 14, 2006



Report Contributors:

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Abbreviations

CDC	Centers for Disease Control and Prevention
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
OIG	Office of Inspector General
PCIE	President's Council on Integrity and Efficiency
TCR	Total Coliform Rule

Cover photo: Damaged pump station located near the Gulf Coast in Biloxi, Mississippi.
EPA OIG photo.



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

This review was conducted in conjunction with the President's Council on Integrity and Efficiency as part of its examination of relief efforts provided by the Federal Government in the aftermath of Hurricanes Katrina and Rita. We conducted this evaluation to assess the Environmental Protection Agency's (EPA's) and the State of Mississippi's efforts to ensure that the public was provided with safe drinking water after Katrina.

Background

On August 29, 2005, Hurricane Katrina, a Category 3 hurricane on the Saffir-Simpson scale, made landfall on the Mississippi coast. Katrina devastated the Gulf Coast of Mississippi and rendered many public water systems inoperable. As a result of the hurricane, 585 of the State's 1,368 public water systems were placed under a boil water notice because of potentially contaminated drinking water.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2006/20060214-2006-P-00011.pdf

EPA's and Mississippi's Efforts to Assess and Restore Public Drinking Water Supplies after Hurricane Katrina

What We Found

While we did not assess the extent to which drinking water-related communications were received and understood by the public, the information we reviewed indicated that the Mississippi Department of Health and drinking water system operators provided the public with timely and accurate information about the safety and proper treatment of public drinking water supplies. On August 31, 2005, less than 48 hours after Katrina made landfall, the Department of Health issued a blanket boil water notice for all public water systems in the State's six most impacted counties located in the coastal region of Mississippi.

Mississippi's process for determining the safety of drinking water appeared adequate to support the determinations made. EPA Region 4 provided both technical and logistical support to Mississippi in making these determinations. This support included, but was not limited to, providing Mississippi with a mobile laboratory to perform sample analysis, and providing personnel to help courier samples to the labs for analysis. Disease monitoring after Hurricane Katrina indicated that drinking water supplies were not a source of bacteriological contamination. Neither EPA, the Mississippi Department of Health, nor local water system operators we spoke with had identified or heard of occurrences of waterborne illnesses or diseases from drinking contaminated public water supplies in the 2 months following Hurricane Katrina.

With assistance from EPA and others, the State had assessed the operating status of all but 10 of the State's 1,368 public water systems by September 15, 2005, about 2 weeks after Katrina. These systems serve approximately 3.1 million people in Mississippi. While considerable progress has been made in assessing the operational status of the 1,368 public water systems in Mississippi and bringing damaged facilities back on-line, considerable work remains to restore the drinking water infrastructure to pre-Katrina conditions. Mississippi officials estimated public water system replacements and repairs due to Hurricane Katrina will cost approximately \$235 million.

Our review did not identify any conditions requiring corrective actions and no recommendations are made.



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

THE INSPECTOR GENERAL

February 14, 2006

MEMORANDUM

SUBJECT: EPA's and Mississippi's Efforts to Assess and Restore
Public Drinking Water Supplies after Hurricane Katrina
Report No. 2006-P-00011

TO: Benjamin H. Grumbles
Assistant Administrator for Water

James I. Palmer, Jr.
Regional Administrator, EPA Region 4

This memorandum transmits the results of an Office of Inspector General (OIG) evaluation regarding our observations of EPA's and Mississippi's efforts to assess and restore public drinking water supplies after Hurricane Katrina. The evaluation did not identify any conditions requiring corrective actions and no recommendations are made. This report represents the opinion of the OIG and the findings contained in this report do not necessarily represent the final EPA position. Our observations regarding the effectiveness of the process used by EPA and Mississippi to ensure safe drinking water is limited to the public water systems we reviewed.

The Agency agreed with our observations and did not provide any comments to our draft report. The Agency's response to our report can be found in Appendix A. Since our report made no recommendations, no further action is required.

We appreciate the efforts of EPA and Mississippi officials and staff in working with us to develop this report. If you or your staff have any questions regarding this report, please contact me at (202) 566-0847, or Carolyn Copper, Acting Assistant Inspector General for Program Evaluation, at (202) 566-0829.

Sincerely,


Nikki L. Tinsley

Attachment

cc: Steve Johnson, Administrator
George M. Gray, Ph.D., Assistant Administrator for Research and Development
Ann Klee, General Counsel
Mike Mason, Audit Followup Coordinator, Office of Water
Stephanie Lankford, Audit Followup Coordinator, EPA Region 4
Rick Linthurst, Acting Deputy Inspector General for Planning, Audit, and Evaluation, OIG
Carolyn Copper, Acting Assistant Inspector General for Program Evaluation, OIG
Mark Bialek, Counsel, OIG

Purpose

The President's Council on Integrity and Efficiency (PCIE), a group of Federal audit and investigative organizations, is conducting multiple audits, evaluations, and investigations of the Federal Government's response to Katrina. This review was conducted in conjunction with the PCIE as part of its examination of relief efforts provided by the Federal Government in the aftermath of Hurricanes Katrina and Rita. As such, a copy of the final report will be forwarded to the PCIE Homeland Security Working Group which is coordinating Inspectors General reviews of this important subject. As a member of the PCIE, the Environmental Protection Agency (EPA) Office of Inspector General evaluated several issues related to EPA's response. One of these evaluations was to assess EPA's efforts to ensure that the public was provided with safe drinking water after Katrina. Our objectives were to answer the following questions:

1. Were people in areas affected by the hurricane provided with timely and accurate information about the safety and proper treatment of their drinking water?
2. What is EPA's process for determining that water treatment facilities are providing safe drinking water, and does this process appear adequate to support these determinations?
3. Have any waterborne illnesses or diseases from drinking contaminated water been identified, and if so, what steps were taken to identify and mitigate the contaminated water source?
4. What progress has been made in assessing the operational status of drinking water systems and what is the process for getting damaged facilities back on-line?
5. Did EPA follow its emergency response protocols, including those lessons learned from the World Trade Center and its responsibilities, as delineated in the National Response Plan, to ensure the public had access to safe drinking water?

This report addresses questions 1-4 for actions in the State of Mississippi. We plan to address questions 1-4 for actions in the State of Louisiana and question 5 in future reports.

Scope and Methodology

To determine the processes EPA and the State of Mississippi used to assess the status of the public water systems, determine the potability of public drinking water supplies, and communicate the status of the public water systems to the public, we interviewed officials and reviewed relevant documentation from EPA's Office of Water in Washington, DC; EPA Region 4's Water Management Division in Atlanta, Georgia; the Mississippi State Department of Health in Jackson, Mississippi; and selected public water systems in Mississippi.

We tested compliance with these processes at four judgmentally selected public water systems in Mississippi (Bay St. Louis, Biloxi, Hattiesburg, and Pascagoula). We visited each of these

systems and interviewed plant operators; toured their drinking water facilities and/or source water wells for each of the four public water systems; reviewed onsite records, including water quality sampling data and emergency response plans; and reviewed public communications concerning the safety of the drinking water.

Our review focused on community water systems (i.e., public water systems that serve at least 25 year-round residents) that were impacted by Hurricane Katrina.¹ We categorized these public water systems by the type of impact suffered from Katrina, ranging from loss of power and water pressure to significant structural damage. From these different categories we selected systems serving a large population relative to the other systems in the same damage category. We also considered the location of the systems and avoided selecting more than one system from the same county. Using the above criteria we selected the following systems for review:

Table 1: Summary of Impacted Public Water Systems Selected for Review

Water System	Damage Incurred	Population Served *
City of Hattiesburg	Lost power and water pressure	48,000
City of Pascagoula	Lost power and water pressure; some flooding from the storm surge in treatment plants; 4 feet of flood water in one plant and 1 to 2 feet of flood water in another	38,428
City of Biloxi	Lost power and pressure; storm surge flooded pumps and wells and severely damaged parts of the distribution system	25,889
City of Bay St. Louis	Lost power and pressure; all water system equipment, including wells and pumps, were completely covered by the storm surge; many leaks in the distribution lines	8,350

* Numbers represent pre-Katrina population served.

Since the public water systems we reviewed were not randomly selected, our observations regarding the effectiveness of the process used by Mississippi and EPA to ensure safe drinking water are limited to the four public water systems we visited.

We conducted this evaluation in accordance with *Government Auditing Standards*, issued by the Comptroller General of the United States.

Observations

Under extremely challenging circumstances, EPA Region 4 drinking water officials and their Mississippi counterparts have taken extraordinary and commendable efforts to ensure that public water service was restored, and to provide potable drinking water as soon as possible after Hurricane Katrina. Mississippi State officials quickly contacted local officials to assess the damage and assisted in providing equipment to repair the impacted water systems. Local plant operators and other officials at the sites we visited remained at their locales, quickly assessed their situations after the hurricane, and took the actions necessary to provide safe drinking water despite being personally impacted by the storm. The State responded with the public's safety in

¹ We did not review the effectiveness of operations to provide the public with alternative water supplies (e.g., bottled water) while public water systems were inoperable.

mind by issuing an immediate blanket boil water notice for coastal water systems, and the State did not allow these notices to be lifted until testing in accordance with EPA requirements confirmed that the drinking water was free from bacterial contamination. Since we did not identify any issues requiring the immediate attention of EPA or Mississippi officials, this report does not contain any recommendations.

1. Were people in areas affected by the hurricane provided with timely and accurate information about the safety and proper treatment of their drinking water?

While we did not assess the extent to which drinking water-related communications were received and understood by the public, the information we reviewed indicated that the Mississippi Department of Health and public water system operators provided the public with timely and accurate information about the safety and proper treatment of the drinking water.

Under the Safe Drinking Water Act, States may apply to EPA for "primacy," or authority to implement and enforce the Act within their jurisdictions, if they can show that their drinking water standards will be at least as stringent as the national standards. They also must assure that water systems meet these standards. EPA granted Mississippi primacy for its drinking water program in 1977. Accordingly, the Mississippi Department of Health and the local public systems operators were responsible for ensuring the safe operation of public water systems, and for issuing notices (i.e., boil water notices) regarding the safety and proper treatment of drinking water after Katrina.

A standard mechanism for alerting the public to a potential problem with the public water supply is a boil water notice. These notices are issued to inform the public to boil their water in order to prevent health impacts from drinking water potentially contaminated with bacteria. These health impacts can include nausea, diarrhea, and for some susceptible populations, death.

On August 31, 2005, less than 48 hours after Katrina made landfall, the Department of Health issued a blanket boil water notice for all public water systems in the State's six most impacted counties located in the coastal region of Mississippi.² It issued this notice as a precaution because of the widespread damage incurred in that area. According to State and EPA officials, the State placed other systems in the State on boil water notices if, after a preliminary assessment, it determined that the system had experienced a loss of power or pressure, or was not capable of properly treating the water. In accordance with its established procedures for issuing boil water notices, the Department of Health's public relations office issued the notices to radio stations, television stations, and newspapers, and posted the notices on the Department of Health's Web site.

In addition to the blanket boil water notice issued by the State Department of Health for the coastal region, local officials also issued boil water notices to the public in their communities. Since the storm severely damaged and impacted normal communications systems, the local public water systems had to employ various methods to get their boil water notices to the public. We were able to verify some of these local system communications. For example, Biloxi city

² Counties included George, Hancock, Harrison, Jackson, Pearl River, and Stone.

officials printed newsletters dated September 3 and 4, 2005, that asked the citizens to not drink the water or flush their toilets. The newsletters were distributed at emergency distribution centers, city facilities, businesses, and churches in the first week of September. The City of Hattiesburg also prepared flyers notifying the population that a boil water notice was in effect, and information on the boil water notice was aired on a Hattiesburg television station on September 1, 2005. An EPA Region 4 Public Health Service officer deployed to the area immediately after Katrina told us that radio announcements regarding the need to boil drinking water were frequently broadcasted on the local radio stations.

Lifting any system's boil water notice had to be approved by the State Department of Health in accordance with EPA's sampling criteria under the Total Coliform Rule (issued June 29, 1989). For the four systems we reviewed, all systems had passed the State's requirements before the boil water notice was lifted.

2. What is EPA's process for determining that water treatment facilities are providing safe drinking water, and does this process appear adequate to support these determinations?

The State's process for determining the safety of drinking water appeared adequate to support the determinations made. At the State's request, EPA provided logistical and technical support to the State during this process. This support included, but was not limited to, providing Mississippi with a mobile laboratory to perform sample analysis, and providing personnel to help courier samples to the labs for analysis. EPA depended on information provided by the State of Mississippi after Hurricane Katrina as the basis for its determination that safe drinking water was provided to Mississippi residents.

Any boil water notices issued after Katrina could only be lifted by the State Department of Health. For a system to be taken off a boil water notice, the operator had to show that the system could maintain continuous power and adequate water pressure, was properly disinfecting the water, and that the drinking water had no coliform contamination based on two consecutive days of sampling. The sampling and technical requirements for the coliform testing were generally in accordance with EPA's Total Coliform Rule (TCR), which requires all public water systems to test for total coliform on a monthly basis at pre-determined sampling sites throughout the distribution system. Under the TCR, the size of the population served by the system determines the amount of sampling required. The number of samples required to lift the boil water notice was conveyed to each affected system when the State contacted them after the event. For Katrina, two consecutive days of 100-percent clean samples had to be obtained before a boil water notice was lifted. In this regard, the criterion used after Katrina was stricter than the TCR, which allows for 5 percent or less of the samples to test positive.

The process for lifting boil water notices was followed in each of the four systems we reviewed. However, in some areas the previously identified normal total coliform sampling locations were destroyed or not accessible and alternative sampling sites had to be chosen. In addition to the sampling required to lift the Katrina-related boil water notices, the public water systems also continued to conduct their regularly scheduled total coliform monthly sampling after the boil water notices were lifted. For the public water systems in the four cities we reviewed, a total of

582 samples testing for total coliform were taken and analyzed during the months of September and October 2005. If a positive total coliform sample was identified, the sample was then analyzed for *Escherichia coli* (also known as *E. coli*). Only 3 of the 582 samples (.5 percent) were positive for total coliform, and in each case *E. coli* was not present. Also, the local agencies resampled at the sites where the positive samples were taken until they obtained clear samples on consecutive days. Water systems operators told us that the test for total coliform is very sensitive and that they believed the positive readings may have been due to sampling or sample handling errors and not contamination in the system. We verified the accuracy of the sample results reported to the State Department of Health by reviewing the original sampling data sheets for all four systems we visited.

The procedures discussed above were not designed to detect the presence of chemicals or other contaminants in the water that could cause health problems from drinking water over a longer period. However, Mississippi and EPA public water officials told us they were not concerned about potential long-term health risks resulting from chemical or other contamination in Mississippi's drinking water after Katrina for three reasons. First, they explained that the vast majority of source water in Mississippi comes from underground aquifers, and that in the hardest hit coastal regions of Mississippi, these aquifers maintain positive pressure, meaning that flood water should not have infiltrated the source water. To corroborate their explanation, we reviewed hydrologic maps showing that coastal systems in the State receive source water from positive pressure groundwater aquifers generally ranging from about 250 to about 1,100 feet deep. Second, the total coliform test is a good indicator of whether the drinking water system has been contaminated by any substance; a negative sample result provides reasonable assurance that substances other than coliform did not enter the system. As noted above, 99.5 percent of the samples taken in the 2 months following Katrina were negative. Third, the routine sampling required by the Safe Drinking Water Act is designed to detect contaminants that could create health problems from prolonged exposure. The State will be sampling for these contaminants in early 2006 and increased, targeted monitoring will be completed if problems are identified.

EPA Region 4 appropriately fulfilled its role of oversight and technical assistance to the State, helping where it could add value, and leaving the implementation role to the State. Mississippi State and local public water system officials we contacted were pleased and complimentary of the way EPA fulfilled its oversight and technical assistance role after Hurricane Katrina.

3. Have any waterborne illnesses or diseases from drinking contaminated water been identified, and if so, what steps were taken to identify and mitigate the contaminated water source?

Neither EPA, the Mississippi Department of Health, nor local water system operators we spoke with had identified or heard of occurrences of waterborne illnesses or diseases from drinking contaminated water in the 2 months following Hurricane Katrina. In accordance with its role and responsibilities under the National Response Plan, the U.S. Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) monitors areas for outbreaks of disease and illnesses after a disaster. A CDC Morbidity and Mortality Weekly Report Dispatch dated September 26, 2005, noted that CDC had received reports of clusters of diarrheal disease

among persons in evacuation centers but that “three weeks after the initial displacement caused by Katrina, few cases of diarrheal disease were being reported.”

The Mississippi State epidemiologist provided us with data on the State’s health monitoring after Katrina. This data indicated a higher rate of gastrointestinal illnesses in the first weeks after the hurricane for people living in shelters, as was reported by CDC. However, the State epidemiologist confirmed that no diarrheal outbreaks or related illnesses had been traced to public drinking water supplies.

EPA, State, and local officials told us that bottled drinking water was plentiful for residents. Also, water system operators in the coastal regions we visited told us that most residents were familiar with hurricane procedures and already were aware that they should boil their water after a hurricane as a precaution to prevent illnesses.

4. What progress has been made in assessing the operational status of drinking water systems and what is the process for getting damaged facilities back on-line?

Considerable progress has been made in assessing the operational status³ of the 1,368 drinking water systems in Mississippi and bringing damaged facilities back on-line. These systems serve approximately 3.1 million people. With assistance from EPA and others, the State had assessed the operating status of all but 10 of the State’s 1,368 public water systems by September 15, 2005, approximately 2 weeks after Katrina. At that time, 200 of the original 585 systems that had been placed under boil water notices were still under boil water notices because of damage incurred from Katrina, and 63 systems were not operating. By September 29, 2005, nearly a month after Hurricane Katrina, only 106 public water systems were under boil water notices and 34 public systems were not operating. The following schedule shows the significant progress made to bring impacted systems back on-line.

Table 2: Progress of Impacted Public Water Systems in Mississippi

Date	Number of Systems Operating Statewide before Katrina	Number of Systems Impacted by Katrina *	Number of Systems Still on Boil Water Notice, by Date	Number of Systems Still Not Operating, by Date
8/28/05	1,368	--	--	--
9/15/05	1,368	585	200	63
9/29/05	1,368	585	106	34
10/17/05	1,368	585	84	30
12/02/05	1,368	585	40	16

* Number of systems placed under a boil water notice as a result of Katrina.

Assessing the initial status of the State’s public water systems was a significant endeavour as 1,358 systems were contacted either by phone or in person within 2 weeks after the storm. The 10 systems for which the State was unable to contact an operator were small transient (e.g., rest

³ The term “operational” means that the drinking water system has sufficient power and pressure to put water into the distribution system, but not that all pre-Katrina customers were receiving water.

areas) or seasonal (e.g., campgrounds) systems. EPA Region 4 personnel arrived at the State Office in Jackson, Mississippi, on August 30, 2005, to assist in this effort. Eventually EPA helped the State obtain over 40 Public Health Service engineers to help conduct these assessment efforts.

Getting facilities back on-line (i.e., providing water to customers through the distribution system) after the storm required acquiring emergency resources such as generators, fuel, and treatment chemicals. These resources were generally obtained through the Federal Emergency Management Agency (FEMA), with EPA Region 4's assistance, or in some cases through other organizations such as the Rural Water Association or other States.

Many systems have already repaired or replaced, or will need to repair or replace, damaged infrastructure to bring their systems completely back on-line. FEMA's Public Assistance Program provides financial assistance to publicly-owned water systems for this purpose. EPA Region 4 personnel have played a major role in helping Mississippi's public water systems obtain this assistance. EPA Region 4 contacted FEMA and obtained a mission assignment to help the State's publicly-owned water systems assess their damage, and obtain and prepare the necessary documentation to apply for assistance under this program.

As of December 2, 2005, 40 public systems were still on boil water notices; 16 systems remained inoperable because the facilities were destroyed or the customers have left. The Director of the Mississippi Bureau of Public Water Supply told us that many of the inoperable systems may never become operational again and that, presently, there is no way to know whether these systems will ever be rebuilt. The Director also noted that some of the systems considered operational are serving only a small percentage of their pre-Katrina customers. The system operators we spoke to in these areas raised concerns about the future availability of funds to repair or maintain their systems. Because of the widespread destruction of homes and businesses, and the resulting displacement of residents, these cities' tax revenues have been significantly reduced.

Estimating the funding that will be needed to repair the systems is difficult. According to the Director of the Mississippi Bureau of Public Water Supply, several preliminary cost estimates have been done, but it is difficult for individual systems to make assessments while "chasing behind debris trucks fixing leaks."⁴ Therefore, estimates to date are based on general data and are considered preliminary and quite rough. The Director told us that a system-by-system survey of damage and associated costs would be needed to obtain accurate damage assessments. According to the Director, the largest issue facing public water systems that are back in service is replacing meters, meter boxes, valves, and related materials at individual connections where homes were destroyed. Table 3 on the next page provides more information on Mississippi's estimate of its drinking water infrastructure needs.

⁴ As trucks clear debris, fire hydrants and water meters are often torn out of the ground, causing leaks that must be repaired to allow the system to operate.

Table 3: Estimate of Infrastructure Needs for Mississippi Drinking Water Systems, November 2005

Category	Description of Infrastructure Need	Estimated Number Needed	Rough Estimate of Costs
Coastal counties (167 out of 185 systems impacted)	Wells needing rehabilitation	221 wells	\$27,600,000
	Wells needing replacement	87 wells	34,800,000
	Tanks needing rehabilitation	110 tanks	11,000,000
	Tanks needing replacement	2 tanks	600,000
	Miles of distribution system needing replacement	1,282 miles	68,000,000
	Replacement of meters, meter boxes, valves, etc.	1/3 of coastal population	23,300,000
	Repair or replace 48 compromised wells on 43 public water supply systems that do not meet minimum design criteria.	48 wells	19,200,000
Serve residents on private wells with public water supply consisting at a minimum of 2 wells at \$400,000 each, 1 elevated storage tank at \$300,000, about 50 miles of distribution system at \$2,640,000, and 900 meters/boxes/valves at \$500 each.	900+	4,190,000	
	<i>Sub-total: Coastal County Needs</i>		\$188,690,000
Non-coastal counties (387 systems impacted)	Repair/replacement of impacted wells and systems	387	\$46,000,000
Katrina Related-Drinking Water Infrastructure Needs	Total: Coastal and Non-Coastal Counties		\$234,690,000

In addition to approximately \$235 million in costs to replace and repair damage due to Hurricane Katrina, an estimated \$248 million is needed for infrastructure repairs to meet new Safe Drinking Water Act standards for disinfection by-products. Thus, the estimate of Mississippi's total drinking water infrastructure needs as of mid-November 2005 is about \$483 million.

MEMORANDUM

SUBJECT: *Response to Draft Evaluation Report on EPA's and Mississippi's Efforts to Assess and Restore Public Drinking Water Supplies after Hurricane Katrina, Assignment No. 2005-001748*

FROM: Benjamin H. Grumbles
Assistant Administrator

TO: Nikki Tinsley
Inspector General

Thank you for the opportunity to comment on your Office's draft report, *EPA's and Mississippi's Efforts to Assess and Restore Public Drinking Water Supplies after Hurricane Katrina*. The hurricanes which struck the Gulf Coast region last fall were significant, not only in their effects, but in the response they required from the local to the federal levels. We are proud of the efforts made by personnel from utilities, state programs, non-governmental organizations and our own employees in working to restore drinking water services after the storm.

The Agency is very appreciative of the cooperative approach used by the Inspector General's (IG) Mississippi Drinking Water Team during the investigation of Region 4's response to Katrina. The many details of the Agency's response to assist the State of Mississippi and its public water systems, along with the duration of the response, made it critically important for Region 4 to actively participate in the investigation. It was clear that Region 4's presence with the IG Team during the State interview, and even more so with the public water supplies visited, enabled the IG Team to fully understand the context and significance of the information being conveyed. The end result of your cooperative approach is a report that accurately reflects the Agency's activities and successful response to this unfortunate and significant event in the lives of thousands of Mississippians.

We appreciate the ability to provide comment on this draft report. However, because the staff from EPA's Region 4 office was able to clarify and explain the complexities of the hurricane response, we do not believe that any additional points need to be raised for inclusion in the final report. We will continue to provide support to the state as needed to address long-term recovery needs for communities and public water supplies in the affected area.

Thank you again for the opportunity to comment on this draft report. If you have further questions, please contact Cynthia Dougherty, Director of the Office of Ground Water and Drinking Water at (202) 564-3750 or James Giattina, Director of the Water Division in EPA's Region 4 office at (404) 562-9470.

Distribution

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