TESTIMONY OF
MAYOR BILL RUTLEDGE AND MAYOR EDDIE FAVRE
ON BEHALF OF THE
NATIONAL RURAL WATER ASSOCIATION
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT AND HAZARDOUS MATERIALS
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Mayor Eddie Favre
City of Bay St. Louis
<higalley@aol.com>
111 Court St., Bay St. Louis, MS 39520
228-467-9092

Mayor Bill Rutledge
City of Pontotoc
<mayorbill@pontotoc.net>
116 N. Main St., Pontotoc, MS
662-489-4321

[**Note**: *This testimony was completed in one day, while we concurrently operated a full-time relief operation, and we ask the Committee for all deference in our ability to document and assess the situation and make our points. We believe we can appear before the Committee without compromising our relief operations and appreciate the opportunity to testify.*]

Background of Mayor Rutledge

Mr. Chairman, my name is Bill Rutledge; I have been the mayor of the City of Pontotoc, Mississippi, since 1997 (currently in my third term). Pontotoc is the northern part of the state and has a population of 5,200. I am vice president of the Mississippi Municipal League, one the board of directors of the Mississippi Rural Water Association, and a member of the Northern Mississippi Mayors Association. My background includes 27 years of military service, including the National Guard. Before becoming mayor, I was a Circuit Rider, a job that required me to travel to over 500 drinking water supplies in the state and assist those communities with operation, maintenance, and compliance with their drinking water systems. My city has had firsthand experience with disasters. In 2001, a tornado hit my community (and county) and devastated us; it wiped out 10% of our downtown area, killed six citizens, cut a swath a mile wide for 23 miles across the county, and destroyed 350 homes (not counting businesses).

Objective of My Comments

I hope to provide the Committee with the following key points in my comments:

- Illustration of what many communities experienced that were hit by hurricane Katrina.
- Explanation of what communities face in recovering from Katrina's impact.
- An attempt to provide a status of recovery of the communities in the region.
- Explanation of what the local communities see as the public health and environmental conditions of the region, and the progress that is being made on that front.

- Our (from the local perspective) initial thoughts on what has worked for recovery and why, and what we think federal policy makers should know in order to be better able to enhance federal emergency policy (both preparedness and response).

For much of my testimony, I will use the example of the City of Bay St. Louis, Mississippi, to illustrate my points and give a clear example of the situation. Bay St. Louis was one of the harder hit communities on the Gulf Coast. My community has been working with Bay St. Louis on response and recovery from the initial hours after the hurricane hit. Through our state municipal association, our cities have been paired up to provide this assistance in our "Adopt a City" initiative which has been a key effort to aide Bay St. Louis and which I will expand upon later. I am joined here today by my friend and colleague, Eddie Favre, who is the mayor of Bay St. Louis. I will read a joint statement to the Committee and both of us are happy to answer any questions.

A key objective of both of us, here today, is not to gratuitously criticize relief operations and/or federal agencies. We don't think that would be of any service to our communities. We are interested detailing what did work and providing the Committee with a local perspective of public health and environmental conditions.

Background of Mayor Favre

Eddie Favre is in his fifth term as mayor. Before he became mayor, Eddie worked in the city administration and is a certified public accountant. Bay St. Louis is a community of 8,200 (currently 5,000) population on the Bay of St. Louis (on the Gulf Coast). The community's water supply is provided by two wells and the wastewater service is maintained by 40 lift stations (sewer pumps) of varying sizes, located around the communities, with the effluent pumped to a regional wastewater system for treatment.

Summary of Katrina Impacts in Bay St. Louis

The night before the hurricane, the city staff was preparing for the water and wastewater system for the hurricane by checking the generators at the well sites and moving equipment and sensitive electrical facilities to secure areas. However, the hurricane flooded the community more than any imaginable level (significantly more than hurricane Camille, which had been the previous standard for flooding maps). Almost all of the city was under water of varying depths, some areas as much as 25 feet. Mayor Favre's own home was in the one of the hardest hit portions of the city and all that is left now are a few pilings. He has been living in the fire station since the Sunday before the hurricane, where city officials and police stayed through the storm, and where they are staging relief operations. The extreme flooding lasted approximately five hours and, combined with the approximately 150-mile-an-hour winds, devastated the city: ripping up roads, piling houses on top of each other, toppling the largest trees, destroying a few thousands homes, destroying approximately 75% of the tax base, making approximately 60% of the homes in the community uninhabitable, etc.

The hurricane knocked out electrical service and flooded all 40 sewer lift stations, making them inoperable and destroying almost all the electrical components in the lift stations. One lift station was thought to be safe and emergency response equipment was stored there. However, even this station was flooded, destroying approximately $500,000 of equipment (generators and backup electrical systems which the city desperately needed in the aftermath.

Immediately after the worst of the impacts (approximately midday on Monday), the condition of the water and wastewater system was dire. There were numerous breaks in lines; thousands of houses had been destroyed which tore lines from the ground; downed trees brought up lines; washed out roads left main lines exposed and damaged; both wells were down without power; etc. City officials started assessing damage and repairing the water supply by Monday afternoon. By Tuesday morning they were valving off lines and restoring the wells from generated power. Valving off lines is the first measure taken in restoring the water supply (restoring water pressure to portions of the system). This simply prevents the water from flowing out of the system through the breaks (which there were too many to count). Contamination can flow into the system through line breaks, and lack of pressure makes it very difficult or impossible to maintain the necessary disinfectant in the system. Of course, through this process, the entire system was under a boil water order. By Wednesday (day 2), some portion of the water supply was being restored to houses that were inhabited. The process of valving off sections of the communities in order to maintain pressure and find/fix leaks continued round the clock for the next 3–4 days. This process was very labor intensive. Any particular valve which needed to be shut off to return water service could be buried under a series of houses (many feet deep), buried by very large trees, or ripped from the earth from collapsed buildings. Much of this work required heavy machinery (backhoes, tree removal cranes, numerous chain saws, etc.) and it could sometimes take a crew the better part of a day to remove all the stacked houses and dig for the valve.

After initially stabilizing the water system, the city public works staff began assessing the needs of the wastewater systems. Each lift station had to be rebuilt, as the electrical control panels had been destroyed by water. New parts had to be ordered and installed in each station to begin wastewater service. Waste service was partially restored in a week (at approximately 2:00 AM the following Monday, the primary lift station was in service). Another 25 stations were operational by the following Friday. Every control panel had to be changed in the lift stations.

Wastewater has to go somewhere in a disrupted system—it was impossible to control all untreated effluent from the wastewater system at all times. The wastewater system was inundated with flood water. This, combined with restored water service and torn up sewer lines (opening them to be filled by sand, wood, kitchen sinks, tires, bricks, debris, etc), caused some isolated overflows or untreated wastewater. This overflow was highly diluted with rainwater, and the city initiated some ad hoc emergency treatment of the overflows by placing chlorine tablets directly into the overflow streams as they ran off from the wastewater system. Much of the runoff was being absorbed by receiving waters contaminated by the hurricane with dead animals, vehicles, and other debris washed into them. The city posted notices to stay out of the bay waters that had been contaminated from the general runoff and dead animals in the bay. Some people in distress had been washing items and bathing in the bay water.

Electrical power was restored 10 days after Katrina hit—for those 9 days the systems were operated on emergency generated power.

Current Status of Water and Sanitation

Currently, the water system is up and pressurized; however, we are finding new leaks every day and, as we restore new portions of the system and increase pressure, new breaks occur. The stress that is being placed on the water distribution system makes it fragile and prone to breaks. Loss of pressure means safety of the drinking water could be compromised. The water quality tests for coliform contamination have been met—the water has passed those tests, and the pressure is adequate, however fragile. And we are maintaining the necessary residual amount of

chlorine disinfectant in the system. All this means the boil water order could be lifted. However, it is the decision of the local city officials not to lift the boil order at this time because the distribution system is (in the mayor and public works staff's opinion) still too fragile and vulnerable. The order could be lifted in the coming days. As recently as Monday of this week, a main pump had electrical failure, which caused loss of pressure. Almost all the people in the area (upwards of 5,000) are drinking bottled water and only using the city water for washing, toilets, and household needs.

Currently, the wastewater system is operating, pumping all sewage possible to our regional treatment works. The wastewater system has experienced limited, isolated overflows from broken or backed-up service lines; however, this is minimal and decreasing each day. There is a backup system for all the centrally collected sewage, in the event that the regional treatment plant can't accept our wastewater stream. As a backup, the old lagoon is available to store and treat practically any wastewater overflow from the central collection systems. This backup could handle a number of days of the sewage without any discharge to the environment.

Immediate Technical Assistance and Equipment Is Needed (Environmental Regulation is Not Needed, Nor Appropriate)

Bay St. Louis has been helped through the recovery from the initial moments following the hurricane. Numerous technical response crews have been working in the community to restore water and sanitary service. The city has had Mississippi Rural Water Circuit Riders working every day for two weeks without break. Rural Water organized most of the personnel logistics in Bay St. Louis and in the other coastal counties. Rural Water Director Pete Boone and his staff were responsible for coordinating much of the recovery and providing technical personnel. Numerous utility crews have been working in Bay St. Louis from the City of Pontotoc; Clearwater, Florida; Fort Myers, Florida; Davenport, Iowa; Navy electricians (Seabees); Air Force Red Horse Squadron; American Gas Association; Yankee Gas; the Town of Cornett, Mississippi; and others that should mentioned.

What is needed in this crisis and future crises is immediate access to technical personnel and equipment. Communities know the water is not safe long before it is declared not in compliance, and no one wants to restore safe water more than the local officials. We don't need someone to tell us we must comply, but rather, we need the help and know-how to fix the problem. The problem to solve is purely a RESOURCE problem not a REGULATORY problem. This is why regulators are of little help in these situations. The type of people that are needed are: experienced operators, electricians, machinery crews, machine repair crews, expert pipe repair personnel, contractors, etc. Mandating progress is easy; it is the "how-to" that is hard and essential to limiting harm to public health and the environment. For the "how-to," the city relied on the help from the previously mentioned volunteers.

From the mayor's perspective, water is about the most important service for public welfare. Sanitation is critical, however, a community can get by for some time with loss of sanitation. Electricity is perhaps equally as critical as water, and the return of electrical power is typically the sign that things are being pulled together, but drinking water is an immediate and essential public health and welfare service.

I was the second person Mayor Favre called after Katrina's impact in Bay St. Louis. Using resources from the City of Pontotoc, our crews loaded cargo trucks and city vehicles with backhoe tires and parts, washers, refrigerators, buster pumps, chlorinator parts, baby food, baby

clothes, blankets, plastic tarp coverings, diesel fuel, oil, gas cans, grills, cooking trailers, etc., along with four-man crews, and immediately headed for Bay St. Louis. Pontotoc has been shifting in three-man crews to Bay St. Louis and the neighboring hard hit city of Waveland every four days.

These crews and the technical crews from the mentioned organizations can operate heavy machinery, repair the machinery, isolate and fix leaks, install and repair pumps, dig up mains, etc. These crews have the experience to bring the water pressure up without damaging other parts of systems. The process of valving off sections of the system, repairing the lines, bleeding out the air, and returning pressure takes skilled technical personnel. Repairing of backhoe tires proved to be a desperately needed service and critical to recovering water and sewer.

One technical field person from Florida reported the following when asked what common technical assistance is needed in damaged communities:

> *"Much more complicated [than just generators]. Electrical components cleaned and replaced; control panels rebuilt; electric motors and pumps replaced or rebuilt; bypass pumps installed; generators wired direct; lift stations cleaned with vacuums or jet cleaned; leaks located and repaired with backhoes brought out from Florida; valves located and closed/opened or valves inserted to isolate areas of system; lift stations rebuilt; wastewater plants made to work with baling wire, rubber bands, bubble gum, or anything laying around. For example, wire is needed to bypass missing electrical controls so crews can go into rubble of destroyed houses and pull out wire to rewire water and wastewater plants. Think in terms of 50 McGuyvers doing whatever it takes to get water to folks and stop wastewater in the streets, in the Gulf, etc. At one plant, Florida crews walked around the destroyed warehouse/supply building to find circuit boards, fuses, whatever they needed and could find to get plant online. They even took circuit boards found and cleaned up best they could, so they could be used. These are master electricians, instrument techs, and top professionals in there areas."*

Other crews from Pervis, Lamar County, and Monticello have responded to other Gulf Coast communities. In all of their cases of critical response, there was no approval process, forms, or red tape—just neighboring communities (already familiar with each other through participation in common associations, including municipal leagues and rural water associations) responding with the know-how and immediacy regardless of potential reimbursement.

What we have witnessed in this relief operation is the necessity of familiarity among the needy and contributing communities. It has been apparent that strangers can't have the relationship, familiarity, and trust needed to be helpful in an emergency situation. Our two cities have been working cooperatively for years, eliminating any learning curve which could cause delayed response and the trust deep.

Working with partners in professional associations resulted in access to a network of experts. The Rural Water Circuit Riders were able to use their contacts across the state to acquire parts, plumbers, gas technicians, pipe, etc., that only comes from networking in the association of water and wastewater utilities. By networking within the association of mayors, Bay St. Louis and other cites were able to find immediate expert contractors and volunteer crews.

This familiarity and peer assessment/review also acts as a check against any fraud. Because we have all of the leadership of the communities in the state cooperative looking at the actions of all the other communities, it acts as an effective self-policing filter (a system of checks and balances).

Structural reasons that these volunteer and professional associations were so critical and effective in responding to the crises include:

- The fact that the associations' functions are directly accountable to their members (the communities), ensuring that they act in a manner most favored and beneficial to the membership.
- An understanding that time is a function of success (i.e., delayed response can significantly harm the public). In Louisiana, the EPA is conducting an in-depth assessment of every water supply (even communities with no reported problems). This type of inquiry has delayed what the communities believed was their immediate pressing need for equipment and technical assistance—to maximize public health protection. For example, while the EPA was just starting their intensive reporting assessment, communities where seeking out help where they could get it, and couldn't wait for EPA to complete its assessment. In Livingston Parish, a Circuit Rider found much of the parish's utilities without energy immediately following the hurricane. After coordinating with local officials, including fire officials and parish emergency offices, to target the most severely impacted utilities, the Circuit Rider was able to communicate with those operators via Nex-Tel (all phone communications were lost). Unable to procure water bladders from FEMA or emergency organizations, he was able to find approximately 20 water storage tanks and a colleague with a flatbed tow truck and started delivering the filled, large potable water storage containers to at least seven communities (Port Vincent, Paradise Ponte Island, Springfield, Head of Island, Killian, Bayview, and Vincent Acres). Working around the clock to keep the containers filled (10-hour supply), the pressure in the water systems was maintained. The tow truck operator was able to lift the main container on the truck high enough to create a siphon to fill the container left on-site.
- All authority is localized. There is no need to seek approval from a centralized hierarchy that is not in the middle of the situation—and real-time changes to plans and polices can be made to react to local conditions and variables.

What I have just described is the relief operations for communities' environmental services. However, there has been an allegorical response to our citizens' immediate individual human needs. The local churches have been the main response on this level. We have seen churches providing widespread operations to assist families and individuals. I personally witnessed a caravan of 71 church vehicles bringing relief to the Gulf Coast communities on one drive down highway 49 to Biloxi. In these communities, churches have been preparing meals for citizens and law enforcement officials tired of eating MREs, cooking on-site, carrying meals to people who won't leave their houses, taking in refugees, and all other acts of human kindness. There is not a church in my county that hasn't contributed to the relief.

<u>Overall Assessment of Region's Environmental Impacts From Loss of Water and Sewer Service</u>
The assessments from Alabama, Mississippi, and Louisiana are detailed in the following appendix.