

**KATRINA: THE AFTERMATH: Emerging land is tainted
Pollution a legacy of storm floods**

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BELLE CHASSE, La. — Refinery paramedic Greg Steverson has lived his adult life on the toes of Louisiana's boot, among oyster diggers and shrimpers and fishing crews.

Last week, sorting syringes in a Methodist church turned temporary clinic, he contemplated when he might taste local seafood again.

"I wouldn't eat an oyster from here for two years — maybe three years. The city is dumping the floods into Lake Pontchartrain. The lake flows into the Gulf [of Mexico], and the Gulf curves around to here."

His suspicion is widely shared. The fetid floodwaters that still engulf parts of New Orleans harbor high levels of sewage bacteria and a brew of industrial chemicals and metals, according to state and federal testing. And where the water has receded, it has left sticky, oily goop laden with petrochemicals, and a dense crust of reeking mud that fractures into flyaway dust.

Between five submerged Superfund sites — one still underwater — and five major oil spills, greater New Orleans appears to have become a long-lasting environmental nightmare.

Experts disagree on risk

But agencies working in the storm zone are voicing differing opinions about the degree of lasting hazard. The disagreement seems likely to confuse residents returning to the city and could mask the dangers of other health and environmental hazards that experts think will emerge in weeks to come.

Portions of east New Orleans remain underwater, and the Centers for Disease Control and Prevention and the Environmental Protection Agency have cautioned relief and rescue workers against prolonged contact with floodwater. The CDC advises the use of boots, gloves and a face shield; the EPA recommends washing splashed skin with soap and water.

According to test results released last week by the EPA and the Louisiana Division of Environmental Quality, the floodwaters contain amounts of arsenic and lead that are well above levels considered safe for drinking water and fecal bacteria at levels that make the water inadvisable to touch.

"This is the largest natural disaster that we ... have faced," EPA Administrator Stephen Johnson said while releasing the test results.

But CDC staff working alongside other agencies in New Orleans said contamination problems were likely to be temporary in most areas.

"Aside from the [oil and chemical] spills, I would say in general there is really not much of concern," said Jerold Finner, a water quality expert who heads the CDC environmental

team in New Orleans. "There is E. coli, but when the sludge dries out, that will go away. There is some elevated lead, but you find that in large cities like this. It is in there because we used lead-based paint for many years in this country."

While the floods persist, they pose a real, if so far limited, risk to anyone in contact with the water. Across the storm zone, 22 people have developed skin infections from immersion in the floodwaters and five have died. One man who was evacuated to Tennessee has been put in isolation after developing a diarrheal illness — nonepidemic cholera --- linked to the floodwaters, the CDC said.

Dunking brings ugly rash

Two members of the 2-217th Battalion of the New Mexico Task Force, an Army National Guard medical unit stationed next to Belle Chasse High School, have developed pustular rashes after being accidentally dunked in floodwater after a Humvee accident, said Lt. Curtis Nielson, a physician's assistant.

"They looked infectious, so I gave them [broad-spectrum antibiotics], and they're doing fine," he said.

Nielson said a member of the unit took samples of the water, analyzed them at a local hospital's lab, and found a common bacteria, *Aeromonas*, that is known to cause wound infections. That bacteria has not shown up on the list of health problems found so far by the CDC — but the test may not have found the actual cause of the infections, said Ryan Novak, a microbiologist and epidemiologist on the CDC's New Orleans team.

"Traditionally we take samples from the wound and do a number of confirmatory tests," he said. With so many organisms naturally present in water, he added, "further tests would have to be done to link this to the infections."

Experts working in the storm zone said the greatest threat to health is only now emerging: vast crops of mold that can grow on any soaked surface and create asthma and allergy epidemics.

Mold can cause infections in anyone with a suppressed immune system, such as a cancer or AIDS patient or someone on immunosuppressive drugs, said Stephen Redd, an air pollution expert in the CDC's respiratory health branch working out of Baton Rouge. It can trigger allergy and asthma attacks in those already susceptible and induce allergic sensitivities in those previously unaffected.

Mold can be bleached from impermeable surfaces such as stone and glass, Redd said, but porous materials — from furniture and carpet to drywall and wood studs — cannot be fully disinfected and must be discarded.

With the water receding at the rate of a city block a day, the mold has begun its advance. In the lobby of the Holiday Inn Downtown-SuperDome, laborers in Tyvek suits and respirators struggled to wheel sodden furniture across a carpet coated with mildew and slime. The white-paneled walls were stained with wavering stripes of mold growth, and its sour, choking smell hung in the air.

The same smell has begun to cut through the stench of sewage in east New Orleans. Floodwaters there were drained beginning Wednesday, revealing a dun-colored landscape of collapsed brick walls and crushed, upended cars. Ridges of mud across house walls, some reaching to the gutters, displayed how high the floodwaters had surged.

City officials have said the floods may have made houses structurally unsafe. But the additional risk of large outbreaks of mold-related respiratory illnesses makes it more likely that heavily flooded areas — especially the low-lying poor areas in New Orleans' northeast corner — will be bulldozed and rebuilt rather than restored, several experts said.

"Those homes are going to have to be assessed, and many of them may have to be leveled," said Finner, who flew over in a military helicopter. "The wood's been soaked, all the materials have been soaked — there is not going to be anything you can salvage."