

# Lead found in soil of many areas of N.O.

**Contamination by toxic metal predates Katrina, scientists say**

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By Matthew Brown

**West Bank bureau**

When she learned Wednesday that her Central City neighborhood was among 14 areas across the city flagged by the U.S. Environmental Protection Agency this week for dangerously high lead levels in the soil, Hayandra Harvey did not even blink.

"My little boy had lead poisoning since he was 2. He's turning 7 this year," said Harvey, 24. "And my little girl, she had it since she was 1. She makes 3 this month. I've been taking them to Charity for tests, but they don't have Charity no more."

As the city's leaders pledge to rebuild a new and better New Orleans after Hurricane Katrina, an old problem, lead in the soil, has reared its head again. Although federal and state officials insist the contamination predates Katrina -- an assertion backed up by several independent scientists -- government agencies are being forced to confront the issue as environmental surveys turn up the heavy metal across wide swaths of the city.

The 14 areas identified by the EPA are scattered across older New Orleans neighborhoods: three sites in Gentilly, two in Tremé, two in Central City and one each in the Bywater, Lower 9th Ward, Carrollton, Uptown, Mid City, St. Roch and Seventh Ward.

Each area encompasses a circle extending 500 feet from the original sample point. That translates into roughly six to eight city blocks per location.

Howard Mielke, a Xavier University researcher considered an expert on lead contamination, said the 14 neighborhoods represent a small slice of a much bigger problem. He estimates 40 percent of the city has soil lead levels above the 400 parts per million considered a health risk.

Lead is a potent neurotoxin that could cause damage to the nervous system in people exposed to high doses. It can be inhaled in a dust form or ingested, such as by children who put their hands to their mouths after playing in lead-tainted soil. In children, the group most vulnerable to its ill effects, lead causes learning disabilities and, in extreme cases, mental retardation. Adults exposed earlier in life can develop a wide range of health complications.

Reducing lead exposure

The 14 neighborhoods were narrowed down from a list of 46 sites examined by state and federal officials last fall that showed high levels of lead, arsenic or a carcinogenic petroleum constituent, benzo-a-pyrene. A follow-up investigation was performed in February to gauge whether those contaminants were isolated or widespread enough to pose long-term health risks. That turned up no areas with arsenic and only one with benzo-a-pyrene, around the old Agriculture Street Landfill in the 9th Ward.

Lead levels in the 14 neighborhoods, though, ranged from just above the health risk threshold of 400 parts per million, to a Central City neighborhood around the intersection of Magnolia and First streets that showed lead as high as 3,960 parts per million.

No decision has been made on how the contamination will be addressed, said Sam Coleman, director of the Superfund hazardous-waste program for the EPA's regional office in Dallas.

For now, the EPA and state health officials have offered homeowners a list of pointers on how to reduce lead exposure. They include washing children's hands after they play outside, wiping down dusty surfaces and covering bare spots in the yard with vegetation or four to six inches of mulch or topsoil.

But critics such as Johanna Congleton, executive director for the Louisiana chapter of Physicians for Social Responsibility, contend government agencies are shirking their responsibility to protect public health. Congleton's group and other environmental and social justice organizations have pushed for a widespread cleanup of contaminated areas.

"It shouldn't be the burden of the public to find clean fill and put it on their property. That should be the job of (the state Department of Environmental Quality) and EPA and other agencies trying to protect our environmental health," she said. "It's great they went back and took a look at some of the areas of greatest concern, but it's eight months down the road. We need to think about taking action."

#### Children most vulnerable

A common problem in many older cities, lead contamination is exacerbated in New Orleans by a mix of older housing stock -- prior to 1978, lead was a common ingredient in house paint -- and widespread impoverished areas where those houses are rapidly deteriorating, Tulane University epidemiologist Felicia Rabito explained.

"The key is whether you have children or not," said Dr. Kevin Stephens, director of the New Orleans Health Department and a member of the Centers for Disease Control and Prevention lead advisory committee. "That's the most vulnerable population that we need to protect."

Stephens advised all parents to get blood lead tests for children between the ages of 6 months and 6 years. And he said the basic soil hygiene advice outlined by the EPA should be followed by anyone living in neighborhoods with older homes.

Just around the corner from the intersection of Magnolia and First streets, where the highest lead level was recorded, Sheila Banks, 40, said she has grappled with the issue for more than decade, after all three of her children developed lead poisoning. She first noticed a problem when her two daughters and one son started slurring their speech. She took them to a local clinic, where they received treatment, but Banks said the problem lingered until they were past the age of prime susceptibility.

"They're going to play in the dirt regardless of what you tell them," she said. When asked whether she had ever considered moving out of the neighborhood, Banks' reply echoed that of several others who had come to accept lead poisoning as a fact of life. "Where am I going to go? Rent's cheap here."

But Xavier's Mielke argued something could be done if the government was willing to pay the price.

In August, just before Katrina hit, Mielke wrapped up an abatement project that buried high-lead-content soil at 25 properties in the city. Mississippi River sand excavated from the Bonnet Carre Spillway in St. Charles Parish was trucked in and spread six inches deep in each property's yard, at a cost of \$76,000. The study was paid for by the federal Department of Housing and Urban Development.

The idea was to make the dangerous substance inaccessible to children or others. Mielke said the lead stayed buried even after Katrina washed through, with the new soil showing lead levels of about 6 parts per million before and after the storm.

Mielke estimated it would cost between \$225 million and \$290 million to expand the program to city neighborhoods with the most concentrated lead levels, at or above 1,000 parts per million. Those areas, within some of the oldest sections of the city, total roughly 3 percent to 4 percent of all New Orleans properties, he estimated.

"We're talking about the core of New Orleans: It's the heart of the city," Mielke said. He added that with New Orleans' population down significantly, now is the ideal time to carry out a broad-scale cleanup.

"It was never all right to have a quarter of your children being poisoned," he said. "We know how to get very clean soil into the city. It's very low-tech. It's just a way to get large quantities of fresh sediment. I would love to see a change in the city, as people come back, that we really have a safe place for children."

State and federal officials cited Mielke's work in claiming that lead is not a new problem in New Orleans. But when it came to his conclusions that the problem extends to 40 percent of the city, they backed off.

"What we have done is collect samples from around the city in order to characterize the impact of a flood, and that process essentially verified some of the work Dr. Mielke did," said Coleman, the EPA Superfund director. "But in the statistical world, we would say it's not a direct correlation. We cannot simply endorse all of his data. We can only endorse some portion of it."

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## LEAD SAFETY TIPS

EPA and state LDEQ recommend that residents in the vicinity protect themselves and their children from potential exposure to lead in the home and in the surrounding soil of their neighborhoods by taking the following steps:

### IN THE HOME

- ▶ When cleaning up around homes in affected neighborhoods, shower and change clothes after finishing work and before playing with your children. Keep work clothes out of reach of small children and keep children out of work areas.
- ▶ Place washable doormats or rugs at all entries of your home. Have everyone wipe their feet or leave their shoes at the door to ensure lead-containing dust will not be tracked into the house.
- ▶ Wash doormats, rugs, cleaning rags, and work clothes separately from other family laundry.
- ▶ Frequently wash a child's hands, especially after playing outside, before they eat, and at bedtime.
- ▶ Frequently wash a child's pacifiers and toys to remove any dust.
- ▶ Do not let children put dirty hands, toys, or other items that might have lead dust on them in their mouths.
- ▶ When cleaning the home, damp-mop floors and damp-wipe surfaces.

### OUTSIDE THE HOME

- ▶ Have children play on grass or areas covered with lead-free mulch, woodchips, or sand. Keep children from playing in bare dirt.
- ▶ Cover bare dirt with grass, bushes, or 4-6 inches of lead-free wood chips, mulch, soil, or sand.
- ▶ Keep young children away from areas where paint is peeling or chipping, such as from old fences or houses.

### MORE INFORMATION

- ▶ Pregnant or breastfeeding mothers who think they may have been exposed to lead are asked to call a Centers for Disease Control and Prevention hotline at 1-866-826-8947. Members of the general public can call 1-800-733-4727.
- ▶ If you have specific concerns about lead hazards, contact the Louisiana Childhood Lead Poisoning Prevention Program at (504) 219-4413 or the Director of Health, City of New Orleans, (504) 658-2500.
- ▶ For more information on the data and the areas sampled visit the EPA Web at: [www.epa.gov/katrina/testresults](http://www.epa.gov/katrina/testresults)
- ▶ For more information on lead, visit: [www.epa.gov/lead](http://www.epa.gov/lead)