

# Spikes in Lead Levels Raise Doubts About Water Line Work

Increases Followed D.C. Agency's Pipe Replacements

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Lead in tap water rose to dangerously high levels in hundreds of District homes after a city water agency replaced lead service pipes to reduce health risks, according to 2006 test results made public yesterday.

The [D.C. Water and Sewer Authority](#) launched an aggressive plan three years ago to reduce lead contamination by replacing all of the city's 35,000 lead service pipes after unprecedented, hazardous levels of lead were found in city water in 2004. But the new findings raise concerns that the \$93 million effort may have at times aggravated the problem for some residents.

The WASA test results suggest that as many as 9,000 District households where lines were partially replaced in the past three years could have been exposed temporarily to tap water with elevated levels of lead, according to an analysis by Marc Edwards, a [Virginia Tech](#) professor of civil and environmental engineering and a 2007 MacArthur Fellow. He obtained the WASA test results through a freedom of information request.

The spike is blamed on disrupted lead scales and shavings, created when a service pipe is cut in half, that flow through the water lines after the replacement work.

"We've spent \$93 million, we've torn up all these neighborhoods, and it appears the situation is worse than when we started," said [D.C. Council](#) member [Jim Graham](#) (D-Ward 1), who chairs the council committee that oversees WASA. "This raises serious questions about what WASA has been doing all this time, wittingly or unwittingly."

WASA officials, however, say that the addition of orthophosphate to treat the water in 2004 has dramatically reduced lead leaching and made the District's water safe to drink.

But in a council hearing yesterday, Graham proposed that the District government conduct independent testing to determine whether drinking water is safe. He said it was vital to address local activists' allegations that WASA continues to try to conceal health information from the public.

"I think it's probably needed at this point," he said. He added that it was "of great concern" to him that he learned of the spikes from an independent scientist and questioned repeatedly why WASA officials had no analysis to demonstrate the effectiveness of the partial replacement program.

D.C. WASA General Manager [Jerry N. Johnson](#) acknowledged that WASA tests show a spike in lead levels after partial replacement. But he said he believes it causes a short-term problem that is easily resolved by customers running their taps for a minute or two before drinking the water.

WASA staff said the agency has not generally retested homes months later to verify whether the problem has resolved itself, and that few customers send WASA samples for analysis, as the agency allows, to definitively answer the question.

Johnson and WASA Board Chairman Robin Martin said yesterday that they could not comment further on Edwards' analysis because they had first learned of it Thursday.

The vast majority of the 14,600 lead pipes WASA has replaced have been partial replacements. WASA made a policy decision in 2004 to replace the public portion of the lead service lines and require homeowners to pay for replacing that portion of pipe on their private property if they chose. Only 2,100 homeowners have opted to pay the \$2,000 apiece to complete a pipe replacement. Another 3,400 owners had replaced the lead pipes on their private property before WASA arrived to do its work.

In Edwards's analysis of the 2006 tests, tap water drawn within a week after the agency partially replaced the lead service lines in 658 homes had average lead levels of 260 parts per billion, 17 times the amount the federal government considers unsafe in drinking water.

The lead concentrations generally fell over time, the tests show. Samples taken one to two months after the replacement in the same homes had average lead levels more than double the federal safety level of 15 parts per billion.

The findings come as WASA's management is holding public hearings to consider whether to discontinue its accelerated replacement of lead service lines.

"Partial lead service replacement has been a complete waste of money and has actually made things worse," Edwards said. "It should be stopped."

In 2004, the [U.S. Environmental Protection Agency](#) and WASA said in public statements and studies that the replacement of even half the lead pipe clearly reduced lead levels. But more recently WASA said, in brochures prepared for public meetings on reconsidering the program, that partial replacement "is not as effective as we would want," and the agency has to consider whether this is a wise use of money. None said anything about hazardous spikes of lead.

At the council hearing, environmental activists told Graham that they do not trust WASA officials who say the drinking water is safe because of their failure to alert the public to high lead levels in 2004.

The advocates said yesterday that high lead levels found in 2006 tests of D.C. school water may herald a citywide problem, but WASA officials have refused to discuss it.

"WASA is an agency that doesn't willingly share information," said Ralph Scott of the Alliance for Healthy Homes, a lead safety advocacy group. "They don't like oversight. They spin, they twist. And -- I don't say this lightly -- they don't always tell the truth. "

Johnson said WASA warned homeowners of potential spikes in lead after partial pipe replacement.

Homeowner Megan Keenan said that in 2004 she was given a flier saying lead levels would probably be reduced when WASA came to replace her service line, and only warned of potential spikes after the work was completed.

"We've told people there are spikes," Johnson said. "To suggest we haven't been giving this out to the public is incorrect."