

Committee on Public Works and the Environment
DC Water and Sewer Authority Agency Performance Oversight Hearing
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Testimony of Walter Smith
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Good morning Chairman Graham and Committee Members. I am Walter Smith, the Executive Director of DC Appleseed Center, an independent non-profit advocacy organization.

Beginning with the release of our report on lead in the drinking water in December 2004, DC Appleseed has advocated for greater local oversight and greater local autonomy over the safety of the District's drinking water. In fact, two of the key recommendations in our December 2004 report were that (1) a new Department of the Environment needed to be created to conduct local oversight and that (2) the District needed to consider taking "primacy" over drinking water issues. Primacy would mean that local authorities – not EPA and WASA – would take responsibility for the safety of our drinking water and could adopt more stringent measures than the federal rules in order to adequately protect the public.

In our view, the combination of data and research confirming the harmfulness of lead in drinking water, along with the recent questions about WASA's performance that have been raised in these hearings, strongly suggests that independent investigation and monitoring of WASA is needed. That investigation and monitoring should include not just the issue of the lead service-line replacement, but the entire sampling regime followed by WASA and the information it reports to the public concerning that sampling. Significantly, we believe that the needed investigation and monitoring is already authorized by the Council's legislation that established the Department of the Environment.

In addition to the needed independent investigation and monitoring, we believe that it is now time to move forward with the cost-benefit analysis on primacy that was expressly authorized by the Council's legislation. The District is one of only two jurisdictions in the country (DC and Wyoming) that have not assumed primacy over this important issue. We believe the District needs to take full responsibility for this issue so it can take the necessary steps to protect the public health.

DC Appleseed's 2004 Report

In 2004, the previous Chair of this Committee, At-Large Councilmember Carol Schwartz, asked DC Appleseed to undertake a comprehensive review of lead in drinking water in the District of Columbia and to make recommendations concerning the issue.

Her request came on the heels of deeply troubling press reports. Those stories revealed that WASA and the U.S. Environmental Protection Agency had known for several years that lead levels at the taps of many District homes violated federal standards, but failed to adequately inform the public.

In the wake of this crisis, our December 2004 report, *Lead in Drinking Water of the District of Columbia: A Call for Reform*, highlighted numerous problems with the current regulatory system and made several major recommendations:

- 1) Creation of a DC Department of the Environment (DDOE), whose duties would include ensuring city residents have safe drinking water;
- 2) Expansion of drinking water sampling by WASA and public dissemination of that sampling data;
- 3) Wider distribution of detailed lead in drinking water information to the public;
- 4) Replacement of lead service lines both on public and private property; and,
- 5) The obtaining of District “primacy” over the federal drinking water program, which would allow the District to enforce its own drinking water program, rather than being subject solely to EPA and federal regulations.

While the Council did establish a new Department of the Environment in 2005, we believe that other recommendations we made in 2004 remain valid today and should be considered by this Committee.

The fact is, as this Committee learned during the first part of this hearing and during several briefings, the lead in drinking water problem in the District has not been solved. Furthermore, the latest research confirms what experts had suspected for some time: even very low levels of lead in the body are harmful to citizens, particularly pregnant women and children.

I would first like to describe the recent research underscoring the importance of this health problem, then summarize the actions WASA has taken to address the problem, and then offer recommendations concerning the further actions we believe should be taken.

New Concerns Over Low Level Lead Exposure

DC children and pregnant women are not safe from the risks of lead in drinking water. Indeed, a growing consensus—including scientists, physicians, and the federal government itself—concludes that the current standards for acceptable lead levels must be made more stringent to protect the public health.

Researchers now agree that the risks to young children from even very low levels of lead are serious and long term.¹ Lead exposure is toxic to almost every organ system – most importantly, to the central nervous system, kidneys, and blood. According to the overwhelming weight of scientific evidence, even very small amounts of lead have been

¹ Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, Nov. 2, 2007 (56(RR08);1-14:16

shown to lower a child's IQ and cause other developmental problems. Exposure to lead continues to be greatest among minority children, low income children, children living in large urban areas, and children living in older houses – all factors that have particular relevance to many families in the District.

The latest evidence on the risks posed by lead is even more alarming than what we were told during the 2004 crisis. In 1991, the Centers for Disease Control and Prevention set a blood lead level of concern for children at 10 micrograms per deciliter. Late last year, however, the CDC revised its guidance concerning the level of lead measured in the blood of children that should prompt aggressive medical intervention. The CDC concluded that new research has shown adverse health effects in children with blood lead levels lower than 10 micrograms per deciliter.² The CDC recently reiterated that no “safe” blood lead level has been identified.³

This updated information on adverse health effects at lower blood lead levels demonstrates just how critical it is for WASA, and for the DC government, to get it right when it comes to lead in drinking water.

WASA Actions Since the 2004 Crisis

We next want to summarize the steps WASA has taken since the 2004 lead in drinking water crisis.

1. New Chemical Treatment

An important step WASA took in the wake of the 2004 crisis was the addition of orthophosphate as a corrosive control agent for bringing lead levels down. But corrosion control alone is insufficient to protect the public. It is at best a stop-gap measure, and has yielded various results – good and bad – in various systems. The only technique the scientific community agrees eliminates lead leaching is the full replacement of service lines and replacement of lead-containing fixtures in homes.⁴

In fact, WASA's own data presented by other public witnesses during an earlier portion of this hearing show that lead levels at the taps of some DC homes and schools remain dangerously high.⁵ In 2007, DOH conducted risk assessments of homes where children with elevated blood lead levels resided. In two of those cases, lead in water was the only source of lead found in the house. In six other cases, homes were deemed to have both paint and water hazards.⁶

² Ibid

³ Ibid. See also, CDC, *Preventing Lead Poisoning in Young Children*.

<http://www.cdc.gov/nceh/lead/publications/PrevLeadPoisoning.pdf>; US Department of Health and Human Services, CDC; 2005.

⁴ Environmental Science and Technology, Sept 5, 2007; http://pubs.acs.org/subscribe/journals/esthag-w/2007/sept/science/rr_leadreplace.html

⁵ DCPS Testing Data

⁶ DC DOH Lead Task Force Update, Feb. 22, 2008

2. Federal Testing Requirements

The sampling regimen WASA employs to comply with EPA's Lead and Copper Rule (LCR) is very limited and does not employ a clear, *health-based standard* to ensure that District citizens are being protected.

Specifically, WASA is required to submit test results from only 100 homes every six months. If 10 percent of those samples exceed the EPA "action level" of 15 parts per billion (ppb) lead, WASA would be deemed out of compliance, triggering public disclosure requirements and lead line removal measures.

But the 15 ppb EPA action level is not, in fact, a health-based standard. To quote EPA's own Consumer Fact Sheet on Lead: "The Action Level for lead has been set at 15 parts per billion (ppb) because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to control this contaminant should it occur in drinking water at their customers home taps."

During development of EPA's LCR in the late 1980s, the agency set a health-based Maximum Contaminant Level Goal (MCLG) for lead, just as the agency had done for a number of potentially dangerous substances routinely detected in drinking water. EPA proposed setting the MCLG at zero, noting that there was no established lower threshold at which there are no risks of adverse health effects.

The EPA rule also allows WASA to disregard certain test results as "invalidated" for a variety of reasons. For instance, during the 2000-2001 sampling period, EPA allowed WASA to throw out five samples that exceeded the 15 ppb action level.⁷ Had those results been included in the submission to EPA, WASA would have been deemed out of compliance.

3. WASA's Public Outreach Efforts

After failing to meet its public notification obligations under the LCR during and before the 2004 lead in water crisis, WASA was ordered by EPA to take several steps to better communicate with the public. These included, but were not limited to, hiring consultants in the areas of market research and risk communication, conducting an internal communications audit, and including stakeholders in decision making and measuring the effectiveness of outreach efforts. WASA has met minimal public reporting requirements to the satisfaction of EPA, but in our view DC residents are still not being given adequate – and continuous – information about the potential risks of lead in DC drinking water.

For example, WASA provides scant information to consumers that highlight continuing problems with lead in drinking water. Routine reports on drinking water safety are not made readily available. Data about compliance with EPA's Lead and Copper Rule is not readily accessible. And, as explained below, the information WASA has presented at

⁷ Holder Report on DC Lead in Drinking Water Crisis, at 46-47

public meetings on lead service line replacement does not fully inform District residents concerning what is known about partial and full lead service line replacement.

4. Lead Line Replacement

In 2004, when WASA was ruled out of compliance with the federal LCR, EPA ordered WASA to undertake an accelerated lead service line replacement program. The EPA LCR mandates that systems that exceed the action limit must replace 7% of their lead lines each year, until compliance tests show they have been below the action level for six consecutive testing periods.

Under that program, WASA was required to replace the portion of the service line on public property. WASA also offered to remove the portion on private property at the homeowner's expense. The District's Department of Housing and Community Development also provided grants of up to \$5,000 for low income DC residents who wished to replace the private portion of the service line.

Only about 15 percent of District residents have opted to have the private portion of their lead service lines replaced. We share WASA's concern over that low level of participation, particularly since research shows that partial lead line replacement does not produce significant lead reduction in tap water and, as pointed out to the Committee, in some cases may make the situation worse.⁸

But despite WASA's own public statements about the limited value of partial lead line replacement, the current information sent to homeowners does not provide them all the facts they need to make an informed decision about replacing lines on *private* property.

Specifically, WASA mails a packet to all customers prior to the replacement of lead service lines. One section of their brochure is titled, "*Why replace the private lead service pipeline?*" The entire presentation to customers for replacing the private portion is boiled down to four sentences. First, customers are informed that "thousands of other property owners have chosen to replace" the private portion. WASA then "recommends that property owners replace the part of the lead service line on private property." But the only mention of the essential nature of this step is summed up in one short statement: "Even when WASA replaces the pipe in public space, if lead pipe remains on private property it may still result in some lead in your drinking water."

The information provided makes only passing reference to the significant spikes in lead levels that can occur after partial lead line replacement and WASA does not explain the clear *benefit* of complete lead replacement over partial line replacement.

Instead, WASA advises customers who choose to forego replacement of the lead pipe on their property, that "you may experience a temporary increase of lead levels in your water from particles dislodged during construction."⁹

⁸ Presentation of Dr. Marc Edwards. Nov. 29, 2007

⁹ WASA: *Lead Line Replacement Advisory*, 2007

The information supplied to consumers stands in sharp contrast to what WASA recently told its Board of Directors about partial lead line replacement. As noted above, customers are advised that they *may* experience a “temporary increase in lead levels,” after the partial replacement. During the March 6 WASA Board meeting, WASA staff presented a PowerPoint slide to the board stating, “Customers *typically* experience short-term *high levels* of lead in the tap after partial service line replacements.” (emphasis added)

DC Appleseed’s Recommendations

Given the new health information and WASA’s performance, we believe the recommendations we made in our 2004 report are still valid. Specifically, we urge that the follow steps now be taken: (1) The District Department of the Environment should independently investigate the steps being taken by WASA to ensure that the public is being protected. This should include an investigation of the lead-line replacement program; (2) WASA should expand its sampling program; (3) WASA should make more information available to the public both about the sampling program and lead service line replacement; and (4) the cost-benefit analysis related to primacy that is already authorized by the Council’s 2005 legislation should be undertaken by DDOE.

1. Increase DDOE’s Oversight Role

DC Appleseed was pleased that following the issuance of our 2004 report, the Council enacted legislation creating a DC Department of the Environment (DDOE). To date, however, the staff and resources needed to address lead hazards remain in the DC Department of Health. Therefore, DDOE lacks the capacity to exercise significant oversight of WASA’s efforts to protect the public from lead in drinking water. The transfer of the required staff and resources needed to exercise oversight of the lead risk should take place as soon as possible. We believe such oversight is warranted and is already authorized by the statute establishing the Department.

The legislation establishing DDOE states (Sec. 102) that “the purpose of the act is to establish a single executive agency to protect human health and the environment in accordance with District and federal law and regulation.” The Act also directs the department “to improve public notification of environmental issues . . .” In addition, the Act provides that the Department Director “shall . . . [sec. 108(5)] Assist and cooperate with private, local, regional, and federal agencies and officials to protect the environment and promote environmental awareness” and [sec. 108(6)] “Obtain, maintain, and make available to the public accurate, up-to-date information regarding the environment, including compliance data . . .” Further, the legislative history, exemplified in DC Committee Report, Bill 16-16 (June 30, 2005), shows that the bill was introduced to “enable a single agency to quickly and efficaciously bring to the attention of the Mayor and the Council *environmental public health problems* when they arise and seek an immediate solution.” (emphasis added).

We therefore believe that the DDOE has the authority to examine WASA testing results and lead service line replacement in order to determine whether the public is being adequately protected and informed of the risks presented by lead in drinking water.

As DDOE examines various data related to lead in drinking water, the Department also should develop information for the public that clearly communicates the risks associated with lead contamination, as public awareness plays a critical role in reducing lead exposure. The information should include steps both the government – and consumers – can take to address the risks. Further, the Department should examine and opine on WASA’s lead-line replacements and its plan to change the pace of its removal program.

2. Expand Testing and Data Reporting

As previously noted, EPA’s LCR compliance tests are very limited. The Holder report noted that DC’s 2004 crisis was in part the result of compliance sampling shortcomings in the LCR – including the allowance that utilities can invalidate results and oversample to comply with the LCR.¹⁰ Furthermore, WASA’s previous efforts to drive down lead levels in test results submitted for compliance with the LCR – such as shifting the time of year sampling is conducted – are well documented.¹¹

WASA should voluntarily expand testing at the tap and routinely share all results with the public. A critical recommendation in DC Appleaseed’s 2004 report is that every citizen of the District should have regular information on water quality at the tap. Our report called on WASA to encourage every DC customer to have their water tested at WASA’s expense. Until that occurs, the Council and DDOE should insist that WASA make all the relevant sampling and lead service line replacement data available to District residents. Furthermore, in order to raise public confidence that water is safe from lead, WASA should significantly expand LCR compliance testing as part of its bi-annual compliance submission to EPA. All of those results should be publicly reported.

3. Provide More Information on Partial Lead Line Replacement and Sampling

Attached to this testimony is a summary of studies conducted on the Cincinnati water system that conclusively shows that partial lead line replacement did little to reduce lead measurements at the tap.¹² Water quality data obtained from WASA and other data previously presented to this Committee highlight similar results in the District, but also show significant spikes in lead levels after partial lead line replacement.¹³

Other the other hand, Madison, WI has decided to mandate replacement of all its lead lines in order to eliminate the primary source of its lead contamination. Madison based its

¹⁰ See generally Holder Report

¹¹ Memos and Emails between WASA and testing consultants, 2002-2003

¹² Environmental Science and Technology, Sept. 5 2007; http://pubs.acs.org/subscribe/journals/esthag-w/2007/sept/science/rr_leadreplace.html

¹³ 2006 Data collected by Dr. Marc Edwards and WASA Data obtained by Edwards via Freedom of Information Act request

decision, in part, on the negative effects of treating its water with orthophosphate, which at times could overwhelm its wastewater treatment plant and contribute to surface water pollution.

Rather than scale back the program because of problems associated with partial line replacement, WASA and the District government should redouble efforts to explore full lead line replacement and provide citizens clear information about the benefits of that replacement.

This should include exploration of innovative financing plans to help homeowners defray the cost of private side replacement. Several jurisdictions, including Boston, MA and Madison, WI give all homeowners up to \$1,000 to help defray the cost of private side replacement.¹⁴ Boston also has a program that allows customers to pay for the replacement over a 24-month period without any interest penalty.

In addition to providing citizens more information concerning the benefits of full lead line replacement, WASA should take several steps, beyond EPA's order that WASA better explain sampling and lead risks to the public, including:

- Sending a letter to every resident whose water has been sampled explaining in clear language the significance of the results and the options available to respond to those results.
- Mailing customers a brief discussion paper on the risks of lead contamination that avoids technical jargon. This modest step towards educating everyone about lead risk has been done in other cities. The same communication could be posted on WASA's website.
- Submitting a monthly water quality report to the DC Department of the Environment that would be easily comprehended by the public and posted on-line.
- Developing a public information program to better educate customers about remaining lead in drinking water risks that goes well beyond what is required in EPA's Lead and Copper Rule.

4. The District Should Seek Safe Drinking Water Act Primacy

The DOE legislation authorizes the District to carry out an analysis of the benefits and costs of enhanced local control over the drinking water supply and other procedures for obtaining primacy over the federal drinking water program (Sec. 112(a)). The bill also specifically gives the DDOE director authority to achieve primacy, thus allowing the District to administer and enforce the Safe Drinking Water Act. Primacy would allow the District to join 49 other states, Puerto Rico and the Island of Guam in administering the federal drinking water program. And without primacy, the District cannot compel WASA to broaden its testing program, better inform the public about lead in drinking water, or tighten standards to reflect the latest health research without obtaining primacy over the federal drinking water program.

¹⁴ <http://www.ci.madison.wi.us/water/plansLead.cfm#cost;>

Conclusion

We commend the Chairman for seeking an independent assessment of the safety of DC's drinking water and a more thorough review of WASA's lead pipe replacement program. We believe the time has come for the District's environmental agency to play an oversight role on these issues, as authorized in the 2005 enabling legislation. We also think the time has come for the District of Columbia to do the necessary cost and benefit analysis that would enable it to take primacy over these issues.

Thank you very much for this opportunity to testify.