



Testimony on Lead Exposure and Mitigation  
Before the  
Senate Environmental Resources & Energy Committee  
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Presented by:  
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Good morning Chairman Yudichak, Chairman Yaw, members of the committee and staff. On behalf of Pennsylvania American Water President and CEO Jeff McIntyre and our one-thousand dedicated employees, thank you for the opportunity to comment today. My name is David R. Kaufman and I am the Vice President of Engineering for Pennsylvania American Water Company (PAWC). I am responsible for engineering services, including the planning, design and construction of water and wastewater capital investment projects, for all of PAWC's systems and facilities.

PAWC provides water service to 655,632 customers – representing a population of approximately 2.3 million – and wastewater service to 54,478 customers in over 405 communities located in 36 of the 67 counties in Pennsylvania. As a public utility, the Company is subject to the regulatory authority of the Pennsylvania Public Utility Commission (PaPUC). In addition, the Company must comply with drinking water, environmental and other operational standards established by the PaDEP and the EPA. The Company's commitment to serving its customers is organized around five key principles: quality, safety, customer satisfaction, regulatory compliance and operational efficiency.

PAWC has provided water service to its customers for over 130 years and has an exceptional record of meeting regulatory standards for drinking water. The Company has also been recognized for its water treatment plant optimization and water quality achievements. For example, thirty-one of PAWC's thirty-six surface water treatment plants earned Directors' Awards in the EPA's Partnership for Safe Drinking Water program for outstanding performance with respect to meeting water quality and environmental standards.

PAWC owns and operates nearly 10,000 miles of water distribution mains and over 700,000 service lines, which extend from the water main to the curb stop. The customer owns, and is responsible for, the service pipe that extends from the curb stop to the customer's premise.

Recent events, including those in Flint, Michigan, have heightened PAWC customers' concern about the presence of lead in drinking water. PAWC's drinking water does not contain lead when it leaves the treatment plant. Lead can leach into drinking water over time through corrosion, a dissolving or wearing away of metal caused by a chemical reaction between water and plumbing materials. The risk for lead contamination arises when water passes through lead service lines and premise plumbing fixtures and solder used to join pipes and faucets.

The EPA and PaDEP promulgated treatment technique regulations for lead and copper (the "Lead and Copper Rule" or "LCR") in 1991 and 1994, respectively, which established an action level for lead in drinking water of 15 parts per billion (ppb). The current LCR requires public water suppliers to employ water treatment methods to minimize the corrosive quality of the water they provide. PAWC has a well-established history of LCR compliance. In the past thirty years, the Company has not triggered the LCR action level requirements in any portion of its system.

Recently, PAWC has proposed to the PaPUC a two phase replacement plan for lead service lines. Under this proposed plan, PAWC will proactively remove and replace, with the customer's consent, lead service pipes that are encountered when it replaces its mains and service lines. Secondly, PAWC will remove and replace lead service pipes when requested to do so by a customer, subject to a few conditions.

Eliminating lead service pipes, together with PAWC's robust corrosion control water treatment measures and the Company's ongoing efforts to eliminate its remaining lead service lines, are a prudent and effective means to maintain regulatory compliance and protect public health.

Continuing scientific advancements complicate the issue of replacing the Company's lead service lines as they are encountered during infrastructure project work. A relatively recent and growing body of research indicates that a "partial" replacement, which physically disturbs, but leaves in place, the customer's segment of a service connection, potentially elevates the risk of lead exposure through drinking water after the replacement occurs. For that reason, the National Drinking Water Advisory Council recommended that the EPA revise the LCR regulations to require complete replacement of both the utility and customer segments of service connections that contain lead. In light of this research suggesting that partial replacement increases the risk of lead exposure, an increasing number of utilities including PAWC are reconsidering or avoiding this practice where possible. For its part, PAWC has tried to stage its main replacements to avoid portions of its distribution system where lead service pipes are likely to remain in service. Nonetheless, infrastructure rehabilitation in those areas is necessary and must be undertaken. Replacing the customer's lead service pipes when the corresponding mains and service lines are replaced will eliminate a potential source of lead exposure to our customers following a "partial" replacement for PAWC's customers.

When lead service line is replaced with a line made of another metal, conditions are created for bimetallic corrosion, which affects the interior wall of the lead service pipe and accelerates leaching of lead into the water passing through the pipe. While optimal corrosion control

techniques can mitigate this risk, it is still a risk that should be avoided given the health and safety concerns associated with lead contamination.

Company recognizes that this incremental risk can be avoided by replacing the customer's lead service pipes (together with the Company's service line if it is also lead) even in areas where there is no ongoing work by the Company that would disturb the existing Company's service lines and adjoining customer's service pipes. The best way to identify such locations is through customers' requests to have their lead service pipes replaced.

PAWC has proposed to the PaPUC, subject to their approval, that it will offer to replace a service pipe at a customer's request if the customer and the Company verify that the customer's service pipe is made of lead. The Company will maintain a log of customer requests grouped by relevant geographic areas. When a reasonable number of requests have been received in a given area, the Company will undertake all of the replacements in that area as part of a single project.

Many customers have been reluctant to replace their lead service pipes, particularly in older neighborhoods with populations that face economic constraints that make it difficult or impossible for them to pay for replacement, which could cost individual customers, on average, \$3,500. Allowing PAWC to replace lead service pipes under its replacement plan and spread the costs across its entire customer base is a reasonable solution to this problem. Furthermore, the Company will be able to leverage economies of scale to reduce costs and minimize service disruptions related to lead service pipe replacements.

Prior to the initiation of any work by the Company to replace a customer's service pipe, the affected customer must enter into an appropriate agreement with the Company, which among

other things, authorizes the Company to access the customer's property to undertake the replacement work and acknowledges that the ownership and responsibility for the future maintenance, repair and replacement of the newly replaced service pipe will remain with the customer.

To inform customers, the Company will provide a letter to all customers within the areas affected by water main and service line renewal projects and also undertake appropriate customer education in areas that align with the scope of its replacement plan to let customers in those areas know the Company is offering to replace their lead service pipes under the conditions previously described.

I commend the Chairmen and the Committee for their leadership role in examining the issue of lead exposure and mitigation. The Company believes that this aforementioned proactive plan, currently under consideration at the PaPUC, is a prudent approach to minimize risks associated with lead in drinking water and aligns with the Company's core values to continue to provide high quality drinking water to our customers which meets safe drinking water standards.