District Addresses Pinhole Problems

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The Plainview Water District (PWD) has launched a pilot program focused on addressing the pinhole leak issues being reported by customers throughout the district. In order to better understand why the issue persists, the district has taken a multi-pronged approach, including hiring Dr. Marc Edwards—national water treatment expert and professor at Virginia Tech University—to reduce the occurrence of pinhole leaks.

"The growing number of customers who are being impacted by pinhole leaks within their homes has prompted the Board of Commissioners to take immediate action. We have been working aggressively to find the root of the issue, and we will keep residents regularly updated throughout the process," said chairman of the Plainview Water District Board of Commissioners Marc Laykind. "This past fall, we launched the Pinhole Pilot Program, which comprises a district-wide survey of our customers, alteration of treatment methods and hiring of Dr. Edwards—an expert water treatment and material corrosion consultant. By taking these steps, we hope to know more about the causes of this issue and continue implementing remedies to limit future leaks."

As part of the Pinhole Pilot Program, the district created a survey and disseminated it to its 10,500 customers. The survey—of which the district has already collected more than 1,600 responses—aims to collect information from residents who have experienced issues with pinhole leaks. Approximately 200 of the voluntary survey responses submitted by customers reflected that they had not had any issue with pinhole leaks. The purpose of collecting this information is to find commonalities between homes and plumbing systems that could be experiencing unexpected pinhole leaks.

From left: Superintendent Stephen Moriarty and Licensed Water Plant Operator Joseph DiGregorio inspect the copper pipes of a customer's home as part of the district's ongoing effort to collect data on pinhole leaks.

"We are grateful for the responsiveness of our customers who are taking time away from their busy lives to answer questions that will help us reduce the occurrence of this problem," said commissioner Andrew Bader. "The collection of this data gets us into the homes of customers who have experienced problems with pinhole leaks quickly—we don't have the resources to conduct in-person surveys at such a rapid rate. We encourage all of our customers—regardless if they have experience a pinhole leak or not—to complete the survey that is available on our website and to complete it again if a new leak appears. This way we will be able to better gauge the impact the changes we've implemented are having."

Survey data submitted by customers as well as inspections by the district have indicated the following similarities in reported cases of pinhole leaks: More than 80 percent of reported pinhole leaks have occurred on hot water piping; stray electrical current from the homeowners' electrical service has been found at approximately 65 percent of the homes inspected; and the most typical location for pinhole leaks to appear is within the first 10 feet of pipe coming from the hot water heater.

"The district and its team of experts are currently assessing how each individual factor contributes to the increased occurrence of pinhole leaks; however, their co-occurrence cannot be ignored as they appear in a significant amount of cases," said James Neri, vice president of H2M Water.

In addition to survey collection, the district has been working closely with the Nassau County Health Department to alter water treatment methods in order to raise alkalinity levels that inhibit corrosion development. There are currently no standards for alkalinity levels in water which is naturally low in the aquifer within the district.

Studying the leaks with be Edwards, who will work with the district's water experts to research and investigate the possible causes for the spike in pinhole leak reports.

"Pinhole leaks are a complex issue and multiple factors are currently being evaluated by the district, but the water is absolutely safe to drink," said commissioner Amanda Field. "Dr. Marc Edwards, one of the best minds in the complex water treatment and metal corrosion fields, has been brought in to use his expertise and help us remediate this problem. With his recommendations resulting from water sampling, customer pipe analysis and information collected from customers, we are confident we will begin to see a declining trend in pinhole leak cases."

"The Plainview Water District appears to be encountering a new type of pitting corrosion for which all potential causes are currently being investigated," said Edwards. "On the basis of prior knowledge, the water would not normally be expected to be corrosive to copper. However, high-quality groundwater can actually increase the chances copper pitting will occur as sufficient quantities of organic matter, a natural inhibitor of pinhole leaks, may not be present."

Customers experiencing an issue with pinhole leaks are encouraged to contact the Plainview Water District at 516-931-6469. In addition, the district requests that customers, even if they have not had an experience with pinhole leaks, take a few moments to fill out the pinhole leak survey located on the district's website, www.plainviewwater.org. To receive updates from the Plainview Water District, email info@plainviewwater.org.