On Flint, Michigan and Lead in Drinking Water

Most folks have, by now, heard about the water quality crisis affecting the city of Flint, Michigan. In a series of operational and managerial blunders, responsible officials ended up exposing citizens to unsafe levels of lead in the city’s drinking water system. The crisis has exposed systemic failings at multiple levels and has spurred questions as to the safety and oversight of the nation’s public water supply. For our customers who might be wondering, we have put together some commonly asked questions on the situation in Flint and the steps we take to ensure lead is not a threat to our public health.

Question 1: Where does lead come from? Lead is not, generally, found in source water. For the most part, lead that reaches customers’ taps is lead that has been leached from components used in that home’s plumbing. In Flint, and in many older cities (especially on the east coast), many homes have old lead service lines that run from the water meter to the house. If water is especially corrosive, it can leach lead from these lines into water serving the home. These service lines are the source of lead contamination in Flint and in many other cases of lead exceedances. In 1986, the US EPA established rules prohibiting the use of lead pipes, solder and flux. While this limits the problem moving forward, older communities like Flint, Michigan have legacy lead plumbing that can pose a threat to public health.

Question 2: How is lead in drinking water regulated? Lead in drinking water is regulated under the federal Safe Drinking Water Act (SDWA). This Act applies to all of the nation’s water systems with 15 or more connections. (Small systems and individual wells are not subject to provisions of the SDWA. More on that later.) In 1991, EPA added the Lead and Copper Rule to the SDWA. This rule establishes monitoring requirements, maximum allowable levels and remedial actions for lead in public drinking water systems.

Question 3: What does Kitsap PUD do to comply with the Lead and Copper Rule? All of Kitsap PUD’s Group A water systems (those subject to SDWA rules) are sampled for lead in accordance with the Lead and Copper Rule. Under this rule, representative sampling sites are picked throughout the distribution system. Residents of these homes are asked to collect samples according to a strict set of guidelines. These samples are then sent to a state-certified laboratory for analysis. In Washington, state-certified labs report results both to the water utility (Kitsap PUD) and to the Washington State Department of Health. That agency provides regulatory oversight for the Safe Drinking Water Act in Washington. Should a system exceed lead levels as established in the Lead and Copper Rule, WA DOH works with that system to implement remedies.

Often these involve measures to reduce the corrosivity of the water in the system. Because they have significant sampling histories, most of KPUD’s Group A water systems conduct lead and copper monitoring every three years. None of KPUD’s Group A systems have exceeded levels contained in the Lead and Copper Rule.

Question 4: How will I know if lead is detected in my water system? Individual sites that participate in lead and copper monitoring are notified of their results within 30 days of lab reporting. KPUD sends letters, with results, to each home that participates in monitoring. For other customers on the system, results of lead and copper monitoring are contained in that system’s annual Consumer Confidence Report.

Question 5: Can I volunteer to participate in lead and copper monitoring? Generally speaking, no. The Lead and Copper Rule sets criteria for sampling sites and, once those sites are established, requires ongoing monitoring at those locations. Situations arise where it is necessary to change or add sites. In this case, KPUD selects sites according to rule criteria and residents’ willingness to participate.

Question 6: What about small water systems and people on individual wells? As mentioned, the provisions of the SDWA apply only to systems with 15 or more connections. These regulations do not apply to small (often called Group B) systems or individual wells. Lead service lines, the main culprit in lead contamination, are not common in Kitsap. Homeowners should, never-the-less, understand the materials used in their home plumbing and refrain from purchasing fixtures that may contain lead (While the US passed lead-free requirements in 1986, other parts of the world have not. Fixtures containing lead can still be purchased online.) Those unsure of their plumbing material can run their tap for a minute or so before filling their glass or pitcher for drinking. As lead leaches slowly, this brief flush can significantly reduce levels in homes with any lead plumbing.

Question 7: Where can I learn more about the quality of my drinking water? Every year, Kitsap PUD posts Consumer Confidence Reports for all Group A Water Systems. These reports, required by the Safe Drinking Water Act, summarize the previous year’s water quality monitoring. These reports can be found on KPUD’s webpage at http://www.kpud.org/consumerConfidence.php. Further information on the Safe Drinking Water Act can be found at Washington Department of Health’s webpage (http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater) and the US EPA’s site (http://www.epa.gov/your-drinking-water).
**Flushing Season: What to Expect**

As the threat of freezing temperatures subsides and before the summer water demand spikes, KPUD engages in routine flushing of water systems. This regular flushing keeps water systems in operational order. All of Kitsap PUD’s water systems rely on groundwater for their source. Groundwater, generally speaking, is high in mineral content. These minerals tend to build up inside the distribution mains. Periodic flushing keeps the water system working the way it was engineered to.

KPUD typically flushes at night to minimize inconvenience to the community. We notify in advance by placing sandwich boards alongside roads and posting notices on our webpage.

Because flushing breaks loose built up mineral deposits in the distribution system, customers might experience discolored water during flushing events. When this occurs, customers are advised to flush off their individual service lines until the water clears. If running an outside faucet or bathtub tap fails to clear the water after several minutes, please call our office to report the matter.

**The End of the Drought**

The official proclamation of drought in Washington State expired December 31, 2015. As of this writing, snowpack is at or above normal in both the Cascades and Olympics. Should temperatures remain normal, this snowpack should provide supply to most of the state over the course of the summer.

Kitsap, as you know, is one of three counties that do not rely on snowpack for supply. We avoided the impacts of 2015’s “snow drought”. The current year, further, has seen above average rainfall totals across Kitsap.

Rainfall records are kept according to a “Water Year” format that runs from October 1 to September 30. Since October 1, 2015 the rain gauge at KPUD’s office has had its second highest daily total in 25 years of data collection; 3.34 inches fell on January 22, 2016. Also, this year the rain gauge in Holly has recorded four of its largest single-day totals in 25 years; the largest being 4.12 inches that fell on January 21, 2016.

As mentioned in a previous newsletter, over the course of this year we will look at various efforts to ensure this water reaches our aquifer system.

**Auto-Pay Option Coming Soon**

Kitsap PUD’s Customer Service Department is currently evaluating methods to provide auto-payment options to our customers. A number of our customers have requested this convenience. Once implemented, auto-payment can save time, money and paper. It is a convenience for the customer and an efficiency for the utility. Stay tuned for more information.

**Bob Celebrates 30. Quietly.**

On February 2nd, Bob Hunter celebrated his 30th anniversary at Kitsap PUD. Actually, there was no celebration. Which is why I am noting it here. Over the past 30 years, Bob has worked his way from water system Operator to Superintendent to Assistant General Manager to, as of December 2014, General Manager.

In addition to his work at the District he has served on numerous state and local committees dealing with water resource and utility issues. He has amassed a wealth of institutional knowledge that he brings to work daily. Thanks, Bob, for 30 years of service to Kitsap PUD and the Kitsap community.

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**2016 water rates**

Kitsap PUD has a “tiered” rate structure. In this, the cost of water goes up with usage. A Basic Service Charge, together with Tiers 1 and 2 are meant to provide surety to water system operations while ensuring reasonable water usage remains affordable to Kitsap’s households. Tiers 3 and 4 are structured to encourage conservation and recoup additional capital improvement funds from high-water users.

Rates shown below are for a typical residential service. Remember: KPUD bills on a bi-monthly basis.

**Basic Service Charge**
$24.00 (monthly)
$48.00 (per 2-month billing)

**Commodity Charge**

<table>
<thead>
<tr>
<th>Tier</th>
<th>Description</th>
<th>Rate per 100 cubic feet</th>
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<tbody>
<tr>
<td>Tier 1</td>
<td>(0-1,400 cubic feet)</td>
<td>$1.15</td>
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<tr>
<td>Tier 2</td>
<td>(1,401—2,400 cubic feet)</td>
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<tr>
<td>Tier 3</td>
<td>(2,401—4,000 cubic feet)</td>
<td>$2.35</td>
</tr>
<tr>
<td>Tier 4</td>
<td>(over 4,000 cubic feet)</td>
<td>$5.25</td>
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*100 cubic feet of water is equal to 748 gallons.*