City of Stuart Continues Preventative Measures for Protection of Lead Exposure in Water

In recent news, Flint, Michigan has faced a water crisis of lead exposure to customers in their drinking water. Lead is a common and naturally occurring metal found throughout our environment. Lead seldom occurs naturally in water supplies like rivers and lakes, and lead is rarely present in water coming from a utility treatment plant. Lead enters drinking water primarily as a result of corrosion or wearing away of materials in the water distribution system and/or household plumbing that contain lead.

Lead is a health concern because it is a toxic metal that can cause immediate effects at high doses and long term effects if it builds up in the body over many years. Lead can cause brain and kidney damage in addition to the effects of the blood and Vitamin D metabolism. Children are more vulnerable to lead because their bodies are smaller and because they are still developing. Pregnant women and their unborn babies are at a higher risk of negative health effects associated with lead exposure.

The City of Stuart's drinking water meets or exceeds all regulatory standards. As a rule, the City protects its customers from the exposure of lead through its regular treatment process. Because of our treatment methods, the City is required to perform lead sampling once every three years. The City uses a slightly positive Langalier Index, (a method of determining the stability of the water) which is a means of protecting water mains and household plumbing fixtures from corrosion. This is done by depositing a thin layer of calcium carbonate on the walls of pipes to create a protective coating. In addition, we add Sodium Hexametaphosphate as a method of protecting the water from leaching lead and copper from pipes and fittings.

In 2013 the City sampled 30 sites in the utility service area and the sample results show (.0019 mg/l) the lead concentrations in the majority of the sampling sites were 8 times less than level (0.015 mg/l) in which action is required. One sample (0.016 mg/l) did indicate further action was required and after completing the additional water analysis, it was determined the customer's service line and house plumbing appeared to contribute to the high level and the customer was notified.

Although the City is only required to inform the customer of the lead concentration in their water at their home or business if it is at or above the regulatory action level, we will now work with the customer to clearly identify the potential source of lead and eliminate it in the service line and house plumbing.

As you may be aware, the City has embarked on a 5.9 million dollar water main rehabilitation project that will go even further in reducing lead concentrations in the City's drinking water.

For further information on the quality of your drinking water, please contact Mike Woodside, the City's Water Treatment Team Leader at (772) 288-5343.