

Lead in Drinking Water

Lead is a common metal found in the environment. Drinking water is one possible source of lead. The primary source of lead exposure for most children is lead – based paint. Other sources of lead exposure include lead – contaminated dust or soil and some plumbing materials. The potential exists for elevated levels of lead to form in drinking water because of the use of lead in pipes, lead – lined tanks and the use of lead/tin solder. Because of this concern, the United States Environment Protection Agency (“EPA”) banned the use of high-lead solders in 1986.

Corrosion is a complex series of reactions between water and the plumbing or tank in which it is stored or carried. The possibility exists for lead toxicity to develop in drinking water, which can cause serious health concerns, especially in young children. No safe blood lead level has been identified in children. Lead can also deteriorate and damage household plumbing, cause taste and odor problems, stain laundry and cause greenish/blue stains around basins and drains. Nearly all metals will corrode to some degree. One of the contributing factors is the level of pH in water. When water has a low pH the water is acidic; when water has a high pH, it is alkaline. When measuring pH, the range is between 0 and 14 with 7 being neutral; anything above 7 is considered base or alkaline (see chart below).

The Municipal Authority of the Township of Robinson (“Authority”) uses a caustic liquid treatment feed system at its water treatment plant to regulate the pH of your water. Pennsylvania Department of Environmental Protection (“DEP”) Certified Operators employed by the Authority regulate this corrosion control system, which requires a high degree of training and expertise to establish, monitor and operate. The system can treat waters with a low pH without adding hardness to the water. This is important because hard water contains magnesium, calcium and/or iron salts that make soap lather difficult and can leave deposits on dishes.

On June 7, 1991, EPA created the Lead and Copper Rule (“LCR”). Since that time, it has undergone various revisions. The LCR requires the Authority to test for lead and copper every three (3) years. In 2013, the test results demonstrated the water produced by the Authority is well below the maximum contaminant level (“MCL”) of 15 parts per billion, which is considered the “action level”. In mid – 2016, the Authority will begin collecting samples, known as “first draw” samples within its water distribution system. First draw samples are collected in households by water customers like you before any water is used in the morning. Thirty (30) of these samples must be collected in homes that have plumbing systems installed before 1982. The samples are then sent to an independent lab for analysis. The sample results will be reported to the Allegheny County Health Department and included in our 2017 Consumer Confidence Report “CCR”. If lead concentrations exceed the action level in more than 10% of customer taps sampled, the system must undertake a number of additional actions to control corrosion. Also, the public must be informed about steps they should take to protect their health. Customers may have to replace lead service lines under their control.

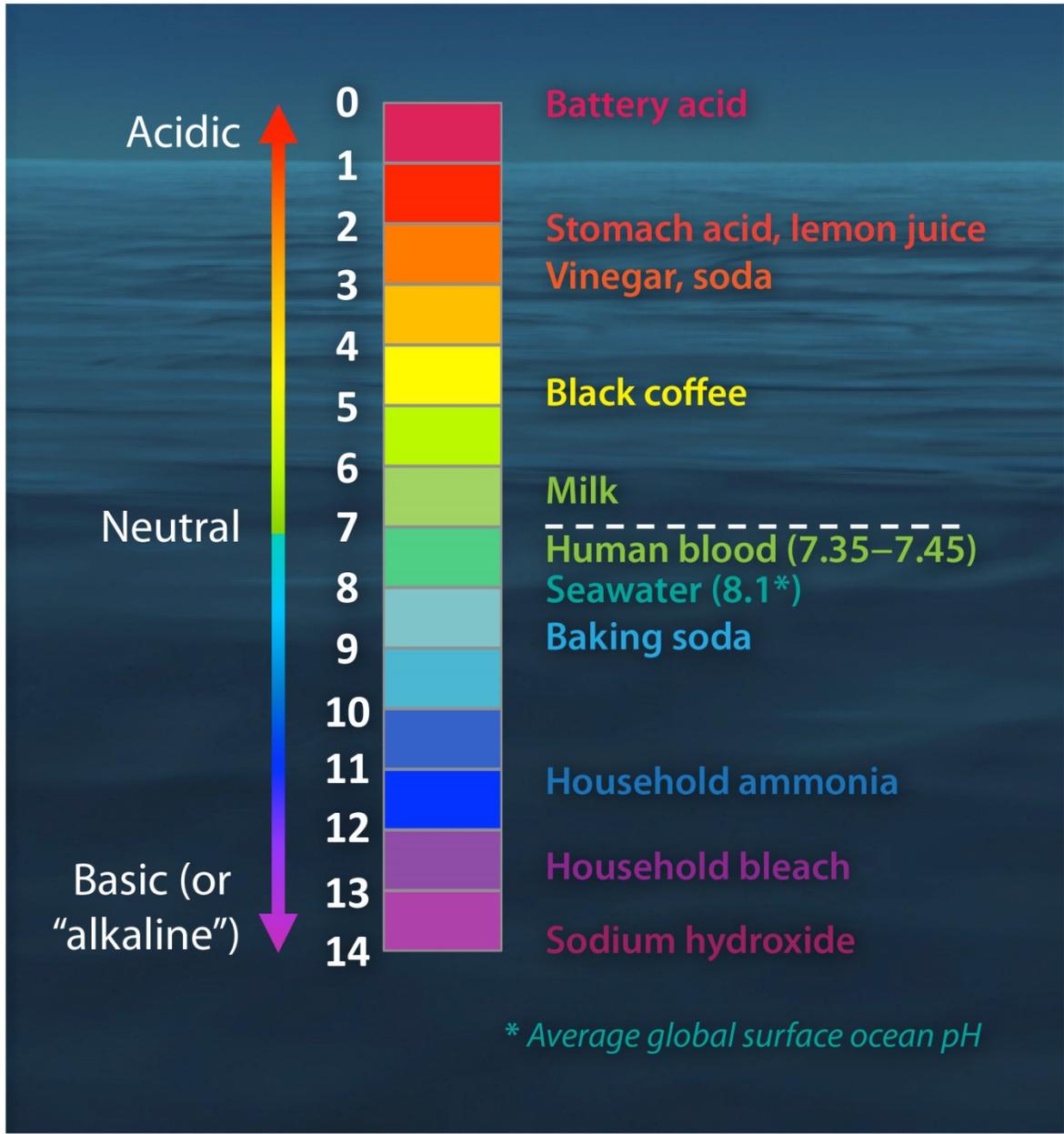
To make sure the water coming into and leaving the water treatment plant has the correct pH each and every day, the Authority monitors the water taken from the back channel of the Ohio River (“raw water”) and the water that enters the distribution system (“finished water”) water 24 hours per day, 7 days a week. Our treatment plant operators monitor the raw and finished water pH continuously via the plant’s Supervisory Control and Data Acquisition or “SCADA” system to

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assure the finished water is not corrosive. Corrosion control adjustments are made when necessary using the Langelier Index, which measures the saturation amount of calcium carbonate in the finished water by measuring its pH, alkalinity, calcium concentration, total dissolved solids and temperature.

Our employees take all necessary precautions to assure the water we produce meets and or exceed the standards set by the Safe Drinking Water Act.

You are invited to call and ask questions about Lead or any other matter concerning your water service at your convenience. You can use this web site to contact us or call 412-923-2411.



* Average global surface ocean pH