

## MERCURY AND YOU

By: Melinda Ward, Utilities Manager

Mercury is a shiny, silvery liquid metal that can cause serious health problems in humans. It can accumulate in fish and be toxic if it makes it to bodies of water where they live. It can be found in everyday household items such as older thermometers and light bulbs. It can also be used for industrial purposes. In the City's recent permit renewal for the Mebane Bridge Wastewater Plant, a new requirement was added for mercury minimization. This is part of a new rule created through EPA that is now being handled by the States and delegated to each municipality through these permit processes. We have been testing for mercury for years with no real issues found, but to further protect our system, we are now required to have a Mercury Minimization Plan (MMP). The purpose of this MMP is to describe best management practices through which the City of Eden will seek to reduce the amount of mercury discharged into its system and, ultimately, to the environment. Basically, it's designed to protect our rivers and fish from further contamination. The MMP compiles mercury reduction-related efforts to-date and potential future action items. It is a working document to help guide the City of Eden in its efforts to control mercury loadings discharged by users of the sewer system. Such a reduction in loadings to the sewer system should translate to a reduction in the amount of mercury which is discharged from the treatment plant.

Mercury is hard and expensive to remove at a treatment plant, so the best way to manage it is to prevent it from reaching the plant in the first place. Mercury may be introduced into the sewer system through a variety of sources, such as from industrial users and other businesses. Residual deposits of mercury are also possible in the sewer system from historic practices where mercury was used years ago in an industry that is no longer in service. Trace amounts from household products and atmospheric deposition (both wet and dry) contribute to sewer system mercury loadings, but only in small quantities.

The City has spent 2021 evaluating available information to assess the potential for non-domestic users of the sewer system to contribute mercury to the system. The information reviewed includes: (1) POTW influent and effluent mercury data and trends; (2) industrial user permits and associated mercury monitoring data; (3) Toxics Release Inventory (TRI); and (4) state hazardous site registry and the National Priority List relating to mercury contamination. The City has also surveyed and evaluated the following common sources of mercury in its service area: (1) dentist offices; (2) hospitals; (3) laboratories; and (4) other potential sources of mercury based on existing information. Even though we have done our due diligence in identifying all potential sources, we will continue to work with our industries and businesses to evaluate uses and explore alternatives if mercury levels are determined to be higher than expected. A formal evaluation will be conducted every five years to update our list of potential sources, if warranted.

For our facility as well as for residential households, the best way to minimize mercury introduction to the sewer system is through best management practices. These may also help control some of the mercury reaching our storm sewer system as well. We will make sure all of our chemicals at our facility do not contain mercury, but will switch any that do. Any spills will be contained and prevented from reaching storm drains or going down the drain. Citizens can

make sure that they switch any mercury products that they may own for safer options. Chances are slim that you will face in adverse reactions to such low levels of exposure from the types of products that you will have in your home, but it is best to play it safe. To dispose of products containing mercury, enclose in an airtight bag before throwing away. If a product containing mercury breaks, such as a thermometer or a light bulb, make everyone leave the area and let the room air out. Then, carefully pick up the pieces with a wet paper towel, preferably while wearing rubber, latex, or nitrile gloves. Mercury beads tend to spread quickly, so make sure that you have gathered them all up with an index card or piece of cardboard. Place the wet paper towel, the card or cardboard, and the broken pieces inside of an airtight bag before throwing away. **NEVER THROW BROKEN PIECES OR MERCURY BEADS DOWN THE DRAIN!**