Martinez Water Public Health Goals

City Council

April 20, 2016

Public Health Goals

- Public Health Goals (PHG's) are set by the Office of Environmental Health Hazard Assessment (OEHHA) and are based solely on public health risk considerations. None of the practical risk-management factors are considered. The PHGs are not enforceable and are <u>not required</u> to be met by any public water system.
- Maximum Contaminate Level Goals (MCLGs) are the federal equivalent to PHGs and are <u>not required</u> to be met by any public water system.

Public Health Standard

- Maximum Contaminate Level (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs **are enforceable standards** that are set as close to the MCLG as feasible, using the best available treatment technology and taking cost into consideration.

Water Quality Data Considered

All of the water quality data that was collected from City of Martinez water system during calendar years 2013, 2014 and 2015 for purposes of determining compliance with drinking water standards was reviewed. The data was summarized in the 2013, 2014, and 2015 Annual Water Quality Reports that are available to all City of Martinez customers.

Martinez drinking water quality meets all CDPH and USEPA drinking water standards set to protect public health.

Bromate

Bromate is a disinfection byproduct (DBP) formed when water containing naturally occurring bromide ion is ozonated. There is a concern with potential health effects as evidence suggests that long-term exposure to bromated in drinking water may cause cancer..

The MCL for Bromate is 0.010 mg/L Running Annual Average (RAA.)

For Martinez, the highest RAA was Non Detect for 2013; 0.006 mg/l for 2014; and 0.004 mg/l for 2015.

Recommendations for further action Bromate:

Martinez drinking water quality meets all CDPH and USEPA drinking water standards set to protect public health. The levels of constituents identified in this report are already significantly below the health-based MCLs established to provide safe drinking water. Further reductions in these levels would require additional costly treatment processes and the ability of these processes to provide significant benefits of these possible reductions are not all clear and may not be quantifiable. Therefore, no action is proposed at this time.

Flint Michigan Water Crisis

- Started in April 2014
- Change in source water
- Failure to apply corrosion inhibitors
- Culminated with lead contamination.

Lead poisoning

- is a type of metal poisoning and a medical condition in humans and other vertabrates caused by increased levels of the heavy metal lead in the body.
- Lead interferes with a variety of body processes and is toxic to many organs and tissues including the hear, bones, intestines, kidneys and reproductive and nervous systems.
- It interferes with the development of the nervous system and is therefore particularly toxic to children, causing potentially permanent learning and behavior disorders.

Martinez and potential lead contamination

- Unlike Flint, Martinez Water System does not have lead pipe or services.
- Unlike Flint, Martinez has a consistent source of water via CCWD.
- Martinez's Corrosion Control Program is in place and has not been changed.

Potential source for lead contamination

- Most exposure to lead occurs from inhalation or direct contact with substances containing high levels of lead such as old painted surfaces; however, lead can also enter the body through drinking water.
- Aging infrastructures, including pipe and plumbing fixtures, are the main contributors of trace amounts of lead in the water supply today.

Potential source for lead contamination (cont.)

- In 1987 the Uniform Plumbing Code was changed to reduce the amount of lead in solder, used on plumbing joints.
- Homes built prior to 1988 that used copper piping in-lieu of galvanized pipe have a potential for lead contamination.
- Water used after long periods of non-use (such as first thing in the morning) poses the greatest threat of lead contamination.

Risk minimized

- There is little danger of encountering excessive levels of lead in the pipes of a house constructed using modern materials and methods but lead in drinking water can be a problem in houses that are very old (early 1900's) that contain lead piping.
- The dissolved oxygen in the water combines with the metal at the surface (copper, zinc or lead) to form a metal oxide. This oxidation layer naturally develops through the decades to coat lead piping, joints and fixtures.
- By maintaining our water Ph level this natural oxidation coating protects our customers from dangerous levels of lead contamination.

Higher Risk Homes

- Owners of higher risk homes (built in early 1900's using lead pipe) can have their water tested.
- Owners of higher risk homes can run water for five minutes in morning and use only cold water for cooking and drinking or making baby formula.

Routine City Testing

- Selected sample houses
- Coordinate with resident to sample first morning water use
- Second sample after running water for 5-minuts

Summary

- The City does not have lead pipe in water distribution system.
- There is a very low likelihood that houses have dangerous lead levels.
- High risk homes can take steps to assess and minimize risk.