

# Water Quality 2016 – Testing and Standards



# New Addition To WQ



# For the basics – Go to EPA.gov

- The EPA sets standards to ensure safe drinking water.
- Under the Safe Drinking Water Act (SDWA), EPA sets legal limits on the levels of certain contaminants in drinking water. The legal limits reflect both the level that protects human health and the level that water systems can achieve using the best available technology.
- EPA rules set water-testing schedules and methods that water systems must follow.

# For Nevada – go to NDEP.gov

**EPA works with its regional offices, states, tribes and its many partners to protect public health through implementing the Safe Drinking Water Act.**

*Nevada Drinking Water Standards (External Links US EPA)*

- [Disinfection Byproducts Rule](#)
- [Stage 1 Disinfectants and Disinfection Byproducts Rule \(Stage 1 DBP\)](#)
- [Stage 2 Disinfectants and Disinfection Byproducts Rule \(Stage 2 DBP\)](#)
- [Ground Water Rule](#)
- [Lead & Copper Rule](#)
- [Total Coliform Rule](#)
- [Maximum Contaminant Levels \(MCL's\)](#)
- [National Primary Drinking Water Standards](#)
- [Phase I, II and V Organic and Inorganic Rules](#)
- [Public Notification Rule](#)
- [Radon Rule \(proposed\)](#)
- [State Secondary Drinking Water Standards](#)
- [Monitoring Frequency](#)

**Surface Water Treatment Rules** — External Links - US EPA

- [Long Term 1 Enhanced Surface Water Treatment Rule](#)
- [Filter Backwash Recycling Rule \(FBR\)](#)
- [Interim Enhanced Surface Water Treatment Rule \(IESWT\)](#)
- [Surface Water Treatment Rule \(SWT\)](#)
- [Long Term 2 Enhanced Surface Water Treatment Rule \(LT2 rule\)](#)

# WQ Department Basic Duty

- We work with NDEP and WCDHD
- Make sure that everything that is required to be monitored and reported – Is.
- Our lab is certified by the State of Nevada
- We have a broad range of capabilities
- We work closely with Operations in managing the delivery of a high quality water
- We work with Customer Service in answering customer questions

# ICP/MS



# Total Coliform Rule



# Giardia and Cryptosporidium



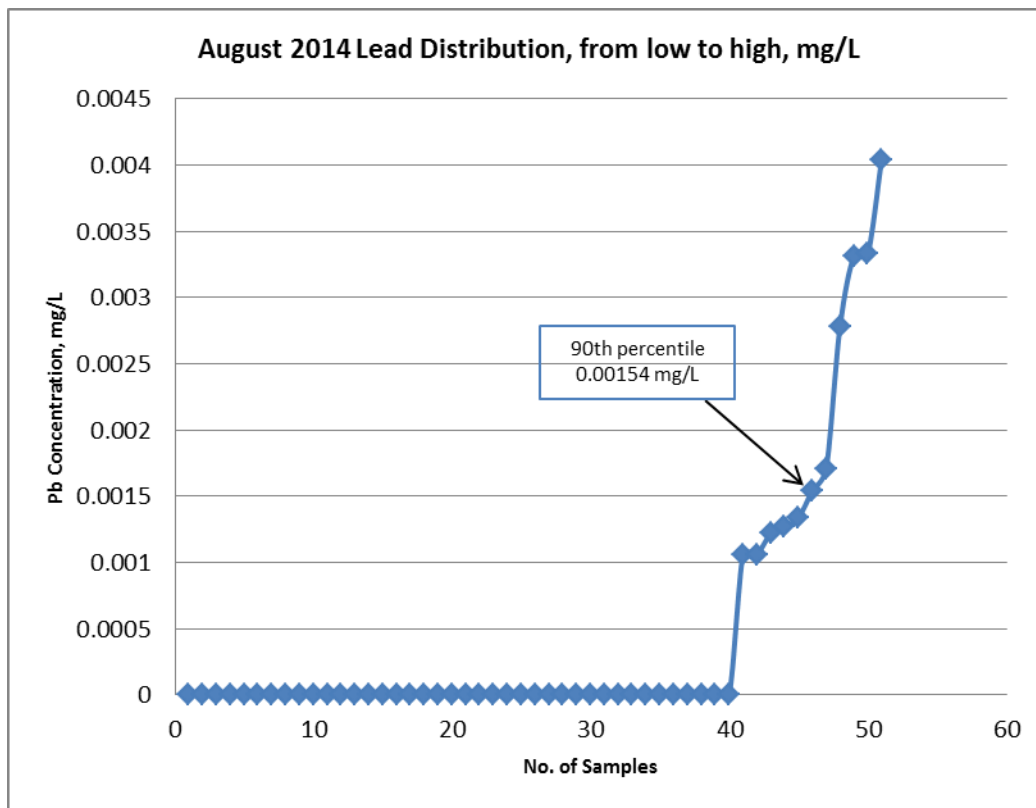
# Look at 2015 WQ data generated and reported

Go to: WQ Spreadsheet and  
Monthly Report

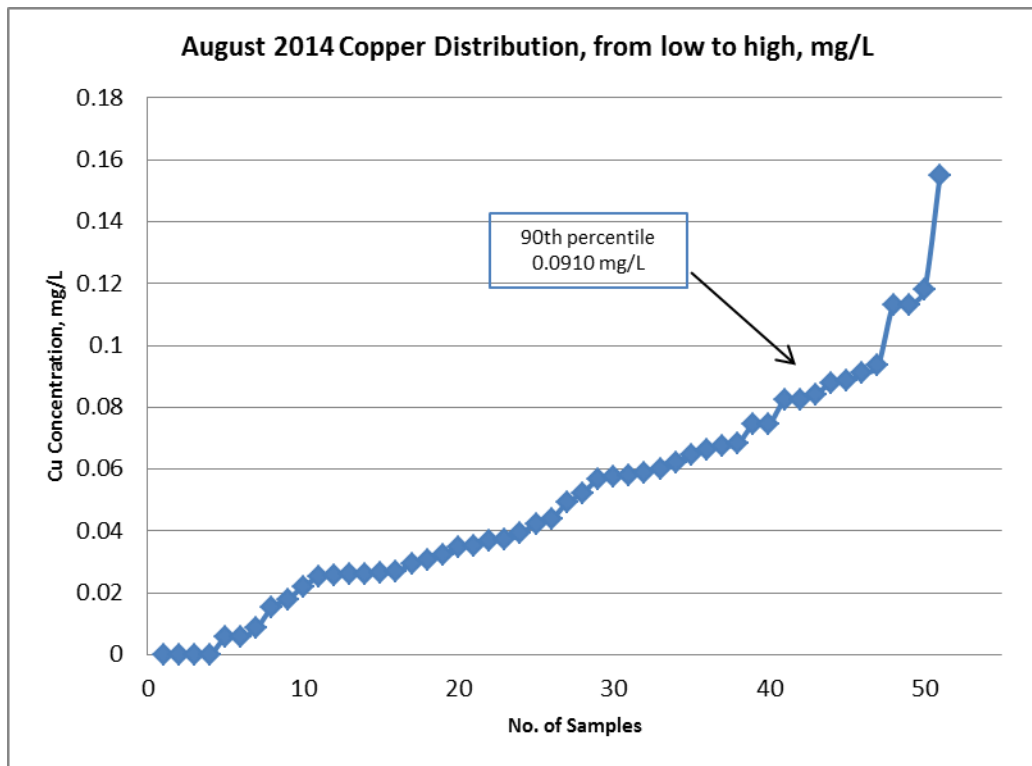
# Lead and Copper Rule

- [Rule Summary](#)
- [Rule History](#)
- [Additional Resources](#)
- [Compliance](#)
- EPA provides [new recommendations on implementation](#) and published [a new memo regarding sampling procedures](#).
- Lead and copper enter drinking water primarily through plumbing materials. Exposure to lead and copper may cause [health problems](#) ranging from stomach distress to brain damage.

# Latest TMWA Lead & Copper Results



# Latest Results



# Regulatory Direction

- People want to know what level of lead is safe/acceptable?
- Current Standard is not an MCL – it is an action level. What does that mean?
- The MCL goal (MCLG) is 0 mg/L
- So what is acceptable?
- EPA has been and is working on this answer.

# SAC Board Member Results

Sample Id		1770 Trabert Way 030316 1 <sup>st</sup> Draw 0635	Primary MCL	Secondary MCL
Acquisition Time		3/4/2016 7:54:23 AM		
Aluminum	(ug/L)	<50.0	----	200 ug/L
Antimony	(ug/L)	<1.0	6 ug/L	----
Arsenic	(ug/L)	<1.0	10 ug/L	----
Barium	(ug/L)	19	2000 ug/L	----
Beryllium	(ug/L)	<1.0	4 ug/L	----
Cadmium	(ug/L)	<1.0	5 ug/L	----
Chromium	(ug/L)	<5.0	100 ug/L	----
Copper	(ug/L)	<50.0	----	1000 ug/L
Iron	(ug/L)	33.2	----	300 ug/L
Manganese	(ug/L)	<50.0	----	50 ug/L
Molybdenum	(ug/L)	<1.0	----	----
Nickel	(ug/L)	<10.0	----	----
Pb 208	(ug/L)	<1.0	----	----
Selenium	(ug/L)	<5.0	50 ug/L	----
Silver	(ug/L)	<5.0	----	100 ug/L
Thallium	(ug/L)	<1.0	2 ug/L	----
Uranium	(ug/L)	<1.0	30 ug/L	----
Vanadium	(ug/L)	1.24	----	----
Zinc	(ug/L)	66.4	----	5000 ug/L

# SAC Board Member Results

Sample Id		1770 Trabert Way 030316 2nd Draw 0639	Primary MCL	Secondary MCI
Acquisition Time		3/4/2016 7:57:25 AM		
Aluminum	(ug/L)	<50.0	----	200 ug/L
Antimony	(ug/L)	<1.0	6 ug/L	----
Arsenic	(ug/L)	<1.0	10 ug/L	----
Barium	(ug/L)	22.8	2000 ug/L	----
Beryllium	(ug/L)	<1.0	4 ug/L	----
Cadmium	(ug/L)	<1.0	5 ug/L	----
Chromium	(ug/L)	<1.0	100 ug/L	----
Copper	(ug/L)	<50.0	----	1000 ug/L
Iron	(ug/L)	40.0	----	300 ug/L
Manganese	(ug/L)	<50.0	----	50 ug/L
Molybdenum	(ug/L)	<1.0	----	----
Nickel	(ug/L)	<10.0	----	----
Pb 208	(ug/L)	<1.0	----	----
Selenium	(ug/L)	<5.0	50 ug/L	----
Silver	(ug/L)	<5.0	----	100 ug/L
Thallium	(ug/L)	<1.0	2 ug/L	----
Uranium	(ug/L)	<1.0	30 ug/L	----
Vanadium	(ug/L)	1.21	----	----
Zinc	(ug/L)	<10.0	----	5000 ug/L

# EPA Latest

- Surveys indicated a national estimate of **6.1 million** LSLs (either full or partial) currently present in CWSs of the United States.
- 15 to 22 million people served by CWSs are estimated to have either a full or partial LSL serving their home out of a total population served by CWSs of about 293 million (7%)
- Approximately 30% of the CWSs surveyed (national average) reported having some LSLs in their system.

# EPA Latest

- The U.S. Environmental Protection Agency today released the [“Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primary Agencies and Public Water Systems”](#).
- This document is intended “to provide technical recommendations to help primacy agencies and systems comply with corrosion control treatment (CCT) requirements of the Lead and Copper Rule (LCR), including designation of Optimal Corrosion Control Treatment (OCCT)”.
- More to come – Lead MCL?
- Small Systems Challenged

# It's not just about lead – It's about everything in water: What we additionally think about and work on.

- Crypto/Giardia
- Taste and Odor (Geosmin, MIB)
- TOC (Total Organic Carbon)
- Increasing Levels of DBP's formed
- Algae – Microcystin – didn't expect and wasn't an issue 2015
- PCE/TCE – UV/AOP Pilot Study
- Nitrate – Spanish Springs – Following up on
- High Turbidity Events – exasperated with low river flow
- Fire/Ash Runoff – exasperated with low river flow
- PPCP's
- Aquatic Invasive Species
- Hexavalent Chromium – California has a regulation
- Arsenic – have an arsenic compliance plan in place
- Uranium – Lightning W
- Boron, Antimony – in areas of WC
- Storm Drainage Impacts – Low river flow impacts
- Indirect Potable Reuse (IPR); Direct Potable Reuse (DPR)
- Recharge – ASR for WQ and WR criteria
- Keep Going?

# Questions

- Future Topics?