



WATER REGULATORY UPDATE

Riverside Public Utilities

Board of Public Utilities

June 24, 2024

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PER-AND POLYFLUOROALKYL SUBSTANCES (PFAS)

1. This is the fourth PFAS update presented to the Board since 2019.
2. EPA adopted a Maximum Contaminant Level (MCL) on April 10, 2024
 - a. RPU has 5 years to comply
 - b. Compliance based on a running annual average calculation
 - c. Required to issue public notification of any exceedances
3. California is planning to adopt its own MCL that may be more stringent
 - a. PFAS Notification and Response Levels currently used as regulatory threshold until CA MCL is established
 - b. RPU continues to remain below these levels
4. Existing Treatment technologies in place are assisting in managing PFAS concentrations, but more treatment is needed to comply with the MCL



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PER-AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Federal Regulatory Levels for PFAS in Drinking Water

Compound	Final Maximum Contaminant Level Goal (MCLG)	Final Maximum Contaminant Level (MCL)
PFOA	Zero	4.0 ppt
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
HFPO-DA (Gen X)	10 ppt	10 ppt
Mixture of two or more: PFHxS, PFNA, HFPO-DA, and PFBS	Hazard Index of 1	Hazard Index of 1

Note: PFBS Health-based water concentration = 2,000 ppt

$$\text{Hazard Index} = \left(\frac{[\text{GenX}_{\text{water}}]}{[10 \text{ ppt}]} \right) + \left(\frac{[\text{PFBS}_{\text{water}}]}{[2000 \text{ ppt}]} \right) + \left(\frac{[\text{PFNA}_{\text{water}}]}{[10 \text{ ppt}]} \right) + \left(\frac{[\text{PFHxS}_{\text{water}}]}{[9.0 \text{ ppt}]} \right)$$

ppt = parts per trillion



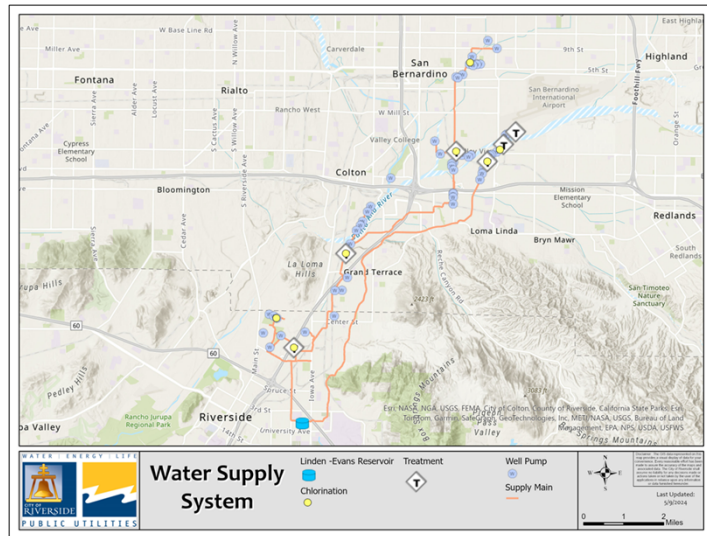
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WATER SUPPLY SYSTEM AND PFAS

1. 2023 AVG PFOS concentrations were non-detect, < 4 ppt
2. However, in 2023 we had a maximum detection of 4.3 ppt
3. Highest detected PFOS was 5.9 ppt in 2021
4. Finalizing plans to implement additional treatment to meet 5-year deadline



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HEXAVALENT CHROMIUM

1. California State Board adopted Hexavalent Chromium (Cr6) MCL on April 17, 2024 at 10 parts per billion (ppb)
2. California public health goal established in 2011 at 0.02 ppb
3. California initially adopted MCL in 2014 however became invalidated because the State didn't consider the economic feasibility of complying with the rule. This has since been evaluated.
4. Based on historical sampling (2014-2018) average Cr6 levels were 2.2 ppb, with a maximum detection of 2.7 ppb
 - a. Cr6 is likely naturally occurring within the groundwater basins
5. RPU will resume sampling once orders are received from the State.



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LEAD AND COPPER RULE REVISION (LCRR)

1. EPA issued the Lead and Copper Rule (LCR) in 1991 to limit amount of lead and copper allowed in drinking water, and provided an updated revision to this rule in 2021 called the LCRR
 - a. Must create inventory of City-owned lines and privately owned service lines (e.g. from meter to building inlet)
 - b. Must make results public by October 16, 2024
 - c. Customers must be made aware if their service lines are suspected to contain lead
2. RPU had incomplete records on privately-owned customer service line material and had to utilize a methodology to determine how it would identify all customer service lines, and get this methodology approved by the State



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LEAD AND COPPER RULE REVISION (LCRR)

3. Fundamental assumptions were used rule out unknown service line materials

Criteria	Reasoning
Any pipe (4) inches and greater in diameter, regardless of building age or installation date will be classified as non-lead	Lead pipe was typically installed in smaller service line diameters. RPU will classify service lines (4) inches and greater as non-lead
Service lines installed after January 1, 1986, will be classified as non-lead	In 1986, California implemented a lead ban; pipe, solder, and flux was required to be "lead-free"
Assumes customer lateral is no larger or smaller than 1/2-inch of the utility service lateral (diameter)	Best practices



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LEAD AND COPPER RULE REVISION (LCRR)

4. After applying fundamental lead pipe assumptions, RPU had 41,530 service laterals with unknown material
 - a. Unknowns were further categorized by diameter and decade
 - b. Applied a randomized sampling statistical approach with 95% confidence interval to verify the unknown service lines
 - c. Field verifying 3,297 service laterals
 - d. California Department of Drinking Water approved our methodology



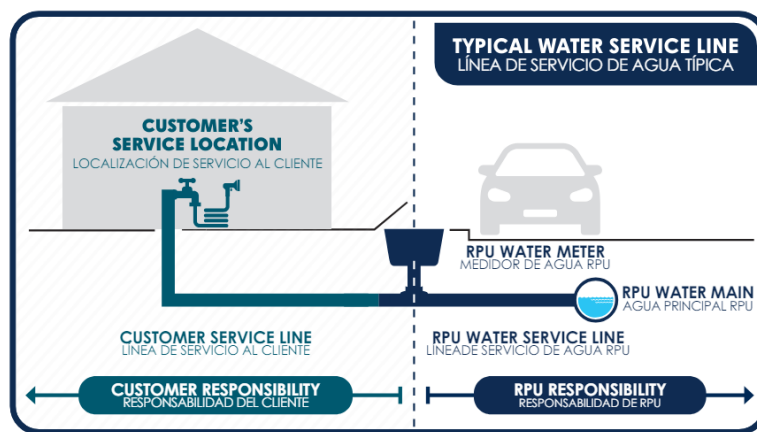
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LEAD AND COPPER RULE REVISION (LCRR)

5. As of the end of April 2024, field investigations are 90% complete and no lead pipes have been found



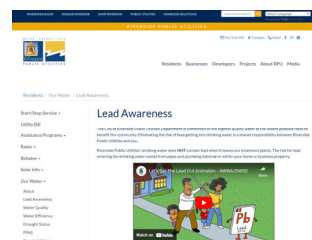
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LEAD AND COPPER RULE REVISION (LCRR)

6. Lead awareness page published in January 2024

<https://riversideca.gov/utilities/residents/our-water/lead-awareness>



7. LCRR requires all elementary schools and licensed childcare facilities to be sampled for lead over the course of 5-years.
- California already required K-12 public schools to be sampled for lead however these results will not count
 - 2017-2019, sampling was completed at 63 schools, with 3 drinking fountains exceeding the action level. Schools notified respective populations and replaced. Samples came back non-detect.



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2023 CONSUMER CONFIDENCE REPORT

1. The Consumer Confidence Report will be distributed prior to July 1, 2024
2. Changing regulations may prompt more questions than normal
3. Cr6 is not required to be sampled or reported in the 2023 calendar year.
4. PFAS has been sampled, results have remained under State Notification Levels, and RPU is planning to comply with the EPA MCLs by the 5-year compliance deadline.
5. Lead information will be updated on our website in October
6. RPU Water continues to meet or exceed the State and EPA MCLs



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STRATEGIC PLAN ALIGNMENT

Strategic Priority No. 4 Environmental Stewardship

Goal No. 4.2 – Sustainably manage local water resources to maximize reliability and advance water reuse to ensure safe, reliable, and affordable water to our community.

Cross-Cutting Threads



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation



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RECOMMENDATION

That the Board of Public Utilities receive this regulatory update on Per- and Polyfluoroalkyl Substances, Hexavalent Chromium, the Lead and Copper Rule Revision, and the Consumer Confidence Report.

