

2025 PUBLIC HEALTH GOALS REPORT

Council Water Committee

Item 25-0897

August 14, 2025

Summary

- Public Health Goals report is required every 3 years
- Reports on Water Quality pertain to:
 - State Public Health Goals
 - Federal Maximum Contaminant Levels



Background

- Public Health Goals are non-enforceable goals established by Cal-EPA's Office of Environmental Health Hazard Assessment
- Compares actual water quality to State Public Health Goals
- Discusses what actions are taken to reduce water constituents to below Public Health Goals

How are Contaminants Measured?

- Milligrams per liter – mg/l
 - 1 milligram per liter is the same as 1 part per million.
- Micrograms per liter – ug/l
 - 1 microgram per liter is 1 part per billion.
- Picocuries per liter – pCi/L
 - A picocurie is 1 trillionth of a curie, which quantifies radioactivity.

Report Findings

- Water constituents that exceeded a Public Health Goal (PHG) or Maximum Contaminant Level Goal (MCLG)
 - Arsenic (PHG 0.004 ug/L, MCL 10 ug/L) 2 – 6.4 ug/L
 - Bromate (PHG 1 ug/L, MCL 10 ug/L) Average 6.1 ug/L
 - Radionuclides
 - Gross Alpha (MCLG 0 pCi/L, MCL 15pCi/L) Ave 4.17pCi/L
 - Radium-228 (PHG .019 pCi/L, MCL 5 pCi/L) Ave 0.5 pCi/L
 - Uranium (PHG 0.43 pCi/L, MCL 20 pCi/L) Ave 3.93pCi/L
- Total Coliforms (MCLG 0 Samples, MCL < 5%) 145-186 Samples pass each month.

Arsenic

- Occurs naturally in many rocks and sediments
- Human activities such as mining, industry, and use in pesticide can lead to water contamination
- Is toxic at low levels
- Maximum Contaminate Level in Water Supplies is 10 ug/L
- Impacts groundwater



Bromate

- Occurs when surface water with Bromide is treated with Ozone.
- Only occurs in City's Surface Water Supply at the Delta Water Treatment Plant
- Maximum Contaminate Level in Water Supplies is 10 ug/L



Radionuclides



Radionuclides Rule: A Quick Reference Guide

Overview of the Rule

Title	Radionuclides Rule 66 FR 76708 December 7, 2000 Vol. 65, No. 236
Purpose	Reducing the exposure to radionuclides in drinking water will reduce the risk of cancer. This rule will also improve public health protection by reducing exposure to all radionuclides.
General Description	The rule retains the existing MCLs for combined radium-226 and radium-228, gross alpha particle radioactivity, and beta particle and photon activity. The rule regulates uranium for the first time.
Utilities Covered	Community water systems, all size categories.

Public Health Benefits

Implementation of the Radionuclides Rule will result in . . .	Reduced uranium exposure for 620,000 persons, protection from toxic kidney effects of uranium, and a reduced risk of cancer.
Estimated impacts of the Radionuclides Rule include . . .	Annual compliance costs of \$81 million. Only 795 systems will have to install treatment.

Regulated Contaminants

Regulated Radionuclide	MCL	MCLG
Beta/photon emitters*	4 mrem/yr	0
Gross alpha particle	15 pCi/L	0
Combined radium-226/228	5 pCi/L	0
Uranium	30 µg/L	0

*A total of 168 individual beta particle and photon emitters may be used to calculate compliance with the MCL.

Best Available Technologies and Treatment Costs

Ion Exchange Unit – Removes Arsenic and PFAS



- **Project** - Well Rehabilitation
- **Location** – Ernie Shropshire Park
- **Project Cost** - \$4.8M
- **Project Completion** - 2024
- **Capacity** – 1,500 gpm



Best Available Technologies and Treatment Costs

Granular Activated Carbon Pressure Contactors

Removes Dissolved Organic Compounds

Granular Activated Carbon
Pressure Contactors

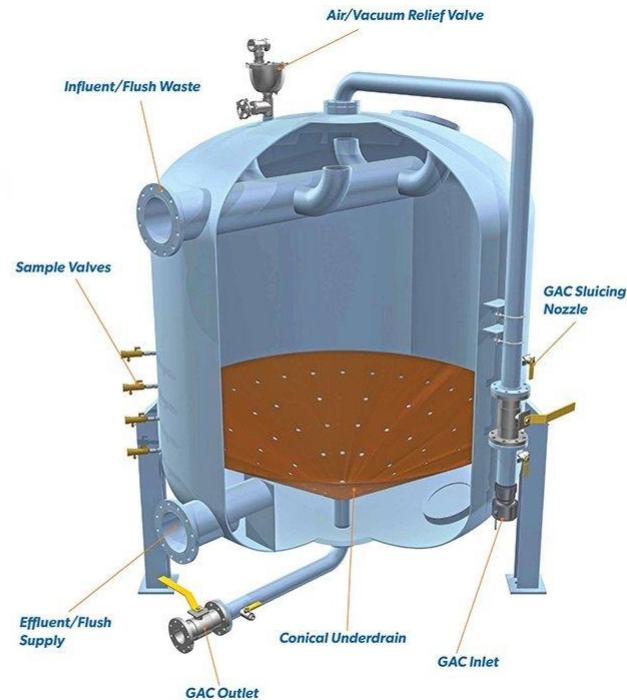


Image Source: www.westechwater.com/products/granular-activated-carbon-contactors

Best Available Technologies and Treatment Costs

Reverse Osmosis Treatment



Image Source: <https://www.marlo-inc.com/news/1000-gpm-reverse-osmosis-ro-system>

Best Available Technologies and Treatment Costs

- Arsenic – Ion Exchange Treatment Units
 - Cost would be about \$248/year per connection
- Bromate – Granular Activated Carbon Treatment
 - Cost would be about \$174/year per connection
- Radionuclides - Reverse Osmosis
 - Cost would be about \$1,510/year per connection
- Total Coliforms – Already Utilizing BAT
 - Maintain chlorine residuals
 - Monitor treatment processes
 - Positive System Pressure

Public Notice

- Report is to be approved by Council at a public hearing
- Public Hearing will be noticed to the Stockton Record
- Public Health Goals Report is available on the City website at www.stocktonca.gov/WaterQuality

Recommendation

- Recommend to the City Council to Approve the 2025 Public Health Goals Report