

Drinking Water Quality Report

January 2014 – December 2014

Dated: June 2015

2014 Drinking Water Quality Report

The City of Stockton is pleased to present its annual Drinking Water Quality Report to inform you about the quality of your drinking water delivered each and every day. We are dedicated to providing you with the highest quality water available while meeting all State and Federal drinking water standards. This Report includes a detailed water quality summary, including monitoring and testing, as well as information regarding the steps we take to protect your health and safety.



While we are required to provide this information by law, the City has also included additional information we think you will find useful and informative.

The Science of Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency (USEPA) Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

About Your Water



To meet the needs of our customers, the City of Stockton uses a combination of the following sources:

Treated water purchased from the Stockton East Water District (SEWD) which is imported from the **New Melones (Stanislaus River)** and **New Hogan (Calaveras River)** Reservoirs

Water diverted from the **Sacramento San Joaquin Delta** and treated at the City's Delta Water Treatment Plant (DWTP)

Water from the **Mokelumne River** purchased from Woodbridge Irrigation District and treated at the City's Delta Water Treatment Plant

Local **groundwater** from wells owned and operated by the City

Did You Know?



In 2014, the City of Stockton delivered **12 billion gallons** of water to over **47,000 service connections** serving an estimated **population of over 177,000**.



Drinking Water Safety and Your Health

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Board regulations also establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are also available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead in Water: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. The water delivered by the City of Stockton to your meter meets all water quality standards, but your home plumbing can affect water quality. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead.

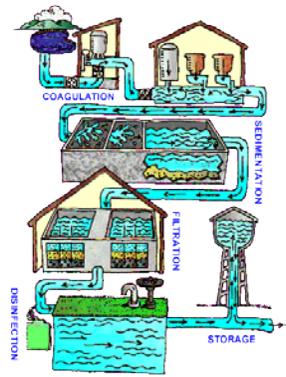
Drinking Water Source Assessment & Protection Program (DWSAPP)

Drinking Water Source Assessments for the Water System were completed in 2001 and 2012. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: *urban stormwater; septic tanks and sewage spills; dredging; mining; construction; metal plating; electronics manufacturing; National Pollution Discharge Elimination System (NPDES) permitting discharges; dairy waste and agricultural operations.* The sources are considered most vulnerable to the following activities not associated with any detected contaminants: *illegal activities/dumping; recreation; lagoons; leaking underground storage tanks; vehicle fueling and maintenance and chemical/petroleum/plastics processing and storage.*

You may request assessment summaries by contacting Tahir Mansoor (State Board) at (209) 948-7696.

How to Read the Water Quality Table

The City of Stockton tests your water for several regulated and unregulated contaminants. This table lists only those contaminants that were detected. In the table, water quality test results are divided into three main sections: **“Primary Drinking Water Standards,” “Secondary Drinking Water Standards,”** and **“Unregulated Compounds.”** Primary standards protect public health by limiting levels of certain constituents in drinking water. Secondary standards are set for substances that could affect the water’s taste, odor or appearance. Unregulated substances are listed for your information. Data in the table represents sampling from 2012 through 2014, unless otherwise noted.



Drinking Water Quality Table

| Primary Drinking Water Standards | | | | Groundwater | | Surface Water | | Meets Regulation? | Source of Constituent | | |
|--|--------------------|-------------------|--------------|---|--------------------------|---------------|---------------------------------|-------------------|---|-------------------|--|
| Constituent | Units | Primary MCL | PHG (MCLG) | Range | Average | DWTP Average | SEWD Average | | | | |
| Aluminum | mg/L | 1 | 0.6 | < 0.05 – 0.17 | < 0.05 | < 0.05 | < 0.05 | Yes | Erosion of natural deposits | | |
| Arsenic ⁽¹⁾ | µg/L | 10 | 0.004 | < 2.0 – 7.4 | 4.4 | < 2.0 | < 2.0 | Yes | Erosion of natural deposits; runoff from orchards, and electronics production wastes | | |
| Barium | mg/L | 1 | 2 | < 0.10 – 0.27 | 0.17 | < 0.10 | < 0.10 | Yes | Erosion of natural deposits | | |
| Cyanide, Total | µg/L | 150 | 150 | < 100 – 100 | < 100 | < 100 | NR | Yes | Discharge from steel/metal, plastic and fertilizer factories | | |
| Fluoride | mg/L | 2.0 | 1 | < 0.10 – 0.12 | < 0.10 | < 0.10 | < 0.10 | Yes | Erosion of natural deposits | | |
| Hexavalent Chromium | µg/L | 10 | 0.02 | < 1.0 – 6.1 | 3.8 | < 1.0 | NR | Yes | Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits | | |
| Lead | µg/L | AL = 15 | 0.2 | < 5.0 – 7.4 | < 5.0 | < 5.0 | < 5.0 | Yes | Discharges from industrial manufacturers; erosion of natural deposits | | |
| Nickel | µg/L | 100 | 12 | < 10 – 32 | < 10 | < 10 | < 10 | Yes | Erosion of natural deposits; discharge from metal factories | | |
| Nitrate (as NO ₃) ⁽²⁾ | mg/L | 45 | 45 | 3.6 – 26 | 14 | < 2.0 | < 2.0 | Yes | Runoff/leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits | | |
| Selenium | µg/L | 5.0 | 50 | < 5.0 – 5.9 | < 5.0 | < 5.0 | < 5.0 | Yes | Leaching from ore-processing sites; discharge from electronics, glass, and drug factories | | |
| Alpha Activity, Gross ⁽³⁾ | pCi/L | 15 ⁽⁴⁾ | (0) | < 3.0 – 7.33 | 4.28 | NR | NR | Yes | Erosion of natural deposits | | |
| Radium 228 ⁽⁵⁾ | pCi/L | ⁽⁶⁾ | 0.019 | < 1.0 – 1.20 | < 1.0 | NR | NR | N/A | Erosion of natural deposits | | |
| Uranium ⁽³⁾ | pCi/L | 20 ⁽⁴⁾ | 0.43 | 2.02 – 7.58 | 5.39 | NR | NR | Yes | Erosion of natural deposits | | |
| | Units | MCL | PHG (MCLG) | | | Highest Level | Lowest Monthly % ⁽⁷⁾ | Highest Level | Lowest Monthly % ⁽⁸⁾ | Meets Regulation? | Source of Constituent |
| Turbidity | NTU | TT | N/A | | | 0.07 | 100 | 0.10 | 100 | Yes | Soil runoff |
| | Units | MCL (MRDL) | MCLG (MRDLG) | Distribution System | | | | | | Meets Regulation? | Source of Constituent |
| | | | | Range | Average | | | | | | |
| Total Coliform Bacteria | % positive samples | 5% ⁽⁹⁾ | 0 | 0.0 – 2.7 | 0.4 | | | | | Yes | Naturally present in the environment |
| Chlorine as Cl ₂ | mg/L | (4.0) | (4.0) | 0.05 – 1.88 | 0.60 | | | | | Yes | Drinking water disinfectant added for treatment |
| Total Trihalomethanes (TTHM) | µg/L | 80 | N/A | < 0.5 – 110 ⁽¹⁰⁾ | 70.8 | | | | | Yes | By-product of drinking water disinfection |
| Haloacetic Acids 5 (HAA5) | µg/L | 60 | N/A | < 2.0 – 34.0 ⁽¹⁰⁾ | 24.8 | | | | | Yes | By-product of drinking water disinfection |
| | Units | Action Level (AL) | PHG | Level Detected at the 90 th percentile | Samples exceeding the AL | | | | | Meets Regulation? | Source of Constituent |
| Copper ⁽¹¹⁾ | mg/L | 1.3 | 0.3 | 0.070 | 0 of 50 | | | | | Yes | Internal corrosion of household plumbing systems |
| Lead ⁽¹¹⁾ | µg/L | 15 | 0.2 | < 5 | 0 of 50 | | | | | Yes | Internal corrosion of household plumbing systems |

*Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.*

- (1) While your drinking water meets federal and state standards for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
- (2) Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.
- (3) The compliance cycle for monitoring this constituent can vary from three to nine years; some data may be from before 2012.
- (4) Compliance may be based on average values for four quarters.
- (5) Radium 228 testing was conducted for initial monitoring required by new regulations.
- (6) The MCL is based on Combined Radium (Radium 226 + Radium 228). Radium 226 and Radium 228 do not have individual MCLs. The MCL for Combined Radium is 5 pCi/L. Radium 226 was not detected.
- (7) For surface water systems, the Treatment Technique requires that each month the turbidity level of the filtered water for membrane filtration facilities is less than or equal to 0.1 NTU in 95% of the measurements and shall not exceed 1.0 NTU at any time. Turbidity is a measure of the cloudiness of the water. It is monitored as a good indicator of the effectiveness of the filtration system.
- (8) For surface water systems, the Treatment Technique requires that each month the turbidity level of the filtered water is less than or equal to 0.3 NTU in 95% of the measurements and shall not exceed 1.0 NTU at any time. Turbidity is a measure of the cloudiness of the water. It is monitored as a good indicator of the effectiveness of the filtration system.
- (9) Presence of coliform bacteria in no more than 5% of monthly samples.
- (10) Compliance is based on the quarterly Locational Running Annual Average (LRAA). The highest level reported in the range is the result of an individual sample.
- (11) Lead and Copper are required to be monitored every three years. This data is from 2012.

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| Secondary Drinking Water Standards | | | Groundwater | | Surface Water | | | | Source of Constituent |
|---|-------|-------|-------------|---------|---------------|---------|---------|---------|---|
| Constituent | Units | MCL | Range | Average | DWTP | | SEWD | | |
| | | | | | Range | Average | Range | Average | |
| Aluminum | µg/L | 200 | < 50 – 170 | < 50 | | < 50 | | < 50 | Erosion of natural deposits |
| Chloride | mg/L | 500 | 6.2 – 120 | 34 | | 6.4 | | 3 | Runoff/leaching from natural deposits; seawater influence |
| Color | units | 15 | < 5 – 5 | <5 | < 5 – 5 | < 5 | | < 5 | Naturally-occurring organic materials |
| Iron ⁽²⁾ | µg/L | 300 | < 100 – 530 | < 100 | | < 100 | | < 100 | Leaching from natural deposits; industrial wastes |
| Manganese ⁽²⁾ | µg/L | 50 | < 20 – 190 | < 20 | < 20 – 29 | < 20 | | < 20 | Leaching from natural deposits |
| Odor ⁽²⁾ | units | 3 | ALL <1 | < 1 | < 1 – 4.0 | 1.9 | | 1 | Naturally-occurring organic materials |
| Specific Conductance | µS/cm | 1,600 | 270 – 930 | 524 | 70 – 702 | 243 | 74 – 96 | 79 | Substances that form ions when in water; seawater influence |
| Sulfate | mg/L | 500 | 13 – 62 | 30 | | 2.5 | | 4.8 | Runoff/leaching from natural deposits; industrial wastes |
| Total Dissolved Solids | mg/L | 1,000 | 200 – 560 | 357 | 33 – 390 | 138 | 40 – 65 | 54 | Runoff/leaching from natural deposits |
| Turbidity | NTU | 5 | < 0.5 – 1.8 | < 0.5 | | < 0.5 | | < 0.5 | Runoff/leaching from natural deposits; industrial wastes |
| Unregulated Compounds | | | Groundwater | | Surface Water | | | | |
| Constituent | Units | | Range | Average | DWTP | | SEWD | | |
| | | | | | Average | Average | | | |
| Total Hardness (as CaCO ₃) ⁽¹⁾ | mg/L | | 120 – 350 | 227 | | 16 | | 23 | |
| Boron | µg/L | | < 100 – 200 | < 100 | | < 100 | | < 100 | |
| Sodium | mg/L | | 13 – 38 | 21 | | 6.3 | | 5 | |
| Vanadium | µg/L | | 18 – 33 | 25 | | < 3.0 | | < 3.0 | |
| Other Compounds | | | Groundwater | | Surface Water | | | | |
| Constituent | Units | | Range | Average | DWTP | | SEWD | | |
| | | | | | Average | Average | | | |
| Total Alkalinity | mg/L | | 110 – 210 | 168 | | 24 | | 20 | |
| Calcium | mg/L | | 25 – 81 | 53 | | 4.1 | | 6 | |
| Magnesium | mg/L | | 13 – 36 | 23 | | 1.3 | | 2 | |
| Potassium | mg/L | | 3.6 – 6.3 | 5.0 | | < 1 | | < 1 | |

(1) Conversion: Hardness (grains per gallon) = Hardness as CaCO₃ (mg/L) multiplied by 0.0584

(2) Secondary Drinking Water Standards were established to address issues of aesthetics (discoloration or odor), not health concerns.

| | | |
|---|---|--|
| Key: < - Less than mg/L - Milligrams per Liter | $\mu\text{S/cm}$ - Micro-siemens per centimeter ng/L - Nanograms per Liter | NTU - Nephelometric Turbidity Unit N/A - Not Applicable |
| $\mu\text{g/L}$ - Micrograms per Liter | pCi/L - Picocuries per Liter | NR - Testing not required |

Definitions

(AL) – Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

(MCL) – Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. **Primary** MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. **Secondary** MCLs are set to protect the odor, taste and appearance of drinking water.

(MCLG) – Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

(MRDL) – Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

(MRDLG) – Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

(PDWS) – Primary Drinking Water Standard: MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

(PHG) – Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

(TT) – Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

For additional questions regarding this Report, please contact: Antonio Tovar (209) 937-8790 or antonio.tovar@stocktongov.com

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Water is a Precious Resource. Use Wisely!

The City of Stockton is committed to conserving water, an important resource with limited supply. The Water Conservation Program works year-round to increase water conservation and raise awareness about programs and services available to customers within the City's water service. Residential customers may be eligible for free water use surveys and businesses may be eligible for high efficiency toilets. For more information, call 1-866-STOKWTR (1-866-786-5987) or visit www.stocktongov.com/mud.

*Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.*