## Working Hard For You

Under the Safe Drinking Water Act (SDWA), USEPA is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. In California, each system continually monitors for these substances and reports directly to the California Department of Public Health Services (DPHS) if they were detected in the drinking water. USEPA uses these data to ensure that consumers are receiving good water and to verify that states are enforcing the laws that regulate drinking water.

This publication conforms to the regulation under SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet on the first and third Tuesday of every month beginning at 6:00 p.m. at the City Council Chambers, 383 Main Street, Brawley, CA.

***Este reporte contiene información sobre su agua potable. Si usted no lo entiende, pida que sea traducido por un amigo ó alguien que lo entienda.***

**Questions?**
**Call U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791**

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City of Brawley Water Treatment Plant
760 Willard Avenue
Brawley, CA 92227

# 2013 Water Quality Report

**Proudly Prepared By**
**City of Brawley**

## What's Inside?

This report outlines the processes involved in delivering to you the highest quality drinking water available. In it, we will answer two important questions:

- Where does my water come from?
- What is in my drinking water?

Also, we will provide you with information about available resources that will answer other questions on water quality and health effects.

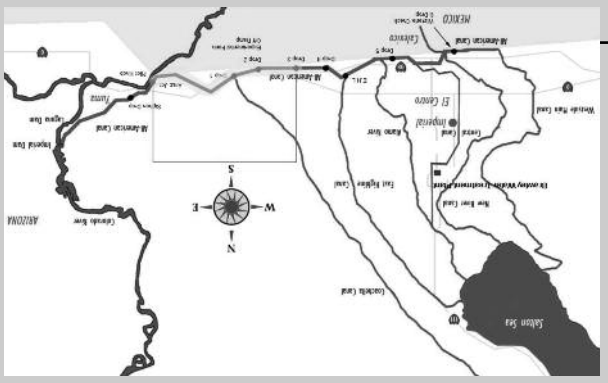
## Mark of Excellence

Since the beginning, City of Brawley's goal has been to produce the highest quality drinking water for all its customers. We are proud of our history of quality service. To maintain our commitment to you, our water treatment staff routinely collect and test water samples every step of the way - from the source waters right into the distribution system and into your home- checking purity and identifying potential problems. Our Water Treatment Division constantly maintains, evaluates and stays abreast of advancements in technology, health science and government regulations. Staffed by trained technicians, the lab has the latest, most sophisticated instruments, and can measure some substances down to one part per billion. In addition, the City has a comprehensive Cross-Connection Control Program. This program ensures that your water is free from cross-contamination from backflow or backsiphonage. Through foresight and planning, efficiency in operations, and focus on excellence in customer service, we will provide you the best quality drinking water at an economical price.

For more information about this report, or for any questions relating to your drinking water, please call Ruben Miricles, Operations Division Manager, at (760) 344-2698.

## Where Does My Water Come From?

The City of Brawley customers are fortunate because we enjoy an abundant water supply from the Colorado River. The Water Treatment Plant receives its water from the Central Main Canal via the All American Canal.




## Substances Expected to be in Drinking Water

The sources of drinking water (both tap water and bottled water) 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 from human activity.

Contaminants that may be present in source water include:

**Microbial Contaminants,** such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

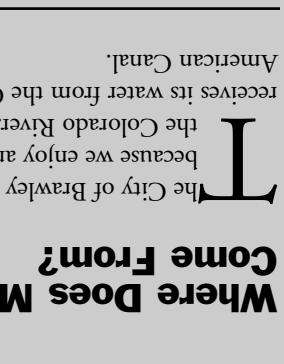
**Inorganic Contaminants,** such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides,** that 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; agriculture application.

**Radioactive Contaminants,** that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health Services prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).



## Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons 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/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

# What's In My Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled a list in the table below. We feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Directions | Sample Date | Level Detected | Range of Directions | MCL (MRDL) | PHG (MCLG) (MRDLG) | Violation | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|---|---|---|
| | Raw Water | | | Treated Water | | | | | | |
| **DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD** Regulated to protect against possible health effects. | | | | | | | | | | |
| **Aluminum** (ppb) | 1 monthly samples in 2013 | 140 | N/A | 9 monthly samples in 2013 | ND | ND-54.80 | 1000 | 600 | | Erosion of natural deposits, residue from some surface water treatment processes |
| **Arsenic** (ppb) | 2013 | 2.1 | N/A | | | | 10 | 0.004 | | Typical Source of contaminant: Erosion of natural deposits; runoff from orchards; glass and electronics production wastes refineries; erosion of natural deposit |
| **Barium** (ppm) | 2013 | 0.12 | N/A | | | | 1 | 2 | No | Discharge of oil drilling wastes and from metal refineries; erosion of natural deposit |
| **Fluoride** (ppm) | 2013 | 0.35 | N/A | | | | 2 | 1 | | Erosion of natural deposits; Water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |
| **Turbidity** (ntu) | | | | 2013 | 0.07/ 100% | N/A | TT=1ntu / TT=95% of samples ≤ 0.3 ntu | N/A | | Soil runoff |
| | Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements. | | | | | | | | | |
| **DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD** Regulated to protect the odor, taste and appearance of drinking water. | | | | | | | | | | |
| **Aluminum** (ppb) | 1 monthly samples in 2013 | **140** | N/A | 9 monthly samples in 2013 | ND | ND-54.80 | 200 | 600 | | Erosion of natural deposits, residue from some surface water treatment processes |
| **Iron** (ppb) | 1 monthly samples in 2013 | **400** | N/A | 9 monthly samples in 2013 | ND | ND-**327*** | 300 | None | | Leaching from natural deposits; industrial wastes. |
| **Color** (unfiltered) | 2013 | **15** | N/A | | | | 15 | N/A | | Naturally-occurring organic materials |
| **Turbidity** (ntu) | 2013 | **17*** | 5.2-**103*** | | | | 5 | N/A | | Soil runoff |
| **Chloride** (ppm) | 2013 | 120 | N/A | | | | 500 | N/A | | Naturally-occurring organic materials |
| **Specific Conductance** (umhos/cm) | 2013 | 1100 | N/A | | | | 1600 | N/A | | Substances that form ions when in water; seawater influence. |
| **Sulfate** (ppm) | 2013 | 290 | N/A | | | | 500 | N/A | | Runoff/leaching from natural deposits; industrial wastes |
| **Total Filterable Residue** (TDS) (ppm) | 2013 | 720 | N/A | | | | 1000 | N/A | | Runoff/leaching from natural deposits |
| **DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS** | | | | | | | | | | |
| **Chlorine** (mg/l) | | | | 2013 | 1.12 | 0.75-1.49 | 4 | | | Drinking water disinfectant added for Treatment |
| **TTHM** (ppb) | | | | 2013 | 69.1 | 44-120 | 80 | | | Byproduct of drinking water disinfection Sampled Quarterly |
| **HAAS** (ppb) | | | | 2013 | 22.6 | 20.-41.0 | 60 | | | Byproduct of drinking water disinfection Sampled Quarterly |
| **RADIOLOGICAL CONSTITUENTS** | | | | | | | | | | |
| **Uranium** (pCi/L) | 2010 | 3.7 | N/A | | | | 20 | 0.43 | | Erosion of natural deposits |

| SUBSTANCE (UNITS) | YEAR SAMPLED | REGULATORY ACTION LEVEL | PHG | AMOUNT DETECTED | HOMES ABOVE RAL | VIOLATION | TYPICAL SOURCE |
|---|---|---|---|---|---|---|---|
| **LEAD AND COPPER** (Tap water samples were collected from 30 homes in the service area.) | | | | | | | |
| **Copper** (ppm) | 2011 | 1.3 | 0.30 | 0.15 | 0 | No | Internal corrosion of household water plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| **Lead** (ppm) | 2011 | 15 | 0.2 | <0.005 | 0 | No | Internal corrosion of household water plumbing systems; Discharge from industrial manufacturers; Erosion of natural deposits |

## VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT

| Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language | Aesthetic Effects |
|---|---|---|---|---|---|
| Iron Secondary Standard | Canals contained high levels of sediment. *(Our plant also adds an iron based coagulant as part of the treatment process.)* Most iron particles should have been filtered out. | 1 out of 9 samples in 2012 | *System began monthly or quarterly sampling of treated water to show that it is being removed below the secondary standard.* | None | Iron levels over the secondary standard may cause rusty color; sediment; metallic taste; reddish or orange staining. |
| Turbidity Secondary Standard | Canals contained high levels of sediment. Aluminum and iron levels contribute to higher turbidity levels. | Daily sampling in 2012 | Our sedimentation basins and filters remove the turbidity. | | |

## UNREGULATED CONTAMINANT'S, OTHER SUBSTANCES

| SUBSTANCE (UNITS) | YEAR SAMPLED | AMOUNT DETECTED SOURCE WATER |
|---|---|---|
| **Calcium** (ppm) | 2013 | 87 |
| **Potassium** (ppm) | 2013 | 4.9 |
| **pH** (pH Units) | 2013 | 8.5 |
| **Sodium** (ppm) | 2013 | 110 |
| **Total Hardness** (ppm) | 2013 | 340 |
| **Alkalinity** (ppm) | 2013 | 160 |
| **Magnesium** (ppm) | 2013 | 30 |
| **Bicarbonate** (ppm) | 2013 | 180 |
| **Boron** (ppb) | 2013 | 180 |

## TABLE DEFINITIONS

**RAL (Regulatory Action Level):** The concentration of a contamnant, 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 (2nd MCL 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 USEPA.
**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 EPA.
**Primary Drinking Water Standard or PDWS:** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
**NA:** Not applicable.
**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.
**ppb (parts per billion):** One part per billion (or micrograms per liter).
**ppm (parts per million):** One part per million (or milligrams per liter).
**pCi/L:** Picocuries per Liter (a measure of radiation)
**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.
**RAA:** Running Annual Average
**ND:** Not Detected
**NS:** No Standard

## DISINFECTION BYPRODUCTS

Public Water Systems using Chlorine as their primary water disinfectant are required by the USEPA and DPHS to monitor for disinfection byproducts. These disinfectants react with natural occurring organic material in the water to produce a variety of DBPs. Among these DBPs are TTHMS and HAA5. Our quarterly sampled analysis has shown results well below the MCL. If you would like more information or have concerns, please contact our office.

A source water assessment was conducted for the CENTRAL MAIN CANAL of the City of Brawley water system in June, 2014. This source is considered most vulnerable to these activities for which no associated contaminant has been detected: concentrated animal feeding operations, agricultural activities such as pesticide use and farm chemical distribution, mining, geothermal wells, landfills/dumps, and illegal dumping. A copy of the assessment may be viewed at our Water Treatment Plant Facility located at 760 Willard Avenue, Brawley, CA.

## LEAD IN DRINKING WATER

In 2011, the City of Brawley was required to sample 30 homes for lead and copper. The results of these samples showed levels below the Regulatory Action Level set by the EPA and DOHS. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Brawley is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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 2 minutes before using water for drinking or cooking.

## Information On The Internet

Web sites provide a substantial amount of information on many issues relating to water resources, California Department of Public Health Services has a Web site (www.cdph.ca.gov) that provides complete and current information on water issues in our own state.
For additional water conservation information you can visit the City of Brawley Website at: http://www.brawley-ca.gov