

2017 ANNUAL WATER QUALITY REPORT

City of Banning
Public Works Department
Water/Wastewater Division
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2017 Water Quality Summary

The City of Banning's Drinking Water Meets All Federal and State Standards for Water Quality

The information contained in this report describes the City of Banning's drinking water sources and quality. This publication conforms to federal and state regulations requiring water utilities to provide detailed information about the water delivered to your home and business. Every effort is taken to present this detailed information in an understandable and transparent matter.

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

Sources of Water

100% of the City of Banning water comes from groundwater sources. The water is extracted from twenty-one ground water wells throughout the City. The wells are located over the Beaumont, Banning, Banning Water Canyon, Banning Bench and Cabazon storage units. Additionally, the City may receive water supplies from three wells within the Beaumont storage unit operated jointly by Beaumont Cherry Valley Water District and the City of Banning.

Testing Process

The City's Water Division prides itself in delivering the highest quality of water possible. Certified operators regularly monitor and collect weekly, monthly, quarterly, and annual samples in the system to assure that the City's water system meets all regulations. The results of Banning's water analysis, as listed in this report, demonstrate the City's efforts in providing excellent water quality. This report shows the results of our monitoring for the period of January 1 - December 31, 2017 and may include earlier monitoring data.

Canyon Pipeline Update

The Banning Water Canyon Pipeline Replacement Project has been identified as a critical infrastructure upgrade to ensure the continued reliability of water supplies from the Banning Water Canyon. Eleven out of twenty-one active City wells are in the Banning Water Canyon. The construction is taking place during the low demands typically seen in the winter months, to minimize operational issues. The new pipeline alignment will follow an existing access road that allows for easier maintenance moving forward.

The project will replace the most vulnerable sections with approximately 7,600 linear feet of new 24-inch ductile iron pipe. The existing pipeline consists of various materials, but mostly riveted steel that has reached the end of its useful life, in poor condition, and will be abandoned in place.

City of Banning Water Updates

San Gorgonio Integrated Regional Water Management Plan

The Region has developed its first Integrated Regional Water Management (IRWM) plan! The San Gorgonio IRWM Regional Water Management Group, consisting of the City of Banning, Banning Heights Mutual Water Company, Cabazon Water District, High Valleys Water District, Riverside County Flood Control and Water Conservation District and the San Gorgonio Pass Water Agency developed a Plan that would meet the requirements for participation in the statewide IRWM Program. Members of the management group collaborated with key stakeholders and members of the community to develop the Plan which identifies the water needs, goals, objectives, strategies and projects that are unique to the Region. The Plan provides the framework used to govern, collaborate, and plan regional IRWM activities, and foster project implementation across jurisdictional boundaries.

The Plan has been submitted to the California Department of Water Resources to begin the Plan Review/Approval Process. The Plan can be downloaded from the San Gorgonio IRWM website at: <http://www.sgirwm.org>.

Court's Judgement Regarding Chromium-6

In May 2017, a California Superior Court judge ruled that the State Water Resources Control Board ("State Water Board") must withdraw its 10 parts per billion (ppb) Chromium-6 standard and that it must be reevaluated based on economic feasibility. The California Department of Public Health (Department) failed to properly consider the economic feasibility of agencies complying with the maximum contaminant level (MCL), and subsequently the court ruled against the department.

Effective September 11, 2017, the MCL for Chromium-6 is no longer in effect. While the State Water Board has not appealed the trial court's decision, the City will continue to monitor the topic and provide updates as more develops.

Award-Winning Service For a Consecutive Year

The employees of the Wastewater Division continue to demonstrate their diligent efforts providing superior wastewater service by winning, for the second year in a row, the "Small Collection System of the Year" award. The award is presented by the California Water Environment Association (CWEA) in recognition of outstanding maintenance programs, regulatory compliance and safety & training procedures. The 3-member staff, consisting of Wastewater Lines Collections employees receive regular training to ensure they keep up with the best practices in the water industry. The City is committed to maintaining its strong track record of being a leader in the water and wastewater service.



Additional Water Updates

Automated Meter Reading (AMR)

The City is in the process of upgrading its technology to better serve customers. Smart meters offer a number of benefits for both the City and its customers, including more detailed water usage information and the ability to address issues more quickly and effectively.

Banning Public Works department, Water Division will begin installing Automatic Meter Reading (AMR) devices mid to late 2018. The meters will be installed by City of Banning Water division employees. Installations of the AMR devices will take place over a period of approximately 5 years. The installation timeline may be accelerated if grant funding is awarded from the Bureau of Reclamation. Also, future funding may be possible under the State's Proposition 1.

Additional information will be made available as the City moves forward with the meter replacement program.



FREQUENTLY ASKED QUESTIONS

(<https://www.cdc.gov/healthywater/drinking/drinking-water-faq.html#where>)

Q: Where does my drinking water come from?

A: The drinking water that is supplied to our homes comes from either surface water or ground water. In the City of Banning, all of the water provided is Ground water. Ground water is water located below the ground where it collects in pores and spaces within rocks and in underground aquifers. We obtain ground water by drilling wells and pumping it to the surface.

Q: How do I know that the water in my home is safe to drink?

A: The [United States Environmental Protection Agency](#) (EPA) is responsible for making sure that public water supplies within the United States are safe. In 1974, Congress passed the [Safe Drinking Water Act](#). This law sought to protect the nation's public drinking water supply by giving EPA authority to set the [standards](#) for drinking water quality and oversee the states, localities, and water suppliers who implement those [standards](#). In 1986 and 1996, the law was amended to protect drinking water and its sources, which include rivers, lakes, reservoirs, springs, and ground water wells.

Q: How do contaminants (germs and chemicals) get into my drinking water?

A: There can be many sources of contamination of our water systems. Here is a list of the most common sources of contaminants:

Naturally occurring chemicals and minerals (for example, arsenic, radon, uranium)

Local land use practices (fertilizers, pesticides, livestock, concentrated animal feeding operations)

Manufacturing processes

Sewer overflows

Malfunctioning wastewater treatment systems (for example, nearby septic systems)

Many contaminants that pose known human health risks are regulated by the U.S. Environmental Protection Agency (EPA). EPA makes sure that water meets certain standards, so you can be sure that high levels of contaminants are not in your water.

Source Water Assessments

An assessment of the drinking water source(s) for the City of Banning was completed on January 16, 2010. The source(s) are considered most vulnerable to the following activities associated with contaminants detected in the water supply: Hexavalent Chromium (Chromium 6) and Nitrates. In addition, the source is considered most vulnerable to these activities: Naturally occurring rock formations and septic systems. You may request a summary of the assessment be sent to you by contacting Perry Gerdes, Water/Wastewater Superintendent at (951) 922-3281.

Your Tap Water Met All EPA and State Drinking Water Standards

Regulations require analysis for approximately 150 regulated and unregulated contaminants. Only contaminants in the water supply are listed and all data is from the most recent monitoring completed in compliance with regulations. In some cases, the California State Water Resources Control Board Division of Drinking Water has allowed the city to monitor less frequently for certain contaminants because the city's system is not vulnerable to these contaminants or levels were not expected to fluctuate significantly from year to year.

Contaminants that May be Present in Source Water

- 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, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituents. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Lead-Specific Language for Community Water Systems: 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 Banning 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.

There are 15 schools in the City of Banning, none of which requested lead sampling in 2017. If you are concerned about lead in your water, you may contact the City.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest % of positive samples in a month	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	2.1	0	5% of monthly samples are positive	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample are total coliform positive, and one of these is fecal coliform or <i>E. coli</i> positive	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (sample date August 2015)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	36	<5	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	36	0.092	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2015-17	26	7.1-48	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2015-17	124	49-170	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	2015-17	2.3	<2-4.9	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium 6 (ppb)	2017	1.63	0-19	10	0.02	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2015-17	.47	0.3-1.3	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Note: MCL requirements were withdrawn 9/11/2017.

TABLE 4 (CONT.) – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (as nitrate, NO ₃) (ppm)	2017	5.3	1.6-9.7	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (ppb)	2017	5.2	0-7.0	80		By-product of drinking water disinfection
Haloacetic Acid (ppb)	2017	0.5	0-2.0	60		By-product of drinking water disinfection
Chlorine	2017	0.4	0.26-0.46	4.0 As Cl ₂	4 As Cl ₂	Drinking water disinfectant added for treatment
Total Chromium (ppb)	2015-2017	7.2	0-16	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2015-17	7	1.8-14	500	None	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2015-17	360	290-460	1600	None	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2015-17	17	6-35	500	None	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2015-17	209	170-300	1000	None	Runoff/leaching from natural deposits
Turbidity (NTU)	2015-17	.16	<0.1-0.26	5	None	Soil runoff

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	PHG (MCLG)	Typical Source of Contaminant
Calcium (ppm)	2015-17	34.5	15-44		NA
Bicarbonate (ppm)	2015-17	172	140-200		NA
Magnesium (ppm)	2015-17	9	2.6-15		NA
PH (Std. Units)	2015-17	7.8	7.4-8.2		NA
Potassium (ppm)	2015-17	2	1.3-3.8		NA

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

The following are definitions of some of the terms (symbols) used in this report:

Level Detected: = Average of samples collected at the City's production wells, except for TTHM, HAA5, and Chlorine, which are sampled in the distribution system. For these chemicals, the Level Detected reflects the highest locational running annual average.

Maximum Contaminant Level (MCL): 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.

Maximum Contaminant Level Goal (MCLG): 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 (USEPA).

Public Health Goal (PHG): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

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

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variations and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

n/a: not applicable

< : less than

NTU: Nephelometric Turbidity Units

uS/cm: microsiemens per centimeter

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.

Additional Information on Drinking Water

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 the 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).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Making Water Conservation a California Way of Life

Although Governor Brown lifted the drought emergency order, the City will continue to enforce water conservation in compliance with the Water Resources Control Board in an effort to build on the successes and lessons learned from the five-year drought.

Restrictions for Residents

- Watering landscaping within 48 hours of a rainstorm
- Hosing off sidewalks and driveways
- Overwatering of landscaping to the point it runs into the streets
- The use of a hose without a shut-off nozzle or similar device to prevent the unnecessary flow of water
- The use of potable water in a fountain that does not recirculate the water

Water Conservation Efforts for Businesses

- Eating or drinking establishments should only serve water to patrons if requested
- Limit outdoor irrigation of ornamental landscape and turf to only two days per week
- Hotels and motels should offer guests the option to not have towels and linens laundered everyday

Civil Penalties

1st Violation → Written Notice

2nd Violation (in a 12-month period) → If two citations are received in a 12-month period, then a one-month surcharge of 25% of the previous month's water bill will be imposed.

3rd Violation (in a 12-month period) → If three citations are received in a 12-month period, then a one-month surcharge of 50% of the previous month's water bill will be imposed

4th Violation (in a 12-month period) → If four or more citations are received in a 12-month period, subsequent 50% violations may be issued, or a penalty of \$500 per day for which the violation continues

Public Participation Opportunities

The City of Banning is a non-profit public agency with a five-member council elected by the public. The City Council sets policy and represents customers (ratepayers). At the City Council's regular meetings, time is provided for the public to present its concerns and questions. Council meetings are held twice monthly on the second and fourth Tuesdays at 5:00 p.m. Both meetings are held at the City Council Chambers at City Hall, 99 East Ramsey Street, Banning 92220. Parking and building access are available from Ramsey Street and Hays Street. City Council may be contacted via email at: sdelafuente@ci.banning.ca.us.

For more information: If you have any questions about this report, please contact Perry Gerdes, Water/Wastewater Superintendent at (951) 922-3281.

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