

2016 Annual Water Quality Report

City of Banning
Water/Wastewater Department
176 E. Lincoln Street * P.O. Box 998
Banning, CA 92220-0998



2016 Water Quality Summary

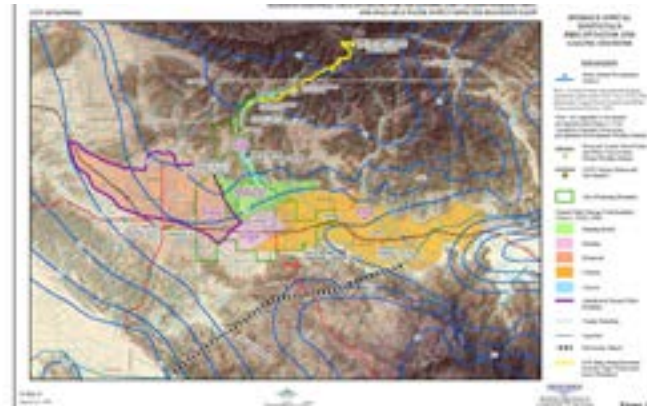
The City of Banning's Drinking Water Meets All Federal and State Standards for Water Quality

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 manner.

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

Water Sources

Unlike most of the cities in southern California, 100% of the City's water comes from groundwater sources. The City's 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, 2016 and may include earlier monitoring data.



Award-Winning Service

The Water Division's 15-member staff works diligently to provide superior water service and receives regular training to ensure that they keep up with the best practices in the water industry. In 2016, the Wastewater Division was honored by the California Water Environment Association with its "Small Collections System of the Year" Award. The City of Banning is committed to maintaining its strong track record of being a leader in water and wastewater service.



City of Banning Water Updates

Chromium-6 Compliance Plan Moving Forward

Chromium-6 is a naturally occurring mineral found in rock formations in the City of Banning and throughout California. In July 2014, the State of California adopted a new Maximum Contaminant Load (MCL) for Chromium-6 which has been set at 10 parts per billion (ppb). The previous limit was 50 ppb.

The City has nine wells that currently test above the 10 ppb standard. The highest detecting well averages 19 ppb and is no longer being used for potable (drinking) water. The next highest detecting well averages 16 ppb. One part per billion is typically described as a drop in an Olympic-size swimming pool. The Federal standard for total Chromium is currently set at 100 ppb.

The State Water Resources Control Board (SWRCB) is allowing public water systems until January 1, 2020 to come into compliance and the City has been working diligently to find a treatment solution that is both efficient and fiscally responsible. The City's water currently meets all Federal and State drinking water standards, and can be used for drinking, cooking, and all other needs without any additional treatment during the compliance process.

In May 2017, a California Superior Court judge ruled that the SWRCB must withdraw its 10 ppb Chromium-6 standard and that it must be reevaluated based on economic feasibility. The City is carefully monitoring this legal development and will provide updates if there are any changes to the State's MCL standard. In the meantime, the City is continuing its partnership with the City of Coachella to secure additional grants to complete pilot studies on the best methods to remove Chromium-6 from our impacted well water.

City of Banning Receives 1st Place for Water Management Grant

The City of Banning's joint application received top scores and was awarded \$979,195 from the California Department of Water Resources (DWR)'s Proposition 1 - 2016 Planning Grant Program. The application received 100% of its requested funding, which is nearly a quarter of the total funds awarded by DWR through the program.

The money will be used to develop the region's first Integrated Regional Water Management Plan (IRWMP) to help ensure that existing water supplies are used efficiently and in the best interest of the public. Several agencies are involved in the development of the plan including San Geronio Pass Water Agency, Cabazon Water District, Banning Heights Mutual Water Company, High Valleys Water District, and Riverside County Flood Control and Water Conservation District.

The grant funding will pay for over 90% of the total cost of the IRWMP. The partnering agencies will share the remaining costs and expect to complete the plan by April 2018. Additional information and upcoming meetings regarding the IRWMP can be found at www.sgirwm.com.

Rebates Available for Ultra Low-Flush Toilets

The Ultra Low-Flush Toilet Rebate is a water conservation incentive program that offers residential water customers the opportunity to replace their existing high water use toilet fixtures with water saving Ultra Low-Flush Toilets (ULFT).

Rebates are provided for each ULFT installed that uses 1.6 gallons of water or less per flush. There is a limit of two toilet rebates per account. The level incentive is \$30 per qualified toilet. Qualified units must be replacing units using higher volume of water per flush.

For more information, call City of Banning Public Benefits at (951) 922-3260 or visit www.banning.ca.us.

Water Quality 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. 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	1.7%	0	5% of monthly samples are positive	0	Naturally present in the environment
Fecal Coliform or E. coli	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems are required to comply with the state Total Coliform Rule. Beginning April 1, 2016, all water systems are also required to comply with the federal Revised Total Coliform Rule. The new federal rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system.

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

Lead and Copper (2015) (complete if lead or copper detected in the last sample set)	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
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)	2014-16	24	6.1-51	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2014-16	140	52-250	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)	2014-16	2.11	<2-3.9	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium 6 (ppb)	2014-16	6.3	0-16	10	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Total Chromium (ppb)	2014-16	5.9	0-15	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Fluoride (ppm)	2014-16	1	<0.3-1.4	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Chlorine (ppm)	2016	0.41	0.32-0.53	[4.0 (as CL2)]	[4 (as CL2)]	Drinking water disinfectant added for treatment
Nitrate (as nitrate, NO3) (ppm)	2016	7	<2-9.8	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (TTHM) (ppb)	2016	5.3	0-5.2	80	NA	NA
Haloacetic Acid (HAA5) (ppb)	2016	1.7	0-2.8	60	NA	NA
Uranium (pCi/L)	2014-16	.97	0.2-4.12	20	.43	Erosion of natural deposits
Gross Alpha particle activity (pCi/L)	2013-16	1.08	0.0121-4.24	60	(0)	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)	2014-16	8	1.8-15	500		Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2014-16	103	<100-150	300		Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	2014-16	379	300-600	1600		Substances that form ions when in water; seawater influence
Sulfate (ppm)	2014-16	20	4.9-50	500		Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2014-16	209	150-330	1000		Runoff/leaching from natural deposits
Turbidity (NTU)	2014-16	0.12	<0.1-0.78	5		Soil runoff

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Typical Source of Contaminant
Alkalinity (ppm)	2014-16	151	100-220		NA
Calcium (ppm)	2014-16	37	16-59		NA
Bicarbonate (ppm)	2014-16	184	130-270		NA
Magnesium (ppm)	2014-16	11	27-26		NA
PH (Std. Units)	2014-16	8	7.2-8.3		NA
Potassium (ppm)	2014-16	2	1.3-3.6		NA

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

Key Terms Used in Chart

Level Detected = average of results from City's producing wells, except for chlorine, TTHM and HAA5

NA = not applicable

< = less than

NTU = Nephelometric Turbidity Units

uS/cm = microsiemens per centimeter

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

<p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p> <p>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.</p> <p>Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.</p> <p>Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p>Variations and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.</p> <p>ND: not detectable at testing limit</p> <p>ppm: parts per million or milligrams per liter (mg/L)</p> <p>ppb: parts per billion or micrograms per liter (µg/L)</p> <p>ppt: parts per trillion or nanograms per liter (ng/L)</p> <p>pCi/L: picocuries per liter (a measure of radiation)</p>
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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 General Information on Drinking Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (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. State Board regulations also establish limits for contaminants in bottled water that 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 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 risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Water Conservation is a New Way of Life in California

In April 2017, Governor Jerry Brown officially ended the drought in most of California, including Riverside County. The drought emergency was initiated in 2013 in response to record-setting low rainfall between 2012 and 2015 and required significant water restrictions.

The key lesson learned from the historic drought is that conservation needs to become a way of life for all Californians. The more water we save now, the better off our communities will be when there are future droughts where water becomes even more scarce. The City of Banning will continue to enforce the following regulations in compliance with the Governor's Executive Order B-40-17 outlined below.

Mandatory Prohibitions 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

Mandatory Prohibitions 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 daily

Civil Penalties

First Violation

- Written Notice

Second Violation (in 12-month period)

- If two citations are received in a 12-month period, then a one-month surcharge of 25% of the previous' month water bill will be imposed

Third Violation (in 12-month period)

- If three citations are received in a 12-month period, then a one-month surcharge of 50% of the previous' month water bill will be imposed

Fourth Violation (in 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.

Customers may also communicate with the City Council through email at: mcalderson@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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