



City of Banning

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

2015 ANNUAL WATER QUALITY REPORT

The Water Quality Report in this flyer 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 manner.

The City of Banning tests the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2015 and may include earlier monitoring data.

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

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.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that provide protection for public health.

We are pleased to report that the City of Banning has met most of the requirements set by USEPA and SWRCB during the 2015 calendar year. The City's Water Division prides itself in delivering the highest quality of water possible. Certified technicians regularly monitor and collect weekly, monthly, quarterly, and annual samples in the system to assure that the water quality in the City's water system meets all regulations. The results of Banning's water analysis as listed herein, demonstrates the City's efforts in providing excellent water quality.

The men that keep the water flowing



Water Quality Assessments

Source Water Assessments are completed on active wells on a continuous basis. The presence of chemical constituents is an important indicator of water quality and in determining that the water is safe to use. The sampling results stated within this report range from the years 2013—2015. These results are filed at the City of Banning Water Department Office located at 176 E. Lincoln Street.

Your tap water met all EPA and State drinking water health 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 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, 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 7 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.

Summary Information for Contaminants Exceeding or Violation of Monitoring

The City failed to conduct the required annual Nitrate monitoring sample at well C-5 during the calendar year 2015. Well C-5 is required to be monitored at least annually for Nitrate and once every three years for Nitrite. Records show that well C-5 nitrate levels have never exceeded half of the MCL and that they did not pose a risk to public health. This error did not result in a risk to public health. However, the Division of Drinking Water is requiring the City to inform the Public of the missed sample.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA						
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria	
Total Coliform Bacteria	0	0	If more than 5% of all sample in a month with a detection	0	Naturally present in the environment	
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste	

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	36	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	36	0.09	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	Avg. Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2013-15	24	6.1-51	none	none	Salt present in the water and is gen-
Hardness (ppm)	2013-15	131	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 on page 2 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)	2013-15	0.52	<2-3.9	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium 6 (ppb)	2015	7.4	0-24	10	0.02	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2013-15	1	0.3-1.7	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as nitrate, NO ₃) (ppm)	2015	5 *	<2-11	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

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

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2013-15	7	1.2-15	500		Runoff/leaching from natural deposits; seawater influence
Color (Units)	2013-15	015	<3-3	15		Naturally-occurring organic materials
Iron (ppb)	2013-15	68	<100-150	300		Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	2013-15	354	280-600	1600		Substances that form ions when in water; seawater influ-
Sulfate (ppm)	2013-15	17	3.8-50	500		Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2013-15	205	160-300	1000		Runoff/leaching from natural deposits
Turbidity (NTU)	2013-15	0.5	<0.2-1.8	5		Soil runoff

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Alkalinity (ppm)	2013-15	141	100-220		NA
Calcium (ppm)	2013-15	35	12-59		NA
Bicarbonate (mg/L)	2013-15	172.5	130-270		NA
Magnesium (ppm)	2013-15	10.5	2.1-26		NA
PH (Std. Units)	2013-15	7.76	7.2-8.4		NA
Potassium (ppm)	2013-15	2	1.3-3.9		NA
Total Trihalomethanes (ppb)	2015	1.54	0-6.2	80	NA
Haloacetic Acid (ppb)	2015	0.91	0—6.6	60	NA

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

**TABLE 7 – SAMPLING RESULTS SHOWING
FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES**

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	0 (In the year)	2015	0	(0)	Human and animal fecal waste
Enterococci	0 (In the year)	2015	TT	NA	Human and animal fecal waste
Coliphage	0 (In the year)	2015	TT	NA	Human and animal fecal waste

**TABLE 8– SAMPLING RESULTS SHOWING RADIOACTIVE COMNTAMINENTS-
POSITIVE GROUND WATER SOURCE SAMPLES**

Radioactive Contaminants	Tradi-tional MCL in mg/L	Level Detected	MCL [MRDL]	RANG E	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Gross Alpha particle activity (pCi/L)	15	1	15	0.09-4.24	0	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Key Terms Used in Chart

Average = average of City’s producing wells.

< = less than

uS/cm = microsiemens per centimeter

n/a = not applicable

NTU = Nephelometric Turbidity Units

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>Variances and Exemptions: Department 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>ppq: parts per quadrillion or picogram per liter (pg/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

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).

Terms To Know About Your Water and Water System

Hardness

Hardness is mostly calcium and magnesium that cause a mineral deposit on fixtures and dishes. It also causes curdling of soap and increased consumption of soap.

Hardness can leave a chalky residue in ice cubes. In the City of Banning's drinking water, hardness average 123 parts per million parts of water or 8.8 grains of hardness.

Total Dissolved Solids

The total amount of solids in solution (mainly mineral salts) in parts per million parts of water.

Milky Water

Air in the water can cause a milky appearance. Water which contains dissolved air is delivered to customers' home under pressure.

Turning on the faucet releases the pressure, causing air bubbles to appear. Like a carbon dioxide in soft drinks, the tiny air bubbles rise to the surface. Clearing begins at the bottom of the container and within a couple of minutes, the water is clear.

Particles in Water

The natural hardness of the water served by City of Banning can cause scale deposits in pipes and water heaters that sometimes break loose due to plumbing activities or repair to the transmission and distribution systems. These may appear as particles in your drinking water.

In addition, a natural chemical reaction will cause pipes to corrode and particles may break away into the water. Such particles and scale are not harmful.

Taste and Odor

Taste and odor problems can affect both cold and hot water. When it comes to taste, some people may dislike the naturally occurring minerals in water. Newcomers may favor a taste similar to that which they enjoyed before moving to the area.

Other taste problems arise from salty water drawn into the home through older type water softeners.

Taste problems are also caused by in home water filters that are outdated or placed in the sun where algae growth is induced.

Odor usually occurs when water sits undisturbed for an extended period, especially in hot water heaters. Odors are most often noticed by part-time residents or customers who have been away for a weekend or longer.

Upon opening a faucet they detect a slight smell of rotten eggs. It is not a problem of health; but it is unpleasant. When returning home from being away, it is best to run cold water for a few minutes to flush the idle water and with it, the unpleasant odor.

It is also a good idea to flush your hot water heater, especially if you notice a rotten egg odor from the hot water. In fact, the City of Banning Water Division recommends a periodic flushing of your hot water heater.

Another case of odor in water is the idle water trapped inside a garden hose. Garden hoses should be drained as completely as possible while they are being rolled up and then stored in a shady location.

City of Banning — Water Information

WHAT IS HAPPENING WITH CHROMIUM-6 IN BANNING?

As you are aware, the City of Banning has 21 potable water wells along with three co-owned wells with Beaumont Cherry Valley Water District (BCVWD). July 2014 the California State Water Resources Control Board Division of Drinking Water changed the Maximum Containment Level (MCL) for Hexavalent Chromium (Cr6) from 50 parts per billion (Ppb) to 10 Ppb. Nine of the City of Banning's 21 groundwater wells are near or above the MCL set by the State of California. These wells are impacted by naturally occurring Cr6, as well as two co-owned wells with BCVWD. The Water board has granted the City a variance until 2020 to design a plan and implement a treatment process to lower the Cr6 below the state MCL.

Chromium is a naturally occurring element found in rock, soil and groundwater. It is the 11th most common element found in the earth's crust. Chromium is present in the environment in two forms Cr3 and Cr6. Cr6 can be found naturally in the environment, but can also occur as an industrial byproduct from manufacturing processes for stainless steel, chrome plating, dyes, pigments, leather tanning and wood preserving. Cr6 occurs naturally in Banning due to erosion of local sediments.

The City of Banning contracted with Hazen and Sawyer to develop a Cr6 treatment and compliance study for the city's impacted wells. This study provided the City with 6 different scenarios to decrease the Cr6 concentrations in the 9 wells that are effected by the California's new Cr6 standard. Over 40% of Banning's water supply is impacted by the new Cr6 standard and the most cost effective scenario will cost the City between \$20-\$40 million dollars to construct and implement.

The City's next steps will be to prepare a financing plan to construct the needed treatment facilities. The plan will be made up of rate adjustments, grants and loans.

The State of California has given all water districts until 2020 to become compliant with the new standard.

CONSERVATION

The City of Banning has approved Ordinance No. 1489 requires the following:

Mandatory Prohibitions as Required by the State Water Resource Control Board Drought Regulation including:

1. The application of water to outdoor landscapes in a manner that causes runoff.
2. The use of a hose that dispenses water to wash a motor vehicle, except where the hose is fitted with a shut off nozzle.
3. The application of water to driveways and sidewalks.
4. The use of water in a fountain or decorative water feature, except where water is part of a recirculating system.
5. Irrigating outdoor landscapes during and within 48 hours after a measurable rainfall.
6. Serving of beverages other than upon request in eating or drinking establishments.
7. No emptying or refilling of swimming pools except to prevent or repair structural damage or to comply with health regulations.
8. Lawn watering and landscape irrigating are restricted as follows:
 - a) Customers with even numbered street addresses shall water only on Monday, Wednesday, and Friday. Customers with odd numbered addresses shall water only Tuesday, Thursday, and Sunday between sunset and sunrise.
 - b) Broken sprinklers shall be repaired within 24 hours of notification, and leaks shall be repaired as soon as practicable.

LANDSCAPE WATERING DAYS

Addresses ending
with 0,2,4,6, or 8

Addresses ending
with 1,3,5,7, or 9

Watering Days:

Monday
Wednesday
Friday

Watering Days:

Tuesday
Thursday
Sunday

WATER BEFORE SUNRISE AND AFTER SUNSET

City of Banning
P.O Box 998
Banning, CA 92220-0998

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Banning Residents
Banning, CA 92220

Electronic Consumer Confidence Report

To view an electronic copy of the 2015 Consumer Confidence Report, please visit the following URL:
www.ci.banning.ca.us/CCR2015.

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 6:00 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: mcalderon@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.

Por Favor: Este informe contiene informacion muy importante sobre su agua potable.
Traduzcalo o hable con algien que lo entienda bien. Perry Gerdes (951) 922-3281