2018 ANNUAL WATER QUALITY REPORT

Consumer Confidence Report for Monitoring Period of January 1–December 31, 2018

City of Banning
Public Works Department
Water/Wastewater Division
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2018 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.

Where Does My Water Come From

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, 2018 and may include earlier monitoring data.

City of Banning Water Updates

San Gorgonio Integrated Regional Water Management Plan, Approved!

The California Department of Water Resources has reviewed and approved the Region's Integrated Regional Water Management (IRWM) plan. The San Gorgonio IRWM Regional, 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. The Plan can be downloaded from the San Gorgonio IRWM website at: http://www.sgirwm.org.

Additional Water Updates

Coming Soon… Automatic Metering Infrastructure (AMI) - Smart Meters

The City of Banning is preparing to embark upon a pilot program installing Smart Meters for 200 of its approximately 10,500 water service customers. The pilot will allow for testing of the system before rolling it out city wide.

Currently water meters are manually read each month. The proposed project would retrofit the existing meters with a compatible electronic register and radio so they can be read remotely on a continuous basis. The AMI system would reduce mis-reads; capture smart statistics such as potential slow leaks, reverse flow, and major leak conditions; provide frequent updates for more accurate billing; and free up meter reading staff to provide a higher level of service when turn ons and turn offs are needed. Additionally, AMI would allow both City staff to access detailed consumption history reports which make it easier to conserve water and detect possible water theft.

Award-Winning Service For a Third Consecutive Year

Once again, the 3-member staff of the Wastewater Division has been recognized by the California Water Environment Association (CWEA), with the "Small Collection System of the Year" award. This win makes it the third consecutive win for the team and the City of Banning. The award is presented in recognition of outstanding maintenance programs, regulatory compliance and safety & training procedures. The City is committed to maintaining its strong track record of being a leader in the water and wastewater service and winning this award further illustrates that commitment.

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.

Source Water Assessments

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.

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.

There are 15 schools in the City of Banning, 13 of which requested lead sampling in 2018. 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	1.72	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 are total coliform positive, and one of these is fecal coliform or *E. coli* positive	0	Human and animal fecal waste

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

Lead and Copper (sample date July 2018)	**No. of samples collected**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (mg/L)	31	N/D	0	0.015	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	31	0.075	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)	2016-2018	27	7.1—48	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2016-2018	121	49—190	None	None	Sum of polyvalent cautions 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**
Gross Alpha Particle Activity (pCi/L)	2016-2018	1.4	0-3	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	2014-2016	0.97	0.2-4.1	20	0.43	Erosion from natural deposits
Aluminum (ppm)	2016-2018	0.0052	<0.050-0.057	1	0.6	Erosion of natural deposits; residue from some surface water treatment process
Arsenic (ppb)	2018	< 2	ND—4.9	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes

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**
Fluoride (mg/L)	2016-2018	0.51	0.32—1.3	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N) (ppm)	2018	1.4	0.27—2.2	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Chlorine	2018	0.40	0.26—0.51	4.0 As Cl2	4.0 As Cl2	Drinking water disinfectant added for treatment
Total Chromium (ppb)	2016-2018	9.1	<10—15	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Total Trihalomethanes (ppb)	2018	4.8	0—4.5	80	None	By-product of drinking water disinfection

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**
Iron (ppb)	2016-2018	11	<100-120	300	None	Leaching from natural deposits: industrial wastes
Chloride (ppm)	2016-2018	9	1.8—17	500	None	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2016-2018	361	290—460	1600	None	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2016-2018	18.1	3—36	500	None	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2016-2018	232	180—280	1000	None	Runoff/leaching from natural deposits
Turbidity (NTU)	2016-2018	0.22	<0.1-1.5	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)	2016-2018	33	15—48	None	NA
Bicarbonate (ppm)	2016-2018	165	140—200	None	NA
Magnesium (ppm)	2016-2018	9.3	2.6—18	None	NA
PH (Std. Units)	2016-2018	7.9	7.4—8.2	None	NA

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

Water Quality Standards: Definitions, Acronyms & Abbreviations

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.

Variances 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 ae 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 ae 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: dbetancur@banningca.gov.

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 importante sobre su agua potable. Traduzcalo o hable con algien que lo entienda bien. Perry Gerdes (951) 922-3281.