2020 ANNUAL WATER QUALITY REPORT

Consumer Confidence Report for monitoring period of January 1-December 31, 2020

City of Banning
Department of Public Works
Water Division
99 E. Ramsey St.
Banning, CA 92220

2020 Water Quality Summary

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

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. Water is extracted from 19 potable wells throughout the City. The wells are located over the Beaumont, Banning, Banning Water Canyon, Banning Bench and Cabazon basin 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, 2020.

Source Water Assessment

An assessment of the drinking water sources for the City of Banning was completed on January 16, 2010. The sources are considered most vulnerable to the following contaminants detected in the water supply: nitrates. In addition, the sources are considered most vulnerable to the following: 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) 849-3273.

Drinking Water Assessment

Your Tap Water Met All EPA and State Drinking Water Standards

Regulations require analysis for approximately 150 regulated and unregulated contaminants. All water supply contaminant data is from the most recent monitoring 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 are 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 byproducts 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.

Many contaminants that pose known human health risks are regulated by the U.S. Environmental Protection Agency (EPA). All water suppliers are required to meet EPA drinking water standards.

Tables 1 thru 6 on pages 4 & 5 list all of the drinking water contaminants detected during the monitoring period. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Lead-Specific Information 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; the 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, please contact the Water Division @ 951-922-3280 for more information.

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	4	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**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	2017-2020	21	6.9—48	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2017-2020	137	46—200	None	None	Sum of polyvalent cautions present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Gross Alpha Particle Activity (pCi/L)	2017-2020	1.25	0.0-3.86	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)	2017-2020	0.003	0-0.057	1	0.6	Erosion of natural deposits; residue from some surface water treatment process
Arsenic (ppb)	2017-2020	0.30	ND-3.7	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes

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

TABLE 4 (CONT.) – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Fluoride (mg/L)	2017-2020	0.41	0.20—1.2	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N) (ppm)	2020	1.0	N/D—2.2	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Chlorine	2020	0.43	0.33—0.49	4.0 As C12	4.0 As Cl2	Drinking water disinfectant added for treatment
Total Chromium (ppb)	2017-2020	6.29	<1.0—20	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Total Trihalomethanes (ppb)	2020	1.93	0—5.8	80	None	Byproduct 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**	**Typical Source of Contaminant**
Iron (ppb)	2017-2020	6.32	<100-120	300	Leaching from natural deposits: industrial wastes
Chloride (ppm)	2017-2020	7.36	1.2—17	500	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2017-2020	359	290—470	1600	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2017-2020	19.7	3—42	500	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2017-2020	204	170—280	1000	Runoff/leaching from natural deposits
Turbidity (NTU)	2017-2020	0.24	<0.1-1.2	5	Soil runoff

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Calcium (ppm)	2017-2020	37	14—50	None	None	NA
Bicarbonate (ppm)	2017-2020	157	120—220	None	None	NA
Magnesium (ppm)	2017-2020	11	1.9—19	None	None	NA
PH (Std. Units)	2017-2020	8.0	7.4—8.3	None	None	NA
Chromium 6 (ppb)	2017	1.63	0-19	10	0.02	Discharge from steel and pulp mills and chrome plating

BCVWD 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	0	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

BCVWD 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)	30	<0.005	0	0.015	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	30	0.16	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

BCVWD TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	2018-2020	19.9	13 — 35	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2018-2020	179.7	120 — 240	None	None	Sum of polyvalent cautions present in the water, generally magnesium and calcium, and are usually naturally occurring

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

Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Gross Alpha Particle Activity (pCi/L)	2018-2020	2.37	0.4 –5.72	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	2018-2019	0.82	0-2.56	20	0.43	Erosion from natural deposits
Nitrate (as N) (ppm)	2020	3.1	0.72—7.0	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride (ppm)	2018—2020	0.37	0.23—0.64	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

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

BCVWD TABLE 4 (CONT.) – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Total Chromium (ppb)	2018—2020	4.5	0—16	50	50	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Total Trihalomethanes (ppb)	2020	2.5	0—5.7	80	None	Byproduct of drinking water disinfection
Haloacetic Acids (ppb)	2020	0	0—0	60	None	Byproduct of drinking water disinfection
Chlorine (ppm)	2020	20.7	0.6 — 0.8	4.0 As Cl2	4.0 As Cl2	Drinking water disinfectant added for treatment

BCVWD TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD					
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**Typical Source of Contaminant**
Iron (ppb)	2018-2020	0	0	300	Leaching from natural deposits: industrial wastes
Chloride (ppm)	2018-2020	11.8	0—46	500	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2018-2020	426	340—590	1600	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2018-2020	27	10—47	500	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2019-2020	248.9	180—350	1000	Runoff/leaching from natural deposits
Turbidity (NTU)	2018-2020	0.14	<0.1 - 0.44	5	Soil runoff

BCVWD TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Calcium (ppm)	2018-2020	46.4	33—64	None	None	NA
Bicarbonate (ppm)	2018-2020	175.1	130—210	None	None	NA
Magnesium (ppm)	2018-2020	15	7—20	None	None	NA
PH (Std. Units)	2018-2020	8.0	7.4—8.3	None	None	NA

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 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 (a measure of electric conductivity)

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).

Water Division News

Project Update: Advanced Metering Infrastructure (AMI) Installation

In October 2019, the City of Banning began installing "Advanced Meters" for our approximately 10,500 water service customers. By the end of 2020, over 4,000 water meters had been converted. The project replaces existing meters with a compatible electronic register and radio so they can be read remotely throughout the day. Advanced Meters substantially improve efficiency and reduce costs associated with water meter-reading by allowing the City to read meters remotely rather than manually. Your Advanced Meter will provide more accurate usage readings and detect water leaks, saving you money and ensuring that water is not wasted! Plus, you will no longer need to provide a meter reader access to your property each month. Once the project nears completion, customers will be able to access a customer portal. This will allow users to review detailed usage data and set up usage alerts. For more information, please visit the AMI Project page on the City's website at http://banning.ca.us/597/Advanced-Metering-Infrastructure-AMI.

Integrated Regional Water Management (IRWM) Plan Implementation Grant

On June 2, 2020, the California Department of Water Resources (DWR) announced Final Awards for the Colorado River Basing Funding area for the Proposition1 Round 1 IRWM Implementation Grant program.

The San Gorgonio IRWM Region received an award of $3,537,882. The San Gorgonio IRWM Region includes 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.

A portion of the shared grant funding will be utilized for the following upcoming City of Banning projects:

Altitude Valves to Maximize Emergency Storage

Altitude valves will be installed to better control water levels at three San Gorgonio Reservoirs in response to conditions and demands in the system.

Location #2 Waterline Replacement - City of Banning

Currently underway, this project will improve water conservation within the Banning distribution system by replacing undersized and leaking pipelines. Includes installation of additional fire hydrants for improved fire protection.

Water Division News cont'd.

Waterwise Landscape Irrigation Guidelines

Did you know that landscape irrigation is estimated to account for about 50% of annual residential water consumption statewide? Unfortunately, half the water used residentially finds its way into the gutter and storm drains due to runoff. In the West, drought and extreme heat have become commonplace; responsible irrigation and reductions in overall water consumption are a necessity in Southern California's inland areas.

- Use smart controllers and drip irrigation whenever possible.
- Consult Native Plant Guides such as ie.watersavingplants.com for ideas of what grows best in local climates.
- Water between 2 a.m. and 6 a.m. Watering within this window of time takes advantage of relatively low winds and less loss of water to evaporation.
- For more water conservation tips and ideas, visit https://www.sgpwa.com/conservation/

Seasonal Watering Guidelines

SUMMER NO MORE THAN EVERY OTHER DAY	**FALL** NO MORE THAN 3 TIMES PER WEEK
SPRING NO MORE THAN 3 TIMES PER WEEK	**WINTER** NO MORE THAN 1 TIME PER WEEK

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. Meetings are held at the City Council Chambers at City Hall, 99 East Ramsey Street, Banning 92220. Due to the COVID-19 pandemic, Council meetings are being held in person with limited seating and via video/teleconference. Please contact the City Clerk's office at cpatton@banningca.gov for more information about Council Meetings.

For more information: If you have any questions about this report, please contact Perry Gerdes, Water/Wastewater Superintendent at (951) 849-3273.

Por Favor: *Este informe contiene informacion importante sobre su agua potable. Traduzcalo o hable con algien que lo entienda bien. Perry Gerdes (951) 849-3273.*