

2024 ANNUAL WATER QUALITY REPORT

Consumer Confidence Report for monitoring period
January 1 - December 31, 2024



**City of Banning
Department of Public Works
Water Department
176 E. Lincoln Street
Banning, CA 92220**

2024 Water Quality Summary

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 muy importante sobre su agua para beber. Favor de comunicarse City of Banning a (951) 922-3281 para asistirlo en español."

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. An assessment of the drinking water source(s) for the City was completed in April 2023. The source(s) are considered most vulnerable to these activities: sewer collection systems and groundwater wells. A copy of the complete assessment is available at 176 East Lincoln, Banning, CA 92220. You may request a summary of the assessment be sent to you by contacting the State Water Board Division of Drinking Water at DDWRegUnit@waterboards.ca.gov.

How Is My Water Tested?

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, 2023.



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.

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 @ 951-922-3281 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	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

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

Lead and Copper (sample date July 2024)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (mg/L)	32	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)	32	0.11	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)	2022-2024	21	6.5—50	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2022-2024	94	2.8—200	None	None	Sum of polyvalent cations 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	PHG (MCLG)	Typical Source of Contaminant
Arsenic (ppb)	2022-2024	0.33	ND-3.8	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Total Chromium (ppb)	2022-2024	5.5	ND—17	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Fluoride (mg/L)	2022-2024	0.43	0.2—1.3	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.

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	PHG (MCLG)	Typical Source of Contaminant
Nitrate (as N) (ppm)	2024	1.5	.9—2.7	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	2022-2024	1.04	0.0-2.56	15	(0)	Erosion of natural deposits
Combined Uranium (pCi/L)	2022-2024	0.59	0.0-4.75	20	0.43	Erosion from natural deposits

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

Chemical or Constituent (and reporting units)	Sample Date	Avg. Level Detected	Range of Detections	MCL	Typical Source of Contaminant
Alkalinity, Bicarbonate (mg/L)	2022-2024	157.7	120-190	None	N/A
Calcium (mg/L)	2022-2024	36.5	16-50	None	N/A
Chloride (mg/L)	2022-2024	8.3	1.6—16	500	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2022-2024	7.78	0.0-140	300	Leaching from natural deposits: industrial wastes
Specific Conductance (µS/cm)	2022-2024	340	290—470	1600	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	2022-2024	20.9	4.1-47	500	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2022-2024	191.6	140—260	1000	Runoff/leaching from natural deposits
Turbidity (NTU)	2022-2024	0.09	0.0—0.53	5	Soil runoff
Magnesium (ppm)	2022-2024	10.6	2.4—18	None	NA

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Hexavalent Chromium (ug/L)	2016-2017	7.5	0.34-16	N/A	N/A	Discharge from steel and pulp mills and chrome plating

TABLE 7 – DISTRIBUTION SAMPLES

Total Trihalomethanes (ppb)	2024	4.7	.00—6.7	80	None	Byproduct of drinking water disinfection
Chlorine (mg/L)	2024	0.45	0.33—0.59	[4.0 As C12]	[4 As Cl2]	Drinking water disinfectant added for treatment

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

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

Lead and Copper (sample date July 2024)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (mg/L)	30	<0.008	0	0.015	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	30	0.22	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)	2022-2024	20.19	11 —37.0	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2022-2024	172.69	110—230	None	None	Sum of polyvalent cations 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	PHG (MCLG)	Typical Source of Contaminant
Total Chromium (ppb)	2022-2024	3.17	0.0—11.00	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Fluoride (mg/L)	2022-2024	0.36	0.23—0.64	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as N) (ppm)	2024	2.83	1.0—4.70	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

*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	PHG (MCLG)	Typical Source of Contaminant
Gross Alpha Particle Activity (pCi/L)	2017-2024	1.827	0.00-5.72	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	2022-2024	0.53	0.0-1.74	20	0.43	Erosion from natural deposits
Chromium (hexavalent) (ppb)	2024	2.97	0.00-12.0	10	0.02	Erosion from natural deposits; Transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating

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
Chloride (mg/L)	2022-2024	10.96	3.70—56	500	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2022-2024	18.33	0-110.0	300	Leaching from natural deposits: industrial wastes
Specific Conductance (µS/cm)	2022-2024	395.38	310—540	1600	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	2022-2024	25.18	11.0-56	500	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2022-2024	234.87	180—330	1000	Runoff/leaching from natural deposits
Turbidity (NTU)	2022-2024	0.51	0-1.90	5	Soil runoff

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Alkalinity, Bicarbonate (mg/L)	2022-2024	173.27	130-210	None	None	N/A
Calcium (mg/L)	2022-2024	44.61	32-60	None	None	N/A
Magnesium (ppm)	2022-2024	14.42	6.7—19	None	None	N/A
PH (PH Units)	2022-2024	7.76	7.20-8.10	None	None	NA

TABLE 7 – DISTRIBUTION SAMPLES

Total Trihalomethanes (ppb)	2024	2.99	0—9.80	80	None	Byproduct of drinking water disinfection
Chlorine (mg/L)	2024	0.72	0.70—0.90	[4.0 As C12]	[4 As Cl2]	Drinking water disinfectant added for treatment

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 TTHM and HAA5 since the LRAA only applies to TTHM and HAA5. The chlorine residual "level detected" is the highest running annual average (RAA).

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

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

Chromium-6 Regulatory Timeline – City of Banning (2014–2025)

July 1, 2014

The California Department of Public Health (CDPH) approves a new Maximum Contaminant Level (MCL) regulation for Chromium-6, lowering the MCL from 50 parts per billion (ppb) to 10 ppb. The City of Banning is mandated to begin quarterly water sampling to monitor Cr6 concentrations. Initial testing identifies nine wells within the city's 21-well system (including co-owned wells with Beaumont Cherry Valley Water District) as being impacted by naturally occurring Cr6 levels at or near the new MCL.

2015–2019

In response to the regulation, the City contracts Hazen and Sawyer to develop a Chromium-6 treatment and compliance study. The study provides six treatment scenarios to reduce Cr6 levels in affected wells and evaluates cost-effective implementation strategies. It is determined that over 40% of the city's water supply is affected by the new standard. The most cost-effective scenario for treatment is estimated to cost between \$20–\$40 million for construction and implementation.

The California State Water Resources Control Board grants the City of Banning a variance through 2020 to continue using affected wells while planning compliance.

2020

Deadline set by the State of California for water districts to comply with the new Cr6 MCL.

Despite the deadline, statewide enforcement is halted due to legal and procedural delays surrounding the validity and economic feasibility of the 10 ppb standard. The City continues to monitor Cr6 levels but is not required to implement treatment during this pause.

2021–2024

Chromium-6 regulation remains in limbo as the state reevaluates its standard and cost-benefit analysis. Banning continues periodic monitoring of impacted wells and maintains internal tracking of Cr6 levels. No enforcement action is required during this period, but the city remains under observation for future compliance.

2025

Based on current sampling trends and communication with the California State Resource Control Board, the City expects enforcement of the 10 ppb Cr6 standard to be reinstated.

If Cr6 levels remain above the MCL in affected wells by that time, the City will be required to issue a Tier II Public Notice informing residents of the exceedance.

The City will also need to revisit and potentially implement one of the previously proposed treatment solutions, likely funded through rate adjustments, grants, or loans.

PROJECT UPDATE: Banning Wastewater Treatment Plant Booster Rebuild Project

The **Banning Wastewater Treatment Plant Booster Rebuild Project** is a public works project contracted between the City of Banning and General Pump Company, Inc. The scope of the project involves the rebuilding of booster systems at the city's wastewater treatment plant. Under the agreement, the contractor is tasked with performing all necessary work in a professional and workmanlike manner in compliance with the applicable specifications and regulations.

Key aspects of the contract include:

- **Timeline:** All work must be completed within **120 working days** from the issuance of the Notice to Proceed.
- **Wage Compliance:** As a public works project, it is subject to prevailing wage laws.
- **Inspection and Permits:** The contractor must secure all necessary permits and coordinate inspections throughout the project.

Water Division News

PROJECT UPDATE:

Project Summary and Purpose:

Charles Street Booster Pump Upgrade – City of Banning

The main objective is to upgrade the booster pump system at Charles Street to enhance water delivery capacity and operational efficiency. This is achieved by:

- Replacing older pumps with high service vertical turbine pumps rated for 1000 GPM at 273 ft of head.
- Improving motor efficiency and durability, especially under VFD-controlled operations.
- Meeting NSF certification standards and ensuring seismic compliance.

Coating internal and external pump surfaces for corrosion protection using Tnemec 21 Epoxoline.

This equipment will ensure reliable and energy-efficient water distribution, critical to maintaining service levels and regulatory compliance with the City of Banning's water infrastructure.

Project Summary:

- **Location:** Lincoln and Charles Street, City of Banning, CA
- **Contractor:** Pyramid Building & Engineering, Inc.
- **Equipment Supplied:**
 - (2) M12MB-4 and (2) M12MB-6 Stage Vertical Turbine Pumps
 - Matched with high-efficiency Nidec vertical hollow shaft motors (15 HP, 100 HP)
 - Motors equipped with:
 - Weather-protected enclosures
 - Space heaters
 - Shaft grounding rings (AEGIS®) for VFD protection

Completed:

New Well Drilled:

M-12A is a new well casing that was drilled and located behind Well M12, which was abandoned due to casing collapse, resulting in a flow production reduction from 1,000 GPM to 500 GPM.

C-8 is a new well casing drilled and located near Thompson and Gilman, when equipped it is expected to provide 900 GPM.

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. 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 alguien que lo entienda bien. Perry Gerdes (951) 849-3273.*