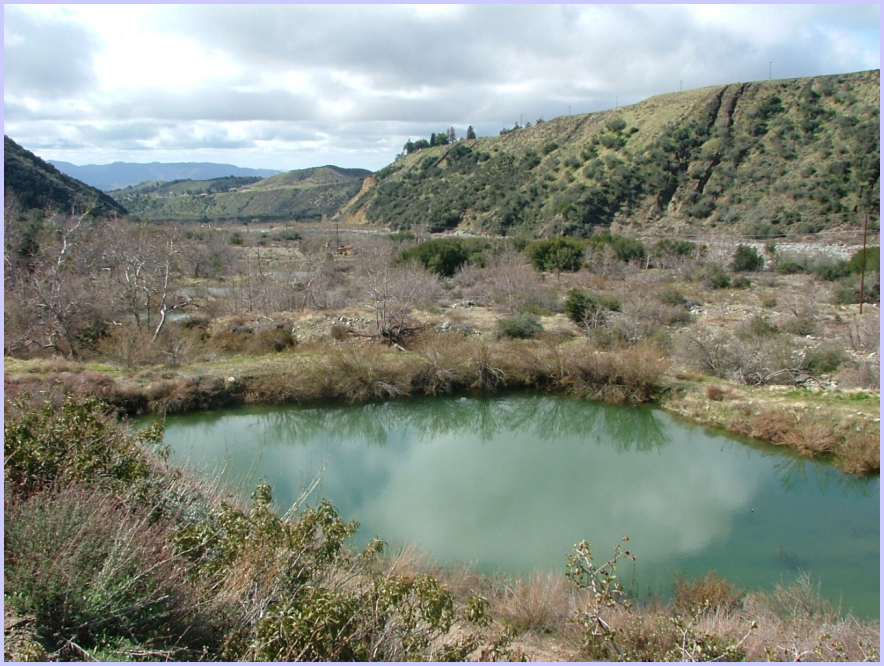
APPENDIX H

City’s 2009 Annual Water Quality Report

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

2009 ANNUAL WATER QUALITY REPORT

Water Recharge facility located in Banning Canyon.



The Water Quality Report in this flyer describes the City of Banning's drinking water sources and quality. This publication conforms to the new federal and state regulations requiring water utilities to provide detailed information about the water delivered to your home and business. We make every effort to present this detailed information in a simple manner.

We test the drinking water for many constituents as required by state and federal regulations to ensure quality and safety. This report shows the results of our monitoring for the period of January 2009 through December 2009. The City's water is extracted from twenty-one ground water wells throughout the City (Beaumont, Banning, and Banning Bench storage units) and the Banning Water Canyon. Additionally, the City receives water supplies from three joint wells within the Beaumont storage unit operated by Beaumont Cherry Valley Water District.

In order to ensure that tap water is safe to drink, USEPA and the State Department of Public Health Services prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

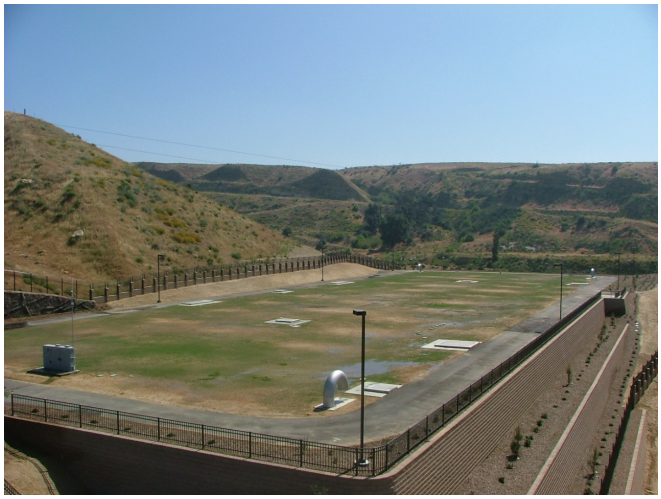
The source of drinking water (both tap water and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health Services (Department) prescribe regulations that limit the amount of certain contaminants in bottled water that must provide the same protection for public health.

We are pleased to report the city has met the requirements set by USEPA and the State Department of Public Health Services Standards. The Water Division prides itself in delivering the highest quality of water possible. Skilled technicians regularly monitor and collect weekly, monthly, quarterly, and annual samples in the system to assure that you have excellent water quality. The results of Banning's water analysis as listed herein, denotes that the City has produced excellent water quality.

City of Banning — Water System Efforts

The newly constructed 8 MG reservoir is one of the largest reservoirs within the City of Banning. The reservoir is located off of Mountain Avenue and is a fully buried concrete reservoir. The reservoir supplies water directly into the main pressure zone serving the existing customers. The addition of the reservoir cuts the systems storage deficit in half from 16 MG to 8 MG, and increases the storage capacity from 11.7 MG to a total of 19.7 MG. The additional storage was needed to meet existing water demands for operation, fire, and other emergency water storage requirements. The reservoir is 438 feet long, 140 feet wide and 20 feet deep. The reservoir is divided into two cells by an 18-inch thick wall, and each cell can be operated independently of each other allowing the ability to clean, inspect and make repairs in the future without having to lose all of the storage capacity.



Eight Million Gallon Reservoir

Recycled Water Projects

Currently, the City has developed preliminary plans to build a 1.5 MG per day tertiary treatment plant. Once built, the plant would provide recycled water for watering landscaping within the lower portions of the City along with the ability to have groundwater recharge. Presently, the City is pending approval from the Colorado Regional Water Quality Control Board to grant a permit on the design before being able to move forward with the project. However, the City continues to look for more innovative ways to save costs and potable water throughout the service area.

Downtown Waterline Replacement

The City has finished designing the downtown waterline plans. The waterline project will replace old waterlines from the late 1950's that run through the business district alleyways. The replacement of these mainlines will help eliminate the ongoing repairs to the existing system and help to conserve water due to leaks within the old water mains. The City will have a 12-inch water main installed on Ramsey Street that will facilitate the movement of water between the lower eastern and western portions of the City. A new 8–inch ductile iron water main will also be installed on 1st Street and 2nd Street, from Livingston Street to Williams Street, thereby improving fire flows for the additional fire hydrants and circulation to maintain water quality.

State Water Recharge Facility

The City has been purchasing State Water and recharges approximately 80-100 acre foot of water each month using the Beaumont Cherry Valley Water District Recharge Facility. The water is percolated into the Beaumont Water Basin allowing the natural treatment of the water. This allows Banning Water Personnel the ability to store and pump water, as needed, to meet the current residual needs.

BCVWD Water Recharge Basins

Contaminants that may be present in source water include:

1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agriculture livestock operations, and wildlife.

2) Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

4) 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 storm water runoff, agricultural application, and septic systems.

5) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 92220-0998. 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 contract Perry Gerdes, Water/ Wastewater Superintendent at (951) 922-3281. We want our valued customers to be informed about their water utility.

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

Your tap water meets all EPA and State drinking water health standards.

Regulations require analysis for some 150 regulated and unregulated contaminants. Only contaminants in the water supply are listed below and all data is from the most resent monitoring completed in compliance with regulations. In some cases, the California Department of Health Services 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.

Table 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORMBACTERIA

Microbiological Contaminants	Highest No. of detections	No. of months in violation	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
	BANNING		BCVWD				
Total Coliform Bacteria	(In a month) 0	0	(In a month) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or E.coli	(In the year) 0	0	(In the year) 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

Table 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	No. of samples collected	90th percentile level detected	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	30	N/D	30	N/D	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	30	0.16	30	0.18	0	1.3	0.17	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Banning Sample Date	Banning Level Detected	Banning Range of Detections	BCVWD Sample Date	BCVWD Level Detected	BCVWD Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (mg/l)	2009	19	5.6 - 49	2009	16.85	24-Nov	none	none	Generally found in ground and surface water
Hardness (mg/l)	2009	128	45 - 180	2009	167	110-210	none	none	Generally found in ground and surface water

Table 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Trihalomethanes** (ppb)	2009	2.08	1.7 - 2.7	2009	1.5	0 - 1.9	80	N/A	By product of drinking water chlorination
Haloacetic Acid** (ppb)	2009	ND	ND	2009	6	0 - 6.4	60	NS	By product of drinking water chlorination
Gross Alpha (pCi/l)	2009	1	0.23-2.21	2009	1.5	1.27-1.74	15	0	Erosion of natural deposits
Turbidity (NTU)	2009	0.33	<0.2-0.48	2009	0.25	0.2 - 0.68	5	N/A	Soil runoff

Arsenic (ppb)	2009	3	<2-3.3	2009	N/A	N/A	50	N/A	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Floride (mg/l)	2009	0.5	0.2 - 0.8	2009	0.43	0.3 - 0.5	1	N/A	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as NO3) (mg/l)	2009	5	1 - 9.4	2009	6.3	2.7 - 18	45	N/A	Runoff and leaching from fertilizeruse; leaching from septic tanks and sewage; erosion of natural deposits
Lead (Pb) (ug/L)	2009	ND	ND				N/A	2	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Table 5 - DECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Color (units)	2009	ND	ND	2009	N/D	N/D	15	N/A	Naturally -occurring organic materials
Odor (units	2009	ND	ND	2009	N/D	N/D	3	3	Naturally -occurring organic materials
Chloride (mg/l)	2009	6	1.4 - 14	2009	8	4 - 22	500	500	Runoff/leaching from natural deposits; seawater influence
Sulfate (mg/l)	2009	16	Mar-37	2009	22.53	8.5 - 43	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Desolved Solids (mg/l)	2009	197	140 - 250	2009	228.57	170-300	1000	N/A	Runoff/leaching from natural deposits; industrial wastes
Specific Conductance (umhos/cm) (micromhos per centimeter)	2009	332	290 - 450	2009	422.85	340-550	1600	1600	Substances that form ions when in water; seawater influence
Copper (ppb)	2009	ND	ND	2009	N/A	N/A	1000	170	Internal corrosion of household plumbing systems; erison of natural deposits; leaching from wood preservatives
MBAS (Foaming agents) (mg/l)	2009	ND	ND	2009	0.101	0.07-0.14	0.5	N/A	municipal and Industrial waste discharge

Table 6 - GENERAL MINERAL, PHYSICAL

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Calcium (mg/l)	2009	34	14 - 42	2009	43	29 - 55	N/A	N/A	
Magnesium (mg/l)	2009	10	1.9 - 17	2009	28	8.4 - 18	N/A	N/A	
Potassium (mg/l)	2009	2	1 - 3.7	2009	1.47	1.1 - 2.0	N/A	N/A	
Total Alk (mg/l)	2009	141	110 - 170	2009	172.8	140 - 190	N/A	N/A	
Bicarbonate (mg/l)	2009	171	130 - 210	2009	213.84	180-230	N/A	N/A	
PH (Std. Units)	2009	8	7.2 - 8.3	2009	7.3	6.8 - 7.8	N/A	N/A	
Total Chromium (ppb)	2009	9	19-Feb	2009	7.4	3.5 - 18	50	100	

Key Terms Used in Chart

Average = average of City's producing wells.

ppb = parts per billon

ppm = parts per million

< = less than

pCi/l = Pico curies per liter (a measure of radiation)

n/a = not applicable

NS = no standard

ND = not detected at testing limit

NTU = Nephelometric Turbidity Units

mg/L = milligrams per liter

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

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in the drinking water. Primary MCLs are set as close to the PHG's (MCLGs) as in economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of the drinking water.

Primary Drinking Water standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public-Health Goals (PHG): The level of a contaminant in the drinking water below which there is no known or expected risk to health. PHG's are set by the California Environmental Protection Agency.

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).

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that my no be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that effect taste, odor, or appearance of the drinking water.

Additional General Information on Drinking Water

All drinking water, including bottle 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.

If the above methods don't seem to rid water of odor or taste problems, customers are encouraged to call the City of Banning Water Division at (951) 922-3260 for help. City staff will try to solve the problem for you.

“Please Be Water Wise”

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

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Banning Residents
Banning, CA 92220

Put Waste in it’s place:

You can help prevent sewer spills by

- Dumping cooking oils and grease in a sealable container, then dispose in the solids waste container.
- Scrape food waste into the trash can.