

# 2016 Consumer Confidence Report

Water System Name: BAKMAN WATER COMPANY Report Date: July 1, 2017

*We test 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, 2016 and may include earlier monitoring data.*

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

**Diamntawwv tshaj tawm no muaj lust seem ceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub toxog nws.**

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## A Message from Richard Tim Bakman, President of Bakman Water Company

Dear Customer,

On behalf of our team, we are pleased to present to you our 2016 Consumer Confidence Report. This Report is designed to inform you about the quality of water we delivered by providing a snapshot of last year's water sampling results. Our treatment technicians routinely monitor the system for drinking water contaminants in accordance with our approved sampling plans and procedures. Included are details about where your water comes from, what it contains, and how it compares to State standards. Most importantly, this is a chance to ensure our valued customers are better informed about their water.

Last year, California faced another year of drought conditions; however, following tremendous water conservation and strong winter rain and snowpack, on April 7, 2017, Governor Brown officially declared the drought emergency over. We want to thank our customers for their support and cooperation. Together we averaged over 30% in savings from our baseline usage in 2013, equating to over 413,000,000 gallons of water saved. In 2016, we identified and noticed over 525 incidences of possible water wasting and use violations. However, the same as last year, we only issued a minimal amount of monetary penalties for violations. While the drought has been declared over, we want our customers to understand that conservation is still vital in maintaining a sustainable water future.

Along with strong conservation efforts, replenishing the aquifer through our recharge program is a key component to sustainability. Last year, we informed you of our progress in collaborating with the Fresno Irrigation District and the Fresno Metropolitan Flood Control District to further the amount of water that we recharge on our customers' behalf. In 2016, our program advanced further and we were able to recharge close to 400 acre feet of water in the FMFCD owned basin located at the northeast corner of Willow and Belmont Avenues.

Coinciding with the message of sustainability in the water industry, the Sustainable Groundwater Management Act ("SGMA") establishes an opportunity for sustainable groundwater management at the local level. SGMA calls for local agencies to form Groundwater Sustainability Agencies ("GSA") which will be tasked with creating and implementing Groundwater Sustainability Plans. As we communicated last year, Bakman Water Company has taken an active role in the development of the sub-basin's GSA. In November of last year, several Fresno County agencies joined together and officially established the North Kings GSA. Then in December, the North Kings GSA adopted Bakman Water Company's Participation Agreement, which allows us to represent the interests of our customers through representation at the Board level. With this achievement, we have become one of the few private water utilities to garner strong GSA representation. Following the approval, the group voted for the Company to sit on the Board representing the 7<sup>th</sup> remaining at-large Board seat, with Steve Pickens, our Operations Manager, being selected as one of the 7 GSA Directors.

Please remember, life is a combination of unending stewardship of our finite resources and the knowledge that cooperation between all groups of people is the key to ensuring that the next generation has the tools to survive and flourish. We will continue to serve our customers with pride and maintain our close collaboration with each and every family that relies on our company to deliver a safe and secure water supply for generations to come. My hope is that the staff and customers of Bakman Water Company will always work together, focused on the future but understanding that true resource sustainability is accomplished one day at a time.

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**CONTAMINANT SOURCES AND THEIR PRESENCE IN DRINKING WATER**

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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. 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).

**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.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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.

Bakman Water Company utilizes groundwater for its potable water supply. Water is pumped from the aquifer through a series of 11 active wells in our California Public Utilities Commission authorized territory boundary, defined as, "The area bounded by Olive Avenue, East Kings Canyon Road, Winery Avenue and Fowler Avenue". The basin underlying the area where we provide water service is the Kings Sub-basin of the Tulare Lake Hydrologic Region, located within the San Joaquin Valley Groundwater Basin. The assessment evaluates drinking water sources to determine possible contaminating activities to which a source is most vulnerable and categorizes them into activities associated with contaminants detected in the water supply and those not associated with any contaminants. Although an activity may exist or have existed near sources, natural physical barriers, treatment systems and monitoring programs are in place to ensure that water supplied to our customers is PH neutral and not adversely affected. Bakman Water Co. is the largest autonomous system that is not required by the SWRCD to perform continuous chlorination of its sources. A copy of the Assessment and Vulnerability Reports are available for review at our office, located at 5105 East Belmont Avenue.

**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. Bakman Water Company 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4701) or at <http://www.epa.gov/lead>.

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

**DEFINITIONS USED IN THE TABLES:**

**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.

**Variations and Exemptions:** State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**MEASUREMENT ABBREVIATIONS USED IN THE TABLES:**

**ND:** not detectable at testing limit; **ppm:** parts per million or milligrams per liter (mg/L);

**ppb:** parts per billion or micrograms per liter ( $\mu\text{g/L}$ ); **ppt:** parts per trillion or nanograms per liter (ng/L);

**ppq:** parts per quadrillion or picogram per liter (pg/L); **pCi/L:** picocuries per liter (a measure of radiation).

The Tables on the following page lists all of the drinking water contaminants that were detected during the most recent sampling for the constituent. Although Bakman Water Company had the water tested for many constituents, the following tables list only those that were detected. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, is more than one year old (notated \*\*). Any violation of an MCL or AL is asterisked (notated \*). Additional information regarding any violation is provided in this report. Primary standards relate to public health, whereas secondary standards relate to aesthetic qualities such as taste, odor, and color. As you can see, in 2016, as in years past, we are proud to report that your drinking water met all USEPA and State primary drinking water health standards.

If you have any questions, concerns or would like to review other reports, please contact us at (559) 255-0324 or stop by our office during business hours. We are located at 5105 East Belmont Avenue, Fresno, California 93727. Our office is open Monday through Friday, from 8:00 a.m. to 5:00 p.m. and we can also be reached for emergencies during after- hours by contacting our office phone number.

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA						
Microbiological Contaminants	Highest No. Detections (Mo.)	Months in Violation	MCL	MCLG	Typical Source of Bacteria	
Total Coliform Bacteria	(Feb.) 1	0	> 1 of monthly samples positive	0	Naturally present in the environment	
Fecal Coliform or <i>E. coli</i>	(In the year 2016) 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	

  

SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER							
Contaminant (Units)	Sample Date	No. Samples Collected	90th Percentile Level Detected	No. of Sags Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2016	31	0.008	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2016	31	0.073	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

  

SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Contaminant (Units)	Sample Date	Average	Range	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)**	2015	25.27	15-34	N/A	N/A	Salt present in the water and is generally naturally occurring
Hardness (ppm)**	2015	136.21	63.7-278	N/A	N/A	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

  

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Contaminant (Units)	Sample Date	Average	Range	MCL	PHG (MCLG)	Typical Source of Contaminant
<b>INORGANIC CONTAMINANTS</b>						
Arsenic (ppb)**	2015	0.73	ND - 3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium (ppm)**	2015	0.066	0.034-0.122	1	0.2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Total Chromium (ppb)**	2015	2.91	ND - 6	50	2.5 (100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)**	2015	0.05	ND - 0.2	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Iron (ppb)	2016	4.64	ND - 30	300	N/A	Leaching from natural deposits and industrial wastes
Mercury (ppb)**	2015	0.15	ND - 0.53	2	1.2	Erosion of natural deposits; water additive which promotes strong teeth; runoff from landfills and landfill
Asbestos (MFL)**	2009	<0.2	NSD - <0.2	7	N/A (7)	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Nitrate as N (ppm)	2016	4.53	0.5-8.3	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>RADIOACTIVE CONTAMINANTS</b>						
Gross Alpha Particle Activity (pCi/L)	2016	2.53 ± 1.21	11.11 - 6.31 ± 0.61 - 1.76	15	N/A	Erosion of natural deposits
Uranium (pCi/L)	2016	2.38 ± 1.01	1.14 - 3.60 ± 0.814 - 1.19	20	0.43	Erosion of natural deposits
Radium 226 (pCi/L)**	2004	0.0827 ± 0.305	0.0827 ± 0.305	5	0.05	Erosion of natural deposits
Radium 228 (pCi/L)**	2008	0.1245 ± 0.6228	0 - 0.466 ± 0.466 - 0.8625	5	0.019	Erosion of natural deposits
<b>SYNTHETIC ORGANIC CONTAMINANTS</b>						
Dibromochloropropane (DBCP) (ppt)	2016	28	ND - 110	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on cotton, vineyards, tomatoes and tree fruit
<b>VOLATILE ORGANIC CONTAMINANTS</b>						
Trichloroethylene (TCE) (ppb)	2016	ND	ND	5	1.7	Discharge from metal degreasing sites and other factories
Tetrachloroethylene (PCE) (ppb)	2016	0.08	ND - 0.9	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)

  

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Contaminant (Units)	Sample Date	Average	Range	MCL	PHG (MCLG)	Typical Source of Contaminant
Copper (Tested at well head) (ppm)**	2015	0.008	ND - 0.0009	1	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Turbidity (NTU)**	2015	0.49	ND - 4.9	5	N/A	Soil runoff
Specific Conductance (µmhos/cm2)**	2015	390.91	225-725	1600	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)**	2015	9.55	4-23	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)**	2015	10.68	4-25	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Potassium (ppm)**	2015	2.64	1-5	N/A	N/A	Leaching from natural deposits; industrial waste
Phosphate (ppm)**	2009	0.04	ND - 0.4	N/A	N/A	Agriculture, urban sprawl, industry, natural occurring from fertilizers and pesticides
pH (Std. Units)**	2015	7.54	7.03-8.2	N/A	N/A	N/A
Manganese (ppb)	2016	ND	ND	50	N/A	Leaching from natural deposits
Total Cations (meq/L)**	2015	3.9	2.3-6.9	N/A	N/A	N/A
Total Anions (meq/L)**	2015	3.67	2.2-7.2	N/A	N/A	N/A
Langlier (Index Source Temp) (ppm)**	2015	-0.41	-1.5 - 0.1	N/A	N/A	N/A
Selenium (ppb)	2016	0.05	ND - 0.55	50	30	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail loss, numbness in fingers or toes, or circulation system problem.
Sodium Absorption Ratio (SAR) (ppm)**	2015	1.03	0.5 - 1.6	N/A	N/A	N/A
Calcium (ppm)**	2015	27.91	14 - 52	N/A	N/A	Leaching from natural deposits
Magnesium (ppm)**	2015	16.8	7 - 36	N/A	N/A	Leaching from natural deposits; industrial wastes
Bicarbonate as HCO3 (ppm)**	2015	173.64	110 - 330	N/A	N/A	N/A
Alkalinity as CaCO3 (ppm)**	2015	140	90 - 270	N/A	N/A	Leaching from natural deposits; industrial wastes

  

DETECTION OF UNREGULATED CONTAMINANTS						
Contaminant (Units)	Sample Date	Average	Range	Notification Level	Health Effects Language	
Chromium VI (Hexavalent) (ppb)**	2015	1.79	ND - 3.08	N/A	People who use water containing total chromium over the MCL over many years could experience allergic dermatitis.	
Vanadium (ppb)**	2015	26.64	10-39	50	Babies of some pregnant women who drink water containing vanadium in excess of notification level may have increase of risk of developmental effects, based on studies in laboratory animals.	
1,2,3 Trichloropropane (1,2,3 TCP) (ppt)	2016	1	ND - 12	5	Some people who use water containing 1,2,3-TCP in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.	