

2021 Consumer Confidence Report

Water System Information

Water System Name: [Buckingham Park Water District](#)

Report Date: [7/12/22](#)

Type of Water Source(s) in Use: Lake – [Surface Water](#)

Name and General Location of Source(s): [Clearlake, CA – Off of Buckingham Peninsula](#)

Drinking Water Source Assessment Information: [Clearlake is a vulnerable water source susceptible to recreational activities, septic system failures, agricultural drainage, geological erosion, historical mining, algal blooms, wildfires and related impairments, flooding and droughts. If you are interested in the most recent Watershed Sanitary Survey it can be viewed at the District's business office located at 2870 Eastlake Dr. Kelseyville, CA 95451](#)

Time and Place of Regularly Scheduled Board Meetings for Public Participation: [The monthly board meetings are held on the 4th Monday of the month at 5:00p.m. Located at 2874 Eastlake Dr. Kelseyville, CA 95451](#)

For More Information, Contact: [Ahimsah Wonderwheel – General Manager – Phone: \(707\)279-8568](#)

About This Report

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 to December 31, 2021 and may include earlier monitoring data.

Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Buckingham Park water District a 2870 Eastlake Dr. Kelseyville, CA 95451, (707)279-8568 para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 Buckingham Park Water District 以获得中文的帮助: 2870 Eastlake Dr. Kelseyville, CA 95451(707)279-8568.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Buckingham Park Water District 2870 Eastlake dr. Kelseycille, CA 95451 o tumawag sa (707)279-8568 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ [Enter Water System's Name] tại Buckingham Park water District a 2870 Eastlake Dr. Kelseyville, CA 95451, (707)279-8568 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsaab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau ntawm Buckingham Park water District a 2870 Eastlake Dr. Kelseyvi lle, CA 95451, (707)279-8568 rau kev pab hauv lus Askiv.

Terms Used in This Report

Term	Definition
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 <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
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 (U.S. EPA).
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.
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.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) 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 ($\mu\text{g/L}$)
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)

Sources of Drinking Water and Contaminants that May Be Present in Source Water

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.

Contaminants that may be present in source water include:

- 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.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State 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, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	All Absent	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 1.A. Compliance with Total Coliform MCL between January 1, 2021 and June 30, 2021 (inclusive)

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	All Absent	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	All Absent	0	0	None	Human and animal fecal waste

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

For violation of the total coliform MCL, include potential adverse health effects, and actions taken by water system to address the violation:

Table 2. Sampling Results Showing the Detection of Lead and Copper

Lead and Copper	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	8/20/19-9/10-19	10	Non Detect	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	8/20/19-9/10/19	10	0.250 ppm	0	1.3	0.3	Not applicable	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)	10/4/21	24	-	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	10/4/21	199	-	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	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic – ug/L	10/4/21	3.2 ug/L	-	10 ug/L	0.004 ug/L	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos – MFL	7/2/18	<.2 MFL	-	7 MFL	7 MFL	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Fluoride – mg/L	10/4/21	.14 ,g/L	-	2.0 mg/L	1 mg/L	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity - pCi/L	3/8/16	.410 pCi/L	-	15 pCi/L	0	Erosion of natural deposits
Heptachlor – ng/L	7/5/16	10 ng/L*	-	10 ng/L	8 ng/L	Residue of banned insecticide
Heptachlor Epoxide – ng/L	7/5/16	10 ng/L*	-	10 ng/L	6ng/L	Breakdown of heptachlor
Lindane – ng/L	7/5/16	50 ng/L	-	200 ng/L	32 ng/L	Runoff/leaching from insecticide used on cattle, lumber, and gardens
Methoxychlor – ug/L	7/5/16	0.1 ug/L	-	30 ug/L	0.09 ug/L	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, and livestock
Toxaphene – ug/L	7/5/16	0.5 ug/L	-	3 ug/L	0.03 ug/L	Runoff/leaching from insecticide used on cotton and cattle

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride – mg/L	10/4/21	22 mg/L	-	500 mg/L	-	Runoff/leaching from natural deposits; seawater influence
Color - units	3/22/21-12/27/21	13 units	0-13 units	15 units	-	Naturally-occurring organic materials
Odor—Threshold – units	3/22/21-12/27/21	10 units*	1-10 units	3 units	-	Naturally-occurring organic materials
Total Dissolved Solids (TDS)- mg/L	10/4/21	270	-	1000 mg/L	-	Runoff/leaching from natural deposits
Specific Conductance - μS/cm	10/4/21	440 μS/cm	-	1000 μS/cm	-	Substances that form ions when in water; seawater influence
Sulfate - mg/L	10/4/21	2.7 mg/L	-	500mg/L	-	Runoff/leaching from natural deposits; industrial wastes

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Cyanotoxin – ug/L	5/8/21-12/17/21	>.15 ug/L	0 - <.15 ug/L	.3 ug/L ages 6 years of age and under. 1.6 ug/L ages over 6 years old	Abdominal pain, headache, sore throat, vomiting and nausea, dry cough, diarrhea, blistering around the mouth, and pneumonia
Baron	10/4/21	1.9	-	1 mg/L	Boron exposures result in decreased fetal weight (developmental effects) in newborn rats

Additional General 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 U.S. EPA’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. U.S. EPA/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).

Lead-Specific Language: 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. Buckingham Park Water District 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

State Revised Total Coliform Rule (RTCRR): The Consumer Confidence Report (CCR) Reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health y ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total Coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total Coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Heptachlor *	Heptachlor is a Synthetic Organic contaminates with a primary drinking water standard MCL of 10 ug/L and a PHG of 8. It is a residue of a banned insecticide. According to the UDEPA most uses of Heptachlor has been to kill termites in homes and insets on farms and crops and was canceled in 1978. Currently the only permitted use of Heptachlor products if for fire ant control in buried pad-mounted electric power transformers, and in underground cable television and telephone cable boxes.	Heptachlor is tested in the raw water every 9 years. This sample was taken from the untreated raw water sample site on 7/5/2016. The next scheduled sample is for 2025	Heptachlor samples are taken from the raw water sample site <u>prior</u> to treatment. In 2015 Buckingham Park Water District added Granular Activated Carbon (GAC) filtration to its treatment process which effectively removes Heptachlor from drinking water during the treatment process.	Some people who use water containing heptachlor in excess of the MCL over many years may experience liver damage and may have an increased risk of getting cancer.
Heptachlor Epoxide*	Heptachlor Epoxide is a Synthetic Organic contaminant with a primary drinking water standard MCL of 10ug/L and a PGH of 6. Heptachlor Epoxide is formed when Heptachlor breaks down in the environment.	Heptachlor Epoxide is tested in the raw water every 9 years. This sample was taken from the untreated raw water sample site on 7/5/2016. The next scheduled sample is for 2025	Heptachlor Epoxide samples are taken from the raw water sample site <u>prior</u> to treatment. In 2015 Buckingham Park Water District added Granular Activated Carbon (GAC) filtration to its treatment process which effectively removes Heptachlor Epoxide from drinking water during the treatment process	Some people who use water containing Heptachlor Epoxide in excess of the MCL over many years may experience liver damage, and may have an increased risk of getting cancer.
Odor – Threshold*	Odor is a secondary standard that has a MCL of 15 units.	These color samples were taken from the finished water samples site quarterly: 3/22/21-12/27/21	We are constantly monitoring our disinfection levels to help mitigate any inorganic chemicals such as Manganese to come out of solution	There is no mandatory health effect language for odor. Secondary MCL’s are set on the basis of aesthetics.

For Systems Providing Surface Water as a Source of Drinking Water

Table 8. Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique ^(a) (Type of approved filtration technology used)	Conventional Treatment, Including; coagulation, flocculation, sedimentation, filtration using two parallel dual media pressure filters and then two granular activated carbon (GAC) pressure filters ran in series. Disinfection is achieved with 12.5% Sodium Hypochlorite.
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 5.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.284
Number of violations of any surface water treatment requirements	None

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Summary Information for Violation of a Surface Water TT

Table 9. Violation of Surface Water TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
NONE				