



Keansburg Water and Sewer Department

2022

Annual Drinking Water Quality Report

Results from the Year 2021

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Keansburg Water and Sewer Department
29 Church Street
Keansburg, New Jersey 07734



We're pleased to present to you this year's annual water quality report.

This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains and how it compares to the EPA and New Jersey Department of Environmental Protection (NJDEP) standards. We are committed to providing you with information because informed customers are our best allies.

Your water comes from three (3) underground wells located within the Borough of Keansburg. The Keansburg Water and Sewer Department wells range from 350 to 362 feet in depth and draw their water from the upper portion of the Potomac-Raritan Magothy Aquifer (Old Bridge Formation). In May of 2012, The N.J.D.E.P. Water Allocation Permit allows us to pump water out of the ground. According to the Permit, we are allowed to pump 327.33 million gallons a year, not to exceed 52.24 million per month. In addition to pumping water from our wells, we purchased 60 million gallons a year. This water is purchased between October 1st thru April 30th. The water is taken from NJAWC at a rate of about 280,000 gallons a day and is blended with our own well water at the Water treatment Plant.

At the end of 2004, the NJDEP completed a Source Water Assessment for all public water systems in NJ. The goal of the assessment was to measure each system's susceptibility to contamination, not actual (if any) contamination measured in a water supply system. The DEP evaluated the susceptibility of all public water systems to eight categories of contamination. Each system was given a rating of low, medium, & high for each contaminant, based on the potential for contamination of that system. The following is a table showing the ratings given to Keansburg Water Dept. for the eight contaminants:

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-nuclids			Radon			Disinfection Byproducts Precursors		
Source	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Wells - 4			3			3			3			3			3			3			3		2	1
GUDI - 0																								
Surface water intakes - 0																								

A copy of the Source Water Assessment Report can be obtained at www.state.nj.us/dep/swap or by calling (609) 292-5550, or (732) 787-3903.

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals & elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen & phosphorus.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, & gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), & vinyl chloride.

Pesticides: Man-made chemicals used to control pests, weeds, & fungus. Common sources include land application & manufacturing centers of pesticides. Examples include herbicides such as atrazine, & insecticides such as chlordane.

Inorganics: mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, & nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium & uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to: <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Treatment By-product Precursors: A common source is naturally occurring organic matter in surface water. Treatment by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example, leaves) present in surface water.

If you have questions about the CCR report or about your water quality, please contact Steve Ussmann, the Superintendent of Operations for Keansburg Water and Sewer Department at (732) 787-3903. We want you to be informed about your water supply and distribution system. If you want more information or have comments about the water utility, you may attend any of the regular Borough meetings held at our office at Borough Hall, 29 Church Street, Keansburg.

The Keansburg Water and Sewer Department routinely monitors for contaminants in your drinking water according to federal and state laws. The attached table shows the results of our monitoring for the period of January 1st to December 31st, 2018.

We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your drinking water is safe at these levels.

In December of 2011, the Borough of Keansburg put on line its reverse osmosis de-salination treatment process. This new treatment will remove sodium, chlorides and dissolved solids which will bring us into compliance with NJDEP Bureau of Safe Drinking Waters standards for secondary contaminants.

We work hard to provide top quality water to every tap. We ask that all our customers help us protect our community, our way of life and our children's future.

All drinking water including bottled drinking water may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water hotline at 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 for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline, 1-800-426-4791 or on the internet at www.epa.gov/safewater/hfacts.html.

The sources of drinking water (both tap water and bottled water) includes rivers, lakes, streams, pond 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from storm water runoff, industrial or domestic wastewater discharges, oil and gas projection, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm run off and septic systems.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

TABLE DEFINITIONS

AL (Action Level) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCLG (Maximum Contaminant Level Goal) - The level of a contaminant in drinking water which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL (Maximum Contaminant Level) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDLG (Maximum Residual Disinfectant Level Goal) - The level of a drinking water disinfectant which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

MRDL (Maximum Residual Disinfectant Level) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

pCi/L (picoCuries per liter) - Measurement of the natural rate of disintegration.

ppb (Parts per billion) - One part substance per billion parts of water (or micrograms per liter).

ppm (Parts per million) - One part per million parts of water (or micrograms per liter) measure of the radioactivity in water.

NA - Not applicable

ND - Not detected

NTU (Nephelometric Turbidity Units) - Measurement of the clarity, or turbidity of water.

RUL (Recommended Upper Limit) - Recommended limits for secondary contaminants.

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

Notes:

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring regulation requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system has received monitoring waivers for asbestos and synthetic organic chemicals testing.

As part of our water quality monitoring program, hundreds of quality tests are performed on our water each year. We test for over eighty contaminants, and perform additional daily monitoring at our water treatment facilities, and throughout the water distribution system. The table herein lists only contaminants which were detected in the water.

The health effects of each DETECTED contaminants listed in the table are as follows:

TTHMs (Total Trihalomethanes) and Haloacetic Acids: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Since a portion of the water consumed by Keansburg residents is purchased from the NJAWC, a copy of the NJAWC Water Quality Test Results had been appended to the Keansburg Water and Sewer Department Report.

Special Considerations Regarding Children, Pregnant Women, Nursing Mothers and Others:

Children may receive a slightly higher amount of a contaminant in the water than do adults, on body weight basis, because they drink a higher amount of water per pound of body weight than adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the cases of lead and nitrate, effect on infants and children are the health endpoints upon which the standards are based.

Arsenic Education Statement

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Coastal North: Swimming River- Monmouth System – PWS ID# NJ1345001
NJAWC's Data- We purchase a portion of there water from Oct. 1st- May 1st

Table of Detected Contaminants – 2021 Those substances not listed in this table were not found in the treated water supply.

DISINFECTANTS - Collected at the Treatment Plants							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Chloramines (ppm) (Surface Water)	2021	Yes	N/A	TT: Results \geq 0.2	1.0 ¹	1.0 - 3.15	Water additive used to control microbes.

1 - Data represents the lowest residual entering the distribution system from our surface water treatment plant.

DISINFECTION BYPRODUCTS - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Bromate (ppb)	2021	Yes	N/A	10	0	ND	By-product of drinking water disinfection.

TREATMENT BYPRODUCTS PRECURSOR REMOVAL - Collected at the Treatment Plant ¹							
Substance	Year Sampled	Compliance Achieved	MCLG	MCL	Lowest Compliance Result	Range Detected	Typical Source
Total Organic Carbon (TOC)	2021	Yes	N/A	TT: > 35% removal	19%	19% - 54%	Naturally present in the environment.
Ratio of Actual / Required TOC Removal	2021	Yes	N/A	TT: Running annual average > 1	1	1.0 - 1.5	Naturally present in the environment.

1 -Annual average of ratio removal compliance based on annual present of ratio removal. (Running annual average)

TURBIDITY - Collected at the Treatment Plant ¹							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Turbidity (NTU)	2021	Yes	N/A	TT: Results > 1 NTU	0.19	0.04 - 0.19	Soil runoff.
	2021	Yes	N/A	TT: At least 95% of samples <0.3 NTU	99%	N/A	Soil runoff.

1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

REGULATED SUBSTANCES - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Barium (ppm)	2021	Yes	2	2	ND	N/A	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate (ppm)	2021	Yes	10	10	0.72	ND - 0.72	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.
Fluoride (ppm)	2021	Yes	N/A	2	0.48	ND - 0.48	Erosion of natural deposits; water additive that promotes strong teeth

OTHER SUBSTANCES OF INTEREST - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Recommended Limit	Highest Result	Range Detected	Comments
Aluminum ¹ (ppm)	2021	N/A	N/A	0.2	0.1	ND - 0.1	Erosion of natural deposits
Iron ^{1,2} (ppm)	2021	N/A	N/A	0.3	0.31	ND - 0.09	Naturally Occuring
Manganese ^{1,3} (ppm)	2021	N/A	N/A	0.05	ND	ND	Naturally Occuring
Sodium ⁴ (ppm)	2021	N/A	N/A	50	96	31 - 96	Erosion of natural deposits

1 - Substances with Secondary MCLs do not have MCLGs and are not legally enforceable; these limits are primarily established to address aesthetic concerns.

2 - The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

3 -The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

4 - For healthy individuals the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.

USEPA's Health Advisories are non-enforceable and provide technical guidance to states agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination

PERFLUORINATED COMPOUNDS						
Substance (with units)	Year Sampled	Compliance Achieved	MCL	Highest Compliance Result	Range Detected	Typical Source
Perfluorononanoic acid (PFNA) (ppt)	2021	Yes	13	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorooctanoic Acid (PFOA) (ppt)	2021	Yes	14	6.1	5.2 - 6.1	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluoropentanoic Acid (PFOS) (ppt)	2021	Yes	13	3	2.2 - 3.0	Manmade chemical; used in products for stain, grease, heat and water resistance

2018-2019 UCMR (Coastal North AM2 schedule was quarterly from Nov 2018, Feb 2019, May 2019 and Aug 2019-- these results are from entire sampling schedule of 2018-2019)

ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST - Water Leaving the Treatment Facility				
Parameter	Units	Average Result	Range Detected	Typical Source
Bromochloroacetic Acid	ppb	1.87	ND - 4.1	By-product of drinking water disinfection
Bromodichloroacetic acid	ppb	1.22	ND - 3.6	By-product of drinking water disinfection
Chlorodibromoacetic acid	ppb	0.43	ND - 2.5	By-product of drinking water disinfection
Dibromoacetic Acid	ppb	0.29	ND - 0.95	By-product of drinking water disinfection
Dichloroacetic Acid	ppb	5.1	0.64 - 20	By-product of drinking water disinfection
Monobromoacetic Acid	ppb	0.38	ND - 0.55	By-product of drinking water disinfection
Total Haloacetic Acids	ppb	9.2	ND - 22	By-product of drinking water disinfection

Total Haloacetic Acids - Br	ppb	3.4	ND - 8.3	By-product of drinking water disinfection
Total Haloacetic Acids-UCMR4	ppb	12.3	0.64 - 27	By-product of drinking water disinfection
Trichloroacetic Acid	ppb	4	ND - 11	By-product of drinking water disinfection
2-Methoxyethanol	ppb	ND	NA	Used as a solvent in varnishes, dyes, resins, airplane deicing solutions. It is also used in organometallic chemistry synthesis.
Manganese*	ppb	15.1	ND - 73	Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.

* Manganese has a Secondary MCL of 50 ppb.

Source Water Monitoring Monitoring Period 2015-2017					
Substance (2015-2017)	Units	Swimming River Plant	Jumping Brook Plant	Oak Glen Plant	Typical Source
Cryptosporidium	Oocysts/L	ND - 0.100	ND	ND	Microbial pathogens found in surface waters throughout the United States.
Giardia	Cysts/L	ND - 0.558	ND - 0.089	ND - 0.558	Microbial pathogens found in surface waters throughout the United States.

- 1 - Substances with Secondary MCLs do not have MCLGs and are primarily established to address aesthetic concerns.
- 2 - For healthy individuals, the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.
- 3 - The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.
- 4 - The recommended upper limit for manganese is based on staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from high levels which would be encountered in drinking water.

Lead Education Statement

Sources of Lead in Drinking Water

The Borough of Keansburg Water Department and New Jersey American Water are responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Although most lead exposure occurs from inhaling dust or from contaminated soil, or when children eat paint chips, the U.S. Environmental Protection Agency (USEPA) estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Lead is rarely found in the source of your drinking water but enters tap water through corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing materials. These materials include lead-based solder used to join copper pipes, brass, and chrome-brass faucets, and in some cases, service lines made of or lined with lead. New brass faucets, fittings, and valves, including those advertised as "lead-free", may still contain a small percentage of lead, and contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 0.25 percent lead to be labeled as "lead free". However, prior to January 4, 2014, "lead free" allowed up to 8 percent lead content of the wetted surfaces of plumbing products including those labeled National Sanitation Foundation (NSF) certified. Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures. Consumers should be aware of this when choosing fixtures and take appropriate precautions. When water stands in lead service lines, lead pipes, or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

Steps You Can Take to Reduce Exposure to Lead in Drinking Water

For a full list of steps visit: <https://www.state.nj.us/depl/watersupply/dwc-lead-consumer.html>

Run the cold water to flush out lead. Let the water run from the tap before using it for drinking or cooking any time the water in the faucet has gone unused for more than six hours. The longer the water resides in plumbing the more lead it may contain. Flushing the tap means running the cold-water faucet. Let the water run from the cold-water tap based on the length of the lead service line and the plumbing configuration in your home. In other words, the larger the home or building and the greater the distance to the water main (in the street), the more water it will take to flush properly. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

Use cold, flushed water for cooking and preparing baby formula. Because lead from lead-containing plumbing materials and pipes can dissolve into hot water more easily than cold water, never drink, cook, or prepare beverages including baby formula using hot water from the tap. If you have not had your water sampled or if you know, it is recommended that bottled or filtered water be used for drinking and preparing baby formula. If you need hot water, draw water from the cold tap and then heat it.

Do not boil water to remove lead. Boiling water will not reduce lead; however, it is still safe to wash dishes and do laundry. Lead will not soak into dishware or most clothes. **Use alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters.

Determine if you have interior lead plumbing or solder. If your home/building was constructed prior to 1987, it is important to determine if interior lead solder or lead pipes are present. You can check yourself, hire a licensed plumber, or check with your landlord.

Replace plumbing fixtures and service lines containing lead. Replace brass faucets, fittings, and valves that do not meet the current definition of lead free" from 2014 (as explained above). Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures.

Remove and clean aerators/screens on plumbing fixtures. Over time, particles and sediment can collect in the aerator screen. Regularly remove and clean aerators screens located at the tip of faucets and remove any particles.

Test your water for lead. Please call 732-787-3903 to find out how to get your water tested for lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.

Get your child tested. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure. New Jersey law requires that children be tested for lead in their blood at both 1 and 2 years of age and before they are 6 years old if they have never been tested before or if they have been exposed to a known source of lead.

Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

Water softeners and reverse osmosis units will remove lead from water but can also make the water more corrosive to lead solder and plumbing by removing certain minerals; therefore, the installation of these treatment units at the point of entry into homes with lead plumbing should only be done under supervision of a qualified water treatment professional.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure. You can find out more about how to get your child tested and how to pay for it at <https://www.state.nj.us/health/childhoodlead/testing.shtml>.

In July 2021, P.L.2021, Ch.183 (Law) was enacted, requiring all community water systems to replace lead service lines in their service area within 10 years. Under the law, the Borough of Keansburg Water Department is required to notify customers, non-paying consumers, and any off-site owner of a property (e.g., landlord) when it is known they are served by a lead service line*. Our service line inventory is available upon request.

CONTAMINANTS DETECTED IN 2021 FROM KEANSBURG'S WELL WATER

Contaminants	Units	MCL	MCGL	Range Detected	LRAA (1)	Compliance Achieved	Major Sources
Treatment Byproducts - STAGE 2							
Total Trihalomethanes (THM's site DBP 2-1)	ppb	80	NA	9.36 - 32.89	32.89	YES	By-product of drinking water disinfection
Total Trihalomethanes (THM's site DBP -2)	ppb	80	NA	1.41 - 7.9	7.35	YES	By-product of drinking water disinfection
Total Trihalomethanes (THM's site DBP 2-3)	ppb	80	NA	17.04 - 30.33	38.3	YES	By-product of drinking water disinfection
Total Trihalomethanes (THM's site DBP -4)	ppb	80	NA	3.76 - 20.57	20.7	YES	By-product of drinking water disinfection
Total Haloacetic Acids (THAAS) site DBP 2-1	ppb	60	NA	2.8 - 15.5	15.5	YES	By-product of drinking water disinfection
Total Haloacetic Acids (THAAS) site DBP 2-2	ppb	60	NA	1.8 - 5.0	5.0	YES	By-product of drinking water disinfection
Total Haloacetic Acids (THAAS) site DBP 2-3	ppb	60	NA	4.2 - 7.0	5.75	YES	By-product of drinking water disinfection
Total Haloacetic Acids (THAAS) site DBP 2-4	ppb	60	NA	2.6 - 11.8	11.8	YES	By-product of drinking water disinfection

Inorganics

Arsenic	ppm	0.05	0	.002-.0007	0.00084	YES	Naturally found in the ground
Barium	ppm	2	2	0.00084	0.0061 (3)	YES	Naturally found in the ground

Microbiology

Total Coliform	CFU	No more than 1 monthly routine single total coliform positive	0	0	0	YES	Naturally found in environment
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Disinfectants

Chlorine	ppm	MRDL=4	MRDLG=4	0.2 to 1.69	(2) 0.77	YES	Water additive used to control microbes
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Tap water samples were collected for lead and copper analysis from homes in the service are.

Contaminants	Units	Action Level	MCGL	Amount Detected (90m %tile)	Homes Above Action Level	Compliance Achieved	Typical Sources
Copper 2021	ppm	1.3	1.3	0.0453	none	YES	Corrosion of household plumbing systems
Lead 2021	ppb	15	0	3	none	YES	Corrosion of household plumbing systems

SECONDARY CONTAMINANTS

Contaminants	Units	RUL (4)	Amount Detected
Sodium (4)	ppm	50	25.0 to 31.9
Iron	ppm	.03	0.23

1. Compliance is based on Locational Running Annual Average (LRAA). Results in the table show the average of the 4 quarters of 2021.
2. This level represents the highest annual quarterly average from the data collected.
3. The level represents the running annual average.
4. This value shown for secondary contaminants is the recommended upper limit (RUL), which is based on aesthetics (color, taste, appearance), rather than health concerns.