

## 2021 Consumer Confidence Report

### Water System Information

#### Water System Name: Kinneloa Irrigation District (KID)

Report Date: June 2021

**Kinneloa Irrigation District (KID)** is pleased to provide you with this Consumer Confidence Report (CCR), which contains information about the quality of drinking water that is delivered to you. This report meets the California requirements for reporting water quality information to customers of public water systems and addresses frequently asked questions.

As in past years, the report compares the quality of your tap water to state drinking water standards. More than 100 regulated contaminants have been tested that were not detected in drinking water delivered by KID; the list of non-detected contaminants is not included in the chart. Except for nitrate, each contaminant detected in our groundwater sources occurs in your drinking water from erosion of natural deposits in soils. Fluoride is the only chemical in your water that exceeded the maximum allowable level set by the State Water Resources Control Board (State Board). KID has a fluoride variance from the State Board which gives us permission to exceed the fluoride standard. The conditions of the variance are described in detail on page eight of this report.

Type of Water Source(s) in Use: Two vertical wells and five horizontal wells.

Name and General Location of Source(s): In 2021, KID distributed approximately 646 acre-feet of water to its customers. This is equivalent to 210 million gallons. One acre-foot is enough water to cover one acre of land, one foot deep with water, or 325,851 gallons. Your tap water was delivered from two vertical wells and five horizontal wells. The vertical wells pump from the Raymond Basin down to 244 and 443 feet below the ground surface. The horizontal wells are tunnels in the mountainside that collect water via gravity. The tunnels and wells feed reservoirs where the waters can be mixed. Chlorine disinfectant is added to prevent bacterial growth in the reservoirs and the distribution pipeline. KID has emergency interconnections with the City of Pasadena.

Drinking Water Source Assessment Information: An assessment of the drinking water sources for Kinneloa Irrigation District was completed in August 2002. The assessment concluded that KID's sources are considered most vulnerable to nitrate contamination. A copy of the complete assessment is available at KID's office located at 1999 Kinclair Drive, Pasadena, California. You may request to review the assessment by contacting (626) 797-6295.

Time and Place of Regularly Scheduled Board Meetings for Public Participation: The Board meets the third Tuesday every month at the KID office located at 1999 Kinclair Drive, Pasadena and the public is invited. For more information, you may contact the office at (626) 797-6295.

For More Information, Contact: Kinneloa Irrigation District General Manager, Melvin Matthews (626) 797-6295

### 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 Kinneloa Irrigation District a 1999 Kinclair Drive, Pasadena, CA 91107 – (626) 797-6295 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 Kinneloa Irrigation District 以获得中文的帮助: 1999 Kinclair Drive, Pasadena, CA 91107 – (626) 797-6295 .

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Kinneloa Irrigation District, 1999 Kinclair Drive, Pasadena, CA 91107 o tumawag sa (626) 797-6295 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 Kinneloa Irrigation District tại 1999 Kinclair Drive, Pasadena, CA 91107 – (626) 797-6295 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 Kinneloa Irrigation District ntawm 1999 Kinclair Drive, Pasadena, CA 91107 – (626) 797-6295 rau kev pab hauv lus Askiv.

## Terms Used in This Report

Term	Definition
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.
N/A	Not applicable.
ND	Not detectable at testing limit.
ntu	nephelometric turbidity units
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)
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>	2021 0	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	2021 0	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	2021 0	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

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

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	July 2019	10	5	1	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	July 2019	10	0.26	1	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)	2019	19	12 - 30	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2019	202	152 - 287	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**

<b>Chemical or Constituent (and reporting units)</b>	<b>Sample Date</b>	<b>Level Detected</b>	<b>Range of Detections</b>	<b>MCL [MRDL]</b>	<b>PHG (MCLG) [MRDLG]</b>	<b>Typical Source of Contaminant</b>
Gross Alpha Radiation (pCi/L)	2018, 2021	4.48	ND – 9.73	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	2018, 2019, 2021	5.8	1.9 - 14	20	0.43	Erosion of natural deposits
Nitrate (ppm as N)	2021	2.5	0.68 - 4.40	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Arsenic (ppb)	2019	1.55	ND - 6.8	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)*	2021	2.02	0.98 - 2.90	3*	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Hexavalent Chromium (ppb)	2019	1.07	ND - 4	--	0.02	Discharge from steel and pulp mills; chrome plating; runoff/leaching from natural deposits

\* See fluoride variance information on page 8.

**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
Aluminum (ppb)	2019	11.2	ND - 67	200	N/A	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2019	23.5	8.1 - 39	500	N/A	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2019	46.7	ND - 280	300	N/A	Leaching from natural deposits; industrial wastes
Odor - Threshold (Units)	2019	1	1	3	N/A	Naturally-occurring organic materials
Specific Conductance (µs/cm)	2019	483	350 - 650	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2019	46	18 - 80	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids [TDS] (ppm)	2019	258	180 - 360	1000	N/A	Runoff/leaching from natural deposits
Turbidity (Units)	2019	0.18	ND - 1.1	5	N/A	Soil runoff

**Table 6. Detection of Unregulated Contaminants**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Typical Source of Contaminant
Boron (ppm)	2015	.88	.88	1	Erosion of natural deposits

### 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:** 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. Kinneloa Irrigation 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. 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>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

**Nitrate: None of KID's groundwater sources exceed one-half of the MCL.** Nitrate (as nitrogen) 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 specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. Testing in 2021 showed detectable nitrate in KID's groundwater sources at levels well below the action level of concern.

**Arsenic:** While your drinking water meets the federal and state standards for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**Radon:** Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your state radon program (1-800-745-7236), the EPA's Safe Drinking Water Act Hotline (1-800-426-4791) or the National Safety Council Radon Hotline (1-800-767-7236). KID voluntarily tested for radon in seven of its groundwater sources in 2005 and levels in these seven sources ranged between 261 - 1370 picocuries-per-liter and averaged 622 picocuries-per-liter.

Groundwater is protected from many infectious organisms, such as the parasite *Cryptosporidium*, by the natural filtration action of water percolating through soils. There is no indication that *Cryptosporidium* has breached this natural soil filter and entered the KID water supply.

**State Revised Total Coliform Rule (RTCR):** This Consumer Confidence Report (CCR) reflects the 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 by 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 defects 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
No Violation				

**For Water Systems Providing Groundwater as a Source of Drinking Water**

**Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples**

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	2021 0	2021	0	(0)	Human and animal fecal waste
Enterococci	2021 0	2021	TT	N/A	Human and animal fecal waste
Coliphage	2021 0	2021	TT	N/A	Human and animal fecal waste

**Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT**

<b>Special Notice of Fecal Indicator-Positive Groundwater Source Sample:</b> N/A
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<b>Special Notice for Uncorrected Significant Deficiencies:</b> N/A
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**Table 9. Violation of Groundwater TT**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
No Violation				
No Violation				

**Summary Information for Operating Under a Variance**

**Fluoride Variance:** Fluoride occurs naturally at levels exceeding the state MCL of 2 milligrams-per-liter (mg/L) in two of KID groundwater sources. Even though these sources mix with groundwater from other lower fluoride sources before being delivered to residences, it is not always possible to dilute the fluoride below the MCL, especially in the rainy season when tunnel water provides most of the supply. On November 19, 1993, the State Board issued KID a variance from the State’s fluoride drinking water standard. This variance expires on December 13, 2023. The variance is State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions. The variance allows KID to exceed 2 mg/L but not exceed 3 mg/L in the distribution system. On July 7, 2009, the State Board approved KID’s request to reduce fluoride source and distribution system monitoring from monthly to quarterly and discontinue public notification letters of fluoride in the distribution system above 2 mg/L but below 3 mg/L and instead notify the customers of

distribution system fluoride level through their water bills. If, at any time after a variance has been granted, substantial community concerns arise concerning the level of fluoride present in the water supplied by Kinneloa Irrigation District, Kinneloa Irrigation District shall notify the State Board, conduct a public hearing on the concerns expressed by the community, determine the fluoride level that is acceptable to the community, and apply to the State Board for an amendment to the variance which reflects that determination.

### Sampling Results for Distribution System

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Total Trihalomethanes (ppb)	2021	8.2	1.7 – 8.2	80	N/A	Byproduct of Drinking Water Disinfection
Haloacetic Acids (5) (HAA5) (ppb)	2021	ND	ND	60	N/A	Byproduct of Drinking Water Disinfection
Chlorine residual (ppm)	2021	1.4	0.9 – 1.8	4	4	Drinking Water Disinfectant
Fluoride (ppm)	2021	1.0	1.0 – 2.2	3*	1	Naturally Present in Groundwater
Turbidity (ntu)	2021	0.14	ND - 1.6	5**	N/A	Soil Runoff
Odor (ton)	2021	1	1	3**	N/A	Naturally Present in Groundwater

\* Six distribution system locations are tested for fluoride quarterly at the request of the State Board.

See Fluoride Variance note above.

\*\* Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).