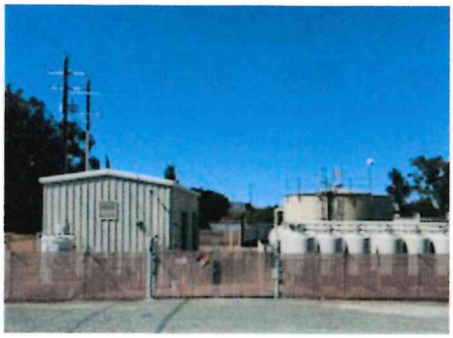
City of Rio Vista 2023
Consumer Confidence Report



The City of Rio Vista is committed to infrastructure upgrades on the water distribution system yearly by:

- Drinking Water Source Assessments and Well Head Protection of the City's wells
- Monitoring current research and regulations on drinking water
- Water quality tests
- Water conservation Information

From the Source to the Tap

The City of Rio Vista's water is supplied from five ground water wells. The wells, tanks, treatment facilities and over 40 miles of distribution pipelines are operated and maintained by certified operators. The City's water supply is disinfected using chlorine in the form of Sodium Hypochlorite at an average chlorine residual of 0 .5-1.5 mg/l (parts per million). These wells are the only source of supply available at the present time. To make sure your water is consistently safe, water is drawn from numerous locations throughout the water system and samples are taken on a weekly basis. More than 500 samples are drawn from numerous locations throughout the water distribution system. Samples are also taken from the wellhead prior to chlorination.

All sampling locations and requirements are determined and approved by the California Department of Water Resources. Results from the approved testing laboratory are sent electronically to the State. These tests verify that our water supply continues to meet water quality standards established by State and Federal regulatory agencies.

This report, produced by the City, conforms to the federal regulation that requires each community water system to provide customers with annual information about the quality of the drinking water. This includes details about sources and quality; regulations that protect public health; programs that protect the water quality of our supply sources; and the treatment that assures our drinking water meets all Federal and State standards. We hope the information presented here enhances your understanding and gains your confidence in the quality and gains your confidence in the quality of the water you drink and use every day.

Total Water Pumped in 2023 – 683,058,000 Gallons.

The City of Rio Vista Water Conservation Urgency Ordinance

This ordinance was adopted by the City Council on July 19, 2022. It states that:

a. No lawn/garden watering, or other outdoor water use, will be allowed between 10 a.m. and 6 p.m. on any day.

b. Subject to the limitations set forth in subsection (A)(1)(a), users with even-numbered street addresses shall use outdoor water only on Tuesdays and Saturdays.

c. Subject to the limitations set forth in subsection (A)(1)(a), users with odd-numbered street addresses shall use outdoor water only on Sundays and Wednesday

2023 Consumer Confidence Report

Water System Name: CITY OF RIO VISTA Report Date: June 2024

te 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, 2023.

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

Type of water source(s) in use: According to SWRCB records, Wells 09, 10, and 11 are Groundwater. This Assessment was done using the Default Groundwater System Method. Wells 13, 14, 15 do not have a completed assessment on file. Please see the Drinking Water Source Assessment Information section located at the end of this report for more details.

Your water comes from 5 groundwater wells and (2) 2-million-gallon storage tanks. 6 source(s): WELL 10, WELL 11, WELL 13, WELL 14 and WELL 15.

For more information about this report, or any questions relating to your drinking water, please call (707) 374-6451 and ask for the Public Works Department.

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically 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 the contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for the 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.

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.

ND: not detectable at testing limit

mg/L: milligrams per liter or parts per million (ppm) **ug/L:** micrograms per liter or parts per billion (ppb) **pCi/L:** picocuries per liter (a measure of radiation)

NTU: Nephelometric Turbidity Units

umhos/cm: micro mhos per centimeter

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, 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 if 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 Resource Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 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 Water 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.

Table 1 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in last sample set)	Sample Date	No. of Samples	90th percentile level detected	No. Sites Exceeding AL	AL	PHG	Typical Sources of Contaminant
Lead (ug/L)	(2022)	20	1.0	1	1.5	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper (mg/L)	(2022)	20	0.05	0	1.3	.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 2 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Sources of Contaminant
Sodium (mg/L)	(2022 - 2023)	144	137 - 156	none	none	Salt present in the water and is generally naturally occurring
Hardness (mg/L)	(2022 - 2023)	64	31.4 - 81.8	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Sources of Contaminant**
Arsenic (ug/L) Pre and post treament	2023	9	5 - 16	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Fluoride (mg/L)	2023	0.3	0.2 - 0.4	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate as N (mg/L)	2023	1.8	ND - 3.7	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (mg/L)	(2018 - 2022)	1.2	ND - 3.2	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ug/L)	(2018 - 2022)	5	ND - 12	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots(feed additive)
Gross Alpha (pCi/L)	(2018 - 2022)	4.27	1.90 - 6.46	15	(0)	Erosion of natural deposits.
Bentazon (BASAGRAN) (ug/L)	(2018 - 2022)	ND	ND - 5	18	2	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses
Dinoseb (DNBP) (ug/L)	(2018 - 2022)	ND	ND - 2	7	14	Runoff from herbicide used on soybeans, vegetables, and fruits
Pentachlorophenol (PCP) (ug/L)	(2018 - 2022)	ND	ND - 0.3	1	0.3	Discharge from wood preserving factories, cotton and other insecticidal/herbicidal uses
Picloram (ug/L)	(2018 - 2022)	ND	ND - 1	500	166	Herbicide runoff
Uranium (pCi/L)	(2018)	1.826	1.206 - 3.082	20	0.43	Erosion of natural deposits

Pre Treatment results from well 10 and 14

Table 4 - TREATED DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Sources of Contaminant**
Arsenic (ug/L)	(2023)	8	5-11	10	0.004	Erosion of natural deposits; runoff from orchards, glass, and electronics production wastes

Table 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Sources of Contaminant**
Chloride (mg/L)	2023	68	40 - 78	500	n/a	Runoff/leaching from natural deposits; seawater influence
Iron (ug/L)	2023	ND	ND	300	n/a	Leaching from natural deposits; Industrial wastes
Manganese (ug/L)	2023	10	ND - 20	50	n/a	Leaching from natural deposits
Odor Threshold at 60 °C (TON)	(2018 - 2022)	1	ND - 2	3	n/a	Naturally occurring organic materials.

Specific Conductance (umhos/cm)	2023	759	633 - 878	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	2023	47.2	26.3 - 66.1	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	2023	462	410 - 520	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)	(2023	0.15	ND - 0.3	5	n/a	Soil runoff
Zinc (mg/L)	(2023)	0.01	ND - 0.02	5	n/a	Runoff/leaching from natural deposits

Table 6 - TREATED DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units	Sample Date	Average Level Detected	Ranges of Detections	MCL	PHG (MCLG)	Typical Sources of Contaminant
Iron (ug/L)	(2022)	37	ND-60	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ug/L)	(2017)	1.6	ND- 30	50	N/A	Leaching from natural deposits

Table 7 - DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Ranged of detections	Detection Limit	Typical Sources of Contaminant
Boron (mg/L)	(2020 - 2023)	1.1	0.8 - 1.6	3	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Vanadium (mg/L)	(2018 - 2022)	0.503	ND - 3	50	Vanadium exposures resulted in developmental and reproductive effects in rats.
Manganese (ug/L)	(2022 - 2023)	18	ND - 50	N/A	N/A

Table 8 - ADDITIONAL DETECTIONS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	Notification Level	Typical Sources of Contaminant
Calcium (mg/L)	(2020 - 2023)	13	6 - 21	n/a	n/a
Magnesium (mg/L)	(2020 - 2023)	13	4 - 31	n/a	n/a
pH (units)	(2018 - 2022)	8.07	7.31 - 8.8	n/a	n/a
Alkalinity (mg/L)	(2020 - 2023)	264	250 - 280	n/a	n/a
Aggressiveness Index	(2018 - 2022)	11.9	10.9 - 12.5	n/a	n/a
Langelier Index	(2018 - 2022)	ND	-1.0 - 0.7	n/a	n/a

Table 9 - TREATED ADDITIONAL DETECTIONS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	Notification Level	Typical Sources of Contaminant
Alkalinity (mg/L)	(2023)	268	230 - 290	n/a	n/a

Table 10 - DETECTION OF DISINFECTANT/DISINFECTANT BYPRODUCT RULE

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG)	Violation	Typical Sources of Contaminant
Total Trihalomethanes (TTHMs) (ug/L)	(2023)	11	ND - 12.0	80	n/a	No	By-product of drinking water disinfection

Chlorine (mg/L)	(2023)	0.05	ND- 1.30	4.0	4.0	No	Drinking water disinfectant added for treatment.

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts if contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *`ryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 the service lines and home plumbing. *City of Rio Vista* 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 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 or at http://www.epa.gov/lead.

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

VIOLATION OF A MCL,MRDL,AL,TT, OR MONITORING AND REPORTING REQUIREMENT

Violation	Explanation	Duration	Actions Taken To Correct the Violation	Health Effects Language
Lead				Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.
Arsenic				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.
Iron				Iron was found at levels that exceed the secondary MCL. The Iron MCL was set to protect you against unpleasant aesthetic affects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Violating this MCL does not pose a risk to public health.
Manganese				Manganese was found at levels that exceed the secondary MCL. The Manganese MCL was set to protect you against unpleasant aesthetic affects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Violating this MCL does not pose a risk to public health.
Odor Threshold at 60 °C				Odor was found at levels that exceed the secondary MCL. The Odor MCL was set to protect you against unpleasant aesthetic affects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Violating this MCL does not pose a risk to public health.

Turbidity				Turbidity is Secondary Drinking Water Standards and has found no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

About your Arsenic: For Arsenic detected above 5 ug/L (50% of the MCL) but below or equal to 10 ug/L: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs 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.

2023 Consumer Confidence Report
Drinking Water Assessment Information

Assessment Information

A source water assessment was conducted for WELL 10, and WELL 11 of the CITY OF RIO VISTA water system in December, 2002. According to the Drinking Water Source Assessment and Protection Program`s Source Water Assessments Public Access web page, the Public Water Sources WELL 13, WELL 14, WELL 15 of the CITY OF RIO VISTA water system number 4810004, do not have a completed Source Water Assessment on file.

Discussion of Vulnerability

All wells in the City of Rio Vista water system are currently online. Assessment summaries are not available for some sources. This is because:

- The Assessment has not been completed. Contact the local Department of Health Services (DHS) Drinking Water field office or the water system to find out when the Assessment is scheduled to be done.
- The source is not active. It may be out of service, or new and not yet in service.
- The Assessment was not submitted electronically. The site used to obtain Assessments only provides access to Assessment summaries submitted electronically.

Acquiring Information

A copy of the complete assessment may be viewed at:
City of Rio Vista, Department of Public Works
789 St. Francis Way
Rio Vista, Ca 94571

Water Conservation

The City has moved to a Shortage Level 2 Water Requirements to encourage additional conservation. This level allows for irrigation a maximum of two days a week between the hours of 6:00 pm – 10:00 AM only. The City will continue to monitor conditions and may further restrict outdoor watering accordingly.

- No watering is allowed on Mondays, Thursdays and Fridays.
- Customers with street addresses ending with an **odd** number may irrigate only on **Wednesday and/or Sunday**.
- Customers with street addresses ending with an **even** number may irrigate only on **Tuesday and/or Saturday**.

For Water Conservation Tips check-out https://saveourwater.com/.

Help Protect Our Drinking Water System

Tampering with a public water system is a federal offense. Please report any suspicious activity occurring at any water facility or hydrant to the Rio Vista Police Department at (707) 374-6366