Report Date: June 1, 2019

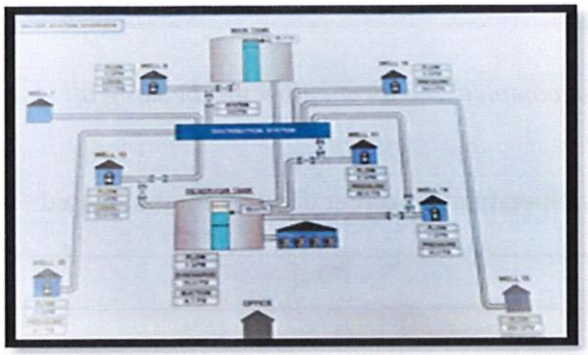
City of Rio Vista
One Main Street, Rio Vista CA 94571

CITY OF RIO VISTA

2018 CONSUMER CONFIDENCE REPORT

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

- Drinking Water Source Assessment and Well Head Protection of the City 's wells.
- Monitoring current research and regulations on drinking water.
- Enforcing our Backflow Prevention and Cross-Connections program.



From the source to the tap

The City of Rio Vista's water is supplied from six 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 0.5-1.0 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 drawn from numerous locations throughout the water samples are taken on a weekly basis. More than 350 samples have been drawn from numerous locations throughout the water distribution system and also directly from the wellhead prior to chlorination.

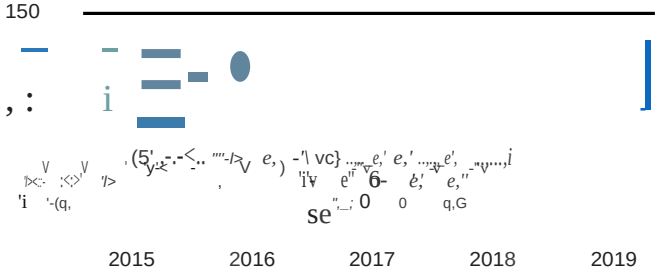
Our State certified operators, and FGL Laboratories, a contract state certified water quality laboratory, test samples both in-house and in the lab. These tests verify that our water supply continues to meet water quality standards established by state and federal regulatory agencies.

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.

M hlvW Totals in Gall

Month	2015	2016	2017	2018
January	32,311,000	31,073,000	23,860,000	27,939,000
February	28,312,000	35,507,000	21,657,000	34,977,000
March	54,370,000	33,148,000	28,855,000	28,403,000
Aoril	57,981,000	57,690,000	37,555,000	39,182,000
May	62,488,000	61,188,000	73,746,000	68,643,000
June	68,720,000	82,256,000	84,469,000	82,787,000
July	61,523,000	81,914,000	97,281,000	81,125,000
Auqust	67,177,000	78,906,000	93,036,000	87,255,000
Seotember	66,361,000	77,599,000	80,496,000	78,302,000
October	56,685,000	53,801,000	68,096,000	66,980,000
November	38,384,000	32,503,000	45,837,000	53,751,000
December	32,812,000	28,720,000	34,954,000	29,667,000

Comparative Water Usage
2015-2019 (Millions of Gallons)



Consumer Confidence Report Certification Form

(to be submitted with a copy of the CCR)

(to certify electronic delivery of the CCR, use the certification form on the State Board's Website at http://111111111.11waterboards.ca gov/dri11king waterlcertlicldrinkingwater/CCR.shtml)

Water System Name: **CITY OF RIO VISTA**
Water System Number: **4810004**

The water system above hereby certifies that its Consumer Confidence Repmt was distributed on June 26, 2019___ (date) to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the repo1t is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water.

Ce1tified By: Name Greg Malcolm

Signature _____

Title Public Works Sc1perintend1:mt

Phone Number (707)-374-6451 Date June 13,2019

To summarize report delivery used and good-faith efforts taken, please complete the form belm,11 by checking all items that apply and fill-in ·where appropriate:

CCR was distributed by mail or other direct delivery methods. Specify other direct delivery methods used:

_____

_____

-- "Good faith" effo1ts were used to reach non-bill paying customers. Those efforts included the following methods :

Posted the CCR on the internet at http:// riov is tacity.com_ _ _ _ _ _ _ _ _ _

--**Mailed** the CCR to postal patrons within the service area (attach zip codes used)

- - Adve1t is ed the availability of the CCR in news media (attach a copy of press release)

--**Publication** of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of the newspaper and date published)

--**Posted** the CCR in public places (attach a list of locations)

--**Delivery** of multiple copies of CCR to single bill addresses serving several persons, such as apartments, businesses, and schools

--**Delivery** to community organizations (attach a list of organizations)

--**Other** (attach a list of other methods used)

--***For*** *systems serving at least 100,000 persons:* Posted CCR on a publicly-accessible internet site at the following address: http://_____

- - *For privately-owned utilities:* Delivered the CCR to the California Public Utilities Commission

(This form is provided as a convenience and may be use d to meet the certification requ ireme nt of section 64483(c), Californ ia Code of Regulations.)

2018 Consumer Confidence Report

Water System Name: CITY OF RIO VISTA Report Date: June 2019

We test the dr;nk;ng water quality for many consatuents as reqidred by state and federal regulahons. Th;s report shows the results of our mon;toringfor the perfod of January 1 - December 31, 2018.

Este informe contiene informaci6n muy importante sobre su agua potable. Traduzcalo 6 hable con alquien que Io 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 repo1i for more details.

Your water comes from 6 ground water source(s): Well 09, Well 10, Well 11, Well 13, Well 14 and Well 15 **and from 2 treated Iocation(s):** Blended Station, and WELL 10 TREATMENT FACILITY

Opportunities for public participation in decisions that affect drinking water quality: Regularly-scheduled water board meetings are held quarterly at Rio Vista City Hall council chambers.

For more information about this rep011, or any questions relating to your drinking water, please call (707)374-6451 and ask for Robin Borre or visit our website at www.rio-vis ta-ca.com.

TERMS USED IN TIITS 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 ofa 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 kiisinfectant is necessary for control of microbial contaminants .

Maximum Residual Disinfectant Level Goal (MRDLG): The level ofa 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 rep01ting requirements, and water h·eatment 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 paits per billion (ppb)

pCi/L: picocuries per liter (a measure ofradiation)

NTU: Nephe lomeh·ic Turbidity Units

umhos/cm: micro mhos per centimeter

The sources of drinking water: (both tap water and bottled water) mclude nvers, lakes, streams, ponds, reservoll's, 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 mater ial, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Nlicrobial 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 d is charges, oil and gas production, m in ing, 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 runo ff, 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 Board) prescribe regulations that limit the amount of ce1iain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 6, 7, **8 and 9 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 ce1iain 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 qua li ty, are more than one year old.

Any violation of MCL, AL or MRDL is highli ghted . Additional information regarding the violation is provided later in this report.

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

Lead and Copper (complete if lead or copper detected in last	**Sample Date**	**90th percentile level detected**	**No. Sites Exceeding AL**	**AL**	**PHG**	**Typical Sources of Contaminant**
Lead (ug/L)	15 (2017)	2.0	0	15	0.2	Internal conosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper (mg/L)	20 (2016)	0.06	0	1.3	.3	Internal c01rnsion 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**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Sources of Contaminant**
Sodium (mg/L)	(2016 - 2018)	159	128 - 185	none	none	Salt present in the water and is generally naturally occuITing
Hardness (mg/L)	(2016 - 2018)	61.7	18.2-104	none	none	Sum ofpolyvalent cations present in the water , generally magnesium and calcium, and are usually nah1rally occurring

Table 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and rep01t ing units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Sources of Contaminant**
Aluminum (mg/L)	(2016 - 2018)	ND	ND - 0.29	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes

Arsenic ug/L pre-treatment Well10	(2018)	9	6-14	10	0.004	!Erosion of natural deposits; runoff from orchards, glass and electronics production !wastes
Fluoride (mg/L)	(2016 - 2018)	0.4	0.2 - 0.5	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Hexavalent Chromium (ug/L)	(2014)	1.52	ND - 2.99		0.02	Discharge from electroplating factories, leather tanneries, wood prese1vation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Nitrate as N	(2017 - 2018)	0.5	ND-2.3	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (mg/L)	(2016 - 2018)	1	ND -2.3	10	10	Runoff and leaching from fe1tilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ug/L)	(2016 - 2018)	ND	ND -11	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)	4.78	3.27 - 6.46	15	(0)	Erosion of natural deposits.
Total Radium 228 (pCi/L)	(2010)	ND	ND - 0.859	5	n/a	Erosion of natural deposits
Uranium (pCi/L)	(2018)	1.826	1.206 - 3.082	20	0.43	Erosion of natural deposits

Table 4 -TREATED DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL1**	**PHG(MCLG) [MRDLG1**	**Typical Sources of Contaminant**
Arsenic, post treatment	(2018)	7	4-10	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Hexavalent Chromium (ug/L)	(2014)	1.51	1.45 - 1.59	10	0.02	Discharge from electroplating factories, leather tanneries, wood prese1vation, chemical synthesis, refract01y production, and textile manufacturing facilities; erosion of natural deposits.

Table 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MC I**	**PHG (MCLG)**	**Typical Sources of Contaminant**
Chloride (mg/L)	(2016 - 2018)	67	34- 84	SOC	n/a	Runoff/leaching from natural deposits; seawater influence
Color (Units)	(2018)	1	ND-5	15	n/a	Naturally-occurring organic materials
Iron (ug/L)***	(2017 - 2018)	305	ND - (2520***)	30C	n/a	Leaching from natural deposits; Industrial wastes
Manganese (ug/L)***	(2017 - 2018)	**ND**	ND - (83.7***)	SC	n/a	Leaching from natural deposits
Odor Threshold at 60 °C (TON)***	(2018)	13	ND-(32***)	3	n/a	Naturally-occurring organic materials.
Specific Conductance (umhos/cm)	(2017 - 2018)	771	657 - 879	160C	n/a	Substances that fo11n ions when in water; seawater influence
Sulfate (mg/L)	(2016 - 2018)	55.5	48.6 - 63.3	SOC	n/a	Runoff/leaching from natural deposits; !industrial wastes
Total Dissolved Solids (mg/L)	(2017 - 2018)	452	380 - 540	100(	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)***	(2016 - 2018)	1.1	ND -(6.2***)		**n/a**	Soil runoff

Table 6 -TREATED DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MC 1**	**PHG(MCLG)**	**Typical Sources of Contaminant**
Iron (ug/L)	(2017)	ND	ND -200	300	n/a	Leaching from natural deposits; Industrial wastes
Manganese (ug/L)	(2017)	ND	ND-30	SO	n/a	Leaching from natural deposits

Table 7 - DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Typical Sources of Contaminant**
Boron (mg/L)	(2016 - 2018)	1.5	0.9 - 2.3	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Vanadium (mg/L)	(2016 - 2018)	0.004	ND - 0.007	0.05	Vanadium exposures resulted in developmental and reproductive effects in rats.

Table 8 -ADDITIONAL DETECTIONS					
Oiemical orConstituentSample (and1epoi1iogunits)	**Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Typical Sources of Contaminant**
Calcium (mg/L)	(2016 - 2018)	11	**4** -17	n/a	n/a
Magnesium (mg/L)	(2016 - 2018)	9	**2** - 15	n/a	n/a
pH (units)	(2016 - 2018)	8.5	8.2 - **8.8**	n/a	n/a
Alkalinity (mg/L)	*(2016* - 2018)	251	230 - 270	n/a	n/a
Aggressiveness Index	*(2016* - 2018)	12.3	11.7 -12.5	n/a	n/a
Langelier Index	(2016 - 2018)	0.4	-0.2 - 0.7	n/a	n/a

Table 9 - DETECTION OF DISINFECTANT /DISINFECTANT BYPRODUCT RULE							
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL (MRDL)**	**PHG (MCLG)**	**Violation**	**Typical Sources of Contaminant**
Total Trihalomethanes (TTHMs) (ug/L)	(2017 - 2018)	8.875	ND-13	80	n/a	No	By-product of drinking water disinfection
Haloacetic Acids (five) (ug/L)	(2017 - 2018)	6.25	ND-25	60	n/a	No	By-product of drinking 1water disinfection

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts if some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential healtl1 effects can be obtained by calling tl1e USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water tlrnn the general population. Immuno-compromised persons such as persons witl1 cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or otl1er immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from tl1eir healtl1 care providers. USEPA/ Centers for Disease Control (CDC) guidelines on appropriate means to lessen tl1e risk of infection by *C,yptosporidittm* 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 healtl1 problems, especially for pregnant women and young children. Lead in drinking water is prin1arily from materials and

components associated with the service lines and home plumbing. *City of R;o 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

About our 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.

For Arsenic (As) results above 5 ppb up to and including 10 ppb: 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 ofremoving arsenic from the 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.

For Arsenic (As) results above 5 ppb up to and including 10 ppb: 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 ofremoving arsenic from the 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.

About our 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.

About our 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 .

About our 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 washin g. Violating this MCL does not pose a risk to public health.

About our 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.

*** **Well** 9, Sample testing for water pump to waste only, results not for water distribution

2018 Consumer Confidence Report

Drinking Water Assessment Information

Assessment Information

A source water assessment was conducted for the WELL 09, WELL 10, and WELL 11, and 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, and WELL 16 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 on li ne . 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 serv ice .

• 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, Depa1tment of Public Works
789 St. Francis Way
Rio Vista , Ca 94571

You may request a summary of the assessment be sent to you by contacting:
Robin Borre
Director of Public Works
(707) 374-6747

For more info you may visit http s://www.waterboards.ca.gov/dr inking water/certl ic /drinkingwater/DWSAP.htm l or contact the health department in the county to which the water system belongs as indicated on this following link:
https://www.waterboards.ca.gov/drinking water/programs/documents /ddwe m/DDWd ist ricto fficesmap .pdf