2017 Consumer Confidence Report

Water System Name: CITY OF RIO VISTA Report Date: March 2018

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 - December 31, 2017.

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 07, 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 7 **source(s):** Well 07, Well 09, Well 10, Well 11, Well 13, Well 14 and Well 15 **and from 3 treated location(s):** As-Booster Station, As-Water Tank and WELL 10 AS/MN TREATMENT FACILITY. The total number of gallons pumped in 2017 was 689,842,000 gallons.

Opportunities for public participation in decisions that affect drinking water quality: Regularly-scheduled Water and Wastewater Monitoring Committee meetings are held at Rio Vista City Hall every 2nd Tuesday of each month at 6:30pm.

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

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 (mg/L) **(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 Units **(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.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter

ppb: parts per billion or micrograms per liter (µg/L)

pCi/L: picocuries per liter (a measure of radiation)

NTU: Nephelometric Turbidity

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, 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 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 Board) prescribe regulations that limit the amount of certain 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 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 MCL, AL or MRDL is highlighted. 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 set)	**Sample Date**	**90th percentile level detected**	**No. Sites Exceeding AL**	**AL**	**PHG**	**Typical Sources of Contaminant**
Lead (ppb)	15 (2017)	2.0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers, erosion of natural deposits
Copper (ppm)	20 (2016)	0.06	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**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Sources of Contaminant**
Sodium (ppm)	(2016 - 2017)	148	131 - 164	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	(2016 - 2017)	60.3	18.2 - 107	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

A hardness of 60 is considered slightly hard and a hardness of 120 is considered moderately hard. There is no convincing evidence that water hardness causes adverse health effects. It is primarily a nuisance problem resulting in difficulty in cleaning and laundry tasks, and decreased efficiency of water heaters.

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

Chemical or Constituent (and reporting	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Sources of Contaminant**

Aluminum (ppm)	(2016)	ND	ND - 0.11	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	(2017)	10	5 - 16	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Fluoride (ppm)	(2016 - 2017)	0.3	0.2 - 0.5	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Hexavalent Chromium (ppb)	(2014)	1.36	ND - 2.99		0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Nitrate as N	(2016 - 2017)	1	ND - 3.1	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (ppm)	(2016)	1.3	ND - 1.9	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	(2016)	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)	(2010)	1.53	1.31 - 1.74	15	(0)	Erosion of natural deposits.
Total Radium 228 (pCi/L)	(2010)	ND	ND - 0.859	5	n/a	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 [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Sources of Contaminant**
Arsenic (ppb)	(2016 - 2017)	6	4 - 12	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Hexavalent Chromium (ppb)	(2014)	1.51	1.45 - 1.59	10	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory 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**	**MCL**	**PHG (MCLG)**	**Typical Sources of Contaminant**
Chloride (ppm)	(2016 - 2017)	69	34 - 87	500	n/a	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	(2017)	ND	ND - 920	300	n/a	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	(2017)	49.9	ND - 580	50	n/a	Leaching from natural deposits
Specific Conductance (umhos/cm)	(2013 - 2017)	754	629 - 858	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm)	(2016 - 2017)	37.4	17.4 - 48.6	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	(2013 - 2017)	445	390 - 520	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)	(2016)	0.4	ND - 1.3	5	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**	**MCL**	**PHG (MCLG)**	**Typical Sources of Contaminant**
Iron (ppb)	(2017)	ND	ND - 200	300	n/a	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	(2017)	ND	ND - 30	50	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 (ppm)	(2016 - 2017)	1	0.6 - 1.4	1	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Vanadium (ppm)	(2016)	ND	ND - 0.006	0.05	The babies of some pregnant women who drink water containing vanadium in excess of the action level may have an increased risk of developmental effects, based on studies in laboratory animals.

Table 8 - ADDITIONAL DETECTIONS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Typical Sources of Contaminant**
Calcium (mg/L)	(2016 - 2017)	10	**4** - 15	n/a	n/a
Magnesium (mg/L)	(2016 - 2017)	9	**2** - 17	n/a	n/a
pH (units)	(2016)	8.3	8.2 - 8.3	n/a	n/a
Alkalinity (mg/L)	(2016 - 2017)	246	230 - 250	n/a	n/a
Aggressiveness Index	(2016)	12	11.7 - 12.3	n/a	n/a
Langelier Index	(2016)	0.1	-0.2 - 0.4	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) (ppb)	(2017)	8.875	**2** - 12.5	80	n/a	No	By-product of drinking water disinfection
Haloacetic Acids (five) (ppb)	(2017)	2	ND - 2	60	n/a	No	By-product of drinking water 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 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 *Cryptosporidium* 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

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 of removing 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.

2017 Consumer Confidence Report

Drinking Water Assessment Information

Assessment Information
A source water assessment was conducted for the WELL 07, WELL 08, WELL 09, WELL 10, and WELL 11, and WELL 12 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, and 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 on line. Assessment summaries are not available for some
sources. This is because:
ïc!.½ 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.
ïc!.½ The source is not active. It may be out of service, or new and not yet in service.
ïc!.½ 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

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

For more info you may visit http://swap.ice.ucdavis.edu/TSinfo/TSintro.asp or contact the health department in the county to which the water system belongs.