A STATE OF CALIFORNIA PUBLIC AGENCY

QUAIL VALLEY WATER DISTRICT

BOARD OF DIRECTORS
Mike Biglay
Jean Grodewald
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Vacant

2018 Consumer Confidence Report

Water System Name: **QVWD-West & East Combined System** Report Date: **6/22/19**

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, 2018 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse QVWD-West & East Combined System a (661) 822-1923 para asistirlo en español.

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 **QVWD-West & East Combined System**以获得中文的帮助: **(661) 822-1923**

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa QVWD-West & East Combined System o tumawag sa (661) 822-1923 para matulungan sa wikang Tagalog.

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ QVWD-West & East Combined System tại (661) 822-1923 được hỗ trợ giúp bằng tiếng Việt.

Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau QVWD-West & East Combined System ntawm (661) 822-1923 rau kev pab hauv lus Askiv.

Type of water source(s) in use:

Groundwater (Wells)

Name & general location of source(s):

Water supply consists of 3 wells located within the District: Umtali well, Montclaire well, and Pretoria well.

Drinking Water Source Assessment information:

The most recent drinking water source assessment for the Umtali well was completed in August of 2006 and for the Montclaire well in October of 2017. No contaminants associated with the identified activities were detected in the water supply. Both sources are considered most vulnerable to these activities:

1. **Septic systems,**
2. **Drinking water treatment plants,**
3. **Above ground storage tanks,**
4. **Water supply wells,**
5. **Transportation corridors (roads),**
6. **Surface water (streams).**

Time and place of regularly scheduled board meetings for public participation:

Regular meetings of the Board of Directors are held at the District Office (24750 Sand Canyon Road) at 8:30 A.M. on the last Saturday of each month.

For more information, contact: **Randy Hardenbrook, General Manager** Phone: (**661**) **822-1923**

TERMS USED IN THIS REPORT

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).

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 contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

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
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)

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.

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.

Tables 1, 2, 3, 4, 5, and 6 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 (complete if bacteria detected)	**Highest No. of Detections**	**No. of Months in Violation**	**MCL**	**MCLG**	**Typical Source of Bacteria**
Total Coliform Bacteria (state Total Coliform Rule)	**6 ***	1	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	0		A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive		Human and animal fecal waste
E. coli (federal Revised Total Coliform Rule)	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 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	**Sample Date**	**No. of Samples Collected**	**90th Percentile Level Detected**	**No. Sites Exceeding AL**	**AL**	**PHG**	**No. of Schools Requesting Lead Sampling**	**Typical Source of Contaminant**
Lead (ppb)		13	7	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)		13	.250	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

MONTCLAIRE WELL

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)	2017	30		None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2017	250		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

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Turbidity	2017	2.5			None	Soil runoff
Radium 228 (pCi/L)	2017	2.63		5	0.019	Erosion of natural deposits
Fluoride (mg/L)	2017	0.15		2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Xylenes (mg/L)	2014	<0.50		1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent
TTHMs (Total Trihalomethanes) (µg/L)	2018	4.2		80	NA	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
HAA5 (Sum of 5 Haloacetic Acids) (µg/L)	2018	<2		60	NA	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Chlorine (mg/L)	2018	1.65	0.00-2.82	[4.0 (as Cl_2)]	[4.0 (as Cl_2)]	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

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**
Color (Units)	2017	5		15		Erosion of natural deposits; residual from some surface water treatment processes
Foaming Agents (µg/L)	2017	<0.050		500		Municipal and industrial waste discharges
Iron (µg/L)	2018	**480 ***		300		Leaching from natural deposits; industrial wastes
Manganese (µg/L)	2018	**69 ***		50		Leaching from natural deposits
Turbidity (Units)	2017	2.5		5		Soil runoff
Zinc (mg/L)	2017	0.64		5.0		Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (mg/L)	2017	340		1,000		Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	2017	560		1,600		Substances that form ions when in water; seawater influence
Chloride (mg/L)	2017	18		500		Runoff/leaching from natural deposits; seawater influence
Sulfate (mg/L)	2017	41		500		Runoff/leaching from natural deposits; industrial wastes

UMTALI WELL

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)	2017	350		None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2017	23		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

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Turbidity	2017	0.14		None		Soil runoff
Gross Alpha Particle Activity (pCi/L)	2016	ND		15	0	Erosion of natural deposits
Radium 228 (pCi/L)	2017	1.83		5	0.019	Erosion of natural deposits
Antimony (µg/L)	2018	**10.175 ***	8.7-11	6	1	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (µg/L)	2017	2.8		10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (mg/L)	2018	**6.5 ***	5.6-7.0	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Xylenes (mg/L)	2014	<0.50		1.75	1.8	Discharge from petroleum and chemical factories; fuel solvent

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**
Color (Units)	2017	<5.0		15		Erosion of natural deposits; residual from some surface water treatment processes
Foaming Agents (µg/L)	2017	<0.50		500		Municipal and industrial waste discharges
Turbidity (Units)	2017	0.14		5		Soil runoff
Total Dissolved Solids (TDS) (mg/L)	2018	793		1,000		Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	2018	1233		1,600		Substances that form ions when in water; seawater influence
Chloride (mg/L)	2017	20		500		Runoff/leaching from natural deposits; seawater influence
Sulfate (mg/L)	2017	47		500		Runoff/leaching from natural deposits; industrial wastes

PRETORIA WELL

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)	2017	190		None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2017	7.7		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

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Turbidity	2017	2.8		None		Soil runoff
Gross Alpha Particle Activity (pCi/L)	2016	3.02		15	0	Erosion of natural deposits
Radium 228 (pCi/L)	2017	1.61		5	0.019	Erosion of natural deposits
Aluminum (mg/L)	2017	0.078		1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (µg/L)	2018	**59 ***		10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (mg/L)	2017	0.3		2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Xylenes (mg/L)	2014	<0.50		1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent

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 (µg/L)	2017	78		200		Erosion of natural deposits; residual from some surface water treatment processes
Color (Units)	2017	10		15		Erosion of natural deposits; residual from some surface water treatment processes
Foaming Agents (µg/L)	2017	<0.050		500		Municipal and industrial waste discharges
Iron (µg/L)	2018	**540 ***		300		Leaching from natural deposits; industrial wastes
Turbidity (Units)	2018	2.8		5		Soil runoff
Total Dissolved Solids (TDS) (mg/L)	2017	340		1,000		Runoff/leaching from natural deposits

Specific Conductance (µS/cm)	2017	710		1,600		Substances that form ions when in water; seawater influence
Chloride (mg/L)	2017	14		500		Runoff/leaching from natural deposits; seawater influence
Sulfate (mg/L)	2017	29		500		Runoff/leaching from natural deposits; industrial wastes

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-Specific Language: 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. Quail Valley Water 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.

TOTAL COLIFORM MCL VIOLATION

During the previous year (2017) one Level 2 assessment was required to be completed for our water system. One Level 2 assessment was completed. In addition, we were required to take four corrective actions and we completed zero of these actions in 2017

The Level 2 assessment was performed in November of 2017 and we were informed of the results and corrective actions required on December 27, 2017 which did not allow for corrective actions to be completed prior to the end of 2017. Five specific items were identified in the level 2 assessment:

1. Complete a cross-connection survey of the Westside System. This has been completed for the Westside System and is in-progress for the remainder of the Combined System.

2. Clean Umtali Well enclosure and prevent entry of rodents. With the consolidation of the Eastside and Westside Systems into the Combined System, the Umtali Well facility has been removed from service and is no longer a part of the water system.

3. Clean the Umtali Reservoir. With the consolidation of the Eastside and Westside Systems into the Combined System, the Umtali Reservoir has been removed from service and is no longer a part of the water system.

4. Inspect and clean the interior of the Montclaire Reservoir. This has not been completed. As there has never been any indication of contamination at this facility, it is the District's position that this is unnecessary. In addition, this reservoir is scheduled for replacement in 2018.

5. Provide continuous chlorination for the entire system. This was completed in early 2108 and continues to be in service.

It is the District's opinion that the contamination issues that caused our water system to fail the drinking water standard for total coliform both in 2017 and in January of 2018 was the numerous breaks in the Umtali line caused by road construction. Once construction was complete and a program of regular flushing, along with continuous chlorination was implemented, the contamination issue was resolved. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

ARSENIC MCL VIOLATION

The Eastside Water System continued to fail the drinking water standard for arsenic in 2018. With the consolidation of the Eastside and Westside Systems into the Combined System, the Pretoria well was removed from service on 3/28/18 which removed the source of the arsenic contamination and the Combined System now meets the drinking water standard for arsenic. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems and may have an increased risk of getting cancer.

ANTIMONY MCL VIOLATION

The Westside Water System continued to fail the drinking water standard for antimony in 2018. With the consolidation of the Eastside and Westside Systems into the Combined System, the Umtali well was placed in standby service March of 2018 and was not used again and was removed from the water system at the end of 2018. The Combined System now meets the drinking water standard for antimony. Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar.

FLUORIDE MCL VIOLATION

The Westside Water System continued to fail the drinking water standard for fluoride in 2018. With the consolidation of the Eastside and Westside Systems into the Combined System, the Umtali well was placed in standby service March of 2018 and was not used again and was removed from the water system at the end of 2018. The Combined System now meets the drinking water standard for fluoride. Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.

Arsenic Remediation Project Update

Quail Valley Water District and The California State Water Resources Control Board entered into a funding agreement on December 8, 2015 for the purpose of financing a project to enable the District to meet safe drinking water standards. When complete the Eastside and Westside systems will be combined and the District will supply water for the entire system from two wells, the existing Montclaire well and a new well drilled near the existing Montclaire well. Both wells will be treated for iron and manganese after which the water will meet all current water quality standards.

We expect this project to be completed before the end of 2019. As of June 2019, the pipeline has been installed and placed in service. Water from the Montclaire well is now being supplied to the Eastside and Westside systems. The Umtali well, which exceeds standards for Fluoride and Antimony, has been permanently removed service. The Tanganda well, which exceeds standards for Arsenic and Nitrate, has been permanently removed from the system. The Pretoria well, which exceeds standards for Arsenic, has been permanently removed from the water system. Construction has begun on the new water storage reservoirs at the Montclaire and East Tank sites. In addition, construction has begun on the building for the water treatment plant for iron and manganese removal.