



## 2018 Water Quality Report

The City of American Canyon is pleased to distribute the Annual Water Quality Report for 2018. This report is designed to inform you about the quality of water and services we deliver to you every day. Our goal is to provide a safe and reliable source of drinking water. We are committed to ensuring the quality of your water and we want our valued customers to be informed about their water system. If you have questions about this report or your water quality, please contact the Water Systems Manager at (707) 647-4558. For emergencies after hours or on weekends or holidays, the City of American Canyon answering service can be reached at (707) 995-8674. To learn more, attend any regularly scheduled City Council meeting, held on the first and third Tuesdays of each month at 6:30 PM at the American Canyon City Hall Council Chambers at 4381 Broadway, Suite 201.

### Source Water Information

#### *Where does my water come from?*

The City of American Canyon treated 2517 acre feet of water during 2018 (an acre foot of water is equal to 325,829 gallons). The city receives its source water from the State Water Project (SWP) through the North Bay Aqueduct (NBA). The NBA water is a surface source and comes from Barker Slough.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals, in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

### System Information

#### *How is my water treated?*

The American Canyon Water Treatment Plant consists of two plants, a conventional plant which uses coagulants (which cause fine suspended particles to clump together) followed by sedimentation and filtration, and a membrane plant which uses membranes with pores small enough to filter out contaminants, including microorganisms. Filtered water is disinfected with chlorine and the pH is adjusted prior to distribution. These processes are continually monitored and adjusted for optimum performance by operators certified by the State Water Resource Control Board.

American Canyon's allocation of NBA water is sufficient to serve the system's current needs. However, because the SWP allocation is only 62% reliable (Average Normal Year), the City has an agreement with the City of Vallejo to purchase treated water through a connection located on Flosden Road. This connection could provide up to 56 million gallons per month of supplemental treated water for the City. The City also has a treated water connection with the City of Napa.

*Does the city add fluoride to the water?*

The City of American Canyon does not add fluoride to the water. However, the City of Vallejo does, and since Vallejo water is sometimes added to the system during the summer months when demand is high, trace amounts of fluoride may be present.

### **Compliance Standards**

*Is my water safe?*

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) and the State Water Resource Control Board Division of Drinking Water (SWRCBDDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

The results of all required testing indicate that your drinking water meets or exceeds all primary drinking water standards, which are set by the federal Safe Drinking Water Act, and the SWRCBDDW. In addition to the required testing, additional monitoring was conducted for unregulated organic chemicals for which the USEPA and SWRCBDDW have not yet set standards. All results were below detection limits unless otherwise noted.

### **Vulnerability Assessment**

*What affects the water quality?*

An assessment of the North Bay Aqueduct water source was completed for the City of American Canyon in November 2011. A copy of the complete assessment may be reviewed at City Hall, 4381 Broadway, Suite 201. You may request a summary of the assessment to be sent to you by calling (707) 647-4558. The source is considered to be vulnerable to sheep and cattle grazing activities in the watershed that are associated with turbidity, total organic carbon, and coliform bacteria detected in the raw water supply. Although the water source is considered vulnerable to sheep and cattle grazing activities, it is important to note that there are multiple barriers for physical removal of contaminants, and the water is disinfected at the water treatment plant.

More information can also be found at the city website, [www.cityofamericancanyon.org](http://www.cityofamericancanyon.org). Click on '**City Departments, Public Works**' to access more information about the City of American Canyon's water and wastewater systems.

For more information on drinking water and the professionals who provide it, visit [www.drinktap.org](http://www.drinktap.org). This site is designed to be a resource for the general public to learn more about their drinking water and to inform consumers about a variety of water related issues, including articles that are designed to describe complex water issues in a simple way.

## **Water Quality Information**

### **Source Water Contaminant Information**

**Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Monitoring for bacteriological contaminants in the treated water distribution system is required to determine the presence of microbiological contaminants such as coliforms, fecal coliforms, or *E. coli*.

**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.

**Arsenic:** The California Department of Public Health continues to research the health effects of low levels of arsenic, 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.

**Cryptosporidium / Giardia:** Microbial pathogens found in surface water throughout the US. Although filtration removes Cryptosporidium and Giardia, the most commonly used filtration methods cannot guarantee 100% removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at a greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

#### Treated Water Contaminant Information

The City of American Canyon routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our most recent monitoring for the period of January 1, 2018 through December 31, 2018 unless otherwise noted.

All drinking water, including bottled water, may be reasonably 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**Sensitive Populations:** 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

**Trihalomethanes and Haloacetic Acids:** Some people who drink water containing THMs and HAAs 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.

**Lead and Copper:** 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. None of the samples collected in 2017 exceeded the action level for lead or copper. The next round of lead and copper testing will occur in 2020.

## Water Conservation

As you are probably aware, many water utilities across the State are imposing strict conservation measures as a result of the ongoing drought. Even in the best of times, water customers are encouraged to conserve water. The American Water Works Association recommends the following steps to help conserve water:

- *Don't over water your lawn. Only water every three to five days in the summer, and ten to fourteen days in the winter.*
- *To prevent water loss from evaporation, don't water your lawn during the hottest part of the day or when it is windy.*
- *Only run the dishwasher and clothes washer when they are fully loaded.*
- *When washing dishes by hand, use two basins – one for washing and one for rinsing rather than letting the water run.*
- *Use a broom rather than a hose to clean sidewalks and driveways.*
- *If you have a swimming pool, get a cover. You will cut the loss of water through evaporation by 90 percent.*
- *Repair leaky faucets and toilets. Dripping faucets can waste about 2,000 gallons of water a year. Leaky toilets can waste as much as 200 gallons a day.*

The table below summarizes the contaminants that were detected in the period January 1, 2018 to December 31, 2018.

<i>Treated Water</i>						
<b>Primary Inorganic Contaminants</b>						
<i>Substance</i>	<i>Units</i>	<i>MCL</i>	<i>PHG/MCLG</i>	<i>Average</i>	<i>Range</i>	<i>Contaminant Sources</i>
Nitrate	ppm	45	45	0.20	0.12 – 0.34	
Aluminum	ppb	1000		28	25 – 34	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride	ppm	2	1	0.112	ND – 0.337	Erosion of natural deposits

<b>Secondary Inorganic Contaminants</b>						
<i>Substance</i>	<i>Units</i>	<i>SMCL</i>	<i>PHG/MCLG</i>	<i>Average</i>	<i>Range</i>	<i>Contaminant Sources</i>
Color	Color Units	15	N/A	1.8	0 – 19	Naturally occurring organic materials
Chloride	ppm	500	N/A	40.4	ND – 110.5	Runoff/leaching from natural deposits; seawater influence
Manganese	ppb			14	3.2 – 43	Erosion of natural deposits
Sulfate	ppm	500	N/A	45.5	13.6 – 138.1	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	N/A	259	114 - 571	Runoff/leaching from natural deposits
Specific Conductance	uS/cm	1600	N/A	415	189 – 958	Substances that form ions in water; seawater influence

<b>Unregulated Contaminants</b>						
<i>Substance</i>	<i>Units</i>	<i>NL</i>	<i>PHG/MCLG</i>	<i>Average</i>	<i>Range</i>	
Vanadium	ppb			1.95	ND – 3.0	Unregulated contaminant monitoring helps EPA and the State determine where certain contaminants occur and whether the contaminants need to be regulated
Barium	ppb			33.5	23 - 56	
Nickel	ppb			1.9	1.0 – 3.6	

<b>Sodium and Hardness</b>						
<i>Substance</i>	<i>Units</i>	<i>MCL</i>	<i>PHG/MCLG</i>	<i>Average</i>	<i>Range</i>	<i>Contaminant Sources</i>
Sodium	ppm	N/A	N/A	21	11 - 32	Generally found in surface and ground water
Hardness	ppm	N/A	N/A	115	68 - 221	

<b>Filtration Performance</b>				
<i>Substance</i>	<i>Performance Standard</i>	<i>Highest Single Detected Measurement</i>	<i>% of Samples &lt; 0.3 NTU</i>	<i>Contaminant Sources</i>
Turbidity	TT=1NTU, 95% of samples must be <0.3NTU	0.357	99.6	Soil runoff

<b>Microbiological Contaminants</b>					
<i>Substance</i>	<i>Total # of Samples Taken</i>	<i>Maximum Number of Positive Samples Allowed Per Month (MCL)</i>	<i>Highest Monthly Number of Positive Samples</i>	<i>Total Number of Positive Fecal Coliform or E. coli Samples</i>	<i>Contaminant Sources</i>
Coliform Bacteria	263	1	1	1	Naturally present in the environment

<b>Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors</b>						
<b>Trihalomethanes (THMs) and Haloacetic Acids (HAAs): Routine Regulatory Sampling</b>						
<i>Substance</i>	<i>Units</i>	<i>MCL</i>	<i>PHG/MCLG</i>	<i>Highest Annual Running Average</i>	<i>Range</i>	<i>Contaminant Sources</i>
THMs	ppb	80	N/A	66.08	50.00 – 66.08	Byproducts of drinking water chlorination
HAAs	ppb	60	N/A	44.70	27.85 – 44.70	

<b>Chlorine Residuals</b>						
<i>Substance</i>	<i>Units</i>	<i>MRDL</i>	<i>MRDLG</i>	<i>Average</i>	<i>Range</i>	<i>Contaminant Sources</i>
Chlorine	ppm	4.0	4.0	0.68	0.10 – 1.48	Drinking water disinfectant added for treatment

<b>Total Organic Carbon</b>						
<i>Substance</i>	<i>Compliance</i>	<i>MCL</i>	<i>PHG/MCLG</i>	<i>Average Ratio</i>	<i>Ratio Range</i>	<i>Contaminant Sources</i>
TOC	Removal Ratio must be >1	TT	N/A	1.77	1.54 – 2.05	Various natural and man-made sources

<b>Lead and Copper</b>					
<i>Substance</i>	<i>Units</i>	<i>AL</i>	<i>PHG</i>	<i>Level Detected 90<sup>th</sup> Percentile</i>	<i>Contaminant Sources</i>
Lead	ppb	15	2	ND	Plumbing corrosion; erosion of natural deposits
Copper	ppb	1300	170	28	

*Note: Lead and Copper testing was done in 30 homes in 2017. All samples were below the action levels.*

## Important Definitions

<b>Maximum Contaminant Level (MCL)</b>	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs and MCLGs as is economically or technically feasible. Secondary maximum contaminant levels (SMCL's) are set to protect the odor, taste, and appearance of drinking water.
<b>Maximum Contaminant Level Goal (MCLG)</b>	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the US Environmental Protection Agency.
<b>Public Health Goal (PHG)</b>	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.
<b>Action Level (AL)</b>	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a drinking water system must follow.
<b>Treatment Technique (TT)</b>	A required process intended to reduce the level of a contaminant in drinking water.
<b>Primary Drinking Water Standard (PDWS)</b>	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
<b>Maximum Residual Disinfectant Level (MRDL)</b>	The level of a disinfectant added for water treatment that cannot be exceeded at the consumer's tap.
<b>Maximum Residual Disinfectant Level Goal there is (MRDLG)</b> USEPA.	The level of a disinfectant added for water treatment below which no known or expected health risk. MRDLGs are set by the USEPA.

### Acronyms

ND	None Detected	USEPA	US Environmental Protection Agency
NS	No Standard	CDPH	California Department of Public Health
NA	Not Analyzed	NBA	North Bay Aqueduct
N/A	Not Applicable	SWP	State Water Project
ppm	parts per million	DBP	Disinfection Byproducts
ppb	parts per billion	TOC	Total Organic Carbon
uS/cm	microsiemens per centimeter	THM	Trihalomethanes
NL	Notification Level	HAA	Haloacetic Acids

### Examples for Comparison Purposes

#### **One part per million:**

One minute in two years  
Half an aspirin dissolved in a bathtub of water  
A single penny in \$10,000

#### **One part per billion:**

One minute in two thousand years  
One aspirin dissolved in an Olympic swimming pool  
A single penny in \$10,000,000

Este reporte contiene informacion importante sobre su agua potable. Traduscalo ó pidale a alguien que se lo traduzca ór lea. Mas informacion acerca de este reporte, puede ser obtenida llamando al departamento de Obras Publicas at 4381 Broadway, Suite 201, American Canyon, CA 94503, (707) 647-4558.