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# Drinking Water Quality Report for Country/Eldorado Water System

Pierce County  
Water System ID #15522

# 2020

In this report, you will find information about:

## **YOUR WATER**

Your Water System  
Source Water Protection  
Cross-Connection Control

## **TEST RESULTS**

Possible Contaminants  
Key Table Definitions  
Lead Information  
Water Quality Table  
Washington Water's  
Southwood System Water  
Quality Table

## **WHERE DOES MY WATER COME FROM?**

The water source for this system is a group of wells located in the Country development in Graham.

## **OTHER SOURCE RESULTS:**

Due to the fire event that happened in September 2020, water was trucked from the Southwood Water System in Graham (part of Washington Water) in order to keep up with the high demand from fighting the fire. The last page of this report contains the water quality monitoring information provided by Washington Water for the Southwood Water System.

## **HOW IS MY WATER TREATED?**

Your water is treated by disinfection which involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms (viruses, cysts, etc.) that may be in the water.

Disinfection is considered to be one of the major public health advances of the 20th century.

*We are proud to report that this system meets all state and federal guidelines for regulated contaminants, and is significantly below the EPA's required safety levels.*

# Water Quality Report Information



**Valley Water District** is pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

**Valley Water District** vigilantly safeguards and routinely monitors your drinking water. We are providing this report as a snapshot of water quality monitoring for the calendar year of the report (unless otherwise noted). The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

## How Can I Get Involved?

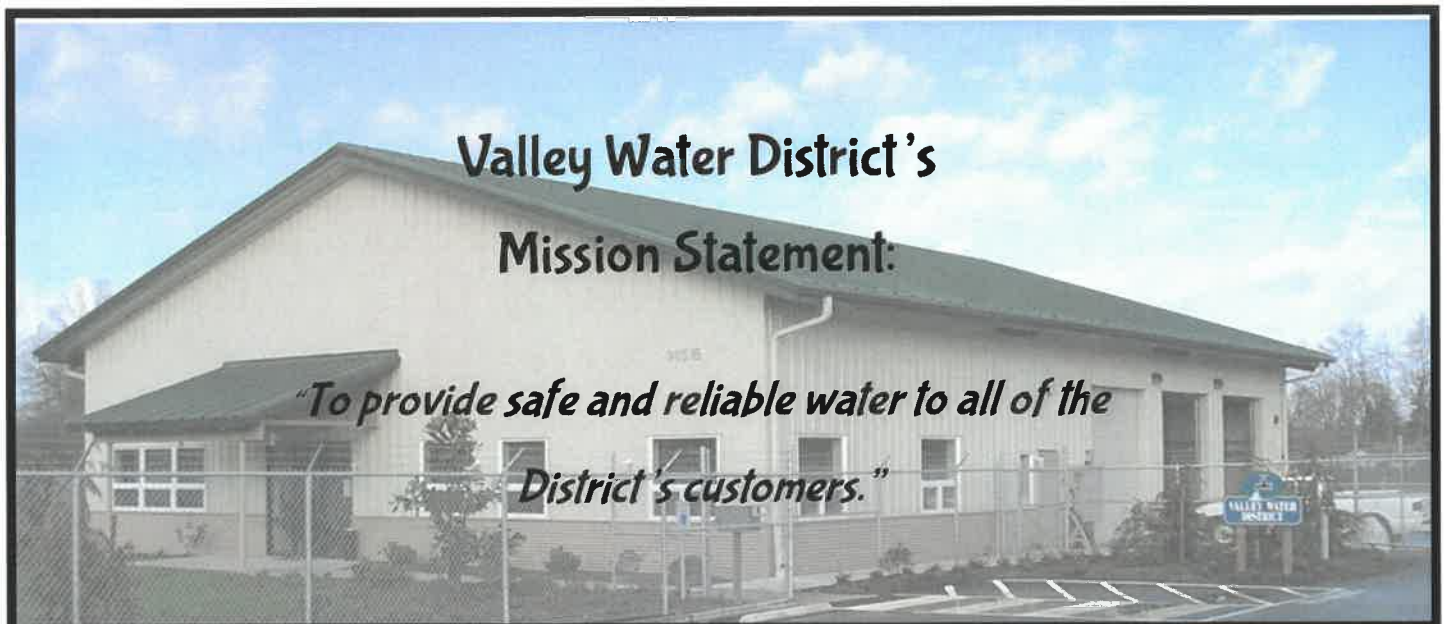
We want our valued customers to be informed about their water utility. If you would like to learn more, please attend any regularly scheduled Board Meeting held at the District Office on the first and third Tuesday of each month, at 7:00pm.

## Questions?

If you have any questions about the information in this report, or any concern regarding water quality and the services we deliver every day, please contact the District office at 253-841-9698.

Sean Vance, District Manager ~ Brian Thompson, Field Supervisor ~ Email: [service@valleywaterdistrict.com](mailto:service@valleywaterdistrict.com)

**Visit [www.wateruseitwisely.com](http://www.wateruseitwisely.com) for great water saving tips!**



## Possible Contaminants

Common sources of drinking water—both tap and bottled water—include rivers, lakes, streams, ponds, and reservoirs (surface water), and wells and springs (groundwater).

As water travels over the surface of the land or through the ground, naturally occurring minerals and, in some cases, radioactive materials dissolve in the water.

Water can also pick up substances resulting from the presence of animals or human activity.

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 water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include:

**Microbial contaminants**, such as viruses, parasites, and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.

**Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

**Pesticides and herbicides**, which may come from various sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive Contaminants**, which can occur naturally or result from oil and gas production and mining activities.

*In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.*

## VULNERABLE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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.

## WHAT YOU CAN DO TO PROTECT SOURCE WATER:

- Ensure that your septic system is properly maintained.
- Use chemical fertilizers and pesticides sparingly, if at all.
- Don't dump any hazardous waste on the ground or down the drain. This includes motor oil, pesticides, paint, household cleaners, medicines, etc.

## Check the SWAP information for your water system:

The WA State Department of Health Office of Drinking Water has compiled Source Water Assessment Program (SWAP) data for all community water systems. An interactive map with data for your water system is available at: <https://fortress.wa.gov/doh/swap/index.html>



## Cross-Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business.

A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system.

Valley Water District is responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system.

If you have any of the devices listed below, please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

Do you have one of these at your home or business?

- Lawn irrigation system
- Pool or hot tub
- Decorative pond or fountain
- Watering trough
- Fire sprinkler system
- Additional source(s) of water on the property



If you do, Washington State law may require that you have a “Backflow Prevention Assembly”. The purpose of this device is to provide “cross connection control” - preventing contaminated water from flowing back into your drinking water - a serious health hazard.

However, even the best Backflow Prevention Assembly can fail because of freezing, debris, improper installation and unapproved plumbing connections. For this reason, the state’s Department of Health requires these devices to be tested annually by a certified backflow assembly tester, with a copy of the test record sent to Valley Water District.

### Customers with a BACKFLOW ASSEMBLY:

### Consider “Opting In” to our TESTING PROGRAM!

In 2018, the District created a program that allows customers with backflow devices that are required to have annual testing done to “OPT IN” and have the District coordinate with a contractor to perform the test at a significantly reduced rate of \$26.00 per device (most testers charge \$40-\$90 per device). It’s not too late to opt in if you haven’t yet, you can find the Backflow Testing Agreement on the District website at [www.valleywaterdistrict.com](http://www.valleywaterdistrict.com) under FORMS.



If you are already opted in...no need to worry about future testing. Every year between May and September, the District will automatically have the contractor, Randy Horne with Aqua Backflow Testing, perform the testing for each property that has opted in.

## KEY TABLE DEFINITIONS

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

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available technology.

**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 allow for a margin of safety.

**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.

**Minimum Reporting Level (MRL):** Also known as the Method Reporting Limit: The smallest amount of a substance that can be reliably quantitated in sample.

**NA:** Not Applicable

**Nephelometric Turbidity Unit (NTU):** a standard to measure water clarity.

**Not Detected (ND):** This compound was analyzed and not detected at a level greater than or equal to the State Detection Reporting Level.

**PPB =** Parts per billion

**PPM =** Parts per million

**µmhos/cm =** The basic unit of measurement of conductivity.

**mg/L =** milligrams per liter

**Secondary Maximum Contaminant Level (SMCL):** These standards are developed as guidelines to protect the aesthetic qualities of drinking water and are not health based.

**State Detection Reporting Limit (SDRL):** The minimum reportable detection of an analyte as established by DOH.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Variances and Exemptions:** State or EPA permission not to meet an MCL, an action level, or a treatment technique under certain conditions.

### Information About Lead...

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. 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 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 online at <http://www.epa.gov/safewater/lead>.

## Water Quality Testing Results for 2020 Country/Eldorado Water System

### PRIMARY CONTAMINANTS:

Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation?	Typical Source
				Low	High			
<b>Disinfectants &amp; Disinfection By-Products</b>								
Trihalomethanes, Total (ppb)	NA	80	1.37	0.6	1.3	2020	No	By-product of drinking water disinfection.
<b>Inorganic Contaminants</b>								
Antimony (ppb)	6	6	3	3	3	2019	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppb)	0	10	1	2	17	2019	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium (ppm)	2	2	0.1	0.1	0.1	2019	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium (ppb)	4	4	0.3	0.3	0.3	2019	No	Discharge from metal refineries and coal burning factories; Discharge from electrical, aerospace, and defense industries.
Cadmium (ppb)	5	5	1	1	1	2019	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium (ppb)	100	100	7	7	7	2019	No	Discharge from steel and pulp mills; erosion of natural deposits.
Copper - source water (ppm)	NA		0.02	0.02	0.02	2019	No	Corrosion of household plumbing systems; erosion of natural deposits.
Cyanide (ppb)	200	200	10	10	10	2019	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride (ppm)	4	4	0.2	0.2	0.2	2019	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead - source water (ppm)	NA		0.001	0.001	0.001	2019	No	Corrosion of household plumbing systems; erosion of natural deposits.
Mercury [Inorganic] (ppb)	2	2	0.2	0.2	0.2	2019	No	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and crop land.
Nitrate [measured as Nitrogen] (ppm)	10	10	0.78	0.2	0.78	2019	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite [measured as Nitrogen] (ppm)	1	1	0.1	0.1	0.1	2019	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Total Nitrate/Nitrite	NA	10		0.53	1.91	2019	No	Leaching from human/animal waste and runoff from fertilizers.
Selenium (ppb)	50	50	2	2	2	2019	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Sodium (optional) (ppm)	NA		6.4	6.4	6.6	2019	No	Erosion of natural deposits; leaching
Thallium (ppb)	0.5	2	1	1	1	2019	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories

### LEAD AND COPPER TESTING:

Samples are collected at customer kitchen or bathroom taps. The number of homes sampled is based on population served by the water system. This testing is done every three years.

Contaminants	MCLG	AL	Your Water	Sample Date	# of Samples Exceeding AL	Exceeds AL?	Typical Source
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	1.159	2019	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	1.3	2019	0	No	Corrosion of household plumbing systems; erosion of natural deposits

Abbreviations are explained in the "Key Table Definitions" on the previous page of this report.

SEE NEXT PAGE FOR SUPPLEMENTAL TESTING RESULTS



## 2020 Water Quality Report Country/Eldorado

### Supplemental Testing Results - Wells 4, 6, & 7. The samples below were taken in 2019.

Analytes	Range	MCL	EPA Regulated Secondary	State Regulated	Typical Source
Iron (mg/L)	0-.24	0.3	Yes	No	Iron is naturally occurring. As rainwater it infiltrates the soil and underlying geologic formations dissolves iron, causing it to seep into aquifers that serve as sources of groundwater for wells.
Manganese (mg/L)	.014-.042	0.05	Yes	No	Manganese is a naturally occurring mineral that is present in soils, rocks, and sediment
Sodium (mg/L)	6.4 - 7	NA	No	Yes	In drinking water, sodium can occur naturally or be the result of road salt applications, water treatment chemicals or ion-exchange water softening units.
Hardness (mg/L)	8.8 - 92.8	NA	No	Yes	As your water moves through soil and rock, it dissolves very small amounts of minerals and holds them in solution. Calcium and magnesium dissolved in water are the two most common minerals that make water 'hard.' The degree of hardness becomes greater as the calcium and magnesium content increases and is related to the concentration of multivalent cations dissolved in the water.
Conductivity (umhos/cm)	140.7-183	700	No	Yes	Conductivity is a measure of water's capability to pass electrical flow. This ability is directly related to the concentration of ions in the water. These conductive ions come from dissolved salts and inorganic materials such as alkalis, chlorides, sulfides and carbonate compounds. Compounds that dissolve into ions are also known as electrolytes. The more ions that are present, the higher the conductivity of water. Likewise, the fewer ions that are in the water, the less conductive it is.
Turbidity (NTU)	.4 - 4.9	NA	No	Yes	Turbidity is a measure of the degree to which the water loses its transparency due to the presence of suspended particulates. The more total suspended solids in the water, the murkier it seems and the higher the turbidity. Turbidity is considered as a good measure of the quality of water.

## 2020 Water Quality Table for Southwood Water System provided by Washington Water

Table 1: Primary Contaminants								
Inorganic Chemicals	Year Tested	Units	MCL	MCLG	Your Water	Violation?	Source	
Nitrate	2020	ppm	10	10	ND - 6.1	No	EN, LX, RF, SEW	
Arsenic	2012 -2020	ppb	10	0	ND - 4.4	No	EN, RGE, RO	
Fluoride*	2012 -2020	ppm	4	4	ND-0.3	No	DFA, EN, FL	
Washington Water Service does not add any fluoride to any of its water systems.								
Disinfectant (an additive)	Year Tested	Units	MRDL	MRDLG	Highest	Range	Violation?	Source
Free Chlorine Residual	2020	ppm	4	4	0.77	0.29 - 1.43	No	AIM
Disinfection Byproducts	Year Tested	Units	MCL	MCLG	Highest	Range of	Violation?	Source
Total Trihalomethanes (TTHM)	2020	ppb	80	N/A	2.9	1.4 - 3.8	No	BD
Haloacetic Acids (HAA5)	2020	ppb	60	N/A	0.8	ND - 1.2	No	BD
Table 2: Lead and Copper								
Primary Contaminants	Year Tested	Units	AL	90th	Samples>AL	Violation?	Source	
Copper	2018	ppm	1.3	0.52	0 of 35	No	CH, EN	
Lead	2018	ppb	15	2	0 of 35	No	CH, EN	
Table 3: Secondary and Unregulated Contaminants								
Secondary Contaminants	Year Tested*	Units	SMCL	Your Water	Violation?	Source		
Iron	2012 -2020	ppm	0.3	ND - 0.15	No	LN, WI		
Manganese	2012 -2020	ppm	0.05	ND - 0.13	No	LN		
Chloride	2012 -2020	ppm	250	2-9	No	RLN, SEA		
Sulfate	2012 -2020	ppm	250	ND-10	No	RLN, WI		
Sodium	2012 -2020	ppm	N/A	6-25	No	EN, SEA		
Hardness	2012 -2020	ppm	N/A	42 - 78	No	EN		
Conductivity	2012 -2020	µmhos/cm	700	88 - 208	No	NAT, SEA		
Turbidity	2012 - 2020	NTU	N/A	ND - 1.4	No	RS		
Color	2012 -2020	color units	15	ND	No	NOM		
Unregulated Contaminants	Year Tested	Units	SMCL	Your Water	Violation?	Source		
Lead	2012 -2020	ppb	N/A	ND-14	No	CH, EN		
Copper	2012 -2020	ppm	N/A	ND - 0.24	No	CH, EN		

Source Codes	
<b>The source codes indicate major sources of contaminants in drinking water.</b>	
AHS	Water additive used to eliminate hydrogen sulfide (rotten egg) odor
AM	Water additive used to control microbes
AOM	Water additive used to control odor and microbes
AIM	Water additive used to optimize iron and manganese removal treatment and control
BD	Byproduct of drinking water disinfection
CG	Corrosion of galvanized pipes
CH	Corrosion of household plumbing systems
DAR	Discharge from leaking aerosol containers and refrigeration systems
DD	Discharge of drilling wastes
DFA	Discharge from fertilizer and aluminum factories
DM	Discharge from mines
DMR	Discharge from metal refineries
DPM	Discharge from petroleum and metal refineries
DRC	Discharge from rubber and chemical factories
DRF	Discharge from refineries and factories
DSP	Discharge from steel and pulp mills
EN	Erosion of natural deposits
FL	Water additive which promotes strong teeth
LL	Leaching from landfills
LN	Leaching from natural deposits
LX	Leaching from septic tanks
NAT	Substances that form natural deposits
NE	Naturally present in the environment
NOM	Naturally occurring organic materials
RBP	Runoff from waste batteries and paints
RC	Runoff from cropland
RF	Runoff from fertilizer use
RGE	Runoff from glass and electronics production wastes
RL	Runoff from landfills
RLN	Runoff/leaching from natural deposits
RO	Runoff from orchards
RS	Soil runoff
SEA	Seawater influence
SEW	Sewage
WFE	Human and animal fecal waste
WI	Industrial wastes
XIM	Excess iron or manganese in the water