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# Annual Drinking Water Quality Report Winchester Heights Water System 2019



We are 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.



At Valley Water District we vigilantly safeguard and routinely monitor your drinking water. This report is a snapshot of water quality monitoring for the period of January through December 2019. We are proud to report that this system has not violated a maximum contaminant level or any other water quality standard.



This system's source is a neighborhood well measuring 100 feet deep and pumping 25 gallons per minute. While the District strives to provide safe drinking water, it is important that you also take steps to protect your water supply. Valley Water District utilizes an intertie with City of Bonney Lake on this System to provide supplemental water to the District's system during times of high water demand, power outages, and during fire flow conditions. Water quality monitoring information provided to Valley Water District by City of Bonney Lake is available on the last page of this report.



Employing water conservation strategies, taking steps to minimize the use of pesticides and fertilizers, and disposing of household chemicals properly are all ways that you can do your part to positively impact the quality of your drinking water. Please visit our office or log on to our website for great water saving tips and related information.



Read this report at your leisure. It is designed to help you understand how we continually strive to protect water resources, improve the water treatment process, and provide you with safe, dependable drinking water.

**Este informe contiene informacion muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuniquese con alguien que pueda traducir la informacion.**

#### 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 7:00 p.m.

If you have 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)

## Why are there contaminants in my drinking water?

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 such as the following:

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

**Inorganic Contaminants**, such as salts and metals, can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and Herbicides** 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 are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm-water runoff, and septic systems.

**Radioactive Contaminants** can be naturally occurring or be the result of oil and gas production and mining activities.

## Do I need to take special precautions?

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.

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/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 Water Drinking Hotline at 800-426-4791.

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 the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

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

### Cross Connection Control Survey

The District encourages all customers to complete a Cross Connection Control Survey, which can be requested at the District office or found at the Forms Page of the District's website [valleywaterdistrict.com](http://valleywaterdistrict.com). 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. The 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.

- ◆ Boiler/ Radiant heater (water heaters not included)
- ◆ Underground lawn sprinkler system
- ◆ Pool or hot tub (whirlpool tubs not included)
- ◆ Additional source(s) of water on the property
- ◆ Decorative pond
- ◆ Watering trough

## Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels.

Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. 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. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

### 2019 ~ Winchester Heights Water System ~ 2019

| Contaminants  | MCLG<br>or<br>MRDLG | MCL,<br>TT, or<br>MRDL | Your<br>Water | Range |      | Sample<br>Date | Violation | Typical Source  |
|---|---------------------|------------------------|---------------|-------|------|----------------|-----------|---|
|   |                     |                        |               | Low   | High |                |           |   |
| <b>Disinfectants &amp; Disinfection By-Products</b>   |                     |                        |               |       |      |                |           |   |
| (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants) |                     |                        |               |       |      |                |           |   |
| TTHMs [Total Trihalomethanes] (ppb)   | NA                  | 80                     | 2.5           | NA    | NA   | 2017           | No        | By-product of drinking water disinfection   |
| <b>Inorganic Contaminants</b>   |                     |                        |               |       |      |                |           |   |
| Antimony (ppb)  | 6                   | 6                      | 3             | NA    | NA   | 2015           | No        | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.                                 |
| Arsenic (ppb)   | 0                   | 10                     | 1             | NA    | NA   | 2015           | No        | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes                              |
| Barium (ppm)  | 2                   | 2                      | .1            | NA    | NA   | 2015           | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits  |
| Beryllium (ppb)   | 4                   | 4                      | .3            | NA    | NA   | 2015           | No        | Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries            |
| Cadmium (ppb)   | 5                   | 5                      | 1             | NA    | NA   | 2015           | No        | Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints |
| Chromium (ppb)  | 100                 | 100                    | 7             | NA    | NA   | 2015           | No        | Discharge from steel and pulp mills; Erosion of natural deposits  |
| Cyanide (ppb)   | 200                 | 200                    | 10            | NA    | NA   | 2015           | No        | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories   |
| Fluoride (ppm)  | 4                   | 4                      | .2            | NA    | NA   | 2015           | No        | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories           |
| Mercury [Inorganic] (ppb)   | 2                   | 2                      | .2            | NA    | NA   | 2015           | No        | Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland                   |
| Nitrate [measured as Nitrogen] (ppm)  | 10                  | 10                     | 1.4           | NA    | NA   | 2019           | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits   |
| Selenium (ppb)  | 50                  | 50                     | 2             | NA    | NA   | 2015           | No        | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines                                    |
| Sodium (optional) (ppm)   | NA                  |                        | 7             | NA    | NA   | 2015           | No        | Erosion of natural deposits; Leaching   |
| Thallium (ppb)  | .5                  | 2                      | 1             | NA    | NA   | 2015           | No        | Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories   |

| Contaminants                                 | MCLG | AL  | Your Water | Sample Date | # Samples Exceeding AL | Exceeds AL | Typical Source  |
|--|------|-----|------------|-------------|------------------------|------------|---|
| <b>Inorganic Contaminants</b>                |      |     |            |             |                        |            |   |
| Copper - action level at consumer taps (ppm) | 1.3  | 1.3 | .12        | 2017        | 0                      | No         | Corrosion of household plumbing systems;<br>Erosion of natural deposits |
| Lead - action level at consumer taps (ppb)   | 0    | 15  | .002       | 2017        | 0                      | No         | Corrosion of household plumbing systems;<br>Erosion of natural deposits |

### Important Drinking Water Definitions

| Term                   | Definition   |
|------------------------|--|
| MCLG                   | Maximum Contaminant Level Goal: 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.   |
| MCL                    | Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.   |
| TT                     | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.   |
| AL                     | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.  |
| Variances & Exemptions | State or EPA permission not to meet an MCL or a treatment technique under certain conditions.  |
| MRDLG                  | Maximum Residual Disinfection Level Goal: 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. |
| MRDL                   | Maximum Residual Disinfectant Level: 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.                             |
| MNR                    | Monitored Not Regulated  |
| MPL                    | State Assigned Maximum Permissible Level   |

### Unit Descriptions

| Term  | Definition  |
|-------|---|
| 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        |
| pCi/L | picocuries per liter (a measure of radioactivity) |
| NA    | Not Applicable                                    |
| ND    | Not Detected                                      |
| NR    | Monitoring not required; but recommended          |

### Additional Information for 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. View Royal 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 at <http://www.epa.gov/safewater/lead>.

## Other Source Results

Valley Water District utilizes an intertie with City of Bonney Lake on the Winchester Heights Water System. This intertie provides supplemental water to the District's system during times of high water demand, power outages, and during fire flow conditions. Below is water quality monitoring information provided to Valley Water District by City of Bonney Lake regarding their water quality results for substances regulated at their treatment plant.

| <b>City of Bonney Lake - 2019 Detected Substances</b>                         |              |                             |                         |             |                |  |
|---|--------------|-----------------------------|-------------------------|-------------|----------------|--|
| Substance   | MCL          | High Level Detected         | Range of Detection      | Sample Year | Regulation Met | Potential Source   |
| <b>REGULATED AT THE GROUND WATER SOURCE</b>                                   |              |                             |                         |             |                |  |
| Nitrate   | 10 ppm       | 4.91 ppm                    | Less than 0.20-4.91 ppm | 2019        | Yes            | Septic systems; agricultural uses  |
| Hardness  | NA           | 117 ppm                     | 50.4-117 ppm            | 2019        | Yes            | Erosion of natural deposits  |
| Sodium  | NA           | 14.6 ppm                    | 7.6-14.6 ppm            | 2019        | Yes            | Erosion of natural deposits  |
| <b>REGULATED IN THE TREATMENT PLANT – Samples taken in 2019</b>               |              |                             |                         |             |                |  |
| Fluoride*   | 4 ppm        | .89 ppm                     | .53-.89 ppm             | 2019        | Yes            | Treatment Additive   |
| Turbidity*  | 5 NTU        | .08 NTU                     | 0.01-0.26 NTU           | 2019        | Yes            | Soil erosion; pipe sediment  |
| <b>EPA UNREGULATED CONTAMINANT MONITORING (UCMR4) – Samples taken in 2018</b> |              |                             |                         |             |                |  |
| Manganese   | 50ppb        | 22.5* ppb                   | ND-22.5* ppb            | 2018        | NA             | Manganese is a naturally occurring mineral that is present in soils, rocks, and sediment.            |
| Anatoxin-a  | NA           | .7 ppb                      | .7 ppb                  | 2018        | NA             | a neurotoxin produced by certain species of cyanobacteria (formerly referred to as blue-green algae) |
| Bromochloroacetic acid  | NA           | 1.1 ppb                     | .5-1.1 ppb              | 2018        | NA             | Byproduct of disinfection  |
| Bromodichloroacetic acid  | NA           | 1.1 ppb                     | .5-1.1 ppb              | 2018        | NA             | Byproduct of disinfection  |
| Chlorodibromoacetic acid  | NA           | .5 ppb                      | ND-.5 ppb               | 2018        | NA             | Byproduct of disinfection  |
| Tribromoacetic acid   | NA           | <2 ppb                      | ND-<2 ppb               | 2018        | NA             | Byproduct of disinfection  |
| <b>REGULATED IN THE DISTRIBUTION SYSTEM – Samples taken in 2019</b>           |              |                             |                         |             |                |  |
| Chlorine  | 4 ppm        | 1.21 ppm*                   | 0.33-1.37 ppm*          | 2019        | Yes            | Treatment Additive   |
| Haloacetic Acids  | 60 ppb       | 4.41 ppb                    | ND-4.41 ppb             | 2019        | Yes            | Byproduct of disinfection  |
| Total Trihalomethanes   | 80 ppb       | 12.81 ppb                   | 1.87-12.81ppb           | 2019        | Yes            | Byproduct of disinfection  |
| <b>Lead &amp; Copper Monitoring Results – Testing Conducted 2017</b>          |              |                             |                         |             |                |  |
| Substance   | Action Level | 90 <sup>th</sup> Percentile | Samples Above AL        |             | Regulation Met |  |
| ***Copper   | 1.3 ppm      | 0.92 ppm                    | 2 of 38 sites           | 2017        | Yes            | Corrosion of household plumbing.<br>Erosion of natural deposits                                      |
| ***Lead   | 0.015 ppm    | 0.007 ppm                   | 1 of 38 sites           | 2017        | Yes            | Corrosion of household plumbing<br>Erosion of natural deposits                                       |
| Total Coliform  | <5% positive | 0.00                        | 0 of 480 sites          | 2019        |                | Naturally present throughout the environment   |

\*\* Tacoma Sample Results \*\*\* Lead & Copper Test Results were from 2017 Required Monitoring \* Tacoma Supplied Water

### Additional Information for Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA 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.