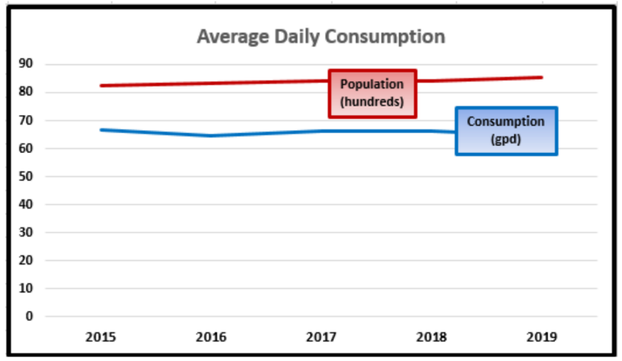
Water Conservation Works For All Of Us

Through public education, rate structuring, rebates for water conserving appliances, and improved system operations, Manchester Water District (District) has endeavored to reduce per capita water consumption by 5-percent over a ten year period beginning in 2015.

According to the U.S. Geological Survey (USGS), the average American consumes about 80-100 gallons per day (gpd). In 2015, the District billed 3,298 accounts for 197,252,903 gallons consumed, or an average daily consumption of 66 gpd per capita. In 2019, this figure dropped to just 65 gpd among District customers. Thanks to conservation efforts, District customers have used an average of 3-percent less when compared to 2015 per capita water consumption levels.



In addition to reductions in per capita consumption, improvements to the District's distribution system have significantly reduced water loss due to system leaks, metering inaccuracies, or unreported consumption; such as fire fighting. For a distribution system of Manchester Water District's size and complexity, 10-percent or less unaccounted for water is considered acceptable. In 2019, the District had 7.7-percent unaccounted-for-production, and a three-year average 8.3-percent unaccounted-for-production.

As the District's population continues to grow, the challenges of aging infrastructure and increased demand require strategic planning and optimization of limited resources. Working together with consumers, the District must continue to meet or exceed mandates set forth in the Washington State Water Use Efficiency Rule of 2007, while improving service to ratepayers.

Payment Options

Customers are finding great success using Xpress Bill Pay for making and scheduling payments, checking their balances, and setting-up paperless billing options. The efficiency and ease of the service, along with the security of Xpress Bill Pay has proven to be a popular option amongst customers. Xpress Bill Pay has options for email and text message notifications, automatic and one-time payments, as well as a free iPhone app! For more information, please contact the office, or check out *www.manchesterwater.org*.

xpress BILL PAY

Water Bill Basics

- Water bills are calculated using cubic feet.
  1 cubic foot = 7.48 gallons
- Manchester Water District processes bills on a bi-monthly schedule. Water Bills are processed on the last business day of the month
- Water bills consist of Base Rate and Consumption components. While the base rate is equal to all billing units, consumption is billed using a tiered rate structure. A tiered rate structure is another way that Manchester Water District promotes water conservation. The more water that is used, the more expensive the water becomes. Conversely, customers who use water wisely, will save.

Manchester Water District Board of Commissioners

Steve Pedersen	Paul Drotz	Robert Ballard
Chairman	**Secretary**	**Commissioner**

General Manager—Dennis O'Connell

The Manchester Water District Board of Commissioners meet on the second Tuesday of every month at 5:30 pm. Meetings are held at the Kitsap Regional Library—Manchester Branch, unless otherwise posted. Meetings are open to all, and public participation is encouraged.

Manchester Water District Administrative Office Location & Hours

8185 E Daniels Loop, Suite 111 Port Orchard, WA 98366

Monday through Friday, 8:00 am—4:30 pm

Water Efficient Appliance Rebates

Manchester Water District offers rebate incentives for customers who have purchased new, water-efficient appliances.

If you have purchased a water-efficient toilet, washing machine, and/or dishwasher in the past six months—you may be eligible!

For more information, please contact (360) 871-0500, or visit the Conservation page at www.manchesterwater.org

American Water Works Association
Dedicated to the World's Most Important Resource®

Washington Association of Sewer & Water Districts

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WaterPAK
Resource • Conservation • Education

THE DISTRICT DISPATCH

Spring 2020 Edition *Annual Water Quality Report and Water Use Efficiency Data Inside*

COVID-19 Coronavirus and Drinking Water

As we all struggle through the effects of the COVID-19 coronavirus, we may take comfort in knowing that COVID-19 has not been detected in drinking water. In a public advisory, published by the Washington State Department of Health Office of Drinking Water (ODW) on March 31, 2020, the reasons for this are explained. *"Drinking water regulations use a multi-barrier approach to ensure safe and reliable drinking water. They are intended to protect your water in three ways. Water utilities obtain their drinking water from the best quality and most protected sources available. This reduces or removes the risk of contamination from entering the water system in the first place (ODW, 3-31-20)."* Manchester Water District (District) sources all of our drinking water from deep wells located within the District's service territory. The District does not purchase water from any outside source or neighboring utility. *"When necessary, water utilities use filtration and/or disinfection with chlorine to treat your drinking water. Chlorine is very effective in killing coronaviruses. (ODW, 3-31-20)"* The District chlorinates all of our water at the source, and at levels sufficient enough to maintain a free chlorine residual at the farthest points in the distribution system. Chlorine residuals are monitored daily to ensure the water delivered to our customers is free of any living organisms and is safe to consume. *"Water utilities collect water samples at least monthly. If contamination is found, the regulations require utilities to notify the public and recommend steps they can take to ensure their safety. (ODW, 3-21-20)"* The District collects bacteriological samples from throughout our service territory every month for testing by an independent laboratory. The laboratory results are then reported to the ODW and the District simultaneously. In 2019, the District collected and submitted over 120 samples for testing; there were no organisms detected in our water from any source or at any location within our service territory.

If you would like to learn more about COVID-19 and drinking water, please visit the ODW website at *www.doh.wa.gov/CommunityandEnvironment/DrinkingWater*.

If you have questions or concerns about your water quality specifically, please telephone the District office at (360) 871-0500.

COVID-19 Coronavirus and the Economy

"We're all in this together."

The District understands that many of our customers may be affected by the economic impacts of the COVID-19 pandemic. As we've all done our part to "Stay Home and Stay Healthy" to combat the virus, we knew that there would be an economic cost to this effort. Hopefully, by the time you read this, we will have beat back the bug and be getting back to our customary routines.

Economic recovery will come quickly for some, while others may be impacted for months. If you are experiencing hardships and need a little extra time or advice on how to pay your water bill, District staff is here to help. Please call our office at **(360) 871-0500** and let us help. We also invite you to visit our website at *www.manchesterwater.org* for links to pay your bill online through our secure Xpress Bill Pay service.

You can also find us on Facebook at *www.facebook.com/manchesterwaterdistrict* for updates on community events and links to other local resources.

Manchester WATER DISTRICT

PO BOX 98
MANCHESTER, WA 98353
(360) 871-0500
WWW.MANCHESTERWATER.ORG

2019 Water Quality Report—Water System ID #507002

Manchester Water District was formed in 1942 under Chapter 57 of the Revised Code of Washington. The District is governed by an elected three-member Board of Commissioners and staffed by eight full-time employees. The District serves over 3,300 accounts, which represents a population of nearly 10,000 people. The distribution system covers approximately 38 miles of water pipe, and in 2019 delivered 217 million gallons of water to customers in the Manchester, Yukon Harbor, South Colby, Harper, and Southworth neighborhoods. To ensure that sufficient water is available during peak demands, and to maintain fire protection, the District stores roughly 3.2 million gallons of water in the five reservoirs and water tanks located through the service area.

The Board of Commissioners and Staff of Manchester Water District are proud to present the 2019 Consumer Confidence Report. This report includes water quality data that conforms to federal regulations set forth in the Safe Drinking Water Act (SDWA). Under the SDWA, water utilities must annually provide water quality information to each customer. This report demonstrates that ***your drinking water meets or exceeds state and federal drinking water standards***.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

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 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 healthcare providers. EPA/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 at (800) 426-4791.

Manchester Water District sources water from eight groundwater wells. The deep wells are located throughout the District's service area. Depending on location, some District customers may receive water from a single source, while others may be supplied by multiple sources. Manchester Water District treats all water with trace amounts of chlorine. This disinfection process is required by the Department of Health to provide a barrier of protection against bacterial growth in the distribution system. Chlorine also helps minimize the effects of hydrogen sulfide that can naturally occur in groundwater sources. Hydrogen sulfide causes what is typically referred to as a "rotten egg smell". In addition to chlorine, sodium fluoride is added to all District water. District customers voted to add fluoride to their drinking water in 1969, and have repeatedly held up the mandate since. District staff works diligently to maintain a fluoride level of .7 parts per million throughout the distribution system.

Manchester Water District Sources of Supply

Department of Health Source Number	Manchester Water District Name	Approximate Location
S01	Well 1	Manchester Village
S02	Well 2	Manchester Village
S04	Well 4	Bulman Road
S09	Well 9	Sedgwick Road
S10	Well 10	Manchester Heights
S11	Well 11	Manchester Heights
S13	Wells 5 & 8	Sedgwick Road
S14	Wells 6 & 7	Garfield Avenue

A *Source Water Assessment Program (SWAP)* was compiled by the Washington State Department of Health to highlight significant sources of contamination for community water systems in Washington State, if available. An interactive map of the assessment data and Manchester Water District's susceptibility rating can be found at *www.doh.wa.gov/communityandenvironment/drinkingwater/sourcewaterprotection/assessment.aspx*

Manchester Water District Sampling Schedule

Parameter	Monitoring Schedule
Chlorine Residual	Daily Monitoring
Fluoride Residual	Daily Monitoring
Total Coliform—E Coli	Monthly Monitoring
Lead & Copper	Every 3 Years
Asbestos	Every 9 Years
Total Trihalomethane (THM)	Annual Monitoring
Halo-Acetic Acids (HAA5)	Annual Monitoring
Nitrates	Annual Monitoring
Inorganic Chemicals	Every 9 Years
Volatile Organic Chemicals	Every 6 Years
Herbicides	Every 9 Years
Pesticides	Every 9 Years
Soil Fumigants	Every 3 Years
Radionuclides	Every 6 Years

Contaminants that may be included 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 & 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.

Listed within this report are the few substances that were detected in Manchester Water District's most recent set of sampling results. Manchester Water District takes hundreds of samples each year. We have not listed the substances that were tested, but NOT detected. The Department of Health has granted complete waivers for dioxin, endothall, glyphosate, diquat, and insecticides. While we strive to make this report as user-friendly as possible, we understand that some questions may arise. For additional water quality questions or concerns, please contact the Manchester Water District office at (360) 871-0500. There are certified Water Distribution Managers who will be more than happy to assist you.

2019 Water Quality Analysis

The table below lists all the drinking water contaminants that were detected between January 1 and December 31, 2019. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented represents water quality testing performed during the 2019 calendar year. Washington State requires Manchester Water District to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Data that is not from 2019 will be noted with the most recent sample date.

Parameter	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Potential Sources	Average Level Detected in Most Recent Samples	Range of Levels Detected in Most Recent Samples	Meets Standards
Sampled in the Distribution System						
Asbestos *2019 Sample*	7 MFL	N/A	Decay of asbestos cement (AC) water mains; Erosion of natural deposits	ND	N/A	YES
Halo-Acetic Acid *Monitored Annually*	60 ppb	N/A	By-product of drinking water disinfection	5.4 ppb	N/A	YES
Trihalomethanes *Monitored Annually*	80 ppb	N/A	By-product of drinking water disinfection	10 ppb	N/A	YES
Chlorine *Monitored Daily*	4 ppm	4 ppm	Water additive used to control microbes	.49 ppm	.30—.64 ppm	YES
Fluoride *Monitored Daily*	4 ppm	4 ppm	Water additive to promote dental health	.69 ppm	.56—.89 ppm	YES
Total Coliform *Monitored Routinely*	0	0	Naturally occurring organism	*No coliform was detected in any of the 120 samples taken in 2019*		YES
Sampled at Groundwater Sources						
Nitrates *Monitored Annually*	10 ppm	10 ppm	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits	.68 ppm	ND—2.18 ppm	YES
Gross Alpha *2018 Sample*	15 pCi/L	N/A	Erosion of natural deposits	.33 pCi/L	ND—1.30 pCi/L	YES
Radium 228	5 pCi/L	N/A	Erosion of natural deposits	.77 pCi/L	ND—3 pCi/L	YES
Iron* *2019 Sample*	.3 ppm *SMCL*	N/A	Erosion of natural deposits	.3 ppm	ND—.60 ppm*	YES
Manganese* *2019 Sample*	.05 ppm *SMCL*	N/A	Leaching from natural deposits	.08 ppm	.02—.13 ppm*	YES
Sampled at Customer Taps						
Lead** *2019 Sample*	15 ppb *Action Level*	0	Corrosion of household plumbing systems; Erosion of natural deposits	1 ppb *90th Percentile*	*0 sample sites out of 20 exceeded the Action Level*	YES
Copper** *2019 Sample*	1.3 ppm *Action Level*	1.3 ppm	Corrosion of household plumbing systems; Erosion of natural deposits	.14 ppm *90th Percentile*	*0 sample sites out of 20 exceeded the Action Level*	YES

Explanation of Terms

MCL	**Maximum Contaminant Level**—Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using best available treatment technology.
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.
SMCL	**Secondary Maximum Contaminant Level—**Secondary Contaminant standards are developed to protect the aesthetic qualities of drinking water and are not health based.
Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Lead & Copper *90th Percentile*	**Specific to Lead & Copper Testing**—Out of every 10 homes sampled, 9 were at or below this level.

Units of Measurement

ppm	Parts per Million
ppb	Parts per Billion
pCi/L	Picocuries per Liter
MFL	Millions of Fibers per Liter
ND	Not Detected in laboratory samples
N/A	Not Applicable

****A Note about Lead & Copper in Drinking Water from the Environmental Protection Agency**

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. Manchester 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 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 *www.epa.gov/safewater/lead*

***Iron & Manganese in Drinking Water**

Iron & Manganese standards are achieved through blending of other drinking water sources.

There are no adverse health effects from Iron & Manganese in drinking water at the levels detected. The primary impact of Iron & Manganese in drinking water is aesthetic quality. Elevated levels may cause discoloration in water. This can stain laundry and porcelain fixtures, promote bacterial growth in the distribution system, and in high concentrations customers may notice a metallic taste.

Manchester Water District employs various methods to reduce the impact of Iron & Manganese on drinking water quality. This includes, but is not limited to; blending drinking water sources and regularly flushing the distribution system in affected areas.