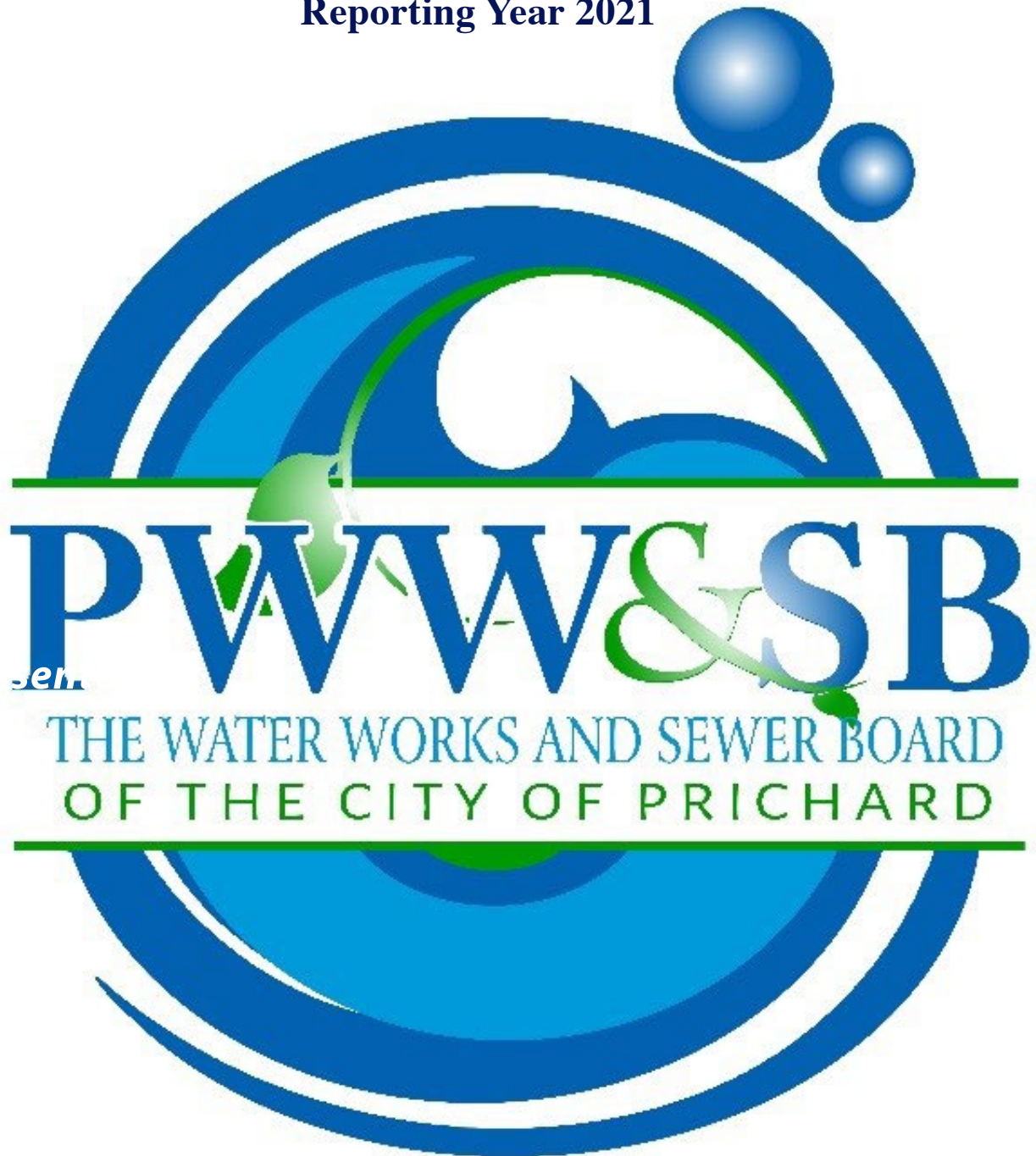
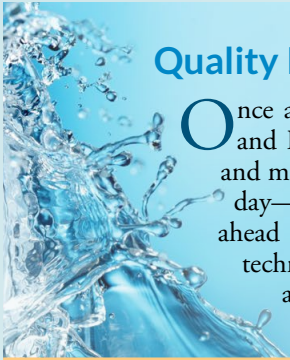


ANNUAL WATER QUALITY REPORT

Reporting Year 2021





Quality First

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Public Meetings

PWW&SB holds regularly scheduled board meetings on the second Monday of each month at 4:30 p.m. in the boardroom at 125 East Clark Avenue, Prichard.

The Board of Directors:

Russell J. Heidelberg, Chairperson

Earnestine Moore, Vice Chairperson

Beverly P. Bunch, Secretary/Treasurer

Cherry Doyle, Member

John H. Johnson Jr., Member

Where Does My Water Come From?

The water supplied to PWW&SB comes from the Mobile Area Water and Sewer System (MAWSS) Converse Reservoir, also known as Big Creek Lake. PWW&SB has five water storage tanks, which are cleaned and inspected annually. Over 2,000 fire hydrants are inspected, exercised, and repaired as needed annually. Line flushing to eliminate aged or discolored water is done throughout the system in a systematic method to improve water quality. System pressures are checked and maintained to a level that provides satisfactory usage to customers.



When the well is dry, we know the worth of water.

—Benjamin Franklin



How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.



Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or epa.gov/safewater/lead.

Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or water.epa.gov/drink/hotline.



QUESTIONS? The Water Works and Sewer Board of the City of Prichard (PWW&SB) is committed to providing you with high-quality water. We also understand that occasional concerns may arise. At times, the water may appear cloudy or rusty or have an unusual odor. This change in water quality has various possible causes. Construction in the area, in-house water filtration, water system maintenance, recent plumbing work done in your home or business, or seasonal weather-related changes are just a few possibilities. Whatever the reason, we want to address those concerns, which may be conveyed by calling customer service at PWW&SB at (251) 457-3396.

Substances That Could Be in Water

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. All 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.

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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

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

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which 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, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

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

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Think Before You Flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit <https://bit.ly/3leRyXy>.



Contaminants below the Detection Limit

MAWSS tests for all primary contaminants, which include microbiological contaminants, radionuclides, inorganic chemicals, organic chemicals (synthetic and volatile), and disinfection by-products. In addition, MAWSS tests for secondary contaminants, unregulated synthetic and volatile organic chemicals, and polychlorinated biphenyls (PCB).

The following is a list of all substances that were not detected above the laboratory detection limits.

1,1-dichloroethane	Aldrin	Methyl-tert-butyl ether	Chlorpyrifos
1,1-dichloropropene	Bromobenzene	Methomyl	Cylindrospermopsin
1,1,2,2-tetrachloroethane	Bromochloromethane	Metolachlor	Dibromoacetic acid
1,2,3-trichlorobenzene	Bromoform	Metribuzin	Dibromochloromethane
1,2,3-trichloropropane	Bromomethane (methyl bromide)	n-butylbenzene	Dimethipin
1,2,4-trichlorobenzene	Butachlor	n-propylbenzene	Ethoprop
1,2,4-trimethylbenzene	Carbaryl	Naphthalene	Microcystin, Total
1,3-dichlorobenzene	Chloroethane	Nickel	Monobromoacetic acid
1,3-dichloropropane	Chloromethane	p-isopropyltoluene	o-toluidine
1,3-dichloropropene	Dibromomethane	Propachlor	Oxyfluorfen
1,3,5-trimethylbenzene	Dicamba	sec-butylbenzene	Permethrins, Total
2-chlorotoluene	Dichlorodifluoromethane	tert-butylbenzene	Profenofos
2,2-dichloropropane	Dieldren	PWW&SB also tests for the following:	Quinoline
3-hydroxycarbofuran	Fluorotrichloromethane	alpha-hexachlorocyclohexane	Tebuconazole
4-chlorotoluene	Hexachlorobutadiene	Anatoxin-a	Tribufos
Aldicarb	Iron	Bromoform	
Aldicarb sulfone	Isopropylbenzene	Butylated hydroxyl anisole	
Aldicarb sulfoxide			

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Based on a study conducted by the Department with the approval of the U.S. EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Antimony (ppb)	2021	6	6	0.33	ND–0.33	No	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Barium (ppm)	2021	2	2	0.024	0.022–0.024	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2021	[4]	[4]	1.88	0.72–1.88	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2021	[800]	[800]	90	ND–90	No	Water additive used to control microbes
Chlorite (ppm)	2021	1	0.8	0.84	0.21–0.84	No	Disinfection by-product
Combined Radium (pCi/L)	2021	5	0	0.794	0.62–0.794	No	Erosion of natural deposits
Fluoride (ppm)	2021	4	4	0.95	0.48–0.95	No	Water additive promoting strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2021	10	10	0.19	0.11–0.19	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Nitrate + Nitrite (ppm)	2021	10	10	0.19	0.11–0.19	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (removal ratio)	2021	TT ¹	NA	1.21	1.21–1.55	No	Naturally present in the environment

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper ² (ppm)	2019	1.3	1.3	0.013	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead ³ (ppb)	2019	15	0	<0.005	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits



OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alkalinity [as CaCO ₃] ⁴ (ppm)	2021	NA	NA	7.40	5.70–7.40	No	NA
Aluminum ⁵ (ppm)	2021	0.2	NA	0.17	0.16–0.17	No	NA
Calcium ⁴ (ppm)	2021	NA	NA	15	11–15	No	NA
Carbon Dioxide ⁴ (ppm)	2021	NA	NA	ND	NA	No	NA
Gross Alpha Particles (pCi/L)	2021	15	0	1.1	-0.121–1.1	No	Erosion of natural deposits
Gross Beta Particles (pCi/L)	2021	50	0	1.95	0.69–1.95	No	Erosion of natural deposits
HAA5 (ppb)	2021	60	NA	38.70	5.9–52.8	No	Disinfection by-product
Hardness [as CaCO ₃] ⁴ (ppm)	2021	NA	NA	41.57	31.05–41.57	No	NA
Magnesium ⁴ (ppm)	2021	NA	NA	1	0.87–1	No	NA
Orthophosphate [as P] ⁴ (ppm)	2021	NA	NA	0.18	ND–0.18	No	NA
Sodium ⁴ (ppm)	2021	NA	NA	3.50	3.30–3.50	No	NA
Specific Conductance ⁴ (µmho/cm)	2021	NA	NA	120	86–120	No	NA
Temperature ⁴ (degrees C)	2021	NA	NA	31	11–31	No	Naturally occurring
Total Trihalomethanes [TTHMs] (ppb)	2021	80	NA	56.88	11–90.1	No	Disinfection by-product
Turbidity (NTU)	2021	0.3	NA	0.296	0.016–0.296	No	Soil runoff

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2021	250	NA	7.60	7.60–7.60	No	NA
Corrosivity ⁴ (units)	2021	Non-corrosive	NA	-0.67	-0.67–1.8	No	NA
pH ⁴ (units)	2021	6.5–8.5	NA	8	7.20–8	No	NA
Sulfate ⁴ (ppm)	2021	250	NA	25	17–25	No	NA
Total Dissolved Solids [TDS] (ppm)	2021	500	NA	76	72–76	No	Naturally occurring

¹The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

²The AL for copper is 1.3 ppm at the 90th percentile. Samples were taken at 30 locations throughout the distribution system during the most recent sampling event in 2019, in accordance with applicable regulations. The concentration of copper at the 90th percentile was 0.013 ppm, which was under the AL.

³The AL for lead is 15 ppb at the 90th percentile. Samples were taken at 30 locations throughout the distribution system during the most recent sampling event in 2019, in accordance with applicable regulations. The concentration of lead at the 90th percentile was <0.005, which was under the AL.

⁴Special corrosivity monitoring; MAWSS has implemented a corrosion control program.

⁵May cause discolored water.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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.

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.

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.

MRDLG (Maximum Residual Disinfectant 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.