



ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2018

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

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 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 at (800) 426-4791 or at www.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 those with cancer undergoing chemotherapy, those 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 <http://water.epa.gov/drink/hotline>.



Where Does My Water Come From?

The water supplied to The Water Works and Sewer Board of the City of Prichard (PWW&SB) comes from the Mobile Area Water & Sewer System (MAWSS). The City of Prichard has five water-storage tanks, 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.

A Source Water Assessment Plan (SWAP) is now available. If you would like to review the Source Water Assessment Plan, please feel free to contact our office at (251) 457-3396, during regular office hours.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.



Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Public Meetings

The PWW&SB has regularly scheduled Board meetings. These meetings are held on the 2nd Monday of each month at 125 E. Clark Avenue, Prichard, AL 36610. Meetings start promptly at 4:30 p.m.

Nondetected Contaminants

MAWSS tests 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 PCBs.

1,1-Dichloroethane, 4-Chlorotoluene, Isopropylbenzene, 1,1-Dichloropropene, Aldicarb, Manganese, 1,1,1,2-Tetrachloroethane, Aldicarb sulfone, Methyl-tert-butyl ether, 1,1,2,2-Tetrachloroethane, Aldicarb sulfoxide, Methomyl, trans-1,3-Dichloropropene, Bromobenzene, Metribuzin, 1,2,3-Trichlorobenzene, Bromochloromethane, Naphthalene, 1,2,3-Trichloropropane, Bromoform, n-Butylbenzene, 1,2,4-Trimethylbenzene, Bromomethane (Methyl bromide), Nickel, 1,2-Dichloroethane, Butachlor, n-Propylbenzene, 1,3-Dichlorobenzene, Carbaryl, 1,3,5-Trimethylbenzene, Chloroethane, p-Isopropyltoluene, 1,3-Dichloropropane, Chloromethane, Propachlor, Dalapon, sec-Butylbenzene, Dicamba, Silver, Dibromomethane, tert-Butylbenzene, cis-1,3-Dichloropropene, Dichlorodifluoromethane, Trichlorofluoromethane, 2,2-Dichloropropane, Dieldrin, 2-Chlorotoluene, Hexachlorobutadiene, Zinc, 3-Hydroxycarbofuran, Iron, Metolachlor, Aldrin.

The PWWSB also tests for: Dibromoacetic Acid, Monobromoacetic Acid, Bromoform, Dibromochloromethane, Apparent Color.

1,1,1 Trichloroethane. 1,1,2 Trichloroethane. 1,1 Dichloroethylene. 1,2,4 Trichlorobenzene. 1,2, Dichloropropane. 2,4,5 TP [Silvex]. 2,4, D. Acrylamide. Alachlor. Alpha Emitters. Antimony. Asbestos. Atrazine. Benzene. Benzo(a)pyrene [PAH]. Beryllium. Beta/ Photon Emitters. Bromate. Cadmium. Carbofuran. Carbon Tetrachloride. Chloramines. Chlordane. Chlorobenzene. Chromium. Cyanide. Dalapon. Di(2-ethylhexyl) Adipate. Di(2-ethylhexyl) Phthalate. Dibromochloropropane. Dichloromethane. Dinoseb. Dioxin [2,3,7,8-TCDD]. Diquat. Endothall. Endrin. Epichlorohydrin. Ethylbenzene. Ethylene Dibromide. Glyphosate. Heptachlor Epoxide. Heptachlor. Hexachlorobenzene. Hexachlorocyclopentadiene. Lindane. Mercury [inorganic]. Methoxychlor. Nitrite. Oxamyl [Vydate]. PCBs [Polychlorinated biphenyls]. Pentachlorophenol. Picloram. Selenium. Simazine. Styrene. Tetrachloroethylene. Thallium. Toluene. Total Nitrate + Nitrite. Toxaphene. Trichloroethylene. Uranium. Vinyl Chloride. Xylenes. o-Dichlorobenzene. cis-1,2-Dichloroethylene. p-Dichlorobenzene. trans-1,2-Dichloroethylene. Fecal Coliform and E.Coli. Anatoxin. Cylindrospermopsin. Total Microcystins.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the 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 that 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.

QUESTIONS?

The Water Works & 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 may have an unusual odor. This change in water quality could be caused by various factors. 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 you may convey by calling the PWW&SB Customer Service office at (251) 457-3396.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only 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 often 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 Alabama Department of Environmental Management with the approval of the U.S. EPA, a state-wide 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
Arsenic (ppb)	2018	10	0	0.63	ND–0.63	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2018	2	2	0.03	0.2–0.03	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine Dioxide (ppb)	2018	[800]	[800]	420	0–420	No	Water additive used to control microbes
Chlorine (ppm)	2018	[4]	[4]	1.79	0.53–1.79	No	Water additive used to control microbes
Chlorite (ppm)	2018	1	0.8	0.73	0–0.73	No	Disinfection by-product
Combined Radium (pCi/L)	2018	5	0	1.3	ND–1.3	No	Erosion of natural deposits
Fluoride (ppm)	2018	4	4	1.14	0.00–1.14	No	Water additive promoting strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2018	10	10	0.24	0.12–0.24	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (TOC) ⁵	2018	TT	NA	1.16	1.16–2.00	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 ⁷ (ppm)	2016	1.3	1.3	0.02	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservations
Lead ⁸ (ppb)	2016	15	0	<0.005	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alkalinity as CaCO ₃ (ppm)	2018	NA	NA	8.9	7.4–8.9	No	Special corrosivity monitoring ⁹
Aluminum (ppm)	2018	0.2	NA	0.22	0.15–0.22	No	Secondary contaminant; May cause colored water
Calcium (ppm)	2018	NA	NA	15.2	11.8–15.2	No	Special corrosivity monitoring ⁹
Carbon Dioxide (ppm)	2018	NA	NA	4.4	2.2–4.4	No	Special corrosivity monitoring ⁹
Gross Alpha ⁶ (pCi/L)	2018	15	0	0.65	ND–0.65	No	Erosion of natural deposits
Gross Beta ² (pCi/L)	2018	50	0	1.84	0.115–1.84	No	Erosion of natural deposits
HAA5 (ppb)	2018	60	NA	41.08	11.9–51.7	No	Disinfection by-product
Hardness, as CaCO ₃ (ppm)	2018	NA	NA	42	33–42	No	Special corrosivity monitoring ⁹
Magnesium (ppm)	2018	NA	NA	1.0	0.87–1.0	No	Special corrosivity monitoring ⁹
Orthophosphate as P (ppm)	2018	NA	NA	0.21	0.15–0.21	No	Special corrosivity monitoring ⁹
Sodium (ppm)	2018	NA	NA	3.67	3.48–3.67	No	Special corrosivity monitoring ⁹

OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Specific Conductance (µmho/cm)	2018	NA	NA	115	94.3–115	No	Special corrosivity monitoring ⁹
Temperature (C.)	2018	NA	NA	26	17.4–26	No	Special corrosivity monitoring ⁹
Total Trihalomethanes (ppb)	2018	80	NA	41.08	11.9–51.7	No	Disinfection by-product
Turbidity (NTU)	2018	0.3	NA	0.24	0.00–0.24	No	Soil runoff

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2018	250	NA	6.9	6.8–6.9	No	Secondary contaminant
Corrosivity	2018	Non-corrosive	NA	-1.83	-1.52–-1.83	No	Special corrosivity monitoring ⁹
Sulfate (ppm)	2018	250	NA	26.6	17.2–26.6	No	Special corrosivity monitoring ⁹
Total Dissolved Solids [TDS] (ppm)	2018	500	NA	77	53–77	No	Secondary contaminant
pH (Units)	2018	6.5–8.5	NA	8.14	6.90–8.14	No	Special corrosivity monitoring ⁹

OTHER UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Anatoxin (ppb)	2018	<0.01	NA	NA
Cylindrospermopsin (ppb)	2018	<0.03	NA	NA
Total Microcystins (ppb)	2018	<0.10	NA	NA

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 that, if exceeded, triggers treatment or other requirements that a water system must follow.

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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).

ppq (parts per quadrillion): One part substance per quadrillion parts water (or picograms per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

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

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

¹ Acrylamide, an impurity in polymer-based water treatment additives, was not directly added to the drinking water in the treatment process. A polymer-based flocculant, which is certified in accordance with NSF/ANSI Standard 60 for use in potable water, is used to thicken residual solids from the sedimentation and filtration stages of the water treatment process. The solids from both the Stickney and Myers treatment plants are thickened at the Myers treatment plant for final disposal at a landfill. The water that is separated from the solids is directed to the Myers water treatment plant for treatment as drinking water.

² ADEM allows compliance with this requirement to be assumed without further analysis if the average annual concentration of gross beta particle activity is less than 50 pCi/L and if the average annual concentrations of tritium and strontium-90 are less than the MCL. Gross beta particle activity was tested for and detected at 1.84 pCi/L. Sources of the man-made tritium and strontium-90 are not known to exist in the watershed.

³ Chloramines and bromate are by-products formed from water treatment additives. These additives were not used during the treatment of the drinking water.

⁴ Epichlorohydrin, an impurity of some water treatment chemicals, was not added to the drinking water.

⁵ The value reported under Amount Detected for TOC is the lowest ratio between the 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.

⁶ A gross alpha particle activity measurement may be substituted for the required Uranium analyses, provided that the measured gross alpha particle activity does not exceed 15 pCi/L. Gross alpha particle activity was tested for and detected at 0.65 pCi/L.

⁷ The Action Level (AL) for copper is 1.3 ppm at the 90th percentile. Samples were taken at 30 locations throughout the Prichard water distribution system during the most recent sampling event in 2016 in accordance with applicable regulations. The concentration of copper at the 90th percentile was 0.02 ppm, which was under the Action Level.

⁸ The Action Level (AL) for lead is 15 ppb at the 90th percentile. Samples were taken at 30 locations throughout the Prichard water distribution system during the most recent sampling event in 2016 in accordance with applicable regulations. The concentration of lead at the 90th percentile was <0.005, which was under the Action Level.

⁹ Special corrosivity monitoring. MAWSS has implemented a corrosion control program.

