

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

Presented By



MPWC

**MERCHANTVILLE-PENNSAUKEN
WATER COMMISSION**



Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Source Water Assessment

Our Source Water Assessment Report and Summary is available at www.state.nj.us/dep/swap/ or by contacting the New Jersey Department of Environmental Protection (NJDEP), Bureau of Safe Drinking Water, at (609) 292-5550. The source water assessment performed on our 14 sources can be obtained by calling MPWC and asking for Superintendent Craig T. Campbell.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination. Public water systems are required to monitor for regulated contaminants and to initiate treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, NJDEP may customize or change the existing monitoring schedules based on the susceptibility ratings.

Source water protection is a long-term dedication to clean and safe drinking water. It is more cost-effective to prevent contamination than to address contamination after the fact. Every member of the community has an important role in source water protection. The NJDEP recommends controlling activities and development around drinking water sources whether it is through land acquisition, conservation easements, or hazardous waste collection programs. We will continue to keep you informed of SWAP's progress and developments. If you have any questions about these findings, please contact us during regular business hours.

MPWC's susceptibility ratings, depending on well sources, are as follows: Pathogens, medium and low; nutrients, high and medium; pesticides, medium and low; volatile organic compounds, high; inorganics, high, medium, and low; radionuclides, high; radon, medium and low; disinfection by-products precursors, high and medium.

Where Does My Water Come From?

The Merchantville-Pennsauken Water Commission pumps groundwater from 14 wells that tap the Potomac-Raritan-Magothy (PRM) Aquifer and transmits it to the MPWC's six pumping stations. These wells vary in depth from 140 feet to 300 feet deep. The distribution system consists of 220 miles of piping. At the present time, a very small amount of water is purchased from New Jersey American Water Company, which represents approximately 1% of our annual needs. NJAWC supplies water from three sources: surface water from the Delaware River and groundwater from the PRM and Mt Laurel-Wenonah aquifers. Information on NJAWC water quality can be found at www.newjerseyamwater.com.

The MPWC prides itself on the above-ground water storage facilities that have been built through the years. These storage tanks greatly benefit our many customers. In total, MPWC has six (6) above-ground water tanks. The total capacity of the above-ground storage tanks is 8 million gallons of water. This type of water storage not only enhances water pressure (which is needed to take showers, sprinkle lawns, and fight fires), but it also provides over a full day's worth of water supply to our entire franchise area in case of an emergency situation.

The MPWC is committed to keeping abreast of the most recent advancements in water treatment technologies through continuous training and education. Our management staff and treatment and transmission personnel attend training seminars and courses designed to keep us up to date and aware of better ways to serve our customers with the safest and best tasting water possible.

The MPWC has invested in the most current and modern methods for the treatment and transmission of your drinking water. In fact, the MPWC has hosted other water-treatment professionals to showcase our facilities and share our success stories.

The MPWC continues to invest in our infrastructure and work aggressively at living up to our mission of "supplying the best product at the most affordable cost."

WORKING HARD FOR YOU

Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) is responsible for

setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Each system continually monitors for these substances and reports to the U.S. EPA if they were detected in the drinking water. The U.S. EPA uses the data to ensure that consumers are receiving clean water.

This publication conforms to the regulation under the SDWA requiring water utilities to annually provide detailed water-quality information to each of their customers. We are committed to providing you with this information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

For more information about this report, or for any questions relating to your drinking water, please call the main office at (856) 663-0043 and ask for Superintendent Craig T. Campbell. Our office hours are 8:00 a.m. to 4:00 p.m. Monday through Friday, or visit us on the Web at www.mppwc.com.

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. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the 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, in some cases, radioactive material, and 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.

Community Participation

You are invited to participate in our public forum and voice any concerns about your drinking water. We meet the second Thursday of each month beginning at 4:00 p.m. at our Headquarters: 6751 Westfield Avenue, Pennsauken, NJ 08110.



Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

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.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining this information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the 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 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.

REGULATED SUBSTANCES ¹							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2020	15	0	11.7	5.3–11.7	No	Erosion of natural deposits
Chlorine (ppm)	2020	[4]	[4]	1.08	0.5–1.08	No	Water additive used to control microbes
cis-1,2-Dichloroethylene (ppb)	2020	70	70	1.6	ND–1.6	No	Discharge from industrial chemical factories
Combined Radium ² (pCi/L)	2020	5	0	2.6	1.1–2.6	No	Erosion of natural deposits
Di(2-ethylhexyl) Phthalate (ppb)	2018	6	0	0.59	0.59–0.59	No	Discharge from rubber and chemical factories
Haloacetic Acids [HAAs] (ppb)	2020	60	NA	16.4	ND–16.4	No	By-product of drinking water disinfection
Methyl tert-Butyl Ether [MTBE] (ppb)	2020	70	NA	3.47	ND–3.47	No	Leaking underground gasoline and fuel tanks; Gasoline and fuel oil spills
Nitrate+Nitrite (ppm)	2020	10	10	3.96	2.13–3.96	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Perfluorononanoic Acid [PFNA] (ppt)	2020	13	NA	5.3	ND–5.3	No	Discharge from industrial chemical factories
TTHMs [Total Trihalomethanes] (ppb)	2020	80	NA	26	1.1–26	No	By-product of drinking water disinfection
Trichloroethylene (ppb)	2020	1	0	0.71	ND–0.71	No	Discharge from metal degreasing sites and other factories
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 (ppm)	2018	1.3	1.3	0.017	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2018	15	0	ND	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	RUL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2020	250	NA	56	35–56	No	Runoff/leaching from natural deposits
Copper (ppm)	2018	1.0	NA	0.742	ND–0.742	No	Corrosion of household plumbing systems; Erosion of natural deposits
Hardness [as CaCO ₃] (ppm)	2017	250	NA	71	41.2–71	No	Naturally occurring
pH (Units)	2020	6.5–8.5	NA	7.78	7.78–7.78	No	Naturally occurring
Sodium (ppm)	2020	50	NA	40.2	13.3–40.2	No	Naturally occurring
Sulfate (ppm)	2020	250	NA	64	14.9–64	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (ppm)	2020	500	NA	220	86–220	No	Runoff/leaching from natural deposits
Zinc (ppm)	2020	5	NA	0.133	ND–0.133	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
1,4-Dioxane (ppb)	2018	5.69	0.32–5.69
Bromodichloromethane (ppb)	2020	3.9	ND–3.9
Bromoform (ppb)	2020	12.8	ND–12.8
Chloroform (ppb)	2020	1.1	ND–1.1
Dibromochloromethane (ppb)	2020	10	ND–10
Perfluorooctanoic Acid [PFOA] (ppt)	2020	13	ND–13
Perfluorooctanesulfonic Acid [PFOS] (ppt)	2020	16	ND–16

Missed Deadline

During the 1st quarter of 2020, although samples were taken for VOCs, ethylene dibromide, 1,2,3 TCP, and 1,2 dibromo-3-chloropropane, the samples were entered into the NJDEP database after the due date. Results of the analysis have been received and properly recorded as required by state and federal law. We do not believe that meeting the monitoring requirement late had any impact on public health and safety. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future so that this oversight will not be repeated.



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.

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.

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

¹ Under a waiver granted on December 30, 1998, by the State of New Jersey Department of Environmental Protection, our system does not have to monitor for synthetic organic chemicals/pesticides because several years of testing have indicated that these substances do not occur in our source water. The SDWA regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. Our system received monitoring waivers for synthetic organic chemicals and asbestos.

² Based on quarterly monitoring, determined on annual running average.

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).

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

RUL (Recommended Upper Limit): 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.

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.

