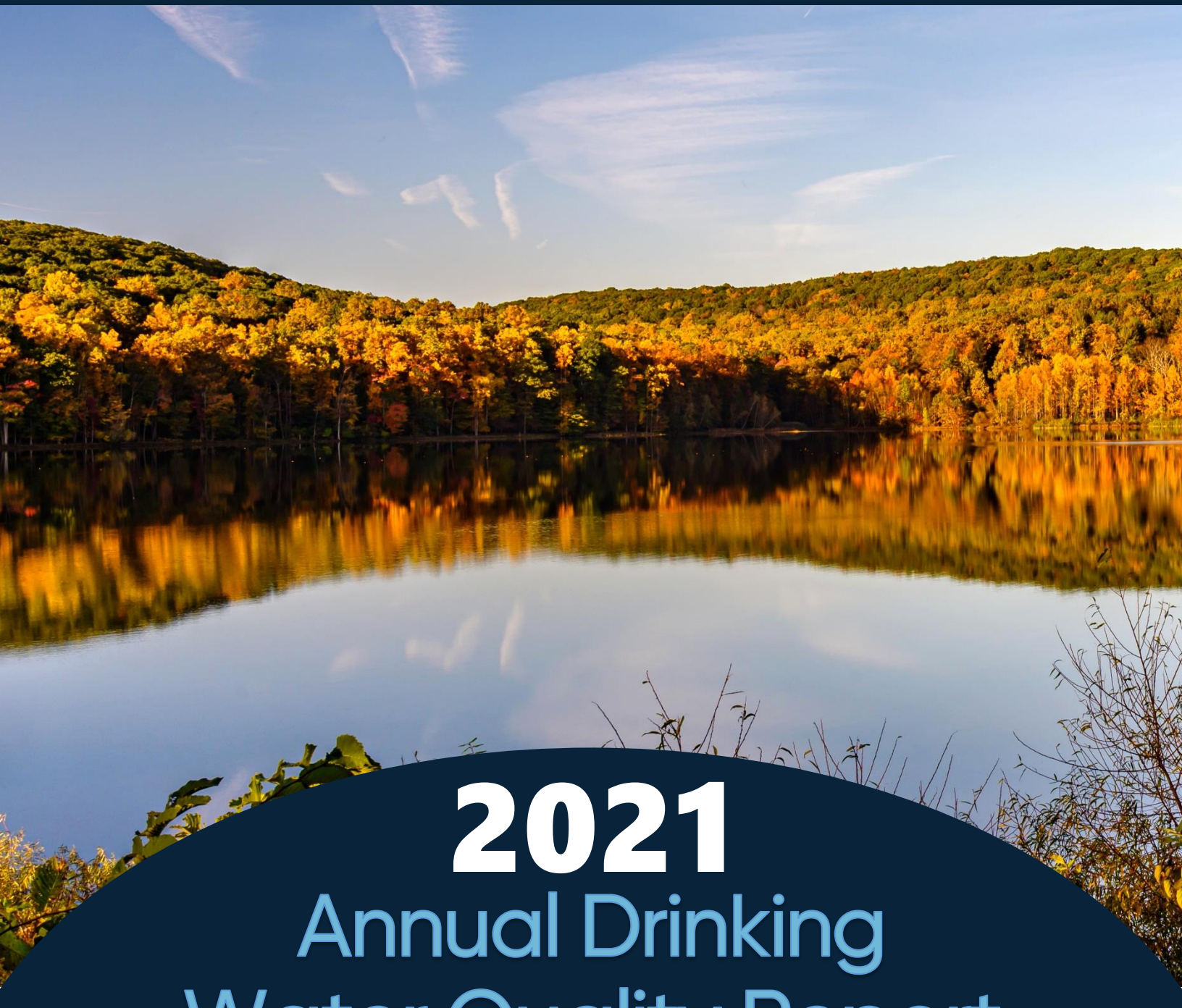
PWSID NJ1424001

SMCMUA

SOUTHEAST MORRIS COUNTY MUNICIPAL UTILITIES AUTHORITY



2021 Annual Drinking Water Quality Report

"Dedicated to providing high quality water and reliable service"

SMCMUA

SOUTHEAST MORRIS COUNTY MUNICIPAL UTILITIES AUTHORITY

PWSID NJ1424001 SPRING/SUMMER 2022

Information About Your Drinking Water

- This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.
- Este informe contiene información importante sobre su agua potable. Si no lo entiende, por favor alguien tiene que traducer para usted.

Landlords must distribute this information to every tenant as soon as practicable, but no later than three business days after receipt. Delivery must be done by hand, mail, or email, and by posting the information in a prominent location at the entrance of each rental premises, pursuant to section 3 of P.L. 2021, c. 82 (C.58:12A-12.4 et seq.).

A MESSAGE FROM THE CHAIRMAN OF THE BOARD

The Southeast Morris County Municipal Utilities Authority (SMCMUA) is pleased to share this 2021 Annual Drinking Water Quality Report with you, our consumer, in accordance with the Federal and State Safe Drinking Water Acts. This information is being made available so you can learn more about the finished (treated) water delivered to your tap. We ask our consumers to be attentive to the messages contained in this report regarding vulnerable populations and persons on sodium-restricted diets. These persons should seek advice about drinking water from their health care provider.

This report provides a summary of water quality data collected from the raw and finished water sources introduced into our service area, including surface and groundwater supplies owned by SMCMUA, and supplies purchased from Passaic Valley Water Commission (PVWC) and Morris County Municipal Utilities Authority (MCMUA). SMCMUA was in compliance with all primary, enforceable standards for 2021. This report includes data for regulated contaminants, secondary (aesthetic) parameters, and unregulated contaminants.

Several sources of supply exceeded the Recommended Upper Limit (RUL) for hardness and also for sodium, chloride, and total dissolved solids. These exceedances are attributed to the use of road salt for de-icing of roadways. As our consumers and our customers, we encourage you to review this report. If you have any questions, please contact our Customer Service Division.

Sincerely,

Ralph Rotando
Board Chairman

SMCMUA Board Members

- **Ralph Rotando, Chairman**
- **Michael Chumer, Ph.D., Vice Chairman**
- **Nicola Marucci, PE, Secretary**
- **Dennis Baldassari, Member**
- **Max Huber, Member**
- **Nathan Kiracofe, Member**
- **Donald Kissil, Member**
- **Patricia Webster, Member**
- **Laura Cummings, PE, Executive Director**
- **Drew Saskowitz, Licensed Operator of Record, Water Quality Superintendent**
- **Dave Ruitenberg, Esq., Murphy McKeon PC, General Counsel**

Contact Information

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Lobby Hours: Monday through Friday 8:30AM to 4:30PM (holidays excluded)
24/7 Emergency: 973-867-1758

Cover photo
"Early Fall, Clyde Potts Reservoir"
Dave Unger, 2021

SMCMUA
SOUTHEAST MORRIS COUNTY MUNICIPAL UTILITIES AUTHORITY

WATER SYSTEM DESCRIPTION

SMCMUA, a public entity created pursuant to N.J.S.A. 40:14B-1 et seq., provides potable water and water services to customers within its creating municipalities or district (the Town of Morristown, the Township of Morris, the Township of Hanover, and the Borough of Morris Plains) as well as to certain customers and municipalities outside its district, including the Townships of Chatham, Mendham, Harding, Randolph, Parsippany-Troy Hills and the Borough of Florham Park. It also supplies water at wholesale rates to the MCMUA and the Borough of Wharton. SMCMUA provides water to approximately 62,050 residents, delivering approximately 8.8 million gallons per day (MGD) on an average daily basis and, in excess of, 13.6 MGD during peak demand periods.

SMCMUA treats and distributes surface water from the Clyde Potts Reservoir and from groundwater sources originating from the glacial sand and gravel aquifer and the Brunswick aquifer. Clyde Potts Reservoir water is treated using membrane filtration, granular activated carbon adsorption, corrosion control treatment (CCT), chlorine disinfection, and is in the process of being upgraded to receive pH adjustment. All groundwater sources receive chlorine disinfection and two (2) receive CCT. Of these two (2) sources, one (1) is in the process of being upgraded to receive pH adjustment. The remaining six (6) groundwater sources are also in the process of being upgraded to receive CCT. Additionally, two (2) groundwater sources are treated for the removal of volatile organic contaminants (VOCs) and two (2) are treated for the removal of manganese.

SMCMUA purchases finished water through interconnections with MCMUA and PVWC. Finished water from MCMUA originates from groundwater sources. Finished water purchased from PVWC is a blend of surface water obtained from PVWC's Little Falls Water Treatment Plant (LFWTP) and/or the North Jersey District Water Supply Commission's (NJDWSC's) Wanaque Water Treatment Plant. The LFWTP treats mostly Passaic and Pompton River waters using a treatment process consisting of coagulation, sedimentation, ozone primary disinfection, granular activated carbon/sand filtration, chlorine secondary disinfection and CCT. The Wanaque Water Treatment Plant treats Wanaque Reservoir water using a treatment process consisting of coagulation, sedimentation, anthracite/sand filtration and primary and secondary chlorine disinfection, where CCT is applied at the PVWC Interconnection.

SOURCES OF CONTAMINANTS IN TAP AND BOTTLED WATER

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 United States Environmental Protection Agency's (USEPA) Safe Drinking Water Information Hotline at 800-426-4791.

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 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 human activity.

Contaminants that may be present in source water include:

- 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 (which can be naturally occurring or result from urban stormwater runoff), may also come from 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 storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals (which are byproducts of industrial processes and petroleum production), may also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants can be naturally occurring or the result of oil and gas production and mining activities.

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

SOURCE WATER ASSESSMENT PROGRAM (SWAP)

The purpose of NJDEP's SWAP is to provide for the protection and benefit of public water systems and to increase public awareness and involvement in protecting the sources of public drinking water. For more information, contact the NJDEP, Bureau of Safe Drinking Water at 609-292-5550, email watersupply@dep.nj.gov. or visit www.state.nj.us/dep/watersupply/swap/index.html. The SWAP, published October 2004, identified susceptibility ratings for eight contaminant categories identified below for each source for the system. Each contaminant group was assigned a susceptibility rating of L-low, M-medium and H-high. If a drinking water source's susceptibility rate is high, it does not necessarily mean the drinking water is contaminated. The rating reflects the potential for contamination of source water, not the existence of contamination. SMCMUA has identified the watershed and wellhead protection areas for the Clyde Potts Reservoir and the ground water sources owned by SMCMUA. The contaminant categories include:

- Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.
- Nutrients: Compounds, minerals and elements that aid growth and are both naturally occurring and man-made. Examples include nitrogen and phosphorus.
- Volatile Organic Contaminants (VOCs): Man-made chemicals used as solvents, degreasers and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE) and vinyl chloride.
- Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides, such as atrazine, and insecticides, such as chlordane.
- Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead and nitrate.
- Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.
- Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information, go to www.nj.gov/dep/rpp/radon/index.htm or call 609-984-5425.
- Disinfection By-product Precursors: A common source is naturally occurring organic matter in surface water. Disinfection by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example, leaves) present in surface water.

The susceptibility ratings for all source waters treated and distributed to SMCMUA's service area are included in Table 1 below.

TABLE 1
SOURCE WATER SUSCEPTIBILITY RATINGS

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-nuclides			Radon			Disinfection By-product Precursors		
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
SMCMUA																								
Wells – 11		10	1	10	1			2	9	11			5	6		2	9		11			6	5	
Surface water intakes – 1	1				1				1		1		1					1			1	1		
MCMUA																								
Wells – 8		8		4	2	2		2	6	2		6		1	7	1	6	1	2	6		5	3	
PVWC's LFWTP																								
Surface water intakes – 4	4			4				1	3		4		4					4			4	4		
NJDWSC's Wanaque WTP																								
Surface water intakes – 5	5			5				2	3		5		5					5			5	5		

CRYPTOSPORIDIUM

The USEPA required surface water systems to monitor for *Cryptosporidium* and *E. coli* in the source waters, before treatment. A second round of monitoring was completed in 2017 that required monthly sampling of the source water for a total of 24 consecutive months where the results were utilized to identify the need to install additional treatment. This monitoring requirement applied to SMCMUA's Clyde Potts Water Treatment Plant (WTP), PVWC's LFWTP and NJDWSC's Wanaque WTP. Table 2 below summarizes the raw water data collected to date for this program, including *Giardia* results collected for informational purposes. The results of this study demonstrated that no additional treatment was required for *Cryptosporidium* for SMCMUA, PVWC or the Wanaque WTPs, however, PVWC is required to monitor annually.

TABLE 2
SURFACE SOURCE WATER MICROBIAL CONTAMINANTS

CONTAMINANT	SMCMUA PWS ID NJ1424001 2017	NJDWSC PWS ID NJ1613001 2017	PVWC PWS ID NJ1605002 2021	TYPICAL SOURCE
Cryptosporidium, oocysts/L	ND - 0.273	ND - 0.1	ND	Microbial pathogens found in surface waters throughout the United States.
Giardia, cysts/L	ND - 1.6	ND - 0.4	ND - 0.46	
E. coli, MPN /100 mL	ND - 26.5	-	9.5-980.4	

TABLE 3 2021 DETECTED REGULATED CONTAMINANTS COLLECTED FROM WATER OBTAINED AFTER TREATMENT AT THE POINTS OF ENTRY TO THE DISTRIBUTION SYSTEM

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care 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 (800-426-4791).

The State of New Jersey allows SMCMUA to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Although some of the data in the table below may be more than one year old, the data is representative of the most recent sampling done in accordance with the regulations. The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for select contaminants. SMCMUA has been granted synthetic organic compounds (SOCs) waivers in prior years and expects to receive a waiver for the current compliance period upon NJDEP determination in 2022.

PRIMARY CONTAMINANTS	Compliance Achieved	MCLG	MCL	Purchased Water Results			TYPICAL SOURCE
				SMCMUA PWS ID NJ1424001	PVWC PWS ID NJ1605002 NJDWSC PWS ID NJ1613001	MCMUA PWS ID NJ1432001	
TURBIDITY AND TOTAL ORGANIC CARBON				Highest Result, Range and Year of Results			
Turbidity* (NTU)	Yes	NA	TT = 1	0.09 (0.01 - 0.09) 2021	0.5 (0.01 - 0.5) 2021	N/A	Soil runoff.
	Yes	NA	TT = percentage of samples <0.3 NTU (min 95% required)	100% 2021	99.99% 2021	N/A	
	*Turbidity is a measure of the cloudiness of the water and is monitored as an indicator of water quality. High Turbidity can hinder the effectiveness of disinfectants.						
Total Organic Carbon (%)	Yes	NA	TT = % removal	N/A	(25 - 50% required) (Range 33 - 82%) 2021	N/A	Naturally present in the environment.
CONTAMINANTS				Highest Result, Range and Year of Results			
Methyl t-Butyl Ether (ppb)	Yes	70	70	0.61 RAA (ND - 1.7) 2021	ND 2021	ND 2021	Leaking underground gasoline and fuel oil tanks, gasoline, and fuel spills.
Tetrachloroethene (ppb)	Yes	0	1	0.05 RAA (ND - 0.55) 2021	ND 2021	ND 2021	Discharge from factories and dry cleaners.
Trichloroethene (ppb)	Yes	0	1	0.08 RAA (ND - 0.51) 2021	ND 2021	ND 2021	Discharge from metal degreasing sites and other factories.
Perfluorooctane sulfonate (PFOS) (ppt)	Yes	NA	13	4.5 RAA (ND - 4.6) 2021	4.86 RAA (2.8 - 6.6) 2021	7.3 ND - 7.3 2021	Discharge from industrial, chemical factories, release of aqueous film forming foam.
Perfluorooctanoic acid (PFOA) (ppt)	Yes	NA	14	9.6 RAA (ND - 12.0) 2021	7.9 RAA (3.6 - 11) 2021	12.0 ND - 12.0 2021	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.
Arsenic (ppb)	Yes	0	5	1.0 (ND - 1.0) 2021	ND 2021	ND 2020	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium (ppm)	Yes	2	2	0.130 (0.037 - 0.130) 2021	0.023 (0.010 - 0.023) 2021	0.1 (0.01 - 0.1) 2020	Erosion of natural deposits.
Bromate (ppb)	Yes	0	10		0.94 RAA (<5.0 - 16.17) 2021		By-product of drinking water disinfection.
Chromium (ppb)	Yes	100	100	1.2 (ND - 1.2) 2021	ND 2021	0.7 (ND - 0.7) 2020	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride (ppm)	Yes	4	4	ND 2021	ND 2021	0.13 (ND - 0.13) 2020	Erosion of natural deposits.
Nickel (ppb)	NA	NA	NA	1.3 (ND - 1.3) 2021	2.8 (1.48 - 2.8) 2021	0.9 (ND - 0.9) 2020	Erosion of natural deposits.
Nitrate (ppm)	Yes	10	10	3.9 (0.09 - 3.9) 2021	1.06 RAA (0.26 - 1.68) 2021	3.1 (0.6 - 3.1) 2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Alpha Emitters (pCi/L)	Yes	0	15	3.16 (ND - 3.16) 2017/2020	ND 2014	ND 2020	Erosion of natural deposits.
Combined Radium 226 & 228 (pCi/L)	Yes	0	5	1.49 (ND - 1.49) 2017/2020	ND 2014	ND 2020	Erosion of natural deposits.

TABLE 4 2021 DETECTED CONTAMINANTS COLLECTED FROM WATER WITHIN SMCMUA'S SERVICE AREA

PRIMARY CONTAMINANTS	Compliance Achieved	MCLG	MCL	DISTRIBUTION SYSTEM SAMPLE RESULTS	TYPICAL SOURCE
MICROBIOLOGICAL CONTAMINANTS				Highest Monthly Result	
Total Coliform Bacteria (%)	Yes	0	5% of monthly samples are positive	1.6% (two samples were Total Coliform positive)	Naturally present in the environment
DISINFECTION BYPRODUCTS - STAGE II			LRAA OEL	Highest LRAA and Range of Results	
Haloacetic Acids (HAA5) (ppb)	Yes	NA	60	51.2 (1.2 - 66.0)	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	Yes	NA	80	62.2 (9.8 - 97.3)	By-product of drinking water disinfection
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems and may have an increased risk of getting cancer.					
DISINFECTANTS		MRDLG	MRDL	Highest LRAA and Range of Results	
Chlorine (ppm)	Yes	4	4	1.66 Highest RAA (0.00 - 2.74)	Water additive used to control microbes

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. SMCMUA 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 is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Reduced monitoring samples collected during 2021 confirmed that lead and copper results were below their respective action levels at the 90th percentile in accordance with USEPA and NJDEP requirements. The results are summarized in Table 5. Call Customer Service to find out how to get your water tested for lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.

- SMCMUA's website has additional information on lead and copper under the Water Quality tab. The website content includes sample results, informational resources on sources of lead, lead free plumbing certifications, and how to request a home water sampling kit.
- EPA and NJDEP Consumer and School/Childcare Information on Lead is available at www.nj.gov/dep/watersupply/dwc-lead.html

TABLE 5 2021 LEAD AND COPPER MONITORING RESULTS

Contaminant	Compliance Achieved	MCLG	Action Level	90th Percentile	Typical Source
Copper (ppm)	Yes	1.300	1.300	1.258 (4 of the 34 samples exceeded the AL) 2021	Corrosion of household plumbing
Lead (ppb)	Yes	0	15.0	3.2 (1 out of 34 samples exceeded the AL) 2021	Corrosion of household plumbing

TABLE 6 2021 SECONDARY CONTAMINANTS (AESTHETIC, NONENFORCEABLE STANDARDS)

Contaminant	Recommended Upper Limit (RUL)	SMCMUA PWSID NJ1424001 2021 Data		PVWC- PWSID NJ1605002 NJDWSC- PWSID NJ1613001 2021 Data		MCMUA PWSID NJ1432001 2020 Data	
		Range of Results	RUL Achieved	Range of Results	RUL Achieved	Range of Results	RUL Achieved
A.B.S./L.A.S., ppm	0.5	ND - 0.3	Yes	0.025 - 0.090	Yes	ND - 0.07	Yes
Alkalinity, ppm	NA	15.9 - 214	NA	45 - 67.5	NA	23-122	NA
Aluminum, ppb	200	ND - 3.6	Yes	15.1 - 43.7	Yes	0.51 - 290	No
Chloride, ppm	250	38.0- 220	Yes	51.2 - 100.7	Yes	8.33 - 94.51	Yes
Color, CU	10	ND	Yes	2 - <5	Yes	ND	Yes
Corrosivity	Non-Corrosive	Corrosive	No	Corrosive	No	Corrosive	No
Hardness (as CaCO3), ppm	250	37.0 - 430	No	52 - 148	Yes	70 - 166	Yes
Hardness (as CaCO3), gpg	14.6	2.2 - 25.1	No	3.0 - 8.7	Yes	4.1 - 9.7	Yes
Iron, ppb[1]	300	ND - 36	Yes	ND	Yes	ND - 2070	No
Manganese, ppb	50	ND - 3.5	Yes	2.69 - 17.97	Yes	ND - 13.24	Yes
Odor, TON	3	ND	Yes	<1.00 - 20	No	1 - 80	No
pH	6.5 to 8.5	6.17 – 8.27	No	7.98 - 8.58	No	5.5 - 8.0	No
Sodium, ppm[2]	50	19.0 - 58.0	No	29.4 - 96.5	No	6.0 - 52.0	No
Sulfate, ppm	250	6.1 - 67.0	Yes	7.78 - 55.6	Yes	ND - 13.8	Yes
Total Dissolved Solids, ppm	500	120 - 780	No	170 - 354.5	Yes	107 - 286	Yes
Zinc, ppb	5,000	ND – 230	Yes	1.04 - 5.06	Yes	0.56 - 23.9	Yes

[1] IMPORTANT NOTICE ABOUT YOUR DRINKING WATER: IRON RECOMMENDED UPPER LIMIT EXCEEDED. The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but for some people who drink water with iron levels well above the upper limit could develop deposits of iron in a number of organs of the body.

[2] IMPORTANT NOTICE ABOUT YOUR DRINKING WATER: SODIUM RECOMMENDED UPPER LIMIT EXCEEDED. Persons on sodium-restricted diets may be concerned about sodium levels in finished water above the New Jersey Recommended Upper Limit (RUL) of 50 ppm. Sodium was detected in the distribution system at levels ranging between 19.0 – 58.0 ppm. The highest concentrations of sodium in 2021 were attributed to water purchased from PVWC. Sodium is naturally present in the source water and its presence may also be the result of the use of road salt for de-icing roadways. For healthy individuals, the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, persons on sodium-restricted diets should seek advice about drinking water from their health care providers.

UNREGULATED CONTAMINANTS

The 1996 Safe Drinking Water Act (SDWA) amendments require the EPA to issue, every five years, a new list of no more than 30 unregulated contaminants to be monitored by public water systems. The fourth Unregulated Contaminant Monitoring Rule (UCMR 4) required monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by the USEPA and consensus organizations. This monitoring provides a basis for future actions to protect public health. The 30 chemical contaminants selected were: 10 cyanotoxins (nine cyanotoxins and one cyanotoxin group) and 20 additional contaminants (two metals, eight pesticides plus one pesticide manufacturing byproduct, three brominated haloacetic acid [HAA] disinfection byproducts groups, three alcohols, and three semivolatile organic chemicals [SVOCs]). SMCMUA and its purchased water suppliers completed this monitoring between 2018 and 2019. Data collected are provided in Tables 7 and 8.

TABLE 7 POINT OF ENTRY UCMR4 AND OTHER UNREGULATED CONTAMINANTS

UNREGULATED CONTAMINANTS	SMCMUA PWS ID NJ1424001	Purchased Water Results		TYPICAL SOURCE
		PVWC PWS ID NJ1605002 NJDWSC PWS ID NJ1613001	MCMUA PWS ID NJ1432001	
	Highest Result, Range			
1,4-dioxane (ppb)	ND - 0.46 2021	ND 2021	ND 2014	It is used as a solvent or solvent stabilizer in the manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Chlorate (ppb)	26 - 180 2015	115.5 - 305 2021	ND - 120 2014	Chlorate compounds are used in agriculture as defoliants or desiccants and may occur in drinking water related to the use of disinfectants such as chlorine dioxide.
Perfluorobutanesulfonic acid (PFBS) (ppt)	ND - 4.5 2021	ND - 3.6 2021	ND - 2.4 2021	Manmade chemical; used in products to make them stain, grease, heat and water resistant.
Perfluoroheptanoic acid (PFHpA) (ppt)	ND - 2.9 2021	ND - 3.9 2021	ND - 3.0 2021	Manmade chemical; used in products to make them stain, grease, heat and water resistant.
Perfluorohexanesulfonic acid (PFHxS) (ppt)	ND - 8.7 2021	ND -3.0 2021	ND 2021	Manmade chemical; used in products to make them stain, grease, heat and water resistant.
Perfluorohexanoic acid (PFHxA) (ppt)	ND - 6.4 2021	3.1 - 8.4 2021	ND - 4.1 2021	Breakdown product of stain- and grease-proof coatings on food packaging and household products.
UCMR4 CYANOTOXINS				
Anatoxin-a (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Cylindrospermopsin (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Microcystin -LA (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Microcystin-LF (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae".
Microcystin-LR (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Microcystin-LY (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Microcystin-RR (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Microcystin-YR (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Nodularin (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
Total Microcystins & Nodularins (ppb)	ND 2018	ND 2018	-	Toxins naturally produced and released by cyanobacteria ("blue-green algae")
UCMR4 PESTICIDES				
alpha-Hexachlorocyclohexane (ppb)	ND 2019	ND 2019	ND 2019	Component of benzene hexachloride (BHC); formerly used as an insecticide
Chlorpyrifos (ppb)	ND 2019	ND 2019	ND 2019	Organophosphate; used as an insecticide, acaricide and miticide
Dimethipin (ppb)	ND 2019	ND 2019	ND 2019	Used as an herbicide and plant growth regulator
Ethoprop (ppb)	ND 2019	ND 2019	ND 2019	Used as an insecticide
Oxyfluorfen (ppb)	ND 2019	ND 2019	ND 2019	Used as an herbicide
Profenofos (ppb)	ND 2019	ND 2019	ND 2019	Used as an insecticide and acaricide
Tebuconazole (ppb)	ND 2019	ND 2019	ND 2019	Used as a fungicide
Permethrin, cis & trans (ppb)	ND 2019	ND 2019	ND 2019	Used as an insecticide
Tribufos (ppb)	ND 2019	ND 2019	ND 2019	Used as an insecticide and cotton defoliant
UCMR4 SEMIVOLATILE CHEMICALS				
Butylated hydroxyanisole (ppb)	ND 2019	ND 2019	ND 2019	Used as a food additive (antioxidant)
o-Toluidine (ppb)	ND 2019	ND 2019	ND 2019	Used in the production of dyes, rubber, pharmaceuticals, and pesticides
Quinoline (ppb)	ND 2019	ND 2019	ND 2019	Used as a pharmaceutical (antimalarial) and flavoring agent; produced as a chemical intermediate; component of coal

TABLE 7 POINT OF ENTRY UCMR4 AND OTHER UNREGULATED CONTAMINANTS (CONTINUED)

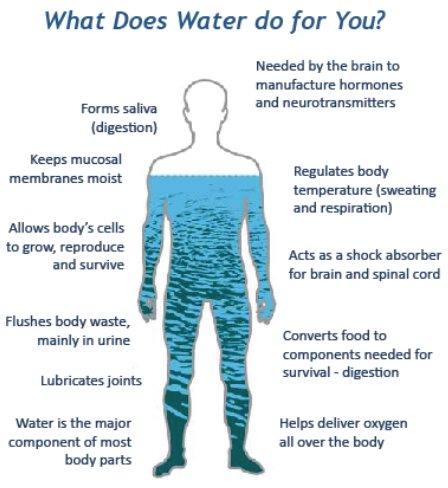
UNREGULATED CONTAMINANTS	SMCMUA PWS ID NJ1424001	Purchased Water Results		TYPICAL SOURCE
		PVWC PWS ID NJ1605002 NJDWSC PWS ID NJ1613001	MCMUA PWS ID NJ1432001	
	Highest Result, Range			
UCMR4 ALCOHOLS				
1-Butanol (ppb)	ND 2019	ND 2019	ND 2019	Used as a solvent, food additive, and in production of other chemicals.
2-Methoxyethanol (ppb)	ND 2019	ND 2019	ND 2019	Used in numerous consumer products, such as synthetic cosmetics, perfumes, fragrances, hair preparations, and skin lotions.
2-Propen-1-ol (ppb)	ND 2019	ND 2019	ND 2019	Used in the production flavorings, perfumes, and other chemicals.
UCMR4 METALS				
Germanium (ppb)	ND 2019	ND 2019	ND 2019	Naturally occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications
Manganese (ppb)	1.99 RAA (ND - 3.98) 2019	8.0 RAA (2.0 - 14.0) 2019	ND - 19.0 2019	Naturally occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient
UCMR4 INDICATORS				
Bromide (ppb)	21.9 RAA (20.3 - 23.9) 2019	44.0 RAA (33.0- 69.0) 2019	ND - 35.0 2019	Naturally occurring inorganic matter that reacts with disinfectants to form disinfection by-products
Total Organic Carbon (TOC) (ppm)	2.74 RAA (2.30 - 3.12) 2019	6.0 RAA (4.0 - 7.0) 2019	ND 2019	Naturally occurring organic matter that reacts with disinfectants to form disinfection by-products

TABLE 8 SMCMUA DISTRIBUTION SYSTEM UCMR4 HALOACETIC ACIDS

UNREGULATED CONTAMINANTS	SMCMUA Distribution System	TYPICAL SOURCE
	Highest LRAA, Range	
Bromochloroacetic acid (ppb)	4.11 LRAA (ND - 6.44) 2019	By-product of drinking water disinfection
Bromodichloroacetic acid (ppb)	5.66 LRAA (ND - 6.80) 2019	By-product of drinking water disinfection
Chlorodibromoacetic acid (ppb)	2.00 LRAA (ND - 2.87) 2019	By-product of drinking water disinfection
Dibromoacetic acid (ppb)	1.74 LRAA (ND - 2.47) 2019	By-product of drinking water disinfection
Dichloroacetic acid (ppb)	11.65 LRAA (0.684 - 20.1) 2019	By-product of drinking water disinfection
Monobromoacetic acid (ppb)	0.28 LRAA (ND - 0.452) 2019	By-product of drinking water disinfection
Monochloroacetic acid (ppb)	ND 2019	By-product of drinking water disinfection
Tribromoacetic acid (ppb)	ND 2019	By-product of drinking water disinfection
Trichloroacetic acid (ppb)	30.2 LRAA (ND - 37.9) 2019	By-product of drinking water disinfection

Up to 60% of the human body is water.

WWW.USGS.GOV



DEFINITIONS OF TERMS AND ACRONYMS

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

CDC: Centers for Disease Control

CU: Color Unit

GPG: grains per gallon

Inorganic Contaminants: Contaminants such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming. These contaminants may be present in source water.

LRAA: Locational Running Annual Average; the average of sample analytical results for samples taken at a specific monitoring location during the previous four calendar quarters.

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.

MCMUA: Morris County Municipal Utilities Authority

Microbial Contaminants/Pathogens: Disease-causing organisms, such as bacteria and viruses, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Common sources are animal and human fecal wastes. These contaminants may be present in source water.

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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

NA: Not applicable

ND: Not detected

NJDWSC: North Jersey District Water Supply Commission

NTU: Nephelometric Turbidity Unit

OEL: Operational Evaluation Level; level of disinfection byproducts determined by calculating the average of the results at a location for the two previous quarters and two times the current quarter's results. If this value exceeds 60 ppb for HAA5s or 80 ppb for TTHMs, it initiates a comprehensive review of system operations and allows systems to take proactive steps to remain in compliance with the Stage 2 Disinfection Byproduct Rule MCLs.

PPB: parts per billion

PPM: parts per million

PPT: parts per trillion

PWS ID: Public Water System Identification

PVWC: Passaic Valley Water Commission

RAA: Running Annual Average

RUL: Recommended Upper Limit; the highest level of a constituent of drinking water that is recommended in order to protect aesthetic quality.

SMCMUA: The Southeast Morris County Municipal Utilities Authority

TON: Threshold Odor Number

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

Turbidity: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

USEPA: United States Environmental Protection Agency

WAYS TO PAY YOUR BILL

Pay Online

Visit www.smcmua.org and click "Pay Water Bill". You can make a one-time payment or register your account on the payment portal. Once registered, you will be able to pay your bill with a credit/debit card or E-check, view your past bills, and sign up for Autopay and Paperless Billing. All you need to set up an account is an email address and your account number. *Convenience fees apply for credit or debit card payments.

Pay by Phone

Call 1-844-562-2135, 24 hours a day, 7 days a week for assistance (English and Spanish) with making a credit card, debit card, or E-check payment. *Convenience fees may apply.

Pay by Mail

Mail payment to:

SMCMUA
PO Box 16036
Lewiston, ME 04243-9515
Please make sure your 12-digit account number is on your check.

Pay in Person

8:30 AM to 4:30 PM, Monday through Friday, at SMCMUA Headquarters, or use our convenient Drop Box located to the right of the front door 24/7. *Cash or check accepted only.

Register for Water Alerts

SMCMUA requests that all consumers who live and/or work in the service area register for Water Alerts to better ensure the timely delivery of emergency notices associated with water supply, water quality, or other important community messages from SMCMUA. You can register at www.smcmua.org and choose the "REGISTER FOR WATER ALERTS" icon.

Update Your Contact Information

Please visit www.smcmua.org and click "Update Account Information"; call Customer Service 973-326-6880 or email customerservice@smcmua.org to update your account. SMCMUA utilizes this information to alert customers about possible disruptions in service and other important water related issues.

PUBLIC INVOLVEMENT OPPORTUNITIES

Board Meetings: All meetings will be held at SMCMUA's headquarters facility at 19 Saddle Road, Cedar Knolls, New Jersey 07927. Meetings are typically held the third Thursday of each month at 7:00 PM, unless notice is given to the contrary. Contact our Customer Service Division, or visit our website, for SMCMUA's full Public Meeting schedule. Due to the expiration of the COVID-19 related State of Emergency, telephonic participation by the public is no longer available.

Protect and Preserve Local Water Resources: Contact the Passaic River Coalition to get involved at 973-532-9830 or www.passaicriver.org.

Whippany River Watershed Action Committee: Contact WRWAC at www.wrwac.org.

PUBLIC EDUCATION AND RESOURCES

Information available to the public about drinking water can be found using the references below:

Agency	Website	Phone
United States Environmental Protection Agency (USEPA)	www.epa.gov/environmental-topics/water-topics	Safe Drinking Water Information Hotline: 800-426-4791
New Jersey Department of Environmental Protection (NJDEP)	www.nj.gov/dep/watersupply	Bureau of Safe Drinking Water: 609-292-5550
New Jersey American Water Works Association (NJAWWA)	www.njawwa.org www.drinktap.org	New Jersey AWWA: 866-436-1120

Take steps each day to save water and protect the environment by choosing WaterSense labeled products in your home, yard, and business. Learn more about WaterSense and how we can all get more by using less. www.epa.gov/watersense.