

EDUCATIONAL INFORMATION

Unregulated Contaminant Monitoring Rule 4 (UCMR4)

Every five years the EPA issues a regulation called the Unregulated Contaminant Monitoring Rule (UCMR), which lists 20 to 30 unregulated contaminants that must be monitored for by large public water systems. Used as a tool to find unregulated contaminants of concern in drinking water, the EPA can then determine whether to set drinking water standards or to require water providers to use certain treatment systems to reduce or eliminate these contaminants.

The UCMR4 monitoring, which started in January 2018 and will continue through 2020, contains sampling and testing requirements for 26 chemicals:

- EPA Method 200.8 Rev. 5.4, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry: Germanium and Manganese
- EPA Method 525.3, Determination of Semi-volatile Organic Chemicals in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography-Mass Spectrometry (GC-MS): alpha-Hexachlorocyclohexane, Chlorpyrifos, Dimethipin, Ethoprop, Oxyfluorfen, Profenofos, Tebuconazole, Total permethrin (cis & trans), and Tribufos
- EPA Method 530, Determination of Select Semi-volatile Organic Chemicals in Drinking Water by Solid Phase Extraction and Gas Chromatography Mass Spectrometry (GC-MS): Butylated hydroxyanisole, o-Toluidine, and Quinoline
- EPA Method 541, Determination of 1-Butanol, 2-Methoxyethanol, and 2-Propen-1-ol in Drinking Water by Solid Phase Extraction and Gas Chromatography-Mass Spectrometry
- EPA Method 552.3, Determination of Haloacetic Acids in Drinking Water by Liquid-Liquid Microextraction, Derivatization, and Gas Chromatography with Electron Capture Detection: Bromochloroacetic Acid, Bromodichloroacetic Acid, Chlorodibromoacetic Acid, Tribromoacetic Acid, Monobromoacetic Acid, Dibromoacetic Acid, Dichloroacetic Acid, Monochloroacetic Acid, and Trichloroacetic Acid

The UCMR4 test results for each chemical detected, or found above the reporting level, are listed in the chart found on page 11 for each distribution area tested in 2020.

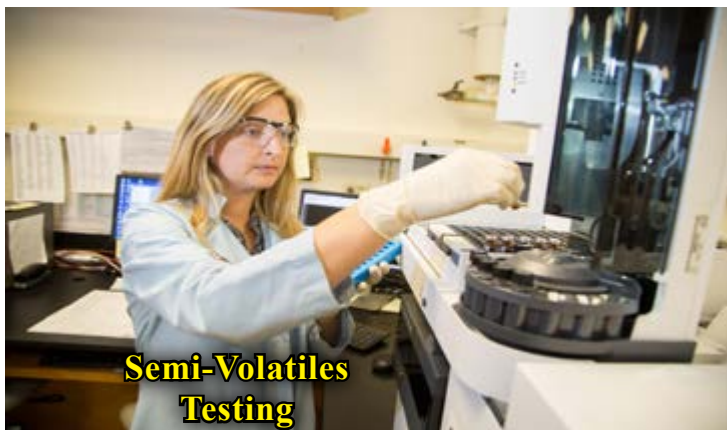


Alkalinity Testing

EDUCATIONAL INFORMATION

UCMR4 Test Results for 2020

Detected Compound	Inorganics - Manganese			
Likely Source	Naturally Occurring			
MCL	300			
MCLG	N/A			
Unit of Measure	ug/L			
Range of Readings				
Distribution Area	Low Value	High Value	Annual Average	No. of Tests
1	7.11	7.11	7.11	1
4	NA	NA	NA	0
5	NA	NA	NA	0
6	NA	NA	NA	0
7	NA	NA	NA	0
8	NA	NA	NA	0
9	NA	NA	NA	0
10	NA	NA	NA	0
11	2.25	2.25	2.25	1
12	ND	ND	ND	1
14	NA	NA	NA	0
15	NA	NA	NA	0
20	NA	NA	NA	0
23	0.58	0.58	0.58	1
26	NA	NA	NA	0
30	1.10	1.80	1.45	2
32	NA	NA	NA	0
34	1.07	1.07	1.07	1
35	NA	NA	NA	0
44	NA	NA	NA	0
53	NA	NA	NA	0
54	NA	NA	NA	0
57	NA	NA	NA	0
64	NA	NA	NA	0
EFWD	NA	NA	NA	0
RSWD	NA	NA	NA	0
SBWD	NA	NA	NA	0



EDUCATIONAL INFORMATION

New York State Department of Health on Maximum Contaminant Deferrals Regarding PFOS, PFOA and 1,4-dioxane

When a public water system (PWS) is issued a deferral, the water system agrees to a schedule for corrective action and compliance with the new PFOS, PFOA or 1,4-dioxane MCLs. In exchange, the New York State Department of Health (the Department) agrees to defer enforcement actions, such as assessing fines, if the PWS is meeting established deadlines. Deferral recipients are required to update the Department and the Suffolk County Department of Health Services each calendar quarter on the status of established deadlines. The Department can resume enforcement if the agreed upon deadlines are not met. Information about our deferral and established deadline can be found at the following site: <https://www.scwa.com/emerging-contaminants/>.

What is being done to remove these contaminants?

SCWA is installing granular activated carbon treatment systems at impacted wells to remove PFOA and PFOS and advanced oxidation process systems to remove 1,4-dioxane. In the interim, SCWA will make every effort to operationally minimize the concentration of 1,4-dioxane, PFOA and PFOS in the distribution system at any given time. Additional information will be shared as further testing and progress occurs. This process is similar for any chemical detected in public drinking water that requires mitigation. The compliance timetable will ensure that your drinking water will meet the MCL as rapidly as possible. The deferral is effective until August 25, 2022.

Residents of the Town of Southold are advised that SCWA purchases wholesale water from the Riverhead Water District (RWD) for resale to our Southold customers and that the RWD has also been issued a deferral by the New York State Department of Health for PFOA and PFOS. SCWA's Southold customers may view information on the RWD deferral and steps the district is taking in order to comply by visiting their website at: <https://www.townofriverheadny.gov/pview.aspx?id=2492&catID=118>.



EDUCATIONAL INFORMATION

Perfluoroalkyl and Polyfluoroalkyl Substances Monitoring

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 1					Distribution Area 4					Distribution Area 5				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	346	No	ND	ND	ND	12	No	ND	0.027	ND	12
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	346	No	ND	ND	ND	12	No	ND	ND	ND	12
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	346	No	ND	ND	ND	12	No	ND	ND	ND	12
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	346	No	ND	ND	ND	12	No	ND	ND	ND	12
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	0.005	ND	346	No	ND	ND	ND	12	No	ND	ND	ND	12
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	0.010	ND	346	No	ND	ND	ND	12	No	ND	0.002	ND	12

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 6					Distribution Area 7					Distribution Area 8				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	0.033	ND	55	No	ND	ND	ND	4	No	ND	ND	ND	10
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	55	No	ND	ND	ND	4	No	ND	ND	ND	10
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	55	No	ND	ND	ND	4	No	ND	ND	ND	10
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	55	No	ND	ND	ND	4	No	ND	ND	ND	10
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	ND	ND	55	No	ND	ND	ND	4	No	ND	ND	ND	10
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	ND	ND	55	No	ND	ND	ND	4	No	ND	ND	ND	10

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 9					Distribution Area 10					Distribution Area 11				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	23	No	ND	ND	ND	53	No	ND	ND	ND	61
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	23	No	ND	ND	ND	53	No	ND	ND	ND	61
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	23	No	ND	ND	ND	53	No	ND	ND	ND	61
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	23	No	ND	ND	ND	53	No	ND	ND	ND	61
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	0.003	ND	23	No	ND	ND	ND	53	No	ND	0.004	ND	61
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	ND	ND	23	No	ND	0.007	ND	53	No	ND	0.004	ND	61

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 12					Distribution Area 14					Distribution Area 15				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	376	No	ND	ND	ND	18	No	ND	0.015	ND	263
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	376	No	ND	ND	ND	18	No	ND	0.021	ND	263
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	0.017	ND	376	No	ND	ND	ND	18	No	ND	0.029	ND	263
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	376	No	ND	ND	ND	18	No	ND	0.012	ND	263
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	0.012	ND	376	No	ND	ND	ND	18	No	ND	0.008	ND	263
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	0.024	0.002	376	No	ND	ND	ND	18	No	ND	0.017	ND	263

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 20					Distribution Area 23					Distribution Area 26				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	0.250	0.017	154	No	ND	ND	ND	166	No	ND	ND	ND	32
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	154	No	ND	0.012	ND	166	No	ND	ND	ND	32
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	0.017	ND	154	No	ND	0.013	ND	166	No	ND	ND	ND	32
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	154	No	ND	ND	ND	166	No	ND	ND	ND	32
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	0.004	ND	154	No	ND	0.003	ND	166	No	ND	ND	ND	32
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	0.010	ND	154	No	ND	0.005	ND	166	No	ND	0.003	ND	32

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

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Perfluoroalkyl and Polyfluoroalkyl Substances Monitoring (Continued)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 30					Distribution Area 32					Distribution Area 34				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	145	No	ND	ND	ND	9	No	ND	ND	ND	9
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	145	No	ND	ND	ND	9	No	ND	ND	ND	9
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	145	No	ND	ND	ND	9	No	ND	ND	ND	9
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	145	No	ND	ND	ND	9	No	ND	ND	ND	9
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	0.003	ND	145	No	ND	ND	ND	9	No	ND	ND	ND	9
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	0.006	ND	145	No	ND	0.005	0.002	9	No	ND	ND	ND	9

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 35					Distribution Area 44					Distribution Area 53				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	6	No	ND	ND	ND	28
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	6	No	ND	ND	ND	28
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	6	No	ND	ND	ND	28
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	6	No	ND	ND	ND	28
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	6	No	ND	ND	ND	28
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	6	No	ND	ND	ND	28

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 54					Distribution Area 57					Distribution Area 64				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	36	No	ND	ND	ND	6	No	ND	ND	ND	8
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	36	No	ND	ND	ND	6	No	ND	ND	ND	8
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	36	No	ND	ND	ND	6	No	ND	ND	ND	8
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	36	No	ND	ND	ND	6	No	ND	ND	ND	8
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	ND	ND	36	No	ND	ND	ND	6	No	ND	ND	ND	8
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	ND	ND	36	No	ND	ND	ND	6	No	ND	ND	ND	8

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area EFWD					Distribution Area RSWD					Distribution Area SBWD				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Per- and Polyfluoroalkyl Substances - Analysis Performed by NYS Approved SCWA PFAAS Method																			
Perfluorobutanoic Acid	PFOA (or, PFOS) can get into drinking water through releases from fluoropolymer manufacturing or processing facilities, wastewater treatment plants and landfills	50	n/a	ug/L	No	ND	ND	ND	7	No	ND	ND	ND	2	No	ND	ND	ND	4
Perfluoro-n-hexanoic Acid		50	n/a	ug/L	No	ND	ND	ND	7	No	ND	ND	ND	2	No	ND	ND	ND	4
Perfluorohexane Sulfonic Acid		50	n/a	ug/L	No	ND	ND	ND	7	No	ND	ND	ND	2	No	ND	ND	ND	4
Perfluorononanoic Acid		50	n/a	ug/L	No	ND	ND	ND	7	No	ND	ND	ND	2	No	ND	ND	ND	4
Perfluorooctanoic Acid		*0.010	n/a	ug/L	No	ND	ND	ND	7	No	ND	ND	ND	2	No	ND	ND	ND	4
Perfluorooctane Sulfonate		*0.010	n/a	ug/L	No	ND	ND	ND	7	No	ND	ND	ND	2	No	ND	0.003	ND	4

* (August 26, 2020 NYS adopts an MCL of 0.010 ppb for Perfluorooctanoic Acid (PFOA) & Perfluorooctane Sulfonate (PFOS), see page 12)



PFOA / PFOS Testing

EDUCATIONAL INFORMATION



2020 Propane Test Results for Distribution Area 23*

One well in Distribution Area 23 has concentrations of propane. The propane results ranged from non-detect (ND) or no propane found to 3.80 ppb. Currently granular activated carbon (GAC) treatment is being used at this well for propane removal. Propane, normally a gas, can be compressed to a liquid, and is the main component of liquefied petroleum gas (LPG). Commonly used as a fuel, it is also used to manufacture other chemicals, as a refrigerant, solvent and aerosol propellant. At these levels, propane poses a minimal risk for health effects. The state defines propane as an unregulated organic compound and assigns an MCL of 50 ppb.

Detected Compounds	Unit of Measure	Low Value	High Value	Average Value	No. of Tests
Propane	ppb	ND	3.80	ND	14

* Please see map on pages 42 and 43 for the location of Distribution Area 23

2020 AOP Byproduct Test Results for Commercial Blvd - Distribution Area 12*

At one well located in Distribution Area 12 the Suffolk County Water Authority utilizes an AOP (Advanced Oxidation Process) to treat for an emerging contaminant, 1,4-Dioxane. The New York State Department of Health required the SCWA to perform additional testing for specific Aldehydes and Carboxylic Acids. These compounds are potential by-products of the treatment process and are indicators of the effectiveness of the AOP system. The table below shows any positive detects.

Detected Carboxylic Acid Compounds	Unit of Measure	Low Value	High Value	Average Value	No. of Tests
Formic Acid	ppb	ND	38.0	13.3	4

* Please see map on pages 42 and 43 for the location of Distribution Area 12

EDUCATIONAL INFORMATION

Pharmaceuticals and Personal Care Products (PPCPs) Monitoring (Continued)

PPCPs are a diverse collection of thousands of chemical substances, including prescription and over the counter therapeutic drugs, veterinary drugs, fragrances, cosmetics, lotions such as sunscreen and insect repellents, diagnostic agents and vitamins. PPCPs from bodily excretion, bathing, and disposal of unwanted medications to septic systems, sewers or trash have the potential to enter our drinking water. Information on how to properly dispose of unwanted pharmaceuticals can be found at www.epa.gov/ppcp.

The detection and quantification of these chemicals has only recently been possible due to advances in laboratory testing technology. Presently the EPA has no health standards or guidelines for PPCPs in drinking water and does not require testing. In 2020 all of our wells were tested for 41 PPCPs; Carbamazepine, Dilantin, Gemfibrozil, Ibuprofen, Meprobamate, Phenobarbital, 5-(4-Hydroxyphenyl)-5-Phenylhydantoin, Lamotrigine, Imidacloprid, Primidone, and Sulfamethoxazole were detected. The concentrations found are at levels far below medical doses, and have no known health effects.

Wherever possible, we are using granular activated carbon filtration and blending wells to remove these trace levels from the water we provide to you. Information on these pharmaceutical drugs and the results for each distribution area can be found in the tables below and on pages 16-18.

WATER QUALITY BY DISTRIBUTION AREA

					Distribution Area 1					Distribution Area 4					Distribution Area 5				
Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Pesticides and Pharmaceuticals																			
Carbamazepine	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Dilantin	Antiepileptic drug	50	n/a	ug/L	No	ND	0.12	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Gemfibrozil	Lipid lowering drug	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
5-(4-Hydroxyphenyl)-5-Phenylhydantoin	Used for determining drug levels in the body	50	n/a	ug/L	No	ND	0.32	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Ibuprofen	Anti-inflammatory drug	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Imidacloprid	Used as a pesticide	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Lamotrigine	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Meprobamate	Antianxiety drug	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Phenobarbital	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	0.17	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Primidone	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	0.17	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6
Sulfamethoxazole	Antibiotic	50	n/a	ug/L	No	ND	ND	ND	172	No	ND	ND	ND	6	No	ND	ND	ND	6

WATER QUALITY BY DISTRIBUTION AREA

					Distribution Area 6					Distribution Area 7					Distribution Area 8				
Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Pesticides and Pharmaceuticals																			
Carbamazepine	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Dilantin	Antiepileptic drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Gemfibrozil	Lipid lowering drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
5-(4-Hydroxyphenyl)-5-Phenylhydantoin	Used for determining drug levels in the body	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Ibuprofen	Anti-inflammatory drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Imidacloprid	Used as a pesticide	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Lamotrigine	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Meprobamate	Antianxiety drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Phenobarbital	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Primidone	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5
Sulfamethoxazole	Antibiotic	50	n/a	ug/L	No	ND	ND	ND	31	No	ND	ND	ND	4	No	ND	ND	ND	5

WATER QUALITY BY DISTRIBUTION AREA

					Distribution Area 9					Distribution Area 10					Distribution Area 11				
Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Pesticides and Pharmaceuticals																			
Carbamazepine	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Dilantin	Antiepileptic drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Gemfibrozil	Lipid lowering drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
5-(4-Hydroxyphenyl)-5-Phenylhydantoin	Used for determining drug levels in the body	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Ibuprofen	Anti-inflammatory drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Imidacloprid	Used as a pesticide	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Lamotrigine	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Meprobamate	Antianxiety drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	0.09	ND	33
Phenobarbital	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Primidone	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33
Sulfamethoxazole	Antibiotic	50	n/a	ug/L	No	ND	ND	ND	16	No	ND	ND	ND	28	No	ND	ND	ND	33

EDUCATIONAL INFORMATION

Pharmaceuticals and Personal Care Products (PPCPs) Monitoring (Continued)

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area 54					Distribution Area 57					Distribution Area 64				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Pesticides and Pharmaceuticals																			
Carbamazepine	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Dilantin	Antiepileptic drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Gemfibrozil	Lipid lowering drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
5-(4-Hydroxyphenyl)-5-Phenylhydantoin	Used for determining drug levels in the body	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Ibuprofen	Anti-inflammatory drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Imidacloprid	Used as a pesticide	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	0.06	ND	6
Lamotrigine	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Meprobamate	Antianxiety drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Phenobarbital	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Primidone	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6
Sulfamethoxazole	Antibiotic	50	n/a	ug/L	No	ND	ND	ND	17	No	ND	ND	ND	4	No	ND	ND	ND	6

WATER QUALITY BY DISTRIBUTION AREA

Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Distribution Area EFWD					Distribution Area RSWD					Distribution Area SBWD				
					Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Synthetic Organic Compounds including Pesticides and Pharmaceuticals																			
Carbamazepine	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Dilantin	Antiepileptic drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Gemfibrozil	Lipid lowering drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
5-(4-Hydroxyphenyl)-5-Phenylhydantoin	Used for determining drug levels in the body	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Ibuprofen	Anti-inflammatory drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Imidacloprid	Used as a pesticide	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Lamotrigine	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Meprobamate	Antianxiety drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Phenobarbital	Anticonvulsant, mood stabilizing drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Primidone	Pharmaceutical anticonvulsant drug	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2
Sulfamethoxazole	Antibiotic	50	n/a	ug/L	No	ND	ND	ND	3	No	ND	ND	ND	1	No	ND	ND	ND	2

Safe Disposal of Pharmaceuticals



Pharmaceutical contamination of drinking water is an important emerging concern. Changing our practices today can prevent future pollution of our only source of drinking water. Become a part of the solution to help stop the threat of discarded pharmaceuticals finding their way into our groundwater, bays and estuaries. Simply take your unused medications to any of the safe disposal locations on Long Island: Walgreens and CVS have safe drop boxes and accept medical disposals at specific locations across Long Island. Also, most police precincts in Suffolk County will accept prescription drugs for disposal. A list can be found here:



https://www.health.ny.gov/professionals/narcotic/medication_drop_boxes/suffolk.htm



EDUCATIONAL INFORMATION

Microbiological Testing and Monitoring Requirements

To reduce the risk of illness caused by microbial contamination the SCWA tests for total coliform bacteria, including *E. coli*. Total coliform bacteria are a conservative indicator of the potential for contamination from waste and provides a basis for investigation to determine and correct sanitary deficiencies. *E. coli* is a coliform bacteria that indicates fecal contamination and an immediate concern requiring prompt investigation. The Total Coliform Rule (TCR) and Ground Water Rule (GWR) are EPA regulations that require us to test our distribution system for total coliform bacteria. When there is a total coliform-positive result found in a distribution system sample, we are then required to test our wells in the surrounding area. This is called Triggered Source Water Monitoring. In 2020, all Triggered Source Water monitoring samples were total coliform-negative (no coliforms, including *E. coli* were found).

Revised Total Coliform Rule (RTCR) and Groundwater Rule (GWR) Monitoring

On April 1, 2016, the EPA revised its existing Total Coliform Rule. The revised rule (RTCR) establishes a maximum contaminant level (MCL) for *E. coli* and uses *E. coli* and total coliforms to initiate a “find and fix” approach to address fecal contamination that could enter the distribution system. It requires public water systems (PWSs) to perform assessments to identify sanitary defects and subsequently take action to correct them. In 2020, we collected an average of 951 total coliform samples each month, including samples from East Farmingdale, Riverside, Dering Harbor and Stony Brook Water Districts. The number of samples required is based on the population in each distribution area. Large distribution areas (greater than 40 total coliform samples collected monthly), shown in Table I below, must report the highest percentage of positive samples collected in any one month. Small distribution areas (40 or less total coliform samples collected monthly), shown in Table II below, must report the highest number of positive samples.

Revised Total Coliform Rule Level 1 & Level 2 Assessment Definitions

In 2020 we found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct an assessment (s) to identify problems and to correct any problems that were found during these assessments.

- **Level 1 Assessment:** A Level 1 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.
- **Level 2 Assessment:** A Level 2 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

2020 Microbiological Test Results for Distribution

TABLE I – Microbiological Test Results
for Large Water Distribution Areas

Compound	Violation	MCL	MCLG	Unit Measure	Likely Source
Total Coliform Bacteria	Yes/No	Presence of Coliform in 5% of Monthly Samples	0	n/a	Naturally Present in the Environment
Distribution Area		Highest Monthly Percentage Positive	Lowest Monthly Percentage Positive	Average Monthly Percentage Positive	No. of Tests for the Year
12	No	0.6%	0%	0.1%	1958
20	No	1.0%	0%	0.1%	1157

TABLE II – Microbiological Test Results
for Small Water Distribution Areas

Compound	Violation	MCL	MCLG	Unit Measure	Likely Source
Total Coliform Bacteria	Yes/No	Two or More Positive Samples	0	n/a	Naturally Present in the Environment
Distribution Area		Highest Monthly Amount Positive	Lowest Monthly Amount Positive	Average Monthly Amount Positive	No. of Tests for the Year
6	No	1	0	0.1	485

Distribution Areas 1, 15, and 23 had no detections of total coliform in 2020.

Distribution Areas 4, 5, 7, 8, 9, 10, 11, 14, 26, 30, 32, 34, 35, 44, 53, 54, 57, 64, Stony Brook, Riverside, and East Farmingdale Water Districts had no detections of total coliform in 2020.

EDUCATIONAL INFORMATION

Well Monitoring for Total Coliform

All SCWA wells prior to chlorination (source water monitoring) and the chlorinated water leaving the pump stations are tested quarterly for total coliform bacteria as required. As part of the GWR, EPA also requires reporting *E. coli* when found in source water monitoring. In 2020, all source water monitoring samples were *E. coli*-negative (no *E. coli* was found), except as noted in the chart below. Additional samples from these wells were total coliform-negative (no coliforms, including *E. coli* were found), and no sanitary deficiencies were found. In 2020, all samples collected after chlorination were total coliform-negative (no coliforms, including *E. coli* were found), except as noted in the chart below. Additional samples from these wells were total coliform-negative (no coliforms, including *E. coli* were found), and no sanitary deficiencies were found.

2020 Microbiological Test Results for Wells and Heterotrophic Plate Count (HPC)

Well Location	Collection Point at Pump Station	Test Results
Distribution Area 1*	Raw (prior to chlorination)	Total coliform-positive, <i>E. coli</i> -positive
Distribution Area 30*	Raw (prior to chlorination)	Total coliform-positive, <i>E. coli</i> -positive
Distribution Area 15*	Treated (after chlorination)	Total coliform-positive, <i>E. coli</i> -negative
Distribution Area 23*	Treated (after chlorination)	Total coliform-positive, <i>E. coli</i> -negative
Distribution Area 30*	Treated (after chlorination)	Total coliform-positive, <i>E. coli</i> -negative

*Please see map on pages 42 and 43 for the distribution area location.

SCWA's lab also tests every filtration system and water storage tank for total coliform and performs Heterotrophic Plate Count (HPC) measurements. Since most bacteria, including many of the bacteria associated with drinking water systems, are heterotrophs, this test can provide useful information about water quality. In 2020, the HPC results for our storage tanks were negative (no heterotrophs were found). The HPC results for our filter systems can be found in the 2020 Drinking Water Quality Report Supplement. Please see page 6 for more information on this report.



Heterotrophic Plate Count



E-coli Testing

EDUCATIONAL INFORMATION

Disinfection Byproducts Rule (Stage 2 DBPR) Monitoring

The SCWA is required to use a disinfectant to reduce the potential of microbial contamination. Minute amounts of chlorine are used to prevent bacterial growth in our distribution system. Disinfectants, such as chlorine, can react with the naturally occurring components in water to form byproducts referred to as disinfection byproducts (DBPs). DBPs, if consumed in excess of the MCL over many years, may lead to increased health risks. To increase public health protection by reducing the potential risk of adverse health effects associated with DBPs from the required chlorination of our drinking water, the SCWA tests for two types of DBPs - Trihalomethanes (THMs) and Haloacetic Acids (HAAs). The MCL is 80 ppb for the sum of the four THMs, and for the sum of five HAAs the MCL is 60 ppb.

The Stage 2 Disinfectant and Disinfection Byproducts Rule (DBPR) is an EPA regulation that requires us to monitor our distribution system quarterly for four THMs (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) and five HAAs (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid). The chart below includes the range of quarterly results for the sum of the two groups of DBPs and the highest Locational Running Annual Average as required. The SCWA also monitors the wells and storage tanks for various other DBPs, including chlorate and four additional HAAs. The 2020 disinfectant and disinfection byproducts results for each distribution area are noted on pages 21-24.

2020 Stage 2 DBPR Test Results

Detected Compound		Total Trihalomethanes				Total Haloacetic Acids			
Likely Source		Byproduct of chlorination				Byproduct of chlorination			
MCL		80				60			
MCLG		N/A				N/A			
Unit of Measure		ug/L				ug/L			
		Range of Readings				Range of Readings			
Location	Sample Site	Low Value	High Value	Annual Average	No. of Tests	Low Value	High Value	Annual Average	No. of Tests
SCWA	1	2.00	6.30	3.97	4	ND	ND	ND	4
	2	4.13	10.20	6.84	4	ND	0.58	ND	4
	3	ND	0.31	ND	4	ND	ND	ND	4
	4	10.79	37.30	23.20	4	0.49	3.32	2.01	4
	5	12.75	18.13	14.59	4	1.67	3.06	2.41	4
	6	3.13	8.53	5.88	4	ND	0.91	0.57	4
	7	2.43	5.07	3.97	4	0.52	1.15	0.76	4
	8	1.43	8.87	5.55	4	ND	0.90	0.65	4
FHWD	1	2.50	4.20	3.54	4	1.04	3.45	2.25	4
	2	2.61	3.91	3.38	4	2.18	4.03	2.99	4
EFWD	1	0.29	1.71	0.97	4	ND	ND	ND	4
	2	1.68	3.14	2.26	4	ND	ND	ND	4
SBWD	1	ND	ND	ND	4	ND	ND	ND	4
	2	0.36	1.62	0.76	4	ND	ND	ND	4
RSWD	1	0.77	1.70	1.21	4	ND	ND	ND	4
	2	1.28	4.34	2.61	4	ND	ND	ND	4

EDUCATIONAL INFORMATION

Disinfectants and Disinfection Byproducts (Continued)

WATER QUALITY BY DISTRIBUTION AREA

					Distribution Area EFWD					Distribution Area RSWD					Distribution Area SBWD				
Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Range of Readings					Range of Readings					Range of Readings				
					Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests	Violation Yes/No	Low Value	High Value	Avg. Value	No. of Tests
Disinfectant and Disinfection Byproducts (**MCL is the sum of the four starred compounds shown below)																			
Bromochloroacetic Acid	Byproduct of chlorination	50	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	8	No	ND	ND	ND	8
Bromodichloromethane	Byproduct of chlorination	**80	n/a	ug/L	No	ND	5.22	0.70	19	No	ND	1.15	0.48	10	No	ND	0.63	0.25	12
Bromoform	Byproduct of chlorination	**80	n/a	ug/L	No	ND	3.91	0.32	19	No	ND	ND	ND	10	No	ND	ND	ND	12
Chlorate	Byproduct of chlorination	n/a	n/a	mg/L	No	0.02	0.11	0.07	14	No	0.05	0.14	0.08	10	No	0.03	0.12	0.07	12
Chloroform	Byproduct of chlorination	**80	n/a	ug/L	No	ND	11.80	1.18	19	No	0.77	2.50	1.21	10	No	ND	0.81	0.35	12
Dibromoacetic Acid	Byproduct of chlorination	*60	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	8	No	ND	ND	ND	8
Dibromochloromethane	Byproduct of chlorination	**80	n/a	ug/L	No	ND	3.71	0.52	19	No	ND	0.69	0.34	10	No	ND	0.51	ND	12
Dichloroacetic Acid	Byproduct of chlorination	*60	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	8	No	ND	ND	ND	8
Free Chlorine	Used as a disinfectant	4	n/a	mg/L	No	0.31	1.45	0.99	162	No	0.31	1.23	0.77	54	No	0.20	1.40	0.84	105
Monochloroacetic Acid	Byproduct of chlorination	*60	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	8	No	ND	ND	ND	8
Trichloroacetic Acid	Byproduct of chlorination	*60	n/a	ug/L	No	ND	ND	ND	11	No	ND	ND	ND	8	No	ND	ND	ND	8

(*MCL is the sum of the starred compounds shown above, including Monobromoacetic Acid not present)

Lead

Elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. SCWA is responsible for providing high quality drinking water, but is not responsible for the variety of materials used in a homeowner's plumbing. If you haven't run your water for several hours, you can minimize the potential for lead exposure by running 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. To schedule a lead test, please contact our Customer Service Center (contact information listed on back page). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead.

Lead and Copper Rule (LCR) Monitoring

This EPA regulation requires public water systems to monitor drinking water at specific customers' taps every three years. To check the effectiveness of our pH treatment and to ensure the quality of our drinking water the SCWA performs this testing every year. If lead levels exceed 15 parts per billion (ppb) or copper levels exceed 1.3 parts per million (ppm) in more than 10% of these samples, we must improve our corrosion control (pH treatment). After much consideration, the Suffolk County Water Authority decided against testing homes and businesses for lead and copper in 2020 as a safety precaution due to the COVID-19 pandemic. Based on our 2019 LCR results, we have optimal corrosion control in addition to the constant testing performed at the well field, to ensure that the drinking water meets or surpasses rigorous state and federal regulations. We will resume our annual lead and copper monitoring program in 2021. Additional information on our pH treatment can be found on page 9.

Asbestos Monitoring

Asbestos-cement water mains are made from cement with asbestos fibers added to make the pipes strong. Although drinking water can pass through these pipes without becoming contaminated with asbestos fibers, asbestos fibers may be released through the wear or breakdown of these mains; erosion of natural deposits. The EPA has set the maximum contaminant level (MCL) for asbestos at 7.0 million fibers per liter (MFL). Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps. Although testing is required every nine years, the SCWA tests every year.

In 2020 we monitored 44 sampling station locations and 6 production wells where asbestos-cement pipes exist. All locations were non-detect (no asbestos fibers were present), except a sample station located on Cedar Point Drive, West Islip. July 21, 2020 a sample collected here had 26.62 MFL and a subsequent sample had a detection of 6.58 MFL averaging 16.6 MFL, exceeding the NYS drinking water standard of 7 MFL. Additional quarterly samples collected after this occurrence have been below the MCL. The SCWA notified the impacted area, which included 107 homes in West Islip on Duck Lane, Clearwater Lane, Dolphin Lane, Buoy Lane, Mast Lane and Cedar Point Drive. The sampling results are likely the result of the disturbance of asbestos fibers from asbestos cement lined water main caused by the recent installation of the Cedar Point Drive sampling station.

EDUCATIONAL INFORMATION

Iron and Manganese

Iron is a common metal and a dietary mineral that is essential for maintaining human health. It is used in construction materials, in drinking water pipes, in paint pigments and plastics, and as a treatment for iron deficiency in humans. Iron can be elevated in drinking water in areas where there are high concentrations of iron in soil and rocks, and where iron salts are used in the water treatment process. Iron can also get into drinking water from corrosion of cast iron, steel, and galvanized iron pipes used for water distribution. Elevated levels of iron in water can result in a rusty color and sediment, a metallic taste, and reddish or orange staining.

Although iron is essential for good health, too much iron can cause adverse health effects. For example, oral exposure to very large amounts of iron can cause effects on the stomach and intestines (nausea, vomiting, diarrhea, constipation and stomach pain). These effects occur at iron exposure levels higher than those typically found in drinking water, and usually diminish once the elevated iron exposure is stopped. A small percentage of people have a condition called hemochromatosis, in which the body absorbs and stores too much iron. People with hemochromatosis may be at greater risk for health effects resulting from too much iron in the body (sometimes called “iron overload”) and should be aware of their overall iron intake. The New York State standard for iron in drinking water is 0.3 milligrams per liter, and is based on the effects of iron on the taste, odor and appearance of the water.

Manganese is a common element in rocks, soil, water, plants, and animals. Manganese occurs naturally in water after dissolving from rocks and soil. It may also occur if manganese gets into surface or groundwater after improper waste disposal in landfills or by facilities using manganese in the production of steel or other products.

Manganese is an essential nutrient that is necessary to maintain good health. However, exposure to too much manganese can cause adverse health effects. There is some evidence from human studies that long-term exposure to manganese in drinking water is associated with nervous system effects in adults (e.g., weakness, stiff muscles and trembling of the hands) and children (learning and behavior). The results of these studies only suggest an effect because the possible influences of other factors were not adequately assessed. There is supporting evidence that manganese causes nervous system effects in humans from occupational studies of workers exposed to high levels of manganese in air, but the relevance of these studies to long term drinking water exposure is less clear because the exposures were quite elevated and by inhalation, not by ingestion.

Radionuclides and Radiological Monitoring

Gross Alpha and Gross Beta

Most drinking water sources have very low levels of naturally occurring radioactive elements called radionuclides. These levels are low enough not to be considered a public health concern. Radionuclides can be present in several forms called isotopes which emit different types of radioactive particles called alpha or beta. Radioactivity in water is measured in picoCuries per liter (pCi/L). The EPA has set the maximum contaminant level (MCL), the highest level allowed in drinking water, for gross alpha (all alpha emitters except uranium and radon) at 15 pCi/L. NYS considers 50 pCi/L of gross beta activity to be the level of concern for gross beta. The gross alpha and gross beta results for each distribution area are noted on page 26.

Tritium

Some radionuclides emit gamma (also called photon) radiation. Common byproducts from nuclear reactors and waste, such as cesium-137, emit gamma radiation (also called photon emitters). Due to differences in energy levels, the MCL in pCi/L for a particular photon emitter will depend on the type of radionuclide present. Tritium, a radioactive isotope of the element hydrogen, is a weak beta emitter. It occurs naturally in the environment in very low concentrations, and may also be produced during nuclear weapon explosions and as a byproduct from nuclear reactors. The EPA has set a 20,000 pCi/L MCL for tritium. In 2020

we monitored 30 wells near Brookhaven National Laboratory for gross alpha and beta particles, tritium, and gamma radiation. These wells are located in distribution areas 12 and 20. The gross alpha and gross beta results for these areas are listed in the chart on page 26. There were no detections of tritium or gamma radiation in the 98 samples tested.

Radium-226 and Radium-228

Radium, a naturally radioactive metal, occurs at very low levels in virtually all rock, soil, water, plants, and animals. Radium-226 and radium-228 are isotopes of radium. The EPA has set a combined MCL of 5 pCi/L for radium-226 and radium-228. If radium-226 is not tested, the gross alpha measurement is substituted for radium-226 to determine compliance with the MCL. Some people who drink water containing radium-226 or radium-228 in excess of the MCL over many years may have an increased risk of cancer.

From October 2007 through 2009, we monitored a well in each aquifer at all our well fields for gross alpha, gross beta and radium-228 as required, and presented the results for each year in our Drinking Water Quality Reports. Since that time, quarterly monitoring at new well fields or at new wells placed at a well field where the aquifer had not been monitored previously and continuing monitoring on existing wells as required has been performed. The results for each distribution area are noted in the chart on page 26.

EDUCATIONAL INFORMATION

Radon

Radon, a naturally occurring radioactive gas found in soil and outdoor air, may also be found in drinking water and indoor air. Some people exposed to elevated radon levels from sources including drinking water may, over many years, have an increased risk of developing cancer. The main risk from radon is lung cancer entering indoor air from soil under homes. For further information, call the state radon program at (800) 458-1158 or call the EPA's Radon Hotline at (800) SOS-Radon.

In 2020 we monitored for radon at 79 locations throughout our distribution system. The results for each distribution area are noted in the chart below. The test results ranged from ND to 224.5 pCi/L of radon. Currently there is no MCL for radon. The EPA is proposing to require water suppliers to provide water with levels no higher than 4,000 pCi/L of radon.

2020 Radiological Test Results (All Distribution Areas)

Detected Compound	GROSS ALPHA				GROSS BETA				RADON-222				RADIUM-226				RADIUM-228			
Likely Source	Erosion of Natural Deposits				Natural deposits, man-made emissions				Naturally occurring radioactive gas				Erosion of Natural Deposits				Erosion of Natural Deposits			
MCL	15				50				N/A				5				5			
MCLG	0				0				0				0				0			
Unit of Measure	pCi/L				pCi/L				pCi/L				pCi/L				pCi/L			
	Range of Readings				Range of Readings				Range of Readings				Range of Readings				Range of Readings			
Distribution Area	Low Value	High Value	Average Value	No. of Tests	Low Value	High Value	Average Value	No. of Tests	Low Value	High Value	Average Value	No. of Tests	Low Value	High Value	Average Value	No. of Tests	Low Value	High Value	Average Value	No. of Tests
1	ND	ND	ND	28	ND	2.67	ND	28	ND	113	ND	10	ND	1.00	ND	18	ND	ND	ND	18
4	ND	ND	ND	1	ND	ND	ND	1	ND	ND	ND	1	NA	NA	NA	0	NA	NA	NA	0
5	ND	ND	ND	1	ND	ND	ND	1	169	169	169	1	ND	ND	ND	1	ND	ND	ND	1
6	ND	ND	ND	4	ND	ND	ND	4	ND	232	141	2	ND	ND	ND	2	ND	ND	ND	2
7	ND	ND	ND	1	3.89	3.89	3.89	1	153	153	153	1	ND	ND	ND	1	1.35	1.35	1.35	1
8	ND	ND	ND	1	ND	ND	ND	1	ND	ND	ND	1	NA	NA	NA	0	NA	NA	NA	0
9	ND	ND	ND	3	ND	ND	ND	3	ND	225	108	2	NA	NA	NA	0	NA	NA	NA	0
10	ND	ND	ND	3	ND	2.32	ND	3	ND	ND	ND	2	ND	ND	ND	1	ND	ND	ND	1
11	ND	2.63	1.69	10	ND	4.68	2.79	10	ND	ND	ND	2	ND	2.34	1.06	8	ND	1.76	1.24	8
12	ND	ND	ND	52	ND	3.33	ND	52	ND	175	ND	13	ND	ND	ND	18	ND	ND	ND	18
14	ND	ND	ND	2	ND	ND	ND	2	ND	ND	ND	2	NA	NA	NA	0	NA	NA	NA	0
15	ND	ND	ND	13	ND	2.01	ND	13	ND	210	ND	6	ND	ND	ND	7	ND	ND	ND	7
20	ND	ND	ND	38	ND	4.59	ND	38	ND	ND	ND	6	ND	ND	ND	4	ND	ND	ND	4
23	ND	ND	ND	13	ND	ND	ND	13	ND	180	ND	5	ND	ND	ND	8	ND	ND	ND	8
26	ND	ND	ND	8	ND	ND	ND	8	ND	120	ND	3	ND	ND	ND	5	ND	ND	ND	5
30	ND	ND	ND	11	ND	3.82	ND	11	ND	ND	ND	3	ND	ND	ND	9	ND	ND	ND	9
32	ND	ND	ND	2	ND	3.33	2.17	2	ND	ND	ND	1	NA	NA	NA	0	NA	NA	NA	0
34	ND	ND	ND	2	ND	ND	ND	2	137	137	137	1	NA	NA	NA	0	NA	NA	NA	0
35	ND	ND	ND	1	ND	ND	ND	1	137	137	137	1	NA	NA	NA	0	NA	NA	NA	0
44	ND	ND	ND	1	ND	ND	ND	1	ND	ND	ND	1	NA	NA	NA	0	NA	NA	NA	0
53	ND	ND	ND	5	ND	3.61	2.15	5	ND	ND	ND	4	NA	NA	NA	0	NA	NA	NA	0
54	ND	ND	ND	8	ND	4.01	ND	8	ND	ND	ND	5	ND	ND	ND	3	ND	ND	ND	3
57	ND	ND	ND	1	ND	ND	ND	1	198	198	198	1	NA	NA	NA	0	NA	NA	NA	0
64	ND	ND	ND	1	ND	ND	ND	1	174	174	174	1	NA	NA	NA	0	NA	NA	NA	0
EFWD	ND	ND	ND	2	ND	ND	ND	2	108	136	122	2	NA	NA	NA	0	NA	NA	NA	0
RSWD	ND	ND	ND	1	ND	ND	ND	1	ND	ND	ND	1	NA	NA	NA	0	NA	NA	NA	0
SBWD	ND	ND	ND	2	ND	ND	ND	2	ND	ND	ND	2	NA	NA	NA	0	NA	NA	NA	0



EDUCATIONAL INFORMATION



Nitrate

Nitrate naturally occurs in a number of foods, particularly vegetables. It is also used as preservatives in meats such as bacon. Nitrate is also used to make lawn, garden and agricultural fertilizers and is found in sewage and wastes from farm animals. It generally gets into drinking water by runoff into surface water or by leaching into groundwater after application or after improper sewage or animal waste disposal. Infants are particularly sensitive to nitrate. High levels of nitrate in drinking water have caused serious illness and sometimes death in infants under 6 months of age. The serious illness occurs because nitrate is converted to nitrite in the body and nitrite reduces the ability of the infant's blood to carry oxygen. Symptoms of the illness can develop rapidly and include shortness of breath and blueness of the skin (blue baby condition). Exposure to nitrate in drinking water at levels above 10 milligrams per liter (10 mg/L) increases the risk of developing the illness. Because the effects of nitrate and nitrite are additive, water containing more than 10 mg/L of total nitrate/nitrite should not be used to prepare infant formula or other beverages for infants. To ensure the quality of our drinking water, we monitor more frequently than required. The 2020 nitrate results for each distribution area are noted on pages 44 - 53.

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Even when you're paying bills, you can be helping the environment. The Suffolk County Water Authority now offers e-Billing, a quick, easy and environmentally-friendly way to pay your water bill.

With e-Billing, you can manage various aspects of your water account without leaving a paper trail. You can receive your bill electronically; set up automated payments from your checking or savings account; make a one-time payment; and view your current and past bills online.

For more information or to sign up, go to www.scwa.com.

SPECIAL INFORMATION FOR IMMUNO-COMPROMISED INDIVIDUALS

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbiological contaminants are available from the EPA's Safe Drinking Water Hotline at (800) 426-4791. Individuals who think they may have cryptosporidiosis or giardiasis should contact their health care providers immediately. New York State law requires water suppliers to notify their customers about the risks of cryptosporidiosis and giardiasis. Cryptosporidiosis and giardiasis are intestinal illnesses caused by microscopic parasites found in surface water and groundwater under the influence of surface water. There have been no known outbreaks of cryptosporidiosis or giardiasis linked to any public water supplies in Suffolk County. For more information on cryptosporidiosis and giardiasis, please contact the Suffolk County Department of Health Services at (631) 852-5810.