

**Sussex Water Department (PWSID # NJ1921001)**  
**1182 Route 23, Wantage, NJ 07461**  
**Year 2021 Annual Quality Report**  
**Issued June 2022**

Dear Consumer:

During calendar year 2021, the Sussex water supply was tested for over 80 contaminants that might be found in water. These tests included items ranging from taste and odor to bacteriological and chemical contaminants. The United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) set health and safety standards for public water supplies.

This annual Consumer Confidence Report (CCR), required by the Safe Drinking Water Act (SDWA), provides additional information on our sources of supply and the quality of the water we deliver. For more information on this report or about the next opportunity for public participation in decisions concerning drinking water, please contact;

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De Block Environmental Services, LLC  
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973-998-9100

The Borough of Sussex Water Department is a Municipal Department. The Municipal Mayor and Council 2022 meeting dates are as follows;

- Tuesday, May 17, 2022
- Thursday, June 9, 2022
- Tuesday, June 21, 2022
- Tuesday July 12, 2022
- Tuesday, August 16, 2022
- Tuesday, September 6, 2022
- Tuesday, September 20, 2022
- Tuesday, October 4, 2022
- Tuesday, October 18, 2022
- Thursday, November 1, 2022
- Tuesday, November 15, 2022
- Tuesday, December 6, 2022
- Tuesday, December 20, 2022

Meetings are held virtually during the Covid-19 pandemic or at the Municipal Building, 2 Main Street, Sussex, New Jersey, all starting at 7:00 PM.

## **General Information**

Rivers, lakes, streams, ponds, reservoirs, springs and wells are sources for both tap water and bottled water. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and picks up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or the result from urban storm water runoff, and residential uses.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Organic, chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also, come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. However, the presence of a contaminant does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

## **Health and Educational Information**

### **Special Considerations Regarding Children, Pregnant Women, Nursing Mothers, and Others**

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard, especially if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for the additional uncertainties regarding these effects. In the case of lead and nitrate, effects on infants and children are the health endpoints upon which the standard is based.

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. Sussex Water Department is responsible for providing high quality drinking water but water systems 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>

### Sources of Supply

Our water source is Lake Rutherford, a surface water supply, located in the High Point State Park. Water from Lake Rutherford flow to the Colesville Reservoir for interim storage prior to entering the Water Treatment Plant for processing.

### ADDITIONAL SPECIAL NOTICE ON LEAD

*Lead:* Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels at your home may be higher than at other homes in your community as a result of materials used in your home plumbing. If you are concerned about elevated lead levels in your home water, you may wish to have your tap water tested, and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the SAFE DRINKING WATER HOT LINE (1-800-426-4791). Adults who drink this water over many years could develop kidney problems and high blood pressure.

WATER SUPPLIED BY THE SUSSEX WATER DEPARTMENT IS IN COMPLIANCE WITH LEAD AND COPPER BASED ON THE 90TH PERCENTILE RESULT. ALL INDIVIDUAL LEAD AND COPPER SAMPLES WERE ALSO BELOW THE ACTION LEVEL.

### TABLE OF CONTAMINENTS

Some people may be more vulnerable to contaminants 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 about drinking water from their health providers. EPA/CDC guidelines on the appropriate means to lessen the risk of infections by cryptosporidium and other microbial contaminants are available from the EPAs Safe Drinking Water Hotline at 800-426-4791.

The MCL's listed in the following tables are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

#### Microbiological Contaminants

Regulated Contaminant	Units	COMPLIANCE ACCHIEVED	MCLG	MCL	Highest Level	Source of Contamination
Total Coliform Bacteria	# per 100 ml	Yes*	0	1 positive sample per month	1	Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

+The Sussex Water Department collects 2 routine total coliform samples per month. Sussex Water Department recorded a single positive sample for total coliform in the month of October. That sample was negative for e-coli. In conformance with the rules a repeat sample was collected from the same location and 2 additional check samples were taken upstream and downstream of the location of the positive sample within 24 hours and retested. All repeat and check samples were negative therefore the system remained in compliance.

## PRIMARY CONTAMINANTS

Regulated Contaminant	Units	COMPLIANCE ACCHIEVED	MCL	Highest Level	% of Samples <0.3 NTU	Range Detected	Source of Contamination
Turbidity*	NTU	Yes	TT (% of samples <0.3 NTU) Minimum 95% Required	0.28	100%	0.031 – 0.28 NTU	Soil Runoff

\* 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.

## Inorganic Contaminants

Regulated Contaminant	UNIT	COMPLIANCE ACCHIEVED	MCLG	MCL	Highest Result	Source of Contamination/ and Comments
Nitrate	PPM	Yes	10	10	<0.2	Erosion of natural deposits, runoff from septic and sewage, fertilizers.
Antimony	PPM	Yes	0.006	0.006	<0.0004	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	PPM	Yes	0	0.010	<0.0005	Erosion of natural deposits and from agricultural and industrial practices.
Barium	PPM	Yes	2	2	0.00965	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	PPM	Yes	0.004	0.004	<0.00025	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium	PPM	Yes	0.005	0.005	<0.0005	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium	PPM	Yes	0.1	0.1	<0.0005	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide	PPM	Yes	0.2	0.2	<0.01	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride	PPM	Yes	4	4	<0.2	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury	PPM	Yes	2	2	<0.0002	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nickel	PPM	Yes	NA	NA	<0.0005	Erosion of natural deposits.
Selenium	PPM	Yes	50	50	<0.006	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Thallium	PPM	Yes	0.0005	0.002	<0.00025	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories

## Lead and Copper Rule

Regulated Contaminant	Units	COMPLIANCE ACCHEIVED	Action Level	90 <sup>th</sup> Percentile Result		Source of Contamination
				01-06	07-12	
Lead	PPB	Yes	15	0 (1 out of 20 samples exceeded the action level)	0 (0 out of 20 samples exceeded the action level)	Erosion of natural deposits, discharge of drilling waste and discharge from metal refineries.
Copper	PPM	Yes	1.3	0.0304 (0 out of 20 samples exceeded the action level)	0.03 (0 out of 20 samples exceeded the action level)	Erosion of natural deposits.

LEAD AND COPPER. COMPLIANCE WITH THE LEAD AND COPPER RULE IS BASED ON THE 90<sup>TH</sup> PERCENTILE RESULT FROM POINTS OF USE IN THE DISTRIBUTION SYSTEM COLLECTED IN 2021. SUSSEX WATER IS ON A MONITORING SAMPLE OF TWENTY SAMPLES EVERY SIX MONTHS.

## REGULATED DISINFECTANTS and DISINFECTION BYPRODUCTS

**Stage 2 Disinfection Byproducts Note:** Stage 2 DBP compliance for TTHM's and HAA5's is based on the locational running average (LRAA) calculated at each monitoring location.

Regulated Contaminant	UNIT	COMPLIANCE ACCHEIVED	Highest Detected LRAA	Individual Sample Range Detected	MCL as LRAA	MCLG	Source of Contamination/ and Comments
Total Trihalomethanes (TTHM) Stage 2	PPB	Yes	57	29.4 - 124	80	NA	Byproduct of water disinfection. / TTHM compliance is based on Locational Running Annual Average.
Haloacetic Acids (HAA5) Stage 2	PPB	Yes	16	11.9 - 21.7	60	NA	Byproduct of water disinfection. / HAA5 compliance is based on Locational Running Annual Average.
Chlorite (Distribution)	PPM	Yes	0.369	<0.2 - 0.369	1.0	0.8	Byproduct of water disinfection.
Chlorite (Point of Entry)	PPM	Yes	0.95	<0.02 – 0.95	1.0	0.8	Byproduct of water disinfection.

## Disinfectants

<b>Regulated Contaminant DISTRIBUTION</b>	<b>Units</b>	<b>Compliance Achieved</b>	<b>MRDLG</b>	<b>MRDL</b>	<b>Highest Detected Monthly Average</b>	<b>Range Detected Monthly Average</b>	<b>Source of contamination</b>
Chlorine as CL2	PPM	Yes	4	4	0.70	0.20 – 0.70	Chlorine is used as a drinking water disinfectant.
<b>Regulated Contaminant POINT OF ENTRY</b>	<b>Units</b>	<b>Compliance Achieved</b>	<b>Minimum</b>	<b>Annual Average</b>	<b>Highest Detected</b>	<b>Range Detected</b>	<b>Source of contamination</b>
Chlorine Dioxide	PPM	Yes	0.8 Max.	0.18	0.78	<0.02 – 0.78	Chlorine is used as a drinking water disinfectant.
Chlorine as CL2	PPM	Yes	>/=0.2	0.98	1.36	0.65 – 1.36	NA

## Secondary Contaminants

<b>Contaminant</b>	<b>Result</b>	<b>Unit</b>	<b>RUL</b>	<b>RUL Achieved</b>	<b>Potential Source</b>
Alkalinity	<2 - 20	PPM			
Aluminum	0.0119	PPM	0.20	Y	Treatment Process
Chloride	16.8	PPM	250	Y	Naturally Occurring
Color	<2	CU	10	Y	
Corrosivity	-2.97	PPM			
Foaming Agents	<0.05	PPM	0.5	Y	
Hardness	10.6	PPM	250	Y	Naturally Occurring
Iron	<0.2	PPM	0.3	Y	
Manganese	0.00819	PPM	0.05	Y	Naturally Occurring, note: The recommended upper limit for manganese is based on staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water.
Odor	<1	TON	3	Y	
pH	7.46 - 8.7	PH	6.5 – 8.5		One result during the year exceeded pH of 8.5
Silver	<0.002	PPM	0.1	Y	
Sodium	9.13	PPM	50	Y	Naturally Occurring
Sulfate	6.91	PPM	250	Y	Naturally Occurring
TDS	75	PPM	500	Y	
Temp.	13.9 – 24.8	C			
Zinc	0.0856	PPM	5	Y	

### ADDITIONAL MONITORING RESULTS

Detected Contaminants, ppb	Range of Results	Comment
Perfluorononanoic acid (PFNA)	(ND, <0.002)	<p>Sussex Water Department monitors for the presence of perfluorochemicals in finished drinking water quarterly.</p> <p>The NJDEP has formally established MCLs for Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) of 14 ppt and 13 ppt respectively.</p> <p>These rules were effective January 1, 2021. The results observed in 2021 were below the NJDEP newly established MCL.</p>
Perfluorooctanesulfonic acid (PFOS)	(ND, <0.00183)	
Perfluorooctanoic acid (PFOA)	(ND, <0.00183)	
1, 2, 3, - Trichloropropane	(ND, <0.004)	
1,2-Dibromo-3-Chloropropane	(ND, <0.007)	
Ethylene Dibromide	(ND, <0.008)	

**Testing was conducted for both 28 - Federal and State Regulated Volatile Organic Chemicals during 2021. No Volatile Organics were detected in the drinking water. Volatile Organics will be tested again in 2022.**

## Definitions

In the following table, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms: we've provided the following definitions:

<u>Term</u>	<u>Description</u>
AL	<u>Action Level</u> : The concentration of contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
CU	<u>Color Unit</u>
CDC	<u>Center for Disease Control</u>
Disinfection By-product Precursors	A common source 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 (DPB precursors) present in surface water
Inorganic Contaminants	Contaminants such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming. These contaminants may be present in source water.
LRAA	<u>Locational Annual Running Average</u> Annual Running average for analysis from a specific sampling site.
MCL	<u>Maximum Contaminant Level</u> is the highest level of contaminant that is allowed in the drinking water. MCLs are set as close to the MCLGs as is feasible using the best available treatment technology.
MCLG	<u>Maximum Contaminant Level Goal</u> is the level of a contaminant in drinking water below which there is no known expected risk to health MCLGs allow a margin of safety.
MF/L	<u>Million fibers per liter</u>
MRDL	<u>Maximum Residual Disinfectant Level</u> is the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	<u>Maximum Residual Disinfectant Level Goal</u> the level of disinfectant allowed in drinking water 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 contaminants.
NA	Not Applicable
ND	<u>Not Detected</u> is a term used when a laboratory analysis demonstrates that the constituent is not present.
NTU	<u>Nephelometric Turbidity Unit</u> is the measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Nutrients	Compounds, minerals and elements that aid growth that are both naturally occurring and manmade. Examples include nitrogen and phosphorus.
Organic Contaminants/ Volatile Organic Compounds	Compounds, including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and can also come from gas stations, stormwater runoff and septic systems. Manmade chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE) and vinyl chloride. These compounds may be present in surface water.
Pesticides, Herbicides, Insecticides, Fungicides and Rodenticides	Manmade chemicals used to control pests, weeds and fungus which may come from a variety of sources such as agriculture, stormwater runoff and residential uses and may be present in source water. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine and insecticides such as chlordane.
pci/L	<u>Picocuries per liter</u> is a measure of radioactivity in water.
PPB	<u>Parts per billion</u> or micrograms per liter equals one part per billion and corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
POE	<u>Point of Entry</u> to the water distribution system
PPM	<u>Parts per Million</u> or milligrams per liter (mg/l) equals one part per million and corresponds to one minute in two years or a single penny in \$10,000.
RAA	<u>Running Annual Average</u>
RUL	<u>Recommended Upper Limit</u> : the highest level of a constituent of drinking water that is recommended in order to protect aesthetic quality.

TON	<u>Threshold Odor Number</u>
TT	<u>Treatment Technique</u> is a required process intended to reduce the level of contaminant in drinking water.

**Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.**

### Susceptibility Ratings for Sussex Water Department Sources

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system’s source water assessment report. The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes’ susceptibility to radionuclides was not determined and they all received a low rating.

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

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at <http://www.nj.gov/dep/watersupply/swap/index.html>, or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550 or [watersupply@dep.nj.gov](mailto:watersupply@dep.nj.gov).

#### Intake Susceptibility Ratings

Intakes	Pathogens	Nutrients	Pesticides	Volatile Organic Compounds	Inorganic Contaminants	Radio-nuclides	Radon	Disinfection Byproduct Precursors
1 Surface Water	1-High	1-Low	1 – Low	1 - Low	1 - High	1 – Low	1 – Low	1-High