

Hopewell Water Department ~ 2017 Water Quality Report ~

Contacts For Additional Information:

Hopewell
Water Department
88 E. Broad Street
Hopewell, NJ 08525
Phone 609-466-0168
(David Misiolek)

New Jersey Department of
Environmental Protection
Bureau of
Safe Drinking Water
Phone 609-292-5550

United States Environmental
Protection Agency
Drinking Water Hotline
Phone 1-800-426-4791
Website:
www.epa.gov/safewater/

~ Public Participation ~

Hopewell Borough holds public Council meetings on the first Thursday of the month at 7:00 P.M. Meeting information may be obtained by calling 609-466-2636 or logging on to the Borough website at www.hopewellboro-nj.us.

~ Sources of Supply ~ Hopewell Water Department PWS ID# 1105001

The Hopewell Borough Water Department is a public community water system consisting of 1 ground water source and 1 purchased water source. Ground water originates from one well drilled within the Borough which is located in the Passaic Formation. Purchased water originates from New Jersey American Water through an interconnection. A 2017 NJAW Table of Data and Contaminants has been included in this report.

~ Sources of Contaminants ~ Health Information

The sources of both tap and bottled water include rivers lakes, streams, ponds, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. 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 EPA's Safe Drinking Water Hotline. (1-800-426-4791.)

In order to ensure that tap water is safe to drink, 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 bottles water which must provide the same protections for public health.

Contaminants that may be present in source water include:

- 1** Microbial contaminants - Viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 2** Inorganic contaminants - Salts and metals which can be naturally occurring or result from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- 3** Organic chemical contaminants - These include 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.
- 4** Radioactive contaminants - Naturally occurring or the result of oil and gas productions and mining operations.
- 5** Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

Vulnerable Populations Statement:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **The Borough of Hopewell** is responsible for providing high quality drinking water, but can not control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water hotline or at <http://www.epa.gov/safewater/lead>.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system and the NJAW system. This information is available at www.state.nj.us/dep/swap or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550.

The source water assessment performed on two of our sources determined the following: Susceptibility ratings for entry point to the distribution system (EPTDS).

Table 11 lists the susceptibility ratings for each EPTDS for the Hopewell Borough Water Department.

Table 11: Susceptibility Rating for EPTDS

EPTDS ID	EPTDS Name	Contaminant Category							
		Pathogens	Nutrients	Pesticides	VOCs	Inorganics	Radionuclides	Radon	DBPs
		Rating	Rating	Rating	Rating	Rating	Rating	Rating	Rating
F00400704	Well 4 / Model Ave	M	H	L	H	H	M	H	M
*F00801608	Well 6 / Borough Park	M	H	M	H	H	M	H	M

If a system is rated highly susceptible for a contamination 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 containments and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

**currently off line.*

Primary Drinking Water Standards ~ 2017

Inorganic Chemicals

Test Results From 2015 Analysis

Parameter	MCLG, ppb	MCL, ppb	Max. Detected Level
Arsenic (see note*)	0	5	4.8 ppb
Barium (see note**)	200	2000	281 ppb

*Arsenic: Informational Statement: While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balance the current understanding of arsenic possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Sources: Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes. You should be aware that some people who drink water containing arsenic in excess of the MCL of 5 ppb over many years could experience skin damage or problems with their circulatory system, and may have increased risk of getting cancer.

**Source: Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.

Regulated Disinfectants

Level Detected (Average & Highest Detect)

MRDL

MRDLG

Chlorine	0.4 ppm	0.6 ppm	4.0 ppm	4.0 ppm
----------	---------	---------	---------	---------

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Goal (MRDLG): The level of drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Disinfection Byproducts:

Disinfection Byproducts Stage-2

Disinfection Byproducts Stage-2	Unit	MCLG	MCL, ppb	Typical Source
TTHM	ppb	N/A	80	By-product of drinking water disinfection
Total Trihalomethanes	ppb	N/A		
HAA5	ppb	N/A	60	By-product of drinking water disinfection
Haloacetic Acids	ppb	N/A		

The LRAA calculation is based on four completed quarters of results.

Nitrates

Parameter	MCLG, ppm	MCL, ppm	Max. Detected Level
Nitrate (see note**)	10	10	2.8 ppm

*Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. Source: Runoff from fertilizer use; leaching from septic tanks sewage; erosion of natural deposits.

Microbiological Contaminants

Total Coliform	MCLG	≥ MCL	Average
	0	Presence of coliform bacteria in 5% of monthly samples	0

Radionuclides

Test Results From 2012 Analysis

Parameter	MCLG, pCi/L	MCL	Max. Detected Level
Radium 226 & 228 (see note*)	0	5 pCi/L	<1 pCi/L
Gross Alpha Emitters (less Radon & Uranium)	0	15 pCi/L	3.9 pCi/L

*Radium 226 & 228: Some people who drink water containing Radium 226 or 228, in excess of the MCL over many years, may have an increased risk of incurring cancer. Source: Erosion of natural deposits.

Lead and Copper

Test Results From July 2017 Analysis

Parameter	MCLG	MCL	System Sample
Lead	<2 ppb	AL=15 ppb	90th percentile = <2 ppb
Copper	1.3 ppm	AL=1.3 ppm	90th percentile = 0.0958 ppm

NJDEP allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for asbestos and synthetic organic chemicals.

Drinking WaterWatch from the NJDEP enables users to view drinking water information for NJ water systems.

New Jersey American Water

Water Quality Results – Table of Detected Contaminants – 2017

Contaminant	Unit	MCL	MCLG	Highest Level Detected	Range	Compliance Achieved	Major Sources in Drinking Water
Turbidity							
		TT = 1 NTU	NA	0.3	0.02 - 0.3	Yes	
Turbidity ^{1,2}	NTU	TT = percent of samples < 0.3 NTU	NA	99.9%	NA	Yes	Soil runoff
Treatment By Products Precursor Removal							
Total Organic Carbon	ppm	TT	NA	3.4	1.1 - 3.4	Yes	Naturally present in the environment
Inorganic Cont							
Fluoride ³	ppm	2	2	0.8	ND - 0.8	Yes	Erosion of natural deposits; Water additive that promotes strong teeth
Nitrate ⁴	ppm	10	10	4	0.5 - 4	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Arsenic	ppb	5	5	2	ND - 2	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.3	ND - 0.3	Yes	Discharge or drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Radiological Contaminants							
Alpha emitters ⁵	pCi/L	15	0	13	ND - 13	Yes	Erosion of natural deposits
Disinfectants							
Chloramines ⁶	ppm	MRDL = 4	MRDLG = 4	1.2	0.7 - 1.2	Yes	Water additive used to control microbes

Regulated Substances

Disinfectant By-Products - Stage 2

Contaminant	Unit	MCL	MCLG	LRAA	Range	Compliance Achieved	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)							
3	ppb	80	NA	22	13 - 33	Yes	By-product of drinking water disinfection
5	ppb	80	NA	45	31 - 66	Yes	By-product of drinking water disinfection
8	ppb	80	NA	46	29 - 66	Yes	By-product of drinking water disinfection
12	ppb	80	NA	29	18 - 37	Yes	By-product of drinking water disinfection
26	ppb	80	NA	49	32 - 61	Yes	By-product of drinking water disinfection
27	ppb	80	NA	47	27 - 58	Yes	By-product of drinking water disinfection
35	ppb	80	NA	45	31 - 60	Yes	By-product of drinking water disinfection
36	ppb	80	NA	46	25 - 60	Yes	By-product of drinking water disinfection
SSS-15	ppb	80	NA	28	14 - 37	Yes	By-product of drinking water disinfection
SSS-24	ppb	80	NA	26	9 - 39	Yes	By-product of drinking water disinfection
SSS-6	ppb	80	NA	44	31 - 57	Yes	By-product of drinking water disinfection
SSS-8	ppb	80	NA	39	30 - 45	Yes	By-product of drinking water disinfection
DBP2-1	ppb	80	NA	49	28 - 64	Yes	By-product of drinking water disinfection
DBP2-2	ppb	80	NA	53	31 - 70	Yes	By-product of drinking water disinfection
Total Haloacetic Acids (THAA5)							
3	ppb	60	NA	7	2 - 9	Yes	By-product of drinking water disinfection
5	ppb	60	NA	43	22 - 70	Yes	By-product of drinking water disinfection
8	ppb	60	NA	41	27 - 69	Yes	By-product of drinking water disinfection
12	ppb	60	NA	23	16 - 31	Yes	By-product of drinking water disinfection
26	ppb	60	NA	41	17 - 70	Yes	By-product of drinking water disinfection
27	ppb	60	NA	34	20 - 56	Yes	By-product of drinking water disinfection
35	ppb	60	NA	33	20 - 62	Yes	By-product of drinking water disinfection
36	ppb	60	NA	36	13 - 59	Yes	By-product of drinking water disinfection
SSS-15	ppb	60	NA	21	13 - 29	Yes	By-product of drinking water disinfection
SSS-24	ppb	60	NA	13	8 - 16	Yes	By-product of drinking water disinfection
SSS-6	ppb	60	NA	31	7 - 66	Yes	By-product of drinking water disinfection
SSS-8	ppb	60	NA	29	21 - 36	Yes	By-product of drinking water disinfection
DBP2-1	ppb	60	NA	8	6 - 10	Yes	By-product of drinking water disinfection
DBP2-2	ppb	60	NA	23	15 - 31	Yes	By-product of drinking water disinfection

New Jersey American Water (continued)

Tap water sample were collected for lead and copper analysis from homes in the service area

- ³Fluoride is added to the water at therapeutic levels (0.6 – 0.8 ppm) in certain areas. Please call us for more information about fluoride levels in your area.
- ⁴Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.
- ⁵Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
- ⁶Highest level detected is the maximum annual running average. Range indicates the monthly averages detected.
- ⁷Compliance is based on the Locational Running Annual Average (LRAA). Results in the table show the average of the 4 quarters of 2017.
- ⁸Action Level: The concentration of a contaminant which, if exceeded, triggers a treatment technique or other requirement, which a water system must follow.
- ⁹Ninety percent of the samples tested below the indicated value.

Secondary Contaminants

Contaminant	Unit	Recommended Upper Limit	Range Detected	Highest Detected Level	Typical Source
Aluminum	ppm	0.2	ND - 0.03	0.03	Erosion of natural deposits
Manganese	ppm	0.05	ND - 0.04	0.04	Erosion of natural deposits
Sodium ¹	ppm	50	15 - 93	93	Erosion of natural deposits

¹For 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, sodium levels above the recommended upper limit may be of concern to individuals on a sodium-restricted diet.

Unregulated Contaminant Monitoring Rule

New Jersey American Water participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. For testing conducted in the Raritan System, the following substances were found.

Unregulated Contaminants Monitoring (UCMR3) (2015)				
Parameter	Units	Highest Level Detected	Range Detected	Typical Source
Hexavalent Chromium (Chromium-6)	ppb	1.05	ND - 1.1	Naturally-occurring element; used in making steel and other alloys; chromium -3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Molybdenum	ppb	18.2	ND - 18.2	Naturally-occurring elemental found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	ppb	2453	79 - 2453	Naturally-occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
1,4-Dioxane (2017)	ppb	1.28	ND - 1.28	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Bromochloromethane	ppb	0.12	ND - 0.12	Used as a fire-extinguishing fluid, an explosive suppressant, and as a solvent in the manufacturing of pesticides
Chlorate	ppb	310	ND - 310	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlori dioxide
Chromium	ppb	1.3	ND - 1.3	See chromium-6 for use or source information; though the amount measured when analyzing for "total chromium" is the sum of chromium in all of its valence states, the MCL for EPA's current total chromium regulation was determined based upon the health effects of chromium-6
Vanadium	ppb	15	ND - 15	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

Perfluorinated Compounds				
		Highest Level Detected	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)	ppb	0.054	ND - 0.054	Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire - fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic
Perfluorohexanesulfonic Acid (PFHxS)	ppb	0.06	0.05 - 0.06	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluoroheptanoic Acid (PFHpA)	ppb	0.11	ND - 0.11	Manmade chemical; used in products to make them stain, grease, heat and water resistant
(PFOS)	ppb	0.043	ND - 0.043	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps; U.S. manufacture of PFOS phased out in 2002; however, PFOS still generated incidentally

Residential Stormwater Pollution Prevention Tips

WISE WATER USE:

Water your lawn and garden only when necessary. Watering should be done early in the morning before the heat of the sun causes evaporation. The average lawn requires an inch of water each week, including rainfall, or 10-20 minutes of watering. Permanent irrigation systems sharply increase your water consumption, try drip irrigation, soaker hoses and micro spray systems, to better control the amount of water you use. Periodically inspect your system and fix leaks.

LAWNCARE AND GARDENING:

Keeping lawns and gardens looking good isn't always good for our environment. Runoff carries pesticides and fertilizers into the storm drain system. Leaves, grass clippings and yard waste get swept or blown into the street, clogging catch basins and polluting waterways. Following a few green tips is all it takes to prevent pollution.

PESTICIDES AND GARDENING:

Before using, read product labels and follow directions. Consider using non-toxic alternatives to traditional pesticides and fertilizers. Never apply pesticides or fertilizers before rain or near storm drains, creeks and other bodies of water. Do not over apply pesticides and fertilizers. Spot apply, rather than blanketing an entire area. Store pesticides, fertilizers and other chemicals in a covered area to prevent runoff. Dispose of unwanted pesticides and fertilizers at a household hazardous waste collection site.

YARD WASTE:

Recycle leaves, grass clippings and other yard waste. Leaving grass clippings on your lawn acts as a natural fertilizer, returning nutrients and organic matter back to the soil, and because grass is mostly water it also irrigates your lawn, conserving water. Reducing the need to water as often or use toxic fertilizers means less contaminated runoff from your lawn.

PET OWNERS:

During rainfall, pet and other animal waste left on lawns, sidewalks and trails can wash into storm drains. These wastes flow untreated directly into our creeks and streams. Be a responsible pet owner and help prevent pollution by cleaning up animal waste and dispose of it properly in the trash.

If possible bathe your pets indoors, using less toxic shampoos, or have your pet professionally groomed. Pet shampoos and soaps, even those that are biodegradable, can be toxic to people and marine life.

Consider using alternative flea and tick control products such as oral or topical. If you use flea or tick control products such as shampoos, sprays or collars make sure to dispose of unused quantities properly.

HOUSEHOLD PRODUCTS:

Many common household products such as paint thinners, solvents, drain cleaners and insect repellants contain toxic chemicals. Consider using natural and less toxic alternatives whenever possible. When improperly used or discarded, these products are a threat to public health and the environment. Dispose of unwanted chemicals at a household hazardous waste collection site.

AUTOMOTIVE MAINTENANCE:

Taking care of our cars takes a toll on our environment. Motor oil, filters, anti-freeze, and other toxic fluids from our cars leak, spill or are dumped into the street, flowing untreated through storm drain systems into our creeks and streams. Recycle used fluids at a certified collection center or household hazardous waste collection site. Clean up leaks and spills with an absorbent material and dispose of it properly. Consider washing your vehicle at a commercial car wash that reclaims the wash water. If you wash your car at home use only soaps, cleaners and detergents labeled phosphate free or biodegradable. Select a site where wash water can soak into grass, gravel or be diverted to nearby landscaping.

What is Nonpoint Source Pollution?

Nonpoint Source Pollution, or people pollution, is a contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. They also can soak into the ground contaminating the ground water below.

Each one of us, whether we know it or not, contributes to nonpoint source pollution through our daily activities. As a result, nonpoint source pollution is the **BIGGEST** threat to many of our ponds, creeks, lakes, wells, streams, rivers and bays, our ground water and the ocean.

The collective impact of nonpoint source pollution threatens aquatic and marine life, recreational water activities, the fishing industry, tourism and our precious drinking water resources. Ultimately, the cost becomes the burden of every New Jersey resident.

FERTILIZERS: Fertilizers contain nitrates and phosphates that, in abundance, cause blooms of algae that can lead to fish kills. Avoid the overuse of fertilizers and do not apply them before a heavy rainfall.

PESTICIDES: Many household products made to exterminate pests also are toxic to humans, animals, aquatic organisms and plants. Use alternatives whenever possible. If you do use a pesticide, follow the label directions carefully.

LITTER: Place litter, including cigarette butts and fast food containers, in trash receptacles. Never throw litter in streets or down storm drains. Recycle as much as possible.

PET WASTE: Animal wastes contain bacteria and viruses that can contaminate shellfish and cause the closing of bathing beaches. Pet owners should use newspaper, bags or scoopers to pick up after pets and dispose of wastes in the garbage or toilet.

HOUSEHOLD HAZARDOUS PRODUCTS: Many common household products (paint thinners, moth balls, drain and oven cleaners, to name a few) contain toxic ingredients. When improperly used or discarded, these products are a threat to public health and the environment. Do not discard with the regular household trash. Use natural and less toxic alternatives whenever possible. Contact your County Solid Waste Management Office for information regarding household hazardous waste collection in your area.

CAR WASHING: Wash your car only when necessary. Consider using a commercial car wash that recycles its wash water. Like fertilizers, many car detergents contain phosphate. If you wash your car at home, use a non-phosphate detergent.

MOTOR OIL: Used motor oil contains toxic chemicals that are harmful to animals, humans and fish. Do not dump used motor oil down storm drains or on the ground. Recycle all used motor oil by taking it to a local public or private recycling center.

As you can see, these suggestions are simple and easy to apply to your daily lifestyle. Making your commitment to change at least one habit can result in benefits that will be shared by all of us and add to the health and beauty of New Jersey's water resources.

Well Water Department
 88 E. Broad Street
 Hopewell, NJ 08525

PRESORTED
 FIRST CLASS
 US POSTAGE
 PAID
 PERMIT NO. 185
 TRENTON, NJ



T2 B2 S709 *****AUTO**SCH 5-DIGIT 08525
 HOPEWELL ELEM. / HOVAL REG. SCHOOLS
 425 S Main St
 Pennington NJ 08534-2716

NJDEP found the following potential contaminate sources within the source water assessment areas for our sources:

Pathogens

Disease-causing organisms such as bacteria, protozoa and viruses. Sources of pathogens included both point and nonpoint activities. An example of a point source of pathogens is a sewer system overflow. An example of a nonpoint source is runoff from areas where livestock are kept.

Nutrients

Common types of nutrients include nitrogen and phosphorous. Nutrients can harm environmental quality, human health and the efficiency of the drinking water treatment plant by encouraging growth of photosynthetic microorganisms in surface water sources, which alter water characteristics (eutrophic conditions). Sources of nutrients are point and nonpoint sources. Effluents from a sewage treatment plant are a point source of nutrients. Nonpoint sources of nutrients include discharge from septic fields, areas where animal waste is stored and runoff from agricultural and residential land where fertilizers are used.

Pesticides

Common sources of pesticides include land applications (nonpoint sources). Pesticides are manmade chemicals used to control bacteria, fungi, weeds, rodents and insects. Examples included herbicides such as atrazine and insecticides such as chlordane.

Synthetic Organic Compounds (SOCs)

Sources of SOC's can be point and nonpoint. Common sources include chemical manufacturing plants, pharmaceutical plants, sewage treatment plants and discharges from contaminated sites. Synthetic organic compounds are manmade.

Volatile Organic Compounds (VOCs)

Common types of VOCs include chemical that are used as solvents, degreasers and gasoline components. VOCs are manmade compounds and are the most common organic contaminants in ground water in New Jersey. Sources of VOCs can be point and nonpoint. Examples of VOCs are methyl tertiary butyl ether (MTBE), benzene and vinyl chloride.

Inorganic

Mineral-based compounds that are both naturally occurring and manmade. Sources of inorganics can be point and nonpoint; common sources included discharges from manufacturing plants, releases from contaminated sites, past land use and naturally occurring sources. Examples of inorganics include arsenic, cadmium, copper, lead, mercury and asbestos.

Radionuclides

Sources of radionuclides can be point and nonpoint; common sources include the decay of naturally occurring minerals, leaching of subsurface material (for example rocks and sedimentary materials) into ground water and improper disposal of radioactive waste. Radionuclides are a category of contaminate that substance such as radium and radon.

Disinfection By product (DBP) Precursors

Disinfection by products are formed when the disinfectants used to kill pathogens during treatment react with dissolved organic material present in the water. A common source of DBP precursors is naturally occurring organic material such as leaves in surface water. The amount of organic matter, the type of disinfectants, the concentration of disinfectants, time of contact, pH and temperature all have effect on the concentration of disinfection by products produced. Chlorine is the most common disinfectant used in New Jersey. If you have questions regarding the source water assessment report or summary please contact the Bureau of Safe Drinking Water at swap@dep.state.nj.us or 690-292-5550.

Abbreviations / Definitions:

Symbol	Definition
<	The results are less than the number listed.
≥	The results are greater than or equal to the number listed.
MCL	Maximum Contaminant Level - The highest level of a contaminate that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology
MCLG	Maximum Contaminate Level Goal - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
AL	Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
TT	Treatment Technique - A required process intended to reduce the level of a contaminate in drinking water.

Symbol	Definition
PCi / L	Pico Curie - A unit used to measure radiation.
N/A	Not Applicable
ND	Not Detectable at testing limit.
ppb / ug/L	Parts per billion or micrograms per liter (equates to one day in about 2,739, 726 years).
ppm / mg/L	Parts per million or milligrams per liter (equates to one day in about 2,739.7 years).
MDL	Minimum Detection Limit - The lowest level at which a compound may be detectable.
USEPA	United States Environmental Protection Agency
NJDEP	New Jersey Department of Environmental Protection