2022 ANNUAL WATER QUALITY REPORT

CEDAR CREST VILLAGE SYSTEM
Township of Pequannock

SAFE DRINKING WATER ACTT (SDWA)

Amendments to the Safe Drinking Water Act in 1996 require that utilities issue an annual "Consumer Confidence Report" to its customers. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The Township of Pequannock is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water.

We are proud to report that the water provided by Pequannock Township meets or exceeds Federal primary water standards.

Water Source: The Pequannock Township Water Utility-Cedar Crest Village Water System provides potable water through the bulk purchase of water with North Jersey District Water Supply Commission (NJDWSC) via Riverdale Borough. NJDWSC water comes from a surface source supplied by the Wanaque reservoir system.

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 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 our sources determined the following:

Pequannock Township Water Department-Cedar Crest System is a public community water system consisting of 0 well(s), 0 wells under the influence of surface water, 0 surface water intake(s), 0 purchased ground water source(s),and 1 purchased surface water source(s).

This system purchases water from the following system(s): STORAGE/BULK PURCHASE FROM NJDWSC WANAQUE SYSTEM PWSID: NJ1613001.

SUSCEPTIBILITY RATINGS FOR THE PEQUANNOCK TOWNSHIP WATER DEPARTMENT - CEDAR CREST SYSTEM SOURCES

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each sources 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 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 receive a high rating for the pathogens 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.

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganic			Radio Nuclides			Radon			Disinfection Byproducts Precursors		
Sources	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
NJDWSC-5 Intakes	5			5				2	3		5		5					5			5	5		

* Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

* Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

* Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers and gasoline components. Examples include, benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

* Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and

manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

* Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead and nitrate.

* Radionuclides: radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

* Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to http://www.nj.gov/dep/rpp/radon/index.htm or call (800) 648-0394.

* Disinfection Byproduct Precursors: A common source is naturally occurring matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

TREATMENT OF WATER

The water is chlorinated for the purpose of disinfecting the water to kill microorganisms which can cause diseases such a typhoid fever and cholera.

TESTING OF WATER

To ensure the safety of our water, the North Jersey District Water Commission monitors the quality of water at the source and within the distribution system. More than 100 compounds are evaluated at NJDEP and EPA certified laboratories. This report is based upon tests conducted in 2021. Terms used in the Water Quality Table on pages 1 & 2 and in other parts of this report are defined here.

AL: Action Level; the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
CDC: United States Centers for Disease Control and Prevention
CU: Color unit
Disinfection By-product Precursors: A common source is naturally-occurring organic material in surface water. Disinfection by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (DBP precursors) present in surface water.
EPA: United States Environmental Protection Agency
MCL: Maximum Contaminant Level; the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG: Maximum Contaminant Level Goal; the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Microbial Contaminants/Pathogens: Disease-causing organisms such as bacteria, protozoa, and viruses, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Common sources are animal and human fecal wastes. These contaminants may be present in source water.
MRDL: Maximum Residual Disinfectant Level; the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG: Maximum Residual Disinfectant Level Goal; the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.
NA: Not applicable
ND: Not detected above the minimum reporting level.
NJDEP: New Jersey Department of Environmental Protection
NJDWSC: North Jersey District Water Supply Commission
NTU: Nephelometric Turbidity Unit
Nutrients: Compounds, minerals and elements that aid growth, which can be either naturally occurring or man-made. Examples include nitrogen and phosphorus.
ppb: parts per billion (approximately equal to micrograms per liter)
ppm: parts per million (approximately equal to milligrams per liter)
PWS ID: Public Water System Identification
PVWC: Passaic Valley Water Commission
RAA: Running Annual Average
Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment.
RUL: Recommended Upper Limit; the highest level of a constituent of drinking water that is recommended in order to protect aesthetic quality.
RUL Achieved: A "YES" entry indicates the State-recommended upper limit was not exceeded. A "NO" entry indicates the State-recommended upper limit was exceeded.
TON: Threshold Odor Number
TT: Treatment Technique; a required process intended to reduce the level of a contaminant in drinking water.
WTP: Water Treatment Plant

WHAT DO THE #S MEAN?

In this newsletter, we have dealt extensively with standards in determining federal and state safe drinking water requirements. A standard is a rule, a principle or a measurement established by governmental authority. These regulations protect the public health and welfare.

Life is dependent upon water. Water exists in nature in many forms...in clouds, rain, snow, ice and fog. Even while falling as rain, water picks up small amounts of gases, ions, dust, and particulate matter from the atmosphere. Then, as it flows over or through the surface layer, it dissolved and carries with it some of almost everything that it touches including that which is discarded by man.

HEALTH INFORMATION

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottles water.

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

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of 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.

Contaminants that may be present in source water include:

- Microbial contaminants which may come from sewage treatment plants, septic systems, agriculturallivestock operations and wildlife.
- Inorganic contaminants, such as salt and metals, which can be naturally occurring or result from urbanstorm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septicsystems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
- Radon - Radon is a radioactive gas that you can't see, taste or smell. Found throughout the U.S. radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Where the level of radon is 4 picocuries per liter of air (pCi/L) or higher, home repairs should be made which can correct this problem. There are simple ways to fix a radon problem that aren't too costly. For additional information, call New Jersey's Radon Information Line (800-648-0394) or EPA's Radon Hotline (800-SOS-RADON).
- Chlorine - A century ago, acute diseases such as typhoid fever and cholera were a very real threat to our health because the microorganisms that caused these diseases were found in public drinking water. However, for almost 100 years, water suppliers in America and other countries have used chlorine to treat or disinfect drinking water. According to the U.S. Environmental Protection Agency and other health agencies, chlorine is currently one of themost effective disinfectants to kill harmful microorganisms. Disinfection of all public water supplies is required by State and Federal laws and regulations, including the Safe Drinking Water Act and the Surface Water TreatmentRule.
- Total Trihalomethanes (TTHMs) - Untreated water contains organisms that may cause illness. Chlorine is used as a primary disinfectant and serves to maintain a level of disinfection in the pipes that transport water to homes and businesses. When organic compounds in untreated water react with chlorine, they produce byproducts known as trihalomethanes (TTHMs). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
- Turbidity - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

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

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

WATER HARDNESS

Hardness is the level of dissolved natural minerals (calcium and magnesium) found naturally in water. These minerals are an important part of a healthy diet. Hard water contains more mineral nutrients and less sodium. A gradual buildup of calcium and magnesium may form a harmless, filmy white deposit on faucets, and in tea kettles. Hard water also requires more soap to lather fully.

CONCERNING NITRATES IN OUR WATER

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 and shortness of breath. 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 care provider.

CONCERNING SODIUM IN OUR WATER

For healthy individuals, the sodium intake from water is not important because a much greater intake of sodium takes place from salt in diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER: The Pequannock Township Water system failed to comply with a required testing procedure. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation. *We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the 2021 annual monitoring period we are violation (2022-8682) of the TOTAL THM-HAA5 ROUTINE MONITORING we failed to take the proper number of tests during this period. As part of the STATE LEAD SERVICE LINE RULE, we incurred a violation (2022-3632 and 2022-3631) for not sending in the proper information on time.

What should I do? There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What is being done? For violation 2022-8682 we have continued with our normal testing procedure. For violation 2022-3631 and 2022-3632 the required information was sent in and compliance was achieved.

QUESTIONS ABOUT WATER TESTING AND THE PEQUANNOCK TOWNSHIP WATER SYSTEM

If you have any questions about this Water Quality Report or the water testing performed by the Township, please contact the Water Department at (973) 835-5700 Ext. 191 between the hours of 8:30am and 4:30pm.

To learn more about the water system, its operation and supply, please contact the Department of Public Works at (973) 835-5700 Ext 191.

The Township Council meets on the second and fourth Tuesdays of each month. There is a public discussion period at each meeting where questions and concerns are addressed. These meetings are open to the public and you are always welcome and invited to attend.

SOME PEOPLE MAY BE MORE VULNERABLE TO CONTAMINANTS IN DRINKING WATER THAN IS 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 CARE PROVIDERS. EPA/CDC GUIDELINES ON APPROPRIATE MEANS TO LESSEN THE RISK OF INFECTION BY CRYTOSPORIDUM ARE AVAILABLE FROM THE SAFE DRINKING WATER HOTLINE (800 426-4791)

Regulated Contaminants (units)	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)	Results NJDWSC Wanaque	Violation	Source of Contaminant
Barium (ppm)	2	2	0.0095	No	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits.
Copper (ppm)	0	AL=1.3	0.013	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preserves.
Fluoride (ppm)	4	4	ND	No	Erosion of natural deposits; water additive promoting strong teeth; discharge from fertilizer and aluminum factories.
Lead (ppb)	0	AL=15	0	No	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.
Nitrate (ppm as nitrogen)	10	10	0.26	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Perfluorinated Compounds					
Perfluorooctanesulfonic acid [PFOS] (ppt)	0	13*	2.84**	No	Metal plating and finishing, discharge from industrial facilities, aqueous film-forming (firefighting) foam
Perfluorooctanoic acid [PFOA] (ppt)	0	14*	3.6**	No	Metal plating and finishing, discharge from industrial facilities, aqueous film-forming (firefighting) foam
**MCL created by the state of New Jersey. Currently there is no Federal MCL for perfluorinated compounds. **These values taken from NJ Drinking Water Watch.*					
Treatment Technique (TT) Monitoring					
Turbidity (NTU)	N/A	TT =1	Highest Level Detected = 0.5 (0.01-0.5)	No	Soil run-off
	N/A	TT = % of samples <0.3 NTU (min 95%)	Lowest Monthly % of Samples meeting Turbidity Limits = 99.99%		
Turbidity is a measure of the cloudiness of the water and is monitored as an indicator of water quality. High turbidity can limit the effectiveness of disinfectants.					
Total Organic Carbon (%)	N/A	TT = % Removal or meeting alternative criteria Removal Ratio of 1.0	Running Annual Average (RAA): 1.1 % Removal Range: 33-48 Removal Ratio Range: 0.9 - 1.4	No	Naturally present in the environment
Secondary Compounds	**Units**	**Secondary Standard (Recommended Upper Limit)**	**Results NJDWSC Wanaque Falls**	**RUL Achieved**	
					Source of Contaminant
Alkylenzene Sulfonate [ABS]/ Linear Alkylbenzene Sulfonate [LAS] (ppb)	ppb	500	<0.50	Yes	

Alkalinity	ppm	N/A	49.6	N/A	A characterics of water caused by carbonate and bicarbonates
Aluminum	ppb	200	38.1	Yes	By-product of water treatment using aluminum salts.
Chloride	ppm	250	51.2	Yes	Erosion of natural deposits.
Color	CU	10	2	Yes	Presence of manganese and iron, plankton, humus, peat and weeds.
Hardness (as CaCO3)	ppm	50-250	52	Yes	A characteristic of water caused primarily by salts of calcium and magnesium.
Manganese	ppm	50	3.7	Yes	Erosion of natural deposits.
Odor (TON)	TON	3	<1.00	Yes	Algae and plant matter.
pH	units	6.5-8.5 optimum range	7.98	Yes	Presence of carbonates, bicarbonates, and carbon dioxide.
Sodium	ppm	50	29.4	Yes	Runoff from road salt and from some water softening processes.
Sulfate	ppm	250	7.78	Yes	Draining of mining wastes, erosion of natural deposits.
Total Dissolved Solids	ppm	500	170	Yes	Erosion of natural deposits.
Zinc	ppb	5000	<10	Yes	Erosion of natural deposits.
Results from Pequannock Township Testing					
Stage 2 Disinfection By-Products					
	Units	**Maximum Contaminant Level (MCL)**	**Results Pequannock Township**	**Violation**	**Source of Contaminant**
TTHMs [Total]	ppb	80	52.20 - 91.20 LRAA= 67.07	Yes	By-product of drinking water disinfection.
Haloacetic Acids	ppb	60	30 – 53 LRAA=42.83	Yes	By-product of drinking water disinfection.
Secondary Compounds					
Chlorine Residual	ppm	4	0.2 – 1.4	No	Chlorine remaining in treated water and available to destroy disease causing organisms.
Lead and Copper Testing					
	Maximum Contaminant Level Goal (MCLG)	**Action Level**	**90th Percentile**	**Violation**	**Source of Contaminant**
Copper (ppm)	1.3	1.3	0.208	No	Corrosion of Household plumbing systems
Lead (ppb) August 2021 10 Samples	0	15	0	No	Corrosion of Household plumbing systems
*There where no samples over the action level.					