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TOWN OF KNIGHTSTOWN
Annual Drinking Water Quality Report
KNIGHTSTOWN WATER DEPARTMENT
June 1, 2022

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source utilizes both a fractured bedrock aquifer and a sand and gravel outwash aquifer for its water supply. The wells are located along Montgomery Creek on the west side of Knightstown. I'm pleased to report that our drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Randy Anderson, Water Plant Operator at 120 east main St. or call 765-345-5977. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Thursday of each Month at 7:00 P.M. in the Town Hall.

Knightstown Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2021

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

The sources of drinking water (both tap water and bottled water) include river, lake, streams, pond, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radiaoactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 care providers. EPA/Centers for Disiase Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and othe microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

"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. Town Of Knightstown 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, testing methods, and steps you can take to minimize exposure is available for the Safe Drinking Water Hotline or at http://ww.epa.gov/safewater/lead."

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 result from urban storm water 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, urban storm water runoff, and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemical, which are by-production of industrial processes and petroleum production, and can also come from gas station, 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In this 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:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Treatment Technique (TT) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - (mandatory language) The "Maximum Allowed" (MCL) is 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.

Maximum Contaminant Level Goal (MCLG) - (mandatory language) The "Goal"(MCLG) is 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.

Maximum Residual Disinfectant Level (MRDL) – (mandatory language) 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.

Maximum Residual Disinfectant Level Goal (MRDLG) – (mandatory language) The level of a 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 contaminants.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria				0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment

2. Fecal coliform and *E.coli*		0		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive	Human and animal fecal waste
3. Turbidity		n/a		n/a	TT	Soil runoff
Radioactive Contaminants						
4. Beta/photon emitters		<2.6	mrem/yr	0	4	Decay of natural and man-made deposits
5. Alpha emitters		1.5	pCi/l	0	15	Erosion of natural deposits
6. Combined radium			pCi/l	0	5	Erosion of natural deposits
7. Uranium[1]			µg/L	0[1]	30[1]	Erosion of natural deposits
Inorganic Contaminants						
8. Antimony		.0010	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
9. Arsenic[2]		.0010	ppb	n/a[2]	50[2]	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Asbestos			MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
11. Barium		.221	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
12. Beryllium		.002	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
13. Cadmium		.001	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
14. Chromium		.0006	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
15. Copper		.099	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Cyanide			ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
17. Fluoride		.252	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
18. Lead		<1.0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
19. Mercury (inorganic)		.0002	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland

20. Nitrate (as Nitrogen)		.121	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Nitrite (as Nitrogen)			ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
22. Selenium		.002	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
23. Thallium		.0010	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Sodium		13.6	ppm	N/A	N/A	Runoff from road salt application
Synthetic Organic Contaminants including Pesticides and Herbicides						
24. 2,4-D		1.0	ppb	70	70	Runoff from herbicide used on row crops
25. 2,4,5-TP (Silvex)		0.2	ppb	50	50	Residue of banned herbicide
26. Acrylamide				0	TT	Added to water during sewage/wastewater treatment
27. Alachlor		0.1	ppb	0	2	Runoff from herbicide used on row crops
28. Atrazine		0.1	ppb	3	3	Runoff from herbicide used on row crops
29. Benzo(a)pyrene (PAH)		0.04	nanograms/l	0	200	Leaching from linings of water storage tanks and distribution lines
30. Carbofuran		1.0	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
31. Chlordane		0.05	ppb	0	2	Residue of banned termiticide
32. Dalapon		5.0	ppb	200	200	Runoff from herbicide used on rights of way
33. Di(2-ethylhexyl) adipate		0.6	ppb	400	400	Discharge from chemical factories
34. Di(2-ethylhexyl) phthalate		0.6	ppb	0	6	Discharge from rubber and chemical factories
35. Dibromochloropropane		.02	nanograms/l	0	.2	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
36. Dinoseb		1.0	ppb	7	7	Runoff from herbicide used on soybeans and vegetables
37. Diquat		2	ppb	20	20	Runoff from herbicide use
38. Dioxin [2,3,7,8-TCDD]		10	picograms/l	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories
39. Endothall		9	ppb	100	100	Runoff from herbicide use
40. Endrin		0.01	ppb	2	2	Residue of banned insecticide
41. Epichlorohydrin				0	TT	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
42. Ethylene dibromide		10.0	nanograms/l	0	50	Discharge from petroleum refineries
43. Glyphosate		70	ppb	700	700	Runoff from herbicide use
44. Heptachlor		0.01	nanograms/l	0	400	Residue of banned termiticide
45. Heptachlor epoxide		0.01	nanograms/l	0	200	Breakdown of heptachlor

46. Hexachlorobenzene		0.01	ppb	0	1	Discharge from metal refineries and agricultural chemical factories
47. Hexachlorocyclo-pentadiene		0.1	ppb	50	50	Discharge from chemical factories
48. Lindane		0.01	nanograms/l	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
49. Methoxychlor		0.01	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
50. Oxamyl [Vydate]		1.0	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
51. PCBs [Polychlorinated biphenyls]		0.1	nanograms/l	0	500	Runoff from landfills; discharge of waste chemicals
52. Pentachlorophenol		0.04	ppb	0	1	Discharge from wood preserving factories
53. Picloram		1.0	ppb	500	500	Herbicide runoff
54. Simazine		0..1	ppb	4	4	Herbicide runoff
55. Toxaphene		1.0	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants						
56. Benzene		.5	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
57. Carbon tetrachloride		.5	ppb	0	5	Discharge from chemical plants and other industrial activities
58. Chlorobenzene		.5	ppb	100	100	Discharge from chemical and agricultural chemical factories
59. o-Dichlorobenzene		.5	ppb	600	600	Discharge from industrial chemical factories
60. p-Dichlorobenzene		.5	ppb	75	75	Discharge from industrial chemical factories
61. 1,2 - Dichloroethane		.5	ppb	0	5	Discharge from industrial chemical factories
62. 1,1 - Dichloroethylene		.5	ppb	7	7	Discharge from industrial chemical factories
63. cis-1,2-ichloroethylene		.5	ppb	70	70	Discharge from industrial chemical factories
64. trans - 1,2 - Dichloroethylene		.5	ppb	100	100	Discharge from industrial chemical factories
65. Dichloromethane		.5	ppb	0	5	Discharge from pharmaceutical and chemical factories
66. 1,2-Dichloropropane		.5	ppb	0	5	Discharge from industrial chemical factories
67. Ethylbenzene		.5	ppb	700	700	Discharge from petroleum refineries
68. Styrene		.5	ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
69. Tetrachloroethylene		.5	ppb	0	5	Discharge from factories and dry cleaners
70. 1,2,4 - Trichlorobenzene		.5	ppb	70	70	Discharge from textile-finishing factories
71. 1,1,1 - Trichloroethane		.5	ppb	200	200	Discharge from metal degreasing sites and other factories
72. 1,1,2 -Trichloroethane		.5	ppb	3	5	Discharge from industrial chemical factories
73. Trichloroethylene		.5	ppb	0	5	Discharge from metal degreasing sites and other factories
74. TTHM[3] [Total trihalomethanes]		3.0	ppb	0	80 or 100[3]	By-product of drinking water chlorination

75. Toluene		.0005	ppm	1	1	Discharge from petroleum factories
76. Vinyl Chloride		.5	ppb	0	2	Leaching from PVC piping; discharge from plastics factories
77. Xylenes		.5	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
HAA5's (Total Halocetic Acids)		2.90	ppb	0	60	By-product of drinking water chlorination

As you can see by the table our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels. More information about contaminants and potential health effects can be obtained by calling Environmental Protection Agency's Safe Drinking Water Hotline 1-800-426-4791. To understand the possible health effects descibed by many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one in a million chance of having a descibed health effect.

Please call our office if you have any questions.

Thank you

Randy Anderson
Water Plant Operator

TEL. # 765-345-5977