

ANNUAL DRINKING WATER QUALITY REPORT 2014

2013 year – report created 03/21/2014

UPPER DEERFIELD TOWNSHIP WATER UTILITY

PWSID# NJ0613004

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water services that 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 you water.

SYSTEM INFORMATION:

The Upper Deerfield Water Utility draws its water supply from four wells drilled into the Kirkwood-Cohansey aquifer at depths ranging between 120 and 160 feet. The water is then treated at one of two separate treatment facilities. These plants remove radionuclides, adjust pH, and chlorinate for disinfection. The water system has a storage capacity of 750,000 gallons and a supply capacity of 2.23 million gallons per day.

CONTACT INFORMATION:

If you have any questions about this report or wish to address any concerns, please contact David J. Rogers or John Hoogendorn at 856-451-9405. We want our customers to be informed about their water. You may also attend any of our regularly scheduled Township Committee meetings which are held on the **first and third Thursday of every month at 7:00 PM at the Municipal Building located at 1325 Hwy 77 in Seabrook.**

SOURCE WATER INFORMATION:

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water contacting NJDEP, Bureau of Safe Drinking Water at 609-292-5550. You may also obtain a copy of this report by contacting the Township Public Works Department at 856-451-9405.

The source water assessment determined the following:

Seven Contaminant categories (and radon) were used to determine the system's susceptibility, and rating of high(H), medium(M) and low(L) were assigned. The categories are listed below.

<i>Category</i>	<i>Well 3</i>	<i>Well 4</i>
Pathogens: Bacteria and Viruses	L	L
Nutrients: Compounds, Minerals, and Elements	H	H
Pesticides: Man-made chemicals, herbicides, insecticides	M	M
Volatile Organic Compounds: Chemicals and Solvents	L	L
Inorganics: Natural and man-made minerals	L	L
Radionuclides: Radioactive substances-natural and man-made	H	H
Radon: Naturally occurring gas	M	M
Disinfectant By-product Precursors: Disinfection reaction with organic	M	M

Material:		
-----------	--	--

Table 2 shows the susceptibility ratings for wells formerly owned by Seabrook Water Corporation which were acquired by the Township.

TABLE 2

Sources Wells 3 Groundwater under direct influence 0 Surface Water 0

Pathogens: 1 High 2 Low Inorganics: 1 Medium 2 Low

Nutrients 3 High Radionuclides: 3 High

Pesticides 2 Medium 1 Low Radon: 3 Medium

VOC's: 2 High 1 Low DPB's: 3 Medium

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.

Potential Contaminant Sources:

Nitrates-Agricultural land use

Nutrients: Agricultural land use

Pesticides-Agricultural land use

Radio nuclides and Radon- Naturally occurring

If you have any questions regarding the source water assessment report or summary please contact the Bureau of Safe Drinking Water at swap@dep.state.nj.us or 609-292-5550.

EDUCATIONAL INFORMATION:

All 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 the 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 at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, natural occurring minerals and in some cases, radioactive material can pick up substance resulting from the presence of animal or human activity.

Contaminants that may be present 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 result from urban storm water runoff, industrial or domestic wastewater discharges, oil or gas production, mining, and 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 chemicals, which are by-products of industrial processes and petroleum production, and can 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 be sure 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 bottled water which must provide the same protection for public health .

SAMPLE TESTING WAIVERS:

The Safe Drinking Water Act regulations allow for monitoring waivers to reduce or eliminate the monitoring requirements for some contaminants. Our system received waivers for the following:

Asbestos

Synthetic Organic Chemicals

DEFINITIONS:

This report contains many terms and abbreviations which you may not be familiar with. To help you better understand them we have provided the following definitions:

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. 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

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

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

. Maximum Contaminant Level – 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 – 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 Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or exposed risk to health. MRDLs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

The Upper Deerfield Township Water Utility 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 1, 2013 to December 31, 2013

TEST RESULTS:

The State allows us to monitor for some constituents less than once a year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old. All sample dates are noted next to the contaminant name.

TEST RESULTS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791)

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
-------------	------------------	-------------------	---------------------	------	-----	--------------------------------

Radioactive Contaminants

Gross Alpha (2013)* See health language below	NO	3.62 annual ave. Highest 5 range 2.7 to 5	pCi/l	0	15	Erosion of natural deposits
Combined radium 226/228 (2013)**See health language below	NO	1.14 annual ave. highest 1.4 range .88 to 1.4	pCi/l	0	5	Erosion of natural deposits

Disinfection By-Products

TTHM (2013) (Trihalomethanes)	NO	9.5 highest=29.8 range 29.8 to 2	Ug/l Running annual average	0	80	By-Product of drinking water chlorination
-------------------------------	----	--	-----------------------------	---	----	---

Haloacetic Acids (HAA)(2013)	NO	4 highest= 14 range 15 to 0	Ppb Running annual average	N/a	60	By-Product of drinking water chlorination
Barium (2012 data)	NO	.0577 range .0704 to .0450	Ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (2011 data)	NO	0.24 90 th percentile sites>AL =0 range 0.0240 to 0.51	Ppm	1.3	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2011 data)	NO	3.3 90 th percentile sites>AL=0 range .8 to 6.5	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) (2013 data)	NO	8.4 Annual Ave high=9.07 Range 7.81 to 9.07	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Chlorine	NO	RAA= .75 .87 to .71	ppm	4	4	Disinfectant additive

Inorganic Contaminants

Volatile Organic Contaminants, including five additional regulated in New Jersey None Detected

**Alpha Emitters: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.*

***Combined radium-226/228: 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 getting cancer.*

Nitrates:

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 care for an infant you should ask advice from your health care provider.

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. The Upper Deerfield Water Utility 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://epa.gov/safewater/lead>

Our responsibility as a public water system requires that we install any treatments or processes necessary to maintain a safe and dependable water supply for all of our customers. The costs of these improvements may be reflected in future rate structures.

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates)

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Furthermore, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Website at www.nrdc.org/water/drinking/bw/exesum.asp