

## Deptford Township Municipal Utilities Authority

PUBLIC WATER SYSTEMS ID# 0802001

# 2017 ANNUAL WATER QUALITY REPORT

JUNE 2018



PO Box 5506 • Deptford, NJ 08096  
Tel: 856-415-1111 Fax: 856-415-0199

## **P**ROTECTING YOUR DRINKING WATER

To comply with state and federal regulations, the Deptford Township Municipal Utilities Authority [DTMUA] issues a report annually describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and your awareness of the need to protect our drinking water sources.

Drinking water standards are regulations that the Environmental Protection Agency (EPA) sets to control the level of contaminants in the nation's drinking water. These standards are part of the Safe Drinking Water Act's (SDWA) "multiple barrier" approach to drinking water protection, which includes assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring integrity of distribution systems; and making information available to the public on the quality of their drinking water.

## **T**HE ORIGIN OF YOUR WATER

The source of Deptford Township Municipal Utilities Authority [DTMUA] is groundwater from seven wells, each with individual chlorinating treatment facilities. The wells vary in depth from 261 to 355 feet deep. Water pumped from the wells is treated with a polyphosphate for corrosion control and to minimize the staining effects on fixtures. The seven wells pump water from the Potomac-Raritan-Magothy (PRM) Aquifer formation. The DTMUA's annual diversion from the Aquifer for the year 2017 was 316.704 million gallons.

Deptford Township used 857,504,000 gallons of water last year. In order to meet this demand, the DTMUA must augment its well water supply with the bulk purchase of treated water from NJ American Water Company (NJAWC). NJAWC's water originates from the Delaware River. Approximately fifty-nine percent of our water came from NJAWC in 2017.

The DTMUA has approximately 11,112 water connections serving over 30,582 residents (estimate provided by the U.S. census bureau, 2017). Last year, the DTMUA supplied on average, 1.92 million gallons of water per day during the winter months and 2.77 million gallons of water per day during the summer months. This equates to approximately 78 gallons of water daily per person in the service area.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for DTMUA's water system which is available at [www.state.nj.us/dep/swap](http://www.state.nj.us/dep/swap) or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

All seven wells tested low in the susceptibility ratings for pathogens, nutrients, pesticides, volatile organic compounds and radon. All seven wells tested medium for disinfection by-product precursors and inorganics. Four wells tested medium and three wells tested low for radionuclides.

## **O**UR COMMITMENT TO YOU

The DTMUA is committed to providing residents with a safe and reliable supply of high-quality drinking water all year round. Each day our employees are working to ensure that the water delivered from our facilities meet or exceed all Federal and State regulatory requirements.

This brochure is a summary of the quality of water provided to our customers last year. Included are details about where your water comes from, what our test results show about it, and how it compares to standards set forth by the Federal and State regulatory agencies. Copies of all test results as submitted to regulatory agencies are available for examination during normal business hours at the DTMUA's office.

## **W**AIVER

The SDWA 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.

The State of New Jersey allows monitoring for some substances less than once a year because the concentrations of these substances do not change frequently. Some of our data in the Table of Detected Contaminants, though representative, may be more than one year old.

# TABLE OF DETECTED CONTAMINANTS - RESULTS FOR 2017

Contaminants	Unit	MCL	MCLG	Deptford MUA Highest Detection	Deptford MUA Range Detected	NJAWC Highest Compliance	NJAWC Range Detected	Major Sources	
<b>TREATMENT BYPRODUCTS, TREATMENT BYPRODUCTS PRECURSOR REMOVAL AND TURBIDITY</b>									
Ratio of Actual /Required TOC Removal <sup>(1)</sup>	Ratio	TI: Running Annual Average $\geq$ 1.0	NA	-	-	1.3 <sup>(3)</sup>	1.30 to 1.88	Naturally present in the environment	
Total Organic Carbon <sup>(1)</sup>	%	TI $\geq$ 35% Removal	NA	-	-	45% <sup>(3)</sup>	45% to 66%	Naturally present in the environment	
Turbidity <sup>(1)(4)</sup>	NTU	TI=1NTU	1	-	-	0.09	0.01 to 0.09	Soil runoff	
	%	TI=% of samples $<$ 0.3 NTU	0	-	-	100% <sup>(4)</sup>	NA	Soil runoff	
<b>RADIOLOGICALS</b>									
Alpha Emitters	pCi/l	15	0	4.05	0.765 to 4.05	NA	NA	Erosion of natural deposits	
Combined Radium (Ra226/228) 2017	pCi/l	5	0	0.751	0.002 to 0.751	NA	NA	Erosion of natural deposits	
<b>INORGANIC SUBSTANCES</b>									
Barium (2014) <sup>(6)</sup>	ppm	2	2	0.88	0.02 to 0.88	NA	NA	Discharge of drilling wastes & metal refineries; Erosion of natural deposits	
Copper (2017) <sup>(7)</sup>	ppm	AL=1.3	AL=1.3	0.32 with 0 sites exceeding AL	Homes above AL[0]	0.03	Home above AL[0]	Corrosion of household plumbing systems	
Fluoride (not added) (2014) <sup>(7)</sup>	ppm	4	4	1.25	0.109 to 1.25	NA	NA	Erosion of natural deposits; Discharge from fertilizer and aluminum factories	
Lead (2017) <sup>(7)</sup>	ppb	AL=15	AL=0	0.152 with 2 sites exceeding AL	Homes above AL[2]	-	-	Corrosion of household plumbing systems	
Nickel (2014) <sup>(7)</sup>	ppb	100	100	3	0.15 to 3	NA	NA	Erosion of natural deposits	
Nitrate	ppm	10	10	<sup>(8)</sup> Did not test	<sup>(8)</sup> Did not test	1.26	NA	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits	
Sodium	ppm	50	50	56	ND to 56	NA	NA	Erosion of natural deposits	
<b>DISINFECTION BY-PRODUCTS</b>					LRAA				
Stage 2 Total Trihalomethanes (TTHM)	ppb	80	NA	35.5	NA	.6 to 35.5	NA	NA	Drinking water disinfection
Stage 2 Total Haloacetic Acid (HAA5)	ppb	60	NA	13.4	NA	$<$ 2.0 to 13.4	NA	NA	Drinking water disinfection
Bromate <sup>(1)</sup>	ppb	10	0	-	-	-	5 <sup>(2)</sup>	5	By-product of drinking water disinfection
<b>MICROBIAL CONTAMINANTS</b>									
Total Cloriform Bacteria	Positive Monthly Samples	5%	0	0	0	NA	NA	Naturally present in environment	
<b>DISINFECTANTS</b>									
Chlorine	ppm	MRDL = 4	MRDLG = 4	0.5	0.2 - 0.5	.93 <sup>(5)</sup>	0.47 to .93	Water additives to control microbes	
			YES	NA	TT = $\geq$ 0.20	.47 <sup>(3)</sup>			
<b>FOOTNOTES</b>									

- DTMUA was not required to test for these substances.
- This level represents the highest annual quarterly average calculated from the data collected. Compliance is based on running annual average.
- Data represents the lowest removal of Total Organic Carbon (TOC).
- 100% of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water, and a good indicator of the effectiveness of our filtration.
- Data represents the lowest and highest chlorine residual entering the distribution system from our surface water treatment plant.
- Data represents highest locational quarterly running annual average.
- The State of New Jersey allows us to monitor for certain contaminants less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative, are more than one year old.
- Did Not Test (see page 5)

## TABLE OF DETECTED CONTAMINANTS - RESULTS FOR 2017

### UNREGULATED CONTAMINANTS MONITORING (UCMR3): 2014 - 2015 DTMUA Results

Parameter	Units	Highest Local Average	Range Detected	Typical Source
1,1-Dichloroethane	ppb	< 0.03	0 to <0.03	Halogenated alkane; used as a solvent
1, 2, 3 - Trichloropropane*	ppb	< 0.03	0 to <0.03	Halogenated alkane; used as ingredient in paint, varnish remover, solvents and degreasing agents
*1, 2, 3 - Trichloropropane was detected in purchased water previously used to supply a limited number of customers. This purchased supply was discontinued in 2015. 1, 2, 3 - Trichloropropane was not detected in any of New Jersey America Water's sources.				
1,4-Dioxane	ppb	.1	<0.07 to 1	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	< 0.06	0 to < 0.06	Used as a fire-extinguishing fluid, and explosive suppressant, and as a solvent in the manufacturing of pesticides
Chlorate	ppb	300.1	0 to 300.1	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide
Chromium (VI)	ppb	1.5	.03 to 1.5	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
Cobalt	ppb	< 1	0 to < 1	Naturally-occurring element found in the earth's crust and at low concentrations in sea water, and in some surface and ground water; cobaltous chloride was formerly used in medicine as a germicide
Molybdenum	ppb	2.2	<1 to 2.2	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	ppb	640	92 to 640	Naturally-occurring element; historically commercial use of strontium has been in faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	ppb	<.02	0 to <.02	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

### UNREGULATED CONTAMINANTS MONITORING (UCMR3): 2013 - 2014 NJWC Results

Parameter	Units	Highest Locational Average	Range Detected	Typical Source
Hexavalent Chromium	ppb	1.0	0.65 to 1.22	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
Total Chromium	ppb	1.3	0.8 to 1.8	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	1.4	1.2 to 1.7	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	ppb	79	74.3 to 90.2	Naturally-occurring element; historically commercial use of strontium has been in faceplate glass of cathode-ray tube televisions to block x-ray emissions

## TABLE DEFINITIONS

**90th percentile Value:** Of the samples taken, 90% of the values of the results were below the level indicated in the table.

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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 margin of safety.

**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 control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG) -** 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.

**NA -** Not Applicable

**ND -** Not Detected

**NJAWC -** New Jersey American Water Company.

**NR (Not Regulated):** Indicates that there currently are no available regulations for these substances.

**NTU (Nephelometric Turbidity Units):** Measurement of clarity, or turbidity of water.

**ppm (parts per million):** One part substance per million parts water.

**ppb (parts per billion):** One part substance per billion parts water.

**pCi/L (picoCuries per liter):** A measure of the radioactivity in water.

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

## SECONDARY STANDARDS (RELATED TO THE AESTHETIC QUALITY OF DRINKING WATER)

Substance	Unit	Recommended Upper Limit Detection	DTMUA Highest Detection	DTMUA Range Detected	NJAWC Highest Detection	NJAWC Range Detected	Major Sources
Iron	ppb	300	Did not test	Did not test	NA	NA	Did not test (see page 5)
Sodium	ppm	50	56	ND to 56	NA	NA	Naturally occurring
Sulfate (2011)	ppm	250	34.2	6.76 to 34.2	NA	NA	Erosion of natural deposits

**Iron:** The secondary recommended upper limit for iron is based on unpleasant taste of the water and staining of fixtures and laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

### 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 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 additional uncertainties regarding these effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

### REQUIRED HEALTH LANGUAGE

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 may be obtained by calling the EPA Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled) 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 in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Substances that may be present in source water before we treat it include:

- **INORGANIC SUBSTANCES**, such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **MICROBIAL SUBSTANCES**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Sodium:** For 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 secondary RUL may be of concern to individuals on a sodium restricted diet. This shall serve as public notice for consumers that the sodium levels slightly exceed the secondary standards for sodium.

- **ORGANIC CHEMICAL SUBSTANCES**, 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.
- **PESTICIDES AND HERBICIDES**, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- **RADIOACTIVE SUBSTANCES**, 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 that 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.

**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.

# IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

## Monitoring Requirements Not Met for Deptford MUA

Our water system violated drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

*\*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 2017 we did not complete all monitoring or testing for iron and manganese and nitrate therefore cannot be sure of the quality of your drinking water during that time.*

### What should I do?

There is nothing you need to do at this time.

The table below lists the contaminants we did not properly test for during the last year, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
Iron and manganese	1 sample every year	0	12-31-17	1-22-18
Nitrate	1 sample every year per well	0	12-31-17	1-22-18

### What is being done?

Sampling was completed the day after oversight was recognized.

For more information, please contact Michael Cusick at 856-415-1111 x223 or P.O. box 5506, Deptford, N.J.08096.

*\*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.*

*Iron may cause brown staining of fixtures.*

*Manganese may cause black staining of fixtures.*

*Nitrate – high levels may cause blue baby syndrome.*

This notice is being sent to you by Deptford Twp. M.U.A. State Water System ID#: 0802001

Date distributed: June 29, 2018.

**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. DTMUA 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 water tested. Information on lead in drinking water is available from Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## 2018 MEETING DATES

Our monthly meetings are usually held on the 3rd Tuesday of each month at 5:30pm at 898 Cattell Road. Below is a list of meeting dates for 2018.

JUNE 19, 2018	OCTOBER 16, 2018
JULY 17, 2018	NOVEMBER 20, 2018
AUGUST 21, 2018	DECEMBER 18, 2018
SEPTEMBER 18, 2018	JANUARY 15, 2019

## SOURCE OF INFORMATION

### DEPTFORD TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

898 Cattell Rd., Wenonah, NJ 08096  
Tel: (856) 415-1111 Fax: (856) 415-0199  
Monday - Friday from 7:45am to 4:45pm  
[www.deptfordmua.com](http://www.deptfordmua.com)

### NEW JERSEY AMERICAN WATER COMPANY

1025 Laurel Oak Road, Voorhees, NJ 08043  
Customer Service - Tel: (800) 272-1325  
[www.amwater.com](http://www.amwater.com)

**U.S. EPA SAFE DRINKING WATER:** (800) 426-4791

**NJ DEP BUREAU OF SDW:** (609) 292-5550

## VULNERABLE POPULATION LANGUAGE

**"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 (800) 426-4791."**

## BOARD MEMBERS

LINDA TRAMO - CHAIRMAN  
PATRICK MEDANY - VICE CHAIRMAN  
DANIEL REED - SECRETARY / TREASURER  
RUBY LOVE - BOARD MEMBER  
JOSEPH SACERDOTE - BOARD MEMBER  
JOHN BRESCH - ALTERNATE MEMBER #1  
EDWARD KALINOWSKI - ALTERNATE MEMBER #2

## PROFESSIONALS & STAFF

ROBERT HATALOVSKY JR. - EXECUTIVE DIRECTOR  
SCHROEDER LAW GROUP - ATTORNEY  
BACH ASSOCIATES - CONSULTING ENGINEER  
BOWMAN AND COMPANY - AUDITOR  
MICHAEL J. CUSICK - UTILITIES SUPERINTENDENT

**DTMUA PWS ID #: NJ0802001**

**NJAWC PWS ID#: 0327001**