



# WEST DEPTFORD TOWNSHIP

# WDT

## WATER QUALITY REPORT

0820001

# At West Deptford



# Water Quality Is Important!

**W**hen you are responsible for the water that 21,677 people drink, including your own family and neighbors, you do your best to insure the quality of that water. That is why we are committed to providing our residents with the best water possible. Our trained and dedicated employees are working everyday to ensure your supply of safe drinking water.

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 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 include:

- Microbes 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 stormwater 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, stormwater 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 also come from gas stations, stormwater runoff, and septic systems.
- 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, EPA prescribes regulations which limit the amount of certain substances in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for substances in bottled water which must provide the same protection for public health.

## Where Your Water Comes From

Your water comes from a blend of sources:

### 52% West Deptford

- Groundwater from wells in the Potomac-Raritan-Magothy (PRM) Aquifer.

### 48% New Jersey American Water Company

- Groundwater from wells in the PRM Aquifer
- Surface water from the Delaware River Treatment Plant at Delran N.J.

# Current Water Issues



## WEST DEPTFORD TOWNSHIP WDT WATER QUALITY REPORT

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 systems 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 and Center for Disease Control 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).

You may be interested to know the following information:

- **Arsenic:** Testing can detect arsenic in quantities as low as 2 parts per billion.
- **Radium:** No radium has been found in our water.
- **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. West Deptford 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>.
- **Cryptosporidium:** Rivers, lakes, and reservoirs may contain this tiny microbe. It has not been found in underground aquifers, such as the PRM aquifer that supplies West Deptford. The surface water source (Delaware River) used by the New Jersey American Water Company to supply 48% of its water, is tested for *Cryptosporidium*. It has not been detected in the water supply.
- **Sodium:** Sodium is the principal cation in the hydrosphere. It is derived geologically from the leaching of surface and underground deposits of salt. The sodium ion is a major constituent of natural waters. 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 recommended upper limit may be of concern to individuals on a sodium restricted diet. The highest level of sodium detected was 103 parts per million. The Secondary Standard for sodium is 50 ppm.
- **Iron:** The recommended upper limit for iron is based on unpleasant taste of the water and staining of the laundry. Iron is an essential nutrient, but some people who drink water with iron well above the recommended upper limit could develop deposits of iron in a number of organs in the body.
- **Perfluorinated Chemicals (PFC's):** This is an unregulated drinking water contaminant. The NJDEP has developed provisional health advisory limits. As of November 25, 2016, the ground water limits, which are the most stringent, is set at 10 parts per trillion. The Township has been obtaining test results from its municipal owned ground water wells.

## Definitions

### **Maximum Contaminant Level Goal (MCLG)**

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

### **Maximum Contaminant Level (MCL)**

The highest level of a contaminant that is allowed in drinking water, which is set as close to the MGLG as feasible using the best available treatment techniques.

### **Action Level (AL)**

The concentration of a contaminant that, if exceeded, triggers a treatment or other requirement that the water system must follow.

### **PPM (part per million)**

One in a million, one drop in 10 gallons, or one penny in \$10,000.00.

### **PPB (parts per billion)**

One in a billion, one drop in 10,000 gallons, or one penny in \$10,000,000.00.

### **PPT (parts per trillion)**

One in a trillion, one drop in 10,000,000 gallons, or one penny in \$10,000,000,000.00.

### **pico Curie (pCi)**

A unit used to describe the level of activity or decay of a radioactive element.

### **ND (Not Detected)**

The contaminant was either not detected or was below the level which could be measured in a sample of water using the best available analysis techniques.

< : Less than

## WATER FACT

**97% of the water on Earth is salt water found in oceans and seas, and 2% is frozen. Only the remaining 1% is available for consumption.**

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).

| REGULATED CONTAMINANTS    | UNIT  | RANGE DETECTED                           | HIGHEST LEVEL DETECTED | MAXIMUM CONTAMINANT LEVEL ALLOWED | MCL GOAL | SAMPLE SITE | SOURCE/COMMENTS  |
|---------------------------|-------|--|------------------------|-----------------------------------|----------|-------------|--|
| Nitrite                   | ppm   | <0.2 (ND)                                | <0.2 (ND)              | 1.0                               | 1.0      | Wells       | Erosion of natural deposits  |
| Nitrate                   | ppm   | ND - 1.34                                | 1.34                   | 10                                | 10       | Wells       | Erosion of natural deposits  |
| Copper                    | ppm   | .0392 = 0.576<br>90th percentile = 0.426 | 0.576                  | (AL) 1.3                          | 1.3      | Customer    | Corrosion of household plumbing system and erosion of natural deposits |
| Lead                      | ppb   | 0.050 - 23.6<br>90th percentile = 2.70   | 23.6                   | (AL) 15                           | 0        | Customer    | Corrosion of household plumbing systems                                |
| <b>INORGANIC CHEMICAL</b> |       |  |                        |                                   |          |             |  |
| Antimony                  | ppb   | ND - 0.090                               | 0.090                  | 6.0                               | 6.0      | Wells       | Discharge from petroleum refineries                                    |
| Arsenic                   | ppb   | 0.240 - 2.20                             | 2.20                   | 50                                | N/A      | Wells       | Erosion of natural deposits  |
| Barium                    | ppm   | 0.0164 to 0.0856                         | 0.0856                 | 2                                 | 2        | Wells       | Erosion of natural deposits  |
| Beryllium                 | ppb   | <2.0 (ND)                                | <2.0 (ND)              | 4                                 | 4        | Wells       | Discharge from industries and metal refineries                         |
| Cadmium                   | ppb   | <2.0 (ND)                                | <2.0 (ND)              | 5.0                               | 5        | Wells       | Erosion of natural deposits  |
| Chromium                  | ppb   | ND - 0.90                                | 0.90                   | 100                               | 100      | Well        | Erosion of natural deposits  |
| Cyanide                   | ppb   | <20 (ND)                                 | <20 (ND)               | 200                               | 200      | Well        | Discharge metal and fertilizer factories                               |
| Fluoride                  | ppm   | 0.0615 - 1.45                            | 1.45                   | 4                                 | 4        | Well        | Erosion of natural deposits<br>Promotes strong teeth                   |
| Mercury                   | ppb   | 0 (ND)                                   | 0 (ND)                 | 2                                 | 2        | Well        | Erosion of natural deposits  |
| Nickel                    | ppb   | <2.0 (ND)                                | <2.0 (ND)              | 100                               | 100      | Well        | Erosion of natural deposits  |
| Selenium                  | ppb   | 0.460 to 12.9                            | 12.9                   | 50                                | 50       | Well        | Erosion of natural deposits  |
| Sodium                    | ppm   | 15.9 to 103                              | 103                    | 50                                | -        | Well        | Erosion of natural deposits  |
| Thallium                  | ppb   | 0 (ND)                                   | 0 (ND)                 | 2                                 | 0.5      | Well        | Discharge from factories and ore processing sites                      |
| <b>RADIOLOGICAL</b>       |       |  |                        |                                   |          |             |  |
| Gross alpha activity      | pCi/l | 0.82 to 1.51                             | 1.51                   | 15                                | 0        | Well        | Erosion of natural deposits  |
| TOTAL TRIHALOMETHANES     | ppb   | 2.95 - 23.4                              | 23.4                   | 80                                | 0        | Customer    | By-product of drinking water chlorination                              |
| Halooacetic Acids Five    | ppb   | ND - 4.86                                | 4.86                   | -                                 | 0        | Customer    | By-product of drinking water chlorination                              |

| SECONDARY CONTAMINANTS  | UNIT | RANGE DETECTED   | HIGHEST LEVEL DETECTED | RECOMMENDED UPPER LIMITS   | MCL GOAL | SAMPLE SITE | SOURCE/COMMENTS                                       |
|-------------------------|------|------------------|------------------------|----------------------------|----------|-------------|---|
| Chloride                | ppm  | 20.4 to 87.0     | 87.0                   | 250                        | -        | Well        | -   |
| Corrosivity             | -    | -0.291 to -0.541 | -0.541                 | ±1.0                       | -        | Well        | -   |
| Hardness                | ppm  | 20.8 to 93.1     | 93.1                   | Range 50-250               | -        | Well        | Soft water  |
| Iron                    | ppm  | 0.0041 to 0.235  | 0.235                  | 0.3                        | -        | Well        | -   |
| Manganese               | ppm  | .0125 to 0.537   | 0.537                  | 0.05                       | -        | Well        | -   |
| pH                      | -    | 7.64 to 8.02     | 8.02                   | Range 6.5 to 8.5           | -        | Well        | -   |
| <b>MICROBIOLOGICAL</b>  |      |                  |                        |                            |          |             |   |
| Total Coliform Bacteria | -    | 0                | 0                      | Presence in ≥5% of samples | 0        | Customer    | Naturally present in environment<br>363 Samples taken |

## Did You Know?



### The Top 10 List On Conserving & Protecting Groundwater

1. Dispose of chemicals properly.
2. Take used motor oil to a recycling center.
3. Limit amounts of fertilizer.
4. Take short showers.
5. Shut water off while brushing teeth.
6. Run full loads of dishes and laundry.
7. Check for leaky faucets and have them repaired.
8. Water outside only when necessary.
9. Keep a pitcher of drinking water in refrigerator.
10. Be involved in water education.



# Source Water Assessment

The New Jersey Department of Environmental Protection 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](http://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 six wells determined the following High, Medium, and Low susceptibility ratings:

| Sources | Pathogens |   |   | Nutrients |   |   | Pesticides |   |   | Volatile Organic Compounds |   |   | Inorganics |   |   | Radio-nuclides |   |   | Radon |   |   | Disinfection Byproducts Precursors |   |   |  |  |   |  |  |
|---------|-----------|---|---|-----------|---|---|------------|---|---|----------------------------|---|---|------------|---|---|----------------|---|---|-------|---|---|------------------------------------|---|---|--|--|---|--|--|
|         | H         | M | L | H         | M | L | H          | M | L | H                          | M | L | H          | M | L | H              | M | L | H     | M | L | H                                  | M | L |  |  |   |  |  |
| Wells-6 |           |   | 6 |           |   | 6 |            |   | 6 | 1                          |   | 5 |            |   | 6 |                |   | 1 | 4     | 1 |   |                                    | 1 | 5 |  |  | 6 |  |  |

The rating reflects the potential for contamination of source water, not the existence of contamination. It does not mean a customer is or will be consuming contaminated drinking water. 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, NJDEP found the following potential contaminant sources within the source water assessment areas for our sources:

- Agricultural Land Use
- Urban Land Use
- Commercial / Industrial Land Use
- Distance to Wetlands
- Population Density
- Impervious Surfaces
- Septic Tank Density

## Sources of Information

- **West Deptford Township Water Department** [www.westdeptford.com](http://www.westdeptford.com)  
400 Crown Point Road, West Deptford, N.J. 08086  
Administration 845-4004 extension 127 or 128  
Billing 845-4004 extension 104 or 105  
Maintenance 845-4004 extension 127  
Emergencies 845-2300
- **U.S. Environmental Protection Agency**  
Safe Drinking Water Hotline: 1-800-426-4791
- **NJDEP** - [www.state.nj.us/dep](http://www.state.nj.us/dep)
- **Drought** - [www.njdrought.org](http://www.njdrought.org)
- **New Jersey Board of Public Utilities**  
Division of Customer Relations:  
1-800-624-0241 or 1-973-648-2350  
Two Gateway Center, Newark, N.J. 07102

Prepared in compliance with the 2005 Environmental Protection Agency National Primary Drinking Water Regulations for Consumer Confidence Reports.

## Average Use For Common Household Tasks

### How Much Water Does It Take?

|                        |                            |
|------------------------|----------------------------|
| Washing Machine        | 20 to 40 gallons per load  |
| Hand Washing Dishes    | up to 20 gallons per load  |
| Automatic Dishwasher   | 6 to 12 gallons per load   |
| Bath                   | 20 to 50 gallons           |
| Shower                 | 2 to 10 gallons per minute |
| Toilet                 | 3 to 7 gallons per flush   |
| Faucet                 | 2 to 4 gallons per minute  |
| Garden Hose (1/2 inch) | 300 gallons per hour       |

### WEST DEPTFORD TOWNSHIP COMMITTEE

Mayor Denice DiCarlo  
Deputy Mayor James Mehaffey  
Committeeman Jeff Hansen  
Committeeman Jerry Maher  
Committeeman Adam Reid



Township Committee meeting dates are the first and third Wednesday of every month. Special meetings are advertised according to law.



# WEST DEPTFORD TOWNSHIP

# WDT

## WATER QUALITY REPORT

### SPECIAL EDITION

## Perfluoroalkyl Compounds (PFC)

### **Q: What are Perfluoroalkyl Compounds (PFC)?**

**A:** PFCs are a large group of synthetic fluorinated organic compounds that contain at least one fully fluorinated carbon atom and are widely used in manufacturing everyday products to make them more resistant to stains, grease and water. PFCs are used in non-stick cookware, stain resistant carpets and waterproof clothing.

### **Q: How are people exposed to Perfluoroalkyl Compounds (PFC)?**

**A:** PFCs are used in manufacturing processes, so they are not usually present in high concentrations in most consumer products. When this material is not handled correctly in bulk quantities and not properly disposed of, PFCs can reach sources of drinking water, can be present in dust. PFCs are environmentally persistent and recalcitrant towards nature degradation. They would accumulate in fish and other animals that humans consume. Some PFCs are used in insecticides, firefighting foam and after market carpet treatment. Therefore PFCs could be ingested or inhaled from products that use the chemicals and from environmental release of the chemicals.

### **Q: Are Perfluoroalkyl Compounds (PFC) in drinking water a concern?**

**A:** The Environmental Protection Agency (EPA) and New Jersey Department of Environmental Protection (NJDEP) are regulatory agencies that are currently evaluating the health effects of PFC in the environment and in humans. The EPA has nominated the PFC class to the National Toxicology Program for additional study. On September 2, 2015 the U.S. Department of Health and Human Services, Agency for Toxic Substance and Disease Registry releases a revised draft toxicological review document for PFCs which is undergoing peer review and public comment. The science is still evolving around this class of compounds.

### **Q: How are Perfluoroalkyl Compounds (PFC) regulated?**

**A:** The EPA maintains an active program called the Contaminant Candidate List (CCL3), finalized on September of 2009 which includes two (2) perfluorinated compounds: Perfluorooctansulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA). In addition, six (6) other Perfluoroalkyl Compounds (PFC) continued to be evaluated by the EPA.

### **Q: Are there any New Jersey regulatory standards for Perfluoroalkyl Compounds (PFC)?**

**A:** Yes the NJDEP has issued guidelines for two most persistent and widely detected PFCs:

- Perfluorooctanoic acid (PFOA) of 40 parts per trillion (ppt)
- Perfluorooctanesulfonic acid (PFOS) of 20 parts per trillion (ppt)
- Additionally in October of 2015 the NJDEP issued an interim specific groundwater criterion for Perfluorononanoic Acid (PFNA) of 10 parts per trillion (10 ppt).

### **Q: Are there any concerns with West Deptford's drinking water supply with respect to Perfluoroalkyl Compounds (PFC)?**

**A:** The West Deptford Township public water supply still remains in accordance with EPA guidelines and NJDEP regulations and all public safety requirements. West Deptford continued to provide regulated, safe drinking water to customers of its water system. The Township has embarked upon quarterly sampling of its raw water from all six (6) of the township supply wells along with the interconnection to the New Jersey American System, and the distribution system. We continue to closely

*continued* ➤



**WEST  
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TOWNSHIP**

# **WDT**

## **WATER QUALITY REPORT**

**SPECIAL EDITION**

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## **Perfluoroalkyl Compounds (PFC) - *continued***

monitor the results of this testing and take precautionary actions to safeguard the public water supply. In January of 2014, following a sampling event that identified PFNA above the guidelines, West Deptford Township voluntarily removed Well #3 from service and has not placed it back into service. In October of 2015, following a sampling event that identified PFNA above the new interim specific groundwater criteria, West Deptford Township voluntarily removed Well #8 from service and has not placed it back into service.

**Q: What about West Deptford Township residents who rely upon potable private wells for their drinking water?**

**A:** West Deptford Township has been working in collaboration with the NJDEP and Solvay to continue the process of identifying private wells used for drinking water, sampling those wells and installing local treatment systems known as Point of Entry Treatment (POET) water system to remove the PFCs from the water prior to use. On November 30, 2015 West Deptford Township entered into a contract with the NJDEP to connect West Deptford Residents with private potable wells, which have tested positive for the presence of Perfluoroalkyl Compounds (PFC), to the West Deptford Public Water Supply System. The cost of the initial phases of this program is \$350,000 and is could increase to nearly \$1M, however 100% of the funding of this program is coming from the NJDEP. The first residents in this project area are expected to be connected to the public water supply this summer.

**Q: What are the next steps for West Deptford Township regarding the Perfluoroalkyl Compounds (PFC) issue?**

**A:** West Deptford Township will continue to work with the NJDEP and Solvay to address this issue. Sampling will continue on the public water supply system in order to insure it remains within Federal and State requirements. The Township also remains current on the evolution of science around this subject. Additionally, the Township is in the process of evaluating treatment alternatives to remove the PFCs from the raw water supply. Lastly, the Township has provided property access to Solvay for several West Deptford Township properties in order to assist in the contaminant evaluation projects they have undertaken.

**Q: Where can I obtain additional information on the subject of Perfluoroalkyl Compounds (PFC)?**

**A:** There are numerous studies and informational resources on this subject on the internet and links exist on the EPA and NJDEP websites as well. If you don't have access to the internet at your home or on your phone, stop by the West Deptford Public Library, they are a great resource for our community.

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