

City Of New Castle



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SCHOOL LANE TREATMENT FACILITY



CARBON FILTRATION SYSTEM CONSTRUCTION

Water

School Lane Treatment Facility Carbon System

On August 5, 2014 the Municipal Services Commission shut down 3 of the City's water supply wells due to PFC Contamination and started purchasing water from Artesian Water Company. Over the next 4 months, the MSC actively worked with our consulting engineer Pennoni Associates to acquire a temporary treatment system to allow the MSC to start using the City's water supply wells and design a permanent treatment system. On December 18th, the MSC completed installation of the temporary system and started using the City's water supply wells. MSC completed design of the permanent system, obtained the necessary permits, and started construction in May. MSC anticipates having the new permanent Carbon Filtration System completed and running this fall to supply water to the City of New Castle residents.

Cross Roads Well

This spring building construction on the MSC's new Cross Roads Well was completed. Work continues with installation of the water main, electric service, and pump motor control system. MSC plans to have this well completed and ready for startup and testing this fall. The addition of this new well to our existing 3 wells will add reliability to our water system allowing the MSC to continue providing the highest quality water service possible to our customers.

Secretary's Message

In this edition of our Newsletter, the Municipal Services Commission is proud to present our 2015 Annual Drinking Water Quality Report.

The Municipal Services Commission's Water Department has been very busy this past year performing water testing that is required for the Consumer Confidence Report (CCR), working on the new Cross Roads Well facility, designing and installing a temporary carbon filtration system and planning, designing, and starting construction of the permanent carbon filtration system to remove the PFC contamination that was detected in our water supply wells.

The Municipal Services Commission (MSC) has not had a utility rate increase in three years. Based upon a recent Cost of Service study prepared by Utility Financial Services (UFS) a rate increase for both electric and water was recommended. Customers will be happy to hear that although other utilities across the country are experiencing double digit rate increases, the Commissioners were able to keep the increases to single digits, 2.0% for electric and 5.2% for water.

The Commission is committed to providing safe and reliable electric and water service at one of the lowest rates in Delaware. If you have questions regarding rates or any other utility issues please contact the MSC at (302)323-2330.

Pamela A. Patone
Secretary | General Manager

Resources At Your Fingertips

City Administration Office 322-9801
Mayor's Office 322-9802
Public Works Department 322-9813

Main Office 323-2330
MSC Utility Building 323-2333

Pamela A. Patone 221-4513
Secretary / General Manager

Mary Jane Stubbs 323-2332
Business Manager / Treasurer

Scott Blomquist 221-4514
Electric Supervisor

Jay Guyer 221-4515
Water Supervisor

Sandy Scott 221-4517
Customer Service Manager

Karen Lynch 221-4516
Customer Service Representative

MSC Commissioners

Dr. Roy J. Sippel - President
Daniel F. Knox
H. Hickman Rowland, Jr.

Calendar Of Events

July 2nd & 3rd - MSC Closed

September 7th - Labor Day Holiday, MSC Closed

September 19th - Wharf Dance

September 26th - Art on the Green

October 3rd - River Towns Ride & Festival

October 12th - Columbus Day/ Office
Closed



Planning a project at home
that involves digging on
your property?

**Don't Start Digging Until
You Call – It's the law!**

MISS UTILITY

1 - 800 - 282 - 8555



2015 Annual Drinking Water Quality Report

**City Of New Castle
Municipal Services Commission
216 Chestnut Street
New Castle, Delaware 19720
Public Water System ID # DE0000634
June 1, 2015**

The Municipal Services Commission (MSC) is charged with the responsibility of providing you clean, safe drinking water, in fact it's the law (The Safe Drinking Water Act) which we are happy to comply with. This Consumer Confidence Report is designed to let you know where your water comes from, what it contains, and any risks water testing and treatment are designed to prevent.

The reporting period for this report is January 1, 2014 through December 31, 2014. The MSC wants you to know that we are committed to providing you with the safest, most reliable water supply available.

Where Does New Castle's Water Come From?

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 materials, and can pick up substances resulting from the presence of animals or from human activity. The source of the MSC's Water is the Potomac Aquifer which is a confined aquifer who's natural filtering characteristics helps to protect our customers from contaminants. The Division of Public Health in conjunction with the Department of Natural Resources and Environmental Control has conducted a Source Water assessment for the City of New Castle's community water system. Please contact Commission Secretary / General Manager Pam Patone at 302-221-4513 regarding how to obtain a copy of this assessment. You may also review the assessment on the website: <http://www.wr.udel.edu/swaphome/index.html>.

Where Do Contaminants Come From?

- A) Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B) Inorganic contaminants, such as salts, and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- D) Organic chemical contaminants, including synthetic and volatile organics, which are by products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- E) Radioactive contaminants, which can be naturally-occurring or can be the result of oil and gas production and mining activities.

Are There Limits to Contaminants?

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (US EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establishes limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may be reasonably 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 US EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Lead In Drinking Water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the Action Level (AL) could experience delays in their mental development. Children could show slight deficits in attention span and learning disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Lead in drinking water is primarily from materials and components associated with service lines and household plumbing. The Municipal Services Commission 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 the water for drinking or cooking. If you are concerned about lead in your drinking 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 are available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

Are Some People at a Greater Risk from Contaminants?

Some people may be more vulnerable to contaminants in drinking water than in 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 health care providers. US 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 at 1-800-426-4791.

Does The MSC Do Only The Minimum Testing Required by Law?

The MSC has tested or has had its water tested by other agencies to look for contaminants which may not be regulated substances. The Commission had DNREC test for contaminants which may have leaked from landfills that are in close proximity to its wells. The EPA and State of Delaware have not set standards for monitoring Radon at this time, none the less the Commission has tested for Radon in its source water and found minimal traces.

The Commission tested for Perfluorochemicals (PFC's) which have been showing up in drinking water supplies in Maryland, New Jersey and now Delaware even though the US EPA does not regulate these substances. In January 2009, the US EPA set short-term provisional health advisory values for PFOA at 0.4 ppb and PFOS at 0.2 ppb. Epidemiological studies of exposure to PFOA, PFOS, and adverse health outcomes in humans are inconclusive at the present time.

During the Summer of 2014, the MSC voluntarily conducted follow up testing of its' water supply wells and found the levels of PFOA and PFOS exceeded the US EPA short-term provisional health advisory values for PFOA at 0.4 ppb and PFOS at 0.2 ppb. The MSC removed the wells from service after consulting with the Delaware Office of Drinking Water, Division of Public Health. After installation of a temporary Carbon Filtration System to remove the contaminants, the MSC resumed using our water supply.

Water Purchases from Artesian Water Company.

In 2014, the MSC purchased water from Artesian Water Company from August 5th through December 18th due to PFC Compounds being detected in the Commission's supply that exceeded the US EPA's Provisional Health Advisory Levels.

Although Artesian Water draws their supply from wells located in the same aquifers as the Commission's, they already had treatment in place to remove the PFC Contaminants. The water purchased was in compliance with all State and Federal Regulations during the time the Commission was receiving water.

If you would like additional information about Artesian Water's supply, please visit their web site at www.artesianwater.com, select the Customer Service Center tab, select Water Quality Reports, and select the Artesian Water Company (Main) tab.

What's The Bottom Line?

Your drinking water meets or surpasses all Federal and State Drinking Water Standards. We at the Municipal Services Commission work hard to provide top quality water to every tap. We ask that all customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.

If you have any questions about this report or concerning your water utility, please contact Secretary / General Manager Pamela Patone by Phone: 302-221-4513, Fax: 302-323-2337, E-mail: patonep@newcastlecw.com, or on the Web at www.newcastlemsc.com.

This report is based upon tests conducted by the Delaware Office of Drinking Water (ODW) , Division of Public Health, State of Delaware. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Regulated Contaminants

Inorganic Contaminants	Unit of Measure	MCL	MCLG	Highest Level Detected	Annual Range	Date Sampled	Violation	Major Sources of Contaminants / Substances
Fluoride (1)	ppm	2	1.2	1.30	0.30 - 1.30	2014	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate	ppm	10	10	4.4	2.6 - 4.4	2014	No	Run off from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.

Lead and Copper

Contaminant	Unit of Measure	MCLG	AL	90th Percentile	# of Sites Over AL	Date Sampled	Violation	Major Sources of Contaminants / Substances
Copper	ppm	1.3	1.3	0.07	0 out of 27	2014	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead *	ppb	0	15	15.9	4 out of 27	2014	No	Erosion of natural deposits; corrosion of household plumbing systems.

* During our 2014 sampling, 4 out of 27 sample results were detected above the Action Level (AL) of 15ppb. MSC resampled the locations which exceeded the AL and only 1 had results above the AL again. The MSC issued a Public Notice to our customers. See the Lead section in this report for more information on how to minimize exposure to lead.

Radiological Contaminants	Unit of Measure	MCL	MCLG	Level Detected	Annual Range	Date Sampled	Violation	Major Sources of Contaminants / Substances
Radium, Combined (226/228)	pCi/l	5	0	2.63	2.63 - 2.63	2014	No	Erosion of natural deposits.
Gross Alpha Particle	pCi/l	15	0	3.18	3.18 - 3.18	2014	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Gross Beta Particle	pCi/l	50	0	2.2	2.2 - 2.2	2009	No	Decay of natural and man made deposits that are radioactive and may emit a form of radiation known as beta radiation.

Disinfection / Disinfection By - Products	Unit of Measure	MCL	MCLG	Level Detected	Annual Range	Date Sampled	Violation	Major Sources of Contaminants / Substances
Chlorine, Free (2)	ppm	4.00	4.00	1.98	0.54 - 1.98	2014	No	Disinfectant used in the drinking water industry.
Haloacetic Acids, Total	ppb	60	0	1.13	1.13 - 1.13	2014	No	By - product of drinking water chlorination.
Trihalomethanes, Total	ppb	80	0	6.66	6.66 - 6.66	2014	No	By - product of drinking water chlorination.

Unregulated Contaminants	Unit of Measure	MCL	MCLG	Highest Level Detected	Annual Range	Date Sampled
Alkalinity	ppm	n / r	n / r	25	25 - 25	2014
Chloride	ppm	n / r	250	86.6	34.0 - 86.6	2014
Hardness, Total	ppm	n / r	n / r	26.6	26.6 - 26.6	2011
pH, Field (3)	0 - 14 scale	n / r	6.5 - 8.5	8.2	6.7 - 8.2	2014
Sodium	ppm	n / r	50	16.0	16.0 - 16.0	2014
Temperature	Degree - C	n / r	n / r	16	12 - 16	2014
Total Dissolved Solids (TDS)	ppm	n / r	500	168	168 - 168	2011
Sulfate	ppm	n / r	250	17.4	8.4 - 17.4	2014
Perfluorooctanioc Acid (PFOA) *	ppb	n / r	0.4	0.44	nd - 0.44	2014
Perfluorooctanesulfonic Acid (PFOS) *	ppb	n / r	0.2	2.3	nd - 2.3	2014

* PFOA and PFOS Compound test results range from non-detect to the highest level detected of 0.44ppb and 2.3ppb respectively. The non-detect results were achieved after the installation of the temporary carbon filtration system was installed at our School Lane Treatment Facility. The highest level detected results were from our smallest producing well located on Basin Road before the carbon filtration system installation. The MSC continues monitoring for PFC contaminants on a monthly basis with non-detect results.

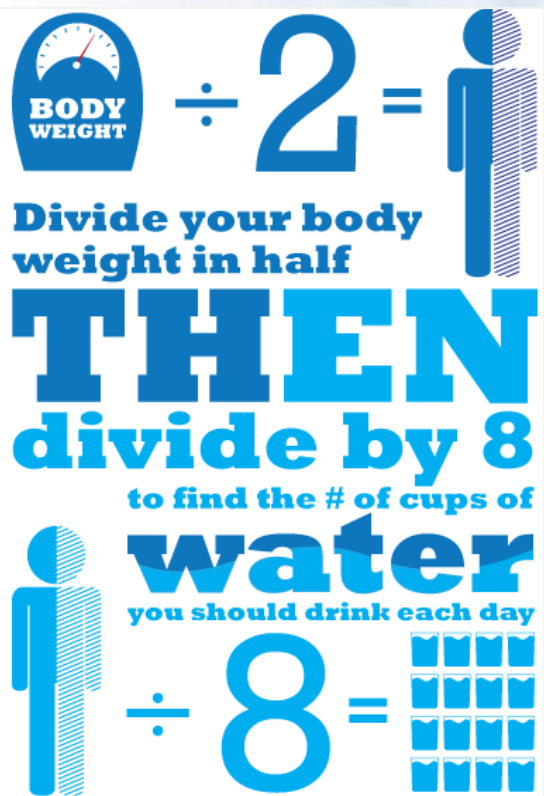


Microbiological Contaminants - Total Coliform Bacteria

120 Samples, 10 Per month,
were collected during 2014.

All samples collected were
absent of Coliform Bacteria.

Number of Violations: None
Major Sources: Naturally
present in the environment.



Annual Average Readings

- 1) Average Fluoride reading - 0.79 ppm
- 2) Average Chlorine Reading - 1.13 ppm
- 3) Average pH Reading - 7.6 on the 0 - 14 Scale

Note: Averages are based upon
the daily water quality readings
taken at the Commission's
School Lane Treatment Facility.

Sharing the Report

MSC requests landlords, apart-
ment managers, businesses, and
schools share this information
with others who might not have
received it directly. Consider
Posting it in a public area or ad-
vise others that the report is
available on - line or by contact-
ing the Commission.

Municipal Services Commission Water System Facts

Meter Customers:
2111 Water Customers

Annual Water Supply:
168,500,468 Gallons

Miles of Water Mains: 29 Miles

2014 Average Daily Water Demand:
454,734 Gallons per Day

2014 Peak Day Water Demand:
792,313 Gallons

Active Supply Wells: 4 Wells

Treatment Facilities: 1 Facility

Storage Capacity:
1.6 Million Gallons or 2 days supply

Public Fire Hydrants: 176

Average Cost for Residential Water Service:
\$1.19 per day (Based upon 4,000 gallons
consumption per month)

Reliability: MSC maintains 2 interconnec-
tions with Artesian Water Company.

Definitions:

90th Percentile - The ninth highest reading (of 10 samples), which is used to determine compliance with the Lead and Copper Rule.

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

Action Level Goal (ALG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

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 Residual Disinfectant Goal (MRDLG) - The level of 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 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 control of microbial contaminants.

Not Applicable (n/a) - Field is not applicable to the substance.

Non - Detect (nd) - Laboratory analysis indicates that the constituent is not present.

Not Regulated (n/r) - No MCL is identified because these substances are unregulated.

Parts Per Million (ppm) - 1 Part Per Million corresponds to 1 minute in 2 years or a single penny in \$10,000.00.

Parts Per Billion (ppb) - 1 Part Per Billion corresponds to 1 minute in 2000 years or a single penny in \$10,000,000.00.

Picocuries Per Liter (pCi/l) - A measure of the radioactivity in water.

City Of New Castle



Municipal Services Commission

216 Chestnut Street
New Castle, Delaware 19720
302-323-2330

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