City of Wilmington
Water Works
A Newsletter Published by The City of Wilmington, Department of Public Works – Water Division
Volume 8 · Summer 2010

Inside this issue...

Pictured above: An impressive array of over 2,000 ground-mounted solar panels will supply power for the Porter Filtration Plant, reducing energy costs and helping to fulfill the City's commitment to green solutions.

Solar Energy Panels Installed at Porter Filtration Plant

Estimated 650,000 kilowatt-hours to be generated yearly

Construction of a new array of photovoltaic cells at the City's Porter Reservoir Filtration Plant began in 2009 and was completed in April 2010. This project represents the first completed portion of a citywide $14.5 million program to decrease energy consumption across City government.

The solar panels will generate electricity for the Porter Filtration Plant—the water treatment facility that produces 75% of the City's drinking water. The Porter solar array consists of 2,288 ground-mounted panels that will generate approximately 650,000 kilowatt-hours of electricity annually. The solar array alone will save the City an estimated $60,000 a year in electricity costs, covering 25 to 35 percent of the electric load of the plant, and generating an estimated $120,000 in annual revenue through the sale of renewable energy credits.

Other City green initiatives

The Porter solar project is just a portion of the City's overall green energy program. The program also includes building a booster pumping station at the Porter Plant to decrease operating costs;

(Continued... page 2)

A Word from the Commissioner

Our commitment is to ensure your drinking water is safe, the quality is consistent and the source of our supply is sustainable. In 2009, we made significant investments in our water supply infrastructure, replaced aging water mains, improved our water treatment methods, and introduced solar power into our energy use mix. Along with other Delaware and Pennsylvania stakeholders, we continue to protect the source of our drinking water from contamination. We are proud to bring you this year's issue of "Water Works." I hope you find it helpful and informative. If you have questions don't hesitate to call or email the appropriate personnel. Contact numbers can be found throughout this report.

Best Wishes,

Kash Srinivasan, Commissioner
Department of Public Works

Original Filter Controls Get an Upgrade

The City of Wilmington is upgrading the Porter Water Treatment Plant to extend the life of the plant so it can continue to meet all regulatory requirements. A project that automates the control of the water filters is underway to maximize the reliability of producing high quality drinking water and of complying with those requirements.

The old filter controls are original to the plant and are manually and hydraulically operated in order to control the flow in and out of the filters – including the filter cleaning cycles. While state-of-the-art at the time, these controls have started to show their age. Once replaced with the new computerized automatic controls, the water operators will have improved control over the operation of the filters. That will increase the reliability and efficiency of producing high quality drinking water. As an added benefit, this project will also significantly reduce the amount of filtered water that is lost through leaks. This not only improves efficiency, but is better for the environment.

The project kicked off during the winter of 2009 and is expected to be completed by the fall of 2010.

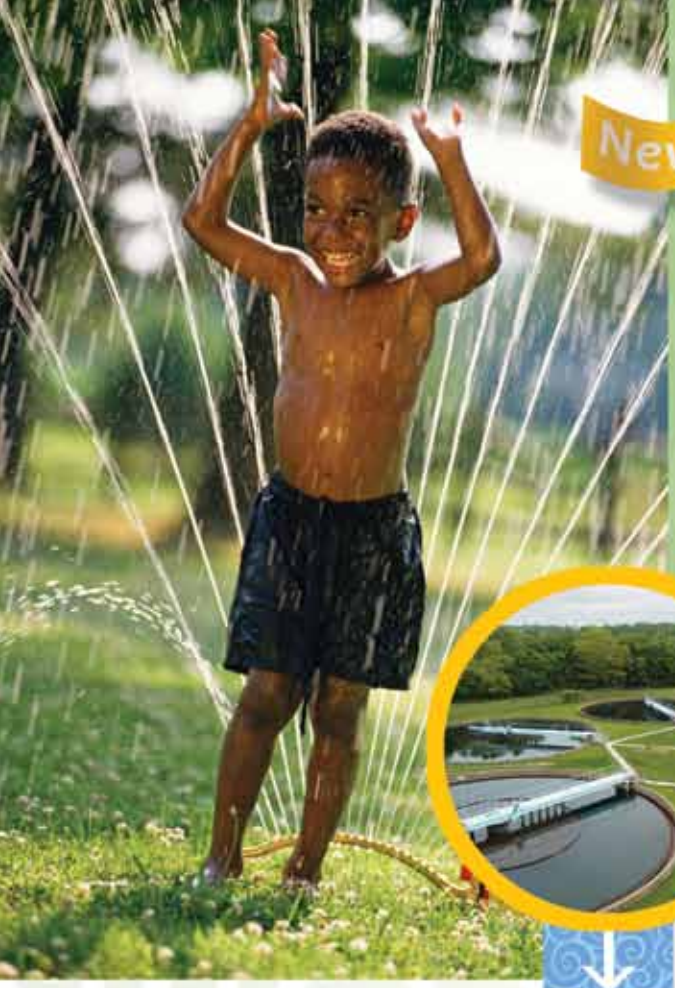
Green Initiatives continued...

building a second array of 1,100 photovoltaic cells at the Turner Municipal Complex; converting all City traffic lights to high-efficiency light-emitting diodes (LEDs); and installing energy efficient lighting and HVAC equipment in City-owned properties. When completed, all of these actions will result in an energy savings of approximately $1.14 million per year.

The energy saving measures will reduce City of Wilmington utility electricity consumption by an estimated 2.8 million kilowatt-hours per year – enough energy to power more than 260 homes annually. The measures will also decrease carbon dioxide emissions by nearly 4.4 million pounds each year. According to the U.S. Environmental Protection Agency, this is equivalent to removing more than 380 cars from the road (www.epa.gov/cleanenergy/energy-resources/calculator.html).

"The Porter water filtration plant is a shining example of hundreds of green projects that are coming to fruition across the U.S. thanks to the Recovery Act," said EPA Regional Administrator Shawn M. Garvin. "EPA is proud to assist Wilmington's continued progress toward building a sustainable city."

Left: A view of the current filter controls at Porter. These are being replaced with automated controls.



New Feature

Producing Your Drinking Water

You wake up each morning, splash water on your face and wonder how the water from your faucet actually ends up there. Over the next few issues of Water Works, you will be taken inside the four-step process that brings drinking water to your tap. You will learn about the many people involved, about the roles Water Treatment, Transmission/Distribution, Water Quality and Customer Service/Metering play, and how they are integrated. Each step in this journey is vital in ensuring our customers receive quality drinking water at the tap.

FOCUS ON: Water Treatment

The City has two water treatment plants, Brandywine Filter Plant (BFP) and Porter Filter Plant (PFP). Both are conventional treatment plants with a combined maximum design flow of 56 million gallons-per-day (MGD), although the current summer peak water demand is 25-30 MGD on average. Water from the Brandywine River is treated at both plants, with the PFP able to treat water from Hoopes Reservoir, a 2 billion gallon raw water storage basin located north of the City.

The treatment plants, supplemented by the Brandywine Pumping Station, are responsible for the treatment of the water and maintaining an adequate supply of water in our many finished water storage facilities. This is done with a staff of certified water operators and maintenance staff who are trained in water treatment. Operating the plants involves the close monitoring of the raw water quality and adjusting the dosage of treatment chemicals appropriately. Several samples are collected throughout the treatment process and the operators are trained to perform key analyses on those samples to verify that treatment is optimized. The treatment process involves adding a coagulant (ferric chloride) to the water which allows the particles to stick together and become heavy enough to settle out prior to filtration. The water is then passed through a multi-media filter containing sand, gravel, and other filter media. Chlorine is added before and after filtration to disinfect the water and to ensure the quality of the water is maintained in the distribution system. Fluoride is also added to protect against tooth decay along with a corrosion inhibitor (zinc ortho-phosphate) to minimize corrosion in the piping system.

Taking these steps maintains efficiency and ensures finished water quality remains high, surpassing regulatory requirements. Once water leaves the treatment plants or storage facilities, our transmission and distribution department kicks into high gear to ensure the water mains and pipes are kept in good working order. Next year's issue of *Water Works* will highlight this in more detail.

Other Stages:

Transmission and Distribution

Testing Water Quality Lab

Customer Service Meter Shop

If you would like to schedule a tour of either treatment plant, or if you would like more information regarding the specifics of the water treatment process, contact the Water Quality Manager, Matt Miller at **302-573-5522.**

Meeting and Exceeding Water Distribution System Standards

Although maintaining distribution system water quality has always been a key issue, over the past two years, the City of Wilmington has increased its focus on improving the condition of its water distribution system to comply with new, stricter federal Water Quality Regulations. These new standards govern disinfection by-products, taste and odor, and chlorine residual. Our goal is to exceed customer expectations by making renovations to reservoirs and elevated storage tanks, as well as implementing annual water main replacement and rehabilitation programs.

Left: Public Works personnel install new water main lining.

Water Distribution System Improvements Schedule

Improvements	Schedule	Where
Water Main Cleaning & Lining [48,000 linear feet] Improves water quality by removing internal corrosion that can contribute to discolored water, taste/odor problems, or a re-growth of bacteria. Prolongs lifespan of pipes.	2009-2010	Westover Hills, Highlands, Claymont St., Nicholas Ave., Windsor Hills, Pembrey Place, Augustine Cutoff, Prospect Ave., Brookfield Ave., Roseanna Ave., Shellpot Dr., Penarth and Paxon Dr.
Water Main Cleaning & Lining [15,000 linear feet] (Same as above)	2010-2011	City of Wilmington and Concord Pike area north and west of the City to be determined
Fire Hydrant Testing/Water Main Valve Rehabilitation	Ongoing	Throughout the City
Tower Painting and Rehabilitation	2010/Ongoing	Rockford Tower and other water tanks

These improvements to the distribution system help us exceed customer expectations and remain in compliance with new, stricter state and federal water quality regulations.

Questions regarding these upcoming projects and programs should be directed to the City Engineer's Office. Call **(302) 576-3064**.

City of Wilmington

2009 Water Quality Report

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in public water systems.

How We Test Our Drinking Water

The Wilmington Water Division monitors for over 100 contaminants, including herbicides, pesticides, *Cryptosporidia, Giardia,* and coliform bacteria. We collect samples from the Brandywine Creek, Hoopes Reservoir, Porter Reservoir, Cool Spring Reservoir, the filtration plants, and at customers' taps in the distribution system.

Last year, over 30,000 water samples were drawn from the City's fresh water supply treatment plants, and distribution system. Our laboratory performed over 70,000 water analyses on those samples. This data supports the conclusion that Wilmington's water system complies with all applicable EPA drinking water regulations.

During disinfection, certain by-products form as a result of chemical reactions between chlorine and naturally occurring organic matter in water. These are carefully controlled to keep disinfection effective and by-product levels low.

About This Report...

The Environmental Protection Agency (EPA) requires the City of Wilmington, and all other water suppliers in the US, to report yearly on specific details about testing for a number of contaminants in our water. Chemical and biological monitoring provides the data that helps suppliers such as the City of Wilmington make key water quality management decisions to ensure freshness and purity.

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. To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulates bottled water, which must provide the same protection to the public's health.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline – **800-426-4791**.

Above left: Bill Janicki, Water Quality Technician, analyzing for chlorine in a water sample.

Protecting the Public from Disease

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.

Microbiological testing of water helps protect the public from waterborne diseases such as polio, diphtheria, typhoid, and cholera. Chlorine is very effective at killing or disinfecting most of these organisms in drinking water. However, *Cryptosporidium*, a microbial pathogen found in surface waters throughout the US, is resistant to chlorine. Optimized water treatment, including filtration, provides an effective barrier against passage of *Cryptosporidium* into drinking water. One commonly used measure of this treatment effectiveness is turbidity removal. Turbidity is the cloudiness of the water that is caused by particles that are generally invisible to the naked eye. As shown in Table 1 on page 7, the City continues to provide water that is well within State and Federal turbidity requirements.

The most commonly-used filtration methods, such as those used by Wilmington, cannot guarantee 100% removal. The City of Wilmington began monitoring for *Cryptosporidium* in source water for its two plants beginning in November of 2005. In 2008, average levels of *Cryptosporidium* were 4 and 2 per 100 L of raw water at Brandywine and Porter Filter plants, respectively. Based on research conducted on the removal of *Cryptosporidium* by common filtration methods, the level detected in the source water should have been removed by the filters at the City's treatment plant. *Cryptosporidium* has never been detected in the treated water supply.

Important Health Note for "At Risk" Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those with cancer undergoing chemotherapy, organ transplant recipients, people with HIV/AIDS or other immune system disorders, the elderly, and infants can be particularly vulnerable to infections. These people should seek advice from their health care providers. EPA/CDC guidelines on appropriate ways to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Contacts

In addition, during this time of heightened watchfulness, you can help us ensure the safety of our water supply by reporting any unusual or suspicious activity either on our waterways, near our reservoirs, water filtration plants, water towers or pumping stations.

To report an incident, or general water quality concerns, call the City Call Center, (302) 576-3877. If you have questions about this report, call the Water Quality Laboratory at (302) 573-5522 or (302) 571-4158. Weekends or after 5 P.M. – (302) 571-4150.

Potential Contaminants

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 occur naturally 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, urban 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, urban stormwater runoff and septic systems.

Radioactive Contaminants, which can occur naturally or as a result of oil and gas production and mining activities.

Water Quality Statistics

Table 1: Water Quality Results - Detected Primary[1] Parameters at Entry Points to Distribution System

				Brandywine Filter Plant				Porter Filter Plant				
Contaminant	**Units**	**MCLG[2]**	**MCL[3] or TT[4] [5]**	**Average**	**Lowest Detected Level**	**Highest Detected Level**	**Violation**	**Average**	**Lowest Detected Level**	**Highest Detected Level**	**Violation**	**Source**
Microbiological Indicators												
Turbidity - Percentile	% of samples below 0.3	Not Applicable	95% of monthly samples must be less than 0.3	99.8	99.0	100	No	99.6	95.7	100	No	Soil runoff
Turbidity - Values	NTU		No sample must ever exceed 1.0			0.89	No			0.74	No	Soil runoff
Inorganic Chemicals (Metals and Nutrients)												
Arsenic	ppm	0	0.01	<0.0005	<0.0005	<0.0005	No	0.0005	0.0005	0.0005	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.331	0.331	0.331	No	0.036	0.036	0.036	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	ppm	0.1	0.1	0.029	0.029	0.029	No	0.0021	0.0021	0.0021	No	Discharge from steel and pulp mills; Erosion of natural deposits
Nickel	ppm	0.1	0.1	0.024	0.024	0.024	No	0.0018	0.0018	0.0018	No	Discharge from steel mills, metal refineries and electronic industries
Fluoride	ppm	4	2/4[6]	0.86	0.22	1.9	No	0.91	0.12	1.7	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	ppm	10	10	2.1	1.7	2.5	No	1.8	1.0	2.8	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Nitrite	ppm	1	1	0.003	0.0001	0.004	No	0.004	0.003	0.005	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Disinfectants												
Chlorine	ppm		At least 0.3 residual entering Distribution System		0.6		No		0.8		No	Water additive used to control microbes
Disinfection Byproduct Precursors												
Total Organic Carbon	ppm			1.3	0.9	2.5	n/a	1.3	0.8	2.3	n/a	Naturally present in the environment. Total organic carbon (TOC) has no health effects. However TOC provides a medium for the formation of disinfection byproducts.
Total Organic Carbon	% Removal (Raw to Treated)		Must exceed 35% (25% in certain instances)	47%	39%	54%	No	43%	34%	54%	No	
Total Organic Carbon	Compliance Ratio		Ratio of Actual to Required Removal - must be greater than or equal to 1	1.3[7]			No	1.2[7]			No	
Radionuclide												
Gross Alpha Particle Activity	pCi/L		15	1.03	0.75	1.3	No	n/a	n/a	n/a	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Synthetic Organic Chemicals												
Dalapon	mg/L		0.2		<0.001		No	0.014	0.014	0.014	No	Runoff from herbicide used on rights-of-way

Water Quality Statistics (continued)

Table 2: Water Quality Results - Detected Primary[1] Parameters in Distribution System

Contaminant	Units	MCLG[2]	MCL[3] or TT[4][5]	Average	Lowest Detected Level	Highest Detected Level	Violation	Source
Microbiological Indicators								
Total Coliform	% of samples positive each month	0%	5%	0.65	0	3.0	No	Bacteria that are naturally present in the environment. Used as an indicator of the presence of other potentially harmful bacteria.
Lead and Copper (based on 2008 sampling - testing is done every 3 years)								
Lead	ppb	0	90% of tap water samples must be less than the **Action Level of 15**	5.0[9]	2	16	No	Corrosion of household plumbing systems
Copper	ppm	1.3	90% of tap water samples must be less than the **Action Level of 1.3**	0.44[9]	0.027	0.719	No	Corrosion of household plumbing systems
Disinfectants								
Chlorine	ppm	MRDLG = 4.0[11]	MRDL = 4.0[10]	1.05	0.75[12]	1.70[12]	No	Water additive used to control microbes
Disinfection Byproducts								
Total Trihalomethanes	ppb	Not Applicable	80: Based on Running Annual Average of Quarterly Samples	50.0[8]	10.5	90.6	No	Byproduct of drinking water disinfection. Forms due to reaction of chlorine with total organic carbon. **Health effects**: Some people who drink water containing THMs in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Haloacetic Acids	ppb	Not Applicable	60: Based on Running Annual Average of Quarterly Samples	30.0[8]	9.2	48.7	No	Byproduct of drinking water disinfection. Forms due to reaction of chlorine with total organic carbon.
Bromochloroacetic Acid	ppb	Not Applicable	None	14.2	4.9	29.0	No	Byproduct of drinking water disinfection. Forms due to reaction of chlorine with total organic carbon.

Table 3: Secondary[12] Parameters and Other Parameters of Interest Detected in Water as It Enters Distribution System

			Brandywine Filter Plant			Porter Filter Plant			
Contaminant	**Units**	**SMCL[13]**	**Average**	**Lowest Detected Level**	**Highest Detected Level**	**Average**	**Lowest Detected Level**	**Highest Detected Level**	**Source**
Conventional Physical and Chemical Parameters									
pH	pH units	6.5 - 8.5	7.3	6.7	8.7	7.2	6.7	7.9	Waters with pH = 7.0 are neutral
Alkalinity	ppm as $CaCO_3$	None	54	32	71	49	37	65	Measure of buffering capacity of water or ability to neutralize an acid
Hardness	ppm as $CaCO_3$	None	124	89	136	115	96	150	Naturally occurring; Measures Calcium and Magnesium
Conductivity	µmhos/cm	None	397	303	594	350	290	571	General measure of mineral content
Total Dissolved Solids (TDS)	ppm	500	214	214		162	162		Metals and salts naturally occurring in the soil; organic matter
Chloride	ppm	None	76	55	173	65	50	385	Naturally occurring; Chemical Additive to treat the water; Road salt application and run-off
Metals									
Iron	ppb	300	14	3.0	42	17	5.0	180	Naturally occurring; Chemical Additive to treat the water; Corrosion of pipes; Can cause discoloration in water
Manganese	ppb	50	14.8	2.0	40	11.9	5.0	20	Naturally occurring; can cause discoloration and objectionable taste in water
Zinc	ppb	5000	686	40	2001	156	30	410	Naturally occurring; Chemical Additive to treat the water

Table 4: Primary Contaminants Tested, But Not Detected

Radioactive	**Volatile Organic Chemicals**
Uranium-238	Benzene
	Carbon Tetrachloride
Synthetic Organic Chemicals	O-Dichlorobenzene
2,4,5-TP	P-Dichlorobenzene
2,4-D	1,2-Dichloroethane
Alachlor	1,1-Dichloroethylene
Atrazine	cis-1,2-Dichloroethylene
Benzo(a)pyrene	Dichloromethane
Carbofuran	1,2-Dichloropropane
Chlordane	Ethylbenzene
Di(2-ethylhexyl)-adipate	Methyl Tert Butyl Ether
Di(2-ethylhexyl)-phthalate	Monochlorobenzene
Dibromochloropropane	Styrene
Dinoseb	Tetrachloroethylene
Endrin	1,2,4-Trichlorobenzene
Ethylene Dibromide	1,1,1-Trichloroethane
Heptachlor	1,1,2-Trichloroethane
Heptachlor Epoxide	Toluene
Hexachlorobenzene	Trichloroethylene
Hexachlorocyclopentadiene	Vinyl Chloride
Lindane	Xylenes
Methoxychlor	**Inorganic Chemicals**
Oxamyl(Vydate)	Antimony
Pentachlorophenol	Beryllium
Picloram	Cadmium
Polychlorinated Biphenyls	Mercury
Simazine	Selenium
Toxaphene	Thallium

Key to Tables

[1] Primary parameters are contaminants that are regulated by a maximum contaminant level (MCL), because above this level consumption may adversely affect the health of a consumer.

[2] MCLG—Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow no margin of safety.

[3] MCL—Maximum Contaminant Level 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.

[4] TT—Treatment Technique refers to the required process intended to reduce the level of a contaminant in drinking water. EPA's surface water treatment rules require systems to (1) disinfect their water and (2) filter their water such that the specific contaminant levels cited are met. Lead and copper are regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. Total organic carbon is regulated by a Treatment Technique that requires systems operate with enhanced coagulation or enhanced softening to meet specified percent removals.

[5] Unless otherwise indicated value given is a MCL.

[6] State limit is to not exceed 2.0 mg/L. Federal MCL is 4.0 mg/L.

[7] Cited average is the lowest running annual average calculated from monthly samples in 2009.

[8] Cited average is highest running annual average calculated from quarterly samples in 2009.

[9] Value given is not an average, but the 90th percentile action level.

[10] MRDL—Maximum Residual Disinfectant Level is the highest level of a disinfectant allowed in drinking water.

[11] MRDLG—Maximum Residual Disinfectant Level Goal is the level of drinking water disinfectant below which there is no known or expected health risk.

[12] Cited value is the lowest and/or highest average of a minimum of 120 routine samples per month.

[13] Secondary parameters are contaminants that are regulated by non-enforceable guidelines because the contaminants may cause non-health related cosmetic effects, such as taste, odor, or color.

[14] SMCL: Secondary Maximum Contaminant Level is the level of a physical, chemical or biological contaminant in drinking water above which the taste, odor, color or appearance (aesthetics) of the water may be adversely affected. This is a non-enforceable guideline which is not directly related to public health.

ppb Parts per billion

ppm Parts per million

Source Water Protection Continues...

Ordinance will help protect City's drinking water

As we presented in the last two issues of *Water Works*, the City has ambitiously embarked on a program that aims to protect the quality of our drinking water source, the Brandywine Creek. Investing in the protection and improvement of the Brandywine Creek is one of the most sustainable and cost-effective ways to provide the safest and highest quality water to our customers, improve emergency response communication, and meet future regulatory compliance.

Although the City's Source Water Protection Plan (SWPP) is being finalized this year, efforts to implement its recommendations have been well underway and include such projects as:

- Bacteria Source Tracking – Better targets our implementation efforts.
- Harsh Farm Conservation Easement – The City worked with the Brandywine Conservancy to ensure future protection of water quality, since the Harsh Farm is located on an important headwater stream in Honeybrook, PA.
- Hoopes Reservoir Forest Buffer – Performed maintenance and restoration.
- The City's Source Water Protection Area (SWPA) Ordinance – Signed into law by Mayor Baker on August 27, 2009.

The SWPA Ordinance was adopted to protect the City's drinking water source within the City limits. The SWPA was delineated with the help of the Delaware Department of Natural Resources and Environmental Control (DNREC), and has been adopted as part of the City's Comprehensive Plan. Activities regulated include: (1) underground and above ground tanks; (2) hazardous waste facilities; (3) new development; (4) filling of wetlands; (5) new parking lots; (6) new development on steep slopes and; (7) filling in of the flood plain. The applicability of these regulations is determined as part of the permitting process, with review by both Licenses and Inspections (L&I) and Public Works. More specific information can be found in Chapter 48, Article IX of the City Code via the City's website at **www.wilmingtonde.gov** or call the Water Quality Manager, Matt Miller, at 302-573-5522.

WHY SAVE WATER?

Did you know that less than 1% of all the water on Earth can be used by people? The rest is salt water (the kind you find in the ocean), or is permanently frozen. We can't drink it, wash with it, or use it to water plants.

As our population grows, more and more people are using up this limited resource, so it is important that we use our water wisely. Here are some ways you and your family can help save.

USE SHOWER POWER

Taking a shower uses only 10 to 25 gallons of water, while taking a bath uses up to 70 gallons. To save even more, keep your shower under 5 minutes long. Try timing yourself the next time you hop in.

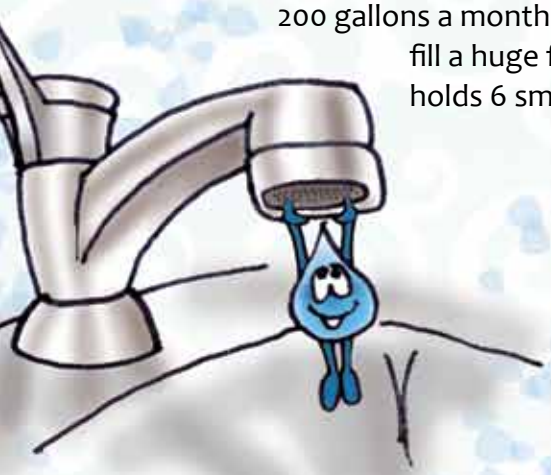
Middle School Students...

Looking for an interesting SCIENCE FAIR PROJECT?

Go to www.epa.gov/waterscience/learn/files/science-projects.pdf

TURN OFF THE TAP!

You can save up to 8 gallons of water a day just by turning off the tap when you are brushing your teeth. That adds up to more than 200 gallons a month – enough to fill a huge fish tank that holds 6 small sharks!



Why choose a science fair project on surface water quality? Surface water quality projects address real-life water issues occurring in streams, rivers, lakes and other types of surface waters across the United States. Your science fair project will help bring attention to surface water quality problems and could develop solutions!

FIX THAT LEAK

A leaking toilet can waste up to 200 gallons of water every day. That's like flushing your toilet 50 times for no reason! Ask your parents to help you test for leaks. Place a drop of food coloring in the toilet tank. If the color shows up in the bowl without flushing, you have a leak!

BEAT THE HEAT

Helping your parents water the yard? The best time is in the early morning or late evening when it's cool outside. Watering when it's hot and sunny wastes water since most will evaporate before the plants have time to drink it.

"Why Save Water?" was adapted from EPA educational material. To view more learning tips, go to www.epa.gov/watersense/kids/index.html

Department of Public Works
Louis L. Redding City/County Bldg.
800 French Street
Wilmington, DE 19801-3537

PRSRT STD
U. S. POSTAGE
PAID
MODERN MAIL

FAQs

FREQUENTLY ASKED QUESTIONS

Who should I call if I have questions?

Should you have any questions or concerns about your drinking water, feel free to call the City's Call Center at **302-576-3877**. Your questions will be addressed or directed to the appropriate person.

Should I filter my tap water?

Wilmington's water is treated at one of two treatment plants and exceeds all requirements of the Safe Water Drinking Act. That said, there are old iron water mains in the City that we are working to replace, so you may experience intermittent problems with rust. A 5-micron cartridge-type filter will easily remove the rust. These are available at local hardware stores for a few hundred dollars.

En Español...

Para más información visite nuestro sitio en Internet
www.wilmingtonDE.gov
o llame al **302-576-3877**