

WHERE DOES YOUR WATER COME FROM?

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. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in drinking water provided by public water systems. However, the presence of some contaminants does not necessarily indicate a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

The water source for the City of Easton surrounding service area is the Delaware River. The City of Easton Water Treatment Plant is a 10 MGD treatment facility originally built in 1932. Major improvements and plant upgrades were completed in 1981 and are continuing presently to meet new Surface Water Treatment Regulations that will come into effect in 2008.

Under Section 1453 of the U.S. Environmental Protection Agency's 1996 Safe Drinking Water Act, states must evaluate all drinking water sources that serve public systems and provide a mechanism for development of local protection programs. In accordance with the Pennsylvania Department of Environmental Protection's Source Water Assessment and Protection Program (SWAP), a source water assessment has been completed and the City of Easton's water treatment plant has been evaluated. The potential sources of contamination for this section of this surface water include both point and non-point sources of pollution. The Delaware River Basin Commission, USGS and USEPA are resources for information on levels of flow, water quality, and planning issues for the Delaware River and its basin. SWAP programs of both Pennsylvania and New Jersey affect the surface water source for the City of Easton. The complete assessment is available for public review at the regional DEP office. With proper credentials and purpose, anyone can request a file review of the report. Any questions regarding this program or assessment should be addressed to Joe Hebelka, DEP Central Office (717) 772-4014.

Water Quality Report 2005



CONTAMINANTS THAT MAY BE PRESENT IN SOME SOURCE WATER INCLUDE:

Inorganic Contaminants — Salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas productions, mining or farming.

Organic Chemical Contamination — including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants — which can be naturally-occurring or be the result of oil and gas production and mining activities.

Microbial Contaminants — Such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Pesticides and Herbicides — which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

SPECIAL WARNING:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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.

Special Consideration Regarding Children, Pregnant Women, Nursing Mothers and Others:

Children may be more susceptible than adults to contaminants that may be present in drinking water due to lower body weight. 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 cases of lead and nitrate concentrations, effects on infants and children are the health endpoints upon which the standards are based.

The Easton Suburban Water Authority (ESWA) is pleased to provide this Water Quality Report to meet Consumer Confidence Reporting requirements mandated by the Safe Drinking Water Act (SDWA). The purpose of this report is to provide all system customers with important information regarding the quality of their drinking water.

ESWA remains firmly committed to providing our customers with safe, high quality drinking water at all times. Any questions regarding our operation may be directed to (610) 258-7181.

During the 2005 reporting year, ESWA conducted thousands of laboratory tests for drinking water contaminants. We are pleased to report that there were no contaminants detected above mandated regulatory limits. In addition to results of laboratory testing, this report also includes details regarding the source of our drinking water and how it compares to Environmental Protection Agency (EPA) and state standards. For more information about the drinking water, please call the Authority at (610) 258-7181 or fax (610) 258-7780.



**The Board of
Directors of the
Easton Suburban
Water Authority
meets on the 2nd
Monday of each
month at 3 p.m.
at the Authority
office located
at 3700 Hartley
Ave., Palmer
Twp., Easton, PA.**

*Please feel free
to attend and
participate in
these meetings.*



Easton Suburban Water Authority

is committed to providing quality water and value-added services to our customers at an affordable rate. We will ensure our efforts by implementing sound business practices, maintaining a well trained professional workforce, utilizing advanced technologies and meeting the needs and choices of our customers. If you have any questions or concerns about the quality of your water or the service we provide, please contact us at **610-258-7181**. You can also visit us online at www.eswater.net.

UNREGULATED CONTAMINANTS

The City of Easton conducted monitoring for the List 1 and 2 Unregulated Contaminants as required by the EPA in 2005. No detections of any unregulated contaminant were made. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

SYNTHETIC ORGANIC COMPOUNDS

The City of Easton performed tests during the 2003-2005 compliance period for Synthetic Organic Compounds. No synthetic Organic Compounds were detected in the treated water supply. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

VIOLATIONS

VOLATILE ORGANIC COMPOUNDS

In the 2nd quarter of 2005, a VOC was detected in a raw water sample. At that time, the annual sampling frequency was increased to quarterly. Your drinking water is required to be monitored for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not the drinking water meets health standards. During the fourth quarter of 2005, the City of Easton inadvertently omitted monitoring or testing for Volatile Organic Compounds and therefore cannot be sure of the quality of the drinking water during that time. However, a sample was taken within 30 days of the required period and no Volatile Organic Compounds were detected in the treated water supply.

TOTAL ORGANIC CARBON

Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection by-products. These by-products include THMs and HAAs. Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. All 2005 quarterly TTHM and HAA5 disinfection by-product sampling at the Water Treatment Plant were well below the MCL for each quarter. TTHM Range at the Water Treatment Plant = 0.0137 - 0.0618 with an MCL of 0.08. HAA5 Range at the Water Treatment Plant = 0.0091 - 0.0276 with an MCL of 0.06.

REPORTING OF COMPLIANCE DATE

During the September 2005 reporting period, the department failed to receive the required Safe Drinking Water Act reporting on time, as required. This violation has no impact on the quality of the water our customers received and it posed no risk to the public health. The City of Easton has established a report tracking system which eliminates the use of the regular U.S. Postal Service to ensure that all reporting requirements are met in the future.

LEGEND

AL	Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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	Max. 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 a margin of safety.
NTU	Nephelometric Turbidity Units A measure of water clarity.
pCi/l	picoruries per liter A measure of radioactivity.
ppm	parts per million or milligrams per liter (mg/L) One part per million equals about: 1 minute in 2 years or one inch in 16 miles
ppb	parts per billion or micrograms per liter (ug/L) One part per billion equals about: 1 second in 32 years or 1 inch in 16,000 miles
TT	Treatment Technique A required process intended to reduce the level of contaminant in drinking water.
MRDL	Maximum Residual Disinfectant Level Highest level of disinfectant allowed in drinking water. There is convincing evidence that additional disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal 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 contamination.

Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfectants & Disinfection By-Products								
<i>There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. The City of Easton adds Chlorine for disinfection.</i>								
<i>**Results measured and documented by the City of Easton Water Treatment Plant.</i>								
<i>***Samples were taken by Easton Suburban Water Authority quarterly during 2005. The results represent the highest detected quarter. No samples exceeded the MCL.</i>								
*Chlorine (ppm)	4	4	2.3	1.0	2.3	2005	No	Water additive used to control microbes.
**Haloacetic Acids (HAA5) (ppb)	NA	60	47.5	17.9	47.5	2005	No	By-product of drinking water chlorination
**Total Trihalomethanes (TTHMs) (ppb)	NA	80	66.3	22.5	66.3	2005	No	By-product of drinking water disinfection

Inorganic Contaminants

Results measured and documented by the City of Easton Water Treatment Plant.

Fluoride (ppm)	4	2	1.6	0.6	1.6	2005	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (ppm)	10	10	0.61	<i>The analytical result was well below the levels of concern for Nitrate.</i>		2005	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Microbiological Contaminants

Easton Suburban Water Authority analyzes 60 samples per month. Regulation calls for reporting of the highest monthly number of positive samples for total coliform.

No samples can test positive for fecal coliform or E. Coli bacteria.

***Results measured and documented by the City of Easton Water Treatment Plant.

Fecal coliform/ E. coli (positive samples)	0	0	0	NA	NA	2005	No	Human and animal fecal waste.
Total Coliform (% positive samples/month)	0	5	0	NA	NA	2005	No	Naturally present in the environment.
***Total Organic Carbon (TOC)	0	TT=removal ratio≥1.0	0.83	0.42	1.22	2005	Yes	Naturally present in the environment.

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
<i>Results measured and documented by Easton Suburban Water Authority.</i>							
Copper – action level at consumer taps (ppm)	1.3	1.3	0.23	2004 <i>Samples required every 3 years.</i>	<i>For copper, zero (0) out of 30 samples exceeded the AL; 0.48 ppm was the highest single value detected.</i>	No	Corrosion of household plumbing systems; erosion of natural deposits.
Lead – action level at consumer taps (ppb)	0	15	1	2004 <i>Samples required every 3 years.</i>	<i>For lead, zero (0) out of 30 samples exceeded the AL; 4 ppb was the highest single value detected.</i>	No	Corrosion of household plumbing systems; erosion of natural deposits.

Parameter	Recommended Limits** or Range		Your Water	Violation	Typical Source
Additional Monitoring Performed by The City of Easton					
Chloride	250 ppm		19 ppm	No	** Secondary Drinking Water Standards refer to recommended limits on compounds that might pose a nuisance to the customer. These compounds affect aesthetic quality (appearance, taste and odor) but do not pose a health risk.
Color	15 Color Units		5 Color Units	No	
Corrosivity	-1 Langelier Index to +1 Langelier Index		-1.24	No	
Fluoride	2 ppm		0.8 ppm	No	
Foaming Agents (ABS/LAS)	500 ppb		26 ppb	No	
Hardness	50 ppm to 250 ppm		68 ppm	No	
Iron	300 ppb		<5 ppb	No	
Manganese	50 ppb		5 ppb	No	
Odor	3 Threshold Odor Number (TON)		<1	No	
pH	6.0 to 8.5		7.08	No	
Sulfate	250 ppm		22 ppm	No	
Total Dissolved Solids	500 ppm		100 ppm	No	

Parameter	MCLG	MCL, TT or MRDL	Maximum Detected by City of Easton	Range Detected Low	Range Detected High	Typical Source
Turbidity						
<i>Turbidity is a measure of the cloudiness of the water. Turbidity is monitored because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. Samples are monitored continuously by the City of Easton.</i>						
Turbidity (NTU)	0	TT=1 TT≥ 95% of monthly samples <0.3 NTU	1.36 99.59%	0.04	1.36	Soil run off.
Radionuclides						
<i>Samples taken by the City of Easton in the 2005-2013 monitoring period.</i>						
Alpha Emitters	15 pCi/l	15 pCi/l	<2.45 pCi/l	NA	NA	Erosion of natural deposits.
Combined Radium	5 pCi/l	5 pCi/l	0.03 pCi/l	NA	NA	Erosion of natural deposits.