



Easton Suburban Water Authority

2011 Water Quality Report

Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Easton Suburban Water Authority (Public Water Supply Number 3480050) is firmly committed to providing our customers with high quality drinking water that meets or surpasses state and federal standards for quality and safety. To ensure delivery of a quality product, we have made significant investments in treatment facilities, water quality monitoring, and our distribution system. We are pleased to provide this Water Quality Report with results of our 2011 water testing. 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. Any questions or concerns may be directed to Erin Rapp at 610-258-7181 or visit us online at www.eswater.net.

Where does your water come from?

The water source for Easton Suburban Water Authority is the Delaware River. The water treatment and filtration plant is a 16 MGD treatment facility originally built in 1932. Major improvements and plant upgrades were completed in 2011 and are continuing to meet new Surface Water Treatment Regulations.

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 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 Easton Water Treatment Plant. 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 DEP Central Office at 717-772-4014.

Educational Information

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.

Contaminants that may be present in source water include:

- **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 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, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. We treat your water according to EPA's regulations. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 at 800-426-4791.

Customer Participation

Residents can help ensure the safety of our water supply by reporting any suspicious activities near any water tank, reservoir, or hydrants to our office at 610-258-7181, 24 hours a day, 7 days a week.

The Board of Directors of Easton Suburban Water Authority meets on the second Monday of each month at 3:00 pm at the Authority office located at 3700 Hartley Avenue in Palmer Township. Please feel free to attend and participate in these meetings.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Special Warning

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 at 800-426-4791.

Cryptosporidium Testing

Cryptosporidium is a microbial organism found in rivers and streams throughout the United States. We performed monitoring for *Cryptosporidium* from July 2005 until July 2007 on our source water. Two samples per month were collected, and in this two year period, four samples out of the forty-eight collected indicated the presence of these organisms. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Our treatment processes include filtration that will remove *Cryptosporidium*, but this does not guarantee that 100% of the organisms will be removed.

Cryptosporidium must be ingested to cause disease, and it may be spread by means other than drinking water. Ingestion of *Cryptosporidium* may cause an abdominal infection with symptoms including nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

Unregulated Contaminants

Monitoring for the List 1 and 2 Unregulated Contaminants was conducted as required by the EPA in 2006. No detections of any unregulated contaminants 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

Tests were performed during the 2003 – 2006 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.

Water Quality Data

The tables on the following pages list all of the drinking water contaminants that we detected during the 2011 calendar year. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented is from testing done January 1 – December 31, 2011. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
<i>There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. The Water Treatment Plant adds Chlorine for disinfection. *The minimum level of residual disinfectant required is 0.2ppm</i>								
Haloacetic Acids (HAA5) (ppb)	NA	60	19.5	11.9	28.1	2011	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	NA	80	50.3	26.2	77.6	2011	No	By-product of drinking water disinfection
Total Organic Carbon	0	TT=removal ratio \geq 1.0	1.34	0.85	2.34	2011	No	Naturally present in the environment
Chlorine (ppm)*	4	4	1.5	1.0	2.0	2011	No	Water additive used to control microbes
Inorganic Contaminants								
Fluoride (ppm)	4	4	0.76	0.56	1.25	2011	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen) (ppm)	10	10	<1.0	NA	NA	2011	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Microbiological Contaminants								
<i>We analyze over 90 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.</i>								
Total Coliform (% positive samples / month)	0	5	0.9	0	0.9	2011	No	Naturally present in the environment
Fecal coliform / E. coli (positive samples)	0	0	0	0	0	2011	No	Human and animal fecal waste
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 at the Water Treatment Plant.</i>								
Turbidity (NTU)	0	TT=1	0.04	0.03	0.12	2011	No	Soil runoff
		TT \geq 95% of monthly samples <0.3NTU	100%				No	
Radioactive Contaminants								
<i>Samples were taken by the City of Easton in the 2005 – 2013 monitoring period.</i>								
Alpha Emitters (pCi/L)	0	15	<2.45	NA	NA	2005	No	Erosion of natural deposits
Combined Radium (pCi/L)	0	5	0.03	NA	NA	2005	No	Erosion of natural deposits

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Lead – action level at consumer taps (ppb)	0	15	3.0	2010	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper – action level at consumer taps (ppb)	1.3	1.3	0.285	2010	0	No	Corrosion of household plumbing systems; erosion of natural deposits

Additional Information for 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. Easton Suburban Water Authority 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, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/safewater/lead.

Additional Monitoring

Contaminants	Recommended Limits or Range	Your Water	Typical Source
Alkalinity		58 ppm	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.
Aluminum	0.2 ppm	< 0.2 ppm	
Calcium Hardness		35.2 ppm	
Chloride	250 ppm	17.7 ppm	
Color	15 Color Units	< 5 Color Units	
Corrosivity	-1 to +1 Langelier Index	-1.15 Langelier Index	
Foaming Agents (MBAS)	500 ppb	< 0.05 ppb	
Hardness	50 to 250 ppm	40 ppm	
Iron	300 ppb	< 0.05 ppb	
Manganese	50 ppb	< 10 ppb	
Odor	3 TON	2 TON	
pH	6.0 to 8.5	6.97	
Sulfate	250 ppm	25.9 ppm	
Total Dissolved Solids	500 ppm	86 ppm	
Zinc	5 ppm	0.24 ppm	

Terms and Abbreviations

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	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 a margin of safety.
NTU	Nephelometric Turbidity Units	A measure of water clarity.
pCi/L	Picocuries per liter	A measure of radioactivity.
TON	Threshold Odor Number	A measure of odor.
ppm	Parts per million or milligrams per liter (mg/L)	One part per million equals about: 1 minute in 2 years or 1 inch in 16 miles.
ppb	Parts per billion or micrograms per liter (µg/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.
NA	Not Applicable	Results are not applicable.
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.