

# The Monroeville Municipal Authority is Committed to Providing a High Quality Drinking Water that Meets and/or Exceeds All Established Government Standards

The *Monroeville Municipal Authority* (MMA) is proud to present its 2007 Water Quality Report. This report provides our customers with a summary of where their drinking water comes from, how it is treated, and the results of water quality monitoring performed on a daily basis. To meet the Environmental Protection Agency (EPA) ruling requiring all U.S. water utilities to provide customers with this information, we will be mailing our 2007 water quality report to all MMA customers by July 1, 2008.

The MMA has consistently met and exceeded drinking water standards established by the Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Protection (PADEP) and the Allegheny County Health Department (ACHD). How do we do this? All of the employees at the MMA share the same goal – to provide our customers with safe and reliable drinking water at the lowest rate possible.






## WHERE DOES MY DRINKING WATER COME FROM?

The MMA's primary surface water supply is the Allegheny River. The Allegheny River begins as a spring in a farmer's field in the upper Appalachian Mountains of northern Pennsylvania. It then collects in the Allegheny Reservoir (Kinzu Dam) and flows to the confluence with the Monongahela River. The Allegheny River Watershed encompasses 11,770 square miles and includes most of Western Pennsylvania and parts of South West New York. The MMA water is drawn from the Allegheny River near Oakmont, Pennsylvania. The quality of the water from the Allegheny River can be affected by mine acid drainage, sewage treatment plant discharge, agriculture and livestock runoff, leaking underground and under river pipelines, leaking chemical storage tanks, river barges and railroad cars transporting chemicals.



## HOW DO DRINKING WATER SOURCES BECOME POLLUTED?

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 human activity. Contaminants that may be present in source water include:

-  Microbiological contaminants (bacteria, viruses, protozoan, etc.) can come from sewage treatment plants, septic systems, agricultural live stock operations, and wildlife.
-  Inorganic chemical contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater run off, industrial and/or domestic wastewater discharges, oil and gas production, mining, or farming.
-  Pesticides and herbicides which may occur 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 gasoline stations, urban stormwater runoff, and septic systems.
-  Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production, or mining activities.

*Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it or speak to someone who understands it.)*

2007 Water Quality Report



**Monroeville Municipal Authority**  
219 Speelman Ln., Monroeville, PA 15146

## **ABOUT MONITORING FOR CRYPTOSPORIDIUM AND GIARDIA:**

Cryptosporidium and Giardia are microscopic organisms that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. These organisms are found in animal and human wastes, and enter the rivers and streams when it rains, or from improperly operated sewage treatment plants, livestock operations, and/or wildlife.

During 1998, 1999 the MMA's primary finished water supplier (WPJWA) was required by the US EPA to participate in the Information Collection Rule. This required the analysis of the source water from the Allegheny River and the finished water supplied to our consumers for Cryptosporidium and Giardia for eighteen months. At no time during this monitoring period were any Giardia, Cryptosporidium, or total culturable viruses found in the finished water. Cryptosporidium was only found once in the source water during the eighteen-month monitoring period.

## **DEFINITIONS OF TERMS AND ABBREVIATIONS USED:**

**Action Level (AL)** - The concentration of a contaminant, which, if exceeded, triggers a treatment or other requirement which water systems, must follow. The Action Level is not based on one sample, but instead it is based on many samples.

**Maximum Contaminant Level (MCL)** - 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.

**Maximum Contaminant Level Goal (MCLG)** - 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.

**ND** - Non-Detected

**Not Applicable (n/a)** - not applicable

**NTU** - Nephelometric Turbidity Units. An NTU is the unit of measurement for the clarity of water. NTU's are measured with an instrument called a nephelometer.

**Picocuries Per Liter (pCi/L)** - A measure of radioactivity in water.

**Parts Per Billion (ppb)** - One part per billion (or micrograms per liter). Equivalent to one penny in \$10,000,000 or approximately 1 second in 32.5 years.

**Parts Per Million (ppm)** - One part per million (or milligrams per liter). Equivalent to one penny in \$10,000 or approximately 1 minute in 2 years.

**Total Haloacetic Acids (THAAs)** - A group of chemicals called disinfection by-products that form during chlorination. May be regulated in the future.

**Total Trihalomethanes (TTHMs)** - A group of chemicals called disinfection by-products that form during chlorination and are regulated under the Disinfection Byproducts Rule. TTHMs form when natural organic matter in the river, e.g., leaves and algae decompose and combine chemically with the chlorine added for disinfection.

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Turbidity** - A measure of the clarity of water related to its particle content. High turbidity can hinder the effectiveness of disinfectants.

## **WORKING HARD FOR YOU!**

Under the Safe Drinking Water Act (SDWA), EPA is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. We continually monitor for these substances and report directly to the EPA if they were detected in the drinking water. EPA uses this data to ensure that consumers are receiving clean water and verify that states are enforcing the laws that regulate drinking water. During 2007 MMA received a certificate of recognition from PADEP for meeting all MCL, monitoring, reporting and treatment technique performance requirements under the Safe Drinking Water Program. The MMA also received a certificate of achievement from the ACHD for operating its drinking water system in compliance with all water quality, treatment and monitoring requirements. The Monroeville Municipal Authority is committed to providing you with this information about your water supply, because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

## **REQUIRED CCR STATEMENT ADDRESSING LEAD IN DRINKING WATER**

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. Monroeville Municipal 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 or at: <http://www.epa.gov/safewater/lead>

## **HOW IS MY DRINKING WATER TREATED AND PURIFIED?**

The MMA receives its primary supply of finished water for resale from the Wilkinsburg – Penn Joint Water Authority (WPJWA) system. Like the majority of water utilities in the U.S., the WPJWA uses a multi-step treatment process at their water treatment plant. River water is pumped from the Allegheny River to the treatment plant and chlorinated. The water is then coagulated (which means the smaller particles in the river water join together by adding chemicals, which encourage this attraction). The water is mixed to ensure that the added chemicals are well blended and reacting with all of the smaller particles. The water is allowed to settle so that the newly joined particles sink by gravity to the bottom of the sedimentation tanks. The sediment is then removed and sent to the Allegheny County Sanitation Authority (ALCOSAN) for treatment. The settled water is then filtered to remove any remaining particles. Chlorine is then again added to prevent the growth of bacteria during transport and storage.

The finished water enters the MMA system through two separate metered connections. By agreement with WPJWA, the MMA is permitted to withdraw 6.0 million gallons per day (mgd) of monthly average flow and 7.5 mgd of peak daily flow from the above connections. In addition to the primary source of supply, the MMA maintains two emergency interconnections with the Municipal Authority of Westmoreland County (MAWC) system. The MMA maintains four storage tanks to serve as a reserve for fire protection and to maintain adequate water pressure. These tanks have a combined capacity of 13.5 million gallons. The water is then delivered to your home or business through a network of over 165 miles of waterlines varying in size from 4 to 24 inches in diameter. If you desire more information about the quality of the water provided by the MMA, please call the MMA Manager, John A. Capor at (412) 372-2677 or log on to our web site at <http://www.monroevillewater.org>. The MMA Board of Directors meets at 7:00 p.m. on the third Monday of the month at 219 Speelman Ln., Monroeville, PA 15146, and these meetings are open to the public. The MMA water system identification number is 5020027.

## **WHY IS CHLORINE USED TO DISINFECT MY DRINKING WATER?**

State and federal regulations require the disinfection of all public water supplies. The EPA and other health agencies recognize that using chlorine is one of the most effective ways to protect public health from disease causing organisms that can be found in surface waters. Because chlorine used alone can react with natural materials in the river water to chemically form disinfection by-products such as Total Trihalomethanes (TTHMs) and Five Haloacetic Acids (HAA5s), the Authority has been evaluating chlorination procedures to reduce the formation of TTHMs/HAA5s. However, we will continue to ensure that the water distributed to your home has a sufficient "chlorine residual" to prohibit the growth of bacteria and other organisms, to not increase TTHMs/HAA5s, and to not have an offensive chlorine smell and/or taste.

## **WHAT'S IN MY WATER?**

In order to ensure that the water coming from your tap is suitable to drink, the EPA and the Pennsylvania Department of Environmental Protection (PADEP) have established regulations that limit the amount of certain chemicals in water provided for public water systems. Refer to the attached charts detailing our water quality test results for a complete listing of detected contaminants.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. To obtain more information about chemicals and potential health effects, call the EPA's Safe Drinking Water Hotline (1-800-426-4791) or visit their web site <http://www.epa.gov/safewater>

### **NOTICE: IMPORTANT INFORMATION**

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/Centers for Disease Control (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 (1-800-426-4791).

**Consumer Confidence Report 2007 (WPJWA 2007 DATA)**

LISTED- Chemicals that were detected in WPJWA drinking water during 2007. Even though detected, all are below the allowable levels.  
 NOT LISTED- More than fifty other chemicals which were tested for and not found to be present including Unregulated Contaminants, Total Coliform Bacteria, Inorganic Compounds, and Volatile & Synthetic Organic Compounds. These analyses were performed to determine the proper treatment and ensure the quality of the water produced.

CONTAMINANT (Units)	VIOLATION ?	HIGHEST LEVEL ALLOWED (EPA's MCL)	IDEAL GOALS (EPA's MCLG)	AVERAGE LEVEL DETECTED IN WPJWA WATER	HIGHEST & LOWEST LEVEL DETECTED IN WPJWA WATER	MAJOR SOURCES OF CONTAMINANTS
Turbidity (NTU)	No	TT=1.0 NTU max. TT= 95% OF samples <0.3 NTU	0	0.14 (a) 100%	0.01 - 0.14 (a)	Soil Run Off
Barium (ppm)	No	2	2	0.03 (b)	(c)	Leachate of drilling wastes are used reference erosion of natural deposits.
Cadmium (ppb)	No	5	5	0.8 (b)	(c)	Leachate of natural deposits
Chlorine (ppm) -entry point -distribution	No	MRDL = 4 MRDL = 4	MRDL = 4 MRDL = 4	0.25 0.15	0.25 - 0.77 0.15 - 0.31	Water additive used to control microbes
Fluoride (ppm)	No	2	2	1.02	0.80-1.36	Erosion of natural deposits, discharge from surface & untreated leachate, Water additive for strong teeth
Nitrate (ppm)	No	10	10	0.74	(c)	Fertilizer runoff, sewage and septic tank leakage, erosion of natural deposits
Trihalomethanes (ppb)	No	100/80	n/a	46	21-68	By-product of drinking water chlorination
Haloacetic Acids (ppb)	No	60	n/a	10	0-17	By-product of drinking water chlorination
Total Organic Carbon: (ppm)	No	TT	n/a	1.9 (e)	1.6-1.9 (e)	Naturally present in the environment.
Beta/Photon emitters (pCi/L)	No	50	0	1.8 (b) (d)	1.8 (b) (d)	Decay of natural & manmade deposits.
Alpha Emitters (pCi/L)	No	15	0	0.2 (b) (d)	0.2 (b) (d)	Erosion of natural deposits
Uranium (ug/L)	No	30	0	<1 (b) (d)	<1 (b) (d)	Erosion of natural deposits
Combined Radium (pCi/L)	No	5	0	0.1 (b) (d)	0.1 (b) (d)	Erosion of natural deposits
CORROSIVITY	No	TT	n/a	n/a	n/a	Tendency of water to dissolve or deposit minerals and metals
Lead (ppb)	No	AL=15	0	12	4 out of 55 Range (0 - 37)	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppb)	No	AL=1.3	1.3	0.14	0 out of 50 Range (0 - .18)	Corrosion of household plumbing systems; erosion of natural deposits
<b>Consumer Confidence Report 2007 (MMA 2007 DATA)</b>						
ORGANIC CHEMICALS:	VIOLATION	HIGHEST LEVEL ALLOWED	IDEAL GOALS (EPA's MCLG)	AVERAGE LEVEL DETECTED	HIGHEST & LOWEST LEVEL DETECTED	MAJOR SOURCES OF CONTAMINANTS
Chlorine (ppm)	No	4	0.02-2.49	0.42	0.03-1.59	Water additive used to control microbes
Haloacetic Acids (ppm)	No	60 (g)	0	13	2--36	By-product of drinking water chlorination
Total Trihalomethanes (ppm)	No	80 (g)	0	52	29--86	By-product of drinking water chlorination
CORROSIVITY: water samples from individual consumer taps.		EPA'S (MCL) ACTION LEVEL	EPA'S (MCLG) IDEAL GOAL	90TH PERCENTILE RESULT OF SAMPLE SITE	# OF SITES ABOVE ACTION LEVEL	MAJOR SOURCES OF CONTAMINANTS
Lead (ppb)	No	15	0	4 (e)	0 out of 30	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppb)	No	1.3	1.3	0.077 (e)	0 out of 30	Corrosion of household plumbing systems; erosion of natural deposits

(a) 100% of Turbidity samples met the Turbidity limits specified in the PA Safe Drinking Water Act.  
 (b) Testing required every 9 years. (c) only one sample taken  
 (d) 2002 Data - Compliance with the MCL may be assumed without further analysis if the average annual concentration of Gross Beta Particle Activity is less than 50 pCi/l.  
 The MCL for Beta particles is 4 mrem/yr. EPA considers 50 pCi/l to be level of concern for Beta particles. (e) 2007 Data - testing required every 3 years.  
 (f) Alternative Compliance Criteria of less than or equals to 2.0 mg/L TOC met for the year. (g) Highest running annual average allowed.  
 All contaminants listed were detected in Monroeville Municipal Authority drinking water during 2007, unless otherwise stated, and all are below allowable levels.  
 More than 50 other contaminants were tested for and not detected in Monroeville Municipal Authority drinking water.