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HMUA Hackettstown

2013 Annual Water-Quality Report

The bottom line: Is the water safe to drink? ABSOLUTELY.

Dear Customer:

We are pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that Utilities issue an annual report to customers. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The Hackettstown Municipal Utilities Authority is committed to providing the community with safe, clean drinking water.

We encourage public interest and participation in the decisions affecting drinking water. Regular monthly meetings are normally on the second Tuesday of each month at 8 PM. The meetings are held at the HMUA Administration Building, 424 Hurley Drive in Hackettstown. The public is always welcome.

We hope the information supplied in this Report provides you with a better understanding of all that is involved in delivering safe, clean drinking water into your home or business. Additional information is available on the HMUA website at www.hmua.com.

Thank you for allowing us the opportunity to serve you.

Customers with Compromised Immune Systems

Some people may be more vulnerable to contaminants in drinking water than is 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 (1-800-426-4791). Information is also available on the USEPA Web Site at www.epa.gov/safewater/.

What is the source of HMUA's water supply?

During 2013, the HMUA distributed 921 million gallons of drinking water to customers. The water is treated and pumped into the Water Distribution System.

Surface Water – During 2012, the HMUA's Surface Water Treatment Facility did not operate and did not provide water to the HMUA water distribution system. On July 1, 2012, the surface water plant was removed from the current Water Allocation Permit. Raw water supply lines from the three HMUA reservoirs were decommissioned.

Ground Water – Water passes through layers of soil and gravel which acts as a natural filter. Chlorine is added to the well water to destroy any harmful bacteria. The HMUA Water System had 5 ground water supply wells operational during 2013. Information on all wells is indicated below:

Well # 4 – Seber – This well is a sand and gravel well located in Hackettstown in the Seber Well field at the end of Seber Road. The well has a pump capacity of 300 gallons per minute (GPM). During 2013 this well did not provide any water to the distribution system.

Well #5 - Seber – This well was completed in the Kittatinny Limestone formation and is located in Hackettstown in the Seber Well field at the end of Seber Road. The well has a pump capacity of 1,000 gallons per minute (GPM). During 2013, this well provided 25 percent of the water supplied to the water distribution system.

Well #6 - Heath – This well was completed in the Kittatinny Limestone formation and is located in Washington Township along Schooley's Mountain Road in front of Heath Village. The well has a pump capacity of 700 gallons per minute (GPM). During 2013, this well provided 36 percent of the water supplied to the water distribution system.

Well #7 - Seber - This well was completed in the Kittatinny Limestone formation and is located in Hackettstown in the Seber Well field at the end of Seber Road. The well has a pump capacity of 1,500 gallons per minute (GPM). During 2013, this well provided 34 percent of the water supplied to the water distribution system.

Well #8 - Claremont – This well was completed in the Kittatinny Limestone formation and is located in Mansfield Township along Claremont Road. The well has a pump capacity of 300 gallons per minute (GPM). During 2013, this well provided 5 percent of the water supplied to the water distribution system. As part of the new Water Allocation Permit, NJDEP approved a permit to increase the pumping rate of Well #8 to 800 GPM. A new well pump was installed in 2013 to accommodate this increase.

Special Considerations Regarding Children, Pregnant Women, Nursing Mothers and Others

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. 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 the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

Water Quality Table
HMUA Water System (PWS ID#2108001)

Contaminant	Unit	MCL	MCLG	Detected Level	Range	Sources
Microbiological Contaminants						
Total Coliform Bacteria		1 Positive Monthly Samples	0	1	ND - 1	Naturally present in the environment
All Repeat Distribution System samples and Water Supply samples were negative for Total Coliform and E. coli						
Inorganic Contaminants						
Arsenic	ppb	5	0	.33	<0.2 – 0.33	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (2011)	ppm	2	2	0.023	0.015 – 0.023	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries
Chromium (2011)	ppb	100	100	2.3	1.7 – 2.3	Erosion of natural deposits; Discharge from steel and pulp mills
Selenium (2011)	ppb	50	50	3.8	2.1 – 3.8	Erosion of natural deposits; Discharge from petroleum and metal refineries; Discharge from mines
Copper	ppm	AL=1.3	1.3	0.224	0 sites exceeded the Action Level	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	ppb	AL=15	0	0.33	4 sites exceeded the Action Level	Corrosion of household plumbing systems; Erosion of natural deposits
Lead exceeded the Action Level established by the USEPA. See further information below.						
Nitrate	ppm	10	10	3.24	0.50 – 3.24	Runoff from fertilizer use; Leachate from septic tanks, sewage; Erosion of natural deposits
Volatile Organic Contaminants						
Chlorine	ppm	MRDL=4	MRDLG=4	0.53	0.47 – 0.60	Water additive used to control microbes
Haloacetic Acids (HAA)	ppb	60	N/A	1.25	ND – 5.99	Byproduct of drinking water disinfection
TTHM's (Total Trihalomethanes)	ppb	80	N/A	8.53	ND – 33.10	Byproduct of drinking water disinfection

NOTE: The USEPA and the NJDEP require monitoring of over 80 drinking water contaminants. The parameters listed above are the only contaminants detected.

An Explanation of the Water-Quality Data Table

The table shows the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

Maximum Contaminant Level or 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 using the best available treatment technology.

Maximum Contaminant Level Goal or 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.

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

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

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.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a 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 contamination.

The data presented in this report is from the most recent testing done in accordance with regulations. All the sampling was conducted in 2013, except as noted.

Key To Table

AL = Action Level
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
MRDL=Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
NTU = Nephelometric Turbidity Units
pci/l = picocuries per liter (a measure of radioactivity)
ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (µg/l)
TT = Treatment Technique
ND = Not Detected
N/A = Not Applicable

SOURCE WATER ASSESSMENTS

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at www.state.nj.us/dep/swap/ or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550.

The source water assessment performed on our 7 sources in 2004, determined the following:

	Pathogens			Nutrients			Pesticides			Volatile Org Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproducts		
Sources	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Wells-5		5		5				3	2	3		2		1	4	4	1		3	2		1	4	
Surface Water-2	2				2				2		2		2					2			2	2		

If a system is rated highly susceptible for a contamination category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

Health Effects

Total Coliform Bacteria - Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Arsenic - Although the level of copper (refer to Water Quality Table) is consistently below the health effect level, the EPA requires the following information be included in this report: "Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor."

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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. HMUA 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 is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Nitrate - Although the level of nitrate (refer to Water Quality Table) is consistently below the health effect level, the EPA requires the following information be included in this report: "Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome."

HAA5 (Haloacetic Acids - Although the level of HAA5's (refer to Water Quality Table) is consistently below the health effect level, the EPA requires the following information be included in this report: "Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer."

TTHM's (Total Trihalomethanes) - Although the level of TTHM's (refer to Water Quality Table) is consistently below the health effect level, the EPA requires the following information be included in this report: "Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer."

Variances and Exemptions

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. The HMUA water system received a monitoring waiver for synthetic organic chemicals. The waiver was granted after completion of an assessment of the vulnerability of the source water to contamination. A waiver for asbestos was submitted in May 2011 and is pending review.

Unregulated Contaminants

Cryptosporidium: Cryptosporidium is a microscopic protozoan parasite affecting the gastrointestinal tract of humans and animals. Spread of the organism can be by food, water or person-to-person. The HMUA has tested for and has never found Cryptosporidium in our treated water.

Contaminant	Unit	Average	Range
Radon	pci/l	579.54	ND – 1458.34
The most recent Radon testing was conducted in 1999.			

Radon - Radon is a radioactive gas that you can't see, taste or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source (1–2 percent) of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call EPA's Radon Hotline (800-SOS-RADON).

For more information about the HMUA and your water and sewer utility services visit us on the world wide web at www.hmua.com.

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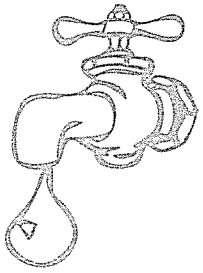

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Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienta bien.

We will be happy to answer any questions about the HMUA and our water quality. Call 908-852-3622 and ask for Charles Volkert.

Why are there Contaminants in Water?

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Information is also available on the USEPA Web Site at www.epa.gov/safewater/.

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:

(A) **Microbial contaminants**, such as viruses and bacteria, which may come from septic systems, agricultural livestock operations, wildlife and sewage treatment plants.

(B) **Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban stormwater runoff, farming, mining or industrial or domestic wastewater discharges.

(C) **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

(D) **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes, and can also come from gas stations, urban stormwater runoff and septic systems.

(E) **Radioactive contaminants**, which can occur naturally or be the result of mining activities.

In order 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

ASSURING A SAFE AND DEPENDABLE WATER SUPPLY

The HMUA will continue to implement initiatives that ensure safe, clean drinking water now and in the future.

Energy Audit

The HMUA was the first public agency to take advantage of the Local Government Energy Audit Program. The program provided a 75% reimbursement of the cost of administering the Audit. The Energy Audit Report was approved by the NJ Office of Clean Energy in June 2009. The Authority has implemented many of the recommendations detailed in the Report including the installation of a Solar Array, which was completed and put into service in late summer 2011.

Energy Reduction Plan

The HMUA submitted an Energy Reduction Plan to the NJ Office of Clean Energy Pay for Performance Program. The Plan has been implemented and resulted in a 33 percent reduction in electricity use at HMUA's Water Pollution Control Plant. In addition to the electricity savings, the HMUA also received a NJ Clean Energy rebate of $250,546.

System Security

Due to the events of 9/11, the HMUA has taken several actions to safeguard your water supply, including a review of operating practices to place a greater emphasis on security issues.

Geographical Information System

The development of a Geographical Information System (GIS) was completed for the entire HMUA Service Area in 2004. The completed system is proving to be a valuable tool in improving customer service and in the planning, operation and maintenance of HMUA assets.

Water Main Replacement Program

Since 1993, more than 44,000 feet of pipe has been replaced with new lined ductile iron water mains. The new piping replaced aging 3, 4 and 6 inch diameter unlined cast iron water mains. The most recent phase was started in the Winter of 2013. The new water mains will greatly improve fire flows and delivered water quality for HMUA customers. The Water System Improvements, along with the Hackettstown Fire Department helped the Town of Hackettstown obtain an upgraded Fire Suppression Delivery System Rating of 4. This places the Town of Hackettstown in the top 10 percent of all communities in the nation.

Periodic Hydrant Flushing

At least once per year, the HMUA conducts a comprehensive water main and hydrant flushing program throughout the 100+ miles of the water distribution system. Hydrant flushing helps to remove any sediment from the water mains and assures consistent, good quality water. As part of the flushing process, every fire hydrant in the water system is operated to ensure that it will operate properly in the event of a fire. Hydrant flushing was last completed during the month of May 2014.

Water Supply Wells

The authority has received permission from the NJDEP to allow for the construction of Well #9 and increased pumping capacity for Claremont Well #8.