

# Stewartstown Borough Water Authority

## Stewartstown Borough & Hopewell Township

### 1999 Report to Consumers on Water Quality

#### WATER SYSTEM INFORMATION

This report shows our water quality and what it means. Stewartstown Borough Water Authority is proud of the fine drinking water it provides. This annual water quality report shows the source of our water and contains important information about water and health. Stewartstown Borough Water Authority will notify you immediately if there is any reason for concern about our water. We are happy to show you how we have surpassed water-quality standards. **We are proud to report that the water provided by Stewartstown Borough Water Authority meets and/or exceeds established water-quality standards.** We encourage public interest and participation in our community's decisions affecting drinking water. Regular Sewer & Water Committee meetings occur on the third Monday of every month, at the Stewartstown Borough Office meeting room (side door) at 7:00P.M. The public is welcome. Ira D. Walker, Jr. and Robert L. Hunt using technical assistance provided by the York, PA. office of D.E.P. prepared this report. We would like to thank Chester Young and Laura Novak for their assistance in preparing this document for you. We'll be happy to answer any questions about Stewartstown Borough Water Authority and water quality, call at 717-993-2963 Ext. 205. The Stewartstown Borough Water Authority is a member of the American Water Works Association and the Pennsylvania Rural Water Works Association.

Stewartstown Borough Water Authority purchased the water system from General Water Works in 1984. The Authority is proud of all the improvements to the water system since that time, such as new water towers, replacement of better than 90% of water mains and service lines along with all new fire hydrants. Along with this the Authority lowered the water rate by \$1.95 per 1000 gallons of usage effective in the third quarter billing of 1999. The most recent improvement is an agreement with York Water Co. to purchase bulk water from them. This will insure the Stewartstown Borough Authority the volume of water needed to serve this area in years to come. The Stewartstown Borough Water Authority strives to continue to provide good service, quality water supply.

#### SOURCE(S) OF WATER:

Stewartstown Borough Water Authority is supplied by groundwater pumped from 9 wells in and around Stewartstown Borough, located in southern York County.

#### DEFINITIONS

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) 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.

Maximum Contaminant Level Goal - The "Goal"(MCLG) is 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.

#### MONITORING YOUR WATER

Stewartstown Borough Water Department routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of January 1 to December 31, 1999. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The data has been noted on the sampling results table.

#### DETECTED SAMPLE RESULTS

Contaminant	Violation Y/N	Level Detected	Unit of Measurement	Range	MCLG	MCL	Sources of Contamination
ANTIMONY 12/02/97	N	3	PPB		6	6	Fire retardants, ceramics, electronics, solder
ATRAZINE 6/29/99	N	0.24	PPB		3	3	Runoff from herbicide used on row crops
BARIUM 12/02/97	N	84	PPB		2000	2000	Erosion of natural deposits
NITRATE 12/14/99	N	9.94	PPM	5.46-9.94	10	10	Fertilizer use, septic tanks
SULFATE 2/20/96	N	11.05	PPM		250 *	250 *	
GROSS ALPHA 8/27/96	N	0.394	PCi/l		0	15	Erosion of natural deposits
RADIUM-226 6/18/96	N	1	PCi/l		0 **	5 **	Erosion of natural deposits
RADIUM-228 6/18/96	N	2	PCi/l		0 **	5 **	Erosion of natural deposits
Contaminant	Violation	# of Positive Samples/Month		MCL	MCLG	Sources of Contamination	
Total Coliform Bacteria	N	0		≥5% monthly samples are positive	0	Naturally present in the environment.	

Contaminant	Violation	# of Positive Samples/Year	MCL	MCLG	Sources of Contamination		
Fecal Coliform Bacteria Or E-coli	N	0	Routine Sample and Repeat Sample are total coliform positive and one is also fecal coliform or E.coli Positive	0	Human and animal fecal waste		
Contaminant	Violation	Level Detected	Unit of Measurement	# of Sites Above AL	Action Level (AL)	MCLG	Source of Contamination
Lead 1998	N	3.9	ppb	0	15 ppb	0	Corrosion of household plumbing
Copper 1998	N	0.75	ppm	0	1.3 ppm	0	Corrosion of household plumbing

\* = Secondary Maximum Contaminant Level (SMCL)

\*\* = for Combine Radium Test Results

### HEALTH EFFECTS

ANTIMONY – Some people who drink water-containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

ATRAZINE – Some people who drink water-containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

BARIUM - Some people who drink water-containing barium well in excess of the MCL over many years could experience an increase in their blood pressure.

NITRATE in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

SULFATE – None

GROSS ALPHA – Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water-containing alpha emitters in excess of the MCL over many years may have an increase risk of getting cancer.

RADIUM-226 & RADIUM-228 - Some people who drink water-containing radium 226 or 228 in excess of the MCL over many years may have an increase risk of getting cancer.

### OTHER VIOLATIONS

#### EDUCATIONAL INFORMATION

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the 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 at 1-800-426-4791.

The sources of drinking 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 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 sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- (E) 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.

Stewartstown Borough Authority water source is wells only, eliminating some of the concerns of surface water. Some of the contaminants, such as radon, do not have yearly testing requirements. In the years to come and as testing is required you will see results of any contaminants detected. MCL's are set at very stringent levels for health effects. A person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).