

South Whitehall Township

BOARD OF AUTHORITY

June, 2011

Dear South Whitehall Township Water Customers,

On August 19, 1998, the U. S. Environmental Protection Agency published a new regulation requiring water system operators to provide customers with an annual report on the quality of their water. The enclosed report contains detailed information describing the source of the water supply, the maximum levels of contaminants allowed in the drinking water, and the highest level and range of values of certain substances detected in the water. We feel this is an important step in opening the lines of communication between the South Whitehall Township Water Department and our water customers.

This report is mailed to you for your convenience. Landlords and business owners are encouraged to make copies of this water quality report available to their tenants, employees, and customers, and to post it in common areas for all to read. Please call the South Whitehall Township Water Department at 610-398-0407 and we will be happy to provide you with extra copies.

Should you have any other questions on this matter, please call us at the telephone number listed below.

Sincerely,



Authority Chairman

4444 Walbert Avenue • Allentown, Pennsylvania 18104-1699

Administration (610) 398-0401 • Police (610) 398 0337 • Public Works (610) 398-0407 • FAX (610) 398-1068

2010 DRINKING WATER QUALITY REPORT FOR SOUTH WHITEHALL TOWNSHIP

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. It outlines information concerning the SWTA Main System (PWSID #3390065), and SWTA Consecutive System (PWSID #3390087). Our constant goal is to provide you with a dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The South Whitehall Township Authority has nine active wells located within South Whitehall Twp. Four draw from the Beekmantown Group of aquifers and five draw from the Allentown Formation aquifers. In addition, we purchase treated surface water from the City of Allentown, and have an emergency interconnection with Lehigh County Authority.

If you have any questions about this report or concerning your water utility, please contact the South Whitehall Township Water Superintendent at (610) 398-0407 or attend a Board of Authority meeting scheduled every month on the third Monday @ 4pm. We want our valued customers to be informed about their water utility.

South Whitehall Township Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the results of our monitoring and the City of Allentown's monitoring for the period of January 1st to December 31st, 2010. The City's test results (Table 1 and Table 2) are included because their water quality will effect our system's due to our interconnections.

All sources of drinking water are subject to potential contamination by constants that are naturally occurring or man made. Those contaminants 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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 1-800-426-4791.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

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.

Total Coliform: During the month of December 2010, water samples taken from our main water system tested positive for coliform bacteria. Coliform Bacteria are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. As soon as this was identified, water department personnel began a systematic series of area wide flushing of the water mains.

Secondary "check" samples were taken from these same locations. All samples tested negative for E. coli bacteria. Since that time we have not had any positive test samples indicating a water quality problem. All routine samples have been in compliance. We are constantly monitoring the water system and flushing it as necessary to maintain water quality.

Fecal Coliform and E. Coli: Fecal coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely-compromised immune systems.

Lead: In June of 2010, water sampled from the homes of 40 residents was tested for the presence of lead and copper. Results met federal and state standards.

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. South Whitehall Township 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>

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.

MCLs are set at very stringent levels for health effects. To understand the possible health effects described for many regulated contaminants, 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.





Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

There are occasions when your water bill may seem high. The high readings may be caused by a small leak in your plumbing system or equipment. The following chart received from the Pennsylvania Rural Water Association shows how much water you can lose from these small leaks. If you suspect there is a leak in your home, notify a plumber to inspect your system.

Water costs money... don't waste it!

A dripping faucet or fixture can waste 3 gallons a day... a total of 1095 gallons a year.

	U.S. Equivalent	Metric Equivalent
Fluid oz.	8 fl. drams (1.804 cu. inches)	29.573 milliliters
Pint	16 fl. oz. (28.875 cu. inches)	0.473 liter
Quart	2 pints (57.75 cu. inches)	0.946 liter
Gallon	4 quarts (231 cu. inches)	3.785 liters

Waste per quarter at 60 psi water pressure				
Diameter of stream		Gallons	Cubic Feet	Cubic Meters
 1/4"		1,181,500	158,000	4,475
 3/16"		666,000	89,031	2,521
 1/8"		296,000	39,400	1,115
 1/16"		74,000	9,850	280

A continuous leak from a hole this size would, over a three month period, waste water in the amounts shown above.

SOUTH WHITEHALL TOWNSHIP WATER TEST RESULTS

Entry Point Disinfectant Residual

Contaminant	Disinfectant Residual	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	1.2	1.22	1.22 - 1.78	ppm	2010	N	Water additive used to control microbes.

Inorganic Contaminants

Contaminant (Unit of Measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
Copper (ppm) ¹	N	0.225	0 of 40 sites above action level	3	AL = 1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Fluoride (ppm)	N	.79	.48 - .79	4	4	Erosion of natural deposits; water additive; discharge from fertilizer and aluminum factories
Lead (ppb) ¹	N	6.9	0 of 40 sites above action level	0	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	N	5.8	0 - 5.8	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Chlorine (ppm)	N	.63	0.19 - 1.11	MRDL = 4	MRDLG = 4	Water additives used to control microbes
Arsenic (ppb)	N	.06	0-0.6	0	10	Erosion of natural deposit; runoff from orchards; runoff from gas and electronics production wastes
Nitrite	N	.002	0 - .002	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

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

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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Minimum Residual Disinfectant Level: The Minimum level of residual disinfectant required at the entry point to the distribution system.

Volatile Organic Contaminants

Contaminant (Unit of Measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination
THM (total trihalomethanes) (ppb)	N	13.0	1.5 - 44.7	N/A	80	By-product of drinking water chlorination
HAA5 (Haloacetic Acid) (ppb)	N	3.6	Nd - 16.6	N/A	60	By-product of drinking water chlorination
1.1.1 - Trichloroethane (ppb)	N	1.4	Nd - 1.4	200	200	Discharge from metal degreasing sites and other factories

Microbiological Contaminants

Contaminant (Unit of Measurement)	Violation Y/N	Highest # of Positive samples in any one month	MCLG	MCL	Likely Source of Contamination
Total Coliform	Y	2	0	2 or more positive samples in any one month	Naturally present in the environment

Raw Source Water Microbial

Contaminants	MCLG	Highest # of Positive samples	Date(s)	Violation Y/N	Sources of Contamination
E. coli (In raw source water)	0	1	Feb. 2010	N	Human or Animal Fecal Waste

Nd - None detectable at testing limit.

¹ Lead & Copper results taken 2010.

City of Allentown Water Test Results for 2010

Table 1 lists typical analysis of water plant discharge. Table 2 lists all regulated contaminants that were detected during 2010. All contaminants tested for, but with results below the detection limit, are not listed in any of the tables. Unless noted, the data in all of the tables were generated from sampling done in the year 2010. The state requires us to monitor for certain parameters on multi-year intervals, so some of the results are greater than one year old. The results greater than one year old are noted on the tables.

Table 1- Average Results of Typical and Secondary Contaminant Analyses of Water Plant Discharge

Contaminant	Units	MCL	Your Water	Sources
Alkalinity	ppm as CaCO ₃	>55	176	These contaminants are associated with the aesthetic qualities of drinking water.
Aluminum	ppm	0.2	0.063	
Chloride	ppm	250	69	
Color	Color Units	15	0.3	
Corrosivity	Langelier Index	Non-corrosive	0.07	
pH	SU	>7.2	7.61	
Silver	ppm	0.1	0.0005	
Sodium	ppm		35	
Sulfate	ppm	250	40	
Total Dissolved Solids	ppm	500	390	
Total Hardness	grains per gallon		14.2*	You would be able to notice a change in color, smell or taste if a secondary standard MCL was exceeded.
Zinc	ppm	5	0.0009	

Non-detectable results:
Foaming Agents, Iron & Manganese

* This result is the answer to our most frequently asked question. It is used for home softener programming.

Table 2 - Detection Summary of Regulated Contaminants for 2010

Contaminant	MCLG/MRDLG	MCL, TT MRDL, AL	Your Water	Range of Detects	Violation	Sources
Organic & Inorganic Contaminants						
Fluoride (ppm)	2	2	0.77	0.65-0.92	No	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	NA	60	12.9	2.6-21.2	No	By-product of drinking water chlorination
Nitrate (ppm)	10	10	4.1	3.5-4.6	No	Run-off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Tetrachloroethylene (ppm)	0	5	1.31	NA 1 Sample Tested	No	Discharge from factories and dry cleaners
Total Trihalomethanes (ppb)	NA	80	29.1	4.13-37.24	No	By-product of drinking water chlorination
Unregulated Contaminants						
Metolachlor ethane sulfonic acid (ppb) (January 2009)	NA	NA	0.40	0.37-0.44	No	Acetanilide degradate. Monitoring required per EPA; state limits considered
Lead & Copper						
Lead (ppb) (June 2010)	0	15	90th Percentile 8.8	# Sites Above AL 1 of 50	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm) (June 2010)	1.3	1.3	90th Percentile 0.265	# Sites Above AL 0 of 50	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Chlorine (ppm)						
Distribution System Entry Points	4	4	0.70	0.07-1.08	No	Water additive used to control microbes
	MinRDL = 0.2		Minimum 0.54	0.54-1.24		
Microbiological Contaminants						
Total Coliform Bacteria	0	5% of Monthly Samples	Highest % positives in any one month <1%		No	Naturally present in the environment
Turbidity						
Turbidity (NTU)	0	1 for single reading		0.053	No	Soil run-off Used as an indicator of filter performance
Highest single reading (April 2010)		TT=at least 95% of monthly samples <0.3 NTU		100%		

1. Lead and Copper results taken In 2007.
2. Compliance based on running annual average calculations.
3. The City of Allentown has been adding fluoride since 2000.