

Borough of Somerset

Municipal Authority

Public Water Supply Identification Number (PWSID) 4560042



2011 Annual Drinking Water Quality Report

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. (This report contains important information about your drinking water. Translate it, or speak to someone who understands it.)



Somerset Borough Water Usage

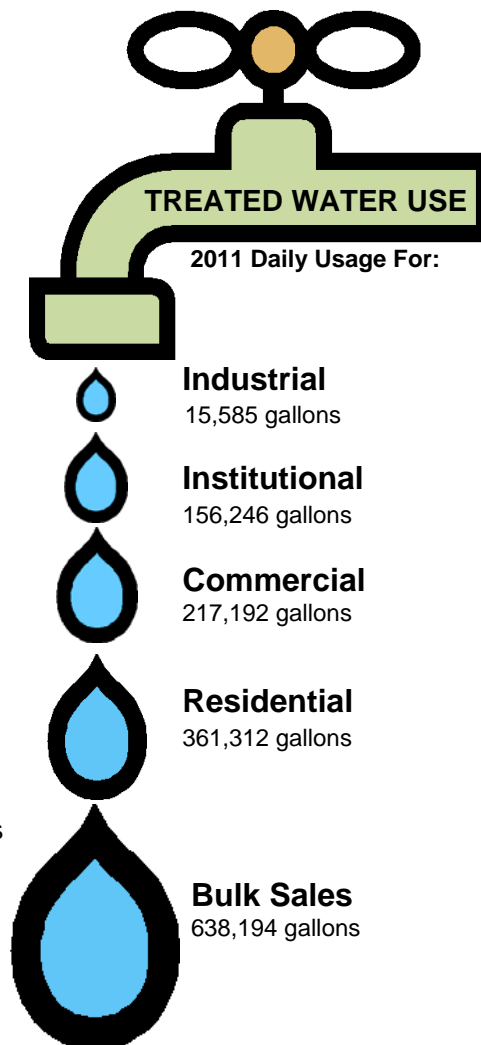
Industrial - Industrial accounts include those businesses that manufacture goods in the Borough, as well as the sprinkler systems throughout these buildings.

Institutional - Institutional accounts include schools, libraries, prisons, county office buildings, recreational buildings, as well as the Borough Building itself and the pumpstations we maintain.

Commercial - Commercial accounts include the various local businesses located throughout the Borough.

Residential - Residential accounts include all homes and/or apartments within the Borough.

Bulk Sales - Bulk Water includes various bulk water quantities sold to other municipalities, vactor usage, sweeper usage, and bulk water sold to various contractors throughout the year.



Facility #1 (Surface Water)
1.75 MGD by Permit

Somerset Borough water source #1 is Laurel Hill Creek located in Jefferson Township .



Facility #2 (Ground Water)
1.152 MGD by Permit

Somerset Borough water source #2 is Shaffer Run Wells. They are located on 650 acres owned by the Authority.



Facility #3 (Ground Water)
.864 MGD by Permit

Somerset Borough water source #3 is Coxes Creek Water Plant..

Water Quality Data

In this 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- One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Nephelometric Turbidity Unit (NTU)- Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

Maximum Contaminant Level- The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed 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 a margin of safety.

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.

Test Results						
Microbiological Contaminates						
Contaminant (Unit of Measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely source of contamination
Turbidity (ntu) Combined Filtered Effluent	N	0.033	.014 - .033 (b)	0.3	TT	Soil runoff
Entry Point 101 Chlorine (ppm)	N	2.28	1.83 - 2.28	> .02	4.00	Water additive used to control microbes.
Entry Point 103 Chlorine (ppm)	N	2.09	1.39 - 2.09	> .02	4.00	Water additive used to control microbes.
Distribution Chlorine (ppm)	N	2.85	.64 - 2.85 (c)	> .02	4.00	Water additive used to control microbes.
Total Coliform	N	0	0	N/A	N/A	Naturally present in environment.
Inorganic Compounds						
Contaminant (Unit of Measurement)	Violation Y/N	Level Detected	Range	MCLG	MCL	Likely source of contamination
Trihalomethanes (ppm)	N	0.0064	0.0038 - 0.0064	< .080	0.08	By-product of drinking water chlorination
HAA5s (ppm)	N	< .006 µg	< .006 µg (d, e)	< .060	0.06	By-product of drinking water chlorination
Total Organic Compounds (ppm)	N	< .5	(e)	N/A	TT	Naturally decaying vegetation
Nitrate Entry Point 101 (ppm)	N	0.16	(a)	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrate Entry Point 103 (ppm)	N	< .050	(a, e)	10	10	
Nitrite Entry Point 101 (ppm)	N	< .050	(a, e)	1	1	
Nitrite Entry Point 103 (ppm)	N	< .050	(a, e)	1	1	
Arsenic (ppm)	N	0	(a)	(a)	(a)	Erosion of natural deposits

Footnotes:

- (a) Only one sample required.
- (b) All samples met the turbidity limits.
- (c) None of the samples collected exceeded the action level.
- (d) Level detected was measured in "µg" 1000 µg is equal to: 1 mg/l or 1 ppm
- (e) Level detected was too low to measure

We want our valued customers to be informed about their water utility.

If you want to learn more, please attend any of our regularly scheduled meetings.

*Somerset Borough Council meetings are held the fourth Monday of every month at 7:00 PM.

*Somerset Municipal Water Authority meetings are held the third Monday of every month at 7:00 PM.

For additional information or questions please call **(814) 443-2661**.

Visit us on the web at WWW.SOMERSETBOROUGH.COM

Annual Drinking Water Quality Report - 2011

We are 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. Our constant goal is to provide you with a safe and 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. Our water sources are **Laurel Hill Creek, Shaffer Run Wells, and the Coxes Creek Wells.**

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.

Maximum Contaminant Level (MCL's) are set at very stringent levels for health effects. To understand the possible health effects described for many regulated constituents, 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.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and 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.

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 system disorders, some elderly, and infants can be particularly at risk for 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).

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic system, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water 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 by products 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection.

Reporting Requirements Not Met For Somerset Borough Water Authority

No Violations to Report



2011

Water Quality
REPORT

Borough of Somerset
PO Box 71
Somerset, PA 15501-0071


2011 ANNUAL DRINKING WATER QUALITY REPORT
PWSID #: 4560009 NAME: Somerset County General Authority

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Chris L. Meyer, Water Manager at (814) 629-9460. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at 3:00 PM, the second Thursday of every month, at 300 North Center Avenue, Suite 500, Somerset, PA 15501.

SOURCE(S) OF WATER:

Our water source(s) is/are: (Name-Type-Location)

The Quemahoning Dam, which is a surface water source, located at 476 Quemahoning Dam Road, Hollsopple, PA 15935 is our source of water. We purchase bulk raw water from the Cambria-Somerset Authority and process the raw water through our treatment plant at 458 Mastillo Road, Hollsopple, PA 15935.

A *Source Water Assessment* of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to [insert potential *Sources of Contamination* listed in your *Source Water Assessment Summary*]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the *Source Water Assessment & Protection Web* page at (<http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm>). Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Cambria District Regional Office, Records Management Unit at (814) 472-1800.

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

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2011. 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 date has been noted on the sampling results table.

DEFINITIONS:

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

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.

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 contaminants.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

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

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

pCi/L = picocuries per liter (a measure of radioactivity)

ppb = parts per billion, or micrograms per liter ($\mu\text{g/L}$)

ppm = parts per million, or milligrams per liter (mg/L)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Barium (IOC)	2	2	0.0314		MG/L	2011	N	Erosion of natural deposits
Nitrate	10	10	0.45		MG/L	2011	N	Runoff from fertilizer use
Haloacetic Acids (Five)	60	N/A	32	0-62	ppb	2011	N	By-products of drinking water chlorination
Trihalomethanes	80	N/A	21	18-88	ppb	2011	N	By-products of drinking water chlorination
Chlorine	MRDL=4	MRDLG=4	1.4	0.2-3.0	MG/L	2011	N	By-products of drinking water chlorination

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	1.06	0.5-1.0	ppm	2011	N	Water additive used to control microbes.

Lead and Copper

Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	N/A	ppb	N/A	N	Corrosion of household plumbing.
Copper	1.3	1.3	N/A	ppb	N/A	N	Corrosion of household plumbing.

Microbial

Contaminants	MCL	MCLG	Highest # or % of Positive Samples	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	For systems that collect <40 samples/month: <ul style="list-style-type: none"> More than 1 positive monthly sample For systems that collect ≥ 40 samples/month: <ul style="list-style-type: none"> 5% of monthly samples are positive 	0	0	N	Naturally present in the environment.
Fecal Coliform Bacteria or <i>E. coli</i>	0	0	0	N	Human and animal fecal waste

Turbidity

Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.13 NTU	6/14/11	N	Soil runoff.
	TT= at least 95% of monthly samples ≤ 0.3 NTU		100%	6/11	N	

Total Organic Carbon (TOC)

Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	25-35%	26-38%	2	Y	Naturally present in the environment.

HEALTH EFFECTS:

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Our results prove analytically that the violation did not cause any elevated levels of disinfection products. The results for the Total Organic Carbon appear to be an anomaly.

OTHER VIOLATIONS:

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 run-off, 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 by-products 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 and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations