Annual Drinking Water Quality Report
2008
The Town of Sharptown, Maryland

We're pleased to present this year's Annual Drinking Water 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.

The Town of Sharptown's source of drinking water is supplied to our customers from four underground wells. Two of our wells draw water from the Nanticoke Aquifer, which is, located about 300 feet below the earth's surface. An aquifer is a sort of underground reservoir or deposit of water, which is tapped by drilling wells and pumping the water to the surface for distribution. The 300 feet of earth between surface sources of contamination and this underground river helps to purify the water before it actually reaches the aquifer, making it easier for us to treat before we pump it into your water distribution system.

The other two wells are at a depth of 70 feet and 90 feet below the earth's surface, which is not a confined aquifer like the Nanticoke Aquifer, which can be susceptible to contamination from above ground sources.

Each one of our wells has a different water composition, and chemical makeup, such as different pH levels, iron and sodium, nitrates levels. These four wells are blended together at precise levels, which deliver the best possible quality finished drinking water to our water customers.

We are pleased to report that our drinking water is safe and meets federal and state requirements. The following report is provided in compliance with federal regulations and will be provided annually. This report outlines the quality of our finished drinking water and what that quality means.

In August, 2000, the Town was awarded a grant from the Maryland Department of the Environment to establish a wellhead protection plan (source water assessment plan) for its community water system. The plan was completed in March, 2001 by Advanced Land and Water, Inc. The required components of this plan are: (1) mapping of an area that contributes water to the source, (2) identification of potential sources of contamination to ground water supplies and (3) determination of the susceptibility of the water supply to contamination. Results, recommendations and map of the plan can be reviewed at the Town Hall.

If you have any questions about this report or concerning your water utility, please contact Water & Sewer Supervisor, William R. White at 410-883-3805. 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 Council meetings. They are held on the first and third Mondays of every month beginning at 7:30 p.m.

The Town of Sharptown's Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The tables on the following pages show the results of our monitoring as required by law within the past five years. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, **including bottled** drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does ***not necessarily*** pose a health risk.

Definitions

In this report 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:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

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.

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

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

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 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.

Have Waiver – System is not susceptible to contamination from that particular chemical, not required to test.

Non-Detected Contaminants

Following is a list of potential drinking water substances that the Town of Sharptown is required to test for, but which have **not** been detected in the water supply in the past year. The Town is only required to provide information on those substances it has detected in the finished water supply, but is providing the complete list of required EPA sampling in order to better inform its customers about the extent of testing that is done to their water supply.

Contaminant	Level Detected	Year Tested	Contaminant	Level Detected	Year Tested
1. Total Coliform Bacteria	0	2008	31. Pentachlorophenol	<0.01	2007
2. Fecal coliform and *E.coli*	0	2008	32. Toxaphene	0	1996
3. Combined Radium	0	2003	33. Carbon tetrachloride	<0.5	2008
4. Antimony	<.002	2008	34. Cadium	<0.002	2007
5. Asbestos (have waiver)	0	1995	35. o-Dichlorobenzene	<0.5	2008
6. Glyphosate	0	1995	36. p-Dichlorobenzene	<0.5	2008
			37. 1,2 - Dichloromethane	0	2004
8. Selenium	<.002	2007	38. 1,1 - Dichloroethylene	<0.5	2008
9. Beryllium	<.002	2007	39. cis-1,2-Dichloroethylene	<0.5	2008
10. Alachlor	< 0.5	2007	40. trans-1,2-Dichloroethylene	<0.5	2008
11. Di(2-ethylhexyl) adipate	< 1.5	2007	41. Thallium	<0.002	2007
			42. 1,2-Dichloropropane	<0.5	2008
13. Chromium	<.002	2007	43. Ethylbenzene	<0.5	2008
14. Endrin	< 0.5	2007	44. Styrene	<0.5	2008
15. Cyanide (have waiver)	0	1995	45. 1,2,4 –Trichlorobenzene	<0.5	2008
16. Ethylene dibromide (EDB)	<.01	2007	46. 1,1,1 - Trichloroethane	<0.5	2008
17. Hexachlorobenzene (HCB)	< 0.5	2007	47. 1,1,2 –Trichloroethane	<0.5	2008
18. Hexachlorocyclo- pentadiene	< 0.5	2007	48. Trichloroethylene	<0.5	2008
19. Oxamyl [Vydate]	< .5	2007	49. Toluene	<0.5	2008
20. Mercury (inorganic)	0	2003	50. Xylenes	.6	2008
21. 2,4-D	<0.1	2007	51. Atrazine	<0.5	2007
22. 2,4,5-TP(Silvex)	<.05	2007	52. Benzo(a)pyrene(PAH)	<0.1	2007
23. Carbofuran	< .5	2007	53. Methoxychlor	<0.5	2007
24. Chlordane	< .1	2007	54. PCBs (Polychlorinaded biphenyls)	0	1995
			55. Picloram	<0.1	2007
26. Dinoseb	<0.1	2007	56. Simazine	<0.5	2007
27. Diquat	0	1995	57. Benzene	<0.5	2008
28. Endothall	0	1995	58. Tetrachloroethylene	<0.5	2008
29. Heptachlor	<0.2	2007	59. Vinyl Chloride	<0.5	2008
30. Heptachlor epoxide	<0.1	2007			

Sharptown does test for unregulated contaminants not required in this report. The results of the contaminants not listed above were all non-detected. A complete list is available at the Town Hall for viewing.

Detected Contaminants NOT in Violation of the MCL

In addition to these un-detected substances that were subject to testing, the Town did find some regulated substances present in the water system at levels below the maximum allowable level (MCL) which is determined safe by the EPA. These substances are shown below, along with the MCL and MCLG for each one detected.

Substances	Year Tested	Level Detected	Unit of Measure-ment	MCL	MCLG	Likely Source of Contamination
1. Copper	2005	0.155	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2. Lead	2005	0.002	ppb	AL=15	0	Corrosion of household plumbing systems, erosion of natural deposits
3. Nitrate (as Nitrogen)	2008	7.35	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
4. Barium	2006	0.116	ppm	2	2	Discharge of drilling waste, discharge from metal refineries, erosion from natural deposits
5. Fluoride	2006	0.1	ppm	4	4	Erosion from natural deposits, water additives which promotes strong teeth, discharge from fertilizer and aluminum factories
6. Arsenic	2006	.002	ppb	10	0	EPA is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally-occurring mineral known to cause cancer in humans at high concentrations.
7. Di(2-ethylhexyl)phthalate	2006	2.2	ppb	6	0	Discharge from rubber and chemical factories
8. Nitrite	2006	.006	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
9. Dalapon	2006	<.1	ppb	200	200	Runoff herbicide used on rights of way

It is important to understand that the detection of these substances in the drinking water does not constitute a known threat to public health because they were found only at levels less than the MCL and below the level that EPA currently feels may constitute a health threat. MCL's are set at very stringent levels, and the Town's water has proved to be below those levels for the constituents listed above.

The Town found Nitrates and Lead to be present in the water at a level that is in compliance with the MCL, and does not constitute a known threat to public health. The results of that test and the explanation are outlined below.

Detected Contaminant NOT in Violation of the MCL

Contaminant	Level Detected	Unit of Measurement	MCL	MCLG	Likely Source of Contamination
Nitrate (as Nitrogen)	7.35	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, of sewage; erosion of natural deposits

Nitrates were found at a level of 7.76 parts per million (ppm) in one (1) of the annual tests in our distribution system. This level does not constitute a violation of the Maximum Contaminant Level (MCL) of 10 ppm. We have not found any nitrate levels that exceed the MCL in the past year, but because the level detected at that one site was more than half the allowable MCL, we are required to outline the potential health effects of nitrates in drinking water.

In August of 2008 we had a Nitrate Result of greater than 10 ppm. This was a result of the sample being taken from the wrong sample point. We had the nitrates retested from the proper point immediately and the results were 5.78 ppm. At no time was there any danger to the public or water system.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate level 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. 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, even when that level does not constitute a violation of the allowable standards.

Lead	0.002	ppb	AL=15	0	Corrosion of household Plumbing systems, erosion of natural deposits

Lead was found at a level of 0.002 parts per billion (ppb) in one (1) of the Triennial tests in our distribution system. This level does not constitute a violation of the Maximum Contaminant Level (MCL) of AL=15. We have not found any lead that exceeds the MCL in the past three years, but because the level detected at the one site was more than half the allowable MCL, we are required to outline the potential health effects of lead in drinking water.

Lead in drinking water at level above AL=15 is a health risk for infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's pluming. If you are concerned about elevated lead levels in your home's water, you may wish to have you water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

Detected Contaminant NOT in Violation of the MCL

Contaminant	Level Detected	Unit of Measurement	MCL	MCLG	Likely Source of Contamination
Radon 222	50	pCi/L	N/A		Erosion of natural deposits.
Gross Alpha	4	pCi/l	15	0	Erosion of natural deposits

We constantly monitor the water supply for various constituents. Test results in 1999 detected radon in the finished water supply in 1 out of 1 sample tested. There is no federal regulation from radon levels in drinking water. Exposure to air transmitted radon over a long period of time may cause adverse health effects.

Arsenic	< .002	ppb	10	0	Naturally-occurring mineral

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

For nitrates and the other constituents that were detected at levels lower than the allowable MCL, it is important to understand that the EPA has determined that drinking water IS safe at these allowable levels. MCL's are set at very stringent levels. To experience the possible health effects described for many of the regulated contaminants, a person would have to drink 2 liters of water every day containing a constituent at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Usted puede obtener esta informacion en espanol por llamar por telefono la casa del ayuntamiento de Sharptown a 410-883-3767.

Detected Contaminants IN Violation of the MCL

The Town did find levels of TTHM (Total Trihalomethanes) present in the water at levels, which constitute a violation of the MCL for those constituents.

TTHM	82.52	ppb	80	0	By-product of
[Total Trihalomethanes]	82.52	ppb			drinking water chlorination

TTHM was found at a level of 82.52 parts per billion (ppb) in annual tests in our distribution system on 10/11/08. This level does constitute a violation of the Maximum Contaminant Level (MCL) of 80 ppb. We have found TTHM that exceed the MCL in the past year, because the level detected at the one site was more than the allowable MCL, we are required to outline the potential health effects of TTHM in drinking water.

Some people who drink water containing Trihalomethanes [TTHM] in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.

The Town is in the process of conducting more water tests to determine what may be causing the elevated levels of TTHM's. The Water Department has been in close contact with the Maryland Department of the Environments Water Supply Program for help in determining the possible cause and reviewing possible corrective actions that may correct this situation.

Trihalomethanes [TTHM] in drinking water are created when the Chlorine, used to disinfect the water, reacts with compounds that are found, naturally, in the water pumped from our wells from underground aquifers.

Step number one is to identify the compounds that are creating the TTHM's. Step number two is to identify which one of the wells the compounds are coming from and then finally step number three would be the corrective action to take.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 presence of some contaminants in drinking water is unavoidable, but we make every effort to keep our water at or below the levels specified by law as being safe for consumption. Our Water Department staff consists of one Maryland State Certified Superintendent and one (Maryland State Temporary Operator) who has a combined experience of almost 20 years between them. Together they have attended many hours of Continuing Education training in the past year in an effort to keep up-to-date with the latest in water treatment techniques to provide you with the best quality water possible. The provision of quality water is an on-going effort for the Town of Sharptown and its staff, and one we are continuously trying to improve upon.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We must set our water rates so that the system pays for itself without subsidy from property tax revenues. In this way, the cost of the water service can be borne by those who actually use water rather than just by the property owners. At this time there are no anticipated rate increases.

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. 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).

We at the Town of Sharptown work continuously to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions.

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Phone – 410-883-3767
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Sharptown Water Office – 305 State Street
Phone – 410-883-3805