



Annual Drinking Water Quality Report for 2014

Village of South Dayton

Village of South Dayton Water System
17 Park Street, South Dayton, NY 14138-0269
Public Water Supply ID#NY0400351

INTRODUCTION

To comply with State regulations, the Village of South Dayton Water System will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact **Ms. Paula Stockman, Village Clerk, at 988-3833**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. The meetings are held the second Wednesday of each month at 7:00 p.m.

WHAT IS THE SOURCE OF OUR WATER?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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 activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves approximately 661 people through 300 service connections. Our water source is presently drawn from three (3) possible wells. Water quality is quite variable based on test samples and evaluated on a regular basis. The water is pumped from wells into the system water mains as needed to keep the water reservoir full. The water is disinfected with sodium hypochlorite before it enters the distribution system.

Well No. 2 is located in the Southeast quadrant of the village, near well No. 4 and Mill Street. This well was drilled about 1951 but was not activated until 1955. It was originally a 100 GPM well; however sanding problems forced a reduction to 80 GPM, and later to stand-by status. The most recent yield tests show a safe yield of 65 GPM, (93,600 GPD).

Well No. 4 is also in the Southeast quadrant of the village, near well No. 2 and Mill Street. This well was drilled in 1972 and is fitted with a 100 GPM pump. This well is gravel packed and is 26 feet deep, with an 18-inch outside casing and a 10-inch inner casing. Present safe yield is 65 GPM, (93,600 GPD).

Well No. 5 is our primary source and is located on property owned by the Village of South Dayton, on the west side of Dredge Road. The well was drilled in 2002 and put into use in January 2003. This well is fitted with a 160 GPM pump and pumps directly to the filtration plant, where it is aerated and filtered to remove iron and then disinfected.

Although our water has been in compliance with the health standards, the water does contain considerable iron and manganese that lend to relatively high turbidity levels and considerable staining of fixtures and clothes. Therefore, all water is sent through the filtration plant for removal of most of the iron and manganese.

In 2003, the NYS DOH completed a source water assessment for our water system, based on available information. Possible and actual threats to the drinking water were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential contamination of the source water. It does not mean that the drinking water is, or will become contaminated. See section "ARE THERE CONTAMINANTS IN OUR DRINKING WATER?" for a list of contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source water into the future.

As was mentioned before, our water can be derived from several wells. The source water assessment has rated the combined susceptibility to contamination for these wells as medium-high from cations/anions (salts, sulfate), halogenated solvents, herbicides/pesticides, metals, nitrates, other industrial organics and petroleum products; and medium from enteric viruses. These ratings for the wells are due to their proximity to pasture land, industrial activities and permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the State and/or Federal government). A copy of this assessment, including maps of the assessment areas, can be obtained by contacting us, as noted above.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: coliform bacteria, inorganic compounds, nitrate, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic contaminants. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled water, might 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the Cattaraugus County Health Department at 716-701-3386.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Disinfectant							
Chlorine Residual	No	2014	Avg. = .45 (.08 - 1.12)	mg/l	N/A	MRDL = 4	Water additive used to control microbes.
Inorganic Contaminants							
Barium	No	1/30/12	130	ug/l	2,000	MCL = 2,000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Copper ¹	No	8/30/12	129 (37 - 172)	ug/l	1,300	AL = 1,300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead ²	No	8/30/12	4 (ND - 5)	ug/l	0	AL = 15	Corrosion of household plumbing; erosion of natural deposits.
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination

Disinfection By-products							
Total Haloacetic Acids	No	8/11/14	10.1	ug/l	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes	No	8/11/14	33.3	ug/l	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHM are formed when source water contains large amounts of organic matter.
Radioactive Contaminants							
Gross Alpha	No	11/21/13	1.57	pCi/L	0	MCL = 15	Erosion of natural deposits.
Combined Radium – 226 and 228	No	11/21/13	1.17	pCi/L	0	MCL = 5	Erosion of natural deposits.

Notes:

- 1 - The level presented represents the 90th percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the second highest value, 129 ug/l. The action level for copper was not exceeded at any of the sites tested.
- 2 - The 90th percentile level for lead was 4 ug/l. None of the ten sites exceeded the action level of 15 ug/l.

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.

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 contamination.

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

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

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. Regardless, we are required to provide the following information on lead in drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. 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 plumbing. The Village of South Dayton 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER MEETING OTHER RULES THAT GOVERN OPERATIONS?

On December 2, 2014, we were issued a violation from the Cattaraugus County Health Dept. for failure to collect Stage 2 Disinfection By-Products (DBP) samples from two identified locations. Although this is not an emergency, as our customers you have a right to know what happened and what we are going to do to correct this situation. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2014 we did not monitor for DBP at the two identified locations as required (we did sample at one location). However, all other sample requirements and contaminant levels were met. We will be correcting this violation by sampling for DBP at both

locations in 2015.

There is nothing you need to do at this time. If a situation was to ever arise where the water is no longer safe to drink, you would be notified immediately.

Be advised that our system was notified by the Cattaraugus County Public Health Laboratory that bacteriological samples submitted to them between April 28, 2014 and July 14, 2014 may have been affected by some laboratory non-conformities. These laboratory non-conformities were identified during a routine on-site assessment by the New York State Department of Health's Environmental Laboratory Approval Program, and were subsequently corrected. While the non-conformities may have resulted in some test results being reported as false negatives, our system incurred no violations.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought and helps to avoid severe water use restrictions, so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity;
- ◆ Turn off the tap when brushing your teeth;
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Repair it and you can save almost 6,000 gallons per year;
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Repair it and you save more than 30,000 gallons a year.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this past year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.