Annual Drinking Water Quality Report for 2002
Westfield Water Department
42 English Street
(Public Water Supply ID# 0615782)

INTRODUCTION

To comply with State regulations, the Westfield Water Department, is 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. Last year, your tap water met all State drinking water health standards. During the last year, we conducted tests for over 80 contaminants. This report provides an overview of last year's water quality including contaminants detected. All detects were under the established MCL. 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 Joseph Yacklon, Superintendent of Water and Sewer, 326-2832. It is our goal that you are well 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 on the first and third Mondays of every month at 7PM in the North room at Eason Hall, 23 Elm Street.

WHERE DOES OUR WATER COME FROM?

In general, 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 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 treatment system is owned by the Village of Westfield and maintained by the Village of Westfield Water Department, the offices of which are located at 42 English Street, Westfield, NY. 326-2832. We have two New York State class IIA licensed water treatment operators, Chief Operator, Wayne Cardy and Operator, Paul Cleveland, who are on duty 7 days a week, 365 days per year. Combined, the two have over 45 years of water treatment experience. They are responsible for the operation and maintenance of our recently upgraded water treatment plant. The treatment system includes three Wheelabrator upflow adsorption clarifiers and multi-media filter assemblies. We are very fortunate to have this state-of-the-art equipment in the plant, which was installed in 1995. Following filtration, the water is disinfected with chlorine and fluoridated. The Village of Westfield was one of the first in the state to fluoridate their drinking water, starting in 1950.

Our source of water is surface water. Both a reservoir and a creek are used as sources. The Village of Westfield's watershed is approximately 27 square miles. The reservoir, which is a 55 million gallon impoundment, is supplemented from May until December with water from the creek. This helps to ensure a satisfactory supply even during extremely dry seasons such as the ones we experienced in 1991 and 1999.

Our water supply serves nearly 4000 residents of the village and portions of the Town of Westfield. Facilities served include three grape processing plants, a hospital, school and health care center. Average daily production was 555,600 gallons per day with a peak output during grape season of up to 1,152,000 gallons per day. The maximum total production design of the water treatment plant units is 3,000,000 gallons per day. The reservoir clarity this year is very good and we anticipate another year of quality product for the consumer.

FACTS AND FIGURES

The amount of water delivered to customers (metered sales) was 164,528,000 gallons. Our production last year was slightly over 202,808,100 gallons. This leaves an unaccounted for total of 38 million gallons. This water was used to flush mains, clean filters, fight fires and leakage. Of that amount, leakage alone accounts for 10% of the total amount produced. The basic service charge for water in the Village is $37.00. The first 4,000 gallons (minimum bill) of water used, costs customers $3.00 per thousand gallons, up to 60,000 gallons. Anything over 60,000 gal. costs $2.00 per thousand. The water rates for outside the village are one and one-half times the village rates. Water is sold by bulk at the rate of $4.00 per thousand gallons plus $23.20 per hour labor.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. 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 drinking water, may be reasonably 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 Chautauqua County Health Department 753-4481.

VILLAGE OF WESTFIELD TEST RESULTS (DETECTS)

CONTAMINANT (YEAR SAMPLED)	VIOLATION Y/N	LEVEL DETECTED	UNIT MEASUREMENT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
1. a). TURBIDITY (distribution system)	No	3.4	N.T.U.	n/a	TT = 5 NTU	Soil runoff
b). TURBIDITY (point of entry)	No	99.9% of samples were <0.5 NTU	NTU	n/a	TT=95% of samples <0.5 NTU	Soil runoff
2. RADIUM226 (2002) 3. RADIUM 228 (2002)	No No	.469 .684	pCi/l	0	5.0 Combined	Erosion of natural deposits
4. COPPER	No	.551	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems: Erosion of natural deposits; leaching from wood preservatives.
5. FLUORIDE	No	.7	ppm	n/a	2.2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
6. LEAD	No	.006	ppm	0	AL = 0.015	Corrosion of household plumbing systems: Erosion of natural deposits; leaching from wood preservatives.
7. BARIUM	No	.13	ppm	1.0	1.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
8. SULFATE	No	6.5	ppm	n/a	250	Natural deposits or salts; byproducts of coal mining; industrial wastes and sewage; streams draining coal or metal – sulfide mines.
9. NICKEL	No	.019	ppm	n/a	250	Naturally occurring in some waters. Not a health hazard at current levels.
10. TTHM (2002) TOTAL TRIHALOMETHANES	No	93.8 *	ppb	n/a	100	By-product of drinking water chlorination. *highest result from 16 samples
11. HALOACETIC ACIDS	No	36.0	ppb	n/a	60 (ug/l)	By-product of drinking water chlorination.

Information About Potential Health Effects for Contaminants Detected in Your Water

Microbiological Contaminants:

(1) Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants:

(2&3) Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants:

(4) Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
(5) Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.
(6) Lead. 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. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.
(7) Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure
(8) Sulfate. This is a secondary contaminant that, at levels above the MCL, imparts a bitter taste to water and can cause a mild laxative effect.
Volatile Organic Contaminants:
(9) Nickel. Naturally occurring in some waters. Not a health hazard at current levels.
(10) TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
(11) Haloacetic acids: Some people who drink water containing Haloacetic acids over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Notes:

1– Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year was 0.55 NTU, which occurred on 2/2/2002 for approx. 30 min at point of entry. State regulations require that turbidity must always be below 5 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.5 NTU. 99.99% of the samples collected were below 0.5 NTU.

4– 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, 40 samples were collected at your water system and the 90th percentile value was .551 mg/l, second highest was .508 mg/l value. The action level for copper was not exceeded at any of the sites tested.

6 – The level presented represents the 90th percentile of the 40 samples collected. The action level for lead was not exceeded at any of the 40 sites tested.

10 - Although total trihalomethanes were detected, the average of samples collected was below the new MCL of 80 ug/l. This MCL becomes effective during 2003 our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

Definitions:

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.

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

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Picocuries per liter (pCi/L*)*: A measure of the radioactivity in water.
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 ten thousand dollars.
Parts per billion (ppb): Or micrograms per liter (ug/l): One part per billion corresponds to one minute in two thousand years or a single penny in ten million dollars.

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. Although total trihalomethanes were detected below the current MCL, the levels were detected above the new MCL of 80 ug/l. This MCL becomes effective in 2003. Therefore, we are required to present the following information on total trihalomethanes in drinking water:

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

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2002, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand washing practices are poor.

INFORMATION ON RADON

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over

many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil under homes. For additional information call your state radon program (1-800-458-1158) or call EPA's Radon Hotline (1-800-SOS-Radon).

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, 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).

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

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, helping 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. Fix it up an 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. Fix it and you save more than 30,000 gallons a year.
Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes. If it moved, you have a leak.

SYSTEM IMPROVEMENTS

There was only one major capital improvement in the year 2002. A mechanical aeration system was installed in Minton reservoir. Everything is well maintained and in good working

order. We do anticipate utilizing H.E.R.C., (Health Environmental Research Chemistry) in a portion of our distribution system in order to chemically clean the 4"cast iron water mains in 2003. In the summer of 2003, the State is also scheduled to do the "Route 394 project". This project will entail replacing water lines on South Portage Street. There will be some disruption from time to time as flows start and stop due to changeover of mains, but we do not anticipate any major problems.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. 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.