Annual Drinking Water Quality Report for 2012
Town of Champion Consolidated Water District #2,4&5
Co. Route 47, NYS Route 126, and NYS Route 26
(Public Water Supply ID# 2230022 & 2230087)

INTRODUCTION

To comply with State regulations, the Town of Champion, 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. Last year, your tap water met all State drinking water health standards. We have to report that the maximum contaminate level for lead was violated (.015mg/l) during 2009. 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 **Neil O'Dell**, Operator – Water & Sewer Facilities, 661-3210. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held on the first Monday of every month, 7:00 pm at the Town Offices.

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 system serves approximately 310 people through 120 service connections as well as the Carthage Middle/High School, West Carthage Elementary and 5 commercial businesses.. Our water source is groundwater wells: groundwater drawn from four drilled wells. In Champion Heights, Well #1 is located beside the Water Treatment Facility and is 236 feet deep. Well #2 is located across the housing development and is 120 feet deep. The water is pumped from each well at 25 gallons per minute and chlorinated as it enters the storage reservoir. It is then pumped from the reservoir to three pressure vessels located inside the treatment plant prior to distribution. A third 100 horsepower pump is rated to provide fire flows to the community. At Farney Pit, Well#1 is located in a well enclosure behind the pump station and Well #2 is beside the building. Well #1 is 260 feet deep and Well #2 is 250 feet deep.

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, E. Coli., sodium, nitrate, disinfection byproducts, inorganic chemicals, lead and copper. 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, is more than one year old.

It should be noted that all drinking water, including bottled drinking water, might 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 New York State Health Department at

785-2277.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Radioactive Contaminant							
Gross alpha activity (including radium – 226 but excluding radon and uranium)	No	6/27/08	.755Ave 1.41Max (.1-1.41)	pCi/L[1]	0	15[2]	Erosion of natural deposits
Combined radium – 226 and 228				pCi/L	0	5[10]	Erosion of natural deposits
226	No	6/27/08	.05Ave .12Max (-.02-.12)	pCi/L			
228	No	10/17/08	.71Ave 1.13Max (.36-1.13)	pCi/L			
Nitrate	No	10/6/05	Well#1 = 1.0 Well#2 = <0.02	mg/l		MCL = 10 mg/l	Nitrate in drinking water at levels above 10 mg/l 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 for advice from you health care provider
	NO	12/5/06	0.36	mg/l			
	NO	9/10/07	.275	mg/l			
	NO	11/6/08	.07	mg/l			
	NO	12/21/09	0.15	mg/l			
	NO	5/20/10	0.11	mg/l			
	NO	11/1/11	0.52	mg/l			
	NO	10/19/12	0.50	mg/l			
Sodium	NO	10/6/05	Well#1 = 10.0 Well#2 = 18.0 18	mg/l		(see Health Effects)	Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
	NO	11/6/08	Well#2-20				
	NO	5/20/10		Naturally occurring; Road salt; Water softeners; Animal waste.			
Barium	NO	10/6/05	Well#1 = 0.035	mg/l		MCL = 2.0 mg/l	Discharge of drilling wastes; Discharge from

[1] Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.
[2] A MCL violation occurs when the annual composite of four quarterly samples or the average of the analysis of four quarterly samples exceeds the MCL.

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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Meas ure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
	NO NO	11/6/08 5/20/10	Well#2 = 0.12 77 74	mcg/l			metal refineries; Erosion of natural deposits. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Fluoride	NO NO NO	10/6/05 11/06/08 5/20/10	Well#1 = <0.1 Well#2 = 0.4 0.3 Well#2- .3	mg/l		MCL = 2.2 mg/l	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories. 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.
Chloroform	NO NO	11/22/04 7/27/10	.019 mg/l 29 mcg/l				By-product of drinking water chlorination needed to kill harmful organisms.
Bromo-dichloromethane	NO NO	11/22/04 7/27/10	.011 mg/l <.5 mcg/l				By-product of drinking water chlorination needed to kill harmful organisms.
Synthetic Organic Chemicals	NO NO	9/10/07 7/27/10	ND ND				
Dibromo - chloromethane	NO NO	11/22/04 7/27/10	.011 mg/l 11 mcg/l				By-product of drinking water chlorination needed to kill harmful organisms.
Bromoform	NO NO	11/22/04 7/27/10	.0016mg/l 1 mcg/l				By-product of drinking water chlorination needed to kill harmful organisms.
Dichloromethane	NO NO	9/8/04 7/27/10	.0008mg/l <.5 mcg/l				By-product of drinking water chlorination needed to kill harmful organisms.

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Haloacetic Acids (HAA5'S)	NO NO NO NO NO NO NO	11/16/06 11/21/07 11/6/08 11/17/09 11/17/10 11/1/11 11/21/12	(15/28) (6.5-28) (16.5/25) (6.5/25) 17.2/25.6 7.4-25.6 33.5/55 21-55 33.4/66 9-65 22/37 12-37 17.5/34 14-34	Units= ug/l MCLG= 0 MCL= 60 Based on running annual average			By-product of drinking water chlorination
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	NO NO NO NO NO NO NO NO	11/16/05 11/16/06 11/21/07 11/6/08 11/17/09 11/17/10 11/1/11 11/21/12	(58/107) (45/79) (70.7/86) (64/48.7) (41.9/61) (23.5/61) 54/68.5 25.7-68.5 62.3/91.5 40.3-91.5 58.9/87.4 27.7-87.4 52.5/92.7 33.3-92.7 67.2/75.3 47.5-75.3	ug/l MCL = 80 ug/l based on a running annual average ug/l MCLG = 0 ug/l			By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. 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.

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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Lead	NO NO NO YES NO NO NO NO	9/10/03 9/27/06 11/6/08 9/21/09 6/29/10 10/20/10 9/1/11 9/6/12	0.012[1] 0.001–0.341 0.015 0.0018-0.119 <5.0 .012/.077 .001-.077 .006/.063 .001-.063 .019/.047 .001-.047 .001/.001 1.0-1.0 **Ave** .0023 **Max** .0028 .0009-.0028	mg/l MCG/L		AL = .015 **Likely Source of Contamination:** Corrosion of household plumbing systems; Erosion of natural deposits.	Infants and children who drink water-containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Copper	NO NO NO NO NO NO NO	9/10/03 9/27/06 11/6/08 9/21/09 6/29/10 9/1/11 9/6/12	2.0[2] 0.80 – 2.41 1.49 0.515-3.31 36 .0012/.0018 .00064-.0018 1.2/1.7 0.18-.17 1.0/1.6 0.26-1.6 1.16/1.76 .318-1.76 1.5/1.9 .33-1.9	mg/l MCG/L		AL = 2.0 **Likely Source of Contamination:** Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.	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 w/ Wilson's Disease should consult their personal doctor.
Inorganics[3]							
Chloride	NO	10/6/05	Well#1 = 20.4 Well#2 =	mg/l		MCL = 250 mg/l	Naturally occurring or indicative of road salt contamination.

[3] If the results of a monitoring sample analysis exceed the MCL, the water supplier shall collect one more sample from the same sampling point within two weeks of as soon as practical. An MCL violation occurs when the average (rounded off to the same number of significant figures as the MCL for the contaminant in question) of the two results exceed the MCL.

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	NO NO	11/6/08 5/20/10	29.1 26.3 Well#2-28.6				
Arsenic	NO NO	11/6/08 5/20/10	<3 Well#2-<3	ug/l	n/a	50[4]	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Selenium	NO NO	11/6/08 5/20/10	<5 Well#2-<5	ug/l	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Cadmium	NO NO	11/6/08 5/20/10	<1 Well#2-<1	ug/l	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints.
Antimony	NO NO	11/6/08 5/20/10	<1 <1	ug/l[5]	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Thallium	NO NO	11/6/08 5/20/10	<0.5 Well#2-<0.5	ug/l	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.
Beryllium	NO NO	11/6/08 5/20/10	<1 Well#2-<1	ug/l	4	4	Discharge from metal refineries and coil-burning factories; Discharge from electrical, aerospace, and defense industries.
Silver	NO NO	11/6/08 5/20/10	<5 Well#2-<5	ug/l	N/A	100	Naturally occurring, discharge from photographic and radiographic processing; Manufacturing of electronic products; Jewelry making; Plating and soldering.
Barium	NO NO	11/6/08 5/20/10	0.077 0.074	mg/l[6]	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	NO NO	11/6/08 5/20/10	<5 Well#2-<5	ug/l	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Sodium	NO NO	11/6/08 5/20/10	18 Well#2-20	mg/l	N/A	(see Health Effects)	Naturally occurring; Road salt; Water softeners; Animal waste.

[4] *If arsenic is detected above 25 ug/l, but below 50 ug/l (the MCL) your Annual Water Quality Report must contain the following statement: "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."*

[5] Micrograms per liter (ug/l) or parts per billion (ppb).

[6] Milligrams per liter (mg/l) or parts per million (ppm).

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				Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets			
Mercury (Inorganic)	NO NO	11/6/08 5/20/10	<0.2 Well#2-<.2	ug/l	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Iron	NO NO NO	10/6/05 11/6/08 5/20/10	Well#1 = 230.0 Well#2 = 47.0 70 Well#2-130	mcg/l MCG/L		MCL = 300 mcg/l	Naturally occurring. Iron has no health effects. At 1,000 ug/l a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multivitamins may contain 3000 or 4000 ug/l of iron per capsule.

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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Meas ure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Manganese	NO NO NO	10/6/05 11/6/08 5/20/10	Well#1 = 38.0 Well#2 = 23.0 16 Well#2-15	mcg/l MCG/L		MCL = 300 mcg/l	Naturally occurring; Indicative of landfill contamination.The Food and Nutrition Board of the National Research Council determined an estimated safe and adequate daily dietary intake of manganese to be 2000-5000 ug/l for adults. However, many peoples diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetable or are vegetarian. The infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and manganese. Excess manganese produces a brownish color in laundered goods and impairs the taste of tea, coffee, and other beverages. Concentrations may cause a dark brown or black stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes. These may slough off, causing brown blotches on laundered clothing or black particles in the water.

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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Meas ure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Sulfate	NO NO NO	10/6/05 11/6/08 5/20/10	Well#1 = 15.6 Well#2 = 16.2 14.4 Well#2-11.7	mg/l		MCL = 250 mg/l	Naturally occurring. High concentrations of sulfate in drinking water have three effects: (1) water containing appreciable amounts of sulfate tends to form hard scales in boilers and heat exchangers; (2) sulfates cause taste effects; and (3) sulfates can cause laxative effects with excessive intake. The laxative effect of sulfates is usually noted in transient users of a water supply because people who are accustomed to high sulfate levels in drinking water have no adverse response. Diarrhea can be induced at sulfate levels greater than 500 mg/l but typically near 750 mg/l.
Zinc	NO NO NO	10/6/05 11/6/08 5/20/10	Well#1 = 0.041 Well#2 = 0.009 22 Well#2-35	mg/l MCG/L		MCL = 5 mg/l	Naturally occurring; Mining waste. Zinc has no health effects unless detected in very high concentrations. The presence of zinc may result in an undesirable taste in drinking water.
Color	NO NO NO	10/6/05 11/6/08 5/20/10	Well#1 = 12.0 Well#2 = 2.0 Well#2-6.0	Units		MCL = 15 Units	Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant by-products such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.

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 lead values detected at your water system. In this case 10 samples were collected at your water system and the 90th percentile value was the second highest value (.0053 mg/l). The action level for lead was exceeded at one of the sites tested. 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 plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your 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 (800-426-4791)."

2 – 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 10 samples were collected at your water system and the 90th percentile value was the highest value (2.31 mg/l). The action level for copper was exceeded at 3 of the sites tested.

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.
Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.
Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

WHAT DOES THIS INFORMATION MEAN?

We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

Is our water system meeting other rules that govern operations?

During 2009, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements with the exception of lead. The service lateral of affected site was replaced and a notice was distributed. Our system was in compliance with applicable State drinking water operating, monitoring, and reporting requirements in 2012.

System Improvements

The New York State Department of Health (NYSDOH) has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state 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 for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. Furthermore, the assessment is currently being revised to correct several inaccuracies.

The relevant portion of the source water assessment has rated these wells as having a medium-high susceptibility to nitrates, cations/anions (minerals), and pesticides/herbicides. These ratings are due primarily to potential agricultural practices within the well zones of influence.

The New York State Department of Health will use this information to direct future source water protection activities. A copy of the assessment can be obtained by contacting the supplier of water.

In October of 2012, a new well site (Farney Pit) and a new distribution system (Water District 4&5) were added to Water District 2 to form Consolidated Water District 2,4 & 5. Farney Pit pump station will increase the necessary water production for the increase in population served by the new district.

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).

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 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. Fix 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 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, our way of life and our children's future. Please call our office at 661-3210, if you have questions.