

## *Annual Drinking Water Quality Report for 2014*

*Village of Phoenix*

*C/O 455 Main Street, Phoenix, NY 13135*

*(Public Water Supply ID# 3704363)*

### **INTRODUCTION**

To comply with State regulations, the Village of Phoenix, 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 are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. 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 **James Lynch, Village Administrator** or **Mayor Ryan Wood** at (315) 695-2484. 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, at which time you can discuss any drinking water issues with them in person. They are generally held on the first Tuesday of each month at 7:00 PM in the Municipal Building located at 455 Main Street, Phoenix.

### **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 2,138 people via 913 service connections. The Village's water source consists of two drilled wells. Foster Well #1 is 20 inches in diameter and is screened from 40 to 64 feet below grade. Foster Well #3 is 18 inches in diameter and is screened from 51.5 to 68 feet below grade. The source wells are located approximately three miles to the east-northeast of the Village in the Town of Schroepel. Groundwater is obtained from the southern portion of the Sand Ridge Aquifer. Microscopic Particulate Analysis (MPA) sampling performed by the Oswego County Health Department (OCHD) and by our independent laboratory indicates that Foster Wells #1 & #3 are classified as groundwater under the influence of surface water (GWUDI.) The village water system is currently in violation of the Surface Water Treatment Rule (SWTR) and has agreed to abandon the Foster Wells 1 & 3 and purchase potable water from the Metropolitan Water Board (MWB.)

A supplemental supply of treated water can be used in cases of water emergencies via a service connection to the Onondaga County Water Authority. The water is disinfected with liquid sodium hypochlorite (chlorine) using an injection pump at the pump house located at the well. The well water is pumped to one 750,000-gallon water tower. The Village has a system production capacity of 1.15 million gallons per day, with an average daily production of 210,859 gallons.

## SOURCE WATER ASSESSMENT

The NYS DOH has completed a source water assessment for this system. Possible and actual threats to this drinking water source were evaluated by reviewing limited existing mapped data and available information from past sanitary surveys. The state source water assessment provides a susceptibility rating based on the potential risk posed by each possible source of contamination and how easily contaminants could 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.** See section “*Are there contaminants in our drinking water?*” for a list of the contaminants that have been detected. The source water assessment was completed to provide owners and operators with additional information to help them protect your source waters into the future.

As mentioned above, our water is derived from two drilled wells that draw from an unconfined aquifer with an unknown hydraulic conductivity. The source water assessment rated the well as having a medium-high susceptibility rating for pesticides, metals, and nitrates due to the unconfined aquifer. The well was also assigned a high-risk rating for petroleum products, bacteria, protozoa, viruses, cations/anions, halogenated solvents, and other industrial organics due to nearby land use activities. No other significant sources of possible contamination were identified.

County and state health departments will use this risk assessment information to direct future source water protection activities. These may include water quality monitoring, wellhead protection, resource management, planning, and education programs. A copy of the assessment can be obtained by contacting us, as noted below.

## 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 Oswego County Health Department at (315) 349-3557.

**TABLE OF DETECTED COMPOUNDS**

Contaminant	Violation Y/N	Date of Sample	Level Detected (Maximum) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, AL)	Likely Source of Contamination
<b>Inorganic Contaminants</b>							
<b>Barium</b>	No	10/28/14	674 ug/L	ppb	2,000 ug/l	2,000 ug/l	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Antimony</b>	No	12/30/13	0.03 ug/l	ppb	6 ug/l	6 ug/l	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
<b>Nickel</b>	No	12/30/13	1.56 ug/l	ppb	NA	NA	NA
<b>Arsenic</b>	No	10/28/14	6.5 ug/l	ppb	NA	10 ug/l	Some people who drink water containing Arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer
<b>Copper</b> 90 <sup>th</sup> percentile* (10 locations within Village sampled)	No	10/28/14	390 ug/L Range 20 - 540 ug/l	ppb	1,300 ug/l	AL= 1,300 ug/l	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Fluoride</b>	No	5/23/06	150 ug/l	ppb	N/A	2200 ug/l	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Lead</b> 90 <sup>th</sup> percentile* (10 locations within Village sampled)	No	10/28/14	1 ug/l Range 1 – 4.5	ppb	N/A	AL=15.0 ug/l	Corrosion of household plumbing systems, erosion of natural deposits
<b>Nitrate (as Nitrogen)</b>	No	12/19/14	854 ug/l	ppb	10,000 ug/l	10,000 ug/l	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Chloride</b>	No	12/30/13	36 mg/l	ppm	250 mg/l	N/A	Naturally occurring or indicative of road salt contamination
<b>Chromium</b>	No	12/30/13	0.99 ug/l	Ppm	100 ug/l	100 ug/l	Discharge from steel and pulp mills; Erosion of natural deposits.
<b>Mercury</b>	No	7/30/10	0.2 ug/l	Ppb	2 ug/l	2 ug/l	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.

<b>Sodium **</b>	No	12/30/13	17 mg/l	ppm	N/A	N/A	Naturally occurring
<b>Sulfate</b>	No	12/30/13	17.2 mg/l	ppm	250 mg/l	N/A	Naturally occurring
<b>Selenium</b>	No	5/23/06	19 ug/l	ppb	50 ug/l	50 ug/l	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
<b>Zinc</b>	No	7/30/10	100 ug/l	ppb	5,000 ug/l	N/A	Naturally occurring; mining waste
<b>Manganese</b>	No	12/30/13	53 ug/l	ppb	300 ug/l	N/A	Naturally occurring; Indicative of landfill contamination
<b>Iron</b>	No	12/30/13	200 ug/l	ppb	N/A	300 ug/l	Naturally occurring.
<b>Radioactive Contaminants</b>							
<b>Radium-226 &amp; 228</b>	No	10/28/13	1.19 pCi/L	pCi/L	0 pCi/L	5 pCi/L	Erosion of natural deposits.
<b>Gross alpha activity (including radium-226 but excluding radon and uranium)</b>	No	10/28/13	1.8 pCi/L	pCi/L	0 pCi/L	15 pCi/L	Erosion of natural deposits.
<b>Beta particle and photon activity from man-made radio nuclides</b>	No	10/28/13	2.35 pCi/L	pCi/L	0 pCi/L	50*** pCi/L	Decay of natural deposits and man-made emissions.
<b>Volatile Organic Compounds</b>							
<b>TTHMs (Total Trihalomethanes)</b>	No	2014	55.5 ug/l 33 – 75 ug/l	ppb	N/A	80 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.
<b>HAAs (Haloacetic Acids)</b>	No	2014	13.75 ug/l Range 11 – 16 ug/l	ppb	N/A	60 ug/l	By-product of drinking water chlorination needed to kill harmful organisms.

**Notes:**

\* – The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. The action level for copper was not exceeded at any of the sites tested.

\*\* – The level presented represents the 90<sup>th</sup> percentile of the ten samples collected. The action level for lead was not exceeded any of the sites tested.

\*\*\*- The State considers 50 pCi/l to be the level of concern for beta particles.

#### **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.

**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.

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

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

**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).

**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 the level allowed by the State.

#### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

During 2014, your system was in compliance with applicable State drinking water operating, monitoring and reporting requirements. However, samples collected from the Village's potable water wells indicated that both sources are under the influence of surface water. Our system is currently in violation of the Surface Water Treatment Rule (SWTR) and has agreed to abandon the Foster wells 1 & 3 and purchase potable water from the Metropolitan Water Board (MWB.) The Village was also issued violations by the Oswego County Health Department for failing to issue the required Public Notifications for the 4<sup>th</sup> quarter of 2014 to inform residents of the system's plans to comply with the SWTR and the associated health effects.

#### **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.

### **French**

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend 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 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. Please call our office if you have questions.



# Water Conservation Tips For Oswego County Residents

## *REPAIR ALL LEAKS*

A dripping faucet is more than annoying...it is expensive. Even small leaks can waste significant amounts of water...Hot water leaks are a waste of water and of the energy used to heat the water.

Leaks inside the toilet can waste up to 200 gallons a day. Toilet leaks can be detected by adding a few drops of food coloring to water in the toilet tank. If the colored water appears in the bowl, the toilet is leaking.

If you have a leaking faucet or toilet, stop pouring money down the drain and repair it.

## *HOW TO SAVE WATER IN THE BATHROOM*

The bathroom consumes 75% of our water usage. Controlling this flow is the key to big water and energy saving.

- When constructing a new home or remodeling your bathroom, install low consumption (1.6 gal/flush) toilets. Older toilets use 3.5 to 6 gallons per flush.
- Place a weighted plastic gallon jug in the tanks of conventional toilets to displace and save an equal amount of water with each flush.
- Install low-flow aerators and shower heads. They are inexpensive, easy to install, and save water and energy.
- Do not let the faucet flow while brushing your teeth or shaving. Use a glass of water for rinsing teeth.
- Take showers instead of tub baths. Consider bathing small children together.
- If your shower has a single-handle control or shut-off valve, turn off the flow while soaping or shampooing.
- Leaking diverter valves (valves which divert water from the tub spout to the shower head) should be replaced.

## *HOW TO SAVE WATER IN THE KITCHEN AND LAUNDRY*

- Refrigerate a bottle of drinking water instead of letting a faucet flow until the water is cold enough to drink.
- Use a dishpan or plug the sink for washing and rinsing dishes. Install a low-flow aerator on all faucets.
- Pre-rinsing dishes prior to loading in a dishwasher only when they are fully loaded.
- Operate the washing machine and dishwasher only when they are fully loaded.
- Use the proper water level or load size selection on the washing machine
- When purchasing a washing machine or dishwasher, consider water consumption as well as energy efficiency. Most manufacturers now provide this information to consumers.

## *HOW TO SAVE WATER OUTSIDE THE HOME*

The watering of lawns and gardens can double normal household water use during the hot, dry summer months. At standard household water pressures, a garden hose will discharge up to 6.5 gallons of water per minute. To apply an inch of water to 1,000 square feet of lawn or garden requires 620 gallons of water.

Watering should be limited to gardens and newly planted lawns and landscaped areas. Established lawns and landscape plantings will usually survive without watering. Inadequate watering encourages shallow root growth and increases the risk of mortality. When water is scarce, your community or individual water supply should be reserved for your most essential needs.

## ***HOW TO SAVE WATER OUTSIDE THE HOME (CON'T)***

The following water-saving measures should be practiced regularly, but remember, during mandatory water use restrictions, all water use outside the home is prohibited!

- Use a broom, not a hose, to clean driveways, steps, and sidewalks.
- Wash the car with water from a bucket.
- If a hose must be used, control the flow with an automatic shut-off nozzle.
- Water the lawn or garden during the coolest part of the day. Do not water on windy days.
- Set sprinklers to water the lawn or garden only. Do not water the street or sidewalk.
- Use soaker hoses and trickle irrigation systems to reduce the amount of water used for irrigation by 20 to 50 percent.
- Use mulch around shrubs and garden plants to reduce evaporation from the soil surface and cut down on weed growth.
- Use native plants in landscaping your lawn, because they require less care and water than ornamental varieties.

## ***HOW TO CONSERVE WATER IN THE COMMUNITY***

Encourage the use of water conservation devices by large water-using facilities such as schools, health clubs, motels and others.

- Survey water users within large water using facilities and develop plans to reduce water use.
- Encourage a community-based service organization such as a scout group, service club, or church youth group to start a water conservation program . Water conservation is a stewardship of our natural resources.
- Encourage use of drought tolerant vegetation in outdoor landscaping at large facilities and community sites.
- Retrofit older buildings and facilities with water-efficient plumbing fixtures.

**Oswego County Health Department  
70 Bunner Street  
Oswego, New York 13126  
315-349-3557 or 1-800-286-2906**