

# Annual Drinking Water Quality Report

## *Ridgewood Water Department*

### For the Year 2008, Results from the Year 2007

We are pleased to present to you this year's Annual Drinking Water Quality 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. Our water source is wells. Ridgewood owns and operates fifty-three active deep wells which are located throughout the service area in the Village of Ridgewood, Borough of Glen Rock, Borough of Midland Park, and the Township of Wyckoff. During peak summertime demands, Ridgewood Water also purchases water from the Hawthorne Water and the United Water Company.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, the Hawthorne Water Department and United Water, which are available at [WWW.state.nj.us/dep/swap](http://WWW.state.nj.us/dep/swap) or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system to obtain information regarding your water system's Source Water Assessment. Ridgewood Water Department's source water susceptibility ratings and a list of potential contaminant sources is attached.

**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).**

If you have any questions about this report or concerning your water utility, please contact the Ridgewood Water Department at 201-670-5521. 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 Village Council meetings at 131 North Maple Avenue. Meetings are held on the second Wednesday of each month at 8:00 p.m.

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 activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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.

## **DEFINITIONS**

In the following table 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.

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

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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.

Secondary Contaminant- Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Recommended Upper Limit (RUL) - Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RUL's are recommendations, not mandates.

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 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

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for asbestos and synthetic organic chemicals.

**Nitrate:** Nitrate in drinking water at levels above 10 ppm 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 advice from your health care provider.

**Lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Ridgewood Water Department is responsible for providing high quality drinking water, but can not 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 second to 2 minutes before using water for drinking and 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 or at <http://www.epa.gov/safewater/lead>.

**We had an exceedance for Cadmium at one point of entry.** Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

### **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Ridgewood Water Has Levels of Arsenic Above Drinking Water Standards**

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results we received on November 7, 2007 show that our system exceeds the standard or maximum contaminant level (MCL), for Arsenic. The standard for Arsenic is 0.005 mg/l. The level of Arsenic on November 7, 2007 was found at 0.029 mg/l.

#### **What should I do?**

- **You do not need to use an alternative (e.g., bottled) water supply.** However, if you have specific health concerns, consult your doctor.

#### **What does this mean?**

This is not an immediate risk. If it had been, you would have been notified immediately. However, 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.

**What happened? What is being done?**

We believe the result of 0.029 mg/L may be an anomaly because test results from both before and after the November 2007 round of sampling were well below the MCL. We will continue to sample quarterly. We will take all actions as required by NJDEP & USEPA regulations, including any remediation and public notification that may be necessary.

For more information, please contact Steven Florence at 201-670-5526 or mail to 131 N. Maple Avenue, Ridgewood, New Jersey 07451.

This notice is being sent to you by Ridgewood Water. State Water System ID# 0251001. Date distributed: July 1, 2008

**We work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources. Please call our office if you have questions.**

The Ridgewood Water Department, the Hawthorne Water Department and United Water Company routinely monitor for contaminants in your drinking water according to Federal and State laws. These tables show the results of that monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2007. The state allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old.

<b>Ridgewood Water Year 2007 Test Results</b>						
<b>Contaminant</b>	<b>Violat ion Y/N</b>	<b>Level Detected</b>	<b>Units of Measure ment</b>	<b>MC LG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
<b>Radioactive Contaminants</b>						
Alpha emitters Test results Yr. 2005	No	Range = ND – 1.5 Highest detect = 1.5	pCi/1	0	15	Erosion of natural deposits
Radium 228 Test results Yr. 2005	No	Range = ND – 2.3 Highest detect = 2.3	pCi/1	0	5	Erosion of natural deposits
Radium 226 Test results Yr. 2005	No	Range = ND – 0.2 Highest detect = 0.2	pCi/1	0	5	Erosion of natural deposits
Uranium Test results Yr. 2005	No	Range = 0.7 – 1.5 Highest detect = 1.5	ppb	0	30	Erosion of natural deposits
<b>Inorganic Contaminants:</b>						
<b>Arsenic</b>	<b>Yes</b>	<b>Range = ND – 29 Highest detect = 29</b>	<b>ppb</b>	<b>n/a</b>	<b>5</b>	<b>Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes</b>
Barium	No	Range = ND – 0.5 Highest detect = 0.5	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	No	Range = ND – 4 Highest detect = 4 Highest average = 3	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	Yes	Range = ND – 6 Highest detect = 6 Highest average = 4	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Copper Test results Yr. 2005	No	0.31 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Test results Yr. 2005	No	10.1 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	Range = 2.1 – 5.5 Highest detect = 5.5	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Volatile Organic Contaminants / Disinfection Byproducts</b>						
1,1,1-Trichloroethane	No	Range = ND – 0.3 Highest Average = ND Highest detect = 0.3	ppb	70	70	Discharge from industrial chemicalfactories
Tetrachloroethene	No	Range = ND – 2.5	ppb	0	1	Leaching from PVC pipes;

		Highest Average = 0.6 Highest detect = 2.5				discharge from factories and dry cleaners
Trichloroethene	No	Range = ND – 0.3 Highest Average = ND Highest detect = 0.3	ppb	0	1	Discharge from metal degreasing sites and other factories
TTHM Total Trihalomethanes	No	Range = 4 - 10 Average = 7	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	No	Range = ND – 1.4 Average = 0.3	ppb	N/A	60	By-product of drinking water disinfection
Methyl tertiary butyl ether (MTBE)	No	Range = ND – 8.6 Highest Average = 0.3 Highest detect = 8.6	ppb	70	70	Leaking underground gasoline and fuel oil tanks. Gasoline and fuel oil spills.
<b>Regulated Disinfectants</b>		<b>Level Detected</b>		<b>MRDL</b>		<b>MRDLG</b>
Chlorine		Range = 1.4 – 2.1		4.0 ppm		4.0 ppm

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium	Range = ND – 86	ppm	50

### Sodium

For healthy individuals the sodium intake from water is not important, because a much greater of sodium takes place from salt in the diet. However sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

Hawthorne Water Department 2007 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCL G	MCL	Likely Source of Contamination
<b>Radioactive Contaminants</b>						
Gross Alpha Test results Yr. 2006	No	Range = 1.8 – 3.9 Highest detect = 3.9	pCi/l	0	15	Erosion of natural deposits
Radium- 228 Test results Yr. 2006	No	Range = ND – 0.8 Highest detect = 0.8	pCi/l	0	5	Erosion of natural deposits
Uranium Test results Yr. 2003	No	Range = 0.3 – 0.7 Highest detect = 0.7	ppb	0	30	Erosion of natural deposits
<b>Inorganic Contaminants:</b>						
Barium	No	North Station = 0.34 South Station = 0.26 Utter Avenue = 0.26 Goffle Hill = 0.26	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	No	0.07 No samples exceeded the action level.	ppm	1.3	A=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead	No	3.8 No samples exceeded the action level	Ppb	0	A =15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	North Station = Range: 3.2 – 3.9 Avg.= 3.5 South Station = Range: 3.5 – 3.8 Avg.= 3.6 Utter Avenue = Range: 3.3 – 3.7 Avg.= 3.5 Goffle Hill Rd =Range: 3.3 – 4.1 Avg.= 3.9	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	No	North Station = 3.3 South Station = 2.8 Utter Avenue = 3.2 Goffle Hill = 3.2	Ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
<b>Volatile Organic Contaminants / Disinfection Byproducts</b>						
Carbon Tetra Chloride	No	North Station: ND South Station: ND Utter Avenue = Range ND – 0.1 Goffel Rd.: ND	Ppb	0	2	Discharge from chemical plants and other industrial activities
Cis-1,2 Dichloroethene	No	North Station: Range =	Ppb	70	70	Discharge from industrial

		ND South Station: ND Utter Avenue: ND Goffel Rd.: ND				chemical factories
Tetrachloroethene	No	North Station: Range = ND – 0.4 South Station: ND – 0.4 Utter Avenue = Range = ND – 0.4 Goffel Rd.: ND	Ppb	0	1	Leaching from PVC pipes; discharge from factories and dry cleaners
Trichloroethane Test results Yr. 2007	No	North Station: Range = ND – 0.1 South Station: ND Utter Avenue: ND Goffel Rd.: ND	Ppb	0	2	Discharge from metal degreasing sites and other factories
HAA5 Haloacetic Acids	No	Range = ND - 2 Running Annual Average = 0.5	Ppb	N/A	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes]	No	Range = ND – 12 Running Annual Average = 2	Ppb	N/A	80	By-product of drinking water disinfection

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine	Average = 0.2	4.0 ppm	4.0 ppm

Unregulated Contaminants							
DCPA Total Mono/Diacid Degradate	No	North Station: ND South Station: ND Utter Avenue: 1.2 Goffel Rd.: ND	ppb	N/A	70	Run-off, leaching from herbicide used on fruits and vegetables	

Your Water System was required to do additional sampling in 2003 under the federal “Unregulated Contaminant Monitoring Rule”. The results from that sampling are located in the table above.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Reports and Summaries for all of these public water systems, which are available at [WWW.state.nj.us/dep/swap](http://WWW.state.nj.us/dep/swap) or by contacting NJDEP’s Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system to obtain information regarding Ridgewood Water’s Source Water Assessment. Ridgewood Water’s source water susceptibility ratings and a list of potential contaminant sources is attached.

**Water Sources:**

In the year 2007, the Hawthorne Water Department drew groundwater from 21 wells throughout the Borough. Following is a list of our sources:

- Wagaraw Road Wellfield (6 wells), and wells at Cedar and Maitland Avenue.
- Goffle Road Wellfield (5 wells), and wells at First Avenue, Rea Avenue and Bamford Avenue.
- South Wagaraw Road Wellfield (3 wells)
- Goffle Hill Road Well
- Utter Avenue Well

<b>United Water Year 2007 Test Results</b>						
<b>Contaminant</b>	<b>Violation Y/N</b>	<b>Level Detected</b>	<b>Units of Measurement</b>	<b>MC LG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
<b>Microbiological Contaminants</b>						
Total coliform Bacteria	No	Average = 0.3% Range = ND – 1.6%		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity	No	Range = 0.1 – 0.6 100% < 0.3 NTU		n/a	TT	Soil runoff
<b>Inorganic Contaminants:</b>						
Barium	No	Range = 0.05 – 0.12 Highest detect = 0.12 Average = 0.09	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Test results Yr. 2006	No	0.11 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	No	Range = ND – 0.06 Highest detect = 0.06 Average = 0.03	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test results Yr. 2006	No	11 2 samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	Range = 0.09 – 5.65 Highest detect = 5.65 Average = 1.74	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	No	Range = ND – 0.02 Highest detect = 0.02 Average = 0.02	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Volatile Organic Contaminants / Disinfection Byproducts</b>						
TTHM Total trihalomethanes	No	Range = 2 - 75 Annual average = 50	ppb	N/A	80	By-product of drinking water disinfection
Toluene	No	Range = ND – 0.002 Highest detect = 0.002	ppm	1	1	Discharge from petroleum factories
HAA5 [Total Haloacetic Acids]	No	Range = ND - 53 Annual average = 27	ppb	N/A	60	By-product of drinking water disinfection
<b>Radioactive Contaminants</b>						
Gross Alpha Test results Yrs. 2005, 2006 & 2007	No	Range = 1.9 – 4.3 Highest detect = 4.3 Average = 3.03	pCi/l	0	15	Erosion of natural deposits
Combined radium Test results Yr. 2005	No	Range = ND – 5.04 Highest detect = 5.04 Average = 0.7	pCi/l	0	5	Erosion of natural deposits
Uranium Test results Yr. 2005	No	Range = 1.9 – 6.5 Highest detect = 6.5 Average = 4.5	ppb	0	30	Erosion of natural deposits
<b>Secondary Contaminant</b>		<b>Level Detected</b>	<b>Units of Measurement</b>		<b>RUL</b>	
Sodium		Range = 21 - 89	ppm		50	
<b>Regulated Disinfectants</b>		<b>Level Detected</b>	<b>MRDL</b>		<b>MRDLG</b>	
Chlorine		Range = 0.1 – 4.5 Average = 2.3	4.0 ppm		4.0 ppm	