

2009 Annual Drinking Water Quality Report

Ridgewood Water

Results from the Year 2008

We are pleased to present to you this year's Annual Drinking Water Quality Report, which is designed to inform you about the quality of the water supplied to your premises. Our goal is to provide you with a safe, continuous, and dependable supply of drinking water. We are committed to ensuring the quality of your water and routinely monitor and test the water for a host of parameters. The results of some of this monitoring and testing are presented in this report and to you as required by the New Jersey Department of Environmental Protection (NJDEP). Some of the language in this report is prescribed by the NJDEP and much of the information is rather technical. If you have any questions about this report or about Ridgewood Water, please contact us at 201-670-5520. We want our customers to be well informed about their water utility. You may also choose to attend the 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.

Ridgewood Water's source is primarily groundwater from wells. We own and operate fifty-one active deep wells which are located throughout the service area in the Borough of Glen Rock, the Borough of Midland Park, the Township of Wyckoff, and the Village of Ridgewood. We also purchase water from United Water NJ and, during peak summertime demands, water from the Hawthorne Water Department.

The NJDEP has completed and issued Source Water Assessment Reports and Summaries for Ridgewood Water, the Hawthorne Water Department and United Water, which are available at www.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact Ridgewood Water to obtain information regarding these Source Water Assessments. Ridgewood Water's source water susceptibility ratings and a list of potential contaminant sources is included in this report.

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 EPA Safe Drinking Water Hotline at 800-426-4791.

BACKGROUND INFORMATION

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 projection, 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 and NJDEP prescribe 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 similar protection for public health. EPA regulations are more stringent than FDA regulations.

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 EPA's Safe Drinking Water Hotline at 800-426-4791.

ABBREVIATIONS AND 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:

ND	Non-Detectable – the concentration of the constituent (if present at all) is below the minimum detectable level of the laboratory.
ppm	Parts per Million (equivalent to milligrams per liter mg/L) – a representation of the concentration of the constituent. One ppm corresponds to one minute in two years or a single penny in \$10,000.
Ppb	Parts per billion (equivalent to micrograms per liter, ug/L) – a representation of the concentration of the constituent. One ppb corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

NTU Nephelometric Turbidity Unit - a measure of the clarity of the water. (As opposed to its cloudiness). 5 NTU is just noticeable to the average person.

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

TT Treatment Technique- a required process intended to reduce the level of a contaminant in drinking water.

MCL Maximum Contaminant Level - the highest concentration of a constituent that is allowed in drinking water.

MCLG Maximum Contaminant Level Goal - the concentration of a constituent that is allowed 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.

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

MRDL Maximum Residual Disinfectant Level- The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant poses a minimal health risk. However, its presence is necessary for control of microbial contaminants.

MRDLG Maximum Residual Disinfectant Goal - 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.

SDWA Safe Drinking Water Act- the Federal law, administered by the NJDEP, that defines and requires drinking water quality.

SUMMARY OF 2008 WATER QUALITY

Ridgewood Water, the Hawthorne Water Department and United Water NJ routinely monitor for contaminants in your drinking water according to Federal and State laws. The following tables show the results of that monitoring for the period of January 1st to December 31st, 2008

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. 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.

We had arsenic MCL violations in two of our wells in 2008. We also exceeded the Action Level (AL) for Lead in 2008. We are working with the NJDEP to address both of these issues.

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 May 15, 2008 at the Leigh Well and August 15, 2008 at the East Saddle River Well show that our system exceeded the standard or maximum contaminant level (MCL) for Arsenic. The range of detections was from zero to 0.011 mg/l. The standard for Arsenic is 0.005 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 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.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Ridgewood Water. State Water System ID# 0251001. Date distributed: July 1, 2009.

Arsenic: some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory systems and may have an increased risk of getting cancer.

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 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>.

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.

We work hard to provide top quality water to every tap. 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 if you have questions.

RIDGEWOOD WATER YEAR 2008 TEST RESULTS						
Contaminant	Violat- ion Y/N	Level Detected	Units of Measure- ment	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
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
Inorganic Contaminants						
Arsenic	Yes	Range = ND – 11 Highest detect = 11	ppb	n/a	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
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
Copper Test results Yr. 2008	No	0.6 * 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. 2008	Yes	16* 8 samples out of 63 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	Range = ND - 6 Highest detect = 6	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants / Disinfection Byproducts						
Cis-1,2-dichloroethylene	No	Range = ND – 0.8 Highest Average = ND Highest detect = 0.8	ppb	70	70	Discharge from industrial chemical Factories
Benzene	No	Range = ND – 0.4 Highest Average = ND Highest detect = 0.4	ppb	0	1	Discharge from factories; leaching from gas storage tanks and landfills
Tetrachloroethene	No	Range = ND – 1.6 Highest Average = 0.6 Highest detect = 1.6	ppb	0	1	Leaching from PVC pipes; discharge from factories and dry cleaners
TTHM Total Trihalomethanes	No	Range = ND - 38 Average = 8	ppb	n/a	80	By-product of drinking water disinfection
HAA5	No	Range = ND – 29	ppb	n/a	60	By-product of drinking water

Haloacetic Acids		Average = 4				disinfection
Methyl tertiary butyl ether (MTBE)	No	Range = ND – 0.8 Highest Average = ND Highest detect = 0.8	ppb	70	70	Leaking underground gasoline and fuel oil tanks. Gasoline and fuel oil spills.
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine		Range = 1.4 – 2.1		4.0 ppm		4.0 ppm

*90th percentile value presented

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.

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium	Range = ND – 82	ppm	50

SUSCEPTIBILITY RATINGS FOR RIDGEWOOD WATER SOURCES

The table below illustrates the susceptibility ratings for the eight contaminant categories for each source in the system. The table provides the number of wells and intakes that rated High (H), Medium (M), or Low (L) for each contaminant category. The eight contaminant categories are defined at the bottom of this page.

For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report. These can be found at <http://www.state.nj.us/dep/swap/>. DEP considered all surface water highly susceptible to pathogens; therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radio nuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radio nuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Sources	Pathogens			Nutrients			Pesticides			VOC's			Inorganics			Radionuclides			Radon			DBP's		
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Wells- 58	1	53	4	33	25			27	31	55		3	37	21		32	26		58			4	54	
GUDI- 0																								
surface water intakes- 0																								

- **Pathogens:** Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.
- **Nutrients:** Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.
- **Pesticides:** Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.
- **VOCs (Volatile Organic Compounds):** Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.
- **Inorganics:** Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.
- **Radionuclides:** Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.
- **Radon:** Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.
- **DBPs (Disinfection Byproduct Precursors):** A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolves organic material (for example leaves) present in surface water.

HAWTHORNE WATER DEPARTMENT YEAR 2008 TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Gross Alpha Test results Yr. 2006	No	Range = 1.8 – 3.9 Highest detect = 3.9	pCi/1	0	15	Erosion of natural deposits
Radium- 228 Test results Yr. 2006	No	Range = ND – 0.8 Highest detect = 0.8	pCi/1	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
Inorganic Contaminants:						
Barium	No	North Station = 1.7 South Station = 1.3 Utter Avenue = 1.2 Goffle Hill = 1.6	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	No	< 0.3* No samples exceeded the action level.	ppm	1.3	A=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead	No	6* 1 sample out of 30 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	North Station: 3.5 – 4.0 Avg.= 3.7 South Station: 3.5 – 3.9 Avg.= 3.6 Utter Avenue: 3.6 – 4.3 Avg.= 4.0 Goffle Hill Rd: 4.0 – 4.5 Avg.= 4.3	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Arsenic	No	North Station = 2.6 South Station = 2.4 Utter Avenue = 2.5 Goffle Hill = 3.6	ppb	n/a	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Volatile Organic Contaminants / Disinfection Byproducts						
Carbon Tetra Chloride	No	North Station: ND South Station: ND Utter Avenue: ND – 0.1 Goffle Rd.: ND	ppb	0	2	Discharge from chemical plants and other industrial activities
Cis-1,2 Dichloroethene	No	North Station: ND – 0.2 South Station: ND Utter Avenue: ND Goffle Rd.: ND	ppb	70	70	Discharge from industrial chemical factories
Methyl tertiary butyl ether (MTBE)	No	North Station: ND South Station: ND – 0.5 Average = < 0 Utter Avenue: ND Goffle Rd.: ND	ppb	70	70	Leaking underground gasoline and fuel oil tanks. Gasoline and fuel oil spills.
Methylene chloride	No	North Station: ND South Station: ND – 0.5 Average = < 0 Utter Avenue: ND – 0.7 Average = < 0 Goffle Rd.: ND	ppb	0	3	Discharge from pharmaceutical and chemical factories
Tetrachloroethene	No	North Station: ND – 0.2 South Station: ND – 1.2 Utter Avenue: ND – 0.6 Goffle Rd.: ND – 0.1 All averages < 0	ppb	0	1	Leaching from PVC pipes; discharge from factories and dry cleaners
Trichloroethane	No	North Station: ND – 0.2 South Station: ND – 0.8 Utter Avenue: ND – 0.1	ppb	0	2	Discharge from metal degreasing sites and other factories

		Goffle Rd.: ND All averages < 0				
1,2,4 -Trichlorobenzene	No	North Station: ND South Station: ND Utter Avenue: ND – 0.2 Average < 0 Goffle Rd.: ND	ppb	0	9	Discharge from textile-finishing factories
Toluene	No	North Station: ND – 0.1 Average < 0 South Station: ND Utter Avenue: ND Goffle Rd.: ND	ppm	1	1	Discharge from petroleum factories
1,1,1 – Trichloroethane		North Station: ND South Station: ND – 0.1 Average < 0 Utter Avenue: ND Goffle Rd.: ND – 0.1 Average < 0	ppb	30	30	Discharge from metal degreasing sites and other factories
HAA5 Haloacetic Acids	No	Range = ND - 3 Highest Running Annual Average = 2	ppb	n/a	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes]	No	Range = ND – 18 Highest Running Annual Average = 14	ppb	n/a	80	By-product of drinking water disinfection

* 90th percentile value presented

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine	Average = 0.2 – 0.3	4.0 ppm	4.0 ppm

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

The Hawthorne Water Department 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.

Water Sources:

In the year 2008, the Hawthorne Water Department drew groundwater from 21 wells throughout the Borough. Following is a list of their 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

UNITED WATER NJ YEAR 2008 TEST RESULTS						
Contaminant	Violati on Y/N	Level Detected	Units of Measure- ment	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total coliform Bacteria	No	Average = 0.3% Range = ND – 1%		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity	No	Range = 0.2 – 0.3 100% < 0.3 NTU		n/a	TT	Soil runoff
Inorganic Contaminants:						
Barium	No	Range = 0.06 – 0.14 Highest detect = 0.14 Average = 0.10	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	No	Range = ND – 1.1 Highest detect = 1.1	ppb	100	100	Discharge from steel and pulp mills; 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 = 0.05 – 3.9 Highest detect = 3.9 Average = 1.7	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
Volatile Organic Contaminants / Disinfection Byproducts						
TTHM Total trihalomethanes	No	Range = 1 - 86 Highest Average = 52	ppb	N/A	80	By-product of drinking water disinfection
HAA5 [Total Haloacetic Acids]	No	Range = ND - 68 Highest Average = 33	ppb	N/A	60	By-product of drinking water disinfection
Radioactive Contaminants						
Gross Alpha Test results Yrs. 2005, 2006 & 2007	No	Range = 1.9 – 4.3 Highest detect = 4.3 Average = 3.03	pCi/1	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/1	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
Secondary Contaminant		Level Detected	Units of Measurement		RUL	
Sodium		Range = 32 - 93	ppm		50	
Regulated Disinfectants		Level Detected	MRDL		MRDLG	
Chlorine		Range = 0.1 – 4.8 Average = 2.2	4.0 ppm		4.0 ppm	

* 90th percentile value presented