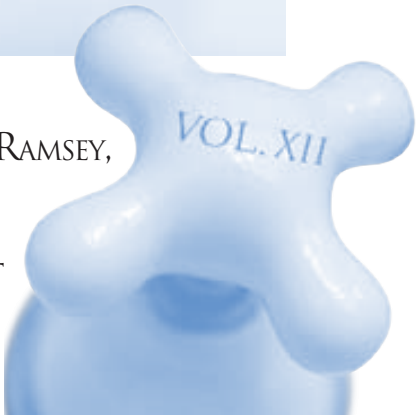
The Ramsey Report

Subject: Water Quality in Your Home…

A study by the Borough of Ramsey,
Board of Public Works
PWS ID No. 0248001

2009 Water Quality Report



June 2010

Dear Ramsey Residents and Water System Users:

The Borough of Ramsey Board of Public Works (BPW) is pleased to present the 2009 Annual Consumer Confidence Report (CCR). This report is prepared to keep you informed about where your drinking water comes from, what it contains, and how it compares to State and Federal Standards.

The Borough of Ramsey water supply for residential and commercial use is a combination of well water derived from in-ground sources, and surface water purchased from United Water New Jersey, Inc. This CCR includes a listing of results from water quality tests conducted by the Borough of Ramsey BPW of the Borough's water supply, using the most rigorous water quality standards required by the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP).

As stated in the past CCRs, the Borough has completed the construction of treatment systems at our water supply facilities to remove Arsenic, a naturally occurring element in some groundwater sources. The routine monitoring in 2009 of the water supply sources shows that the treatment is continuing to successfully reduce Arsenic levels in the water below the State and Federal Standards. The Borough has worked diligently over the years to complete this treatment project, which enables the Borough to continue to provide a sufficient supply of potable water to its customers.

The BPW is committed in continuing to take the necessary measures to provide you with a safe and dependable water supply, while facing the environmental and infrastructure challenges that lie ahead. You can be assured that the BPW and the Mayor and Council understand the priority of delivering to our water customers a safe, sufficient supply of potable water. If you have any questions about this report, please feel free to contact Mr. William Horton, Jr., Superintendent of Public Works, at (201) 825-3400 ext. 274 or Mr. Nicholas Saros, Borough Administrator, at (201) 825-3400 ext. 228.

Sincerely,

Mayor Christopher C. Botta
Borough of Ramsey

Q: Can there be contaminants in drinking water?
A: Yes.

Typically, 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 (in some cases, radioactive material) and can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that might 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 stormwater 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 stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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, the U.S. Environmental Protection Agency (USEPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Federal Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Q: What about contaminants in both bottled water and tap water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. However, 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 USEPA Safe Drinking Water Hotline (800) 426-4791.

Special Considerations Regarding: Children, Pregnant Women, Nursing Mothers and Others

Because they may drink a greater amount of water per pound of body weight than do adults, on a body-weight basis, children may receive a slightly higher amount of a contaminant present in the water than adults do. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern.

If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard. This makes the standard more stringent, to account for additional uncertainties regarding these effects.

In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

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 for advice from your health care provider.

Lead – If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Ramsey is responsible for providing high quality drinking water, but cannot 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 seconds 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 is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Q: What is being done to protect our water resources?

To comply with the 1996 Safe Drinking Water Act, the Bureau of Safe Drinking Water is required to create Source Water Assessments for all community water systems in New Jersey.

The purposes of Source Water Assessments are to determine the boundaries of the areas providing source water for the community water system, to identify, if possible, the sources of contaminants in the delineated areas, and to determine the susceptibility of community water systems to the identified contaminants.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for our water system, which is available at www.state.nj.us/dep/swap/ or by contacting the NJDEP, Bureau of Safe Drinking Water at (609) 292-5550.

Susceptibility Ratings for Ramsey Water Department Sources

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) 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. For susceptibility ratings of United Water, refer to United Water's source water assessment report.

The seven contaminant categories are defined at the bottom of this page. The NJDEP 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, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides 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, the NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

	PATHOGENS			NUTRIENTS			PESTICIDES			VOLATILE ORGANIC COMPOUNDS			INORGANICS			RADIO-NUCLIDES			RADON			DISINFECTION BYPRODUCT PRECURSORS		
SOURCES	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 - 14		13	1	7	7			5	9	11		3	9	5		1	13		14			2	12	
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.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

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.

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.

Ground water under the direct influence of surface water (GUDI): Wells found to be influenced by surrounding surface water bodies.

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 dissolved organic material (for example, leaves) present in surface water.

Q: Are there levels of contaminants in Ramsey's water that should concern you?

A: No.

The table included in this report lists all the drinking water contaminants that were detected during the 2009 calendar year (17 out of 100 contaminants were detected). Ramsey had no water quality violations.

Unless otherwise noted, the data included in the table is from testing performed between January 1 to December 31, 2009. The State requires monitoring for certain contaminants less often than once a year because the concentrations of these contaminants do not change frequently. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Q: Should those with special needs be concerned about our drinking water?

A: In certain cases, yes.

Some people may be more vulnerable to contaminants in the drinking water than the general population. Immuno-compromised persons (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. People in these categories should seek advice about drinking water from their health care providers.

USEPA/CDC guidelines on the 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.

Lead and Copper

Out of 30 homes sampled for lead, there were two sites above the USEPA's lead action limit. Out of 30 homes sampled for copper, there were zero sites that were above the USEPA's copper action limit.

2009 Water Quality Table

SUBSTANCE (UNITS)	RANGE	HIGHEST† DETECTED	AVG	MCL†	MCLG	VIOLATIONS
INORGANIC CONTAMINANTS						
ARSENIC (ppb)	ND-3.5	NA	1.2	5*	0	NO
BARIUM (ppm) December 2008	0.01-0.33	0.33	NA	2	2	NO
FLUORIDE (ppm) December 2008	ND-0.2	0.2	NA	4	4	NO
NITRATE (ppm)	1.5-2.4	2.4	NA	10	10	NO
NITRITE (ppm) June 2004	ND-0.06	0.06	NA	1	1	NO
VOLATILE ORGANIC COMPOUNDS						
TETRACHLOROETHENE (ppb)	ND-0.84	NA	0.03	1	0	NO
TRIHALOMETHANE (ppb)	ND-31.34	NA	11.50**	80	NA	NO
HALOACETIC ACIDS (ppb)	ND-18.7	NA	2.93**	60	NA	NO
RADIOLOGICAL CONTAMINANTS						
GROSS ALPHA (pCi/l)	NA	4.37	NA	15	0	NO
RADIUM 228 (pCi/l)	NA	1.05	NA	5	0	NO
LEAD AND COPPER	# of sites exceeding the AL	90th percentile value				
LEAD (ppb)	2	ND	NA	AL=15	0	NO
COPPER (ppm)	0	0.29	NA	AL=1.3	1.3	NO
UNREGULATED CONTAMINANTS						
SULFATE (ppm) July 2008	18-45	45	NA	SRUL=250	NA	NO
BROMOFORM (ppb)	ND-1.02	NA	0.01	NA	0	NO
CHLOROFORM (ppb)	ND-0.32	NA	0.05	NA	NA	NO
DIBROMOCHLOROMETHANE (ppb)	ND-0.49	NA	0.01	NA	NA	NO
SECONDARY CONTAMINANTS						
SODIUM (ppm)	31-60	60	48	SRUL=50	NA	NO

PWS ID No. 0248001

TYPICAL SOURCE OF SUBSTANCE	HEALTH EFFECTS
Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste.	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.
Discharge of drilling wastes; Discharge from 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.
Erosion of natural deposits; 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.
Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Discharge from factories and dry cleaners.	Some people who drink water containing Tetrachloroethene in excess of the MCL over many years could have problems with their liver and may have an increased risk of getting cancer.
Byproduct of drinking water disinfection.	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.
Byproduct of drinking water disinfection.	Some people who drink water containing Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Erosion of natural deposits.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Erosion of natural deposits.	Some people who drink water containing Radium 228 in excess of the MCL over many years have an increased risk of getting cancer.
Corrosion of household plumbing systems.	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Corrosion of household plumbing systems; Erosion of natural deposits.	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

DEFINITIONS

Maximum Contaminant Level Goal or MCLG: The level of contaminant in drinking water below which there is no known or expected risk to health, MCLGs allow for a margin of safety.

Maximum Contaminant Level or MCL: 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.

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

State Recommended Upper Limit or SRUL: Drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as odor, taste, or appearance. Secondary standards are recommendations, not mandates.

KEY

pCi/l: Picocuries per liter (a measure of radiation)

ppm: One part per million corresponds to one cent in $10,000 or one second in 12 days

ppb: One part per billion corresponds to one cent in $10,000,000 or one second in 32 years

NA: Not Applicable ND: Not Detectable at Testing range

* The maximum contaminant level (MCL) for arsenic was reduced from 50 ppb to 5 ppb effective January 2006. Our water system has completed the construction of several water treatment facilities to reduce the arsenic in your water to below the NJDEP MCL. As you can see in the table, routine monitoring documents that the treatment is successfully reducing arsenic levels below the NJDEP MCL. Compliance with the NJDEP MCL is based on the quarterly average.

** Rolling Annual Average

*** Number of Positive Samples

Sodium

Sodium was found on five occasions to be at a level higher than the State Recommended Upper Limit (SRUL), but sodium was not in violation of State requirements since the annual average for sodium is lower than the SRUL.

Water containing sodium in excess of the SRUL may cause adverse effects for persons placed on a low-sodium diet, but for healthy persons the sodium content in water is unimportant. Based on published information, it is estimated that food accounts for approximately 90% of the daily intake of sodium and drinking water only contributes 10%.

Ramsey's Comprehensive Table of Results

As you can see in the table, some contaminants have been detected in minute traces. Both the USEPA and NJDEP have determined that your water is safe to consume at these minute trace levels.

† You may wish to compare the Highest Detected Column to the Maximum Contaminant Level (MCL) Column, to understand the most significant section of the water quality table. The comparison documents that the highest levels of contaminants detected were significantly lower than maximum levels allowed.

Ramsey's Water Sources . . .

The Borough of Ramsey obtains its water supply from groundwater wells and purchased surface water. Approximately 60% of Ramsey's water supply is obtained from 10 groundwater wells, 8 wells located throughout the Borough, and another two wells in the Township of Mahwah. These wells produce water from the Brunswick Formation Acquifer at depths that range from 180 to 600 feet.

The remainder of Ramsey's water is obtained through a bulk purchase agreement with United Water. United Water predominately supplies Ramsey with surface water through an interconnection. Ramsey no longer obtains any of its water supply from the Township of Mahwah. The United Water source of water is blended with Ramsey's water supply in the distribution system.

The water quality results for United Water were reviewed by the Borough of Ramsey's consultant, Crew Engineers and found to be within Federal and State limits.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Ramsey

The Borough of Ramsey, Board of Public Works violated a drinking water monitoring requirement for a monitoring period specified below. A sampling period was omitted for one of our 11 water supply sources (TP007013). The required monitoring samples at our other water supply sources were collected in accordance with State requirements. Even though this was not an emergency, we wanted to advise you that we did correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the third quarter of 2008 and third and fourth quarters of 2009, we did not monitor for Radionuclides and, therefore, cannot be sure of the quality of our drinking water during that time.

Never at any time has Ramsey's sample results exceeded the drinking water standards for Radionuclides, and we are continuing to monitor for Radionuclides in accordance with NJDEP requirements. During this period, Ramsey also sampled for other routine water quality parameters as required by the New Jersey Department of Environmental Protection (NJDEP), and the results showed that Ramsey's drinking water met all EPA and NJDEP standards.

What should I do?

There is nothing you need to do at this time. The table below lists the contaminant for which we did not test during 2008 and 2009, how often we are supposed to sample for Radionuclides, and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	*Required Sampling Frequency*	*Number of Samples Taken*	*When Samples Should Have Been Taken*	*When Samples Were Taken*
Radionuclides	Quarterly	0	Third Quarter 2008	June 2009
Radionuclides	Quarterly	0	Third and Fourth Quarters 2009	January 2010

What is being done?

We have since taken the required samples, as described in the last column of the table above. The sample results showed that we have met Federal drinking water standards.

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.

For more information, please contact Mr. William Horton, Jr., Superintendent Public Works, at (201) 825-3400 ext. 274 or Mr. Nicholas Saros, Borough Administrator, at (201) 825-3400 ext. 228.

Q: Who's responsible for regulating water quality?

A: The New Jersey Department of Environmental Protection.

The New Jersey Department of Environmental Protection (NJDEP) is the primary agency authorized by the USEPA to regulate the quality of drinking water, and ensure that community water systems comply with State and Federal regulations on drinking water quality.

The NJDEP designates the highest level of a contaminant that is allowed in drinking water or the Maximum Contaminant Level (MCL). MCLs are set at very stringent levels.

To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

FYI:

Ramsey connected its system to the United Water system for additional supply in 2006. In the past, a notice was issued to consumers informing them about the new source of water. The United Water supply contains chloramines for disinfection which may affect consumers, kidney dialysis machines and those with fish aquariums. If you are a kidney dialysis patient, please contact your physician or the dialysis center nearest you.

Q: Does Ramsey test for pesticides and asbestos?

A: No, here's why...

The State has completed an assessment of Ramsey's water. This assessment has indicated that synthetic organic compounds (i.e. pesticides, herbicides) do not have the potential to occur in the source water. Therefore, since Ramsey's water is proven not susceptible to these substances, Ramsey does not test for these chemicals.

Regarding asbestos, the State also completed an assessment of Ramsey's water. Once again, results indicate that asbestos does not have the potential to occur in our water – therefore, the Borough of Ramsey does not test for asbestos.

Our invitation to you...

If you have any questions about this report or concerning your water utility, please contact Mr. William Horton Jr., Superintendent, Department of Public Works, at (201) 825-3400 ext. 274 or Mr. Nicholas Saros, Borough Administrator, at (201) 825-3400 ext. 228. 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 meetings, held on the third Monday of every month at the Borough Hall at 7:30 p.m.

We at the Borough of Ramsey understand the absolute importance of providing the highest-quality water to every home. We ask that you, our customers, help us protect our precious water sources — so essential to our community for a healthy life today and a valuable resource for our children's future.

PRSRT STANDARD
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We're Happy to Report Your Drinking Water is Excellent.

POSTAL CUSTOMER
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