

CONSUMER CONFIDENCE REPORT

Riverdale Water Department

PWSID# NJ1433001

Reporting Period - January 1, 2010 to December 31, 2010

The Riverdale Water Department is located at the DPW Building on Dalton Drive, and the administrative offices are located in the Borough Hall at 91 Newark Pompton Turnpike. Questions concerning this report should be directed to Mr. Walter Mahon, DPW Superintendent, at (973) 835-6077. The Borough Council holds regular public meetings every first and third Monday of the month at 7:30 P.M., at the Borough Hall. Included in this report are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and State standards. As always, we are committed to providing you with the highest quality drinking water and service. Please do not hesitate to contact us at any time.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemo-therapy, 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 microbial contaminants are available from the Safe Drinking Water Hotline 1-(800) 426-4791.

Water for the Riverdale system is derived from a production well located on Dalton Drive. The Borough also purchases water from the Passaic Valley Water Commission (PVWC). Approximately 75% of the total water used by the homes and businesses in Riverdale is derived from the Borough's well. A copy of the Consumer Confidence Report from PVWC is appended to this report.

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

regulated contaminants in accordance with NJDEP requirements.

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 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 1-(800) 426-4791.

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 before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wild life.

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 and residential uses.

Radioactive contaminants, which are naturally occurring.

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 station, urban stormwater runoff, and septic systems.

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. We treat our water according to EPA's regulations. Food and Drug Administrations (FDA) establish limits of contaminants in bottled water, which must provide the same protection for public health.

WATER QUALITY DATA

The table below lists all the drinking water contaminants that we detected during the 2010 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing performed between January 1, 2010 and December 31, 2010. The State of New Jersey requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Therefore, some of the data, though representative of the water quality, is more than one year old.

Terms & abbreviations used below:

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 using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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 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

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.

Primary Contaminants: substances that are health-related. Water suppliers must meet all primary drinking water standards.

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.

Action Level (AL): the concentration of a contaminant which, when 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.

n/a: not applicable; **nd:** not detectable at testing limit; **ppb** parts per billion or micrograms per liter; **ppm:** parts per million or milligrams per liter; **pCi/l:** picocuries per liter (a measure of radiation).

	MCL	MCLG	Riverdale Water	Range of Detections	Sample Date	Violation Y or N	Typical Source of Contaminant
Microbiological Contaminants							
Total Coliform Bacteria	1	0	0	0	2010	N	Naturally present in the environment
Fecal coliform and E. coli	0	0	0	0	2010	N	Human and animal fecal waste
Secondary Contaminants							
ABS/L.A.S. (ppb)	500	500	0	nd	06-15-09	N	Synthetic detergents
Aluminum (ppb)	200	200	0	nd	06-15-09	N	Naturally occurring element
Chloride (ppm)	250	250	37	37	06-15-09	N	Erosion from natural deposits; Discharge of human and animal wastes; Discharge from industry
Color (Color Units)	10	10	2	2	06-15-09	N	Physical characteristic
Corrosivity	+/-1.0	-	0.09	0.09	06-15-09	N	Physical characteristic
Hardness (ppm)	250	250	192	192	06-15-09	N	Naturally occurring minerals
Iron (ppb)	300	300	50	50	06-13-07	N	Naturally occurring element
Manganese (ppb)	50	50	30	30	06-13-07	N	Naturally occurring element
Odor (Threshold Number)	3	3	1	1	06-15-09	N	Physical characteristic
pH (Standard Units)	6.5 - 8.5	6.5 - 8.5	7.8	7.8	06-15-09	N	Physical characteristic
Silver (ppb)	100	100	0	nd	06-15-09	N	Naturally occurring element
Total Dissolved Solids (ppm)	500	500	322	322	06-15-09	N	Erosion of natural mineral deposits
Zinc (ppm)	5	5	0	nd	06-15-09	N	Naturally occurring element
Lead and Copper							
Lead (ppb)	AL=15	15	0.0	0.0 - 0.002	06-10-09	N	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	AL=1.3	1.3	0.082	0.016 - 0.093	06-10-09	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

WATER QUALITY DATA

Contaminants (units)	MCL	MCLG	Riverdale Water	Range of Detections	Sample Date	Violation Y or N	Typical Source of Contaminant
Inorganic Contaminants							
Antimony (ppb)	6	6	0	nd	06-15-09	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	5	0	3	3	08-12-09	N	Erosion from natural deposits; Runoff from orchards; Runoff from glass and electronics productions wastes
Barium (ppm)	2	2	0.063	0.063	06-15-09	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	4	4	0	nd	06-15-09	N	Discharge of metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense
Cadmium (ppb)	5	5	0	nd	06-15-09	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium (ppb)	100	100	7	7	06-15-09	N	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	200	200	0	nd	06-15-09	N	Discharge from steel /metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	4.0	4	0	nd	06-15-09	N	Erosion from natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury (ppb)	2	2	0	nd	06-15-09	N	Discharge from steel /metal factories; Discharge from plastic and fertilizer factories
Nickle (ppb)	100	100	3	3	06-15-09	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (ppm)	10	10	0	nd	03-10-10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	0	nd	06-15-09	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium (ppm)	RUL 50	RUL 50	19	19	06-15-09	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sulfate (ppm)	RUL 250	RUL 250	65	65	06-15-09	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	2	0.5	0	nd	06-15-09	N	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Regulated Disinfectants							
TTHM Total Trihalomethanes (ppb)	80	-	61	53 - 69	2010	N	By-product of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	-	30	20 - 46	2010	N	By-product of drinking water disinfection
Chlorine (ppm) 2010	Levels Detected - Average & Highest			MRLD		MRDLG	
	0.64		0.49		4.0 ppm		4.0 ppm

WATER QUALITY DATA

Contaminants (units)	MCL	MCLG	Riverdale Water	Range of Detections	Sample Date	Violation Y or N	Typical Source of Contaminant
Volatile Organic Compounds							
Methyl tertiary-butyl ether (MTBE) (ppb)	70	70	0.38	0.27 - 0.50	2010	N	Leaking from underground gasoline and fuel oil tanks, gasoline and fuel oil spills
Xylenes (Total) ppb	1000	1000	0.97	0.97	2010	N	Discharge from petroleum factories; Discharge from chemical factories.
Unregulated Contaminants							
Dibromodichloromethane (ppb)	-	-	2.02	1.85-2.19	2010	NO MCL's AT THIS TIME	
Bromoform (ppb)	-	-	1.24	1.11-1.37	2010		
Chloroform (ppb)	-	-	1.56	1.49-1.68	2010		
Bromodichloromethane (ppb)	-	-	1.75	1.55-1.92	2010		
Radioactive Contaminants							
Total Alpha (pCi/l)	15	0	2.60	2.60	11-16-09	N	Erosion of natural deposits
Radium 226/228 (pCi/l)	5	0	0.41	0.41	11-16-09	N	Erosion of natural deposits
Uranium (ppb)	30	0	2	2	11-16-09	N	Erosion of natural deposits

Water Standards Information

Is your drinking water in compliance with all regulations? The Borough of Riverdale is proud of the fact that our water complies with all drinking water standards for chemical and organic contaminants as set by the State of New Jersey and the U.S. EPA.

Regarding New Standards for Arsenic. Riverdale's water meets the EPA's standard of 5 parts per billion for arsenic.

Regarding Asbestos, Nitrite and Synthetic Organic Compounds. As permitted under the Safe Drinking Water Act, the State of New Jersey has issued waivers to the Borough of Riverdale for testing of asbestos, nitrite and synthetic organic compounds. These waivers were given after careful review of prior negative testing, and consideration of factors which indicate low susceptibility to these types of contaminants.

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

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. 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 reproduction or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making 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 advise 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. Riverdale 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 or 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>.

Table 1. Water Quality Results - Table of Detected Contaminants - 2010				PVWC PWS ID: NJ1605002				
<p>Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 <i>Cryptosporidium</i> and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).</p>								
PRIMARY CONTAMINANTS	Compliance Achieved	MCLG	MCL	PLANT EFFLUENT SAMPLE RESULTS				TYPICAL SOURCE
				PWS ID NJ1605002 PVWC	PWS ID NJ1613001 NJDWSC	PWS ID NJ0714001 NEWARK	PWS ID NJ0906001 JERSEY CITY MUA	
TURBIDITY AND TOTAL ORGANIC CARBON								
Turbidity (NTU)	Yes	NA	TT = 1	0.25 (0.14 - 0.25)	0.52	0.42	0.52 (0.04 - 0.52)	Soil runoff.
	Yes	NA	TT = percentage of samples <0.3 NTU (min 95% required)	100%	100%	96.6%	98.9%	
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.								
Total Organic Carbon (%)	Yes	NA	TT = % removal	60% (25-45% required) (Range 47 to 78%)	40% (35% required) (Range 17 to 45%)	NA	40% (25-45% required) (Range 40 to 62%)	Naturally present in the environment.
INORGANIC CONTAMINANTS								
Arsenic (ppb)	Yes	0	5	ND	0.28	ND	0.60 (0.58 - 0.60)	Erosion of natural deposits.
Barium (ppm)	Yes	2	2	0.028 (0.008 - 0.028)	0.0087	ND	0.02	Erosion of natural deposits.
Chromium (ppb)	Yes	100	100	2 (ND - 2)	ND	ND	ND	Erosion of natural deposits.
Fluoride (ppm)	Yes	4	4	ND	ND	0.059	ND	Erosion of natural deposits; Water additive which promotes strong teeth.
Nickel (ppb)	NA	NA	NA	5 (2 - 5)	ND	ND	0.6	Erosion of natural deposits
Nitrate (ppm)	Yes	10	10	3.63 (0.64 - 3.63)	0.21	ND	0.45 (0.04 - 0.45)	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
RADIOLOGICAL CONTAMINANTS				2005-06 Data	2006 Data	2005 Data	2006 Data	
Combined Radium (pCi/L)	Yes	0	5	ND	ND	1.5	2.59 (ND - 2.59)	Erosion of natural deposits.
PRIMARY CONTAMINANTS				DISTRIBUTION SYSTEM SAMPLE RESULTS				TYPICAL SOURCE
MICROBIOLOGICAL CONTAMINANTS								
Total Coliform Bacteria (%)		0	5% of monthly samples are positive	INSERT APPLICABLE DATA				Naturally present in the environment.
<p>*PVWC incurred a Monthly Coliform MCL violation in July 2010. Public Notification was completed within 30 days as required. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Subsequent testing for coliform bacteria was conducted and no additional coliform bacteria were found to be present. Whenever we detect coliform bacteria in any sample, we are required to continue the analytical testing procedure to see if other bacteria of greater concern, such as <i>E. coli</i>, are present. We did not find any <i>E. coli</i> bacteria in our subsequent testing.</p>								
DISINFECTION BYPRODUCTS								
Haloacetic Acids (HAA5) (ppb)		NA	60	INSERT APPLICABLE DATA				By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)		NA	80	INSERT APPLICABLE DATA				By-product 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.								
DISINFECTANTS								
Chlorine (ppm)	Yes	MRDLG=4	MRDL=4	INSERT APPLICABLE DATA				Water additive used to control microbes.
LEAD AND COPPER		MCLG	Action Level	90th Percentile				
Copper (ppm)	Yes	1.3	1.3	INSERT APPLICABLE DATA				Corrosion of household plumbing systems.
Lead (ppb)	Yes	0	15	INSERT APPLICABLE DATA				Corrosion of household plumbing systems.
<p>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. [INSERT SYSTEM NAME] 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 or 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.</p>								
<p>The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for synthetic organic chemicals. Passaic Valley Water Commission received a monitoring waiver for synthetic organic chemicals for the compliance period 2008-2010.</p>								

SOURCE WATER ASSESSMENT

The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment reports and summaries for all public water systems. The Source Water Assessment, and related questions, for the PVWC system (PWS ID 1605002), North Jersey District Water Supply Commission (PWS ID 1613001), Jersey City MUA (PWS ID 090601) and Newark Water Department (PWS ID 0714001) can be obtained by logging onto NJDEP's source water assessment web site at <http://www.state.nj.us/dep/swap> or by contacting NJDEP's Bureau of Safe Drinking Water at 609-292-5550. If a system is rated highly susceptible for a contamination category, it does not mean a customer is – or will be – consuming contaminated 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. The source water assessments performed on the intakes for each system lists the following susceptibility ratings as indicated in Table 2. Contaminants that may be present in source water include:

Table 2. Intake Susceptibility Ratings

Intakes	Pathogens	Nutrients	Pesticides	Volatile Organic Compounds	Inorganic Contaminants	Radionuclides	Radon	Disinfection Byproduct Precursors
PVWC 4 Surface Water	4-High	4-High	1-Medium, 3-Low	4-Medium	4-High	4-Low	4-Low	4-High
NJDWSC 5 Surface Water	5-High	5-High	2-Medium, 3-Low	5-Medium	5-High	5-Low	5-Low	5-High
Jersey City MUA 1 Surface Water	1-High	1-Medium	1-Low	1-Medium	1-Medium	1-Low	1-Low	1-High
Newark 1 Surface Water	1-High	1-Low	1-Low	1-Low	1-High	1-Low	1-Low	1-High

ADDITIONAL SOURCE WATER MONITORING RESULTS

Table 3. Source Water Pathogen Monitoring – 2008 Data

Contaminant	PVWC Sourcewaters		Jersey City MUA Source water	Typical Source
	Pompton River	Passaic River		
<i>Cryptosporidium</i> , Oocysts/L	0 – 0.4	0 – 0.2	ND	Microbial pathogens found in surface waters throughout the United States.
<i>Giardia</i> , Cysts/L	0 – 0.9	0 – 0.6	-	
<i>E.coli</i> per 100 ml	16.1 – greater than 2419.6	25.6 – 1553.1	-	Human and animal fecal waste.

ADDITIONAL TREATMENT PLANT MONITORING RESULTS

Table 4. Additional Monitoring Results

Contaminant	PVWC Intake	PVWC Plant Effluent	Table 4 presents PVWC data collected as part of a study to determine the general occurrence of PFOA, PFOS and Perchlorate. Currently, there are no drinking water standards for these compounds. PVWC continues to participate in and support these types of regulatory and research efforts to maintain a position of leadership in cutting edge water treatment technology.
Perfluorooctanoic Acid (PFOA), ppb	0.029 (0.008 – 0.029)	0.054 (0.008 – 0.054)	
Perfluorooctanoic Sulfonate (PFOS), ppb	0.011 (0.006 – 0.011)	0.026 (0.006 – 0.026)	
Perchlorate, ppb	0.23 (0.15 - 0.23)	0.35 (0.24-0.35)	

Table 5. Secondary Parameters - Plant Effluent

Contaminant	RUL	PWSID NJ1605002 PVWC	PVWC RUL Achieved	PWSID NJ1613001 NJDWSC	NJDWSC RUL Achieved	PWSID NJ0714001 Newark	Newark RUL Achieved	PWSID NJ0906001 Jersey City MUA	Jersey City MUA RUL Achieved
Alkalinity, ppm	NA	30 - 58	NA	33	NA	28	NA	-	NA
Aluminum, ppb	200	ND - 28	Yes	17	Yes	ND	Yes	ND - 217	No*
Chloride, ppm	250	52 - 141	Yes	44	Yes	31	Yes	52 - 102	Yes
Color, CU	10	ND	Yes	2	Yes	5	Yes	ND - 15	No
Copper, ppm	1.0	ND - 0.002	Yes	-	-	-	-	ND	Yes
Corrosivity	Non-Corrosive	Corrosive	No	-	-	-	-	Non-Corrosive	Yes
Hardness (as CaCO ₃), ppm	250	49 - 148	Yes	40	Yes	55	Yes	52 - 122	Yes
Hardness (as CaCO ₃), grains/gallon	15	3 - 9	Yes	2	Yes	3	Yes	3 - 7	Yes
Iron, ppb	300	ND - 60	Yes	10	Yes	15	Yes	ND - 122	Yes
Manganese, ppb	50	4 - 13	Yes	-	-	26	Yes	ND - 165	No*
Odor, TON	3	ND	Yes	-	-	-	-	ND - 2	Yes
pH	6.5 to 8.5	8.1 - 8.3	Yes	8.01	Yes	7.7	Yes	6.4 - 7.6	No
Sodium, ppm	50	23 - 136	No*	22	Yes	16	Yes	40	Yes
Sulfate, ppm	250	40 - 94	Yes	8.1	Yes	12	Yes	12	Yes
Total Dissolved Solids, ppm	500	209 - 467	Yes	114	Yes	94	Yes	136 - 251	Yes
Zinc, ppb	5,000	12 - 14	Yes	51	Yes	ND	Yes	ND - 10	Yes

*Health Effects:

- Aluminum: Jersey City MUA was above New Jersey's Recommended Upper Limit (RUL) for Aluminum.
- Manganese: Jersey City MUA was above New Jersey's Recommended Upper Limit (RUL) for Manganese. The recommended upper limit for manganese is based on staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water.
- Sodium: PVWC was above New Jersey's Recommended Upper Limit (RUL) for Sodium. For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be a concern to individuals on a sodium restricted diet.

Additional inorganic contaminants monitored but not detected in the plant effluent in 2010 include asbestos, antimony, arsenic, beryllium, bromate, cadmium, cyanide, fluoride, mercury, selenium, silver, ABS/LAS and thallium.

Table 6. Organic Compounds – Plant Effluent

Contaminant	MCLG	MCL	PWSID NJ1605002 PVWC	PWSID NJ1613001 NJDWSC	PWSID NJ0714001 Newark	PWSID NJ0906001 Jersey City MUA
Haloacetic Acids (HAA5), ppb	NA	NA	7 (3 - 7)	35 (13 - 35)	-	-
Total Trihalomethanes (TTHMs), ppb	NA	NA	19 (4 - 19)	66 (26 - 66)	-	-
Chloroethane, ppb	NA	NA	0.50 (ND - 0.50)	ND	ND	ND

ADDITIONAL DISTRIBUTION SYSTEM MONITORING RESULTS

Table 7. Secondary Contaminants – Distribution System

Contaminant	RUL	ANNUAL AVERAGE	RANGE	Compliance Achieved
Iron, ppb	300	6	ND - 70	Yes
Manganese, ppb	50	6	ND - 16	Yes

Additional contaminants monitored but not detected in the distribution system in 2010 include Asbestos and *E.coli* bacteria.

DEFINITIONS of TERMS and ACRONYMS

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

CU: Color unit.

CDC: Centers for Disease Control

Disinfection By-product Precursors: A common source is naturally occurring organic matter in surface water. Disinfection by-products are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material present in surface water.

EPA: Environmental Protection Agency

Inorganic Contaminants: 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. These contaminants may be present in source water.

MCL: Maximum Contaminant Level; 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.

MCLG: Maximum Contaminant Level Goal; 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.

Microbial Contaminants/Pathogens: Disease-causing organisms such as bacteria and viruses, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Common sources are animal and human fecal wastes. These contaminants may be present in source water.

MF/L: Million Fibers per liter.

MRDL: Maximum Residual Disinfectant Level; 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.

MRDLG: Maximum Residual Disinfectant Level Goal; the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

NA: Not applicable

ND: Not detected

NJDWSC: North Jersey District Water Supply Commission

NTU: Nephelometric Turbidity Unit

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Organic Contaminants/Volatile Organic Compounds: Compounds, 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. Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride. These compounds may be present in source water.

Pesticides/Herbicides: Man-made chemicals used to control pests, weeds and fungus, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses and may be present in source water. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

pCi/L: picocuries per liter (a measure of radioactivity)

ppb: parts per billion

ppm: parts per million

PWS ID: Public Water System Identification

PVWC: Passaic Valley Water Commission

RAA: Running annual average.

Radioactive Contaminants/Radionuclides: Radioactive substances that are both naturally occurring and man-made and may be present in source water; result of oil and gas production and mining activities. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment.

RUL: Recommended Upper Limit; the highest level of a constituent of drinking water that is recommended in order to protect aesthetic quality.

RUL Achieved: Yes entry indicates the state recommended upper limit was not exceeded. A no entry indicates the state recommended upper limit was exceeded.

TON: threshold odor number

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

% Removal Ratio: Actual percent removal divided by required percent removal, multiplied by 100.

ADDITIONAL INFORMATIONAL RESOURCES

PVWC's website: www.pvwc.com

USEPA Drinking Water website: www.epa.gov/safewater

NJDEP Water Supply website: www.nj.gov/dep/watersupply

American Water Works Association (AWWA) website: www.awwa.org

PVWC Customer Service Department: 973-340-4300

USEPA Safe Drinking Water Hotline: 800-426-4791

NJDEP Bureau of Safe Drinking Water: 609-292-5550

AWWA New Jersey Section website: www.njawwa.org