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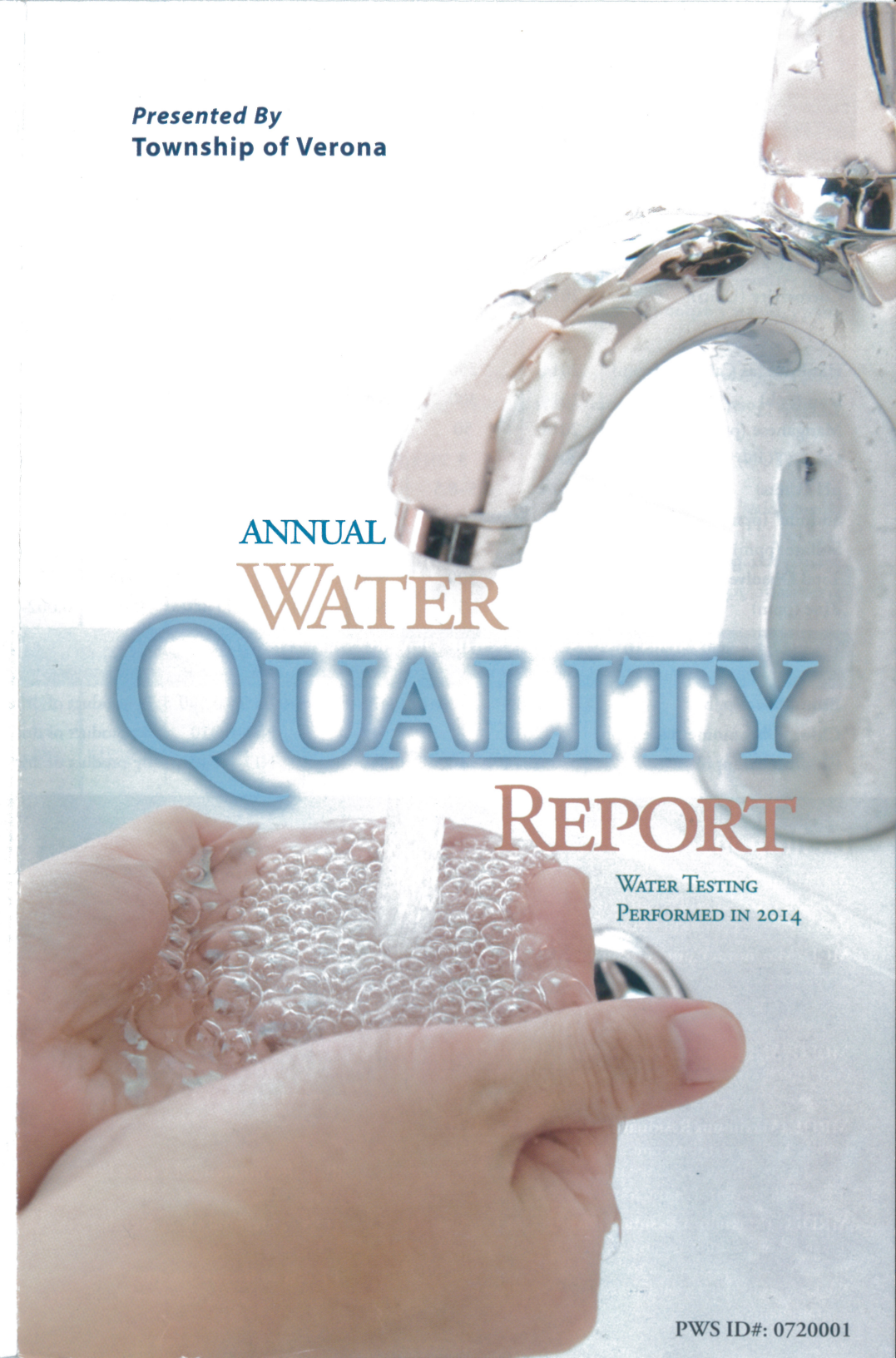

ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED IN 2014

PWS ID#: 0720001

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

PVWC has participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program during 2014 by performing additional tests on the drinking water provided to the Township of Verona. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES[1]

				Township of Verona Water Department		Passaic Valley Water Commission (PVWC)		North Jersey District Water Supply Commission (NJDWSC)			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2011	15	0	3.06	2.48–3.63	NA	NA	NA	NA	No	Erosion of natural deposits
Arsenic[2] (ppb)	2014	5	0	5	2–9	NA	NA	NA	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2014	2	2	0.250	0.187–0.313	0.035	0.017–0.035	0.013	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2014	[4]	[4]	0.5	0.4–0.6	NA	NA	NA	NA	No	Water additive used to control microbes
Chromium (ppb)	2014	100	100	13	13–14	NA	NA	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2014	4	4	NA	NA	0.10	0.07–0.10	0.11	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2014	60	NA	26	3–44	NA	NA	NA	NA	No	By-product of drinking water disinfection
Methyl tert-Butyl Ether [MTBE] (ppb)	2014	70	NA	NA	NA	NA	NA	0.16	NA	No	Leaking underground gasoline and fuel tanks; Gasoline and fuel oil spills
Nickel (ppb)	2014	100	NA	5	4–5	3	2–3	NA	NA	No	Pollution from mining and refining operations; Natural occurrence in soil
Nitrate (ppm)	2014	10	10	1.8	1.8–1.8	3.8	0.55–3.8	0.32	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	40	6–61	NA	NA	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria[3] (# positive samples)	2014	1 positive monthly sample	0	1	NA	NA	NA	NA	NA	No	Naturally present in the environment
Total Organic Carbon (% removal)	2014	TT	NA	NA	NA	62%	52%–72%	NA	NA	No	Naturally present in the environment
Total Organic Carbon (removal ratio)	2014	TT	NA	NA	NA	NA	NA	1.11	1.00–1.22	No	Naturally present in the environment
Turbidity[4] (NTU)	2014	TT	NA	NA	NA	0.26	0.08–0.26	0.28	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting the standard)	2014	TT=95% of samples <0.3 NTU	NA	NA	NA	100	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

				Township of Verona Water Department			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0.161	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	ND	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	RUL	MCLG	Township of Verona Water Department AMOUNT DETECTED	Township of Verona Water Department RANGE LOW-HIGH	Passaic Valley Water Commission (PVWC) AMOUNT DETECTED	Passaic Valley Water Commission (PVWC) RANGE LOW-HIGH	North Jersey District Water Supply Commission (NJDWSC) AMOUNT DETECTED	North Jersey District Water Supply Commission (NJDWSC) RANGE LOW-HIGH	EXCEEDANCE	TYPICAL SOURCE
ABS/L.A.S. (ppb)	2014	500	NA	NA	NA	180	ND–180	23	NA	No	NA
Aluminum (ppb)	2014	200	NA	NA	NA	17	9–25	35	NA	No	Erosion of natural deposits; Residual from some surface water treatment processes
Chloride (ppm)	2014	250	NA	140	138–142	152	91–214	74	NA	No	Runoff/leaching from natural deposits
Color (Units)	2014	10	NA	NA	NA	NA	NA	2	NA	No	Naturally occurring organic materials
Corrosivity (Units)	2014	Noncorrosive	NA	0.2	-0.2–0.7	NA	NA	NA	NA	No	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; Affected by temperature and other factors
Hardness [as CaCO3][5] (ppm)	2014	250	NA	354	324–384	142	84–200	72	NA	Yes	Naturally occurring
Iron (ppb)	2014	300	NA	NA	NA	NA	NA	12	NA	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2014	50	NA	6	ND–6	12	6–18	NA	NA	No	Leaching from natural deposits
Odor (TON)	2014	3	NA	NA	NA	5	NA	NA	NA	Yes	Naturally occurring organic materials
pH (Units)	2014	6.5–8.5	NA	7.7	7.3–8.1	8.0	7.8–8.1	8.3	NA	No	Naturally occurring
Sodium[6] (ppm)	2014	50	NA	36	27–45	109	47–171	40	NA	Yes	Naturally occurring
Sulfate (ppm)	2014	250	NA	45	64–26	72	40–104	10	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids[7] (ppm)	2014	500	NA	624	586–662	418	275–560	198	NA	Yes	Runoff/leaching from natural deposits
Zinc (ppm)	2014	5	NA	0.03	ND–0.03	0.005	0.002–0.008	NA	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES - TOWNSHIP OF VERONA WATER DEPARTMENT

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromoform (ppb)	2014	0.475	0.0450–0.500	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2014	0.310	ND–0.310	By-product of drinking water disinfection
Chloroform (ppb)	2014	0.340	ND–0.340	By-product of drinking water disinfection

Definitions

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

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.

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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

RUL (Recommended Upper Limit): RULs are established to regulate the aesthetics of drinking water like taste and odor.

TON (Threshold Odor Number): A measure of odor in water.

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

[1] Under a waiver granted on December 24, 2013, by the State of New Jersey Department of Environmental Protection, our system does not have to monitor for synthetic organic chemicals/pesticides because several years of testing have indicated that these substances do not occur in our source water. The SDWA 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 synthetic organic chemicals and asbestos.

[2] Compliance with the SDWA regulations for the arsenic MCL is determined by an annual average value. In 2014, this annual average value did not exceed the arsenic MCL. While your drinking water meets U.S. EPA's standard for arsenic, it does contain low levels of arsenic. U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

[3] This location, which was re-sampled within 24 hours, tested negative for total coliform bacteria.

[4] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

[5] Reported hardness is reflective of the produced well water. Blending of this water with the low hardness water from PVWC lowers the hardness value of the water at the consumer's tap.

[6] Water received from PVWC is blended with the low-sodium-content Verona well water in the distribution system, which produces a low sodium concentration at the consumer's tap. 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.

[7] Reported TDS values are reflective of the TDS at the well production sites. When this water is blended with the low TDS PVWC water, the TDS values at the consumer's tap are much lower.

NJ000306

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the US EPA Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. Under this program we continue to manage our water system with a mission to deliver the best-quality drinking water.

We are always available to assist you if you should have any questions or concerns about your drinking water.

Mayor and Council, Township of Verona

Community Participation

You are invited to participate in our evening council meetings to present your interests regarding your drinking water. We meet the first and third Mondays of each month beginning at 7:00 p.m. at Verona Town Hall, 600 Bloomfield Avenue, Verona, NJ.

What is the Source of Our Drinking Water?

Our water is derived from two different water supplies: groundwater wells that the Township of Verona owns and operates, and treated surface water purchased from the Passaic Valley Water Commission (PVWC). The well water is withdrawn from the Feltville Aquifer via two deep rock wells located in Verona. The water from PVWC comes from the Wanaque Reservoir, owned and operated by the North Jersey District Water Supply Commission (NJDWSC) located in Wanaque, New Jersey. PVWC can also provide water from their Little Falls treatment plant located in Totowa, New Jersey, which uses water from the Passaic River and/or the Pompton River. All water sources are treated to produce safe drinking water that satisfies all state and federal standards. In addition to these water supplies, we have emergency water connections with both Essex Fells and the New Jersey American Water Company that are capable of providing drinking water to Verona in the event of an interruption in our normal water services.

Source Water Assessment

The NJDEP has not completed a Source Water Assessment Report and Summary for the Verona Well Water System, but assessments have been completed for the PVWC and NJDWSC systems. These reports are available at www.state.nj.us/dep/swap or by contacting the NJDEP, Bureau of Safe Drinking Water, at (609) 292-5550. Each report lists the susceptibility ratings for eight contaminant categories ranging from LOW to HIGH.

Pathogens	Nutrients	Pesticides	VOC	IOC	Radionucleides	Radon	Disinfection	BP
PVWC	HIGH	HIGH	MED–LOW	MEDIUM	HIGH	LOW	LOW	HIGH
NJDWSC	HIGH	HIGH	MED–LOW	MEDIUM	HIGH	LOW	LOW	HIGH

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 or at www.epa.gov/safewater/lead.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that 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 these contaminants does not necessarily indicate that the water poses a health risk.

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 substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS?

For more information about this report and other questions regarding your drinking water, please contact Tim Newton at the Verona Water Department, (973) 857-4843, or at tnewton@veronanj.org. You may also call the U.S. EPA Bureau of Safe Drinking Water Hotline at (800) 426-4791 or the New Jersey Department of Environmental Protection (NJDEP), Bureau of Safe Drinking Water, at (609) 292-5550.