Source Water Quality - Detected Contaminants Monitored by Newport News Waterworks

Primary Standards - Health Based (units)	PRIMARY MCL	MCLG	Range of Detection	Average Level	Highest Level	Meets EPA Standard?	Likely Source
Turbidity							
Turbidity - Highest single measurement of the Treated Surface Water (NTU)	TT = 1.0	n/a			0.22	Yes	Soil runoff
Turbidity - Lowest Percent of all Monthly Readings less than or equal to 0.3 NTU (%)	TT = 95	n/a	0.02 - 0.22	100.00%		Yes	Soil runoff
Regulated Substances							
Barium (ug/L)	2000	2000	21 - 24		24	Yes	Erosion of natural deposits
Fluoride (mg/L)	4	4	0.90 - 0.98		0.98	Yes	Added to promote strong teeth
Nitrate (as Nitrogen) (mg/L)	10	10	0.038 - 0.040		0.040	Yes	Erosion of natural deposits
Nitrite (as Nitrogen) (mg/L)	1	1	0.002 - 0.002		0.002	Yes	Erosion of natural deposits
Total Organic Carbon Removal	TT	n/a	1.05 - 1.94		1.22	Yes	Occurs naturally in the environment
Beta Photon Emitters (pCi/L)	4	0	1.8 - 1.8		1.8*	Yes	Erosion of natural deposits

Secondary Substance Monitoring (performed daily, weekly, or monthly)	Secondary MCL		Range of Detection	Average Level			Likely Source
Chloride (mg/L)	250		21-40	30			Occurs naturally in the environment
Iron (ug/L)	300		ND - 20	4			Occurs naturally in the environment
Manganese (ug/L)	50		ND - 52	16			Occurs naturally in the environment
pH [acidity] (pH units)	6.5 - 8.5		5.9 - 9.0	7.5			Adjusted during water treatment process
Sulfate (mg/L)	500 (proposed)		34 - 36	35			Occurs naturally in the environment; also comes from the addition of treatment chemicals at the water treatment plant
Total Dissolved Solids (mg/L)	500		121 - 155	138			Occurs naturally in the environment
Zinc (mg/L)	5		0.081 - 0.245	0.208			Occurs naturally in the environment; also comes from the addition of treatment chemicals at the water treatment plant

Organics-regulated at treatment plant	Primary MCL	MCLG	Range of Detection	Average Level		Meets EPA standards	Likely Source
Chloroform (ug/L)	n/a	n/a	1.1 - 3.5	2.3		Yes	By-product of chlorination
Dichlorobromomethane (ug/L)	n/a	n/a	2.5 - 2.6	2.6		Yes	By-product of chlorination
Dibromochloromethane (ug/L)	n/a	n/a	0.9 - 3.4	2.2		Yes	By-product of chlorination

Distribution System Water Quality - Monitored by Old Dominion Utility Services

Microbiological Constituents (units)	PRIMARY MCL (MRDL)	MCLG	Value	Meets EPA Standard?	Likely Source
Total Coiform Bacteria where less than 40 samples collected/month (Present/Absent)	No more than one positive monthly sample	0	Highest mumber of monthly samples positive was one	Yes	Common in nature

Disinfection Byproducts and Disinfectant Residuals (units)	PRIMARY MCL (MRDL)	MCLG	Range of Detection	Highest 4-Quarterly Average	Meets EPA Standard?	Likely Source
Chloramines [as Cl_2] (mg/L)	4	4	0.21 - 3.9	2.32	Yes	Water additive to control microbes
HAA5 [Total of five Haloacetic Acids] (ug/L)	60	n/a	ND - 10	5	Yes	Byproduct of drinking water chlorination
TTHMs [Total of four Trihalomethanes] (ug/L)	80	n/a	2.7 - 15.7	13	Yes	Byproduct of drinking water chlorination

Inorganic Constituents (units) Tested in 2015. Not required again until 2018	ACTION LEVEL	MCLG	Range of Detection	90th % Level	Meets EPA Standard?	Notes
Copper (mg/L)	1.3	1.3	0.018 - 0.465	0.161	Yes	The likely source of copper is corrosion of household plumbing systems.
Lead (ug/L)	15	0	ND	ND	Yes	The likely source of lead is corrosion of household plumbing systems.

Unregulated Contaminant Monitoring Rule 3 **			Range of Detection	Average Level		Likely Source
Total Chromium (ug/L)			ND - 0.47	0.21		Naturally occouring. Chromium used to make stainless steel.
Hexavalent Chromium Cr-6 (dissolved) (ug/L)			0.05 - 0.09	0.06		Naturally occouring. Chromium used to make stainless steel.
Strontium (ug/L)			170 -231	207		Naturally Occouring. Used in some Televisions.
Vanadium (ug/L)			0.6 - 0.9	0.80		Naturally Occouring. Metal used in automotive industry.
Chlorate (ug/L)			240 - 290	266		Naturally Occouring, Disinfection by-product, Agricultural defoliant.

n/a = not applicable

ND = not detected, below minimum report level.

* Tested for in 2010 - not required to test again until 2016.

**Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future