

Treated Water Quality

The following substances were detected in the Winston-Salem/Forsyth County public water supply during the 2015 calendar year.

Regulated at the Treatment Plant

Substance	Highest Level Allowed (EPA's MCL)	Ideal Goals (EPA's MCLG)	Range of Detections	Average Level Detected	Source
Arsenic, ppb ³	10.0	10.0	ND - 2.0	ND	Erosion of natural deposits; run-offs from orchards, glass & electronics production wastes
Barium, ppb	2000	2000	7.0 - 27.0	15.0	Natural geology; drilling operations; metal refinery wastes
Chromium, ppb	100	100	ND - 1.0	ND	Erosion of natural deposits; discharge from steel and pulp mills
Fluoride, ppm ⁴	4.0 ⁵	4.0	ND - 0.91	0.63	Erosion of natural deposits; water additive, promotes strong teeth
Nitrate, ppm	10.0	10.0	ND - 0.74	0.58	Erosion of natural deposits; fertilizer run-off; leaching from septic tanks
Orthophosphate, ppm	0.5 - 5.0	1.0	0.51 - 1.10	0.78	Water treatment additive to prevent pipe corrosion
Total Organic Carbon ⁶ ppm	Treatment Technique ⁶	n/a	1.00 - 2.66	1.52	Naturally present in the environment
Turbidity, NTU ⁷	Treatment Technique ⁸	n/a	0.02 - 0.12	0.05	Soil erosion

Regulated in the Distribution System

Total Trihalomethanes, ppb	80 LRAA ⁹	0.0	9.0 - 97.0	45.0	Byproducts of drinking water disinfection
Total Haloacetic Acids, ppb	60 LRAA	0.0	10.1 - 43.2	27.8	Byproducts of drinking water disinfection
Asbestos, MFL ¹⁰	7.0	0.0	n/a	0.39	Erosion of natural deposits; decay of asbestos cement water mains
Chlorine, ppm	4.0	4.0	< 0.1 - 1.70	0.99	Water treatment additive for disinfection
Orthophosphate, ppm	0.25 - 1.5	1.0	0.41 - 0.92	0.67	Water treatment additive to prevent pipe corrosion
Alpha Emitters, pCi/L ¹¹	15.0	0.0	0.0	0.0	Erosion of natural deposits
Beta Emitters, pCi/L	50.0	0.0	0.0	0.0	Decay of natural and man-made deposits
Total Coliforms	Less than 5% positive	0.0	n/a	0.0	Naturally present in the environment

Unregulated Substances at the Treatment Plants

Sulfate, ppm	500 proposed	Not Regulated	8.5 - 15.9	12.2
Chlorate, ppb		Not Regulated	54.0 - 130.0	85.0
Chromium-6+, ppb		Not Regulated	0.034 - 0.037	0.035
Strontium, ppb		Not Regulated	38.0 - 39.0	38.3

These compounds are being sampled under the Unregulated Contaminant Monitoring Rule 3 (UCMR 3). Every three years the EPA develops a list of compounds for potential regulation to determine their relative occurrence around the country. Based on this data the EPA will determine the relative health risks to average consumers and develop assessments of the health benefits vs costs associated with regulation.

Unregulated Substances in the Distribution System

Chlorate, ppb	500 proposed	Not Regulated	49.0 - 110.0	78.0
Chromium-6+, ppb		Not Regulated	0.037 - 0.042	0.040
Strontium, ppb		Not Regulated	38.0 - 47.0	42.3

Regulated at the Consumers' Tap

Substance	Highest Level Allowed (EPA's MCL)	Ideal Goals (EPA's MCLG)	Number of Sites Sampled	Number of Sites Above the Action Level	90th Percentile Concentration, ppb	Source (both lead and copper)
Lead, ppb	15.0 (action level ¹²)	0.0	50	0	< 3.0	Corrosion of household plumbing;
Copper, ppb	1300.0 (action level ¹³)	1300.0	50	0	< 50.0	Erosion of natural deposits.