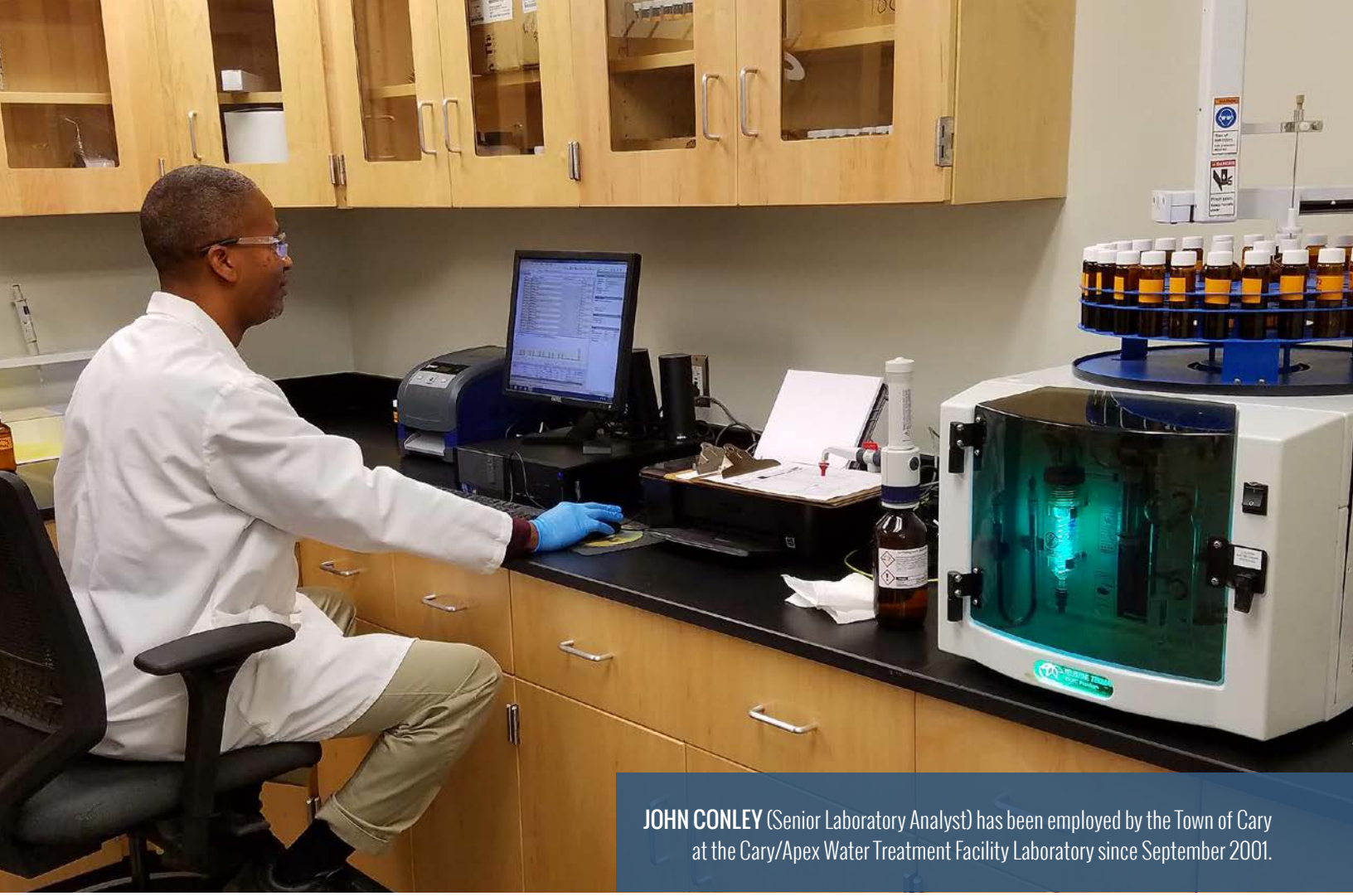
TOWN of CARY

2018 WATER QUALITY TESTING SUMMARY

A DETAILED REVIEW OF THE TEST RESULTS FOR THE DRINKING WATER PRODUCED BY THE CARY/APEX WATER TREATMENT FACILITY



JOHN CONLEY (Senior Laboratory Analyst) has been employed by the Town of Cary at the Cary/Apex Water Treatment Facility Laboratory since September 2001.

CARY/APEX WATER TREATMENT FACILITY 2018 WATER QUALITY TESTING SUMMARY

We are pleased to present to you the Cary/Apex Water Treatment Facility Test Result Summary for 2018. This report is a snapshot of last year's water quality. The values contained in this report are based on single measurements or yearly averages depending on the contaminant. The Environmental Protection Agency and/or the State requires us to monitor for certain substances less than once per year because the concentrations of these substances are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. In these cases, the most recent data is included, along with the year in which the sample was taken. It is our constant goal to provide you with a safe and dependable supply of drinking water.

If you have any questions or concerns regarding this report, please contact Rachel Monschein, Water System Laboratory Supervisor, at (919) 362-5507.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. 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 the water poses a health risk. To obtain more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at (800) 426-4791.

IMPORTANT DRINKING WATER DEFINITIONS:

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

Amount Detected
The annual average value, not the maximum value, for the parameter listed. EPA requires that maximum amounts detected be reported in the Annual Water Quality Report (CCR).

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.

Note: 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.

Maximum Contaminant Level Goal (MCLG)
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.

Maximum Residual Disinfection 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 Disinfection Level 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 contaminants.

Method Reporting Limit (MRL)
The lowest reportable concentration set for the particular method used.

Microsiemens per centimeter (µS/cm)
A measure of the conductivity of water.

Million Fibers per Liter (MF/L)
A measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU)
A measure of the clarity or turbidity of water.

Not Applicable (N/A)
Information not applicable or not required.

Non-Detects (ND)
The contaminant is not present at the level of detection set for the particular method used.

Parts Per Billion (ppb) or Micrograms Per Liter (µg/L)
One part substance per billion parts water.

Parts Per Million (ppm) or Milligrams Per Liter (mg/L)
One part substance per million parts water.

Parts Per Trillion (ppt) or Nanograms Per Liter (nanograms/L)
One part substance per trillion parts water.

Picocuries Per Liter (pCi/L)
A measure of the radioactivity in water.

Running Annual Average (RAA)
Compliance calculations based on a running annual average of reported values.

Standard Units (SU)
A measure of the pH of water.

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

LEAD AND COPPER

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	SITES ABOVE AL/TOTAL SITES	VIOLATION Y/N	TYPICAL SOURCE
Copper (ppm) (90th percentile)	2018	60 samples once every 3 years	AL = 1.3	1.3	0.121	0/60	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90th percentile)			AL = 15	0	<0.003	0/60		Corrosion of household plumbing systems, erosion of natural deposits

NITRATE AND NITRITE

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Nitrate (as Nitrogen) (ppm)	2018	2 times a week	10	10	<1	N/A	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)			1	1	<0.1			Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

ASBESTOS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Total Asbestos (MF/L)	2011	Once every 9 years	7	7	< 0.17	N/A	N	Decay of asbestos cement water mains; erosion of natural deposits

Note: One asbestos sample is required to be taken during the first 3-yr compliance period of each 9-yr compliance cycle beginning in the compliance period starting 1/1/2011 and ending 12/31/2019. The Cary/Apex WTP collected a sample for asbestos analysis in 2011.

DISINFECTANTS AND DISINFECTION BYPRODUCTS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
TTHM (ppb) [Total Trihalomethanes]	2018	8 samples quarterly	80	N/A	51 (maximum LRAA)	23 - 66 (individual sample sites)	N	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]		8 samples quarterly	60	N/A	15 (maximum LRAA)	4 -20 (individual sample sites)		By-product of drinking water disinfection
Bromate (ppb)		Once a month	10 (running annual average)	0	4 (running annual average)	0 - 11 (individual measurements)		By-product of drinking water disinfection
Chloramines (ppm)		125 samples a month except for March	MRDL = 4 (running annual average)	MRDLG = 4	3.1 (running annual average)	2.0 - 4.0 (individual sites)		Water additive used to control microbes
Total Organic Carbon (removal ratio)		Weekly	TT	N/A	1.47	1.25- 1.86		Naturally present in the environment

Note: Compliance with the MCLs for TTHMs, HAA5s, Bromate, Chloramines, and Free Chlorine are based on the running annual average (RAA) shown in the "Amount Detected" column.

TURBIDITY (COMBINED FILTER EFFLUENT TURBIDITY VALUES)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Turbidity (NTU)	2018	Every 4 hours	TT = 1 NTU and 95% <0.3 NTU	N/A	0.18 and 100% < 0.3% NTU	0.01 - 0.18	N	Soil runoff

Note: Compliance with the MCL for turbidity is based on the combined filter effluent turbidity values, not the finished water turbidity values.

RADIOLOGICALS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Gross Alpha (pCi/L)	2017	Once every 9 years	15	0	< 3	N	Erosion of natural deposits
Gross Beta (pCi/L)			50		4.2		Decay of natural and man-made deposits
Radium 226 (pCi/L)			3		<1		Erosion of natural deposits
Radium 228 (pCi/L)			2		<1		Erosion of natural deposits
Uranium (pCi/L)			20.1		< 0.67		Erosion of natural deposits

MICROBIOLOGICALS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Total Coliform Bacteria (presence or absence)	2018	125 samples a month	TT = If greater than 5% of monthly samples are positive in one month, an assessment is required.	N/A	0	N/A	Naturally present in the environment
Fecal Coliform or E. coli (presence or absence)	2018	125 samples a month	0 (Note: Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.)	0	0	N	Human and animal fecal waste
Cryptosporidium (oocysts/L)	2008	Once	TT = 99 % removal	0	ND	N	Human and animal fecal waste
Giardia lamblia (cysts/L)	2008	Once	TT = 99 % removal/inactivation	0	ND	N	Human and animal fecal waste

TRIHALOMETHANES (THMS)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Chloroform (ppb)	2018	8 samples quarterly	10.1	3.3 - 18.0	N	By-product of drinking water chlorination
Bromodichloromethane (ppb)			14.6	7.5 - 23		
Bromoform (ppb)			4.0	1.1 - 5.9		
Chlorodibromomethane (ppb)			14.7	6.6 - 22.0		

Note: Not individually regulated.

HALOACETIC ACIDS (HAAS)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Trichloroacetic Acid (ppb)	2018	8 samples quarterly	2.6	1.2 - 6.5	N	By-product of drinking water chlorination
Dichloroacetic Acid (ppb)			6.1	1.5 - 10		
Monochloroacetic Acid (ppb)			<2.0	No range		
Monobromoacetic Acid (ppb)			2.0	1.0 - 3.6		
Dibromoacetic Acid (ppb)			3.1	1.2 - 6.2		

Note: Not individually regulated.

REGULATED INORGANICS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Antimony (ppb)	2018	1 sample annually	6	6	< 3	No range	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)			10	0	< 5			Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)			2	2	< 0.4			Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)			4	4	< 2			Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)			5	5	< 1			Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)			100	100	< 20			Discharge from steel and pulp mills; erosion of natural deposits
Cyanide, Total (ppb)			200	200	< 50			Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)			4	4	0.81			Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic) (ppb)			2	2	< 0.4			Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Selenium (ppb)			50	50	< 10			Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)			2	0.5	< 1			Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

ERIN LEE (Senior Laboratory Analyst) has been employed by the Town of Cary at the Cary/Apex Water Treatment Facility Laboratory since October 2005.

WATER QUALITY CHARACTERISTICS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (SMCL)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N
Alkalinity, Total, as CaCO3 (ppm)	2018	Daily	N/A	37	21 - 47	N
Aluminum (ppm)		Weekly	0.20	0.016	0.001 - 0.134	
Ammonia, Free (ppm)		Daily	N/A	0.11	0 - 0.26	
Ammonia, Total (ppm)		Daily	N/A	0.88	0.09 - 1.10	
Calcium (ppm)		Daily	N/A	8.63	5.46 - 10.59	
Carbon Dioxide (ppm)		Daily	N/A	1.29	0.56 - 3.27	
Chloride (ppm)		Weekly	250	24.7	11.4 - 49.0	
Color (CU)		Daily	15	0	0 - 2	
Conductivity (uS/cm)		Daily	N/A	257	105 - 306	
Hardness, Total, as CaCO3 (ppm)		Daily	Classified as "moderately soft"	31	20 - 40	
Hardness, Total, as CaCO3 (grains per gallon)		Daily	Classified as "moderately soft"	1.8	1.1 - 2.3	
Iron (ppm)		Daily	0.3	0	0 - 0.07	
Magnesium (ppm)		Daily	N/A	2.88	2.03 - 3.48	
Manganese (ppm)		Daily	0.05	0.02	0 - 0.04	
Nickel (ppm)		Annually	N/A	<0.1	No range	
Ortho-Phosphate as PO4 (ppm)		Weekly	N/A	0.66	0.51 - 0.73	
pH (SU)		Daily	6.5 to 8.5	7.69	7.13 - 8.24	
Silica (ppm)		Once	N/A	3.44	<1.00 - 7.16	
Sodium (ppm)		Annually	N/A	35	No range	
Sulfate (ppm)		Annually	250	40	No range	
Total Phosphorous as P (ppm)		Weekly	N/A	0.27	0.21 - 0.30	
Total Dissolved Solids (ppm)	2013	Weekly	500	119	103 - 140	
Zinc (ppm)	2007	Once	5	<0.005	No range	

SYNTHETIC ORGANIC CHEMICALS (SOCS) INCLUDING PESTICIDES AND HERBICIDES (NOTE: All results are below detection limit)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
2,4-D (ppb)	2018	2 samples annually	70	70	< 0.1	No range	N	Runoff from herbicide used on row crops
2,4,5-TP (Silvex) (ppb)			50	50	< 0.2			Residue of banned herbicide
Alachlor (ppb)			2	0	< 0.2			Runoff from herbicide used on row crops
Atrazine (ppb)			3	3	< 0.1			Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH) (ppt)			200	0	< 20			Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)			40	40	< 0.9			Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)			2	0	< 0.2			Residue of banned termiticide
Dalapon (ppb)			200	200	<1			Runoff from herbicide used on rights of way
Bis(2-ethylhexyl)adipate(ppb)			400	400	< 0.6			Discharge from chemical factories
Bis(2-ethylhexyl)phthalate (ppb)			6	0	< 1.32			Discharge from rubber and chemical factories
1,2-Dibromo-3-chloropropane (DBCP) (ppt)			200	0	< 20			Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)			7	7	< 0.2			Runoff from herbicide used on soybeans and vegetables
Endrin (ppb)			2	2	< 0.01			Residue of banned insecticide
Ethylene dibromide (EDB) (ppt); also known as 1,2-Dibromoethane			50	0	< 10			Discharge from petroleum refineries
Heptachlor (ppt)			400	0	< 40			Residue of banned pesticide
Heptachlor epoxide (ppt)			200	0	< 20			Breakdown of heptachlor
Hexachlorobenzene (ppb)			1	0	< 0.1			Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)			50	50	< 0.1			Discharge from chemical factories
Lindane (ppt); also known as gamma-BHC			200	200	< 20			Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)			40	40	< 0.1			Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl(vydate) (ppb)			200	200	< 2			Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Polychlorinated biphenyls (PCBs) (ppt)			500	0	< 100			Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)			1	0	< 0.04			Discharge from wood preserving factories
Picloram (ppb)			500	500	< 0.1			Herbicide runoff
Simazine (ppb)			4	4	< 0.07			Herbicide runoff
Toxaphene (ppb)			3	0	<1			Runoff/leaching from insecticide used on cotton and cattle

UNREGULATED SOCS INCLUDING PESTICIDES AND HERBICIDES (NOTE: All results are below detection limit)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N
Aldicarb (ppb)	2018	2 samples annually	< 0.5	No range	N
Aldicarb Sulfone (ppb)	2018		< 0.8		
Aldicarb Sulfoxide (ppb)	2018		< 0.5		
Aldrin (ppb)	2015		< 0.2		
Butachlor (ppb)	2018		< 8		
Carbaryl (ppb)	2018		< 4		
Dicamba (ppb)	2018		< 1		
Dieldrin (ppb)	2015		< 0.2		
3-Hydroxycarbofuran (ppb)	2018		< 4		
Methomyl (ppb)	2018		< 4		
Metolachlor (ppb)	2018		< 0.8		
Metribuzin (ppb)	2018		< 0.8		
Propachlor (ppb)	2018		< 6		

DAVID BROOKS (Water System Quality Compliance Technician) has been employed by the Town of Cary since October 2006.

PATRICK BRUEN (Water System Quality Compliance Technician) has been employed by the Town of Cary since November 2002.

VOLATILE ORGANIC CHEMICALS (VOCS) (NOTE: All results are below detection limit)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	HIGHEST LEVEL ALLOWED (MCL)	HIGHEST LEVEL GOAL (MCLG)	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	TYPICAL SOURCE
Benzene (ppb)	2018	Annually	5	0	< 0.5	No range	N	Runoff from herbicide used on row crops
Carbon tetrachloride (ppb)			5	0	< 0.5			Residue of banned herbicide
Chlorobenzene (ppb)			100	100	< 0.5			Runoff from herbicide used on row crops
1,2 - Dichlorobenzene (ppb)			600	600	< 0.5			Runoff from herbicide used on row crops
1,4 - Dichlorobenzene (ppb)			75	75	< 0.5			Leaching from linings of water storage tanks and distribution lines
1,2 – Dichloroethane (ppb)			5	0	< 0.5			Leaching of soil fumigant used on rice and alfalfa
1,1 – Dichloroethene (ppb)			7	7	< 0.5			Residue of banned termiticide
cis - 1,2 - Dichloroethene (ppb)			70	70	< 0.5			Runoff from herbicide used on rights of way
trans -1,2 - Dichloroethene (ppb)			100	100	< 0.5			Discharge from chemical factories
1,2 - Dichloropropane (ppb)			5	0	< 0.5			Discharge from rubber and chemical factories
Ethylbenzene (ppb)			700	700	< 0.5			Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Methylene chloride (ppb): also know as Dichloromethane			5	0	< 0.5			Runoff from herbicide used on soybeans and vegetables
Styrene (ppb)			100	100	< 0.5			Residue of banned insecticide
Tetrachloroethene (ppb)			5	0	< 0.5			Discharge from petroleum refineries
1,2,4 -Trichlorobenzene (ppb)			70	70	< 0.5			Residue of banned pesticide
1,1,1 – Trichloroethane (ppb)			200	200	< 0.5			Breakdown of heptachlor
1,1,2 -Trichloroethane (ppb)			5	3	< 0.5			Discharge from metal refineries and agricultural chemical factories
Trichloroethene (ppb)			5	0	< 0.5			Discharge from chemical factories
Toluene (ppm)			1	1	< 0.0005			Runoff/leaching from insecticide used on cattle, lumber, gardens
Vinyl chloride (ppb)			2	0	< 0.5			Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Xylenes, Total (ppm)			10	10	< 0.0005			Runoff/leaching from insecticide used on apples, potatoes and tomatoes

UNREGULATED VOCS (NOTE: All results are below detection limit)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N
Bromobenzene (ppb)	2018	Annually	< 0.5	No range	N
Bromochloromethane (ppb)			< 0.5		
Bromomethane (ppb)			< 0.5		
n-Butylbenzene (ppb)			< 0.5		
Sec-Butylbenzene (ppb)			< 0.5		
Tert-Butylbenzene (ppb)			< 0.5		
Chloroethane (ppb)			< 0.5		
Chloromethane (ppb)			< 0.5		
2 - Chlorotoluene (ppb)			< 0.5		
4 - Chlorotoluene (ppb)			< 0.5		
Dibromomethane (ppb)			< 0.5		
1,3 - Dichlorobenzene (ppb); also know as meta-Dichlorobenzene			< 0.5		
Dichlorodifluoromethane (ppb)			< 0.5		
1,1 - Dichloroethane (ppb)			< 0.5		
1,3 - Dichloropropane (ppb)			< 0.5		
2,2 - Dichloropropane (ppb)			< 0.5		
1,1 - Dichloropropene (ppb)			< 0.5		
1,3 - Dichloropropene (ppb)			< 0.5		
Hexachlorobutadiene (ppb)			< 0.5		
Isopropylbenzene (ppb)			< 0.5		
4 - Isopropyltoluene (ppb)			< 0.5		
MTBE (ppb)			< 0.5		
Naphthalene (ppb)			< 0.5		
n-Propylbenzene (ppb)			< 0.5		
1,1,1,2 - Tetrachloroethane (ppb)			< 0.5		
1,1,2,2 - Tetrachloroethane (ppb)			< 0.5		
1,2,3 - Trichlorobenzene (ppb)			< 0.5		
1,2,3 - Trichloropropane (ppb)			< 0.5		
Trichlorofluoromethane (ppb); also know as Fluorotrichloromethane			< 0.5		
1,2,4 - Trimethylbenzene (ppb)			< 0.5		
1,3,5 - Trimethylbenzene (ppb)			< 0.5		

UNREGULATED UCMR1 CONTAMINANTS (NOTE: All results are below detection limit)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N
Perchlorate (ppb)	2002	Quarterly	<4	No range	N
DCPA Acid Metabolites (ppb)			<1		
MTBE (ppb)			<5		
Nitrobenzene (ppb)			<10		
Acetochlor (ppb)			<2		
2,4 - Dinitrotoluene (ppb)			<2		
2,6 - Dinitrotoluene (ppb)			<2		
4,4 - DDE (ppb)			<0.8		
EPTC (ppb)			<1		
Molinate (ppb)			<0.9		
Terbacil (ppb)			<2		

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

	YEAR SAMPLED	TEST FREQUENCY	AVERAGE AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	SOURCE
10:2 Fluorotelomer sulfonic acid (10:2 FTS) (ng/L)	2018	22 times	0	No Range	N	Man-made chemicals used for waterproof and stain proof fabrics, nonstick cookware, some food packaging materials, and fire suppression foams.
4:2 Fluorotelomer sulfonic acid (4:2 FTS) (ng/L)			0	No Range		
6:2 Fluorotelomer sulfonic acid (6:2 FTS) (ng/L)			1	0-10		
8:2 Fluorotelomer sulfonic acid (8:2 FTS) (ng/L)			0	No Range		
ADONA (ng/L)			0	No Range		
F-53B Major (ng/L)			0	No Range		
F-53B Minor (ng/L)			0	No Range		
GenX (ng/L)			0	No Range		
N-ethylperfluorooctane sulfonamide (NEtFOSA) (ng/L)			0	No Range		
N-ethylperfluorooctane sulfonamidoethanol (ng/L)			0	No Range		
N-methylperfluorooctane sulfonamide (NMeFOSA) (ng/L)			0	No Range		
N-methylperfluorooctane sulfonamidoethanol (ng/L)			0	No Range		
Perfluorobutanesulfonic acid (PFBS) (ng/L)			1.2	0-2.8		
Perfluorobutanoic acid (PFBA) (ng/L)			16	8.4-23		
Perfluorodecanoic acid (PFDA) (ng/L)			0	No Range		
Perfluoroheptanoic acid (PFHpA) (ng/L)			9.2	3.2-17		
Perfluorohexanesulfonic acid (PFHxS) (ng/L)			0	No Range		
Perfluorohexanoic acid (PFHxA) (ng/L)			21.1	6.4-38		
Perfluorolauric acid (PFDoA) (ng/L)			0	No Range		
Perfluorononanoic acid (PFNA) (ng/L)			0	No Range		
Perfluorooctane sulfonate (PFOS) (ng/L)			0	No Range		

	YEAR SAMPLED	TEST FREQUENCY	AVERAGE AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N	SOURCE
N-ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSSAA) (ng/L)	2018	22 times	0	No Range	N	Man-made chemicals used for waterproof and stain proof fabrics, nonstick cookware, some food packaging materials, and fire suppression foams.
N-methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA) (ng/L)			0	No Range		
Perfluorooctanoic acid (PFOA) (ng/L)			3.1	0-6.3		
Perfluorotridecanoic acid (PFTrDA) (ng/L)			0	No Range		
Perfluoroundecanoic acid (PFUnA) (ng/L)			0	No Range		
Perfluorododecanesulfonic acid (PFDoS) (ng/L)			0	No Range		
Perfluorodecanesulfonic acid (PFDS) (ng/L)			0	No Range		
Perfluoroheptanesulfonic acid (PFHpS) (ng/L)			0	No Range		
Perfluorohexadecanoic acid (PFHxDA) (ng/L)			0	No Range		
Perfluoro-2-(2-methyl)ethoxyacetic acid (ng/L)			0	No Range		
Perfluoro-4-(1-methyl)ethoxybutanoic acid (ng/L)			0	No Range		
Perfluoro-4-methoxybutanoic acid (PFMOBA) (ng/L)			0	No Range		
Perfluoro-3-methoxypropanoic acid (PFMOPrA) (ng/L)			0	No Range		
Perfluorononanesulfonic acid (PFNS) (ng/L)			0	No Range		
Perfluorooctane sulfonamide (PFOSA) (ng/L)			0	No Range		
Perfluoropentanoic acid (PFPeA) (ng/L)			24	8.3 - 41		
Perfluoropentanesulfonic acid (PFPeS) (ng/L)			0	No Range		
Perfluorotetradecanoic acid (PFTeDA) (ng/L)			0	No Range		
Total PFOA + PFOS (ng/L)			3.1	0 - 6.3		

UNREGULATED UCMR2 CONTAMINANTS

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N
Dimethoate (ppb)	2010	Quarterly	< 0.7	No range	N
Terbufos sulfone (ppb)			< 0.4		
2,2',4,4' - tetrabromodiphenyl ether (BDE-47) (ppb)			< 0.3		
2,2',4,4',5 - pentabromodiphenyl ether (BDE-99) (ppb)			< 0.9		
2,2',4,4',5,5' - hexabromobiphenyl (245-HBB) (ppb)			< 0.7		
2,2',4,4',5,5' - hexabromodiphenyl ether (BDE-153) (ppb)			< 0.8		
2,2',4,4',6 - pentabromodiphenyl ether (BDE-100) (ppb)			< 0.5		
1,3 - dinitrobenzene (ppb)			< 0.8		
2,4,6 - trinitrotoluene (TNT) (ppb)			< 0.8		
Hexahydro - 1,3,5 - trinitro -1,3,5 - triazine (RDX) (ppb)			<1.0		
Acetochlor (ppb)			< 2.0		
Alachlor (ppb)			< 2.0		
Metolachlor (ppb)			<1.0		
Acetochlor ethane sulfonic acid (ESA) (ppb)			<1.0		
Acetochlor oxanilic acid (OA) (ppb)			< 2.0		

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED	VIOLATION Y/N
Alachlor ESA (ppb)	2010	Quarterly	<1.0	No range	N
Alachlor OA (ppb)			<2.0		
Metolachlor ESA (ppb)			<1.0		
Metolachlor OA (ppb)			<2.0		
N-nitrosodiethylamine (NDEA) (ppb)			<0.005		
N-nitrosodimethylamine (NDMA) (ppt)			4.4	2.3 - 6.5	
N-nitrosodi-n-butylamine (NDBA) (ppb)			<0.004	No range	
N-nitrosodi-n-propylamine (NDPA) (ppb)			<0.007		
N-nitrosomethylethylamine (NMEA) (ppb)			<0.003		
N-nitrosopyrrolidine (NPYR) (ppb)			<0.002		

UNREGULATED UCMR3 CONTAMINANTS

(Note: Unregulated contaminants are those of which EPA has not established drinking water standards but for which monitoring is required. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.)

CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED
Chromium (ppb)				
Distribution	2015	Quarterly	<0.2	No range
Finished Entry Point		Quarterly	<0.2	No range
Cobalt (ppb)				
Distribution	2015	Quarterly	<1.0	No range
Finished Entry Point		Quarterly	<1.0	No range
Molybdemum (ppb)				
Distribution	2015	Quarterly	<1.0	No range
Finished Entry Point		Quarterly	<1.0	No range
Strontium (ppb)				
Distribution	2015	Quarterly	64	57 - 68
Finished Entry Point		Quarterly	59	55 - 66
Vanadium (ppb)				
Distribution	2015	Quarterly	0.30	No range
Finished Entry Point		Quarterly	0.20	No range
Hexavalent Chromium (ppb)				
Distribution	2015	Quarterly	0.05	0.04 - 0.05
Finished Entry Point		Quarterly	0.03	No range
Chlorate (ppb)				
Distribution	2015	Quarterly	105	89 - 120
Finished Entry Point		Quarterly	113	92 - 130
1-4-Dioxane (ppb)				
Finished Entry Point	2015	Quarterly	0.42	0.16 - 0.77

UNREGULATED UCMR3 CONTAMINANTS (continued)

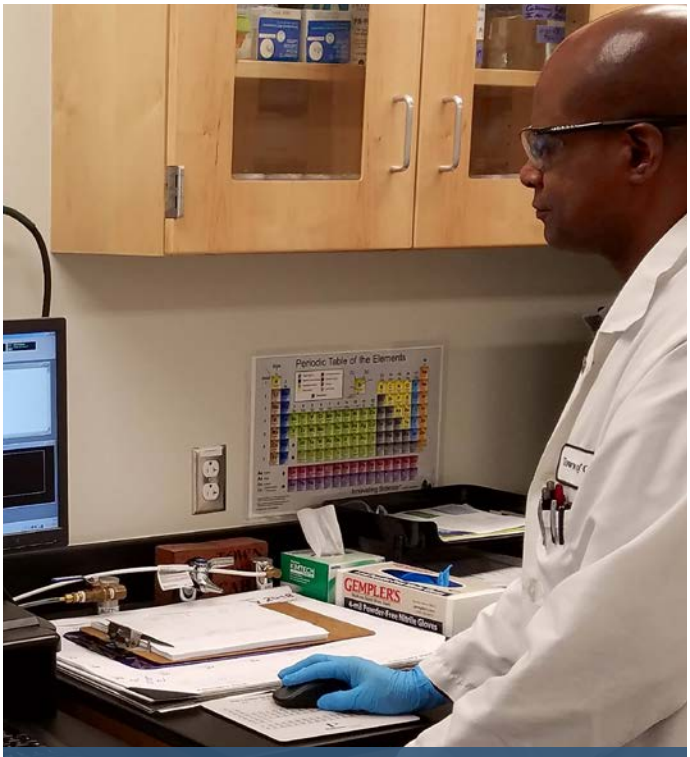
CONTAMINANT (UNITS)	YEAR SAMPLED	TEST FREQUENCY	AMOUNT DETECTED	RANGE DETECTED
Bromochlormethane (ppb)				
Finished Entry Point	2015	Quarterly	<0.06	No range
Bromomethane (ppb)				
Finished Entry Point	2015	Quarterly	<0.2	No range
1,3-Butadiene (ppb)				
Finished Entry Point	2015	Quarterly	<0.1	No range
Chlorodifluoromethane (ppb)				
Finished Entry Point	2015	Quarterly	<0.08	No range
Chloromethane (ppb)				
Finished Entry Point	2015	Quarterly	<0.2	No range
1,1-Dichloroethane (ppb)				
Finished Entry Point	2015	Quarterly	<0.03	No range
1,2,3-Trichloropropane (ppb)				
Finished Entry Point	2015	Quarterly	<0.03	No range
Perfluorobutanesulfonic acid (PFBS) (ppb)				
Finished Entry Point	2015	Quarterly	<0.09	No range
Perfluoroheptanoic acid (PFHpA) (ppb)				
Finished Entry Point	2015	Quarterly	<0.01	<0.01 - 0.01
Perfluorohexanesulfonic acid (PFHxS) (ppb)				
Finished Entry Point	2015	Quarterly	<0.03	No range
Perfluorononanoic acid (PFNA) (ppb)				
Finished Entry Point	2015	Quarterly	<0.02	No range
Perfluorooctane sulfonate (PFOS) (ppb)				
Finished Entry Point	2015	Quarterly	<0.04	No range
Perfluorooctanoic acid (PFOA) (ppb)				
Finished Entry Point	2015	Quarterly	<0.02	No range
4-Androstene-3,17-dione (ppb)				
Finished Entry Point	2015	Quarterly	<0.0003	No range
Equilin (ppb)				
Finished Entry Point	2015	Quarterly	<0.004	No range
17beta-Estradiol (ppb)				
Finished Entry Point	2015	Quarterly	<0.0004	No range
Estriol (ppb)				
Finished Entry Point	2015	Quarterly	<0.0008	No range
Estrone (ppb)				
Finished Entry Point	2015	Quarterly	<0.002	No range

17alpha-Ethynyl estradiol (ppb)				
Finished Entry Point	2015	Quarterly	<0.0009	No range
Testosterone (ppb)				
Finished Entry Point	2015	Quarterly	<0.0001	No range

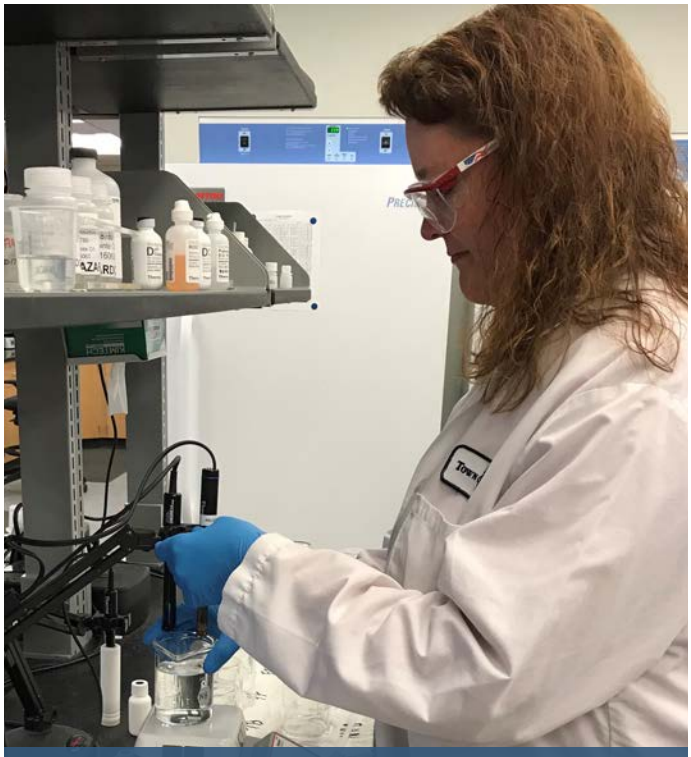
TREATMENT PROCESS INFORMATION

The treatment process information contained in the following table does not represent what is in the Finished Drinking Water. The dosages listed for each chemical represent a range of concentrations for that chemical that was used at the Water Plant during 2018 for the water treatment process.

CHEMICAL (UNITS)	YEAR SAMPLED	AVERAGE DOSAGE	DOSAGE RANGE DETECTED	PURPOSE OF TREATMENT
Ozone (ppm)	2018	4.56	0 - 6.2	Oxidant
Aluminum Sulfate (ppm)	2018	56	44 - 78	Coagulant
Polymer (ppm)	2018	0..24	0.12 - 0.33	Coagulant and Filtration aid
Sodium Hydroxide (ppm)	2018	18.7	10 - 44	pH control
Carbon (ppm)	2018	42	10 - 83	Taste and odor control and organics removal
Orthophosphate (ppm)	2018	2.8	1.8 - 3.1	Corrosion control
Hydrofluorosilicic Acid (ppm)	2018	0.78	0 - 0.88	Fluoride additive (fluoride off much of year because of construction)
Chlorine (ppm)	2018	3.75	1.57 - 5.05	Disinfectant
Ammonia (ppm)	2018	1.03	0.82 - 1.22	Disinfectant when used in conjunction with chlorine to form chloramines



THADDEUS WHITEHURST (Senior Laboratory Analyst) has been employed by the Town of Cary at the Cary/Apex Water Treatment Facility Laboratory since July 1993.



RACHEL MONSCHEIN (Water System Laboratory Supervisor) has been employed by the Town of Cary at the Cary/Apex Water Treatment Facility Laboratory since January 2014.

QUESTIONS? If you have questions or concerns relating to your drinking water or water service, please contact a citizen advocate at (919) 469-4090 or see our website: services.townofcary.org. For more information about this report, please contact Rachel Monschein, Water System Laboratory Supervisor, at the Cary/Apex Water Treatment Facility at (919) 362-5507 or rachel.monschein@townofcary.org.

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