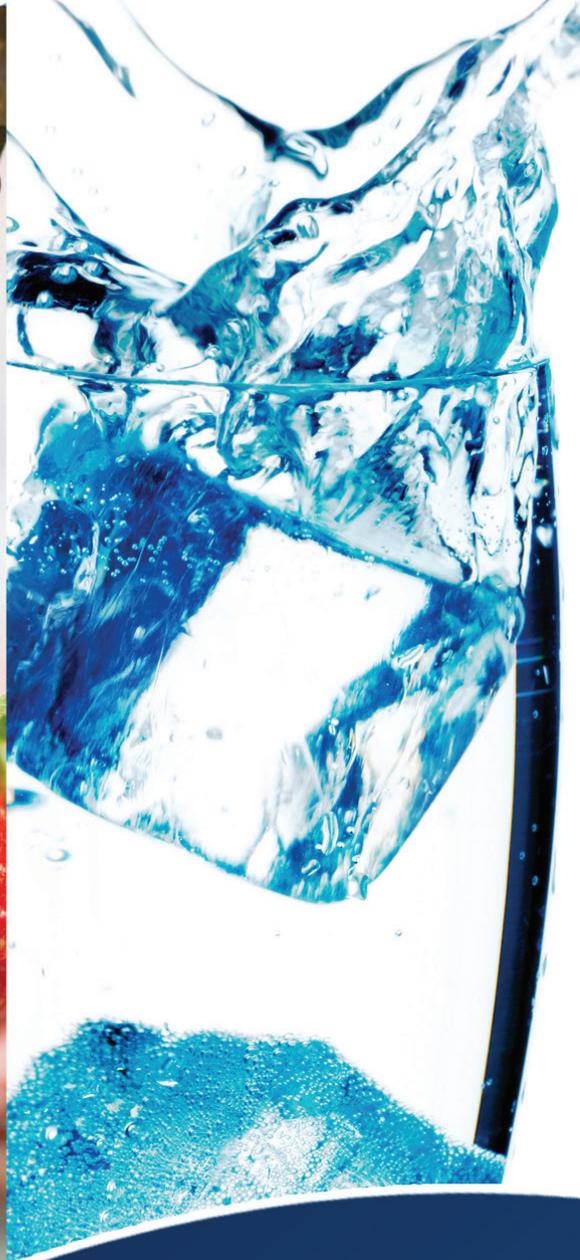


ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED
IN 2014



Presented By

TOWN of CARY

Maintaining High Standards for Our Customers

The Town of Cary is once again proud to present our annual drinking water quality report. This report covers all water quality testing performed from January 1 to December 31, 2014. The Town remains committed to providing drinking water that meets all state and federal regulatory standards. We remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while serving the needs of our customers.

At the Town of Cary, we focus every day on enriching the lives of our citizens by creating an exceptional environment and providing exemplary services that enable our community to thrive and prosper. We strive to provide our customers with the highest quality drinking water possible and are pleased to present our annual report for your review.

Partnership for Safe Water

We're proud to report that in 2014 the Cary/Apex Water Treatment Facility was awarded the Partnership for Safe Water's Ten Year Directors Award for its efforts to achieve excellence in water quality for more than 10 consecutive years. The Partnership for Safe Water is a national volunteer initiative developed by EPA and other U.S. drinking water organizations representing water suppliers striving to provide their communities with drinking water quality that surpasses federal standards. The Directors Award is presented to water systems who have completed a successful review in the Partnership's Self-Assessment and Peer Review phase, a phase in which utilities examine the capabilities of their treatment plant operation and their overall water utility administration and then create a plan for implementing improvements.

The Town is also a charter member of the Partnership for Safe Water's Distribution System Optimization Program. The goal of this program initiated in 2011 is to further improve and ensure the highest quality drinking water for Cary customers by taking steps to optimize our water distribution system operations and management.

For more information on the Partnership for Safe Water, please visit the American Water Works Association Web site at www.awwa.org.



Where Does Our Water Come From?

The Town of Cary's drinking water source is the B. Everett Jordan Reservoir, more commonly known as Jordan Lake, which lies approximately 10 miles west of Cary in eastern Chatham County. The lake is a surface water supply developed and managed by the U.S. Army Corps of Engineers and is part of the Cape Fear River basin.

Additionally, the Town maintains water system interconnections with the City of Raleigh and City of Durham, which can be used in event of emergency to insure adequate water supply for Town customers.

Important Health Information

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 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 or <http://water.epa.gov/drink/hotline>.

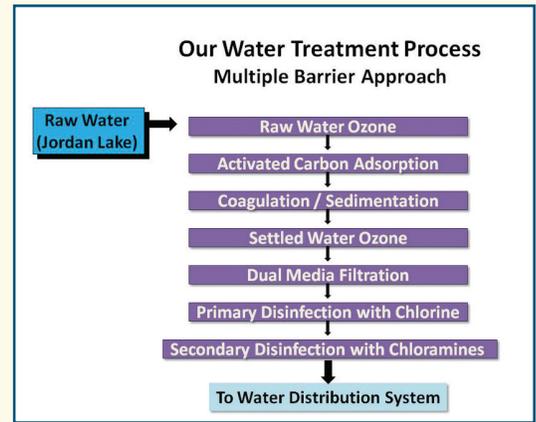
Cary/Apex Water Treatment Facility

Your drinking water is produced at the Cary/Apex Water Treatment Facility, a plant co-owned by the towns of Cary and Apex and located on Wimberly Road in western Wake County. The facility has a current capacity of 40 million gallons per day (MGD) and utilizes a multiple barrier treatment approach. In this approach, multiple processes are employed within the treatment plant including ozone, an advanced treatment process, as well sediment removal, filtration, and disinfection processes. The result is the production of safe, high-quality drinking water for Town customers that consistently meets all regulatory standards.

Treated water is temporarily stored on-site at the facility and then pumped to water storage tanks located throughout town. The Town operates six elevated storage tanks and one ground level storage tank. Water system storage provides reliable and continuous water supply during peak demand periods while also providing for emergency storage, consistent water system pressure, and fire protection.

Facility Expansion

In an effort to provide for adequate water supply and meet the needs of Town water customers in the future, a project is currently underway to expand the Cary/Apex Water Treatment Facility to a capacity of 56 MGD. This expansion project will provide additional treatment units for sediment removal, filtration, and ozonation, as well as upgrade the facility's chemical feed systems and water pumping capacity. The project is currently underway and construction is expected to be completed by end of the year 2016.



Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information, and a relative susceptibility rating of Higher, Moderate, or Lower.

The relative susceptibility rating of the water source for the Town of Cary was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area).

Susceptibility of Water Sources to Potential Contaminant Sources (PCSs)		
Source Name	Susceptibility Rating	SWAP Report Date
Jordan Lake	Higher	June 2014

The complete SWAP Assessment Report for the Town of Cary (PWSID# 03-92-020) may be viewed on the Web at: <http://www.ncwater.org/pws/swap>. Please note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this website may differ from the results that were available at the time this CCR was prepared. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or by email request to swap@ncdenr.gov. Please indicate your system name, PWSID, and provide your name, mailing address and phone number. If you have any questions about the SWAP report, please contact the Source Water Assessment Program staff by phone at (919) 707-9098.

It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the systems’ potential to become contaminated by PCSs in the assessment area.



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, which 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.

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 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.

Community Participation

The Town of Cary is committed to being open, transparent, and accessible and encourages public input in decisions affecting our community's drinking water. Regular meetings of the Cary Town Council are typically held on the second and fourth Thursdays of each month at 6:30 p.m. in the Council Chambers at Town Hall located at 316 N. Academy Street in Cary. The public is welcome. More information about Council meetings can be found on the Town's Web site at www.townofcary.org.

QUESTIONS?

If you have questions or concerns relating to your drinking water or water service, please contact Public Works and Utilities Customer Service staff at (919) 469-4090. For more information about this report, please contact Rachel Monschein, Chemist/Laboratory Supervisor, at the Cary/Apex Water Treatment Facility at (919) 362-5507 or rachel.monschein@townofcary.org.

Notice to the Public

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the compliance period specified in the table below, we did not complete all monitoring for the contaminants listed and therefore cannot be sure of the quality of your drinking water during that time. All water samples that were taken and tested during this time including those from the incorrect locations met or surpassed water quality standards.

Violation Awareness Date: February 20, 2015

Contaminant Testing Parameter or Group**	Facility ID #/ Sample Point ID	Compliance Period	Number of Samples/ Sampling Frequency	When Samples Were or Will Be Taken	Number of Tested Samples not Meeting Water Quality Standards
Total coliform and disinfectant residual	D01	September, October, November, and December 2014	480 samples required (120 per month)	The required number of samples were collected during this 4 month period however 249 were deemed invalid due to incorrect sampling locations	None

**Contaminant Testing Parameter Information

Total Coliform Bacteria – includes testing for Total Coliform bacteria and Fecal/E.coli bacteria. Testing for Fecal/E.coli bacteria is required if total coliform is present in the sample.

Disinfectant Residual – includes testing for chlorine and/or chloramine levels and must be tested with the collection of each compliance bacteriological sample, at the same time and site.

What should you do? This notice is for informational purposes only. There is nothing you need to do at this time.

What is being done? The Town of Cary has completed a comprehensive review of all factors contributing to collection of water samples during the four month period noted. The Town has implemented appropriate measures to ensure that all staff conduct monitoring and sampling at the proper locations with routine quality control checks conducted each week. The Town also maintains extensive multiple barrier treatment systems and high level distribution system management practices that provide high quality and safe water throughout the water system. All water samples collected since December 2014 were in full compliance and met or surpassed all water quality standards.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact, Kelvin Creech, Water System Manager at 919-362-5502 or by mail at Town of Cary, Box 8005, Cary, NC 27512-8005.

Managing Our Water Resources

Our community's strong culture of conservation helps us lead the state in water resources management. By continuously planning for and evaluating our long-range water demands, we work to ensure that we have an ample supply of water and build appropriately sized facilities and infrastructure at the right time. Our community's success at maintaining a healthy environment is a shared responsibility between our Town government and all who live and work here. The technology we provide, such as Aquastar, helps all our customers better understand their water use and find leaks. We offer free services such as water use assessments and irrigation performance check-ups. In addition, we provide information through our Web site and focused campaigns such as our annual Beat the Peak summer campaign and the EPA's Fix-a-Leak Week to support waterwise habits.

Your conscientious use of water has helped reduce our annual average per capita residential water use by over 20%--from approximately 75 gallons per person per day (gpcd) in 1996 to less than 60 gpcd in 2014. Working together, we increase the reliability of our water supply, postpone costly infrastructure expansions, and preserve our natural resources.





TOWN of CARY
YEAR ROUND ALTERNATE DAY WATERING SCHEDULE
 (919) 469-4090 www.townofcary.org

	M	Tu	W	Th	F	Sa	Su
Odd Street Addresses		YES		YES		YES	
Even Street Addresses			YES		YES		YES

Handwatering and drip irrigation allowed any day of the week.

Water Testing Results

During the past year we have taken thousands of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic substances. The table below shows only those substances that were detected in the water.

Unless otherwise noted, the data presented in the table below is from testing performed January 1 through December 31, 2014. The EPA and the State allow 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. In these cases, the most recent sample results are included, along with the year in which the sample was taken. Some of the data, though representative of the water quality, is more than one year old.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Bromate ¹ (ppb)	2014	10	0	2.13	ND–4.0	No	By-product of drinking water disinfection
Chloramines ¹ (ppm)	2014	[4]	[4]	2.8	2.0–3.9	No	Water additive used to control microbes
Chlorine ¹ (ppm)	2014	[4]	[4]	1.6	0.4–2.5	No	Water additive used to control microbes
Fecal coliform and <i>E. coli</i> (# positive samples)	2014	0	0	0	NA	No	Human and animal fecal waste
Fluoride (ppm)	2014	4	4	0.78	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Stage 2 ¹ (ppb)	2014	60	NA	10.8	ND–19	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–Stage 2 ¹ (ppb)	2014	80	NA	34.7	18–50	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2014	5% of monthly samples are positive	0	0	NA	No	Naturally present in the environment
Total Organic Carbon [TOC] ² (removal ratio)	2014	TT	NA	1.53	1.28–1.76	No	Naturally present in the environment
Turbidity ³ (NTU)	2014	TT=1 NTU	NA	0.16	0.03–0.16	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT=95% of samples <0.3 NTU	NA	100	NA	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2012	1.3	1.3	0.191	0/58	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2012	15	0	3.2	1/58	No	Corrosion of household plumbing systems; Erosion of natural deposits
SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Iron (ppb)	2014	300	NA	100	ND–100	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2014	50	NA	30	ND–30	No	Leaching from natural deposits
Sulfate (ppm)	2014	250	NA	34	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2014	16	NA	By-product of drinking water disinfection
Bromoform (ppb)	2014	0.99	NA	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2014	9.4	NA	By-product of drinking water disinfection
Chloroform (ppb)	2014	16	NA	By-product of drinking water disinfection
Sodium (ppm)	2014	33	NA	Naturally occurring

¹ Compliance with the MRDLs for Disinfectants and MCLs for Disinfection By-Products is based on the running annual average (RAA) or locational running annual average (LRAA) shown in the "Amount Detected" column. The RAA or LRAA reported is the highest for the year.

² Based on the average Total Organic Carbon (TOC) and alkalinity levels in our source water, we are required to meet an average percent removal for TOC of 45%, which equates to a removal ratio of 1.0 and is classified by the State as the Step 1 compliance method. If we do not achieve that percent removal there is an "alternative percent removal" requirement. If we also fail to meet that, we are in violation of a Treatment Technique. In 2014, our running annual average percent removal for TOC was 69.0%, or a removal ratio of 1.53. We utilized the Step 1 compliance method and were in compliance with regulatory requirements for TOC removal throughout the year.

³ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

⁴ Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

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.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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.

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like taste and odor.

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