



*Consumer Confidence Reports
For reporting year 2016*

*Iredell Water Corporation
Public Water System ID NC0149025
&
Wayside Estates
Public Water System ID NC0149171*

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Annual Drinking Water Quality Report

We are pleased to present to you this year's Annual Drinking Water Quality Report for both the Iredell Water Corporation water system & Wayside Estates water system. The Iredell Water Corporation water system serves the communities of Union Grove, Harmony, Olin, Turnersburg, Central, Scotts Creek, Fairview, & Cool Springs. The Wayside Estates water system services the Wayside Estates Subdivision, Hwy 70, Bethesda Rd, Corn Flower Rd and Triplett Rd areas. Wayside Estates is owned and operated by Iredell Water Corporation. Both of these reports are snapshots of last year's water quality. Included are details about your source(s) of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information because informed customers are our best allies. **If you have any questions about this report or concerning your water, please contact Keith Snoddy at 704-876-0672. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at 571 Jennings Rd. on the 2nd Tuesday of each month at 6:00pm.**

What EPA Wants You to Know

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 that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. Iredell Water Corporation is 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 <http://www.epa.gov/safewater/lead>.

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants 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, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water 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 storm water runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health

Iredell Water Corporation
Annual Drinking Water Quality Report
Reporting Year 2016
 Water System Number: 01-49-025

When You Turn on Your Tap, Consider the Source

The water that is used by this system is Ground Water and our 33 wells are located throughout our water system. We also have two interconnections for purchase water with the City of Statesville and Energy United Water Corporation.

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 each source for Iredell Water Corporation 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). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Wells: 05,11,25,27,29,35,36,38	Lower	July 2015
Wells: 01,04,06,12,13,14,15,16,18,19,20,21,22,23,26,28,30,31,32,33,37	Moderate	July 2015
Wells #2,10,34	Higher	July 2015

NEW: (Updated phone, email/ web link.) The complete SWAP Assessment report for Iredell Water Corporation may be viewed on the Web at: <http://swap.ncwater.org/website/swap/> . Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment 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 system’s potential to become contaminated by PCSs in the assessment area.

Help Protect Your Source Water

Protection of drinking water is everyone’s responsibility. We have implemented the following source water protection actions: **Iredell Water Local Wellhead Protection Plan**. This Wellhead Protection Plan was submitted and approved by NCDEQ in 2016. You can help protect your community’s drinking water source(s) in several ways: (examples: dispose of chemicals properly; take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source, etc.).

Violations that Your Water System Received for the Report Year

During 2016 Iredell Water Corporation received no monitoring violations.

Water Quality Data Tables of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2016.** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants 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.

Unregulated contaminants are those for which EPA has not established drinking water standards. 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.

Important Drinking Water Definitions:

Not-Applicable (N/A) – Information not applicable/not required for that particular water system or for that particular rule.

Non-Detects (N/D) - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

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.

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.

Tables of Detected Contaminants

Microbiological Contaminants in the Distribution System - For systems that collect *less than 40* samples per month)

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	0	0	one positive monthly sample	Naturally present in the environment

Inorganic Contaminants

Contaminant (units)	Sample Dates	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	03/03/14-10/04/16	No	0.103	N/D	.49	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Nitrate/Nitrite Contaminants

Contaminant (units)	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
			Low	High			
Nitrate (as Nitrogen) (ppm)	No	0.533	N/D	5.95	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Volatile Organic Chemical (VOC) Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Toluene (ppb)	6/21/16	No	.00004	N/D	0.0014	1	1	Discharge from petroleum factories

Unregulated Inorganic Contaminants

Contaminant (units)	Sample Date	Your Water	Range		Secondary MCL
			Low	High	
Sulfate (ppm)	03/03/14-10/04/16	5.075	N/D	22.0	250

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	7/2014-8/2014	0.41	1	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	7/2014-8/2014	<.005	0	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Radioactive Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	8/2016	N	.609	0	15	Erosion of natural deposits
Beta/photon emitters (pCi/L)	4/2012	N	0	0	50 *	Decay of natural and man-made deposits
Combined radium (pCi/L)	3/2016	N	0.248	0	5	Erosion of natural deposits
Uranium (pCi/L)	2/2016	N	0.139	0	20.1	Erosion of natural deposits

* Note: The MCL for beta/photon emitters is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Disinfectant Residuals Summary

	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
				Low	High			
Chlorine (ppm)	2016	N	1.16	0.63	1.56	4	4.0	Water additive used to control microbes

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)						N/A	80	Byproduct of drinking water disinfection
B01	2016	N	68	21	85			
B02	2016	N	1	0	3			
B03	2016	N	1	0	3			
B04	2016	N	1	0	3			
HAA5 (ppb)						N/A	60	Byproduct of drinking water disinfection
B01	2016	N	39	16	52			
B02	2016	N	0	0	0			
B03	2016	N	0	0	0			
B04	2016	N	0	0	0			

Unregulated Contaminant Monitoring:

Unregulated contaminants are those for which EPA has not established drinking water standards. 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.

Name	Date	MRL	Range	
			Low	High
Chlorate (ppb)	April 2015 & October 2015	20	86	750
Chromium (ppb)	April 2015 & October 2015	0.20	ND	1.8
Hexavalent (ppb)	April 2015 & October 2015	0.03	ND	1.6
Molybdenum (ppb)	April 2015 & October 2015	1.0	ND	2.4
Strontium (ppb)	April 2015 & October 2015	0.30	50	230
Vanadium (ppb)	April 2015 & October 2015	0.2	ND	4.1
1,4 Dioxane (ppb)	April 2015 & October 2015	0.07	ND	0.08
1,1 Dichloroethane (ppb)	April 2015 & October 2015	30	ND	110

Wayside Estates
(Owned & Operated by Iredell Water Corporation)
Annual Drinking Water Quality Report
Reporting Year 2016
Water System Number: 01-49-171

When You Turn on Your Tap, Consider the Source

The water that is used by this system is Purchased Water from the City of Statesville. The City of Statesville’s sources are Lake Lookout and the South Yadkin River, both which are surface water sources.

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 each source for the City of Statesville 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). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Lake Lookout Shoals/ Catawba River	Moderate	July 2015
South Yadkin River	Moderate	July 2015

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

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Help Protect Your Source Water

Protection of drinking water is everyone’s responsibility. You can help protect your community’s drinking water source(s) in several ways: (examples: dispose of chemicals properly; take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source, etc.).

Violations that Your Water System Received for the Report Year

During 2016 the Wayside Estates Water System received no monitoring violations.

Water Quality Data Tables of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2016.** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants 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.

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Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

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.

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.

Tables of Detected Contaminants

Microbiological Contaminants in the Distribution System - For systems that collect *less than 40* samples per month

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	0	0	1 positive sample / month*	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (presence or absence)	N	0	0	Note: If either an original routine sample and/or its repeat samples(s) are fecal coliform or <i>E. coli</i> positive, a Tier 1 violation exists.	Human and animal fecal waste

* If a system collecting fewer than 40 samples per month has two or more positive samples in one month, the system has a MCL violation.

Turbidity*

Contaminant (units)	Treatment Technique (TT) Violation Y/N	Your Water	MCLG	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) - Highest single turbidity measurement	N	0.252 NTU	N/A	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits	N	100%	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	

* 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.

Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	1/6/16	N	0.62 ppm	Low		4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 th percentile)	July 2014	ND	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 th percentile)	July 2014	ND	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

Total Organic Carbon (TOC)

Contaminant (units)	TT Violation Y/N	Your Water (RAA Removal Ratio)	Range Monthly Removal Ratio Low - High	MCLG	TT	Likely Source of Contamination	Compliance Method (Step 1 or ACC#_)
Total Organic Carbon (removal ratio) (TOC)-TREATED	N	0.5 ppm	0 – 1.9 ppm	N/A	TT	Naturally present in the environment	ACC 2

Disinfectant Residuals Summary

	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range		MRDLG	MRDL	Likely Source of Contamination
				Low	High			
Chlorine (ppm)	2016	N	1.23ppm	0.21	2.09 ppm	4	4.0	Water additive used to control microbes

Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)	2016	N	73	37	100	N/A	80 ppb	Byproduct of drinking water disinfection
HAA5 (ppb)	2016	N	23	20	26	N/A	60 ppb	Byproduct of drinking water disinfection