

“2019” Annual Drinking Water Quality Report

“Town of North Wilkesboro”

Water System Number: “01-97-010”

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot 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 [Town of North Wilkesboro] at [(336) 838-2371].**

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. [Town of North Wilkesboro] 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 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 can also come from gas stations, urban stormwater 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.

When You Turn on Your Tap, Consider the Source

The water that is used by this system is drawn from the Reddies River.

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

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 | .3 NTU | .300 | 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 \leq 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 | | | |
| Antimony (ppb) | 5/8/2019 | N | ND | | | 6 | 6 | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder |
| Arsenic (ppb) | 5/8/2019 | N | ND | | | 0 | 10 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| Barium (ppm) | 5/8/2019 | N | ND | | | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Beryllium (ppb) | 5/8/2019 | N | ND | | | 4 | 4 | Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries |
| Cadmium (ppb) | 5/8/2019 | N | ND | | | 5 | 5 | Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints |
| Chromium (ppb) | 5/8/2019 | N | ND | | | 100 | 100 | Discharge from steel and pulp mills; erosion of natural deposits |
| Cyanide (ppb) | 5/8/2019 | N | ND | | | 200 | 200 | Discharge from steel/metal factories; discharge from plastic and fertilizer factories |
| Fluoride (ppm) | 5/8/2019 | N | .83 MG/L | | | 4 | 4 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Mercury (inorganic) (ppb) | 5/8/2019 | N | ND | | | 2 | 2 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland |
| Selenium (ppb) | 5/8/2019 | N | ND | | | 50 | 50 | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines |
| Thallium (ppb) | 5/8/2019 | N | ND | | | 0.5 | 2 | Leaching from ore-processing sites; discharge from electronics, glass, and drug factories |

Nitrate/Nitrite Contaminants

| Contaminant (units) | Sample Date | MCL Violation Y/N | Your Water | Range | | MCLG | MCL | Likely Source of Contamination |
|-----------------------------|-------------|-------------------|------------|-------|------|------|-----|---|
| | | | | Low | High | | | |
| Nitrate (as Nitrogen) (ppm) | 5/8/2019 | N | ND | N/A | | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Nitrite (as Nitrogen) (ppm) | 5/8/2019 | N | ND | N/A | | 1 | 1 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |

Asbestos Contaminant

| Contaminant (units) | Sample Date | MCL Violation Y/N | Your Water | Range | | MCLG | MCL | Likely Source of Contamination |
|----------------------|-------------|-------------------|------------|-------|------|------|-----|---|
| | | | | Low | High | | | |
| Total Asbestos (MFL) | 11/13/13 | N | ND | | | 7 | 7 | Decay of asbestos cement water mains; erosion of natural deposits |

Synthetic Organic Chemical (SOC) Contaminants Including Pesticides and Herbicides

| Contaminant (units) | Sample Date | MCL Violation Y/N | Your Water | Range | | MCLG | MCL | Likely Source of Contamination |
|--|-------------|-------------------|------------|-------|------|------|-----|---|
| | | | | Low | High | | | |
| 2,4-D (ppb) | 08/23/17 | N | ND | | | 70 | 70 | Runoff from herbicide used on row crops |
| 2,4,5-TP (Silvex) (ppb) | 08/23/17 | N | ND | | | 50 | 50 | Residue of banned herbicide |
| Alachlor (ppb) | | N | | | | 0 | 2 | Runoff from herbicide used on row crops |
| Atrazine (ppb) | 08/23/17 | N | ND | | | 3 | 3 | Runoff from herbicide used on row crops |
| Benzo(a)pyrene (PAH) (ppt) | 08/23/17 | N | ND | | | 0 | 200 | Leaching from linings of water storage tanks and distribution lines |
| Carbofuran (ppb) | 08/23/17 | N | ND | | | 40 | 40 | Leaching of soil fumigant used on rice and alfalfa |
| Chlordane (ppb) | 08/23/17 | N | ND | | | 0 | 2 | Residue of banned termiticide |
| Dalapon (ppb) | 08/23/17 | N | ND | | | 200 | 200 | Runoff from herbicide used on rights of way |
| Di(2-ethylhexyl) adipate (ppb) | 08/23/17 | N | ND | | | 400 | 400 | Discharge from chemical factories |
| Di(2-ethylhexyl) phthalate (ppb) | 08/23/17 | N | ND | | | 0 | 6 | Discharge from rubber and chemical factories |
| DBCP [Dibromochloropropane] (ppt) | | N | | | | 0 | 200 | Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards |
| Dinoseb (ppb) | 08/23/17 | N | ND | | | 7 | 7 | Runoff from herbicide used on soybeans and vegetables |
| Endrin (ppb) | 08/23/17 | N | ND | | | 2 | 2 | Residue of banned insecticide |
| EDB [Ethylene dibromide] (ppt) | 08/23/17 | N | ND | | | 0 | 50 | Discharge from petroleum refineries |
| Heptachlor (ppt) | 08/23/17 | N | ND | | | 0 | 400 | Residue of banned pesticide |
| Heptachlor epoxide (ppt) | 08/23/17 | N | ND | | | 0 | 200 | Breakdown of heptachlor |
| Hexachlorobenzene (ppb) | 08/23/17 | N | ND | | | 0 | 1 | Discharge from metal refineries and agricultural chemical factories |
| Hexachlorocyclopentadiene (ppb) | 08/23/17 | N | ND | | | 50 | 50 | Discharge from chemical factories |
| Lindane (ppt) | | N | | | | 200 | 200 | Runoff/leaching from insecticide used on cattle, lumber, gardens |
| Methoxychlor (ppb) | 08/23/17 | N | ND | | | 40 | 40 | Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock |
| Oxamyl [Vydate] (ppb) | 08/23/17 | N | ND | | | 200 | 200 | Runoff/leaching from insecticide used on apples, potatoes and tomatoes |
| PCBs [Polychlorinated biphenyls] (ppt) | 08/23/17 | N | ND | | | 0 | 500 | Runoff from landfills; discharge of waste chemicals |

| | | | | | | | |
|-------------------------|----------|---|----|--|-----|-----|--|
| Pentachlorophenol (ppb) | 08/23/17 | N | ND | | 0 | 1 | Discharge from wood preserving factories |
| Picloram (ppb) | 08/23/17 | N | ND | | 500 | 500 | Herbicide runoff |
| Simazine (ppb) | 08/23/17 | N | ND | | 4 | 4 | Herbicide runoff |
| Toxaphene (ppb) | 08/23/17 | N | ND | | 0 | 3 | Runoff/leaching from insecticide used on cotton and cattle |

Volatile Organic Chemical (VOC) Contaminants

| Contaminant (units) | Sample Date | MCL Violation Y/N | Your Water | Range | | MCLG | MCL | Likely Source of Contamination |
|----------------------------------|-------------|-------------------|------------|-------|------|------|-----|---|
| | | | | Low | High | | | |
| Benzene (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from factories; leaching from gas storage tanks and landfills |
| Carbon tetrachloride (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from chemical plants and other industrial activities |
| Chlorobenzene (ppb) | 5/8/19 | N | ND | | | 100 | 100 | Discharge from chemical and agricultural chemical factories |
| o-Dichlorobenzene (ppb) | 5/8/19 | N | ND | | | 600 | 600 | Discharge from industrial chemical factories |
| p-Dichlorobenzene (ppb) | 5/8/19 | N | ND | | | 75 | 75 | Discharge from industrial chemical factories |
| 1,2 – Dichloroethane (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from industrial chemical factories |
| 1,1 – Dichloroethylene (ppb) | 5/8/19 | N | ND | | | 7 | 7 | Discharge from industrial chemical factories |
| cis-1,2-Dichloroethylene (ppb) | 5/8/19 | N | ND | | | 70 | 70 | Discharge from industrial chemical factories |
| trans-1,2-Dichloroethylene (ppb) | 5/8/19 | N | ND | | | 100 | 100 | Discharge from industrial chemical factories |
| Dichloromethane (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from pharmaceutical and chemical factories |
| 1,2-Dichloropropane (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from industrial chemical factories |
| Ethylbenzene (ppb) | 5/8/19 | N | ND | | | 700 | 700 | Discharge from petroleum refineries |
| Styrene (ppb) | 5/8/19 | N | ND | | | 100 | 100 | Discharge from rubber and plastic factories; leaching from landfills |
| Tetrachloroethylene (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from factories and dry cleaners |
| 1,2,4 –Trichlorobenzene (ppb) | 5/8/19 | N | ND | | | 70 | 70 | Discharge from textile-finishing factories |
| 1,1,1 – Trichloroethane (ppb) | 5/8/19 | N | ND | | | 200 | 200 | Discharge from metal degreasing sites and other factories |
| 1,1,2 –Trichloroethane (ppb) | 5/8/19 | N | ND | | | 3 | 5 | Discharge from industrial chemical factories |
| Trichloroethylene (ppb) | 5/8/19 | N | ND | | | 0 | 5 | Discharge from metal degreasing sites and other factories |
| Toluene (ppm) | 5/8/19 | N | ND | | | 1 | 1 | Discharge from petroleum factories |
| Vinyl Chloride (ppb) | 5/8/19 | N | ND | | | 0 | 2 | Leaching from PVC piping; discharge from plastics factories |
| Xylenes (Total) (ppm) | 5/8/19 | N | ND | | | 10 | 10 | Discharge from petroleum factories; discharge from chemical 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) | 08/22/17 | .202 | 0 | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead (ppb) (90 th percentile) | 08/22/17 | 0 | 0 | 0 | AL=15 | Corrosion of household plumbing systems; erosion of natural deposits |

Radiological Contaminants

| Contaminant (units) | Sample Date | MCL Violation Y/N | Your Water | +Range | | MCLG | MCL | Likely Source of Contamination |
|------------------------------|-------------|-------------------|------------|--------|------|------|------|--|
| | | | | Low | High | | | |
| Alpha emitters (pCi/L) | 04/12/17 | N | ND | | | 0 | 15 | Erosion of natural deposits |
| Beta/photon emitters (pCi/L) | 04/12/17 | N | ND | | | 0 | 50 * | Decay of natural and man-made deposits |
| Combined radium (pCi/L) | 04/12/17 | N | ND | | | 0 | 5 | Erosion of natural deposits |
| Uranium (pCi/L) | 04/12/17 | N | ND | | | 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.

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 | .51 | 0-<1.0 | N/A | TT | Naturally present in the environment | Step 1 |

Disinfectant Residuals Summary

| | Year Sampled | MRDL Violation Y/N | Your Water (highest RAA) | Range | | MRDLG | MRDL | Likely Source of Contamination |
|----------------|--------------|--------------------|--------------------------|-------|------|-------|------|---|
| | | | | Low | High | | | |
| Chlorine (ppm) | 2019 | N | 1.53 | .5 | 2.0 | 4 | 4.0 | Water additive used to control microbes |

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

| Disinfection Byproduct | Year Sampled | MCL Violation Y/N | Your Water (highest LRAA) | Range | | MCLG | MCL | Likely Source of Contamination |
|------------------------|--------------|-------------------|---------------------------|-------|------|------|-----|--|
| | | | | Low | High | | | |
| TTHM (ppb) | 2019 | N | 25 | 30 | 50 | N/A | 80 | Byproduct of drinking water disinfection |
| HAA5 (ppb) | 2019 | N | 30 | 21 | 35 | N/A | 60 | Byproduct of drinking water disinfection |

The PWS Section requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

Other Miscellaneous Water Characteristics Contaminants

| Contaminant (units) | Sample Date | Your Water | Range | | SMCL |
|---------------------|-------------|------------|-------|------|------------|
| | | | Low | High | |
| Sodium (ppm) | 5/8/19 | 13.4 | | NA | N/A |
| Sulfate (ppm) | 5/8/19 | 0 | | | 250 mg/L |
| pH | 5/8/19 | 6.6 | | NA | 6.5 to 8.5 |

Consumer Confidence Report Certification Form

Water System Name: Town of North Wilkesboro

Water System No.: 01-97-010 Report Year: 2019 Population Served: 4245

The Community Water System (CWS) named above hereby confirms that all provisions under 40 CFR parts 141 and 142 requiring the development of, distribution of, and notification of a consumer confidence report have been executed. Further, the CWS certifies the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the primacy agency by their NC certified laboratory. In addition, if this report is being used to meet Tier 3 Public Notification requirements, as denoted by the checked box below, the CWS certifies that public notification has been provided to its consumers in accordance with the requirements of 40 CFR 141.204(d).

Certified by: Name: Joe Patrick Title: ORC

Signature: Sherman Joe Patrick Phone #: (336)838-2371

Delivery Achieved Date: 3-17-20 Date Reported to State: 3-18-20

The CCR includes text which provides mandated Public Notice for a monitoring violation (check box, if yes)

Check all methods used for distribution (see instructions on back for delivery requirements and methods):

- Paper copy to all
- Notification of Availability of Paper Copy (other than in the CCR itself)
Notification Method _____ (i.e. US Mail, door hanger)
- Notification of CCR URL URL: http://www.north-wilkesboro.com/forms/2019_ccr.pdf
Notification Method On Bill (i.e. on bill, bill stuffer, separate mailing, email)
- Direct email delivery of CCR (attached? ___ or embedded? ___)
Notification Method _____ (i.e. on bill, bill stuffer, separate mailing)
- Newspaper (attach copy) What Paper? _____ Date Published: _____
Notification Method _____ (i.e. US Mail, on bill, bill stuffer, door hanger, a postcard dedicated to the CCR, or email)
- "Good faith" efforts (in addition to the above required methods) were used to reach non-bill paying consumers such as industry employees, apartment tenants, etc. Extra efforts included the following methods:
 - posting the CCR on the Internet at URL: _____
 - mailing the CCR to postal patrons within the service area
 - advertising the availability of the CCR in news media (attach copy of announcement)
 - publication of the CCR in local newspaper (attach copy)
 - posting the CCR in public places such as: (attach list if needed) Town Hall and Public Library
 - delivery of multiple copies to single bill addresses serving several persons such as: apartments, businesses, and large private employers
 - delivery to community organizations such as: (attach list if needed)

Note: Use of social media (e.g., Twitter or Facebook) or automated phone calls do not meet existing CCR distribution methods under the Rule.