TOWN OF LILLINGTON

2016 Annual Drinking Water Quality Report

Water System Number: **03-43-025**

The 2016 Lillington Annual Drinking Water Quality Report is a summary of the last year's water quality, Included are details about:

- Source(s) of water,
- What it contains, and
- How it compares to the standards set by regulatory agencies.

Our goal is to provide our customers with safe and dependable drinking water. Town staff continually seeks to improve the water treatment process and to protect our water resources. We are committed to ensuring the quality of our customer's water. We want our valued customers to be fully informed about their water utility.

If you have questions about this report or concerning your water, please contact Randy Hazen Public Works Director at (910) 893-2654 or at rhazen@lillingtonnc.org.

When you turn on your tap, please consider the source
Lillington's drinking water is purchased from Harnett County Public Utilities. The water plant is located at 310 W Duncan St Lillington NC 27546

Violations that your water system received for 2016
We are pleased to announce that we received no violations during the past year.

Tables of Detected Contaminants
Below are a summary of tables indentifying any non-treatable contaminants in the potable water source for Lillington.

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	0 positive samples Note: if either an original routine sample and or its repeat sample(s) are fecal Coliform or E Coli positive, a Tier 1 violation exists.	Naturally present in the environment
Fecal Coliform or *E. coli* (presence or absence)	N	N/A	0		Human and animal fecal waste

Asbestos Contaminant

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Total Asbestos (MFL)	03/08/2012	N	ND	0.00	0.60	.16	.60	Decay of asbestos cement water mains; erosion of natural deposits

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)	09/20/2016	20	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90^{th} percentile)	09/20/2016	20	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

Disinfectant Residuals Summary

	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range Low	Range High	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	2016	N	2.54	0.00	4.00	4	4.0	Water additive used to control microbes
Chloramines (ppm)	2016	N	2.83	0.00	4.00	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 Low	Range High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)	2015	N	23	21.00	47.00	N/A	80	Byproduct of drinking water disinfection
Location (B01)	2015	N	30	21.00	47.00	N/A	80	Byproduct of drinking water disinfection
Location (B02)	2015	N	32	21.00	47.00	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)	2015	N	21	16.00	34.00	N/A	60	Byproduct of drinking water disinfection
Location (B01)	2015	N	20	16.00	34.00	N/A	60	Byproduct of drinking water disinfection
Location (B02)	2015	N	23	16.00	34.00	N/A	60	Byproduct of drinking water disinfection

Important Drinking Water Definitions:

**Suggested definitions for the report - remove the definitions that are not needed.

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

Non-Detects (ND) - 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.

Million Fibers per Liter (MFL) - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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

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

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.

Locational Running Annual Average (LRAA) – 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.

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.

Turbidity (NTU)	Treatment Technique (TT) Violation Y/N	Your Water	Treatment Technique (TT) Violation if :	Likely Source
Highest single measurement	N	.09	Turbidity > 1 NTU	Soil runoff
Lowest monthly percentage of samples meeting turbidity limits	N	100%	Less than 95% of monthly Turbidity measurements are ≤ 0.3 NTU	

CONTAMINANT TEST RESULTS

Contaminant [code] (units)	MCL	MCLG	Your Water	Range	Date of Sample	Violation	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria (presence or absence)	> 5 % triggers level 1 assessment	0	5.6%	N/A	N/A	N	Naturally present in the environment
Fecal Coliform or E. coli (presence or absence)	0	0	0%	N/A	N/A	N	Human and Animal Fecal Waste
Regulated Inorganic Contaminants							
Fluoride (ppm)	4	4	0.60	N/A	1/5/16	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead and Copper Contaminants							
Copper (ppm) 90th Percentile	AL=1.3	1.3	0.155	N/A	8/2016	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) 90th Percentile	AL=15	0	N/D	N/A	8/2016	N	Corrosion of household plumbing systems, erosion of natural deposits
Asbestos Contaminants							
Total Asbestos (MFL)	7	7	N/D	N/A	1/13/11	N	Decay of Asbestos cement water mains: Erosion of natural deposits

Disinfection By-Product Contaminants

Contaminant	YEAR	MCL	MCLG	Your Water LRAA	Range Individual Results	Violation	Likely Source of Contamination
TTHM (ppb)	2016	80	N/A	35.0		N	By-product of chlorination
TTHM (ppb) B01	2016	80	N/A		22-52	N	
TTHM (ppb) B02	2016	80	N/A		18-52	N	By-product of chlorination
TTHM (ppb) B03	2016	80	N/A		12-46	N	By-product of chlorination
TTHM (ppb) B04	2016	80	N/A		18-49	N	By-product of chlorination
TTHM (ppb) B05	2016	80	N/A		18-49	N	By-product of chlorination
TTHM (ppb) B06	2016	80	N/A		18-45	N	By-product of chlorination
TTHM (ppb) B07	2016	80	N/A		11-47	N	By-product of chlorination
TTHM (ppb) B08	2016	80	N/A		19-49	N	By-product of chlorination
HAA5 (ppb)	2016	60	N/A	29.0		N	By-product of chlorination
HAA5 (ppb) B01	2016	60	N/A		10.8-22.3	N	
HAA5 (ppb) B02	2016	60	N/A		8.7-22.8	N	By-product of chlorination
HAA5 (ppb) B03	2016	60	N/A		8.5-18.3	N	By-product of chlorination
HAA5 (ppb) B04	2016	60	N/A		10.2-21.0	N	By-product of chlorination
HAA5 (ppb) B05	2016	60	N/A		10.9-21.8	N	By-product of chlorination
HAA5 (ppb) B06	2016	60	N/A		9.9-24.6	N	By-product of chlorination
HAA5 (ppb) B07	2016	60	N/A		9.8-18.4	N	By-product of chlorination
HAA5 (ppb) B08	2016	60	N/A		11.3-21.1	N	By-product of chlorination
Chlorite (ppm) (Distribution)	2016	1	0.8	0.240	0.140-0.350	N	By-product of chlorine dioxide
Chlorine Dioxide (ppb)	2016	800	800	76	0-488	N	Water additive used to control microbes
Chloramines (ppm)	2016	4	4	3.04	1.08-3.98	N	Water additive used to control microbes
Chlorine (only month of March)(ppm)	2016	4	4	2.43	0.71-3.80	N	Water additive used to control microbes

Disinfection By-Product Precursors Contaminants

Contaminant (units)	TT Violation Y/N	Your Water Ratio	Range Ratio	MCLG	MCL	Likely Source of Contamination	Compliance Method
Total Organic Carbon (Ratio)	N	1.45	1.33-1.56	N/A	TT	Naturally present in the environment	Step 1

Step 1 TOC Removal Requirements

Source Water TOC (Mg/L)	Source Water Alkalinity Mg/L as CaCO3 (in Percentages)		
	0-60	>60-120	>120
>2.0 – 4.0	35.0	25.0	15.0
>4.0 – 8.0	45.0	35.0	25.0
> 8.0	50.0	40.0	30.0

Additional Terms and Abbreviations

MCLG – Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
MCL – Maximum Contaminant Level – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available Treatment technology.
TT – Treatment Technique – is a required process intended to reduce the level of contaminant in drinking water.
AL – Action Level – The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.
MFL-Million Fibers per Liter - A measurement of the presence of asbestos fibers that are longer than 10 micrometers
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.

SWAP Result Summary

Source Name	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility rating
CAPE FEAR RIVER	Higher	Moderate	Higher

Misc. Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Secondary MCL
pH	1-5-16	6.9	6.5 to 8.5
Sulfate (ppm)	1-5-16	46.6	250
Sodium (ppm)	1-5-16	25.09	NA