2020 Annual Drinking Water Quality Report
Town of Mayodan (supplier) 02-79-025
April 2021

In an effort to reach all of our valued customers, this water quality report is being distributed throughout the local postal delivery area and may be delivered to residences or businesses not directly served by the Town of Mayodan's water system. Even so, we hope this report will be informative and helpful to those living in the surrounding community.

If you have any questions about this report , please contact Mike Sears at (336)427-3339.

We are pleased to present to the citizens of Mayodan this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. 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 to protect our water resources. We are committed to ensuring the quality of your water. Our water is treated at the Mayodan Water Treatment Facility, which is surface water taken from the *Mayo River*. **This report shows our water quality, and what it means**.

The *Mayodan Water Treatment Facility*

routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show the results of our monitoring for the period of January 1st to December 31st, 2020, and the last test results of contaminants that were not due to be tested in 2020**.** As water travels over 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. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

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 on the second Monday of each month at 6:00pm.

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels.

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.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (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 microbiological contaminants are available from the Safe Drinking Water Hotline at (800)426-4791.

In this table, you will find many of the terms and abbreviations with which you might not be familiar. To help you better understand these terms, we've provided the following definitions:

Extra Note: MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the prescribed health effect.

AL	Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
D	Detect	Laboratory analysis indicates that the constituent *is* present.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.
MFL	Million Fibers per Liter	The measure of the presence of asbestos fibers that are longer than 10 micrometers (10 one-millionths of a meter).
mrem/yr	millirems per year	A measure of the amount of radiation absorbed by the body.
MRL	Minimum Reporting Level	The smallest measured concentration of a substance that can be reliably measured by using a given analytical method.
N/A	Not Applicable	This measurement isn't relevant.
ND	Non-Detect	Laboratory analysis indicates that the constituent *is not* present.
NTU	Nephelometric Turbidity Unit	A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
pCi/L	picocuries per Liter	A measure of the radioactivity in water.
ppb	parts per billion	The same as micrograms (millionths of a gram) per Liter.
ppm	parts per million	The same as milligrams (thousands of a gram) per Liter.
TOC	Total Organic Content	The total amount of carbon in water that comes from organic compounds. High levels of organic carbon can lead to more growth of microorganisms in the water.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
VOC	Volatile Organic Compound	A chemical from a class of substances that are carbon-containing and evaporate easily into the air at normal air temperatures.

Test Results

Microbiological Contaminants: 2020

Total Coliform Bacteria	Violation	Level Detected	MCLG	MCL	Contamination Source
Mayodan	NO	ND	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in environment

Total Coliform. Coliforms are bacteria that are naturally present in the environment & are used as an indicator that other, potentially-harmful, bacteria may be present.

Chlorine	Violation	Level Detected	Unit Measurement	MCLG	MCL	Contamination Source
Mayodan	NO	1.26 (avg.)	ppm	4	4	Water additive used to control microbes

Turbidity: 2020

Turbidity is a measure of cloudiness of the water. The main source of contamination is soil runoff. The turbidity rule states that 95% of samples must be below 0.3 NTU. We had no violations in 2020. Results were in a range of 0.02 - 0.1 NTU. Our yearly average is 0.03 NTU.

Lead and Copper: Last Test Date in 2019

Lead	Violation	Level Detected	Unit Measurement	MCLG	MCL	Contamination Source
Mayodan	NO	ND	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

Copper	Violation	Level Detected	Unit Measurement	MCLG	MCL	Contamination Source
Mayodan	NO	ND - 0.145 90^{th} percentile = 0.104	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced, or reduced. *Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and you can flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).*

Disinfection By-Product Contaminants: 2020

TTHM	Violation	Level Detected	Unit Measurement	MCLG	MCL	Contamination Source
Mayodan	NO	26.2 - 66.6 (40.86 avg.)	ppb	0	80	By-product of drinking water chlorination

HAA5	Violation	Level Detected	Unit Measurement	MCLG	MCL	Contamination Source
Mayodan	NO	30.1 - 59.0 (44.43 avg.)	ppb	0	60	By-product of drinking water chlorination

Disinfection By-Product Precursor Contaminants: 2020

*Our water system used Step 1 as the method used to comply with d/DBP treatment technique requirements

Contaminant (units)	Sample Date	MCL/TT Violation (Y/N)	Your Water TOC avg	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
Total Organic Carbon (ppm) (TOCs)-RAW	2020	N	1.38	1.1	2.1	N/A	TT	Naturally present in the environment
Total Organic Carbon (ppm) (TOCs)-TREATED	2020	N	.33	<1.0	1.3	N/A	TT	Naturally present in the environment

Note: Depending on the TOC and alkalinity in our source water, the system MUST have a certain % removal of TOC or must achieve alternative compliance criteria. If we do not achieve that % removal, there is an "alternative % removal". If we fail to meet that, we are in violation of a Treatment Technique. *Our source water alkalinity was 0 – 60 mg/L, with a source water TOC of <2.0 mg/L. Our removal ratio was 1.09. **We had 87% avg. removal for 2020, ranging from 82%-100%.**

Unregulated Volatile Organic Chemicals Detected: 2020

All Non-Detect

The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For more information on unregulated chemicals, call the EPA Safe Drinking Water Hotline at (800)426-4791.

Inorganic Contaminants Detected: 2020

Sodium: 8.9 mg/L

Fluoride: ND mg/L. We do not add fluoride to our water. Any detected level is naturally occurring.

Asbestos Last Test June 2013: **Non-Detect** • MCL is 7.0 MFL. Possible sources of contamination are decay of asbestos cement water mains, or erosion of natural deposits.

All others: Non-Detect

Radioactive Contaminants: Last test date 2013, & Pesticides and Synthetic Organic Chemicals: 2018

All Non-Detect

Cryptosporidium: Test date January 2019 - December 2019

Our system monitored source water (Mayo River) for *Cryptosporidium* and found levels consistently below reporting level (1.0 oocysts/L). 4 out of 24 samples showed minimal detectable results of 0.1 oocysts/L. 20 out of 24 samples revealed non-detectable results.

Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although *Cryptosporidium* can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of our source water and/or finished water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. *Cryptosporidium* must be ingested for it to cause disease, and it may be spread through means other than drinking water.

Water is a limited and valuable resource. Be Water Smart!

The sources of all drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. One source of contamination is from urban storm runoff. Help keep our water sources clean. The Town of Mayodan uses water from the Mayo River as its source for water. It is pumped to the Mayodan Water Treatment Facility, where it goes through several treatment steps. First, raw water is mixed with either aluminum sulfate or polyaluminum chloride in a contact chamber which causes small particles to adhere to one another (coagulation). The particles are allowed to settle to the bottom of large settling basins (sedimentation). The water then flows through filters of carbon and sand to remove remaining small particles (filtration). Finally, the water is disinfected to ensure that our water is safe to drink when it reaches the customers.

Source Water Assessment Program

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 (PCS's).

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 Town of Mayodan was determined by combining the contaminant rating (number and location of PCS's 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 below:

Susceptibility of Sources to Potential Contaminant Sources (PCS's)

Source Name Mayo River **Susceptibility Rating** Moderate

The complete SWAP Assessment Report for the Town of Mayodan may be viewed on the Web at https://www.ncwater.org/SWAP_Reports/NC0279025_SWAP_Report-20200909.pdf. 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 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 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 PCS's in the assessment area.

UCMR3 Data Report 2013

Unregulated Contaminant Monitoring Regulation (UCMR3) results equal to or greater than reporting value are shown. Values less than are not shown:

Analyte Name	WTP Sample Reported Value (µg/L)		Distribution Sample Reported Value (µg/L)		MRL for Analyte (µg/L)
	9/17/13	12/10/13	9/17/13	12/10/13	
Strontium	36	32	40	35	0.30
Vanadium	0.66	0.30	0.69	0.30	0.20
Chromium-6	0.11	0.11	0.14	0.13	0.03

A detection of a UCMR3 analyte above the MRL does not represent cause for concern, in itself. The implications of the detection should be judged considering health effects information, which is often still under development or being refined for unregulated contaminants. For more information, visit https://www.epa.gov/dwucmr.