

The Mahoning Valley Sanitary District

**Monitoring and Compliance
Information
Relative to Formulation
of the
Consumer Confidence Report (CCR)
January 27, 2020**

Introduction

This information is provided to the District's Member Cities of Youngstown and Niles, Ohio. It is also provided to the Village of McDonald. Transmittal of this information is done to comply with provisions of the Consumer Confidence Report (CCR) rules.

Information contained in this report pertains to water produced by The Mahoning Valley Sanitary District (MVSD) at its treatment facilities located at Mineral Ridge, Ohio.

The Mahoning Valley Sanitary District Public Water Supply ID Number is PWS 7801811. The source of the water is Meander Creek Reservoir, a surface water supply with a capacity of 11 billion gallons and owned and operated by The Mahoning Valley Sanitary District.

Proposed CCR Report Language

The Mahoning Valley Sanitary District public water system uses surface water drawn from the Meander Creek Reservoir. For the purposes of source water assessments, in Ohio all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or time to prepare.

The Mahoning Valley Sanitary District's drinking water source protection area is susceptible to runoff from row crop agriculture and animal feedlot operations, oil and gas wells, failing home and commercial septic systems, road/rail crossings, and new housing and commercial development that could increase runoff from roads and parking lots.

The Mahoning Valley Sanitary District water system and (**Satellite Water System name**) treat the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can further be decreased by implementing measures to protect Meander Creek Reservoir and its watershed. More detailed information is provided in the Mahoning Valley Sanitary District's Drinking Water Source Assessment report, which can be obtained by calling John J. Nemet at (330) 652-3614.

To view the approved MVSD Meander Creek Reservoir Drinking Water Source Protection Plan, visit meanderwater.org and look under the link for District Information; Public Records.

For more information on the testing of Lead and Fracking Wastes, visit meanderwater.org and follow the link for District Information; Water Quality.

Who Needs to Take Special Precautions?

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 infection. 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 (1-800-426-4791).

Lead Educational Information

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. **(Satellite Water System Name)** 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>

Second Round Long Term 2 Enhanced Water Treatment (LT2) Rule

Purposes of the Rule

The purpose of the rule is to improve public health protection through the control of microbial contaminants by focusing on systems with elevated *Cryptosporidium* risk. Prevent significant increases in microbial risk that might otherwise occur when systems implement the Stage 2 Disinfectants and Disinfection Byproducts Rule.

The LT2 Rule requires systems to monitor their source water, calculate an average *cryptosporidium* concentration, and use those results to determine if their source is vulnerable to contamination and may require additional treatment

MVSD was identified as a Schedule 1 water system and began a second round of source water monitoring on March 1st 2015. Although the first round of source water monitoring was implemented by the USEPA, the Ohio EPA was responsible for implementing the second round. Our water system was required to sample our source water for *Cryptosporidium*, *E. Coli*, and turbidity for twenty-four months.

Over the 24 month monitoring period, 0 cysts were detected in any of the samples. These sampling results place MVSD into the lowest Bin Classification of 1, indicating that no additional treatment or process modifications are required.

Inorganics

Fluoride

Month	Maximum	Minimum	Average
January	1.05 mg/l	0.86 mg/l	0.95 mg/l
February	1.07 mg/l	0.87 mg/l	0.95 mg/l
March	1.09 mg/l	0.89 mg/l	0.97 mg/l
April	1.09 mg/l	0.87 mg/l	0.96 mg/l
May	1.07 mg/l	0.79 mg/l	0.96 mg/l
June	1.10 mg/l	0.93 mg/l	1.00 mg/l
July	1.09 mg/l	0.94 mg/l	1.01 mg/l
August	1.11 mg/l	0.93 mg/l	1.00 mg/l
September	1.06 mg/l	0.91 mg/l	0.98 mg/l
October	1.02 mg/l	0.93 mg/l	0.97 mg/l
November	1.08 mg/l	0.89 mg/l	0.95 mg/l
December	1.00 mg/l	0.85 mg/l	0.95 mg/l

Maximum 1.11 mg/l

Minimum 0.79 mg/l

Average 0.97 mg/l

Operation Range 0.79 to 1.11 mg/l

Public water systems adding fluoride shall maintain a fluoride range of 0.8 milligrams per liter to 1.3 milligrams per liter in their finished water pursuant to section 6109.20 of the Revised Code.

Bacteriological

Turbidity

Month	Maximum	Minimum	Average
January	0.08 NTU	0.04 NTU	0.06 NTU
February	0.08 NTU	0.04 NTU	0.06 NTU
March	0.08 NTU	0.05 NTU	0.06 NTU
April	0.07 NTU	0.05 NTU	0.05 NTU
May	0.06 NTU	0.04 NTU	0.05 NTU
June	0.07 NTU	0.04 NTU	0.05 NTU
July	0.10 NTU	0.05 NTU	0.07 NTU
August	0.10 NTU	0.05 NTU	0.07 NTU
September	0.07 NTU	0.05 NTU	0.06 NTU
October	0.08 NTU	0.04 NTU	0.05 NTU
November	0.05 NTU	0.04 NTU	0.05 NTU
December	0.06 NTU	0.05 NTU	0.05 NTU

Maximum 0.10 NTU

Minimum 0.04 NTU

Average 0.06 NTU

Operation Range 0.04 - 0.17 NTU

% Within Standard 100%

Treatment Technique- Values must be less than or equal to 0.30 NTU's in at least 95% of samples per month and shall not exceed 1.0 NTU at any time.

Total Organic Carbon

Month	TOC Value	Raw Alkalinity	Raw TOC	Treated TOC
January	1.80	87 mg/l	6.65 mg/l	3.58 mg/l
February	1.60	85 mg/l	6.65 mg/l	3.95 mg/l
March	1.80	70 mg/l	5.95 mg/l	3.25 mg/l
April	2.00	64 mg/l	5.80 mg/l	2.85 mg/l
May	1.80	66 mg/l	5.20 mg/l	2.90 mg/l
June	1.80	68 mg/l	5.55 mg/l	2.85 mg/l
July	2.00	72 mg/l	6.95 mg/l	3.55 mg/l
August	2.10	77 mg/l	7.00 mg/l	3.40 mg/l
September	1.90	80 mg/l	6.95 mg/l	3.60 mg/l
October	1.80	82 mg/l	6.30 mg/l	3.45 mg/l
November	1.70	80 mg/l	6.20 mg/l	3.55 mg/l
December	1.60	80 mg/l	6.10 mg/l	3.60 mg/l
Maximum	2.10	87 mg/l	7.00 mg/l	3.95 mg/l
Minimum	1.60	64 mg/l	5.20 mg/l	2.85 mg/l
Average	1.83	76 mg/l	6.28 mg/l	3.38 mg/l

The value reported under "TOC Value" for Total Organic Carbon (TOC) is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC that is required to be removed. A value of less than one (1) indicates a violation of the TOC removal requirements.

Organics

Volatile Organic Compounds

VOC	Result	PQL-*
Benzene	< 0.50	0.50 ug/l-*
Bromodichloromethane	2.8	0.50 ug/l-*
Carbon Tetrachloride	< 0.50	0.50 ug/l-*
Chlorobenzene	< 0.50	0.50 ug/l-*
Chloroform	50.9	0.50 ug/l-*
1,2-Dichlorobenzene	< 0.50	0.50 ug/l-*
1,4-Dichlorobenzene	< 0.50	0.50 ug/l-*
1,2-Dichloroethane	< 0.50	0.50 ug/l-*
1,1-Dichloroethane	< 0.50	0.50 ug/l-*
cis-1,2-Dichloroethane	< 0.50	0.50 ug/l-*
trans-1,2-Dichloroethane	< 0.50	0.50 ug/l-*
1,2-Dichloropropane	< 0.50	0.50 ug/l-*
Ethylbenzene	< 0.50	0.50 ug/l-*
Mythylene Chloride	< 0.50	0.50 ug/l-*
Styrene	< 0.50	0.50 ug/l-*
Tetrachloroethylene	< 0.50	0.50 ug/l-*
Toluene	< 0.50	0.50 ug/l-*
1,1,1-Trichloroethane	< 0.50	0.50 ug/l-*
1,1,2-Trichloroethane	< 0.50	0.50 ug/l-*
Trichlorobenzene	< 0.50	0.50 ug/l-*
o-Xylene	< 0.20	0.20 ug/l-*
m,p-Xylene	< 0.30	0.30 ug/l-*
1,2,4-Trichloroenzene	< 0.50	0.50 ug/l-*
Vinyl Chloride	< 0.50	0.50 ug/l-*
Xylene	< 0.50	0.50 ug/l-*

Organics

Volatile Organic Compounds-(Continued)

*-Below PQL

For informational purposes only:

PQL- The PQL is the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The PQL is usually determined by multiplying the MDL by some factor that is decided by the method (SOP) Standard Operating Procedure. The PQL represents where reliable quantitative information can be routinely reported.

Synthetic Organic Compounds

Pesticides & Herbicides

SOC	Result			Detection Limit
	April	May	June	
Alachlor	< 0.070 ug/l *	NA	NA	0.070 ug/l
Atrazine	<0.100 ug/l *	NA	NA	0.100 ug/l
Simazine	<0.050 ug/l *	NA	NA	0.050 ug/l

*-BDL- Below Detection Limits

*-MCL-Maximum Contaminant Level

For informational puposes only:

The *-MCL for Alachlor is 2.0 ug/l.

The *-MCL for Atrazine is 2.0 ug/l.

The *-MCL for Simazine is 2.0 ug/l.

Organics

Total Trihalomethanes & Total Haloacetic Acids*

	THM	HAA5
1st Quarter	42.50 ug/l	16.90 ug/l
2nd Quarter	53.70 ug/l	19.20 ug/l
3rd Quarter	75.40 ug/l	33.50 ug/l
4th Quarter	44.70 ug/l	30.70 ug/l
Maximum	75.40 ug/l	33.50 ug/l
Minimum	42.50 ug/l	16.90 ug/l
Average	54.08 ug/l	25.08 ug/l
Detection Range	42.50-75.40 ug/l	16.90-33.50 ug/l

To maintain compliance, the running quarterly average for THM's and HAA5's must be under 80.0 ug/l and 60.0 ug/l respectively.

Inorganics

Nitrate

Month	Level
January	0.270 mg/l
February	0.400 mg/l
March	0.440 mg/l
April	0.430 mg/l
May	0.290 mg/l
June	0.280 mg/l
July	<0.100 mg/l
August	<0.100 mg/l
September	<0.100 mg/l
October	<0.100 mg/l
November	0.160 mg/l
December	0.250 mg/l

Maximum 0.440 mg/l

Minimum < 0.10 mg/l

Average 0.315 mg/l

Operation Range 0.100 - 0.440 mg/l

For informational purposes only:

The MCL for Nitrate is 10.0 mg/l.