



# 2023 CONSUMER CONFIDENCE REPORT

(2022 Data)

EPA ID #: 1531010



## What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

### Introduction:

The Merrimack Village District's (MVD) Mission is *"To provide the best Quality, Quantity, and Cost Conscious water that meets or exceeds standards for Merrimack's consumption and fire protection – from source to tap."* MVD achieves this by servicing and maintaining approximately 930,800 feet of Water Mains, 930 Fire Hydrants, 6 Groundwater Wells, 3 Water Storage Tanks, an Iron & Manganese Treatment Plant, three Booster Stations, as well as three PFAS Treatment Facilities. Aging infrastructure presents challenges to drinking water safety. Continuous improvements are necessary in order to maintain the water quality throughout the distribution system.

In the past year, MVD has continued with improvements to the water system including pursuit of additional water sources, such as Mitchell Woods. We've continued exploring options and feasibility of Artificial Recharge to the aquifer at Wells 4 and 5. MVD sought and obtained a Local Source Water Protection Grant through the NHDES which was used to install signage to areas in town to delineate the Wellhead Protection Area (WHPA). These signs indicate the location of water resources that feed wells providing water to Merrimack residents and that precautions are necessary to prevent water source contamination from things such as hazardous waste, toxic substances, construction/roadwork, as well as excessive road salt. In addition to the new signage, MVD has been working with the Town of Merrimack and local stake holders over many years to reduce salt usage for winter storm maintenance as well as research alternatives as road salt impacts drinking water. MVD also has a Salt Mitigation Committee which monitors usage and also provides public education intended to lower Sodium and Chloride levels in the aquifer. Construction of the PFAS Treatment Facilities for Wells 7 & 8 has been completed and is operational as of spring 2022. Construction of the Wells 2 & 9 PFAS Treatment Facilities has been completed and is operational as of March 2023. All water is now treated with granular activated carbon (GAC). All water sent to the distribution system is compliant with all NHDES and EPA PFAS regulations. The cost of these PFAS Treatment Facilities is approximately \$14.5 million. These investments, along with on-going operations and maintenance costs, are supported by the voter approved budget as well as grants and loans. MVD continues to pursue additional grants through NHDES. Additionally, MVD has filed suit in New Hampshire Superior Court against the parties responsible for the PFOA contamination of MVD's wells.



## 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.

### What is the Source of MVD's Drinking Water?

100% of MVD's water comes from groundwater. Groundwater is precipitation that has soaked through the ground's surface and is stored where there are open spaces between rocks and soil. This water is pumped from wells located in various parts of Merrimack and Hollis. Water from each well is treated on-site at each pumping station and distributed through a network of water mains to residential, municipal, commercial and industrial locations. The water from MVD's wells is distributed through MVD's water mains which are an interconnecting looped system. Depending on the situation, wells may be on or off at any given point in time. The well source for the water provided may vary based on which wells are on and producing water.

**In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.**

**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.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**Why are there contaminants in my water?** Drinking water, including bottled water, may reasonably be expected to contain at least a small amount 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 (EPA) Safe Drinking Water Hotline (800-426-4791) or online at [www.epa.gov/safewater](http://www.epa.gov/safewater).

**Do I need 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 infections. These people should seek advice about drinking water from their health care providers. EPA/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* (found in surface water) and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791 or online at [www.epa.gov/safewater](http://www.epa.gov/safewater).





## Source Water Assessment Summary

In an effort to assess the vulnerability of each New Hampshire’s public water supply sources, the New Hampshire Department of Environmental Services (NHDES) prepared drinking water Source Water Assessment Reports for all public water systems between 2000 and 2003. The Source Water Assessment Reports include a map of each Source Water Protection Area (SWPA), a list of potential and known contamination sources, as well as a summary of available protection options. The Susceptibility Rating can be viewed on the chart located on this page.

Well #	Date Assessment Completed	Susceptibility Rating		
		High	Medium	Low
001	02/20/2002	1	2	9
003	02/20/2002	1	2	9
004	02/20/2002	3	4	5
005	02/20/2002	4	3	5
007	03/31/2000	1	2	9
008	02/20/2002	1	2	9
009	02/20/2002	1	2	9

**Note:** As indicated on the chart, the results of MVD’s Source Water Assessment Report are from 2000 and 2002. This information is twenty to twenty-two years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data. The complete Source Water Assessment Report is available for review at MVD’s office located at 2 Greens Pond Rd Merrimack, NH. For more information, call MVD’s Water Quality Testing Specialist, Jill Lavoie at 603-424-9241 x: 103 or email [jill.lavoie@mvdwater.org](mailto:jill.lavoie@mvdwater.org), or visit the [NHDES website](http://NHDES website).

### How can I get involved?

For more information about your drinking water please contact MVD’s Water Quality Testing Specialist, Jill Lavoie by phone at 603-424-9241 x: 103 or email [jill.lavoie@mvdwater.org](mailto:jill.lavoie@mvdwater.org) or contact MVD’s Superintendent, Ronald Miner, Jr. by phone at 603-424-9241 x: 107 or email [ron.miner@mvdwater.org](mailto:ron.miner@mvdwater.org).

MVD’s Board of Commissioners (BOC) meet the 3<sup>rd</sup> Monday of each month (except holidays). The Public Session Agenda of the BOC Meeting includes “Questions from the Public/Press”. Questions can be submitted in writing to MVD via email at [customerservice@mvdwater.org](mailto:customerservice@mvdwater.org), or by mail to 2 Greens Pond Road, Merrimack, NH 03054. Please refer to MVD’s website [www.mvdwater.org](http://www.mvdwater.org) for further details (including dates, times, full agendas).



## Water Quality

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. Last year MVD tested for various contaminants, including inorganic contaminants (salts, metals), organic chemical contaminants (synthetic and volatile chemicals), and radioactive contaminants. The following tables only show the substances that were detected in MVD’s water in 2021 or earlier. Please note, during 2021 MVD temporarily obtained water from Pennichuck Water Works to provide customers with PFAS complaint water. As such, we have included the Pennichuck Water Works testing results from their CCR. Pennichuck Water Works complete CCR can be found on their website at <https://pennichuck.com/water-quality/water-quality-reports/>.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing completed in the prior calendar year. The EPA and/or the NHDES requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one-year-old. The data tables included in this report may have terms and abbreviations that are not familiar; to help with understanding this information we have provided “IMPORTANT DRINKING WATER DEFINITIONS”.

## QUESTIONS REGARDING THIS CCR REPORT

If you have any questions regarding this report or would like additional information about the water system please contact MVD’s Business Manager/Water Quality & Testing Specialist, Jill Lavoie by phone at 603-424-9241 x: 103, by emailing [jill.lavoie@mvdwater.org](mailto:jill.lavoie@mvdwater.org) or in-person at MVD office located at 2 Greens Pond Rd Merrimack NH, 03054. MVD’s normal business hours are Monday - Friday, from 8:00 AM - 4:30 PM.

**Additionally, you may contact any of the offices listed below for information.**

Name:	Phone/Website
US EPA	<a href="http://www.epa.gov">www.epa.gov</a>
US EPA Safe Drinking Water Hotline	800-426-4791
NHDES Drinking Water & Groundwater Bureau	603-271-2513
American Water Works Association	<a href="http://www.awwa.org">www.awwa.org</a>
New England Water Works Association	<a href="http://www.newwa.org">www.newwa.org</a>
NH Water Works Association	<a href="http://www.nhwwa.org">www.nhwwa.org</a>

## LEAD AND COPPER

Contaminant (Units)	Action Level	90th Percentile Sample Value	Date	# of Sites Above AL	Violation Yes/No	Likely Source of Contamination	Health Effects of Contaminant
Copper (ppm)	1.3	0.16	10/19/22	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead (ppb)	15	0	10/19/22	0	No	Corrosion of household plumbing systems, erosion of natural deposits	(15 ppb in more than 5%) 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 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). (Above 15 ppb) Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**Drinking Water Contaminants: Lead:** 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. This water system is responsible for high quality drinking water but cannot control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and 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 1-800-426-4791 or at [US EPA Basic Information about Lead in Drinking Water \(https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water\)](https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water).

## DETECTED WATER QUALITY RESULTS

### INORGANIC CONTAMINANTS

Contaminant (Units)	Level Detected	Date	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Arsenic (ppb)	3	04/07/2022	5	0	NO	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(2.5 ppb through 5 ppb) While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. (Above 5 ppb) Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.
Barium (ppm)	0.03	04/07/2022	2	2	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Nitrate (as Nitrogen) (ppm)	4.6	04/07/2022	10	10	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	(5 ppm through 10 ppm) 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 for advice from your health care provider. (Above 10 ppm) Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.



## PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) CONTAMINANTS

Contaminant (Units)	Level Detected	Date	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Perfluorohexane sulfonic acid (PFHxS) (ppt)	ND	2022	18	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorohexane sulfonic acid (PFHxS) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, or may experience increased cholesterol levels. It may also lower a women's chance of getting pregnant.
Perfluorononanoic acid (PFNA) (ppt)	ND	2022	11	0	NO		Some people who drink water containing perfluorononanoic acid (PFNA) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, or may experience increased cholesterol levels.
Perfluorooctane sulfonic acid (PFOS) (ppt)	ND	2022	15	0	NO		Some people who drink water containing perfluorooctane sulfonic acid (PFOS) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower a women's chance of getting pregnant.
Perfluorooctanoic acid (PFOA) (ppt)	ND	2022	12	0	NO		Some people who drink water containing perfluorooctanoic acid (PFOA) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower a women's chance of getting pregnant.

**RESOURCE INFORMATION FOR PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)** - The most up to date information can be found on the following websites:

**NH PFAS Investigation:** <https://www.pfas.des.nh.gov/>

**NH Dept Health & Human Services:** <https://www.dhhs.nh.gov/programs-services/environmental-health-and-you/poly-and-fluoroalkyl-substances-pfas>

**United States Environmental Protection Agency:** <https://www.epa.gov/pfas>

**MVD PFAS Information:** Detailed information, including “Frequently Asked Questions”, Notices, Planning/Financial info, Announcements, Media/Press Releases, as well as the analysis reports of water sampling test results, can be found on our website at [www.mvdwater.org](http://www.mvdwater.org). Construction of the PFAS Treatment Facility for Wells 7 & 8 has been completed and is operational as of spring 2022. Construction of the Wells 2 & 9 PFAS Treatment Facility has been completed and is operational as of March 2023. The cost of these PFAS Treatment Facilities is approximately \$14.5 million. These investments, along with on-going operations and maintenance costs, are supported by the voter approved budget as well as grants and loans. MVD continues to pursue additional grants through NHDES. Additionally, MVD has filed suit in New Hampshire Superior Court against the parties responsible for the PFOA contamination of MVD’s wells.



## SECONDARY CONTAMINANTS

Secondary MCLs (SMCL)	Level Detected	Date	Treatment technique (if any)	SMCL	50 % AGQS (Ambient groundwater quality standard)	AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Chloride (ppm)	150	04/07/2022	N/A	250	N/A	N/A	Wastewater, road salt, water softeners, corrosion
Iron (ppm)	2.4	04/07/2022	N/A	0.3	N/A	N/A	Geological
Manganese (ppm)	0.006	04/07/2022	N/A	0.05	0.15	0.3	Geological
Nickel (ppm)	0.012	04/07/2022	N/A	Not established; reporting is required for detections	0.05	0.1	Geological; electroplating, battery production, ceramics
pH (ppm)	6.174	04/07/2022	N/A	6.5-8.5 (Normal Range)	N/A	N/A	Precipitation and geology
Sodium (ppm)	72	04/07/2022	N/A	100-250	N/A	N/A	We are required to regularly sample for sodium.
Sulfate (ppm)	11	04/07/2022	N/A	250	250	500	Naturally occurring
Zinc (ppm)	0.007	04/07/2022	N/A	5	N/A	N/A	Galvanized pipes

## PENNICHUCK WATER WORKS

During 2022 MVD temporarily obtained water from Pennichuck Water Works to provide customers with PFAS complaint water. As such, we have included the Pennichuck Water Works testing results from their CCR. Pennichuck Water Work's CCR can be found on their website at <https://pennichuck.com/water-quality/water-quality-reports/>

Pennichuck Water- Nashua Core- 2022 Results							EPA # 1621010	
	Year Collected	90th Percentile	Action Level	MCLG	# of Sites Sampled	# sites above Action Level	Violation Yes/No	Typical Source of Contaminant
Lead (ppb)	2020	0	15	0	26	0	No	Corrosion of household plumbing systems, erosion of natural deposits
Copper (ppm)	2020	0.05	1.3	1.3	26	0	No	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives

  

Turbidity	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Violation Yes/No	Typical Source of Contaminant
Daily Compliance (NTU)	5	-----	0.23 on September 30, 2022	No	Soil Runoff
Monthly Compliance*	At least 100%	100 % - All of the months of 2022	-----	No	

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.

\*Monthly turbidity compliance is related to a specific treatment technique (TT). Our system filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.

Inorganic Contaminants	Year Collected	Highest Detect	Range Detected	MCL	MCLG	Violation Yes/No	Typical Source of Contaminant
Barium (ppm)	7/7/2022	0.0076	NA	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion or the natural deposits
Nitrate (ppm)	7/7/2022	0.55	NA	10	10	No	Runoff from fertilize use; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon (ppm)	2022	Average 0.72	0 – 1.01	TT	NA	No	Naturally present in the environment

Organic Chemical Contaminants							
Perfluorooctanoic acid (PFOA)(ppt)	Quarterly 2022	RAA 6.23	2.87 – 10.6	12	0	No	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems

Disinfectants and Disinfection By-Products							
Chlorine (ppm)	Monthly 2022	Average 0.54	0.02 - 1.13	4-MRDL	4-MRDLG	No	Water additive used to control microbes
Total Trihalomethanes (TTHM) (ppb)	Quarterly 2022	RAA 28.8	15 - 41	80	NA	No	By-product of drinking water disinfection
Halooacetic Acids (ppb)	Quarterly 2022	RAA 14.5	6 – 19	60	NA	No	By-product of drinking water disinfection

  

Secondary MCLs (SMCL)	Date	Level Detected	Treatment technique	SMCL	AGQS	Specific contaminant criteria and reason for monitoring
Chloride (ppm)	7/20/2022	74	N/A	250	N/A	Wastewater, road salt, water softeners, corrosion
Hardness (ppm)	7/20/2022	19.5	N/A	N/A	N/A	Geological
Iron (ppm)	7/20/2022	0.036	Carbon filter	0.3	N/A	Geological
Manganese (ppm)	7/20/2022	0.0157	Carbon filter	0.05	0.3	Geological
Nickel (ppm)	7/20/2022	0.0023	N/A	N/A	0.01	Geological; electroplating, battery production, ceramics
pH	7/20/2022	7.57	N/A	6.5 -8.5	N/A	Geological; electroplating, battery production, ceramics
Sodium (ppm)	7/20/2022	46.6	N/A	100-250	N/A	We are required to regularly sample for sodium
Sulfate (ppm)	7/20/2022	6	N/A	250	500	Naturally occurring
Zinc (ppm)	7/20/2022	0.237	N/A	5	N/A	Galvanized pipes

  

Unregulated Contaminant Monitoring Regulation 4	Year Collected	Highest Detect	Range Detected	Reason for Monitoring
<b>Unregulated Contaminant Monitoring Regulation 4</b>				
Halooacetic Acids HAA5 (ppb)	2018/2019	21.6	4.4 - 21.6	The elements listed in this section are contaminants that do not have a standard set. These contaminants are monitored in order to provide information to the US Environmental Protection Agency, while they conduct evaluation on whether these contaminants should have a standard established.
Halooacetic Acids HAA6Br (ppb)	2018/2019	8.5	4.6 - 8.5	
Halooacetic Acids HAA9 (ppb)	2018/2019	28.9	8.6 – 28.9	
Manganese (ppb)	2018/2019	4.06	0.7 – 4.6	
Germanium (ppb)	2018/2019	BDL	BDL	

  

Cyanotoxin Assessment Monitoring				
Total microcystin (ppb)	2020	BDL	BDL	The elements listed in this section are contaminants that do not have a standard set. These contaminants are monitored in order to provide information to the US Environmental Protection Agency, while they conduct evaluation on whether these contaminants should have a standard established.
Cylindrospermopsin (ppb)	2020	BDL	BDL	
Anatoxin-a (ppb)	2020	BDL	BDL	

## IMPORTANT DRINKING WATER DEFINITIONS

TERM	DEFINITION
AGQS	Ambient Groundwater Quality Standard: An enforceable standard set by NHDES under Chapter 485 of the New Hampshire Safe Drinking water Act.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
BDL	Below Detection Limit
LEVEL I ASSESSMENT:	A study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.
LEVEL II ASSESSMENT:	A very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
MCL	Maximum Contaminant Level: 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.
MCLG	Maximum Contaminant Level Goal: 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.
mg/L	Milligrams per Liter
MNR	Monitored Not Regulated
MPL	State Assigned Maximum Permissible Level
MRDL	Maximum Residual Disinfectant Level: 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.
MRDLG	Maximum Residual Disinfection Level Goal: 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.
MRL	Minimum Reporting Level
N/A or NA	Not Applicable
ND	Not Detected
NR	Monitoring not Required but Recommended.
NTU	Nephelometric Turbidity Units: 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.
ppb	Parts per Billion or Micrograms per Liter ( $\mu\text{g/L}$ )
ppm	Parts per million or Milligrams per Liter ( $\text{mg/L}$ )
ppt	Parts per Trillion
RAA	Running Annual Average
TTHM	Total Trihalomethanes
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
UCMR	Unregulated Contaminant Monitoring Rule
ug/L	micrograms per Liter



## WATER RESTRICTIONS/BANS

### Purpose:

1. To assist in managing the water distribution system – ensuring we maintain adequate supply for residential and commercial usage.
2. Maintain the required level of water in the storage tanks to ensure ample pressure for potential use by the Town of Merrimack’s Fire Department.
3. Comply with the New Hampshire Department of Environmental Services (NHDES) Drinking Water and Groundwater Bureau (DWGB) rules and regulations which requires water providers to submit and enforce a “Conservation Plan”.

### Reasoning:

MVD's water is supplied from groundwater wells, not surface water such as rivers, lakes, and reservoirs. The New Hampshire Department of Environmental Services (NHDES) Drinking Water and Groundwater Bureau (DWGB) permits each of MVD’s wells to withdraw a maximum specified quantity of water from the ground per minute – this limits the amount of water we are permitted to produce at a time. Limiting the production amount allows water withdrawal from the aquifer in a controlled manner, which helps protect against seasonal fluctuations, and aids in maintaining sufficient supply. Irrigation and sprinklers have the highest rate of water consumption and causes substantially increased demands. Increased demand is supplied by three storage tanks; the tanks cannot fill up faster than what we are allowed to produce – having Water Restrictions allows the tanks to replenish and be ready for peak usage demands.

### Details:

Information about the current Watering Restriction as well as any changes to the Level of the Watering Restrictions can be found posted on signs/banners located throughout town, through email notification for subscribers, as well as on MVD’s Facebook page and website.

Other useful information on the Watering Restrictions/Bans page of our website is a “*Frequently Asked Questions*” document, an “*Irrigation Calculator*”, links to the “*US Drought Monitor for NH*” and to the “*Known Water Use Restrictions*”.

MVD staff adjusts production rates to match demand and continuously monitors the water distribution system, the weather conditions and forecasts to determine if additional Watering Restrictions are necessary.

**Please be advised - MVD's Watering Restrictions and Bans are strictly enforced.**

**Per MVD By-Law 1.D.: “The first violation will result in a warning letter. Further violations will result in termination of water service as well as fees.”**



## MVD has FOUR levels for Water Restrictions as follows:

<b>YEAR-ROUND ODD/EVEN</b>	<p><b>Address/Calendar Day - Watering is permitted based on number of the street address.</b></p> <ul style="list-style-type: none"> <li>◦ Odd Street Address: ODD calendar days</li> <li>◦ Even Street Address: EVEN calendar days</li> <li>◦ <i>Condo Units – please contact your Property Management Company</i></li> </ul> <p>31st of March, May, July, August, and October – all residents may water outside, from 5AM to 8AM only. (Refer to MVD By-Laws 2.D. and 2.J.)</p>
<b>LEVEL 1</b>	<p><b>ODD/EVEN with <i>TIME LIMIT</i></b></p> <ul style="list-style-type: none"> <li>◦ Odd Street Addresses: ODD calendar days</li> <li>◦ Even Street Addresses: EVEN calendar days</li> <li>◦ <i>Condo Units – please contact your Property Management Company</i></li> </ul> <p>ONLY between: 5am to 8am and/or 5pm to 8pm</p> <ul style="list-style-type: none"> <li>i. Washing of streets, driveways, sidewalks or other impervious areas is prohibited.</li> <li>ii. Washing of cars and boats at a non-commercial facility shall be restricted to odd/even days by address as described above.</li> </ul>
<b>LEVEL 2</b>	<p><b>DAY AND TIME LIMIT</b></p> <ul style="list-style-type: none"> <li>◦ Odd Street Addresses: <i>MONDAYS &amp; THURSDAYS</i></li> <li>◦ Even Street Addresses: <i>TUESDAYS &amp; FRIDAYS</i></li> <li>◦ <i>Condo Units – please contact your Property Management Company</i></li> </ul> <p>ONLY between: 5am to 8am and/or 5pm to 8pm</p> <ul style="list-style-type: none"> <li>i. Washing of streets, driveways, sidewalks or other impervious areas is prohibited.</li> <li>ii. Washing of cars and boats at a non-commercial facility shall be restricted to odd/even days by address as described above.</li> </ul>
<b>LEVEL 3</b>	<p><b><u>NO OUTSIDE WATER USE</u></b></p>

### Restriction Exceptions:

- i. Hand irrigation of crops used for food by residents at a residential property shall not be restricted.
- ii. Water to sustain animal life shall not be restricted.
- iii. Despite the authority granted by RSA 41:11-d. water use restrictions shall not apply to uses that obtain water from sources other than the public water supply, unless it can be clearly demonstrated that the use of such water directly affects the public water supply. Note: Municipalities or Village Districts have the authority to implement lawn watering restrictions in accordance with RSA 41:11-d applicable to all water users (including those using private wells) under state declared drought conditions.



# Merrimack Village District

2 Greens Pond Rd Merrimack, NH 03054

Monday – Friday 8:00 AM - 4:30 PM

**Phone : 603-424-9241**

**Fax : 603-424-0563**

**Email : [customerservice@mvdwater.org](mailto:customerservice@mvdwater.org)**

**Website: [www.mvdwater.org](http://www.mvdwater.org)**

**Facebook: [www.facebook.com/MerrimackVillageDistrict](http://www.facebook.com/MerrimackVillageDistrict)**

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**Visit MVD's website [www.mvdwater.org](http://www.mvdwater.org)**

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Click the  logo

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