Some or all of these definitions may be found in this report:

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.

Maximum Residual Disinfectant 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 Disinfectant 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.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

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, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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

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

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

North Marshall Water District
Water Quality Report
2024

For previous reports include year.
Example: tapwaterinfo.com/2023/northmarshall

Water System ID: KY0790319
General Manager: Shannon Elam
CCR Contact: Mike Penney
Phone: 270-527-3208

Mailing address:
96 Carroll Road Benton, KY 42025

Meeting location and time:
District Office – 96 Carroll Road Draffenville, KY
Third Thursday each month at 9:00 AM

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). To understand the possible health effects described for many regulated contaminants, 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 described health effect.

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 may 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, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health

Source Information:

North Marshall Water District operates two groundwater treatment plants. The Carter Brien Plant (B) is currently closed. We have developed a Wellhead Protection Plan and the overall susceptibility rating for our source is low. However, there are a few potential contaminant sources that could have a higher impact. Located within the wellhead protection areas are roads with the potential for chemical spills, fuel storage tanks, a closed landfill, and an onsite sewage treatment plant. Activities and land use within the watershed can pose potential risks to your drinking water. A copy of the complete Wellhead Protection Plan may be reviewed at the North Marshall Water District Office during normal business hours.
We purchase emergency supplemental water from Jonathan Creek Water District that treats groundwater from two wells located near their treatment plant. An analysis of the overall susceptibility to contamination of the Jonathan Creek water supply indicated that the susceptibility to contamination is moderate. However, some activities have the potential to contaminate the groundwater. Sources of impact include agricultural activities, septic systems, transportation corridors, and underground storage tanks. The complete Susceptibility Analysis Report is available for review at the Purchase Area Development District, 1002 Medical Drive, Mayfield, Kentucky (270) 247-7171. The report is also available for review during normal business hours at the Jonathan Creek Water District, located at 7564 Highway 68 East, Benton, Kentucky (270) 354-8474.

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).

Information about Lead:

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. Your local water system is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact your local water system. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Service Line Inventory Information:

To address lead in drinking water, EPA requires that all community water systems develop and maintain an inventory of service line materials. We have completed a service line inventory (SLI) and it is available for review at our office.

Lead Sample Results Availability Information:

We are required to periodically sample water from customer taps to determine lead and copper levels. EPA sets the lead action level at 0.015 mg/L (15 ppb). For a water system to be in compliance, at least 90% of tap water samples must have lead levels below this limit. This report contains the 90th percentile and range of our most recent sampling. The individual results for each location sampled can be reviewed at our office.

Regulated Contaminant Test Results			North Marshall Water District				
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Barium [1010] (ppm)	2	2	0.024	0.024 to 0.024	Aug-24	No	Drilling wastes; metal refineries; erosion of natural deposits
Chromium [1020] (ppb)	100	100	1.1	1.1 to 1.1	Aug-24	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	0.78	0.78 to 0.78	Aug-24	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	0.7	0.7 to 0.7	Aug-24	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	0.87 (highest average)	0.31 to 1.42	2024	No	Water additive used to control microbes.
TTHM (ppb) (Stage 2) [total trihalomethanes] (Annual Sample)	80	N/A	4 (high site)	4 to 4 (range of individual sites)	2024	No	Byproduct of drinking water disinfection.
Household Plumbing Contaminants							
Copper (ppm) Round 1 sites exceeding action level 1	AL = 1.3	1.3	0.69 (90th percentile)	0.0051 to 1.6	Jun-23	No	Corrosion of household plumbing systems
Lead (ppb) Round 1 sites exceeding action level 0	AL = 15	0	1.6 (90th percentile)	0 to 14	Jun-23	No	Corrosion of household plumbing systems

Regulated Contaminant Test Results			Jonathan Creek Water District				
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Barium [1010] (ppm)	2	2	0.014	0.014 to 0.014	Aug-23	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	0.72	0.72 to 0.72	Aug-23	No	Water additive which promotes strong teeth
Nickel (ppb) (US EPA remanded MCL in February 1995)	N/A	N/A	3	3 to 3	Aug-23	No	N/A

We are only required to test for some contaminants periodically, so the results listed in this report may not be from the previous year. Only detected contaminants are included in this report. For a list of all contaminants we test for please contact us. Copies of this report are available upon request by contacting our office.

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

The USEPA has introduced regulations with MCLs for PFAS in drinking water. “PFAS,” are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s in products including food packaging, cookware, clothing, cosmetics, carpet and furniture treatments, even dental floss, and toilet paper. PFAS have been found in water, air, and soil throughout the U.S. and around the world and, as a result, they can end up in drinking water sources. It is important to note that PFAS are not used in drinking water treatment processes, and they are not produced during drinking water treatment processes. Samples were obtained from all the wells used by NMWD and PFAS was detected above the MCL in wells supplying Plant B (Carter Brien WTP) which serves the northern portion of the district's service territory. Plant B was removed from service on October 3, 2023 to allow us to perform an assessment of the wells and evaluate treatment options for the plant to attain compliance with the regulatory standard. All wells remaining in service are in compliance with the EPA standards for PFAS based on testing conducted by the district and by the Kentucky Environmental Protection Cabinet. More information concerning PFAS is available by clicking the line on the district's webpage at http://www.northmarshallwater.com.

To understand the possible health effects described for many regulated contaminants, 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 described health effect.