



2004 Drinking Water Consumer Confidence Report

COPIES OF THIS REPORT ARE AVAILABLE AT:

THE MARIETTA WATER OFFICE AT 304 PUTNAM STREET,
THE MAYOR'S OFFICE AT 301 PUTNAM STREET,
OR BY CALLING (740)374-6864.

The professional and qualified staffs of the City of Marietta Water Treatment/Distribution/Backflow Department have dedicated ourselves to producing drinking water that meets or exceeds State and Federal drinking water standards.

- Our Water Plant Operators must pass and maintain a valid State License in water treatment. The five Water Plant Operators operate, monitor and regulate the wells and treatment plants. Our plant is in operation 24-hrs, 7 days a week.
- Distribution personnel also possess a State Distribution License. They are responsible for repairing and maintaining the water lines.
- An extensive sampling and analytical testing program is utilized. Over 600 water samples are tested to ensure that the quality of the drinking water meets or exceeds State and Federal standards.
- Monthly reports are required by the Environment Protection Agency. Report data is based on numerous daily tests.
- Our Backflow Department follows the standards set forth in the Ohio Administrative Code, Chapter 3745-95, administered by the Ohio Environmental Protection Agency and defined in City of Marietta Codified Ordinance no. 927.08 (1990).

Water Quality Sampling

Our water plant operators and bacteriologists test many samples of water daily, weekly and monthly to monitor the water softening process and final water distributed to you. This certified laboratory testing is done for pH, alkalinity, total hardness, fluoride, chlorine and stability. Other approved drinking water laboratories perform other tests, such as total phosphate, as required to meet all Ohio EPA testing requirements. Total coliform tests are performed to ensure that the water has no bacterial contamination. Negative results were reported for all 308 samples taken during 2004.

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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)**.

Where does my water come from.....Source Water Assessment and its Availability

The aquifer that supplies drinking water to the City of Marietta is located to the east of the Muskingum River approximately 1.75 miles north of the confluence with the Ohio River. It has a high susceptibility to contamination, as indicated by the presence of volatile organic compounds (specifically 1,1,1-trichloroethane and tetrachloroethene) and the past presence of nitrates above 2 mg/l in the treated water. This indicates a manmade influence, but these concentrations are below the Federal and State drinking water standards. The high susceptibility is also due to the sensitive nature of the aquifer in which the drinking water wells are located and the existing potential contamination sources. The levels of volatile organic compounds have been stabilized through remediation efforts and the levels of nitrate have decreased after the City purchased farm land and discontinued the use of fertilizer on that land. Future contamination may be avoided by implementing additional protective measures.

One of the actions taken to reduce the susceptibility of the well field was the completion of a Wellhead Protection Area Potential Pollution Source Inventory, which has been approved by the Ohio EPA. This report is a summary prepared by Ohio Rural Community Assistance Program Community Action Commission, Inc. with input from our own local Stakeholders Committee. It includes a list of industrial, commercial and other potential hazards located within the one-year and five-year time of travel area that could impact any of the City's seven production wells. A Water Supply Management Plan is currently being designed to ensure that these potential pollution sources are monitored and managed to avoid future contamination of our well field and valuable water supply.

Present examples of water quality management practices include:

1. Continuous pumping of interceptor well #1 to contain and remove tetrachloroethylene (PCE) from our water supply.
2. Monthly sampling to monitor PCE presence in our aquifer.
3. Continuous process control of the water treatment and softening process at the Water Plant.
4. Bacteriological sample testing weekly as well as daily following boil advisories after water line breaks or loss of water service in the distribution system.
5. Improvements in water delivery with water main upgrades and water storage facilities such as the new two million gallon Glendale Tank that was placed in service April 8, 2004.
6. Hydrant flushing to remove mineral settlements, air pocket accumulations and performance evaluation for fire flow protection help ensure that high quality water is readily available.
7. An active customer compliance program called Backflow Prevention; this legislated program requires containment of the public water supply after it passes through the water meter to prevent contaminants from entering back into the distribution system.
8. Signs identifying the zone of influence of our water aquifer to warn of the dangers of accidental spills or use of hazardous materials within this area.

What are sources of contamination to drinking water?

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 can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). 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 can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria, that 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. 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Definitions of some terms contained within this report

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/l) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (ug/l) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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

The "<" symbol: A symbol which means less than. A result of <.5 means that the lowest level that could be detected was .5 and the contaminate in that sample was not detected.

Term	Definition
ppb	ppb: parts per billion, or micrograms per liter (ug/l)
NA	NA: not applicable
ND	ND: not detected
NR	NR: monitoring not required; but recommended
AL	Action Level

Water Quality Data Table for 2004

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The Ohio EPA requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Quarter	2003 THM Results (ug/l)			2004 THM Results (ug/l)			
	Apr-Jun	Jul-Sept.	Oct-Dec	Jan-Mar	Apr-June	Jul-Sept	Oct-Dec
Sample Value ug/l	16.3	15.2	4.2	9.5	14.0	15.3	13.2
Running Annual Average				5.8	9.1	9.7	8.8
CCR Report Values				Highest Compliance Value = 9.7 ug/l Range of Values = 9.5 ug/l to 15.3 ug/l			

Inorganic Contaminants

Contaminants	MCLG	MCL	Level Found	Range of Detections	Violations	Year Sampled	Typical source of Contamination
Nitrate (ppm)	10	10	1.48	NA	NO	2004	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sulfate (ppm)	N A	NA	100	NA	NO	2004	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Fluoride (ppm)	4	4	.88	0.81-1.28	NO	2004	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Contaminants	MCLG	AL	Level Found	Year Sampled	# Samples Exceeding AL	Exceeds AL	Typical source of Contamination
Lead action level at consumer taps (ppm)	0	15	0	2004	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits
Copper action level at consumer taps (ppm)	1.3	1.3	0	2004	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits

Contaminants	AL	Level Found	Year Sampled	Health Effect	Informational Statement
Arsenic	5	ND <3.0 ug/L	2004	NONE	While your drinking water meets EPA's standard for arsenic, it may contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs 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. Typical Source- Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes

Inorganic Contaminants

Volatile Organic Contaminants

Contaminants	MCLG	MCL	Level Found	Range of Detections	Violations	Year Sampled	Typical source of Contamination
TTHMs (total trihalomethanes) (ppb)	NA	100	33.35	23.3-38.8	NO	2004	By-product of drinking water disinfection
1,1,1-trichloroethane (ppb)	200	200	<0.5	NA	NO	2004	Discharge from metal degreasing sites and other factories

Trees Aid in the Reduction of Stormwater

Stormwater management has two major challenges: 1) channel the water so it doesn't flood homes, property, or city streets and 2) make sure the water is reasonably clean before it flows into natural streams, rivers, and lakes. As stormwater washes down streets and sewers and into natural waterways, its temperature increases and it picks up particulates, heavy metals, and other pollutants. Metropolitan areas with adequate tree cover are much better places to live. Having more trees in the yard and along the streets pays big dividends. Trees in urban areas reduce stormwater runoffs, improve air quality, and reduce energy consumption. Before humans impacted the environment by building parking lots, roads, and buildings, stormwater soaked into the soil. As communities grow, trees are removed to make way for these impervious surfaces. Natural drainage quickly becomes a problem. Studies show that impervious surfaces have increased by 20% over the past 2 decades in urban areas. Constructed stormwater facilities are created to compensate for the tree loss. These facilities are expensive to build and maintain. The cost has been calculated to be in excess of \$100 billion nationally. Trees help manage stormwater flow by intercepting rainfall and slowing the rate at which it runs over the surface of the land and seeps into the ground. In an area with tree cover, the flow of water is spread over a greater amount of time. The impact of a storm on the facilities built to handle it at any one time is smaller. Depending upon the species of tree and the soil type, the average street tree can absorb 4000 gallons of storm water a year, according to Ann Bonner, Urban Forester, ODNR, Division of Forestry. Also, water polluting nitrates, phosphorus, and potassium, are readily absorbed by trees which consider these substances food. Planting trees when and where possible and reducing the amount of impermeable surface area is a win/win situation for all of us and generations to come. Aesthetically it makes our towns and cities more pleasant and planting trees will do much to improve the environment. Any questions regarding stormwater and what you can do to help keep nonpoint source pollution from entering the streams via stormdrains, call Washington Soil and Water Conservation District, at 740-373-4857 and ask for Kathy Davis.

Things You Can do to Prevent Stormwater Runoff Pollution

1. Never dump anything down stormdrains.
2. Use pesticides & fertilizers sparingly.
3. Keep yard waste out of streets. Sweep up yard debris rather than hosing down areas. Compost or recycle whenever possible.
4. Vegetate bare spots in your yard to keep sediment out of the stormwater.
5. Direct downspouts away from paved surfaces.
6. Wash your vehicle at a commercial car wash, on your lawn or on another unpaved surface.
7. Have your septic tank pumped and system inspected regularly.
8. Pick up your pet's waste.
9. Check vehicles for leaks. Dispose of used auto fluids (antifreeze, oil, etc.) and batteries at designated collection or recycling locations.
10. Properly dispose of excess paints through a household hazardous waste collection program.

How Do I Get Involved?

We encourage public participation and comments at the Water & Sewer Committee meetings. The meetings are announced at the City of Marietta Council meetings. Council meets the 1st & 3rd Thursday of each month at Lookout Park. You may also contact the Clerk of Council at 740-374-5501.

You can also help by keeping the streams and rivers clean and reporting any potential hazards spills or pollution sources. Accidental or unauthorized releases of contaminants to the air, land or water such as spills, releases, intentional dumping or emissions can be reported to Ohio EPA 24-hour EMERGENCY RESPONSE hotline at 800-282-9378.

For more information on your drinking water, contact Paul Beach, Water Superintendent, at 740-376-2010; plant no. 740-374-6864; fax no. 740-376-2002 or by E-mail wtpm@mariettaoh.net.

About Your Drinking Water

The EPA requires regular sampling to ensure drinking water safety. The City of Marietta's Water Treatment & Distribution Dept. conducted sampling for bacteria; inorganic; radiological; synthetic organic; volatile organic contaminant sampling during 2004. Samples were collected for a total of 68 different contaminants, most of which were not detected in the City of Marietta's Water Treatment & Distribution Dept. water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate is more than one year old.

Backflow Prevention Requirements

The Backflow Prevention devices are required to be tested annually to make sure the devices are in proper working condition. It is the *customers/property owners* responsibility to install (as per City of Marietta specifications) and have backflow devices tested by a qualified tester; backflow prevention devices will also be required on residential service connections. The type of device required will depend on the degree of hazard your service connection exposes our water system to. Examples of hazards: lawn irrigation, swimming pools, fire suppression, residential boilers, etc.

Removing or relocating an existing backflow device without the approval of the City of Marietta Backflow Department will result in the loss of your water services.

NOTICE TO ALL CUSTOMERS OF MARIETTA CITY WATER & WASTEWATER DEPARTMENTS

This notice is mailed to our customers in accordance with provisions of Ohio Revised Code Section 4933.19.

TAMPERING WITH WATER METERS OR WATER SERVICE EQUIPMENT AND THE THEFT OF WATER ARE CRIMINAL ACTIVITIES AND MAY RESULT IN PENALTIES TO OFFENDERS. A PERSON FOUND BENEFITING FROM TAMPERING OR AN UNAUTHORIZED SERVICE CONNECTION IS PRESUMED TO HAVE COMMITTED THE VIOLATION AND WILL BE PROSECUTED.

1. It is a crime to tamper with or by-pass a water meter, conduit or attachment of a utility. It is also a crime to reconnect a water meter, conduit or attachment of a utility that has been disconnected by the utility.
2. It is a crime to knowingly consume any water, which has not been correctly registered because a meter, conduit or attachment of a utility has been tampered with, or by-passed, or knowingly use service that has been disconnected by an utility and reconnected without the utility's consent.
3. **A felony or misdemeanor conviction** for a theft offense can result from a violation of these laws. The person so convicted is subject to the imposition of criminal sanctions including imprisonment and payment of fines and will also be required to make restitution for the costs of repairs, replacement of the meters, conduits or attachments damaged and for the value of the illegally consumed water.

Checking Meters

The City Meter Department must read, inspect and service its meters bi-monthly to make sure they're operating properly. Only City of Marietta Water Department employees can connect or disconnect the meter, or change its location. Whether the meter is inside or outside your home, please clear a three-foot area around it; making sure it is accessible and visible. Servicing a blocked meter is difficult and can be a safety hazard in an emergency.

115 Years of Commitment to Quality Water & Service

August 4, 1857-Wells-Person or Persons digging a water well, must provide pump, buckets or fixtures for drawing water

December 4, 1874-Public Cisterns-Any person taking water from public cisterns, except by permit from Council, for any purpose other than the extinguishment of fires will be fined not less than \$1.00 and not more than \$10.00

September 13, 1889-Bonds for Construction-To provide means for the construction and completion of a system of water works. The plant was on South Seventh Street and used water from the Ohio River.

July 7, 1903-Fire Hydrant-No person shall tie or hitch any horse or other animal to any fire hydrant

February 5, 1914-Water Meters-To install water meters for the supply of water and usage of water charged by reading on meter and not by a flat rate. All outside water faucets and water supply pipes shall be sealed as long as the user of water is in arrears for the payment

March 7, 1919-Water Service on Greene Street-Extension of water service from pump station to Greene Street by a 6" water main

March 18, 1920-Construction Water Plant-To hire a Engineer to advise the city in construction of a water plant

July 5, 1923 Water Purification Methods-H. R. Eggleston and William J. Evilsizer, employees of Water Works Dept., were sent to Zanesville to investigate water purification methods.

June 19, 1924 Fairview Heights-Water tower was built to supply water to Fairview Heights at a cost of \$750.00

March 5, 1925-Repairing of Water Connections-Property owner shall furnish all materials necessary for repairing water connections, water connections shall be first-class galvanized pipe.

1938-Plans began for a new water treatment facility at 2000 Fourth Street

1939-Water treatment Plant began operations

1946-Ordinance 47-Extending Water Lines-An Ordinance to extend water lines to Goodrich Plant and Highland Meadows Sub-Division

1949-Major changes to the water treatment process

1961-Fluoride was added to the plant process

1973 & 1974-Only two (2) of the original three (3) 1938-39 wells are still in use by 1974. Wells 5, 6, 7, & 8 were developed.

1974-North Hills Tank (500,000 gallons), pressure regulating stations, and a 2 million gallon Plant Storage Tank were put into service.

1975-Added to service in March was a second water treatment plant and sludge/filter dewatering process system.

1994-Upgrades to softening equipment at Plant #1

1997-Major renovations to both Water Treatment Plants.

2000-East Norwood 2 million gallon water tank went into service.

2004-Glendale Tank Reservoir replaced with two (2) million gallon tank.



**Water Treatment
Distribution
Backflow Departments**
2000 Fourth St., P. O. Box 836
Marietta, OH 45750

FIRSTCLASS MAIL
U. S. POSTAGE PAID
PERMIT NO. 56
MARIETTA, OHIO

2004 CONSUMER CONFIDENCE REPORT

Or Current Resident