

### Who is at risk ?

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 the water poses a health risk. However, some people may be more vulnerable to contaminants; immune-compromised persons such as persons with cancer undergoing chemotherapy; and 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.

### Water Quality Update

Our history of providing safe and reliable water service to our customers remains our primary mission. District staff monitor basic water quality continuously through automated processes and daily equipment checks. In addition, staff submitted over 150 water quality samples for analysis in 2009.

The State requires the District to monitor for certain contaminants less than once per year, because the concentrations of these contaminants do not change frequently. Unless otherwise noted, the data presented in this table is from testing conducted 1/01/2009 - 12/31/2009. Other data may be more than one year old.

Regulations require the District to list only *primary* contaminants detected in the water in this report. If the contaminant is higher than the Maximum Contaminant Level (MCL) established by the State, that is a violation, and the State requires the District to explain each violation.

On the inside page is a table outlining primary contaminants detected, with explanations for any violations. Unless otherwise noted, contaminants are measured in units of *part per million* (ppm) or *part per billion* (ppb). To add perspective, one ppm is equivalent to one inch in about 16 miles.

The Department of Health recommends the District not include every substance monitored in this report. All primary contaminants detected, regardless of level, are identified on the inside page. If you are interested in reviewing results from all sampling completed, please contact our Operations Manager at 360.871.0500.

More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline. Also available are guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants.

### Looking Forward

The Commissioners and staff of Manchester Water District are committed to providing our community with safe and reliable water service, while protecting our resources for generations to come.

In the last decade we have added or replaced thousands of feet of pipe, upgraded reservoirs, and implemented an automated Supervisory Control and Data Acquisition (SCADA) System to continuously monitor and control pumping, distribution, and water quality functions. We continue to improve and maintain our facilities with a "good neighbor" approach to design and appearance. We are also engaged in a residential meter replacement program utilizing technologies designed to increase efficiency and improve customer service.

As we look to the future, we pledge to protect our resources while improving reliability. All through responsible fiscal management, environmental stewardship, and a forward-looking vision. We are now and will remain "at your service".

**EPA Safe Drinking Water Hotline**  
**1-800-426-4791**

**For More Information**  
Washington State Department of Health  
Drinking Water Program  
Toll-free 1-800-521-0323  
<http://www.doh.wa.gov/ehp/dw>

US Environmental Protection Agency  
Office of Ground Water and Drinking Water  
Toll-free 1-800-426-4791  
<Http://www.epa.gov/OGWDW/>

## Manchester Water District

"Serving Our Community Since 1942"

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## Manchester Water District

### 2009 Water Quality Report

#### State ID # 507002



### About Us

Manchester Water District was formed in 1942 under Chapter 57 of the Revised Code of Washington. The District is governed by an elected three-member Board of Commissioners and staffed by licensed professional employees.

In its sixty-six year history, the District has grown to service over 3,200 individual accounts and over 9,000 people. Our distribution system now consists of over 33 miles of water main, 11 wells, 5 reservoirs and 2 booster stations. We also provide water for fire protection through more than 360 public and private fire hydrants.

The District delivered over 221 million gallons of water in 2009 to customers in Manchester, South Colby, Harper, and Southworth service territories. To ensure enough water is available to satisfy peak demands and maintain fire protection, we store roughly 3.2 million gallons in reservoirs located throughout our service area.

Area residents voted to fluoridate the water in 1969. Since then, we have been adding fluoride at the recommended target rate of one part per million.

We also treat your water by injecting trace amounts of chlorine throughout our service area. This disinfection process is required by the Washington State Department of Health to provide a barrier of protection against bacterial growth in the distribution system. This process also controls taste and odor concerns from wells that contain hydrogen sulfide.

# Manchester Water District

This is your **2009 Water Quality Report**, also referred to as a Consumer Confidence Report. The purpose of this report is to keep you informed about the water you drink. **This report shows that your water meets or exceeds state and federal primary drinking water standards.**

This report conforms to federal regulation according to the Federal Safe Drinking Water Act (SDWA) requiring water utilities to provide detailed water quality information to each customer annually. This information is provided so that you the consumer are better informed.

### What is monitored?

The SDWA categorizes drinking water contaminants into primary and secondary categories. Primary contaminants are those that are known to affect public health. Secondary contaminants do not impact public health, but may affect aesthetic qualities, such as appearance, taste, and odor.

Water utilities are responsible for sampling and reporting results to the State Department of Health (DOH), which in turn report to the Environmental Protection Agency (EPA). The EPA uses this data to ensure that consumers are receiving water that meets or exceeds minimum standards and to verify that states are enforcing the drinking water regulations.

### Contaminants that may be present in source water:

Microbial, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic chemicals, 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 mining or farming activities.

Pesticides and herbicides, which may come from a variety of sources such as agricultural, residential application, and storm water runoff.

Organic chemical contaminants, include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, they also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants are naturally occurring and typically found in groundwater that has come in contact with radioactive material.

## Consumer Confidence Report for the Year 2009

The table below shows water quality monitoring results. Other contaminants required to be monitored but not listed were below the standard detection limits.

| Analysis                        | Tested    | Result   | Unit | MCL  | MCLG | Violation                                     | Comment/Possible Source  |
|---------------------------------|-----------|--|------|------|------|---|--|
| <b>Inorganic Chemicals</b>      |           |  |      |      |      |   |  |
| Arsenic                         | 10/9/2009 | <.002  | ppm  | .01  | .01  | No  | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.                                  |
| Fluoride                        | 10/9/2009 | <.2  | ppm  | 4    | 4    | No  | Erosion of natural deposits; discharge from fertilizers and aluminum factories; water additive, which promotes strong teeth. |
| Nitrate                         | 8/20/2009 | 1.5  | ppm  | 10   | 10   | No  | Runoff from fertilizer use; leaching from septic tanks, sewage, and natural occurrences through erosion.                     |
| <b>Lead and Copper</b>          |           |  |      |      |      |   |  |
| Lead                            | 9/21/2009 | <0.004   | ppm  | .015 | .015 | No  | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.                      |
| Copper                          | 9/21/2009 | <0.23  | ppm  | 1.3  | 1.3  | No  | Corrosion of household plumbing systems; erosion of natural deposits.  |
| <b>Disinfectant By-products</b> |           |  |      |      |      |   |  |
| Total Trihalomethanes           | 8/8/2007  | 6.7  | ppb  | 80   | 80   | No  | By-product of drinking water chlorination.   |
| Haloacetic Acids                | 8/8/2007  | 4.6  | ppb  | 60   | 60   | No  | By-product of drinking water chlorination.   |
| Chlorine Residual               | Daily     | 0.1-0.5  | ppm  | *4   | **4  | No  | Water Additive used to control microbes. *MRDL/**MRDLG; see notes below.   |
| Coliform Monitoring             | Monthly   | Zero (0) of 120 samples taken tested positive for coliform bacteria. |      |      |      | Indicator organism; see Coliform notes below. |  |

### Terms and Abbreviations

N/D: None Detected

ppm: Parts per million

ppb: Parts per billion

**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 contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Action Level:** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.

**\*MRDL:** Maximum Residual Disinfectant Level. The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**\*\*MRDLG:** Maximum Residual Disinfectant Level Goal. Margin of safety for maximum residual disinfectant level.

**Coliform Notes:** Coliform Bacteria are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. When bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If detected, the water purveyor must notify the public by newspaper, television, or radio.