



Marion County Drinking Water Systems Profile 2014



Introduction:

Oregon statute ORS 448.131 specifies requirements for public water system maintenance, testing and notification. This profile will focus on systems that are inspected by Marion County Health Department Environmental Health (MCHD-EH) and serve approximately 45,578 people, or about 14% of the 315,335¹ persons living in Marion County. The remaining public water systems in Marion County are inspected by either Oregon Health Authority or Oregon Department of Agriculture.

Marion County Health Department Environmental Health (MCHD-EH) role:

Oregon Health Authority contracts with MCHD-EH to ensure safe drinking water for county residents through the following activities:

- Conduct water system inspections and provide technical assistance to system operators
- Inventory, document and inspect new water systems
- Investigate water quality alerts and follow-up to ensure corrective actions are taken
- Respond to public water systems emergencies

Requirements for public water systems:

Water system operators are required to monitor drinking water quality through periodic testing at an accredited lab. Requirements for testing frequency and type of test vary by water system, but all systems test for coliform bacteria. When a sample is positive for coliform bacteria, further testing is done to check for E. coli, disease-causing bacteria. If testing shows unacceptable levels of a particular contaminant the water system operator must notify the persons served by the water system. Private wells do not fall under government jurisdiction for periodic testing except at time of sale.

Findings in Marion County for water systems monitored by MCHD-EH:

In Marion County the most common deficiency or violation of the drinking water regulations is the presence of coliform bacteria in the water. Another common violation is failure of system operators to properly monitor and/or report required testing to Oregon Health Authority. A list of contaminants reported by water systems inspected by MCHD-EH is shown in the following table. While other contaminants such as iron, sodium, hydrogen sulfide, and manganese may cause drinking water to smell, look or taste unpleasant, they are not harmful and are not regulated. There were no waterborne communicable disease outbreaks in Marion County in 2013.

Reports of Contaminants that exceeded acceptable levels in water systems inspected by MCHD-EH

| Contaminant | 2012 # reported* | 2013 # reported* |
|-----------------------------------|---------------------|---------------------|
| Coliform bacteria | 72 | 62 |
| Nitrates | 8 | 11 |
| Lead | 0 | 5 |
| Copper | 1 | 2 |
| Arsenic | 6 | 5 |
| Volatile organic chemicals (VOC) | 4 | 7 |
| Synthetic organic chemicals (SOC) | 0 | 2 |

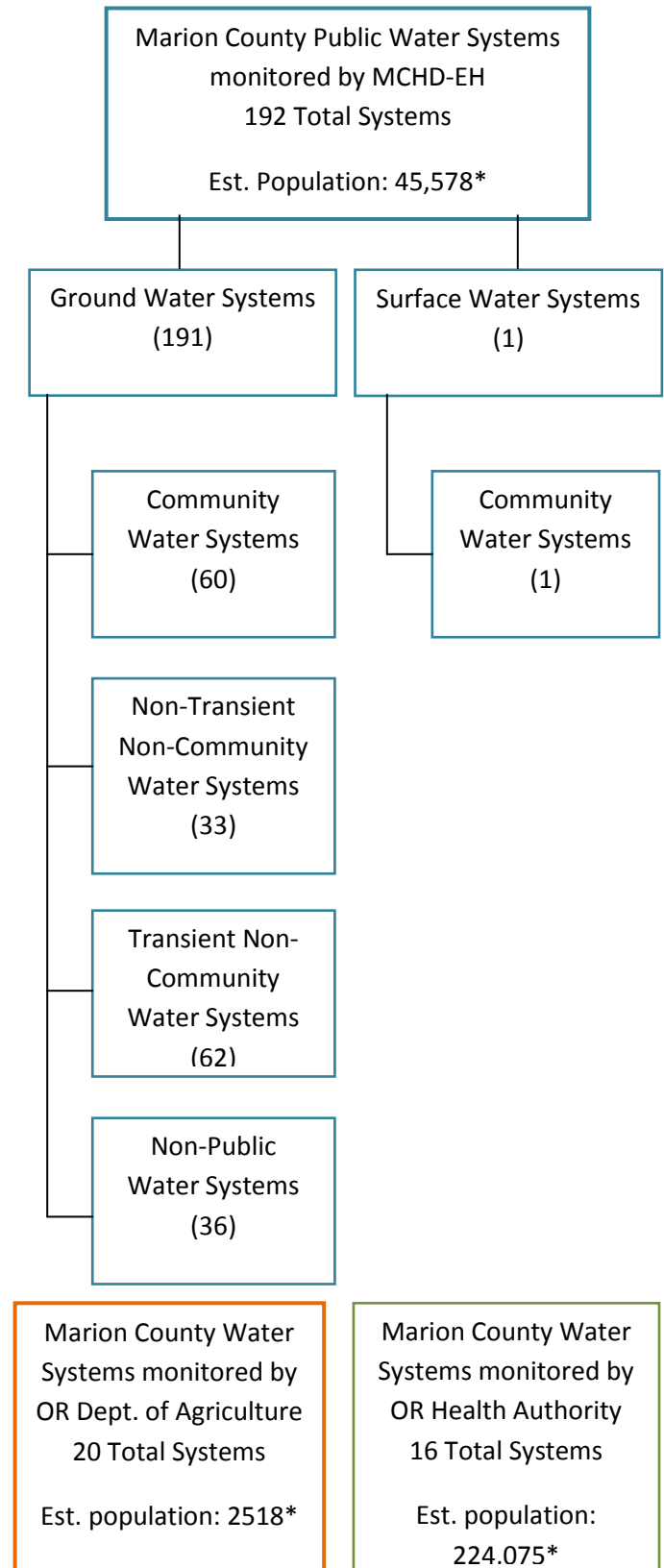
*Health Department receives reports of positive tests, but does not receive data on total samples tested.

¹ Source: U.S. Census Bureau: 2010 State and County QuickFacts,

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Definitions

| | |
|---|--|
| <i>Public water system</i> | a system for the provision of piped water for human consumption, to the public if such system has more than three service connections, or supplies water to a public or commercial establishment that operates a total of at least 60 days per year, and is used by 10 or more individuals per day |
| <i>Ground water system</i> | A public water system that uses groundwater, including purchasing water systems that receive finished groundwater, but excluding public water systems that combine all of their groundwater with surface water or groundwater under the direct influence of surface water prior to treatment. |
| <i>Surface water system</i> | A public water system that uses water that is open to the atmosphere and subject to surface runoff. |
| <i>Community water system</i> | A public water system that has 15 or more service connections used by year-round residents, or that regularly serves 25 or more year-round residents. |
| <i>Non-transient Non-community water system</i> | A public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year |
| <i>Transient non-community water system</i> | A public water system that serves a transient population of 25 or more persons |
| <i>Non-public water system</i> | A public water system which serves 4 to 14 service connections or serves 10 to 24 people. Non-EPA-recognized water system serving very small residential sites |





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More information about:

Arsenic: The most recent contaminant in Marion County other than coliform bacteria has been arsenic. Arsenic is a natural occurring element mainly due to basalt, an igneous rock laid down by volcanic activity throughout the state. Marion County has a high potential for arsenic contamination, especially in the northern part of the county. The consumption of arsenic increases the risk of bladder, lung, and kidney cancers; immune and reproductive disorders; and other health issues. In 2013 two public water systems were identified as being out of compliance and were required to provide additional treatment to remove arsenic.

Fluoride: Marion County has five water systems (Keizer, Salem, Silverton, Sublimity, Turner) providing fluoridated water to about 250,000 people. This covers about 80.1% of Marion County's population compared with 22.6% statewide and 73.9% in the US as a whole. In 1999, the Centers for Disease Control (CDC) included water fluoridation as one of 10 great public health achievements of the 20th Century. Fluoridation is effective throughout a person's lifetime to prevent and control tooth decay, and can slow the progression or even reverse newly-forming cavities. Fluoridation of community drinking water at the proper amount (.7-1.2 parts per million) is a safe, effective and inexpensive method of preventing tooth decay for all community members, regardless of income or age group.

If you have a private well:

Have a certified lab test your well water each year for bacteria, nitrates, pH, and total dissolved solids.

Also test the water:

- if you notice changes in the color, taste, or smell, of the water
- if you repair or change the well, or
- if you suspect your water has been contaminated

For more information about testing your well, contact:

- Marion County Health Department Environmental Health - 503-588-5346
- Oregon State University Extension - 503-588-5301
- http://water.epa.gov/drink/guide/upload/book_waterontap_full.pdf

Conclusion:

Consumers can be assured that public water systems in Marion County are being monitored and regulations enforced by local and state environmental health staff to ensure safe drinking water.

Other helpful websites for general information:

Oregon law: <http://www.oregonlaws.org/ors/448.131>

Marion County Health Department drinking water page: <http://www.co.marion.or.us/HLT/PH/EHS/water/>

Oregon drinking water page:

<http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Pages/index.aspx>

Environmental Protection Agency drinking water page: <http://water.epa.gov/drink/>

National Environmental Services Center drinking water page: <http://www.nesc.wvu.edu/ontap.cfm>