

UNIT WELL #17

Drilled in 1966, Well 17 has a pumping capacity of 2300 gallons per minute. The well operates seasonally from May to October and primarily serves the Downtown and Capitol areas between Blair Street and Bedford Street. During 2019, Well 17 pumped 316 million gallons of water compared to its 5-year average of 307 million gallons annually.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2019.

Bacteria

In 2019, twenty-one water samples were collected from Well 17 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. None of the samples were found to have coliform bacteria present. Most samples (19) were chlorinated water while two were untreated groundwater. The Water Utility chlorinates drinking water to protect against bacteria and viruses that can be present in groundwater.

Hardness and Other Minerals

Like all groundwater, water from Well 17 contains calcium and magnesium that contributes to its hardness (314 mg/L [ppm] or 18 grains per gallon). Other naturally occurring constituents that are present in water from Well 17 can be found in the [Inorganics Table](#).

Iron and Manganese

Water from Well 17 contains low levels of iron and an intermediate amount of manganese. At elevated levels these minerals can discolor the water. Water containing iron or manganese above the EPA [secondary standards](#), 0.3 mg/L and 50 µg/L, respectively, may cause staining of laundry or plumbing fixtures.

Chromium

Tests have not found hexavalent chromium at Well 17. Chromium is known to be present in the aquifer; however, it is believed that the chemical environment in the Mt. Simon aquifer inhibits the release of chromium into groundwater. More information is found on the [chromium](#) page.

Lead

Madison's groundwater supply does not contain significant amounts of naturally occurring lead.

Radionuclides

In 2014, water from Well 17 was tested for radium-226, radium-228, and other gross measures of radiation in water. Combined radium (226+228) measured 2.1 picocuries per liter (pCi/L) – well below the maximum contaminant level (MCL) of 5 pCi/L.

Naturally occurring, radioactive elements are found in rock, soil, water, and air. They derive from the creation of our planet and enter our bodies when we drink water, breathe air, and eat foods that contain them. Everyone is exposed to some level of radiation in everyday life. For example, uranium and thorium are found in rock and soil. In time, they decay to other elements including radium, which later decays to radon gas. Radon is the largest contributor to our daily exposure of radiation from the natural world. More information is available from the Agency for Toxic Substances and Disease Registry ([ATSDR](#)).

See [ATSDR](#) for more information on radon.

Man-made Contaminants

Madison Water Utility annually tests all of its municipal wells for man-made contaminants that may be present in groundwater. Four disinfection by-products are found at Well 17. They form when chlorine interacts with impurities in groundwater. Chlorine is added to disinfect the water and guard against microbial growth in water mains.

The [Volatile Organic Compounds](#) table lists the substances that were tested, the results, and how the detected levels compare with the maximum contaminant levels (MCL) established by the EPA.

Periodic testing found a trace amount of [1,4-dioxane](#) (<0.1 µg/L) at Well 17 in 2015 but none was detected in 2013 or 2018. An MCL has not been established for this chemical.

Per- and Polyfluoroalkyl Substances (PFAS)

Six different [PFAS](#) were found at Well 17 in 2019. The combined PFAS level is estimated to range between 3 and 6 ng/L or parts per trillion (ppt). Although there is no state or federal drinking water standard for any PFAS, Wisconsin Department of Health Services (DHS) recommended a health-based groundwater standard of 20 ppt for two types of PFAS (PFOA+PFOS). Our website, [madisonwater.org](#), has more information about PFAS in drinking water.

Additional Information

Information on routine [water quality monitoring](#) activities, including current test results and links to additional resources, is available at [madisonwater.org](#). In addition, you can sign-up to receive periodic updates on Madison drinking water quality or the water main flushing program through the [City of Madison](#) website.

If you have questions about the information in this report or on our website, our staff would be happy to answer them. Please call the Water Quality line at 266-4654 weekdays from 7:45 a.m. to 4:00 p.m.

Click [here](#) to view water quality reports for other Madison municipal wells.