

UNIT WELL #18

Drilled in 1968, Unit Well 18 has a pumping capacity of 1600 gallons per minute. It operates year-round and serves Madison's South side neighborhoods in the Park Street–Fish Hatchery Road corridor. Well 18 also supplies some drinking water to the Greenbush, Bay Creek, Burr Oaks, and Bram's Addition neighborhoods. In 2021, Well 18 pumped 339 million gallons of water compared to its 5-year average of 411 million gallons annually.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2021.

Bacteria

In 2021, four quarterly samples were collected from Well 18 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. Each sample was collected and tested prior to any disinfection. None of the samples had coliform bacteria present. The Water Utility chlorinates tap water to protect against bacteria and viruses that can be present in groundwater and to provide additional protection as the water travels through water mains and premise plumbing.

Hardness and Other Minerals

Like all groundwater, water from Well 18 contains calcium and magnesium that contributes to its hardness (305 mg/L [ppm] or 18 grains per gallon). Other naturally occurring constituents that are present in water from Well 18 can be found in the [Inorganics Table](#).

Iron and Manganese

Water from Well 18 contains low levels of iron and manganese. Both minerals are well below the EPA [secondary standards](#), which are 0.3 mg/L for iron and 50 µg/L for manganese.

Chromium

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 18. The level is well below the existing drinking water standard of 100 µg/L for total chromium. More information can be found on the [chromium](#) page.

Lead

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

Radionuclides

In 2020, water from Well 18 was tested for radium-226, radium-228, and other gross measures of radiation in water. Combined radium (226+228) measured 0.8 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. Quarterly samples are collected at Well 18 due to the presence of [tetrachloroethylene](#), which has been detected at Well 18 since the early 1990's. [Trichloroethylene](#), [1,1,1-trichloroethane](#) and [1,4-dioxane](#) are also occasionally found at Well 18.

In 2021, low levels of four disinfection by-products (DBP) were detected at Well 18. DBPs form when chlorine reacts with impurities in groundwater. Chlorine is added to disinfect water and to guard against bacterial growth in water mains.

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

Per- and Polyfluoroalkyl Substances (PFAS)

One type of [PFAS](#) (PFBS) was found in one of the two samples taken at Well 18 in 2021, at a level of 36.9 ng/L or parts per trillion. No PFAS were detected upon re-sampling the well. While there is no state or federal drinking water standard for any PFAS, in 2019 the Wisconsin Department of Health Services recommended a health-based standard of 20 ppt for two types of PFAS (PFOA & PFAS) in groundwater, and in 2021 the Wisconsin Department of Natural Resources proposed a matching drinking water standard. 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.