

UNIT WELL #14

Drilled in 1960, Well 14 has a pumping capacity of 2,450 gallons per minute; however, the pump typically delivers 1,440 gallons per minute through the use of a variable frequency drive. It operates year-round and serves Madison's West side neighborhoods such as Spring Harbor, Old Middleton Greenway, Sunset Village, and Regent. Well 14 also serves the Village of Shorewood Hills and parts of the University of Wisconsin campus. In 2024, Well 14 pumped 238 million gallons compared to its 5-year average of 497 million gallons annually. The well was out of service for maintenance from January through July.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2024.

Bacteria

In 2024, samples were collected from Well 14 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. After maintenance activities, some samples showed coliform bacteria present; however, no samples showed the presence of coliform bacteria after the well was brought back on-line delivering water to the system. The Water Utility chlorinates drinking water to protect against bacteria and viruses that can be present in groundwater and to provide protection as the water travels through water mains and premise plumbing.

Hardness and Other Minerals

Like all groundwater, water from Well 14 contains calcium and magnesium that contributes to its hardness (530 mg/L [ppm] or 31 grains per gallon). Other naturally occurring constituents that are present in water from Well 14 can be found in the [Inorganics Table](#).

Chromium

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 14. The level is well below the drinking water standard of 100 µg/L for total chromium. More information can be found on the [chromium](#) page.

Sodium

The level of [sodium](#) in Well 14 water exceeds an EPA guideline which recommends drinking water not to exceed 20 mg/L sodium; in 2024, sodium measured 64 mg/L. These guidelines are intended for higher risk populations including some individuals with pre-existing heart conditions or those on "no salt" diets. See the WI Department of Health [website](#) for more information. Road salt likely contributes to elevated sodium levels in water pumped from some Madison wells.

Iron, Lead, and Manganese

Water from Well 14 does not contain significant amounts of iron, lead, or manganese.

Radionuclides

In 2020, water from Well 14 was tested for radium-226, radium-228, and other gross measures of radiation in water. Combined radium (226+228) measured 1.1 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](https://www.atSDR.gov)).

See [ATSDR](https://www.atSDR.gov) for more information on radon.

Human-made Contaminants

Madison Water Utility annually tests all of its wells for human-made contaminants that may be present in groundwater. None of the volatile organic compounds (VOC) tested were detected at Well 14 in 2024. Three disinfection by-products (DBP) were detected at Well 14 in 2024. DBPs form when chlorine reacts with impurities in groundwater. Chlorine is added to disinfect water and to guard against bacterial growth in water mains. Periodic testing for [synthetic organic chemicals](#) consistently has found small amounts of two pesticides – [atrazine](#) and metolachlor.

Trace amounts (0.1 µg/L) of [1,4-dioxane](#) also have been found at Well 14; an MCL has yet to be established. The [Volatile Organic Compounds](#) table lists the substances that were tested, the results, and how detected levels compare with the maximum contaminant levels (MCL) established by the EPA.

Per- and Polyfluoroalkyl Substances (PFAS)

Two [PFAS](#) [PFBA & PFHxS] were found at Well 14 in 2024. The combined PFAS level is **estimated at 8.0 ng/L or parts per trillion (ppt)**. In April 2024, the US Environmental Protection Agency (EPA) published final MCLs for six PFAS, including PFHxS. Our website, madisonwater.org, has more detailed information on PFAS in drinking water and previous PFAS tests results for this well.

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.