



In the August 27, 2009 issue of the Water Quality update:

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Well Status Report

- Except for Well 10, all seasonal wells are now in service and pumping water into the distribution system.
- Well 8 was brought into service in late July. Recent test results show Well 8 producing water with 0.56 mg/L iron and 47-50 µg/L manganese.

Water Quality Test Results – July 2009

MICROBIOLOGY – In July, Water Utility staff collected 430 water samples from Water Utility facilities and representative sample locations in the distribution system. Samples were tested for coliform bacteria – indicators of potential water contamination. A single sample tested positive for coliform bacteria; however, follow-up samples did not confirm the original result. None of the other 429 samples collected in July showed evidence of coliform bacteria.

IRON & MANGANESE – The Water Utility also collected samples from eleven wells and tested the water for manganese and iron. At elevated levels, these minerals can cause yellow, orange, or brown colored water. Monthly water samples are typically collected from operating wells that exceed 0.15 ppm iron or 25 ppb manganese. July test results are shown in the table below.

	Mn (ppb)	Iron (ppm)
UW 7	26	0.362
UW 8	54	0.710
UW 9	0.7	<0.001
UW 17	28	0.088
UW 19	33	0.187
UW 20	1.0	< 0.001

	Mn (ppb)	Iron (ppm)
UW 24	24	0.167
UW 26	5.8	0.018
UW 27	26	0.116
UW 28	20	0.169
UW 30	14	0.207

VOLATILE ORGANICS MONITORING – Each year the Water Utility tests water from each well for 40+ volatile organic compounds (VOC). These man-made contaminants are cleaning solvents, degreasers, and gasoline constituents. They enter groundwater from spills, improper storage, or as leachate from landfills. Some wells are tested on a quarterly basis due to previous VOC detections. Annual testing is usually performed during the summer months when all wells are operating. Nineteen wells and one reservoir were sampled in July. Complete year-to-date test results for all wells are available on our [website](#).

Sodium Levels in Madison Drinking Water

Road salt use by the City of Madison, other local municipalities, Dane County, and independent contractors has contributed to increasing sodium and chloride levels measured in Madison-area lakes. Sodium and chloride levels have been on the rise for over two decades. Illustrating the interconnection between groundwater and surface waters, similar trends have been observed at some Madison drinking water wells. In particular, three Madison wells now exceed the drinking water equivalency level (DWEL) of 20 mg/L sodium. This value was established by the United States Environmental Protection Agency as guidance for individuals on a sodium-restricted diet.

At the request of the Water Utility Board, the Public Health Department prepared a report that assessed the public health effects of drinking water with higher levels of sodium. That report concluded that, even for individuals on sodium-restricted diets, the sodium concentrations in Madison municipal wells are not likely to cause adverse health effects. In addition, the report recommended that household tap water, when used for drinking water, should not be softened. The [complete report](#) is available on our website.

Visit our [website](#) or call the Water Utility at 266-4654 to learn more about Madison drinking water quality or the amount of sodium found in the well serving your home or business.

Water Utility Board Adopts Iron and Manganese Standards

On Tuesday, the Water Utility Board adopted new water quality and treatment policies for iron and manganese. The policies will provide guidance in managing the water quality impacts due to naturally occurring groundwater minerals that exist in city wells. [Read the resolution.](#)

Public Participation Process Update

In 2008, the Water Utility Board adopted a formal public participation process that will provide multiple opportunities for public input on proposed projects from inception to construction. The process is currently being used on each of the following capital improvement projects:

- [Zone 4 Water Supply Augmentation](#) – additional water supply and enhanced fire flow capacity for southeast Madison

- Arbor Hills Supplemental Fire Flow Supply – enhanced fire flow capacity for south Madison
- Near West Side Water Supply Augmentation – additional water supply for west Madison
- Well 8 Iron and Manganese Mitigation – water quality improvements for the Isthmus and Near East neighborhoods

Madison Water Utility is currently working with a different citizen advisory panel for each of these projects. Another citizen panel is expected to assemble for the East Isthmus Well project later this fall. Below is a brief update on each of the projects:

Pressure Zone 4 Supply Augmentation: The project was established by the Water Utility Board in March 2009. Utility Project Manager, Dennis Cawley, is preparing an alternative evaluation report for the project. The draft report is expected to be available in September or October.

Arbor Hills Supplemental Fire Flow Supply: This project was established by the Water Utility Board in June 2009. Utility Project Manager, Al Larson, prepared an alternative evaluation report that recommended the construction of a booster pump station. The report was reviewed by the citizen advisory panel and a [public meeting](#) on the project is scheduled for September 10th.

Near West Side (Zone 7 and 8) Water Supply Augmentation: A citizen advisory panel has been formed and the group has reviewed project details. A public meeting is being planned.

Well 8 Iron and Manganese Mitigation: The project was established by the Water Utility Board in June 2009. Based on comments received and the natural interaction with other east isthmus wells, this project is being incorporated into an East Side Water Supply project. A request for proposals is being drafted to define the scope of work for a consultant to evaluate overall utility needs in this part of the city. It is expected that a consultant will be hired by November 1st.

East Isthmus Well: There is no progress to report on this project; however, it has been proposed to combine this project with the East Side Water Supply project and consultant RFP project that is being formulated. The project would re-examine the question of how a proposed well would interact with Wells 7 and 8 on Madison's east side.

Complete project descriptions can be found on our website at www.madisonwater.org. Citizen advisory panels have already formed for several of these projects; however, it is not too late to get involved. Please contact the Utility at 266-4651 or water@cityofmadison.com if you would like to participate.

System Changes on the Far East Side

Per the recommendation of the Water Utility's Master Plan, an eastern portion of Pressure Zone 6 – the main pressure zone – will be merged into Pressure Zone 3. The project will correct chronic low pressure experienced by customers in the area and is expected to increase the water pressure by 15-25 pounds per square inch (psi). The conversion will be completed in two phases: the first

phase will convert the area between Highway 30 and Cottage Grove Road on or about November 1st and the second phase, expected to be completed by May 1st, 2010, will convert the area south of Cottage Grove Road to Buckeye Road. The impacted area is generally between Meadowlark Drive, Stacy Lane, and Interstate 90/94. A public meeting is being planned for late September to describe the proposed changes and to answer questions.

Subscribe to the Drinking Water Quality Listserv

People who want to receive regular updates on Madison's drinking water quality can subscribe to this e-mail listserv at <https://my.cityofmadison.com/>.

Registration is simple and provides access to dozens of City of Madison e-mail lists including Drinking Water Quality (this one) and Water Main Flushing, as well as departmental messages from Metro Transit, City Parks, Public Health, and Police.

Once registered for a “My Account”, click on the check box for “Drinking Water Quality” under the Water Utility heading.

Please contact me if you need assistance.

Sincerely,
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