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Heavy Rains, Flooding, and Drinking Water Quality

The Madison drinking water system was not impacted by recent heavy rains and flooding. All 87 samples collected during the week of June 9th were free of coliform bacteria. The Water Utility regularly tests water as it enters the distribution system and at designated sample locations within the distribution system. Samples are collected Monday through Thursday and tested for coliform bacteria including *E. coli*.

Private wells are more susceptible to potential contamination from flooding than municipal wells because they are typically shallower, generally are exposed to the elements, and may be located in low lying areas. In addition, private wells are not regularly tested, and water drawn from them may not be disinfected.

Private well owners should test their well for potential contamination if it was overtopped by floodwaters or if there has been a noticeable change in taste, odor or appearance of the water. In the Madison area, testing is available through Public Health – Madison and Dane County (266-4821) or the Wisconsin State Laboratory of Hygiene (224-6262).

Neighborhood Meeting Scheduled for Well 29 Filter Plant

A public meeting has been scheduled for Monday, June 30, from 6:30 to 8:00 p.m. at the Streets East Facility, 4602 Sycamore Avenue. The meeting will focus on plans for the final site layout and architectural design for the iron and manganese filter that will be installed at Well 29. Madison Alder Lauren Cnare, Water Utility staff, and the filter design consultants will be available to discuss project details and answer questions.

Well Status Report – Seasonal Wells

Well 29 – Well 29 will operate on stand-by service from June 23 through the end of September. Stand-by assures its availability for fire fighting or other water emergencies during the summer months. While on stand-by, Well 29 water is pumped into the distribution system on Monday from 8 a.m. to noon and 10 p.m. Thursday to 2 a.m. Friday. Click [here](#) to see if Well 29 serves your home or business.

The utility asks customers who might receive Well 29 water to avoid doing laundry during or after these time periods as an additional precaution to reduce the risk of stained laundry. Also, customers should not drink, cook, or prepare baby formula with discolored water. If residents experience discolored water, they should let a cold water tap run for 20 minutes or until it clears. If the water does not clear, please call the Water Utility at 266-4654.

Water quality issues have been a problem at Well 29, located on Madison's Far East side, since its start-up in 2005. Naturally occurring iron and manganese occur at levels that can discolor the water yellow, orange, or brown. Although not at a level that causes a health concern, the water

can stain laundry and plumbing fixtures. As a result, the utility plans to install a filter to remove these minerals. The filter is expected to begin operation in summer 2009.

Well 10 – The Water Utility had planned to operate Well 10 on reserve supply beginning July 1. However, due to lower than normal water demand, the Water Utility has decided to postpone the start-up of Well 10. Water Utility staff will periodically review water demand trends and assess the conditions under which Well 10 would be brought into reserve supply status. Updates will be posted to this listserv.

While under the designation of reserve supply, utility staff visits the well weekly to maintain its readiness in the event of an emergency. Under these conditions, Well 10 water is not pumped into the distribution system. Instead, the reservoir is drained to the storm water sewer and new water is pumped into the reservoir.

Other Seasonal Wells – Except for Well 8, all other seasonal wells are now in service. These wells include Well 6, Well 17, Well 27, and Well 28. Well 8 will be brought into service on Monday, June 23. This date is about one week earlier than previously reported due to a change in Madison’s radionuclide monitoring requirements (see *Radionuclide Monitoring Update* below).

Water Quality Test Results – May 2008

MICROBIOLOGY – In May, the Water Utility collected 372 water samples from Water Utility facilities and representative sample locations in the water distribution system. These samples were tested for coliform bacteria – indicators of potential water contamination. None of the samples collected in May tested positive for coliform bacteria.

IRON & MANGANESE – The utility tested samples collected from eleven wells for iron and manganese. At elevated levels, these minerals can cause yellow, orange, or brown colored water. Test results are shown in the table below.

	Mn (ppb)	Iron (ppm)
UW9	1.8	0.007
UW11	12	0.019
UW12	0.4	0.002
UW17	32	0.078
UW19	40	0.198
UW20	1.4	<0.0014

	Mn (ppb)	Iron (ppm)
UW23	26	0.063
UW24	26	0.160
UW26	3.4	0.003
UW28	22	0.195
UW30	20	0.339

VOLATILE ORGANIC COMPOUNDS – The utility also collected samples from four wells and had the water tested for the presence of volatile organic compounds – man-made contaminants that may be present in groundwater. The Water Utility currently tests four wells (9, 15, 18, & 28) during each quarter for 40+ volatile organic compounds including tetrachloroethylene and carbon tetrachloride. All wells are tested annually, usually in July or August. Samples were also collected at four reservoirs (106, 115, 315, & 229) in an effort to better understand distribution system water quality. The table below shows the contaminants that were detected, maximum concentration found during this testing period, EPA’s maximum contaminant level (MCL), and the contaminant concentration at each facility. ND means that the contaminant was not detected.

VOLATILE ORGANIC COMPOUNDS	MAXIMUM	UNITS	MCL	9	15	18	28	106	115	315	22
Bromodichloromethane*	1.5	ppb	--	[0.48] ¹	ND	ND	ND	1.5	0.81	0.79	0.9
Bromoform*	1.5	ppb	--	[0.50]	[0.28]	ND	ND	1.5	1.3	1.1	[0.6]
Chloroform*	0.88	ppb	--	ND	ND	ND	ND	0.88	[0.28]	[0.28]	[0.4]
Dibromochloromethane*	2.3	ppb	--	0.81	[0.27]	[0.24]	ND	2.3	1.6	1.5	1.
Total Trihalomethanes (TTHM)	0	ppb	80	1.79	0.55	0.24	ND	6.18	3.99	3.67	3.3
Tetrachloroethylene	3.5	ppb	5	2.3	3.5	0.99	ND	[0.30]	1.8	0.95	ND
Trichloroethylene	0	ppb	5	ND	[0.39]	ND	ND	ND	[0.20]	ND	ND

* Disinfection By-Product

¹ Bracketed numbers indicate that the contaminant was detected but measured below the Level of Quantification (LOQ)

Radionuclide Monitoring Update

In late May, Madison Water Utility learned of a significant change to its radionuclide monitoring requirements for 2008. In particular, the Department of Natural Resources (DNR) notified the utility that composite samples rather than grab samples would be required from sixteen wells while grab samples would be required for the remaining seven wells. Samples are to be tested for gross alpha, radium-226, radium-228, and uranium. Previously, DNR had required that grab samples be collected from all 23 wells. A composite sample involves collecting a sample during each of four consecutive quarters (each three-month period) and combining the four sub-samples prior to submitting the composite sample for analysis.

One-time grab samples are required for Wells 7, 10, 19, 23, 27, 28, and 29. Five of these wells have been sampled while Wells 10 and 29 will be sampled later this summer. Collection of second quarter (April 1 through June 30) portions of the composite samples will be completed by the end of the month for the other sixteen wells. It is expected that final composite samples will be submitted in spring 2009 to meet the monitoring requirement.

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People who want to receive regular updates on Madison's drinking water quality can subscribe to this Listserv at:

<http://lavos.wiscnet.net/mailman/listinfo/drinkingwaterquality>

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