

Water Quality Update for July 9, 2007:

Daily Water Monitoring Results

During the last couple of weeks, as part of its routine water quality monitoring, Water Utility staff collected three water samples that tested positive for coliform bacteria. Coliform bacteria are indicators of potential water contamination. All three samples tested negative for *E. coli*, a specific type of bacteria that would indicate contamination from animal or human fecal waste. The three sample locations were Orchard Ridge School (6/25/07), Unit Well 7 (7/5/07), and Unit Well 17 (7/05/07). Follow-up samples collected at these three locations and additional nearby taps tested negative for coliform bacteria. These results confirm the absence of microbial contamination and that the water is safe.

To reduce the possibility of microbial contamination, the Water Utility disinfects the water with chlorine. At the time of sample collection, adequate chlorine residuals were detected at all three sample locations. The Water Utility recently completed the implementation of its new chlorine policy, which identifies 0.3 mg/L free chlorine as the target level for water leaving unit wells.

A coliform-positive test result within the water distribution system triggers additional sampling to confirm the presence or absence of contamination, and if present, to identify the extent of that contamination. Samples are collected at the same location of the original coliform-positive result and from upstream and downstream service connections and they are tested for coliform bacteria. Collection of additional samples continues until a complete sample set returns coliform-negative.

Coliform-positive results may arise when sample bottles are not properly sterilized, the sample tap is not completely sterilized prior to sampling, or as a result of human error in collecting the sample or analyzing the test results.

Orchard Ridge School – June 25

Water Utility staff collects water samples in a maintenance work area at Orchard Ridge School each Monday and Wednesday. On June 25, the water sampler noticed damage to the sample tap in the work area and contacted the school custodian. After some consultation, the custodian cut the damaged tap with a saw and the water sampler proceeded to sterilize the tap and collect the sample. The Wisconsin State Laboratory of Hygiene reported a “coliform-positive” sample the next day. On June 27, Water Utility staff collected four follow-up samples (one more than was required) for additional testing; two samples (one from the original tap and another from a utility sink) were collected at Orchard Ridge School, one was taken at a church, and another at a fast food restaurant. All four samples were reported “coliform-negative” on June 28. Water Utility maintenance staff has since replaced the damaged sample tap at the school.

Unit Well 7 – July 5

Water Utility staff routinely collects water samples from Unit Well 7 on Tuesday and Thursday mornings. These samples are tested for coliform bacteria at the Microbiology Laboratory at the Department of Public Health for Madison and Dane County. On July 5, a water sample was collected from a sample tap attached to a booster pump that delivers water from the 135,000-gallon reservoir to the distribution system. The chlorine residual measured 0.24 mg/L at the time of sample collection. On Saturday, July 7, the 24-hour water operator was notified by the Public Health Department of the coliform-positive result. The unit well was taken out of service once a follow-up sample could be collected at the well. As an added precaution, a water sample was also collected at the Maple Bluff Town Hall. Both follow-up samples were reported coliform-negative (safe) on Sunday, July 8. Unit Well 7 is now available for service.

Unit Well 17 – July 5

Water Utility staff routinely collects water samples from Unit Well 17 on Tuesday and Thursday mornings. These samples are tested for coliform bacteria at the Microbiology Laboratory at the Department of Public Health for Madison and Dane County. On July 5, a water sample was collected from a sample tap attached to a booster pump that delivers water from the 375,000-gallon reservoir to the distribution system. The chlorine residual measured 0.27 mg/L at the time of sample collection. On Saturday, July 7, the 24-hour water operator was notified by the Public Health Department of the coliform-positive result. The unit well was taken out of service once a follow-up sample was collected at the well. As an added precaution, a water sample was also collected from a nearby restaurant. Both follow-up samples were reported coliform-negative (safe) on Sunday, July 8. Unit Well 17 went back into service last evening.

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