

Report: Residential Tap Samples, UW 8

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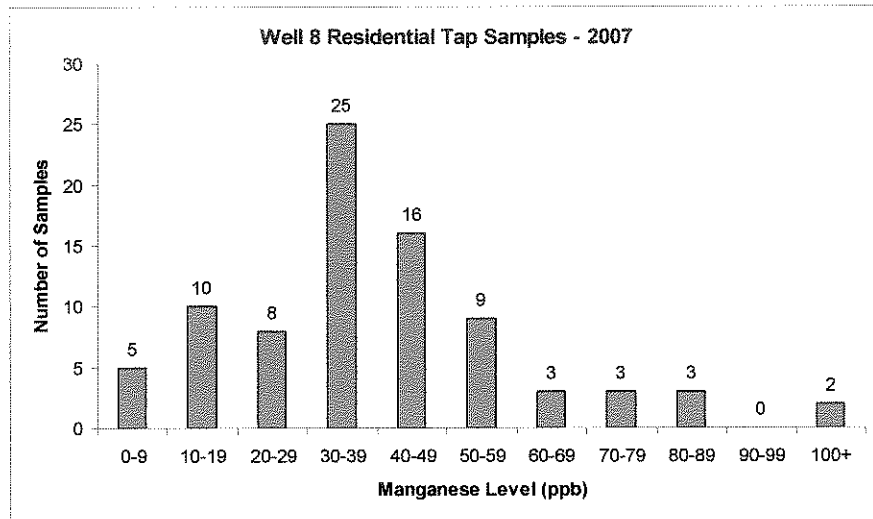
Date: November 27, 2007
To: Madison Water Utility Board
From: Joseph Grande, Water Quality Manager

The Water Utility collected 84 residential tap samples from the Well 8 service area during September and October 2007. These samples were tested for manganese and iron. Samples were collected as part of an on-going effort by the utility to better understand and manage the levels of manganese in Madison drinking water. All samples were analyzed by Public Health – Madison and Dane County.

The Well 8 service area was selected for additional sampling because (a) the highest frequency of customer complaints about discolored water come from this service area, (b) manganese and iron levels are at or exceed the secondary standards for these minerals, and (c) sample collection coincided with the utility's on-going evaluation of the uni-directional flushing program.

The figure below summarizes the results for the 84 samples. Tap samples ranged from 1.6-135 ppb of manganese. The mean and median concentrations were 39 and 36 ppb, respectively, with a standard deviation of 22. Two locations tested above 100 ppb and were re-sampled according to the recommendations in the 2006 Manganese Monitoring Report. Manganese levels measured at the well have varied from 46-51 ppb in 2007. The well is currently shutdown for the winter.

With the exception of the manganese and iron levels, the water quality of UW 8 is excellent and the well has a rated capacity of 1800 gpm.



Recommendation: Staff does not recommend that the Board take any action at this time. UW 8 should be considered as problematic because of the potential for colored water. Dependent on the outcome of the location of a replacement site for UW 3, UW 8 may be a candidate for future filtration for manganese and iron.