

## The Latest on Water Quality Testing

by Carole D'Alessio

2006

Friends of Corte Madera Creek Watershed has been awarded a grant of \$4,000 from the San Francisco Estuary Project to support testing of water samples in Corte Madera Creek for the bacteria *Enterococcus*, and for caffeine. Testing in summer of 2006 will help determine the source of these bacteria so we can improve the creek's health.

Last summer's testing downstream of the concrete flood control channel enabled us to identify areas where *Enterococcus* concentrations were higher than acceptable state and federal standards for swimming. However, without further testing we were unable to determine if the source of this bacteria was human waste (leaky sewers) or pet and wildlife waste. The current grant should help us differentiate caffeine consumers - latte guzzlers, and cola chuggers - from pets and wildlife.

Volunteers took weekly water samples throughout August. Fourteen sites were tested. Of those sites, 12 were located between the lower boundary of the concrete flood control channel in Kentfield and the Marin Rowing Association dock in Larkspur, and two sites were located upstream in the freshwater section of creek, one in Ross near the town hall and the other in the County's Cascade Canyon Open Space area.

Samples taken downstream of the channel in the tidal section of creek were tested for *Enterococcus* which is more resistant to saline conditions than *E. coli* and has better survival rates in saltwater. Tidal samples were taken during a 0.9 ft. to a 2.0 ft. tidal elevation (a fairly low tide) at the mouth of Corte Madera Creek to best characterize pollutant contribution from tributaries and side channels. The Marin County Public Health Lab tested all the samples and provided the test results. Friends then evaluated the results using the following federal contact recreational criteria: saltwater concentrations of *Enterococcus* must not exceed 35 MPN/100ml.

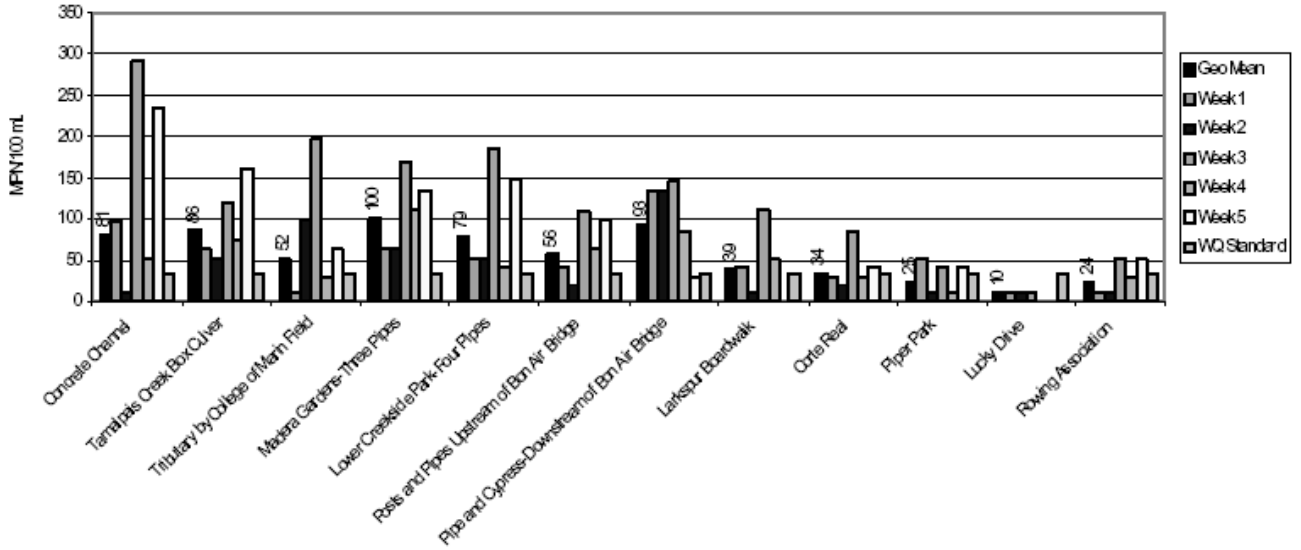
Out of the 14 sites, concentrations of bacteria from Ross Town Hall and from eight downstream sites were not within standards for good water quality. Only results from the four sites nearest the mouth of the creek where the creek is diluted by bay water, and results from Cascade Canyon, were within acceptable safe limits for contact recreation.

Although site 10d.3 (Madera Gardens) showed the highest concentrations of *Enterococcus* and site 10, (directly downstream of Bon Air Bridge) showed the second highest mean concentration, we will not know, until we perform additional tests, if bacteria are coming from wildlife and pets, or from human waste.

Each site downstream of the concrete channel (see chart) shows the weekly results, the geometric mean and the acceptable standard. It is worth noting that on weeks 3 and 5, bacterial concentrations were quite high and may have been the result of sewage spills. The tributary by the College of Marin field seems to provide some dilution since bacterial concentrations there dipped slightly.

Test results vary from year to year and from season to season so it is unwise to draw definitive conclusions from this season's test.

Corte Madera Creek Summer 2005



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