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Blue Water Task Force Newsletter

November 2006

World Water Monitoring Day Chapter Activities Report.

On Saturday, October 14, 2006 the Citizen Watershed Monitors of Orange County (CWMOC) sponsored an event at the Huntington Beach Pier Plaza. Our Chapter has been a member of this coalition of environmental organizations since their formation over three years ago. Other participating organizations include: Southern California Marine Institute, D.I.V.E.R.S., Orange County Coastkeeper, Earth Resource Foundation, Bolsa Chica Conservancy, Huntington Beach Wetlands Conservancy, and Trout Unlimited.

In addition to conducting a beach trash pickup, water samples from both shore line and inland fresh water sites were collected and analyzed for chemical and physical parameters. The data was then submitted and posted on the World Water Monitoring Day website at: www.worldwatermonitoringday.org (See wwmd database)

The early morning light rain also afforded the participating volunteer microbiology laboratories at Southern California Marine Institute and Coastkeeper to conduct a laboratory inter-calibration comparison with field test split-samples from potentially contaminated fresh, brackish, and ocean water sites. One dry weather storm drain sample was also included among the samples to be analyzed. In summary, the results of this very limited inter-calibration exercise indicate the following;

- Although no conclusion can be reached regarding the absolute accuracy of the measured bacterial contamination, the relative percent difference (RPD) from the mean is small ($Rlog < 3.27 * \text{mean } Rlog$) for 14 out of 15 samples. This is for over 4 orders of magnitude in bacterial concentration and 3 types of "real-world" field test water sample material.
- The very high concentration of enterococci bacteria found in the dry weather storm drain sample supports the findings of the County Health Care Laboratory (ref.1) that this type of bacterial contamination can survive and possibly re-grow in storm drains.
- Although the County Health Care Agency issues a 72-hr. rain advisory on their website at www.ocbeachinfo.com following a storm of ≥ 0.20 inches affecting the majority of the county, they are not always able to post a beach as contaminated immediately following a light rain event. Subsequent tests at the same location may not indicate the prior presence of high levels of bacterial contamination.
- Volunteer staffed microbiology laboratories with proper training and effective quality assurance and quality control plans are capable of providing high quality "real world" bacterial contamination data and water quality information.

The County Health Care Agency warns us that after a county-wide sporadic rain event surfers and swimmers need to be aware of their local conditions. In those circumstances, if routine samples are collected after rain events, warning signs are posted at the locations that exceed State bacteriological standards.

Also, if a volunteer group collects a sample(s) at locations that are not normally sampled and discovers a potential problem the County Health Care Agency should be notified. Their hotline phone number is (714)433-6400. In that case the County Health Care Agency will do some special sampling at that location to verify if a contamination exists or determine if developing a new sampling location is in order.

We are grateful to the State Water Resources Control Board for providing partial funding in support of this event activity.

Don Schulz
Blue Water Task Force

Ref.1 "Enumeration and Speciation of Enterococci Found in Marine and Intertidal Sediments and Coastal Water in Southern California." D.M. Ferguson et. Al. Orange County Health Care Laboratories.