

# **Marin County Stormwater Pollution Prevention Program Richardson Bay Pathogens TMDL Implementation Plan 9-9-2009**

**This report was prepared for the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) 08-09 Phase II General Stormwater Permit Annual Report. This report updates MCSTOPPP's current Stormwater Management Plan (Action Plan 2010). Updates to this Implementation Plan will be included in future MCSTOPPP Annual Reports and updated Stormwater Management Plans.**

## **Background**

Richardson Bay exceeds fecal coliform bacteria water quality objectives for the following beneficial uses: shellfish harvesting and water contact recreation (swimming and fishing). High concentrations of fecal coliform bacteria indicate the potential presence of organisms that cause disease in humans (pathogens).

Although there is no commercial shellfish harvesting in Richardson Bay, the allowable concentrations of pathogens is lowest for this beneficial use, and the entire Bay is designated for this use. Therefore the TMDL focuses on protection of shellfish harvesting throughout Richardson Bay.

Fecal coliform bacteria potentially originating from the sanitary sewer system, houseboats, and sail/motor boats will be addressed by other agencies. The MCSTOPPP Richardson Bay Pathogen TMDL Implementation Plan focuses on other sources of fecal coliform that potentially enter stormwater runoff.

## **Stormwater Runoff Implementation Measures**

The County of Marin and the cities of Sausalito, Mill Valley, Tiburon and Belvedere are obligated to update/amend applicable stormwater management plans, as appropriate, to include specific measures to reduce pathogen loading. The specific measures will include additional education and outreach by the Countywide MCSTOPPP. Individual municipalities will consider installing additional pet waste receptacles and will maintain existing receptacles.

## **MCSTOPPP implementation actions planned for 2009-2015**

1. MCSTOPPP will encourage local municipalities to ensure there are sufficient pet waste bag dispensers and receptacles at entrances to dog parks. In addition, other agencies will be encouraged to site and maintain pet waste bag dispensers and containers at public trailheads where dogs are walked.

Timeline: MCSTOPPP will discuss planned and completed Richardson Bay Pathogen TMDL implementation actions with local stormwater program staff during annual review meetings with the Regional Water Quality Control Board. Accomplishments and priorities will be reported annually as part of the statewide Phase II General Stormwater Permit reporting requirement.

2. MCSTOPPP will continue outreach to boat owners through the annual Tidebook calendar as long as California Integrated Waste Management Board (CIWMB) Used Oil Block Grant funds are available. The calendar includes a list of sewage pump-out facilities available throughout Marin County. 8,000 tide calendars are distributed to marinas, marine supply houses and environmental organizations. MCSTOPPP will seek other funding for this outreach method if CIWMB Used Oil Block Grant funds are not available in the future.

Timeline: Distributed at the end of each calendar year as Used Oil Block Grant funding allows. Planned for 2009.

3. MCSTOPPP will distribute existing pet waste pollution prevention brochure or an updated version (available online: <http://www.mcstoppp.org/acrobat/Dog%20bookmark.pdf>) to veterinarian offices, pet hospitals, the Humane Society and pet supply stores in the Richardson Bay Watershed on an annual basis. MCSTOPPP will include a letter asking the pet-related business to make the brochures available to customers.

Timeline: 2010-2015 - annual mailings

4. MCSTOPPP will mail stormwater pollution prevention posters to food service facilities within the Richardson Bay Watershed. MCSTOPPP will include a 1-page letter that describes the Richardson Bay Pathogen TMDL and general stormwater pollution prevention requirements. The posters are designed for food handling facilities and are available in English and Spanish. The poster directs restaurant employees to clean floor mats, garbage cans and other similarly sized equipment at a mop sink or interior floor drain connected to a sanitary sewer. [http://www.mcstoppp.org/acrobat/Rest\\_English%20Poster%20Final%202009.pdf](http://www.mcstoppp.org/acrobat/Rest_English%20Poster%20Final%202009.pdf)

Timeline: Complete by end of 2011.

5. MCSTOPPP will coordinate with municipal parks and recreation departments and the Marin County Parks and Open Space District to determine if staff/Rangers can potentially distribute MCSTOPPP literature to people they see walking dogs.

Timeline: MCSTOPPP staff will staff/Rangers on an annual basis to offer to replenish supply of MCSTOPPP literature from 2010-2015.

6. A draft publication on Nursery BMPs is in its development stage. MCSTOPPP will finalize this publication and will mail it to 18 nurseries doing business in Marin. For nurseries located within the Richardson Bay Watershed, MCSTOPPP will include a short letter that describes the Pathogen TMDL and will invite nursery employees to assist municipalities to prevent stormwater pollution from over-irrigation.

Timeline: Complete by the end of 2011.

7. The Marin Municipal Water District works with Marin Master Gardeners to visit homes to discuss water management, water-efficient plants and irrigation. This program, along with North Marin Water District's "Cash for Grass" program is helping to reduce runoff from gardens and lawns. MCSTOPPP also addresses over-irrigation and runoff in the Bay-Friendly Landscaping series for the Professional Landscaper and through various MCSTOPPP outreach publications available online and by request ([www.mcstoppp.org](http://www.mcstoppp.org)).

8. MCSTOPPP will contribute to a portion of the water quality testing to be conducted by the Richardson Bay Regional Agency (RBRA). RBRA will conduct water quality testing for Fecal Coliform, Total Coliform, Enterococcus, and E. coli. Water testing protocols will be multiple tube for Fecal Coliform and Total Coliform, and enzyme substrate for Enterococcus and Total Coliform. A total of 16 sites will be sampled and tested. Tests will be performed on samples taken at each of the test sites at weekly intervals for five (5) consecutive weeks. The five-week sample and test series will be conducted once during the dry season and once during the winter, for a total of 10 tests at each of the test sites. The test results will be reported to the RBRA, MCSTOPPP, and the Regional Water Quality Control Board.

RBRA will invoice MCSTOPPP for the labor and lab costs at the four RBRA sampling sites located near stormwater outfalls. MCSTOPPP will be invoiced for the dry and wet season Fecal Coliform tests and the dry season Enterococcus tests at four of the monitoring sites located near stormwater outfalls. When the Regional Water Quality Control Board pays for the monitoring described above, RBRA will share the savings on a proportional basis with MCSTOPPP.

Timeline: Dry season testing in fall 2009, and wet season testing in late winter 2010.