

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
8:30 A.M., Thursday August 23, 2012
Santa Rosa

- ITEM: 13
- SUBJECT: Update on the Russian River Pathogen Total Maximum Daily Load
(*Charles Reed*)
- BOARD ACTION: This is an informational item only. No action will be taken by the Regional Board.
- BACKGROUND: Staff is developing the Russian River Pathogen Total Maximum Daily Load (TMDL) to address indicator bacteria impairments. Since the last update to the Board in November of 2011, staff has continued with implementation of the Russian River Pathogen TMDL water quality monitoring program. In this update, staff will summarize current bacteria monitoring efforts in the Russian River watershed and discuss preliminary data results. Staff will also describe additional monitoring for this fiscal year and provide an updated timeline for completion of the TMDL.
- DISCUSSION: The Russian River Pathogen TMDL water quality monitoring program is designed to help answer questions about recreational and land use impacts on pathogenic indicator bacteria occurrence, abundance, and spatial and temporal variability during both wet and dry weather periods. New analytical methods are being employed in conjunction with traditional indicator bacteria detection methods to help identify probable sources of disease-causing organisms associated with the impairment.
- Sampling of the Russian River and its tributaries was completed through in April 2012 and all laboratory analyses are expected to be completed by October 2012. Based on available monitoring data results, staff can make the following observations:
1. Indicator bacteria concentrations are higher during wet periods compared to dry periods.
 2. Indicator bacteria concentrations are higher in the tributaries during wet periods than in the mainstem Russian River.

3. Human-source *Bacteroides* were detected in all sample locations and land use categories throughout the watershed.
4. Human-source *Bacteroides* were highest at Steelhead Beach and Forestville Access Beach during dry periods and at Santa Rosa Creek along the Prince Memorial Greenway during wet periods.
5. The highest Human-source *Bacteroides* levels were measured in the agricultural land use designation.
6. Human-source *Bacteroides* were modestly higher in onsite septic areas compared to urban sewerred areas.
7. Bovine-source *Bacteroides* were uniformly low throughout the watershed except at Steelhead Beach and Forestville Access Beach during wet periods.
8. Stable Isotope Analysis results show that the dominant sources of source water for bacteria samples are manure and septic wastes.
9. During wet periods, indicator bacteria concentrations are modestly higher in urban sewerred areas and areas with onsite septic systems compared to less developed areas.

Additional information is needed to better understand probable sources of indicator bacteria. During FY 12/13, staff is planning to conduct additional water quality monitoring in areas within the watershed where there is a combination of a high density of septic systems, proximity to impaired water bodies, and poor site conditions for onsite wastewater disposal.

Staff will continue to conduct the annual Russian River Recreational Beach Monitoring Program through the Surface Water Ambient Monitoring Program using the North Coast Region's in-house microbiology laboratory. This monitoring program, which includes monitoring at the major recreational beach locations along the Russian River, serves as the basis for beach posting considerations by the Sonoma County Health Department and provides indicator bacteria data to inform the development of the Russian River Pathogen TMDL. Following quality control review bacteria monitoring results are also made available on the Regional Board's website.

**SIGNIFICANT
CHANGES:**

To accommodate additional bacteria monitoring efforts and workload considerations, the anticipated completion dates for major milestones in the Russian River Pathogen TMDL presented in the last update to the Board have been extended by 12 months. The updated schedule for completion of the Russian River Pathogen TMDL is as follows:

Summer 2013	Monitoring Report Complete
Winter 2014	Technical TMDL Analysis Draft Complete
Spring 2014	CEQA Scoping Meeting
Summer 2014	Implementation Plan Draft Complete
Fall 2014	Peer Review and Basin Plan Amendment Complete
Winter 2015	Public Comment Period
Spring 2105	Regional Board Consideration/Hearing
Fall 2015	State Board Consideration/Hearing
Spring 2016	EPA Consideration

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