



Community Clean Water Institute

Lower Russian River Water Quality Fact Sheet 2- Monte Rio Beach

Dear Resident of the Lower Russian River Watershed,

Community Clean Water Institute (CCWI) has performed water quality testing and monitoring on the Lower Russian River since 2002. The monitoring is part of a study encompassing 9 sites over 13 miles from Dutch Bill Creek in Occidental to the river mouth at Jenner. This Fact Sheet describes the monitoring performed at Monte Rio Beach, including a Special Study of coliform bacteria at the beach.

This fact sheet provides some information about the current status of water quality on the river in your area including things you can do to preserve water quality in your watershed, such as becoming a citizen monitor. We encourage you to become an advocate for clean water in your community and to use this fact sheet as a starting point for implementing best management practices in your household and in your watershed. Thank you for your interest in learning more about the Russian River and in supporting clean water in your community.

Sincerely,

The Community Clean Water Institute



In August 2004, CCWI collected water samples from Monte Rio Beach during the period of lowest flow. Samples were tested for coliform, a common type of bacteria.

Water Quality Monitoring on Monte Rio Beach

RUS040 is the site at Monte Rio Beach which is being monitored on a monthly basis by citizen monitors for the following parameters:

- ◆ Temperature (air & water)
- ◆ pH
- ◆ Electrical Conductivity
- ◆ Turbidity
- ◆ Dissolved Oxygen
- ◆ Phosphate
- ◆ Nitrate

In addition, CCWI conducted a Special Study for Total Coliform and E. coli at Monte Rio Beach over the weekend of August 13-16, 2004.

The Lower Russian River Water Quality Monitoring Project is funded by a grant from the State Water Resources Control Board. For more information, contact CCWI at (707) 824-4370 or info@ccwi.org.



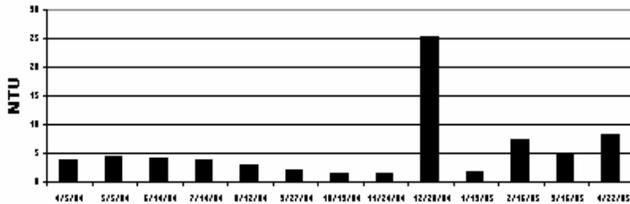
Site Name	Site Description	GPS
RUS040	Monte Rio Beach	38°27.979"N 123°00.553"W

Local Water Quality Overview

The Russian River is listed on the EPA's 303d list as impaired for the following criteria: sedimentation, siltation, turbidity, bank erosion, impaired spawning and rearing habitat, increased rate and depth of flooding due to sediment in the river and its tributaries. Water quality concerns at Monte Rio Beach include sedimentation, high turbidity during storm events, bacteria counts at public beaches, temperature for salmon and steelhead, and discharges from agriculture, industry, and stormwater runoff.



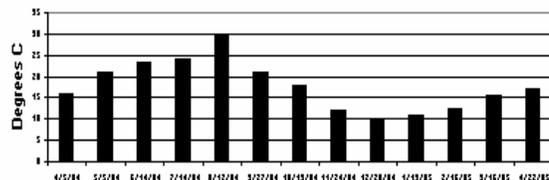
**Turbidity
2004-2005**



Turbidity is a measure of the amount of suspended particles such as algae, sediment, or organic matter. To protect general aquatic life, turbidity should be under 25 NTU. To protect salmonids, it should be under 10 NTU. Monte Rio Beach exceeded both recommendations in December 2004, probably after a winter storm event. Upstream erosion control measures can prevent excess sediment from washing down to Monte Rio Beach.

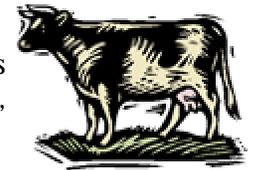
Temperature affects water chemistry and the functions of aquatic organisms. Two possible causes of high temperature are the removal of streamside vegetation, and alteration to stream flow. Maximum temperature for salmonid survival is 22°C and optimum temperature for spawning is 10°C and below. All measurements at Monte Rio Beach reached or exceeded the recommendations for survival and spawning. The data suggest the site is dangerous for salmonids.

**Water Temperature
2004-2005**



Monte Rio Beach Coliform Special Study

Coliform is a type of bacteria found in creeks and is a measure of the sanitary conditions in a waterway. Fecal Coliform, such as E.coli, are found in the digestive tracts and feces of warm blooded animals. Sources of coliform include discharge from wastewater treatment plants, cattle grazing near the river, and leaking septic systems.



The North Coast Regional Water Quality Control Board weekly bacterial analysis on several Russian River beaches revealed a coliform spike at Monte Rio Beach on June 11, 2003 which exceeded Department of Health Services guidelines for E. coli by about 300%. CCWI conducted a special study testing for E. coli and total coliform in the Monte Rio Beach area over the weekend of August 13-16, 2004. Samples were taken at four sites upstream, at, and downstream of Monte Rio beach. Samples were diluted, placed in Quantitrays which provide numerical results, and incubated for 24 hours.



Results

All E.coli measurements were below 150 MPN. Total coliform results for all sites sampled were between 600 and 2000 MPN. This is below the CA Department of Health Draft Guidelines of 235 MPN for E. Coli and 10,000 MPN for Total coliform. However, tourism, agricultural, and recreational use of the Lower Russian River, and issues with septic systems may still be affecting the levels of total coliform and E. coli. Regular monitoring is necessary to assess water quality over time.

Conclusions & Recommendations

This study is part of an ongoing monitoring project in order to better understand the Russian River watershed. Since the major issues involve non-point source pollution, where there is no single source, it is important for all stakeholders to become involved in protecting their watershed. CCWI recommends that local governments, regulatory agencies, and non profit organizations partner to continue water quality monitoring, with the goal of increasing citizen involvement. Below is a list of Best Practices that anyone can use to protect the important resources of the Lower Russian River.

Watershed Best Practices– How You Can Help

These best management practices can help preserve water quality in the Russian River.

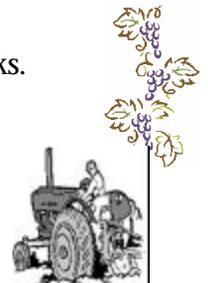
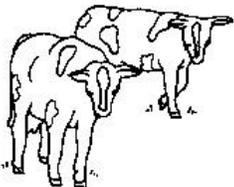
Residents

- ◆ Conserve water by installing low flow toilets, showerheads, and drip irrigation.
- ◆ Use phosphate-free laundry and dishwashing detergents.
- ◆ Stop soil erosion using hay and rocks and gravel to stabilize roads.
- ◆ Limit paved surfaces. Use permeable bricks, rock, and gravel. Pavement increases run-off, leads to flooding, and decreases water quality.
- ◆ Landscape with nature. Use drought resistant, native plants for landscaping. Irrigate during cooler hours of the day, and limit fertilizer applications on lawns and gardens. Do not spray chemicals within 50 feet of a waterway.
- ◆ Maintain your septic system, which reduces costs over time and preserves water quality downstream.
- ◆ Store and dispose of chemicals properly. Do not pour toxic chemicals down the drain. Call the County Waste Management Agency for guidelines on disposal of hazardous waste.
- ◆ Re-align ditches and culverts to drain to vegetated buffer zones or riparian areas along creeks & streams.
- ◆ Protect the forests forever, put a conservation easement on your land. Call Landpaths (707) 544-7284, Bodega Land Trust (707) 876-1806, or Sonoma Land Trust (707) 526-6930 for more information.



Agriculture

- ◆ Preserve and restore a shady riparian corridor along streams, rivers and creeks. Do not convert forests to vineyards or other development.
- ◆ Fence livestock to prevent them from walking through the creek.
- ◆ Develop a manure management plan for livestock to reduce water pollution.
- ◆ Reduce the use of pesticides.
- ◆ Use drip irrigation to improve water use efficiency.
- ◆ Manage livestock to prevent overgrazing.
- ◆ Contact local resources for more information: the Natural Resources Conservation Service Petaluma field office for both professional services and funding assistance at (707) 794-1242 x3, or Gold Ridge Conservation District 823-4662, UC Cooperative Extension 565-2621, Sonoma County Agricultural Commissioner 565-2371.



Become a Citizen Monitor

Citizen monitoring is monitoring of the environment by community volunteers interested in watershed protection. Citizen monitors collect water quality data, and evaluate stream health on a monthly basis. CCWI has an ongoing citizen monitoring program with residents and neighborhood groups in the Lower Russian River. If you live in this watershed, you can become a citizen monitor. Monitoring your watershed is a great way to get to know your local creeks. Get your feet wet! To find out more, contact the CCWI office at (707) 824-4370 or visit our website at www.ccwi.org.

If you suspect water pollution in your area, contact Russian RiverKeeper (707) 433-1958, Regional Water Quality Control Board at (707) 576-2220, the County Department of Environmental Health at (707) 565-6565.



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c/o Town Hall Coalition
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Local Resources for Water Quality on the Lower Russian River

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Monte Rio Recreation and Park District (707) 865-2487
rrpd@neteze.com

Russian River Residents Against Unsafe Logging (RRRAUL)
(707) 823-7114 www.rrraul.org

Russian RiverKeeper (707) 433-1958
www.russianriverkeeper.org

Forests Unlimited (707) 632-6070

To report water pollution, or find out about beach closures:

County Department of Environmental Health (707) 565-6565
www.sonoma-county.org/health/index.htm

Regional Water Quality Control Board (707) 576-2220
www.waterboards.ca.gov/northcoast

Community Clean Water Institute (CCWI) is a non-profit 501(c)(3) organization, based in Sebastopol, California. CCWI's mission is to protect water resources and public health by identifying sources of pollution through water testing programs, public outreach and education programs. Funding for the Lower Russian River Water Quality Monitoring Project has been provided in part through an Agreement with the State Water Resources Control Board (SWRCB) pursuant to the Costa-Machado Water Act of 2000 (Proposition 13) and any amendments thereto for the implementation of California's Nonpoint Source Pollution Control Program. The contents of this document do not necessarily reflect the views and policies of the SWRCB, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.