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TO: Vicky Whitney
State Water Resources Control Board
Division of Water Rights

FROM: Catherine Kuhlman
Executive Officer

DATE: April 30, 2009

SUBJECT: REGIONAL WATER BOARD DRAFT RUSSIAN RIVER WATER QUALITY MONITORING PROGRAM FOR SONOMA COUNTY WATER AGENCY, ORDER WR 2009-0027-DWR

Attached are our recommendations for a Russian River monitoring program pursuant to Condition 9 of the above-referenced Order. These recommendations are intended to augment the monitoring to be conducted by Regional Water Board staff. For the Summer of 2009, the Regional Water Board will continue to conduct our routine beach sampling at established public beach areas on the Russian River. We believe that the program described in the attachment will provide critical information on potential water quality impacts from revised river flows. It is important that all of this data be made available to the public as soon as possible. In particular, we request that all bacteria data analyzed with the Colilert or Enterolert tests be provided to the Regional Water Board and local County Health Departments within 48 hours of collection. Bacteria data analyzed with the multiple tube method should be provided within 24 hours of the Sonoma County Water Agency's receipt of that data.

Furthermore, we would encourage State Water Board staff to include a contingency plan requirement in the Order that would require a re-examination of the low flow allowance in the event that monitoring reveals very poor water quality.

Condition 14 of the Order restricts irrigation of commercial turf areas during the summer period. Our staff is aware of water quality concerns from over-irrigation of turf areas in the Russian River watershed. Summertime over-irrigation can carry pollutants to impaired waterbodies and has been linked to the spread of invasive aquatic plant species in tributaries of the Russian River. We support this Condition and believe that it will help local agencies in their water conservation efforts, will reinforce the benefits of using native plants and drought tolerant species and will assist with our goal of reducing incidental runoff containing pollutants to our sensitive receiving waters.

We look forward to coordianting with staff at the Sonoma County Water Agency toward finalizing this sampling and analysis plan. If you have any questions or comments on this matter, please contact John Short at (707) 576-2065 or JShort@waterboards.ca.gov regarding bacteria monitoring and Matt St. John at (707) 570-3762 or MStJohn@waterboards.ca.gov regarding all other monitoring.

Cc: Eric Oppenheimer, State Water Resources Control Board, Division of Water Rights
George Lincoln, Sonoma County Water Agency, 404 Aviation Boulevard, Santa Rosa, 95403
Brenda Adelman, Russian River Watershed Protection Committee, P.O. Box 501, Guerneville, CA 95446

043009_CAG_SCWA_LowFlowMonitoringProgram.doc

Attachment
Recommendations for Russian River Monitoring Program Pursuant to Condition 9 of Order No. WR 2009-0027 DWR

Recommendations for Russian River Monitoring Program
Pursuant to Condition 9 of Order WR 2009-0027-DWR

After careful review of the Water Quality and Temperature Monitoring Plan for Order 2009-0027-DWR, submitted by the Sonoma County Water Agency, our specific requests are as follows:

Bacteria Monitoring at Summer Recreation Areas

1. At least one day per week, the Sonoma County Water Agency shall sample the sites identified in item 2 below for the following bacteriological parameters:
   - total and fecal coliform (using the multiple tube fermentation technique, minimum of 15 tubes – Standard Methods 9221)
   - total coliform and *E. coli* using the Colilert-18 Quantitray MPN method (18 hour test), and
   - Enterococcus using the Enterolert Quantitray method.

Appropriate dilutions shall be selected to bracket the anticipated results so that results won't be reported as greater than a value. At least one set of samples shall be taken on a weekend day to represent water quality during periods of highest recreational use.

2. In order to assess the effects of low flows in the Russian River, the sampling site locations must be expanded beyond the six lower Russian River beaches that are sampled by the Regional Water Board and Sonoma County Health Department each summer. The following sites shall be sampled by the Sonoma County Water Agency to capture conditions in upstream areas of the Russian River that are not regularly sampled, as well as the lower river. The Sonoma County Water Agency shall conduct bacteria sampling at the following sites:
   - Gobbi City Park (Ukiah)
   - Commisky Station Road (between Hopland and Cloverdale)
   - Cloverdale (north of town off of Geysers Road)
   - Cloverdale River Park
   - Asti River Access
   - Geyserville (Highway 128 Bridge)
   - Alexander Valley Campground
   - Del Rio Woods Beach
   - Camp Rose (Fitch Mountain area of Healdsburg)
   - Healdsburg Memorial Beach
   - Wohler Bridge
   - Burke's Beach (Forestville area)
   - Steelhead Beach
   - Forestville Access Beach
   - Odd Fellows Bridge Road
   - Johnson's Beach

- Vacation Beach
- Northwood (Russian River CSD wastewater treatment facility downstream sampling locations)
- Monte Rio Beach (4 sites as described below)

3. During summer 2008, sampling conducted at Monte Rio Beach revealed a period of significant excedances of the recommended standards for Total Coliform, *E. coli*, and Enterococcus set forth in the California Department of Public Health *Draft Guidance for Freshwater Beaches (May 8, 2006)*. The low flow conditions in the Russian River this year may exacerbate the factors that led to these conditions last summer. Therefore, expanded sampling in the Monte Rio area is necessary this summer and shall occur at least one day each week (preferably a weekend day) throughout the summer at the following locations:
   - Vacation Beach
   - Northwood (downstream sampling site for Russian River CSD wastewater treatment facility)
   - Four stations at Monte Rio Beach:
     - (1) upstream end of beach
     - (2) Kiddies swim area
     - (3) downstream of kiddies swim area (deep water area adjacent to canoe rentals and upstream of bridge), and
     - (4) downstream of bridge, but upstream of Dutch Bill Creek.

4. If significant or routine exceedances of the bacteria standards occur at any time, sampling frequency shall be increased to daily samples to determine if the exceedance is temporary or on-going.

5. Weekend sampling events should occur at Healdsburg Memorial Beach, Johnson's Beach and Monte Rio Beach during the periods May 23-25, 2009 (Memorial Day weekend), July 3-6, 2009 (Independence Day weekend), and September 4-6, 2009 (Labor Day weekend) and at Johnson's Beach during the weekend of the Johnson Beach Blues Festival, June 16-19, 2009.

Biostimulatory Response Water Quality Monitoring

Additional monitoring is warranted to assess biostimulatory response to the revised river flows. Regional Water Board staff believe the multi-parameter water quality sonde monitoring proposed by SCWA in their Water Quality and Temperature Monitoring Plan dated April 20, 2009 is sufficient. However, the proposed nutrient sampling is insufficient.

Regional Water Board staff recommend sampling for the following nutrient and suspended algae parameters at least one day per week:

- Inorganic Nitrogen
  - Ammonia-N
  - Nitrite-N
  - Nitrate-N
- Organic-Nitrogen
- Organic and Inorganic Phosphorous
- Suspended Algae
  - Chlorophyll-a
  - Pheophyton-a

This nutrient and suspended algae monitoring shall be conducted at or near the fifteen SCWA permanent and seasonal mainstem Russian River sonde locations. Qualitative observations about the presence and extent of suspended and benthic algae shall be noted at each weekly monitoring event and location.

Additionally, we recommend the following benthic algae monitoring one day per month:

- Benthic Algae
  - Chlorophyll-a
  - Species ID
  - Ash Free Dry Mass

Benthic algae monitoring shall be conducted at or near the five SCWA permanent sonde locations. Benthic algae sampling and analysis protocols shall be established in consultation with Regional Water Board staff.

Pesticide and Metals Water Quality Monitoring

The Regional Water Board's Surface Water Ambient Monitoring Program (SWAMP) has documented organochlorine and organophosphate pesticide hits within the Russian River. In addition, SWAMP has documented periodic aluminum and mercury hits within the Russian River. Therefore, staff recommend monitoring for these pesticides, aluminum, and total and methyl mercury one day per month at the following SWAMP monitoring locations where previous hits have occurred:

- East Fork Russian River (EFRR01)
- Russian River at Talmage (RRTAL1)
- Russian River at Hopland (RRHOP1)
- Russian River at Cloverdale (RRCLO1)
- Russian River at Healdsburg Memorial Beach (RRHMB1)
- Dry Creek near mouth (DRCRRR)
- Russian River at Johnson's Beach (RRJB01)

Reporting

The Sonoma County Water Agency shall establish a website to post all data so that is available for public review. All bacteria data shall be posted within 24 hours of verbal receipt. Data shall be identified as provisional until receipt of final written results from the analytical laboratory. All other data shall be posted within 24 hours of receipt of the final written laboratory report.

All bacteria data analyzed with the Colilert or Enterolert tests shall be provided to the Regional Water Board (Cathy Goodwin: direct line 707-576-2687; fax 707-523-0135 or email CGoodwin@waterboards.ca.gov) and the Mendocino and Sonoma County Health Departments within 48 hours of collection. All bacteria data analyzed with the multiple tube method should be provided within 24 hours of the Sonoma County Water Agency's receipt of that data.

By November 15, 2009, the Sonoma County Water Agency shall submit a written report to the Regional Water Board and the local County Health Departments. The written report shall provide a summary and analysis of all data collected during the low flow period and provide a data quality assessment and conclusions based on the monitoring results.