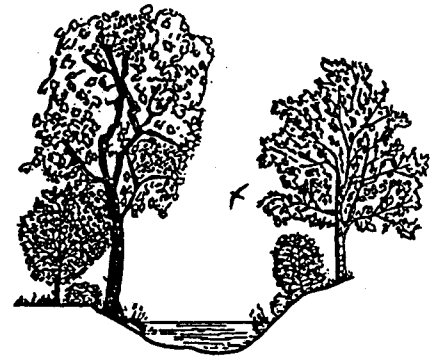


South Valley Streams For Tomorrow

**P.O. Box 1409
San Martin, CA 95046**

(408) 683-4330 (voice & fax)



July 28, 2004

Mr. Roger W. Briggs
Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401



Dear Mr. Briggs:

**Tentative Draft Waste Discharge Requirements Order No. R3-2004-0099;
and NPDES Permit No. CA0049964 for
South County Regional Wastewater Authority (SCRWA);
Santa Clara County**

South Valley Streams For Tomorrow is successor to Santa Clara County Streams For Tomorrow. As such, we have a long history of involvement and comment on the proposed tertiary treated wastewater discharge to the Pajaro River, as evidenced in the administrative record of this proposal.

We support the proposed winter discharge to the Pajaro River as conditioned by the waste discharge requirements of the tentative draft Order. Although we do not hesitate to express our support for the proposal, we have some concerns about the methodology employed to assess environmental impacts of the effluent discharge and the proposed monitoring requirements for temperature impacts to the receiving water (Pajaro River). We have the following comments for your consideration.

1. Temperature Impacts Analysis

The temperature impacts analysis of the effluent discharge to the Pajaro River (Staff Report; pages 8 - 10) appears to have a fundamental flaw: the reference site for the analysis is at the Chittenden gauging station, located many miles downstream from the point of discharge. The analysis does not provide an assessment of potential temperature impacts to the immediate stream reach of impact - the Pajaro River reach from point of discharge downstream to the mouth of Uvas Creek, the first significant tributary inflow below the point of discharge. We have no assessment of the potential impacts of the proposed warmwater (68F) effluent discharge to this receiving water reach.

Not only is there substantial distance between the point of discharge and the gauging station, there are substantial inflows to the River along this reach: (1) the San Benito River; (2) Uvas Creek (often described as a wet drainage); and (3) local drainage along this River reach.

Item No. 20 Attachment No. 6
September 10, 2004 Meeting
SCRWWA WWTP

Although the analysis concludes that "the anticipated change in receiving water temperature due to the proposed effluent discharge is nearly unmeasurable" (Staff Report, page 9), this conclusion is only valid at the downstream Chittenden site. The "receiving water" reference is the flow at Chittenden, a flow influenced by substantial distance from the point of discharge and substantial tributary inflow between point of discharge and the gauge.

We do not have an assessment of potential temperature impacts to the actual receiving water in the River reach immediately below the point of discharge - the reach of impact.

At the Low Flow Trigger streamflow of 180 MGD at Chittenden, actual upstream Pajaro River streamflow at the point of discharge would be substantially less because it represents a much smaller portion of the watershed - the Pajaro River flow at point of discharge consists primarily of Llagas Creek and Millers Canal inflow.

A Low Flow Trigger streamflow of 180 MGD at Chittenden may equate to a corresponding flow of only 70 MGD or less at the upstream point of discharge. So instead of having the target 20:1 dilution effect as measured at Chittenden (5% effluent contribution), the actual dilution may be only 8:1 or less at point of discharge (13 % contribution, or greater). This circumstance would prevent achieving the stated goal that: "the discharge will only occur during periods when it will not contribute to flooding or an effluent flow contribution of greater than 5% within the Pajaro River." (Staff Report, page 7).

There may be times at the Chittenden Low Flow Trigger when a 9 MGD discharge comprises a substantial portion of the Pajaro River flow in the reach from the point of discharge downstream to the mouth of Uvas Creek. Effluent contribution could far exceed the maximum target of 5%. This raises major concerns regarding the ability of SCRWA to meet the receiving water limits for dissolved oxygen and temperature within this reach of the River, and the environmental consequences of potential dissolved oxygen depletions and thermal exceedances in the River between point of discharge and Uvas Creek inflow.

In this Low Flow Trigger circumstance, a 9 MGD discharge at a temperature of 68F could have a significant impact on the cooler receiving water, an impact far greater than the "nearly unmeasurable" impact predicted at the downstream Chittenden gauge, where the effluent contribution is only 5%. With the effluent contribution being far greater at point of discharge, SCRWA may not be able to comply with the Pajaro River receiving water temperature limit (Order Limit G.6) as measured at Station SW12, leading to thermal exceedances in the Pajaro River between point of discharge and Uvas Creek.

Based on temperature information presented in the Staff Report, we conclude that there is a high probability that SCRWA would not be able to meet the receiving water temperature limitation at the point of discharge as monitored at Station SW12 (without effluent cooling) when discharging at or near the Low Flow Trigger. This is because of the lower volume of flow and the much higher contribution of effluent at point of discharge when compared to conditions at Chittenden.

The temperature impacts analysis of the proposed Low Flow Trigger of 180 MGD at Chittenden fails to consider the corresponding lower flow volume and higher percentage contribution of effluent at the actual upstream point of discharge. In our opinion, the analysis misrepresents the potential temperature impacts of the proposed effluent discharge because it fails to correctly characterize temperature impacts to the receiving water at the actual point of discharge, the River reach between point of discharge and Uvas Creek.

Because of the failings of the temperature analysis, we are concerned that the Regional Board will issue the WDR Order and SCRWA will construct a pipeline and initiate effluent discharge based on an assumption that compliance can be achieved with the receiving water temperature limitation, only to find out upon operation that compliance cannot be achieved. We are concerned that under this scenario, SCRWA would then petition the Regional Board for modification of the essential protective receiving water temperature limitation (Order limit G.6).

Recommendation

We believe additional temperature impacts evaluation is necessary to estimate and assess potential effluent discharge impacts on receiving water temperature **at the point of discharge (Station SW12) for the Low Flow Trigger**. If evaluation identifies significant temperature impacts that would prevent compliance with the receiving water limitation, then opportunity would exist now to explore other options: such as selecting a higher Low Flow Trigger streamflow criterion (higher than 180 MGD at Chittenden) or providing effluent cooling in project design.

One expedient option would be to move the 180 MGD Low Flow Trigger reference site to the Pajaro River at or near Station SW12 or at the railroad crossing immediately above the discharge point. This site would only need to be a 180 MGD River flow stage marker, not a full gauging station. Such a Low Flow Trigger reference site would guarantee that the contribution of a 9 MGD effluent discharge would not exceed 5% of Pajaro River flow.

The Regional Board should not take action on the tentative draft order in absence of an analysis of potential effluent discharge impacts on receiving water temperature in the River reach below the point of discharge at the Low Flow Trigger. At present, there is no characterization nor assessment of the potential temperature impacts to receiving water in the River reach between point of discharge and Uvas Creek, such as at Station SW12.

2. Temperature Limit Monitoring

We strongly support the proposed receiving water temperature limit for the Pajaro River as defined in Limit G.6. This limitation is essential to protect steelhead trout and the cold freshwater habitat beneficial use and to maintain the biological integrity of the River.

However, this limit will be effective in protecting steelhead and coldwater habitat only if SCRWA can demonstrate compliance at Station SW12. For the reasons described in

Mr. Roger W. Briggs
July 28, 2004
Page Four

Comment 1 above, we believe there is a high probability SCRWA will not be able to meet the receiving water temperature limitation at the point of discharge (Station SW12) when discharging at or near the Low Flow Trigger. Because of this uncertainty, monitoring for compliance is essential, particularly since this is a new discharge.

The proposed Monitoring and Reporting Program No. R3-2004-0099 directs SCRWA to monitor water temperatures at Stations SW11 and SW12 once prior to each discharge and once daily during the discharge. Under this scenario, the determination of compliance would have to be based on only one instantaneous measure of upstream and downstream water temperature every 24 hours of discharge. This level of sampling is inadequate and fails to provide meaningful, definitive data to demonstrate compliance. Beneficial use protection requires compliance with the Order, and compliance requires adequate monitoring.

Water temperature should be monitored **hourly** at Stations SW11 and SW12 during discharge events, employing tidbit temperature data loggers programmed to record hourly readings. SCRWA demonstrated the ability to conduct such hourly monitoring of the Pajaro River during the pre-project temperature study of November 26, 2002 to April 11, 2003. Hourly monitoring is now cost-effective due to advances in data logger technology.

Hourly monitoring of water temperature is necessary at Pajaro River Stations SW11 and SW12 during discharge events because of the absence of an analysis of the potential adverse temperature impacts of effluent discharge at the point of discharge, and the uncertainty this circumstance generates. The analysis of temperature impacts at far downstream Chittenden provides no definitive insight into potential impacts at the actual upstream point of discharge.

Hourly monitoring will allow identification and quantification of any impacts of the effluent discharge to the normal diurnal temperature cycle of the Pajaro River. Discharge impacts will vary over the 24-hour temperature cycle, and this variation cannot be detected by a single, daily measurement. Hourly monitoring also will allow an assessment of discharge impacts to both daily minimum and daily maximum River temperatures. The proposed once daily instantaneous measure of temperature will not allow such impact assessments. A more robust level of monitoring is required to identify the characteristics of any temperature impacts and to determine whether compliance is achieved with Limit G.6.

Hourly monitoring would not appear to be an onerous obligation. Modeling projections (Staff Report, page 7) estimate the frequency of discharge, and therefore the frequency of temperature monitoring, as approximately 17 days in 2011 and 49 days in 2021. And data logger use is a relatively inexpensive monitoring method.

Recommendation

We recommend that Table MRP-7 of the Monitoring and Reporting Program be modified to require that (1) the sampling frequency for the temperature parameter at Stations SW11 and SW12 be identified as "P/H"; and (2) the Table Notes include the new definition: "P/H = Prior to each Pajaro River discharge, and hourly during the discharge."

This monitoring requirement could be re-evaluated based on the results of monitoring at least two seasons of discharge at the maximum rate of 9 MGD.

Mr. Roger W. Briggs
July 28, 2004
Page Five

3. Requirements/conditions to minimize temperature impacts

The Staff Report states on page 10: "In order to minimize the impact on receiving water temperature, discharges would only occur during periods of low ambient air temperature (low receiving water temperature) and relatively high receiving water flow to ensure receiving water temperatures remain below applicable levels downstream of the discharge." However, equivalent protective requirements/conditions are not included in the Order. This omission should be corrected in the revised Order.

Recommendation

The subject protective requirements/conditions should be included in the revised Order.

4. Location of Monitoring Stations SW11 and SW12

Surface water monitoring stations SW11 and SW12 are identified in Table MRP-6 as being located 100 yards upstream and 100 yards downstream of the discharge point, respectively. The correct distance should be 100 feet.

Monitoring 100 yards downstream from the discharge may not detect dissolved oxygen depletion zones and thermal barriers to steelhead passage. Regional Board staff agreed that the correct distance should be 100 feet upstream and 100 feet downstream of the discharge in the May 1998 Staff Report and corresponding May 1998 Proposed Order 98-053.

Recommendation

Table MRP-6 of the proposed Monitoring and Reporting Program should be modified to identify Stations SW11 and SW12 as being located 100 feet upstream and 100 feet downstream of the discharge point, respectively.

Thank you for the opportunity to comment on the subject tentative draft Order. If you have questions about our comments and recommendations, please contact me at the letterhead address or telephone number (408) 683-4330 (voice and fax). Please send us copies of any revised Order and notices of any public hearings regarding the Order.

Sincerely,



Keith R. Anderson
Environmental Advocate