Public Comment (11/16/10 Wrkshp)
Policy for Toxicity Assessmnt
Deadline: 1/21/11 by 12 noon

Las Gallinas VALLEY SANITARY DISTRICT

January 21, 2011

Mr. Charles R. Hoppin, Chairman and Members
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

c/o Jeanine Townsend, Clerk to the Board
VIA EMAIL: commentletters@waterboards.ca.gov

SUBJECT: Comment Letter: Draft Policy for Toxicity Assessment and Control

Dear Chairman Hoppin and Members:

The Las Gallinas Valley Sanitary District (District) appreciates the opportunity to submit comments on the State's Draft Policy for Toxicity Assessment and Control (Policy). The District supports and incorporates by reference the CASA, Tri-TAC, BACWA (Associations) comments and the City of San Jose comments on the Policy, both dated January 21, 2011.

The proposed Policy represents a significant step backwards from the tiered chronic WET requirements that have been successfully implemented in POTW NPDES Permits (including the District's) in the San Francisco Bay area (Region 2) for over 10 years. Permits typically require monthly monitoring of chronic toxicity for large dischargers. The District operates a 2.92 mgd design capacity facility and is required to monitor chronic toxicity quarterly.

Accelerated monitoring (twice per month testing) is triggered for most shallow water dischargers in the Bay Area, after exceeding a three sample median of 1 chronic toxicity unit (TUc) or a single-sample maximum of 2 TUc or greater. (These triggers are 10 and 20 TUc respectively for deep water dischargers.) If accelerated monitoring then confirms consistent toxicity above either of these two triggers, a Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) is required to be conducted and a TRE Workplan must be submitted within 30 days of exceeding the chronic toxicity trigger. The failure of an NPDES permittee to perform required monitoring, report and respond to test exceedance triggers, or perform an adequate TRE/TIE investigation would constitute an NPDES violation and would be a basis for potential enforcement action by the Regional Water Quality Control Board.

This existing Region 2 narrative toxicity objective chronic toxicity WET implementation approach is reasonable and appropriate given the uncertainties inherent in whole effluent toxicity testing. Historic water column water quality monitoring data collected by the Regional Monitoring Program (RMP) indicate that the approach has been protective of receiving water

aquatic life beneficial uses. The RMP found no evidence of water column ambient chronic toxicity and therefore ceased monitoring for it, except for verification monitoring every five years to confirm that conditions have not changed.

Specific Comments and Recommended Actions

The limited and incomplete Alternatives Analysis in the Staff Report appears to weigh simplicity and state and discharger-wide consistency much more highly than technical rigor and matching requirements to the conditions specific to individual facilities actual potential for impact on the environment. The draft Policy ignores other EPA guidance and decades of practical experience in whole effluent toxicity regulation.

1) Reasonable Potential Analysis (Staff Report Issue 2A pp. 52-53)

The Staff Report recommended Alternative 4 would unilaterally assign reasonable potential (RP) for all POTWs with an average daily flow above 1 mgd. The rationale given was that "*Because POTWs accept a steady, voluminous flow of effluent from a variety of municipal discharges containing numerous unknown constituents, these facilities harbor the potential to adversely impact aquatic biota.*" The rationale for this automatic RP also asserted that it "*would provide a higher level of ecological protection from the voluminous discharges ...*"

Such sweeping generalizations apply equally to pollutant specific parameters. This simplistic statement fails to take into account the differences in the types of users served by a POTW, whether the POTW has implemented a pretreatment program, whether the POTW has a robust source control and pollution prevention program, the level of treatment provided by the POTW, the initial dilution received by the discharge, and the quality of the receiving water. POTWs should have to have the opportunity to determine whether or not their discharge indeed has numeric RP and requires effluent limits to protect the receiving water and not unilaterally be saddled with permanent chronic toxicity limits that are impossible to remove, regardless of the quality of their discharge.

Recommended Action: Reject Alternative 4 for POTWs and instead adopt either the Alternative 2 (Ocean Plan RPCalc) or Alternative 3 (USEPA TSD) RP approach. RPCalc is a software program developed in 2005 by former SWB staffer Steve Saiz (now with the Central Coast RWB). RPCalc is a more sophisticated version of the TDS approach, has been peer reviewed, and is applicable to both toxicity and individual pollutants. It is simple to use and provides easy to interpret graphical and numeric RP results.

2) Monitoring Frequencies (Staff Report Issue 2C pp. 55-56)

The proposed Staff Report recommended Alternative 2 would require monthly monitoring for all facilities that discharge at or above 1 mgd on either a continuous of non-continuous basis (during the months of discharge). (The District only discharges during wet weather months.) The rationale given in the Staff Report was that "*Monthly toxicity tests are necessary to protect aquatic organisms form the discharges of facilities that harbor the potential to release a high volume of toxic constituents, such as major POTWs.*" As noted in the Associations' comment letter, chronic toxicity is a poor predictor of instream impacts. Given their cited evidence supporting that conclusion, and the RMP's failure to detect ambient chronic toxicity, it is simply

arbitrary and onerous to impose monthly monitoring on all POTWs above 1 mgd, including the District, given the variability in facility and other site-specific conditions as noted above in the RP discussion.

Recommended Action: Reject Alternative 2 for POTWs and instead adopt a revised Alternative 3 that would include a tiered approach to toxicity monitoring frequencies for POTWs, similar to that for chemical constituents in most POTW permits. Chronic toxicity testing frequencies for POTWs < 1 mgd would be annually, >1 and < 5 mgd quarterly, and > 5 mgd monthly.

3) Exceedances (Accelerated Monitoring/TRE) (Staff Report Issue 2E pp. 58-60)

The proposed Staff Report recommended Alternative 2 states that if a test results in a "fail at the IWC", dischargers shall initiate an accelerated monitoring schedule defined as *"At a minimum, an accelerated monitoring schedule would consist of six, five-concentration chronic toxicity tests conducted at approximately two week intervals, over a twelve week period."* The District believes that accelerated monitoring of six samples over twelve weeks is excessive, particularly for smaller (< 5 mgd) POTWs. The cost of such an accelerated monitoring event, which would be in the range of $15,000, represents a significant burden on a small discharger and its ratepayers. Current practice is to continue the accelerated monitoring until two consecutive samples are in compliance with the 1 TUc three sample median trigger and/or the 2 TUc single sample trigger.

The District's experience is that when chronic toxicity is detected in the effluent, it is typically at low levels (< 1.5 TUc) and many times is not persistent (i.e. is not detected in sample retesting or follow-up sampling). Under this scenario, it would be fruitless and not an effective use of public resources to continue to monitor for up to four additional events once two consecutive < 1 TUc results had been obtained.

If accelerated monitoring is occurring near the end of the discharge period for intermittent (seasonal) dischargers like the District, it is extremely unlikely that the source of the toxicity at that period would be present when discharge resumed several months later. The Policy should acknowledge that such accelerated monitoring does not need to be conducted during non-discharge periods and does not need to recommence when discharge resumes.

The District supports implementation of a tiered TRE workplan where TIE efforts not be required until there are two consecutive exceedances of the applicable trigger during accelerated monitoring. The District does not believe that exceedance in any single non-consecutive accelerated monitoring testing event should require implementation of the TIE elements of a TRE workplan. For the reasons noted above, the toxicity needs to be demonstrated to be persistent (i.e. still present) and at a certain minimum magnitude, for TIE efforts to have any reasonable chance of successfully detecting the source(s) of toxicity. For the District, this TRE workplan TIE initiation level has been determined by the contract laboratory to be 1.25 TUc based on point estimated calculated IC/EC50 values.

Recommended Action: Modify Alternative 2 for POTWs to define the accelerated monitoring schedule to consist of monitoring at approximately two-week intervals until two consecutive test results are below the applicable trigger. Include a statement in the policy that TRE workplans need to address and include appropriate TIE initiation TUc values.

4) TST versus IC/EC25 Comparison

The District had its contract laboratory conduct a comparison of its historic chronic toxicity IC/EC25 results relative to the 1.0 TUc trigger (greater than 1.0 TUc equals "fail") with the same data being evaluated using the TST method pass/fail approach. Out of the past 14 test results, there would have been one additional "fail" using the TST approach. This represents a 7% increase in test failures (and violations if numeric limits had been in place) simply due to changing the test result analysis methodology to the TST approach. The tested effluent quality did not change. The TST approach provides no information on the magnitude of toxicity in each test as does the IC/EC25 methodology. The TST approach is therefore both generating more false positives than the IC/EC25 methodology and also less useful information for determining appropriate TRE/TIE follow-up activities relative to a given test result.

The District appreciates the opportunity to provide these comments on the Draft Policy for Toxicity Assessment and Control. If you have any questions, please contact Nina Capetanos, District Lab Director, at (415) 472-1734.

Sincerely,

Mark R. Williams
General Manager

cc: Board of Directors, LGVSD
Tom Hall, EOA, Inc.