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ESTABLISHED 1850

August 20, 2012

50

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
commentletters@waterboards.ca.gov

Dear Chairman Hoppin and Members:

The City of Vacaville appreciates this opportunity to comment on the State Water Resources Control Board (State Water Board) June 2012 *Policy for Toxicity Assessment and Control – Public Review Draft* (Draft Policy) and *Draft Staff Report and Environmental Checklist* (Draft Staff Report).

The City of Vacaville (“City”) operates the Easterly Wastewater Treatment Plant, which provides sewerage service for the City of Vacaville and the unincorporated town of Elmira, serving a population of approximately 97,000. The City of Vacaville is a contributing member of the Central Valley Clean Water Association (CVCWA) and the Bay Area Clean Water Agencies (BACWA) and supports both CVCWA’s and BACWA’s comments on the latest draft Toxicity Policy. In addition to those comments, this letter provides additional detailed comments on issues of greatest importance to the City, as noted below.

50.1 → Implementation of the new TST Policy should not be concurrent with introduction of numeric toxicity limits

The current draft TST Policy simultaneously introduces a new statistical method - the TST and a new way to implement enforcement - numeric limits, whose exceedances count as violations. As the TST method has not been implemented for NPDES compliance in any other State, its implementation may have unintended consequences. At this time, it is not known what impact this new method will have on NPDES compliance, although it is acknowledged in the draft Policy that dischargers may periodically be assessed violations due to false determinations of

082012 TST Policy Comments – City of Vacaville
L12-157

50.2

toxicity. Additionally, under the State 303(d) Listing Policy, and assuming the minimal 5% false determination of toxicity rate, 34% of California's non-toxic receiving waters will be listed as toxic.

Proposed resolution: The City of Vacaville supports the concept of a "narrative objective with numeric triggers" over the present concept to avoid falsely listing some of California's waters as being toxic. Alternatively, if the numeric objectives are retained, a trial period without assessment of penalties of at least two years is warranted to assess and address any unintended impacts not predicted in the current Draft Policy.

50.3 → **The Maximum Daily Effluent Limitation (MDEL) should be removed from the new TST Policy**

It is well known to scientists working in toxicity laboratory testing programs that variability exists in any toxicity test involving the response of biological organisms, including those applicable to toxicity testing programs. For this basic reason, it does not make sense to apply a MDEL effluent limitation violation to a single toxicity test exceedance. Further, expensive investigative reactions should never be based on a single test failure, as the chance for sample collection error, laboratory error, test organism failure, etc. always exists. As funding resources are limited, a trend of toxicity in a water must be established to avoid waste of these limited resources.

Proposed resolution: Compliance using the new TST policy must not be based on a single test, but be based on toxicity detected in at least two-of-three consecutive tests, to ensure that a trend of toxicity exists to avoid unnecessary expenditure of limit resources.

50.4 → **The acute toxicity monitoring requirement should be removed from the new TST Policy as it duplicates chronic toxicity testing**

One of the key assumptions of cost savings in the Economic Impacts analysis of the staff report for the Draft Policy is that acute testing requirements will no longer be included in permits. However, the Policy leaves the elimination of acute toxicity testing requirements to the discretion of Regional Water Boards.

50.4 → **Chronic toxicity testing is much more conservative than acute toxicity testing, and is commonly accepted as a more sensitive measurement of toxicity relative to acute toxicity testing. Chronic toxicity tests typically utilize more sensitive life stage(s), have longer exposure durations, and incorporate more sensitive growth and reproduction endpoints relative to acute toxicity survival-only test endpoints. Hence, any sample that would exhibit acute toxicity effects would be expected to exhibit at least as much toxicity in replicate chronic toxicity testing and in most instances the chronic toxicity test would indicate more toxic effects. Therefore, a single sample collected in a NPDES effluent monitoring program that includes both acute and chronic toxicity testing requirements would be expected to fail both acute and chronic thresholds simultaneously, resulting in duplicative violations on the same sample.**

50.4 → **Proposed resolution:** The TST Policy should specifically instruct Regional Water Boards to not include acute toxicity objectives and limitations concurrently in permits that contain chronic toxicity objectives and limitations.

50.5 → **The limited number of contract laboratories providing toxicity testing will not be sufficient to meet statewide implementation of the new TST Policy**

→ If the current Draft TST Policy is implemented statewide, the increase in testing frequency will overwhelm the capacity of existing ELAP-certified toxicity testing laboratories. Further, the Policy requirements will encourage agencies to schedule testing on the first week of each month, to allow for potential follow-up testing to be conducted if a test failure or toxicity is detected.

→ There are only a handful of certified contract laboratories that are currently equipped to perform the toxicity tests required by the Policy. Due to the high cost and effort of setting up additional specialized climate controlled facilities required to conduct these specialty bioassays, it will take several years before the labs have the capacity to accommodate the increased testing workload.

→ **Proposed resolutions:** Phase in the chronic toxicity requirements in NPDES permits over 5-year renewal cycles to allow toxicity labs adequate time to adjust to increased testing demand. Also, re-define the monthly testing period from each calendar month to 30-days following a test result, to reduce the testing demand on laboratories during the first week of each calendar month.

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In conclusion, the most serious concern the City has with the Draft Policy is regarding the application of numeric objectives and effluent limitations based on toxicological responses of biological organisms, as bioassays are commonly known to exhibit variable responses depending on the quality and health of the test organisms. This Policy should be revised to be a narrative objective only in recognition of the biological test variability that exists in toxicity testing protocols.

The City of Vacaville appreciates your consideration of these comments and looks forward to working with the State Water Board staff in the development of an effective toxicity testing policy that benefits both water quality and economic needs.

For further inquiries on this matter, please contact Tony Pirondini, Water Quality Permitting Administrator, at (707) 469-6439 or tpirondini@cityofvacaville.com.

Sincerely,



Royce W. Cunningham, P.E.
Assistant Director of Utilities