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December 17, 2018

Felicia Marcus, Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-2000



Attention: Jeannie Townsend, Clerk to the Board

Via Electronic Mail: commentletters@waterboards.ca.gov

SUBJECT: Comments to the Proposed Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions

Dear Ms. Townsend:

The Town of Windsor and the Windsor Water District (collectively, "Windsor") appreciates the opportunity to provide comments to the State Water Resources Control Board (Board) regarding the proposed Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions (Toxicity Provisions). Windsor has significant concerns regarding the following: 1) effluent limitations provisions, 2) species sensitivity screening, 3) differentiation of POTW dischargers permitted to discharge at a rate equal to or greater than 5.0 MGD, 4) intermittent discharge compliance monitoring, and 5) reduced monitoring schedule for chronic toxicity. We appreciate your consideration of these concerns, as we believe that adoption of the Toxicity Provisions as currently drafted would place an unfair and unnecessary burden on small dischargers such as Windsor.

1.) Effluent Limitation Provisions

The Effluent Limitation Provisions are the greatest item of concern to Windsor. Imposing numerical limits with violation consequences is inappropriate and will be ineffective at improving toxicity performance. Toxicity is not a pollutant, but a condition. POTWs are typically not aware of the presence of toxicity until chronic and/or acute toxicity tests have been performed, which, if persistent toxicity is determined to be present, lead to an investigative Toxicity Reduction Evaluation (TRE). Adopting effluent limitations will not guarantee compliance because POTWs do not have control over influent sources, the causes of toxicity can change for a variety of reasons (e.g. new consumer products), and they cannot design their facilities *a priori* to control unknown sources of toxicity. Dischargers will still follow the procedures of follow-up monitoring and initiating a TRE if necessary to determine the source of toxicity. The only impact numeric limits will produce on POTWs is to reduce resources, unfairly punish the discharger for conditions that are often out of their control, and open dischargers to the potential for third-party law suits.

Biological tests are imperfect and are well known to be less reliable than chemical tests. For this reason, Chronic and Acute Toxicity tests are designed to be indicator tests, not performance-based. These tests have many potential interferences that can lead to unpredictable outcomes because they are performed on live organisms that do not always respond in the way we would expect. Treating a chronic or acute toxicity test with consequences in the same manner as physical tests like Biochemical Oxygen Demand or Total

Suspended Solids is not equitable, as these tests are justifiably based on actual wastewater treatment plant performance.

Windsor respectfully requests that the effluent limitation provisions be removed because they will not lead to an improvement of POTW performance or a reduction in toxicity persistence and are likely to result in a substantial economic burden on Windsor and Windsor's ratepayers. Justification has not been provided in the Proposed Toxicity Provisions regarding the necessity for numeric effluent limitations when the current approach using a numeric monitoring/TRE trigger has and would continue to work, were it adapted for use with the Test for Significant Toxicity (TST) and adjusted for consistent statewide implementation. Numeric effluent limitations are not needed for statewide consistency.

2.) Species Sensitivity Screening Frequency

Windsor requests that the Board reconsider the four required sets for the species sensitivity screening test and impose a one set requirement for small, non-continuous dischargers. Four sample sets to determine species sensitivity are excessive in many instances and specifically for intermittent discharges as is the case for Windsor. For small, non-continuous dischargers such as Windsor, collecting four separate samples for species sensitivity screening would mean a sample would have to be collected nearly every month of discharge to meet the four-set requirements. It would not be appropriate to evenly distribute sample collection across the calendar year as there would be no comparable representative sample to collect. Windsor is likely not the only POTW discharger in this situation, which makes providing a reduction from the four-set sensitivity requirement important to consider and address.

3.) Differentiation of Dischargers at 5.0 MGD

The proposed Toxicity Provisions separate POTW dischargers into two categories: those authorized to discharge at a rate equal to or greater than 5.0 MGD, and those that discharge at a rate less than 5.0 MGD. The plan does not account for dischargers that are *authorized* to discharge greater than 5.0 MGD, but do not typically do so or are permitted to only discharge seasonally. Windsor operates under NPDES No. CA0023345, is permitted for an average dry weather design flow of 2.25 MGD and is categorized as a non-continuous or intermittent discharger. Since this permit became effective in February 2014, Windsor has discharged a total of 368 days. Less than 10% of these discharge volumes were greater than or equal to 5 MGD. Throughout this current permit term, during months of discharge, the range of monthly average discharge flow volume was 0.026 MG to 3.45 MG. The median monthly discharge for the same period is 1.16 MG, well below the 5.0 MGD limit included in the proposed Toxicity Provisions.

Windsor discharges to Mark West Creek, is permitted to discharge no more than 10% of the natural flow of the creek and discharge is permitted to occur only during October to May. It is unreasonable to include Windsor's small volume discharge in the same monitoring category as larger, continuous dischargers. By categorizing Windsor's discharge as having the same

impact as other agencies discharging continuously at a rate greater than or equal to 5 MGD, the proposed Toxicity Provisions are placing a disproportionate burden on Windsor's small staff and financial means. Rough estimates of potential financial impact due to the increased monitoring could lead to sampling costs increasing four times that of current costs. **Windsor proposes that the Board consider small, non-continuous POTW dischargers be in the same category as dischargers authorized to discharge at a rate less than 5.0 MGD.**

4.) Intermittent Discharge Compliance Monitoring

Section IV.2.c of the proposed Toxicity Provisions defines the compliance monitoring schedule for POTW dischargers authorized to discharge at a rate equal to or greater than 5.0 MGD, and for dischargers that demonstrate a reasonable potential. This section lacks clarity for non-continuous dischargers. Based on the proposed language, the Town, as a POTW permitted to discharge greater than 5.0 MGD, would be required to sample chronic toxicity monthly during months "which there is expected to be at least 15 days of discharge". Windsor, however, does not always begin discharge at the beginning of the month and this makes it unclear how compliance testing would be performed for the following month if additional routine monitoring tests were necessary, based on the required monthly monitoring schedule. For example, if Windsor initiates discharge during the third week in January and collects a sample for chronic toxicity that fails to reject the null hypothesis, additional routine monitoring tests would be required to determine that there was not a violation of the Maximum Monthly Effluent Limitation (MMEL). The MMEL may be performed on a maximum of three independent toxicity tests, which would place additional routine monitoring tests well into the month of February. These additional tests would then overlap with the monthly routine monitoring test to be performed in February.

Based on the sample scenario of Intermittent Discharge Compliance Monitoring illustrated above, it is inappropriate to require small, non-continuous dischargers to be placed in the same categorization of POTWs authorized to discharge at a rate of 5.0 MGD or larger. In addition to the resource burden mentioned in Comment #2, requiring non-continuous dischargers to follow a monthly monitoring schedule is not logical given the intermittent nature of the discharge. A maximum of quarterly monitoring with the potential reduction to annual sampling upon Regional Board approval, similar to POTWs authorized to discharge less than 5 MGD, is more appropriate and would result in a sampling schedule that could be logically applied. **Windsor requests that the proposed Toxicity Provisions make a clear distinction for non-continuous discharges, especially discharges that are only permitted to occur for select months of the calendar year.**

5.) Reduced Monitoring Schedule for Chronic Toxicity

A reduction in routine chronic toxicity monitoring may be approved by the Permitting Authority, as outlined in Section IV.2.c.i.B of the proposed Toxicity Provisions. The conditions, however, limit the practical application of possible reductions in monitoring. The proposed Toxicity Provisions require that during the prior five consecutive years, no exceedance of the MDEL and MMEL can have occurred for a Permitting Authority to have

the ability to consider reduced frequency monitoring. A five-year historic review period is extremely conservative and impractical. A two-year consecutive compliance period would be more appropriate and reasonable. Given the variability of chronic bioassays, and the potential for false negatives to result in an exceedance of an effluent limitation, a POTW could potentially be unfairly required to perform costly routine monitoring for over five years without true water quality concerns to justify the increased frequency of monitoring. Also, because MMEL and MDEL compliance is required for the Permitting Authority to consider a reduced monitoring schedule, there is no opportunity to reduce monitoring until a Permittee's next permit cycle. Our proposal for a two-year consecutive compliance period would also eliminate this issue in the proposed Toxicity Provisions.

In addition, limiting the Permitting Authority to approve a reduction in frequency of routine monitoring only during periods of NPDES permit reissuance, renewal or reopening significantly limits the Permitting Authority's ability to reduce monitoring. Given that NPDES permits are rarely renewed in time to meet the five-year schedule, it is likely that a reduced monitoring frequency will take significantly longer than five years. The proposed Toxicity Provisions allow the Permitting Authority to require the discharger to return to a routine monitoring (from reduced monitoring) schedule at any time, meaning this only requires direction to the Discharger from the Regional Board executive officer. **In addition to a two-year compliance period, Windsor requests that the Permitting Authority also have discretion to approve a reduced monitoring schedule at any time.**

6.) Mixing Zone and Dilution Credits.

The requirements in the Proposed Toxicity Provisions (section IV.B.2.d) for issuing a mixing zone, dilution credit and Instream Waste Concentration (IWC) conflict with the State's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Plan or SIP). Section 1.4.2 of the SIP is intended to be the State's guidance on the issuance of a dilution credit not only for priority pollutants, but also for acute and chronic aquatic toxicity objectives. This is made clear in the opening paragraph of section 1.4.2 of the SIP and in SIP Table 3 (including footnote 2 of the table). The SIP provides specific guidance on issuing a dilution credit for Completely Mixed Discharges, instances where site-specific issues can be accommodated for Completely Mixed Discharges, and Incompletely Mixed Discharges. The proposed Toxicity Provisions only include the SIP's guidance for Completely Mixed Discharges, which are not applicable to Windsor's discharge.

Under the Toxicity Provisions, a dilution credit for chronic toxicity would be based on a hypothetical worst-case discharge scenario consisting of the 7Q10 receiving water flow and the maximum, 4-day average daily effluent flow; however, this worst-case scenario is not applicable to Windsor. Windsor's worst-case discharge scenario is regulated by our NPDES permit, which requires us to maintain 10:1 dilution (or greater) with Mark West Creek when effluent is discharged, and discharge is only allowed during the months of October to May. Therefore, a dilution credit for Windsor should be based on the Permit's dilution requirement (10:1 creek to effluent flow), not the Toxicity Provisions' hypothetical worst-case discharge

scenario (i.e., receiving water 7Q10 and maximum daily effluent flows). As such, **Windsor requests that the current Toxicity Provisions retain the flexibility currently provided by the SIP that allows the Regional Board to consider site-specific issues applicable to the Town were a dilution credit to be provided for toxicity.** We believe that resolving this issue can be done in a straightforward manner. The Toxicity Provisions can simply reference the SIP's guidance for establishing a mixing zone and dilution credit rather than include its own set of specifications. This will maintain consistency and minimize confusion. In granting this request, the Toxicity Provisions need only elaborate on how the IWC shall be calculated from a dilution credit granted in accordance with section 1.4.2 of the SIP. Overall, there should be one regulatory source that describes issuance of mixing zones and dilution credits for all constituents and parameters; this will limit confusion and potential inconsistencies were there to be multiple State Water Board policies that must be consulted depending on the parameter.

7.) Other Related Comments

Windsor requests that the Board consider the reproducibility and validity of using the test species *Ceriodaphnia dubia* in toxicity testing. There is a significant amount of uncertainty in the laboratory community regarding the appropriateness of this specific test species because of its high false positive rate on non-toxic lab water samples and high inter-laboratory variability. The lack of *C. dubia* WET test result reproducibility was recently demonstrated in an interlaboratory comparison study among California labs where the reproduction endpoint in copper-spiked and runoff samples ranged up to 100%. Up to 60% effects were also reported in non-toxic laboratory dilution water (SCCWRP 2017). Until it can be verified that *Ceriodaphnia dubia* is an appropriate indicator species by conducting intra and inter-laboratory studies using the TST across a wide-range of laboratories and samples, it should not be included in NPDES permits as a required test species for use with the TST. This is important because the TST end-point is affected by test variability in a significantly different manner than the NOEC and point estimates (EC25/IC25). Alternatively, the Town would like the Board to consider adjusting the beta value in the TST calculation to accommodate for the high variability in the *Ceriodaphnia dubia* species end-points. Aside from this, the State Board should clearly explain how the current toxicity quality assurance programs required by the State will be adapted to assess laboratory performance using the TST (specifically, the DMR-QA program and ELAP certification/audit).

Windsor sincerely appreciates this opportunity to comment on the proposed Toxicity Provisions, and respectfully requests that the Board keep an open mind and consider revisions to the Toxicity Provision presented in this letter and from other stakeholders. Significant additional costs that would result from the Plan as currently proposed will be burdensome for Windsor and should be considered in the Board's economic analysis prior to adoption. Even in the absence of these increased sampling and analysis cost, we are concerned that the proposed toxicity provisions would not result in any environmental benefit above the current approach and could result in an unnecessary increase of unsubstantiated toxicity-related violations.

December 17, 2018
SWRCB
Toxicity Provisions

Thank you for your consideration of our comments. If you have any questions or require additional information, please contact Veronica Astells at Vastells@townofwindsor.com or 707-838-1218.

Respectfully submitted,



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District Engineer, Windsor Water District

cc: Ken MacNab, Interim Town Manager/General Manager
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