CITY OF LAKE FOREST

December 7, 2015

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Via email: santaana@waterboards.ca.gov

Mr. Adam Fischer
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501

Subject: Comments on the Third Draft Orange County Municipal Separate Storm Sewer System Permit, NPDES Permit No. CAS61080

Dear Mr. Fischer:

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The City of Lake Forest ("City") appreciates the opportunity to provide comments on the California Regional Water Quality Control Board, Santa Ana Region's ("SARWQCB's") third draft of the Orange County Municipal Separate Storm Sewer System ("MS4") Permit, Order No. R8-2015-0001 ("Third Draft Order"). The comments in this letter focus on the revisions made to the Third Draft Order and on new developments since the second draft was released. The City submitted comments in response to the first and second drafts. By submitting this comment letter, the City does not waive the comments previously submitted and incorporates those comments. The City is also aware that the County of Orange ("County") has prepared and submitted comments on the Third Draft Order. The City expresses its support for and joins in the submission of the County's comments. The comments in this letter supplement the County's comments, as well as the City's comments on the first and second drafts, and are intended to allow the City to continue working toward the common goal of improving water quality in the region.

Please note that the City's comments and section references provided below are submitted in accordance with the clean version of the Third Draft Order (which included content and format changes).

1. THE CITY SUPPORTS THE WATERSHED MANAGEMENT PLAN'S ADAPTIVE MANAGEMENT PROCESS

The adaptive management approach established in Section XI, Watershed Management Plans, is consistent with State Water Resources Control Board Order Nos. 99-05 and WQ-2015-0075. It provides a means of complying with the Third Draft Order's Receiving Water Limitations provision and with WQBELs whose final deadlines have not yet passed in the Total Maximum Daily Load Implementation provision. This permitting approach is

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appropriate for addressing the challenges surrounding non-point source contributions in a point source regulatory framework.

2. INCLUDE FURTHER CLARITY ON COMPLIANCE WITH RECEIVING WATER LIMITATIONS (SECTION IV)

Two provisions in Section IV, Receiving Water Limitations, need further clarification.

a. Clarify Apparent Inconsistency Between Sections IV.D and IV.E

Section IV.D.2.c provides that a Co-permittee may demonstrate that its discharge did not cause or contribute to an exceedance where discharges are comingled by showing the following three factors: "there is an alternative source of the pollutant that caused the exceedance, that the pollutant is not typically associated with MS4 discharges **and** that the pollutant was not discharged from the Co-permittee's MS4[.]" (Emphasis added.) Section IV.E, however, provides that a Co-permittee may demonstrate only one of these factors. A Co-permittee makes this demonstration by showing that "the source of pollution is background, naturally-occurring, or non—anthropogenic; **or** that the cause of pollution is not within the jurisdiction or control of the responsible Co-permittees[.]" (Emphasis added.)

Recommendation. Replace the "and" in **Section IV.D.2.c** to an "or" as provided in redline below:

> Demonstrate that there is an alternative source of the pollutant that caused the exceedance, that the pollutant is not typically associated with MS4 discharges, ~~and~~ or that the pollutant was not discharged from the Co-permittee's MS4; or

b. Renumber Section IV.E to Clarify That Watershed Management Plan Constitutes Compliance with Receiving Water Limitations

Section IV.D provides that "a Co-permittee shall demonstrate compliance with Provision IV.A as follows …" The section then lists two subdivisions labeled "1" and "2" that provide the means for complying with Receiving Water Limitations in the event of comingled discharges. Neither subdivision 1 or 2 reference the Watershed Management Plan provision under Section XI. The Watershed Management Plan compliance option appears to be listed under Section IV.E, which is a separate section.

Recommendation. To clarify that the Watershed Management Plan provides a means of complying with the Permit's Receiving Water Limitations provision, consistent with Section XI, **Section IV.E** should be re-numbered to Section IV.D.3:

> 3.~~E~~. Where a Co-permittee determines that a discharge of urban runoff is causing or contributing to the exceedance of an applicable water quality standard, the responsible Co-permittee(s) must, within 60-days of making the determination, either:

a~~1~~. Provide objective evidence, acceptable to the Executive Officer, that there is a trend indicating that relevant pollutant loads or concentrations are decreasing and that the applicable water quality standard(s) are expected to be satisfied without further intervention;

b~~2~~. Provide evidence, acceptable to the Executive Officer that the source of pollution is background, naturally-occurring, or non-anthropogenic; or that the cause of pollution is not within the jurisdiction or control of the responsible Co-permittees; OR

c.~~3~~. Provide notice to the Executive Officer of their intent to develop a Watershed Management Plan for the affected watershed according to the requirements of Section XI.

3. CLARIFY TMDL APPLICABILITY TO LAKE FOREST (SECTION XVIII.A.1)

The City is located partially within the SARWQCB's jurisdiction and partially within the jurisdiction of the California Regional Water Quality Control Board, San Diego Region ("SDRWQCB"). Both Regional Boards granted the City's request to be regulated by the SARWQCB, which was documented in Designation Agreement letters dated February 10, 2015. The City appreciates the efforts to reach agreement between the Regional Boards and believes that the Designation Agreement will ease the significant administrative and financial burden that came with complying with two different MS4 permits. Pursuant to the Designation Agreement letters and the San Diego Water Board's MS4 permit, the City is required to implement "[a]ny TMDL and associated Phase 1 MS4 permit requirements issued by the San Diego Water Board and applicable to the City of Lake Forest[.]"

Section XVIII.A.1 states that Lake Forest "must comply with any conditions or provisions within the Phase 1 MS4 Permit issued by the San Diego Regional Water Quality Control Board that are associated with **any** TMDL." (Emphasis added.) The Designation Agreement does not require compliance with any TMDL in the San Diego MS4 permit.

Recommendation. Revise **Section XVIII.A.1** to mirror the TMDL requirement in the Designation Agreement:

> Additionally, the City of Lake Forest must implement ~~comply with~~ any ~~conditions or provisions within the~~ TMDL and associated Phase 1 MS4 Permit requirements issued by the San Diego Regional Water Quality Control Board and applicable to the City of Lake Forest ~~that are associated with any TMDL~~.

4. ALIGN TOXICITY TESTING REQUIREMENTS WITH FEDERALLY PROMULGATED METHODS (MONITORING AND REPORTING PROGRAM II.F)

Section II.F of the Monitoring and Reporting Program includes a requirement to use "USEPA's Test of Significant Toxicity Approach." The Test of Significant Toxicity ("TST") is an improper NPDES permit requirement because the TST is scientifically unreliable and has never been promulgated as an approved method for assessing compliance with NPDES permits.

TST is Scientifically Unreliable

Test methods used to determine compliance with NPDES permits must be formally promulgated by the EPA under the Administrative Procedure Act ("APA"). (40 C.F.R. § 122.44(i)(1)(iv); 5 U.S.C. § 553(b), (c).) Once promulgated, only the methods codified in EPA's regulations may be used to measure waste constituents. (40 C.F.R. § 136.1(a).) Promulgated WET methods include, in part, multiple-concentration WET tests1 and four statistical methods for evaluating the tests.2 (40 C.F.R. § 136.3(a); EPA, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA-821-R-02-013, (Fourth Ed., Oct. 2002).) The federal regulations permit the use of a "more sensitive" method than promulgated methods where, in part, "[t]he modified method [is] sufficiently sensitive and meet[s] or exceed[s] performance of the approved method(s) for the analyte(s) of interest, as documented by meeting the initial and ongoing quality control requirements in the method." (40 C.F.R § 136.6(b)(2).) Importantly, EPA has never promulgated regulations allowing a WET test comprised of a single-concentration of a sample compared to a control (referred to here as a "two-concentration" test), allowing use of the TST (reversed null hypothesis assuming toxicity), or approving the TST evaluation procedure. (Ibid.)

Since the second draft Permit was released, the County has applied the TST analytical approach to toxicity data gathered at two stations in the dry weather mass emissions program. The TST approach was applied concurrently with the existing dilution method and the results were compared. Two samples from each monitoring station were tested using the TST approach. Eight samples from one station and nine samples from the other station were tested using the multi-concentration dilution method.

A comparison of test results demonstrates that the TST approach gave the Ceriodaphnia reproduction test a failing grade in 100% of the samples, compared with only 11.11% and 25% using the dilution method. Toxicity was not indicated in any tests using Selenastrum growth or fathead minnow survival and growth. If the County had not conducted concurrent tests, using the dilution method and the TST method for comparison, failures under the TST approach indicate violations of the Permit even where no such violation occurred.

These preliminary results lend support to the conclusion that the TST does not provide a performance equivalent to the methods promulgated by EPA in 2002. (40 C.F.R. §§ 136.1, 136.6.) Where, as here, the results of a TST procedure erroneously indicate toxicity in violation of NPDES permit requirements, the Permittees have no ability to rebut that evidence and may incur liability based on a flawed test rather than on impaired water

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[1] The promulgated methods require four or more concentrations plus a control with 0% sample; e.g., NOEC and IC_{25} for chronic toxicity in fresh water organisms.

[2] The four approved statistical methods are the Dunnett's Procedure, T-test with the Bonferroni Adjustment, Steel's Many-One Rank Test, and Wilcoxon Rank Sum Test with the Bonferroni Adjustment.

quality. (40 C.F.R. § 122.41, subd. (j); *Sierra Club v. Union Oil Co.* (9th Cir. 1988) 853 F.2d 667, 669 [a Permittee cannot "impeach its own reports of permit violations by showing sampling error"].) Similarly, if test results erroneously indicate nontoxicity, a Permittee will miss the opportunity to improve the quality of its discharge water.

Not only does the TST lack certainty required of tests used to determine compliance with NPDES permits, it also lacks internal safeguards essential to the legal and scientific validity of WET tests. (*Edison Elec. Inst. v. EPA* (D.C. Cir. 2004) 391 F.3d 1267, 1271.) The WET testing methods that EPA promulgated in 2002 were the subject of a legal challenge on multiple grounds, one of which is the tendency of WET testing to result in an unacceptable number of false indications of toxicity and nontoxicity. (*Ibid.*) The Court in *Edison* recognized that "WET tests are not without their flaws[,]" (*id.* at 1274), particularly because WET test methods do not rely on comparisons with an independent, objective, true value, which means that "their scientific validity must be assessed through other means." (*Id.* at 1270.) Despite the recognized flaws in WET tests, the Court upheld the promulgated tests, because the multiple-concentration test design, developed over "years of scientific studies, negotiation, and public notice-and-comment" provided safeguards to protect against an unacceptably high number of false results. The Court described the safeguards as follows:

> A single WET test involves exposing multiple batches of organisms to the effluent at various concentrations, as well as to a "control" sample of pure water, and then aggregating the effects on each batch. Statistical analysis then is used to ensure that any observed differences between the organisms exposed to a given effluent concentration and those exposed to the control blanks most likely are not attributable to randomness - - that they are statistically significant. See Final Rule, 67 Fed. Reg. at 69,957-58. This safeguard addresses the petitioners' concerns [regarding false positives]. EPA, in short, has offered a reasoned and thorough explanation of its decision on this subject.

(*Id.* at 1272-1273.)

A multiple-concentration approach is thus an essential part of WET testing, because it provides an alternative, within-test assessment of the test's scientific reliability. (*Id.*) Multiple- concentration test methods provide assessment of reliability by allowing a toxicologist to determine if the causal relationship described above exists and to ensure that any observed differences between the organisms exposed to effluent concentrations and those exposed in the control most likely are not attributable to mere randomness. (*See id.* at 1274.) Use of the TST, which has not been promulgated and by itself results in higher false positive rates, compounded by the use of a two-concentration WET test design, eliminates the multiple-concentration safeguards that form the basis of the Court's approval of WET testing in Edison.

Because the TST lacks within-test quality controls present in promulgated multiple-concentration dilution WET tests, the TST fails to "meet or exceed performance of the approved method(s)" and is a scientifically unsound method for assessing compliance with the Permit. (40 C.F.R. § 136.6.)

TST is Contrary to Law

Test methods used to determine compliance with NPDES permits must be formally promulgated by the EPA. (40 C.F.R. § 122.44(i)(1)(iv); 5 U.S.C. § 553(b), (c).) Once promulgated, the codified methods must be used to measure waste constituents. (40 C.F.R. § 136.1(a).) When it promulgated WET test methods and four statistical approaches for evaluating test results, the EPA did not promulgate the TST or a two-concentration WET test. Since the second draft Permit was released, the EPA also withdrew is approval for the State Water Resources Control Board to use the TST as an alternative testing procedure. (See *Southern California Alliance of Publicly Owned Treatment Works v. USEPA* (E.D. Cal. 2014) Case No. 2:14-CV-01513, Docket No. 53-2 (June 4, 2015).) EPA's approval of the TST as an alternative test procedure is required because the TST is not otherwise authorized by federal law or regulation. (40 C.F.R §§ 136.1, 136.5.) As a result, the Regional Board lacks legal authority to require the TST approach in the Permit.

Further, informal correspondence from the EPA and the EPA's 2010 Guidance, National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document do not provide the Regional Board with authority to require the TST. A state agency cannot rely on an action by EPA in a way that indicates EPA's action is binding unless that action has been subject to the formal rulemaking procedures, including public notice and comment. (Appalachian Power Co. v. EPA (D.C. Cir. 2000) 208 F.3d 1015; see also Natural Res. Def. Council v. EPA (9th Cir. 2015) 779 F.3d 1119; Natural Res. Def. Council v. EPA (D.C. Cir. 2011) 643 F.3d 311.) The APA's rulemaking procedures are designed to "assure fairness and mature consideration of rules of general application." (Chrysler Corp. v. Brown (1979) 441 U.S. 281, 303.) Courts have repeatedly chastised state agencies and EPA for engaging in a pattern and practice of rulemaking contrary to the APA. (See e.g., Nat'l Envtl. Dev. Ass'ns Clean Air Project v. EPA (D.C. Cir. 2014) 752 F.3d 999; Iowa League of Cities v. EPA (8th Cir. 2013) 711 F.3d 844, 862; Sierra Club v. EPA (D.C. Cir. 2012) 699 F.3d 530; Natural Res. Def. Council, supra, 643 F.3d at 321; Appalachian Power Co., supra, 208 F.3d 1015; Fairfield County Bd. of Comm'rs v. Nally (2015) 143 Ohio St. 3d 93, 104.)

Of great concern here is that a legally and scientifically flawed method or evaluation procedure will result in an unreasonably high number of false indications of violations or an unreasonably high number of false indications of nontoxicity. Neither of these results will be based on actual water conditions. One will expose Permittees to administrative, civil, and criminal liability, and the other fails to protect water quality. Without providing the public an opportunity to engage these issues in an open and transparent manner, the Regional Board threatens all Permittees' compliance status and undermines Permittees' ability to protect water quality on the basis of a scientifically defensible method.

The Regional Board has no authority to require use of the TST approach to WET testing. Until the TST analytical approach has been formally promulgated, it cannot be required in NPDES permits or be used to determine compliance. (40 C.F.R. § 122.44(i)(1)(iv).)

Recommendation. Delete the requirement to utilize the USEPA's TST approach from the MRP **Section II.F** (and f**ootnote 6**) and allow toxicity testing be conducted utilizing federally promulgated methods.

F. Toxicity Testing

The water quality monitoring program must include toxicity testing~~, analyzed using USEPA's Test of Significant Toxicity approach~~[6]. ~~USEPA. 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document. EPA 833-R-10-003. US Environmental Protection Agency, Office of Wastewater Management, Washington D.C.~~

5. THE THIRD DRAFT ORDER SHOULD ALLOW FOR A FUNCTIONAL CREDIT PROGRAM

The City joins the County and the other Co-permittees in support of the SARWQCB's inclusion of a credit program within the Third Draft Order. However, the City is concerned that the constraints placed upon the credit program as drafted actually preclude any feasible implementation. Therefore, the City reiterates and joins in the County's comments and recommendations pertaining to the Third Draft Order's Credit Programs.

Thank you for the opportunity to comment on the Third Draft Permit. The City is committed to improving water quality in the region and provides these comments with the intent to participate in developing a permit that accomplishes this goal.

If you should have any questions, please contact Devin Slaven, Environmental Manager at (949) 461-3436 or me at (949) 461-3480.

Sincerely,

CITY OF LAKE FOREST

Thomas Wheeler, P.E.
Director of Public Work/City Engineer

cc: Robert Dunek, City Manager
Devin Slaven, Environmental Manager
Matthew Richardson, City Attorney
Rebecca Andrews, Special Counsel
Mary Anne Skorpanich, County of Orange, OC Environmental Resources