(9/23/14) Board Meeting
Draft Drinking Water Systems General Permit
Deadline: 8/19/14 by 12:00 noon

San Jose Water Company

Water Quality and Environmental Services
1221A S Bascom Ave, San Jose CA 95128

PARTNERSHIP FOR SAFE WATER

August 19, 2014

RECEIVED
8-19-14
SWRCB Clerk

Mr. Thomas Howard
Executive Officer
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Delivered electronically on 8/19/2014 to the Clerk to the Board at commentletters@waterboards.ca.gov

Re: Comment Letter – Draft Drinking Water Systems General Permit and Resolution

Dear Mr. Howard:

San Jose Water Company (SJWC) is an investor owned utility that is regulated by the California Public Utilities Commission. SJWC serves one million consumers and its service area encompasses 139 square miles, including most of San Jose; most of Cupertino; the entire cities of Campbell, Monte Sereno, Saratoga; the Town of Los Gatos; and parts of unincorporated Santa Clara County. SJWC owns and operates three water treatment plants and over 100 wells at thirty sites within its service area.

SJWC appreciates the opportunity to comment on the State Board's July 3, 2014 Draft Statewide National Pollutant Discharge Elimination System ("NPDES") Permit for Drinking Water Systems Discharges ("Draft Permit").

SJWC respectfully would like to comment on key aspects of the draft permit that, if unaddressed prior to the adoption of the permit by the State Water Resources Control Board (SWB), will have significant financial impacts on SJWC's rate payers and will potentially conflict with SJWC's requirements to protect public health and its ability to comply with Federal and California drinking water regulations. Please also note that SJWC supports the comments made by the California-Nevada Section of the American Water Works Association, the Association of California Water Agencies and the California Water Agencies. In addition to the comments made by the aforementioned professional organizations, SJWC offers the following comments and solutions to address its concerns with the Draft Permit:

Covered Discharges

SJWC believes that the Draft Permit language addressing the Facilities Authorized to Discharge, the Discharge Definitions, and the Authorized Discharges could be simplified. SJWC recommends that:

1) The definition of the Facilities Authorized to Discharge Under this Order (I.A. of the Draft Permit) should be read:

> *This Order authorizes discharges of water from community drinking water systems (as defined in Table 1) that are made in compliance with the terms and conditions of this Permit. Authorized discharges to waters of the U.S. pursuant to this Order are those from drinking water facilities including, but not limited to, municipal supply wells, transmission systems, water treatment facilities, treated drinking water distribution systems, and storage facilities. For the purposes of this Order discharges may originate from treated surface water and treated or untreated groundwater from drinking water aquifers.*

2) The Discharge Definitions (I.B. of the Draft Permit) should read:

> *This Order covers both planned and emergency discharges of drinking water from drinking water facilities and their appurtenances. Planned discharges are defined as discharges resulting from a water purveyor's essential operations and activities undertaken to comply with the federal Safe Drinking Water Act, the California Health and Safety Code, and the Division of Drinking Water regulations in order to provide reliable and safe drinking water. Planned discharges include regularly scheduled, automated, and non- regularly scheduled activities that must take place to comply with mandated regulations and that the water purveyor knows in advance will result in a discharge. Emergency discharges are defined as discharges that occur due to system leakage, system failures or other emergencies, and the water purveyor is not aware of the discharge until after the discharge has commenced.*

3) Authorized Discharges (I.C. of the Draft Permit) should read:

> *This Order authorizes planned and unplanned emergency discharges of water from community drinking water systems, as defined above, due to activities mandated by law regarding the development, operation, maintenance, and rehabilitation of drinking water systems.*

<u>Compliance with Effluent Limitation for Total Residual Chlorine</u>

The Draft Permit does not provide a technical justification for the proposed chlorine residual 0.1 mg/L ML value. SJWC hereby would like to provide the SWB staff with a study performed by the State of Missouri that supported State of Missouri's adoption of a 0.13 mg/L ML for chlorine residual using handheld instruments (http://www.dnr.mo.gov/env/wpp/permits/manual/T_0.pdf). A copy of the document is attached. The 0.13 mg/L ML for determining compliance was included in the Tentative

Order issued by Region 2 and SJWC suggests that the Draft Permit ML for chlorine residual, and all associated references, be changed to 0.13 mg/L.

SJWC believes that Draft Permit Section IX. Compliance Determination needs to be modified to state that compliance with effluent limitations is to be based on a Minimum Level (ML) or Reporting Level (RL) and not a Method Detection Limit (MDL) as stated in Section IX. SJWC suggests that Section IX be modified as follows:

> *"A. General*
> *Compliance with effluent limitations shall be determined using monitoring and reporting protocols defined in the Monitoring and Reporting Program of this Order. For purposes of reporting and administrative enforcement by the State and/or Regional Water Boards, the Discharger shall be deemed out of compliance with the effluent limitations if the constituent concentration or level is greater than the effluent limitation and greater than or equal to the minimum level (ML) or reporting level (RL) of the method used to determine compliance.*
>
> *B. Total Residual Chlorine*
> *Field measurements for total residual chlorine shall be made using U.S. EPA-approved methods described in 40 C.F.R. § 136.3. The ML or RL of the method used to determine compliance with the total chlorine residual effluent limitations must be 0.1 mg/L. A discharge monitoring result with a total residual chlorine concentration greater than or equal to 0.1 mg/L shall be deemed out of compliance with a chlorine effluent limitation. Due to other possible interferences of these handheld devices, if readings are false positives, these will not be evaluated for compliance if explanation of cause is provided."*

The above suggestion is consistent with the definitions of ML and RL in Draft Permit Attachment A (page A-2) and with the State Implementation Policy (Appendix 4). SJWC also requests that throughout the permit where the 0.019 mg/L effluent limit is referenced that a footnote be added to describe the compliance determination method with this effluent limit. SJWC suggests the following language for the footnote:

> *"The ML used to determine compliance with the total chlorine residual effluent limitation is 0.1 mg/L. A discharge monitoring result with a total residual chlorine concentration greater than or equal to 0.1 mg/L shall be deemed out of compliance with the total residual chlorine effluent limitation."*

Final Effluent Limitation for all Planned Discharges of Treated or Untreated Groundwater directly to a Surface Water or Via a Storm Drain

SJWC may not be able to comply with the Turbidity Effluent Limitation on some its well sites because many of these sites were developed more than sixty years ago, are situated in an urban environment, and are adjacent to Waters of the US. These wells are unlikely to meet a Final Effluent Limitation of 10 NTU after startup or following maintenance activities such as rehabilitation.

SJWC proposes using a Final Effluent Limitation of 500 NTU. This NEL would be consistent with the Construction General Permit and well below the mean of the turbidity values in the background turbidity of receiving water in California (Construction General Permit, Fact Sheet, p. 18).

Additionally, the Best Management Practices as proposed in Attachment C are written as prescriptive minimum requirements. This is inconsistent with the BMP iterative approach and the necessity to adapt BMPs to field conditions. For example, Attachment C prescribes the use of multi baffled sediment tanks and 5 micron bag filters as a mean to treat turbidity to less than 10 NTU. This technology is not an accepted BMP and is typically not feasible for SJWC on many well sites due to space and flow constraints. It should also be noted that the efficacy of multi baffled sediment tanks without the use of coagulants has not been demonstrated. This prescriptive BMP would almost certainly place limitations on SJWC's ability to operate some of its wells.

For the reasons stated above, SJWC recommends that the prescriptive language in the Draft Permit that requires structural BMPs be implemented on all discharges be removed and be replaced with language that requires BMPs to be implemented and adapted to a variety of field conditions to the Maximum Extent Practicable (MEP).

pH MONITORING

SJWC's position on pH monitoring of discharges, as required in the Draft Permit, would be onerous and would not yield information that is not already available. To that end, SJWC offers the following comments:

1) The pH of the water that may be discharged under the Draft Permit is already accurately characterized by the water agencies in their annual Consumer Confidence Report.

2) Monitoring of the discharges for pH is not practical. This is because accurate pH readings require frequent instrument calibrations and calibration checks. pH field measurements are typically performed by laboratory personnel in an accredited laboratory or in the field by water treatment and distribution operators certified by the Division of Drinking Water. The crews charged with repairing and maintaining a water agency's infrastructure typically do not possess

the required training or certifications to perform NPDES compliance analyses, with the exception of chlorine residual. Monitoring of drinking water discharges for pH would place an additional labor burden that would not yield information that could not be obtained from pH data already collected under regulatory and operational programs.

SJWC proposes that the Draft Permit be modified to allow agencies to submit their water system pH data by submitting their Consumer Confidence Report with their annual report to the SWB.

MCLs in Receiving Water

SJWC does not believe that the Draft Permit offers clarity on how MCL compliance would be measured and reported. Specifically, SJWC offers the following comments and recommendations:

1) Paragraph V.A. of the draft permit reads: *"The Discharger shall implement the BMP procedures and measures as specified in Provision VIII.C.2, or equivalent proven BMPs provided by professional associations or institutes such as the American Water Works Association, for all discharges to comply with DPH's MCLs and to assure that beneficial uses of the receiving water body(ies) are not adversely affected."*

   The BMPs available to the dischargers have not been shown to be capable of treating/controlling the discharges such that they meet the Division of Drinking Water's MCLs. The BMPs are a tool utilized to minimize adverse environmental impacts to the Maximum Extent Practicable (MEP). While MEP is the standard set by the Clean Water Act to which efforts to reduce pollutants in stormwater discharges are evaluated, the Draft Permit supports the assertion that the BMPs are limited in their effectiveness by specifying the use, in VIII.C.3., of an iterative approach and therefore inherently supporting the use of a MEP standard.

   SJWC recommends revising V.A. to read:

   "The Discharger shall implement the BMP procedures and measures as specified in Provision VIII.C.2, or equivalent proven BMPs provided by professional associations or institutes such as the American Water Works Association, to protect beneficial uses of the receiving water body(ies)."

2) The Best Management Practices (BMPs) Measures identified in Attachment C of the Draft Permit specifies the use of BMPs that filter and trap salt and minerals. There are no known BMPs for the discharges covered under the Draft Permit that can remove salt and minerals. SJWC suggests that the BMPs measures required under the Draft Permit be limited to target erosion control, turbidity removal, and dechlorination.

To alleviate any concerns by the SWB on the nature of the water discharged by water agencies, SJWC suggests that the permittees under the Statewide General NPDES Order submit with the required annual report a copy of their Consumer Confidence Report to provide data on compliance with Primary and Secondary MCLs. The Consumer Confidence Report, published on an annual basis, identifies any compliance exceptions with Primary and Secondary MCLs.

Monitoring for Direct and Indirect Discharges into Waters of the U.S.

The Draft Permit specifies in Attachment E.II.A.1. that dischargers shall monitor direct discharges to a receiving water body. The monitoring of all direct discharges into a receiving water lacks clarity and could not be accomplished for many unplanned discharges, e.g. pressure relief valve discharges. The lack of a volume threshold could also require water agencies to monitor discharges as small as a few gallons. To provide clarity, SJWC suggests that the language in E.II.A. be modified as follows:

"A. Event Monitoring: The Discharger shall perform monitoring for the following planned events:

1) Planned direct or non-direct discharges, greater than 325,850 gallons per event, to water bodies of the U.S."

Cost and Complexity of Application for Coverage

SJWC is concerned that the NOI requirement to provide information on the *"Distribution and discharge area (Provide general map information (including site schematic) showing boundaries of distribution system and identifying the receiving waters. Include alignment of storm water collection system, if applicable.)"* would be prohibitively expensive, time consuming, and a potential security concern for these reasons:

1) Maps showing distribution systems schematics and facilities are typically not released to the public for security reasons.

2) GIS mapping information on storm water collection system is not readily available from many of the cities in SJWC's service area.

3) Maps of receiving water in SJWC's service area are not known to be available.

SJWC proposes that the NOI information mapping requirement be changed to requiring the submission of a USGS map overlaid with the applicant's service area (distribution system).

SJWC believes that the issues presented in this letter and by other water agencies and trade associations point to significant technical issues with the Draft Permit. Addressing the issues raised by these

comments will require changes in the Draft Permit and an additional opportunity to comment on a revised Draft Permit.

SJWC looks forward to continue working with the SWB staff to ensure the development and issuance of a permit that minimizes the environmental impact of mandated discharge activities by the drinking water agencies and that minimizes the compliance costs to the rate payers.

Respectfully,

Digitally signed by Francois Rodigari
Date: 2014.08.19 10:11:11 -07'00'

Francois Rodigari
Director of Water Quality and Environmental Services

Attachment

Cc: Andrew R. Gere, P.E., Vice President of Operations – SJWC
Phyllip Nguyen, P.E., Water Quality Engineer – SJWC

Appendix T
Total Residual Chlorine Study

November 2004

The total residual chlorine study was originally planned to look at chlorine residuals in representative wastewaters from facilities around the state. The study was modified following discussions with our Southwest Regional Office staff and members of the Kansas Department of Health and Environment. These discussions convinced us that the most appropriate way to arrive at an acceptable quantitation limit for incorporation into wastewater permits is to simply determine the method detection limit (MDL) for total residual chlorine under laboratory conditions. ESP chemists used standard techniques to determine the MDL of total residual chlorine in laboratory distilled water, using a widely available field colorimeter that is currently used by department inspectors. The techniques used are outlined below.

CLTRC Method Detection Level Determination

A method detection level (MDL) for Total Residual Chlorine was determined using a Hach colorimeter as follows:

Preliminary work was done by preparing standards at approximately 0.5 mg/L down to 0.01mg/L using a certified reference standard from NSI solutions and DI water. We used these to determine the linearity of the meter and to determine at what point the meter could differentiate a known spiked amount from a blank.

The meter was zeroed with DI water (without DPD reagent). We then measured each standard (with DPD reagent). We determined that the meter produced very accurate results when compared to the true values. The meter was also linear down to a concentration of approximately 0.025 mg/L.

Based on a previous MDL study performed in October 2003, we chose a standard concentration of 0.108 mg/L to use for our MDL study on 1/13/2004. This MDL standard was prepared using the NSI reference standard and DI water. We zeroed the meter with DI water (without DPD) and then measured the standard (with DPD) for seven times. We calculated a standard deviation using these measured values. To determine our MDL we multiplied the standard deviation by 3.14 (t value for 99% at 6 degrees of freedom). The calculated MDL value was 0.04 mg/L.

The standard concentration used to determine the MDL should fall between 1-5 times the calculated MDL, to show that a proper concentration was used for the study. Our concentration of 0.108 mg/L fell between 0.04 mg/L (calculated MDL) and 0.20 mg/L (5 times the calculated MDL).

Based on the results of the above work, we propose that at this point in time the MDL should be 0.04 mg/L.

On March 4, 2004, the CLTRC workgroup met an agreed to use 3 as the multiplier to calculate the practical quantification limit (PQL). This multiplier is based on Standard Methods (SM 1998), and EPA guidance (Federal Register 1995), as well as conventional ESP laboratory practices.

Some of the options available to the group are:

-Use the MDL (0.04 mg/L) as the enforceable limit; (Any reading above 0.04 is a violation). Kansas uses this approach. Their MDL was determined to be 0.05 mg/L. However, EPA does not recommend this approach.

-Use the PQL (0.04 x 3 = 0.12mg/L) as the enforceable limit; (Any reading above 0.12 is a violation while any reading below 0.12 is in compliance).

-Use the MDL and PQL together (Any reading above the PQL is a violation with a high level of certainty. Any reading between the PQL and the MDL is a violation, but with a lower level of certainty, so use with caution. Any reading below the MDL is in compliance).

-Use the minimum level (ML) as defined by EPA. Since there is no promulgated ML for total residual chlorine, an interim ML could be calculated by multiplying the method detection limit by 3.18 (0.04 x 3.18 = 0.127 or 0.13 mg/l); (Any reading above 0.13 is a violation while any reading below 0.13 is in compliance).

The work group originally recommended using the 0.12 mg/L PQL as the enforceable limit. However, further review of the ML indicates that it provides a method for determining compliance levels for any parameter, not just CLTRC, and therefore it is the preferable method. In addition, the ML method has the backing of EPA. The workgroup, therefore, recommended 0.13 mg/L as the enforceable limit. This limit was accepted by the Water Protection Program management.

References

Standard Methods for the Examination of Waters and Wastewater, 20th edition, Section 1030 C., published by the Water Environment Federation, 601 Wythe Street, Alexandria, VA 22314

Federal Register 1995, Determining Compliance With Water Quality Based Effluent Limits Below Quantitation in the Absences of Promulgated Minimum Levels (MLs). http://www.epa.gov/docs/fedrgstr/EPA-WATER/1995/May/Day-25/pr-121.html