CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Environmental Services Department

October 22, 2008

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

SUBJECT: Comment Letter – Water Quality Objectives for Cadmium and Related Implementation Methods

Dear Ms. Townsend:

The City of San José (City) appreciates the opportunity to submit comments on the proposed revision of the cadmium water quality objectives and related implementation methods on behalf of the San José/Santa Clara Water Pollution Control Plant (Plant) and the City of San José Urban Runoff Program. The Plant provides wastewater treatment services to the cities of San José and Santa Clara, and other cities and agencies within the tributary area. The tributary service area includes the City of Milpitas, West Valley Sanitary District (Cities of Campbell, Los Gatos, Monte Sereno and Saratoga), Burbank Sanitary District, Cupertino Sanitary District (City of Cupertino), Sunol Sanitary District, and County Sanitation Districts #2 and #3. The service area includes approximately 1.5 million residents and over 16,000 businesses in Silicon Valley.

San José is the tenth largest city in the United States with a land area is 175 square miles and an estimated population of 945,000. The City has approximately 28,500 storm drain inlets, 1,000 miles of storm drain lines, and more than 1,250 outfalls throughout its urban service area. The core purpose of the City's Urban Runoff Program is to prevent pollution from entering the storm sewer system and waterways to protect the health of the South San Francisco Bay watershed

The City has several concerns with the approach outlined by the State Water Resources Control Board (Board) in its CEQA scoping document. These concerns include the alternatives that were presented as well as other potential approaches that were not discussed. Based on the technical issues raised during the CEQA scoping meeting held on October 6 2008, the City strongly believes that the combined approach to revising the cadmium objectives and implementing a revised statewide hardness policy should be separated and expanded. The City agrees that the State Implementation Policy is the appropriate tool for implementing an overall hardness policy for waters of the State. However, the City recommends that revision of the cadmium objectives would be more appropriately done through revisions to the Water Quality Control Plans for each region of the State.

Separating the revision to the cadmium water quality objectives from the development of a statewide hardness implementation policy would simplify efforts to address these two distinct

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water quality issues. Since the hardness policy would apply to all hardness-dependent water quality objectives for metals (copper, chromium III, lead, nickel, silver, and zinc), this policy should not be developed with an emphasis or urgency based on the State's plan to revise the cadmium water quality objectives. A comprehensive hardness policy will necessarily address point and non-point source discharges. However, these two sources may have very different hardness implementation policies based on seasonality and other programmatic considerations.

A revision of the cadmium water quality objectives will likely impact point source dischargers that will have to address treatment options, costs, and other environmental issues. A hardness implementation policy does not necessarily impact dischargers in the same way or to the same extent as a change to the cadmium water quality objectives. There may be other site-specific issues, in addition to hardness (presence or absence of certain species, tidal influence, other water quality factors affecting cadmium toxicity), which may greatly impact the development of (freshwater) cadmium objectives for various waters of the State. These site-specific issues are best addressed by each Basin Planning unit rather than by the State. As an example, one site-specific issue affecting the Plant's receiving waters is that freshwater cladocerans and amphipods that are included in the EPA freshwater database for cadmium may not be present in our ambient receiving waters due to their salt intolerance. This may be a critical issue for shallow water dischargers to the Bay, who are required to meet the more stringent of freshwater or marine water quality objectives.

In addition to these general concerns, the City presents the following specific comments and recommendations:

Recalculation of EPA 2001 criteria

- The states of Idaho and Colorado have revised the EPA 2001 cadmium criteria for some or all of their fresh waters using EPA's recalculation procedure. The following table demonstrates the range of chronic cadmium objectives (Criterion Continuous Concentration)

Source	Hardness	Cadmium Chronic Criterion (µg/L)
California Toxics Rule	100	2.5
California Toxics Rule	400	7.3
EPA 2001 Cadmium Revision	100	0.27
EPA 2001 Cadmium Revision	400	0.76
Colorado (Segment 3, Dolores River)	100	1.3
Colorado (Segment 3, Dolores River	400	4.0
Idaho	100	0.60
Idaho	400	1.4

in use by various states (based on **total** metal concentration to indicate the objective dischargers are required to meet at the end of the pipe).

Recommendation: Each Regional Water Board should revise, as necessary, the EPA 2001 cadmium criteria using new or revised toxicity data prior to establishing regional cadmium water

quality objectives. The EPA Recalculation procedure should be used to determine appropriate site-specific cadmium objectives for the fresh waters in each regional Basin that do not have or that cannot support (due to salinity, flow, or other factors) sensitive species (e.g. amphipods, cladocerans) that were used to determine the national cadmium criteria (objectives).

Water-Effect Ratio

- The California Toxics Rule (CTR) contains a provision for the determination of a Water-Effect Ratio (WER) as necessary. In addition to site-specific factors (discussed above) that would directly affect a recalculation of the cadmium objectives, there are other water quality factors (organic carbon content, suspended sediment, pH, alkalinity) that may have a significant effect on the bioavailability and toxicity of cadmium. The WER, like the EPA's recalculation procedure, is another valid method that can be used to determine site-specific water quality objectives.

Recommendation: Retain the WER provision in the cadmium water quality objective.

Option 1 and Biotic Ligand Model

- Option 1 in the Board's CEQA Scoping document is to take no action by retaining the current CTR cadmium criteria. Due to the many site-specific factors that should be considered in determining freshwater cadmium objectives for waters of the State, it may be more appropriate to wait until such time as the EPA develops a freshwater Biotic Ligand Model (BLM) for cadmium.

Recommendation: Determine the status of EPA's development of a BLM for cadmium and take no action if development is likely to occur within a three to five year time period.

In closing the City wishes to reiterate the need to separate the revision of the cadmium objectives from the development of a hardness policy. Water Quality Objectives are best addressed in the Basin Planning process. The State Implementation Policy is the appropriate tool for implementing a statewide hardness policy. The City looks forward to participating in each of these regulatory processes to establish cadmium objectives and a hardness implementation policy that are protective, scientifically defensible, and economically feasible. If you have any questions please contact David Tucker at 408-945-5316.

Sincerely,

John Stufflebean, Director
Environmental Services Department