



Bay Area Clean Water Agencies

Leading the Way to Protect Our Bay

A Joint Powers Public Agency

P.O. Box 24055, MS 702

Oakland, California 94623

April 16, 2007

Via E-Mail and First Class Post

Mr. Bruce Wolfe, Executive Officer
San Francisco Bay Regional Water
Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

RE: Proposed Amendment to the Water Quality Control Plan for the San Francisco Bay Basin, Site Specific Water Quality Objectives and Implementation Plan for Copper in San Francisco Bay, North of the Dumbarton Bridge

Dear Mr. Wolfe:

The Bay Area Clean Water Agencies (BACWA) supports the proposed site specific water quality objectives and the proposed Basin Plan Amendment, which incorporates the Implementation Plan for Copper in San Francisco Bay, North of the Dumbarton Bridge. BACWA also concurs with the Basin Plan Implementation Plan approach to pollution prevention and pretreatment control measures for clean water agencies.

BACWA commends all those who have been working since 2000 on the North of Dumbarton Bridge (NDB) Copper and Nickel Site Specific Objectives project that has resulted in these proposed copper site specific water quality objectives (SSOs). This BACWA and CEP sponsored effort was modeled closely after the work conducted by the City of San Jose that provided the Water Effects Ratio (WER) aquatic toxicity results and associated water chemistry work that led to the 2002 Basin Plan amendment that adopted SSOs for copper and nickel for the Bay South of Dumbarton Bridge.

The WERs developed for the NDB project showed that the bay water quality renders ambient copper concentrations less toxic than in the laboratory water used to develop the 3.1 µg/L California Toxics Rule (CTR) WQO. The four expert members of the Technical Review Committee (TRC) for the NDB project found that the WER and associated data were of high quality and suitable to be used for calculating SSOs. While the recommended SSOs are higher

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than the CTR marine copper WQOs that currently apply, they better reflect existing scientific knowledge of copper toxicity and its effects on aquatic organisms specific to the Bay.

Despite Nationally Recognized Pollution Prevention and Pretreatment Program, BACWA Members Cannot Comply with Current CTR Limit for Copper.

BACWA members are committed professionally as public agencies to protect the San Francisco Bay and its beneficial uses. Over the last 10 to 15 years, the clean water member agencies of BACWA have implemented extensive pretreatment and pollution prevention programs addressing industrial, commercial, and residential sources of copper, including special focus on copper piping corrosion, vehicle maintenance and service shops, and product bans or substitutions (e.g., root control substances and pesticides).

Many BACWA members, including San Francisco, Fairfield-Suisun, and EBMUD have been recognized by the U.S. EPA, the California Water Environment Association, and the national Water Environment Federation as national leaders in pretreatment and pollution prevention. Our members have well-developed, mature source control programs for addressing copper that have produced excellent results. Nevertheless, many BACWA member agencies cannot be assured of consistent compliance with effluent limits derived from the overly stringent WQO for copper currently contained in the CTR. Without this Basin Plan amendment (BPA), which incorporates site specific objectives and site specific copper translators that are protective of San Francisco Bay, many BACWA member agencies will be required to install advanced treatment facilities in order to be in compliance. The BPA staff report (p. 6-5 – 6-6) acknowledges that 37 of 44 wastewater facilities surveyed would not be able to comply with effluent limits based on the current WQO without costly upgrades.

Sublethal Effects of Copper in Freshwater Laboratory Studies Uncertainties Prevent Translation to San Francisco Bay

In freshwater laboratory studies on salmonids, some sublethal sensitivity to copper has been anecdotally observed. BACWA concurs with the Regional Water Board Staff Report (section 3-5 pages 3-14 and 3-15), which states that there are a number of uncertainties that need to be resolved before the results can be extended to San Francisco Bay, which has a completely different chemistry than that found in freshwater laboratory studies. The Implementation Plan in the Basin Plan Amendment proposes that urban stormwater dischargers and clean water agencies support studies aimed at reducing uncertainties related to such sublethal olfactory effects on salmonids (as well as uncertainties associated with sediment toxicity and urban runoff loading).

The staff report states that it is necessary to investigate these technical issues in order to have a greater degree of confidence that beneficial uses are being protected as the SSOs are implemented. However, as alluded to elsewhere, with most environmental systems as complex as the Bay, there will always be some uncertainties. The vast majority of available evidence shows

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that the Bay NDB is not impaired by dissolved copper. BACWA requests that the Implementation Plan language be changed to state that support for additional studies to reduce uncertainties will be implemented through participation in the CEP not via requirements in individual NPDES permits.

Requiring a Water Quality Based Effluent Limit in the Face of No Reasonable Potential is Overly Protective and More Stringent than Required by Law.

The Implementation Plan of the Basin Plan amendment proposes that mandatory water quality based effluent limits for copper be included in all wastewater treatment plant NPDES permits, even if there is no finding of reasonable potential (RP) for the discharge to cause or contribute to an exceedence of applicable water quality standards (per State Implementation Plan (SIP) Section 1.3 procedures). BACWA believes this is overly protective, inconsistent with state and federal law, and appears to reflect an unrealistic fear that clean water agencies will somehow “turn up the copper dial” following adoption of the site specific objective.

This type of unfounded concern is also inconsistent with what BACWA believes to be a more accurate characterization of likely events following SSO adoption in Section 6.4 Antidegradation under “Nature of Wastewater Treatment Plant Performance.”

“In other words, municipalities and industries have neither an incentive nor capability to “reoperate” their plants to “take advantage” of less stringent effluent limits. They would be unable to accomplish such independent degradation of their copper performance without simultaneously worsening performance for other constituents that would likely result in violation of effluent limitations for these other constituents. For this reason, future changes in existing copper effluent concentrations are not likely for the existing treatment facilities, with or without changes in effluent limits.”

The SFEI report “The Pulse of the Estuary 2006,”¹ presents Lower South Bay (LSB) dissolved copper concentration data from 1993 through 2004, covering the time both before and after the LSB SSO as adopted in 2002. The concentrations have remained remarkably constant with no change in overall average concentrations. Furthermore, concentrations have remained consistently below the 4.0 µg/L Phase 1 trigger level established as part of adoption of the 6.9 µg/L SSO in 2002. BACWA believes that this is direct evidence that, as stated above, clean water agencies can and will maintain current effluent performance levels after an SSO is adopted and effluent limits are correspondingly changed. Sound science, not unsubstantiated fears, should drive public policy.

Mandatory effluent limitations for copper as proposed in this Basin Plan also violate state and federal law. Both Federal regulations at 40 C.F.R. §122.44(d) and State law at Water Code

¹ San Francisco Estuary Institute Regional Monitoring Program for Water Quality in the San Francisco Bay; “the Pulse of the Estuary” 2006, pages 24, 25

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section 13263.6 only require the imposition of effluent limitations where the discharge will cause, or has the reasonable potential to cause or contribute to an excursion of an applicable water quality objective or standard. The State Water Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California ("SIP") similarly requires a demonstration of "reasonable potential" before effluent limitations are imposed. *See* SIP at Section 1.3. Requiring effluent limitations without this demonstration is contrary to law and to the Clean Water Act requirement that water quality-based effluent limitations be necessary to meet the applicable water quality standards. 33 U.S.C. §1311(b)(1)(C).

The SIP reasonable potential process can be viewed as rewarding well performing facilities that have reduced their effluent concentrations below the applicable WQO by not requiring effluent limits for that constituent in their permit. The proposed requirement for mandatory copper effluent limits for facilities without RP for copper turns the normal process on its head and is effectively a punishment rather than a reward.

The mandatory effluent limits proposed in the Basin Plan may lead to program inefficiencies in the future as the clean water agencies will utilize resources to meet regulatory program requirements **regardless** of their overall impact toward pollution prevention and water quality restoration. BACWA requests that the Regional Water Board remove the automatic effluent limitations or, at least, include a program evaluation component into the proposed Basin Plan language that will require an adaptive management review and evaluation of this standard and the implementation after 5 or 10 years. The purpose of this review would be to evaluate the effectiveness of these requirements and to determine if there is new scientific or water quality information that could support revisions to this site specific objective or its implementation measures.

Nickel Site Specific Water Quality Objective Adopted for the Lower South Bay is Applicable Bay-Wide without Further Technical Analysis

The nickel SSO developed by San Jose and adopted by the Water Board in 2002 was based on modifications to the national water quality criterion (i.e. not based on WERs). As such, the 11.9 µg/L nickel SSO is applicable to the entire San Francisco Bay, not just the lower south bay (south of Dumbarton Bridge). No additional technical work is required to be able to use this SSO for the rest of the Bay. Ever since the initial workplan for SSOs for NDB was developed in early 2000, the effort has always focused on both copper **and** nickel SSOs. A summary of the work conducted by San Jose and the rationale for applying the 11.9 µg/L SSO throughout the Bay was included in the CEP report "*North of Dumbarton Bridge Copper & Nickel Site-Specific Objective (SSO) Derivation Report*" on pages 4 – 6 and in Appendix D. There are minimal if any uncertainties remaining regarding the potential for impairment by nickel. Ambient concentrations throughout the Bay are typically in the 1 – 2 µg/l range. Much of the Regulatory

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Analyses in Section 6 of the BPA Staff Report, including the antidegradation analysis is also applicable to nickel.

BACWA encourages the Water Board to finish what has been a long and successful process and move forward with adoption of a consistent 11.9 µg/l nickel SSO throughout the Bay. BACWA also encourages the Water Board to remove nickel from the 303(d) impaired waterbodies list, as BACWA had requested of the State Water Board in our October 20, 2006 comment letter (copy attached) on the 2006 303(d) list.

In summary, BACWA commends the North of Dumbarton Bridge Copper/Nickel SSO project team members, Regional Water Board staff, and the Clean Estuary Partnership for the years of data collection, analysis, and study that have led to this important site specific objective milestone for San Francisco Bay. BACWA hopes that its comments and suggestions will be incorporated before the final version of the implementation plan is adopted.

Sincerely,

A handwritten signature in black ink, appearing to read "Michele M. Pla". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michele M. Pla
Executive Director

Cc: USEPA Region IX, Doug Eberhardt
SWRCB, Ken Harris
BACWA Board Members