

UNCONTESTED

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

STAFF SUMMARY REPORT (Heather Ottaway)
MEETING DATE: March 10, 2010

ITEM: 5A

SUBJECT: Amendment of Waste Discharge Requirements to Implement Cyanide and Copper Site-Specific Objectives for Eleven Municipal and Industrial Wastewater Dischargers - Amendment of NPDES Permits

CHRONOLOGY: 2008 – Basin Plan Amendment for Cyanide Site-Specific Objectives
2009 – Basin Plan Amendment for Copper Site-Specific Objectives

DISCUSSION: This permit amendment would replace interim cyanide and copper limits in eleven NPDES permits with final water quality-based effluent limits consistent with site-specific water quality objectives that became effective with approval by the U.S. EPA in 2009. These permits currently contain limits based on objectives that became obsolete once the site-specific objectives became effective. Most other dischargers in the region already have limits consistent with the site-specific objectives.

We received four comment letters (Appendix B), and, as explained in our response to the comments (Appendix C), we revised the tentative order that was distributed for public review. The Revised Tentative Order (Appendix A) reflects all proposed changes. Specifically, we revised the copper limits for three dischargers. We provided a dilution credit of 2:1 for the Hayward Shoreline Marsh, applied site-specific copper translators for the City of Petaluma, and used a lower copper background concentration for the Napa Sanitation District. We expect this item to remain uncontested.

RECOMMEN-
DATION: Adopt the Revised Tentative Order

APPENDICES: A. Revised Tentative Order
B. Comment Letters
C. Response to Comments

Appendix A
Revised Tentative Order



Linda S. Adams
Secretary for
Environmental Protection

California Regional Water Quality Control Board

San Francisco Bay Region
1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
<http://www.waterboards.ca.gov/sanfranciscobay>



Arnold Schwarzenegger
Governor

REVISED TENTATIVE ORDER NO. R2-2010-XXXX

AMENDMENT OF WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL AND INDUSTRIAL DISCHARGERS TO IMPLEMENT CYANIDE AND COPPER SITE SPECIFIC OBJECTIVES

WHEREAS the California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter “Regional Water Board”), finds that:

1. The Regional Water Board issued waste discharge requirements that serve as National Pollutant Discharge Elimination System (NPDES) permits for the dischargers listed in Table 1 (hereinafter “Dischargers”). These permits authorize the Dischargers to discharge treated effluent from their respective facilities to waters of the United States under specific conditions.
2. This Order amends the orders listed in Table 1 to replace existing interim cyanide and copper limits with revised water quality-based effluent limits (WQBELs) based on newly established cyanide and copper site-specific objectives (SSOs) in the Regional Water Board’s Water Quality Control Plan for the San Francisco Bay Basin (hereinafter “Basin Plan”).
3. The Fact Sheet attached to this Order as Attachment F contains background information and rationale for this Order’s requirements. It is hereby incorporated into this Order and therefore constitutes part of the findings for this Order.
4. This Order is exempt from the provisions of the California Environmental Quality Act pursuant to California Water Code §13389.
5. The Regional Water Board notified the Dischargers and interested agencies and persons of its intent to consider adoption of this Order, and provided an opportunity to submit written comments.
6. In a public meeting, the Regional Water Board heard and considered all comments pertaining to this Order.

IT IS HEREBY ORDERED, pursuant to the provisions of California Water Code Division 7 and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, that the Dischargers listed in Table 1 shall comply with their respective orders listed in Table 1, as amended by this Order.

**Table 1
DISCHARGERS SUBJECT TO THIS ORDER**

Discharger	Permit Number	Order Number	Permit Adoption Date	This Order Revises WQBELs for	
				Cyanide	Copper
American Canyon, City of	CA0038768	R2-2006-0036	6/14/06	X ¹	X ²
ConocoPhillips	CA0005053	R2-2005-0030	6/15/05	X ³	X ²
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA) (Hayward Shoreline Marsh)	CA0038636	R2-2006-0031	5/10/06	X ¹	X ²
GWF Power Systems, LP, Site I	CA0029106	R2-2005-0018	5/18/05	X ³	X ²
GWF Power Systems, LP, Site V	CA0029122	R2-2005-0019	5/18/05	X ³	X ²
Morton International, Inc.	CA0005185	R2-2005-0010	4/20/05	X ³	--
Mt. View Sanitary District	CA0037770	R2-2006-0063	9/13/06	X ¹	--
Napa Sanitation District	CA0037575	R2-2005-0008	4/20/05	X ³	X ²
Petaluma, City of	CA0037810	R2-2005-0058	10/19/05	X ³	X ²
Tesoro Refining & Marketing Co.	CA0004961	R2-2005-0041	9/21/05	X ³	--
USS-Posco Industries	CA0005002	R2-2006-0029	5/10/06	X ¹	--

¹ The listed permit contains alternate cyanide limits that cannot become effective because they are based on dilution factors other than those in the Basin Plan associated with the cyanide SSOs.

² The listed permit contains WQBELs for copper that are not based on the copper SSOs.

³ The listed permit contains WQBELs for cyanide that are not based on the cyanide SSOs.

- 1. The cyanide WQBELs in this Order shall replace all existing cyanide limits in the orders listed in Table 1, with the exception of the existing Napa Sanitation District dry weather cyanide limits.**

The new cyanide WQBELs, set forth in Table 2, implement the Basin Plan's cyanide SSOs and associated dilution factors. The revised limits for the Napa Sanitation District shall apply to wet season (November 1 through April 30) discharges only; the dry weather limits shall remain unchanged.

- 2. The copper WQBELs in this Order shall replace all existing copper limits in the orders that Table 1 lists as receiving revised copper limits, with the exception of the existing Napa Sanitation District dry weather copper limits.**

The new copper WQBELs, set forth in Table 3, implement the Basin Plan's copper SSOs. The revised limits for the Napa Sanitation District shall apply to wet season (November 1 through April 30) discharges only; the dry weather limits shall remain unchanged.

**Table 2
CYANIDE WQBELS**

Discharger	Average Monthly (AMEL) µg/L	Maximum Daily (MDEL) µg/L
American Canyon, City of	7.0	14
ConocoPhillips	21	42
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA) (Hayward Shoreline Marsh)	6.7	15
GWF Power Systems, LP, Site I	21	38
GWF Power Systems, LP, Site V	20	40
Morton International, Inc.	2.4	4.8
Mt. View Sanitary District	6.5	15
Napa Sanitation District	18	47
Petaluma, City of	7	14
Tesoro Refining & Marketing Co.	21	42
USS-Posco Industries	6.8	14

**Table 3
COPPER WQBELS**

Discharger	Average Monthly (AMEL) µg/L	Maximum Daily (MDEL) µg/L
American Canyon, City of	6.2	11
ConocoPhillips	60	120
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA) (Hayward Shoreline Marsh)	12	20
GWF Power Systems, LP, Site I	72	94
GWF Power Systems, LP, Site V	39	53
Napa Sanitation District	61	120
Petaluma, City of	7.8	12

3. The cyanide and copper compliance schedules and related requirements in the orders listed in Table 1 are hereby rescinded.

The Dischargers shall no longer be required to complete any remaining tasks or meet any remaining deadlines associated with their cyanide and copper compliance schedules.

4. Each Discharger listed in Table 1 shall implement a Cyanide Action Plan.

The Dischargers shall implement pretreatment, source control, and pollution prevention for cyanide in accordance with the tasks and time schedule in Table 4.

5. Each Discharger designated in Table 1 as receiving revised copper limits shall implement a Copper Action Plan.

The Dischargers receiving revised copper limits shall implement pretreatment, source control, and pollution prevention for copper in accordance with the tasks and time schedule in Table 5.

**Table 4
CYANIDE ACTION PLAN**

Task	Deadline
<p>1. Review Potential Cyanide Contributors Each Discharger shall submit an inventory of potential sources of cyanide to the treatment plant (e.g., metal plate operators, hazardous waste recycling, etc.). If no contributors of cyanide are identified, Tasks 2 and 3 are not required, unless the Discharger receives a request to discharge detectable levels of cyanide to its treatment plant. If so, the Discharger shall notify the Executive Officer and implement Tasks 2 and 3.</p>	June 9, 2010
<p>2. Implement Cyanide Control Program Each Discharger shall submit a plan and begin implementation of a program to minimize cyanide discharges to its treatment plant consisting, at a minimum, of the following elements:</p> <ul style="list-style-type: none"> a. Inspect each potential contributor to assess the need to include that contributing source in the control program. b. Inspect contributing sources included in the control program annually. Inspection elements may be based on U.S. EPA guidance, such as Industrial User Inspection and Sampling Manual for POTWs (EPA 831-B-94-01). c. Develop and distribute educational materials to contributing sources and potential contributing sources regarding the need to prevent cyanide discharges. d. Prepare an emergency monitoring and response plan to be implemented if a significant cyanide discharge occurs. 	With the annual pollution prevention report due in 2011
<p>3. Implement Additional Cyanide Control Measures If the Discharger is notified by the Regional Water Board that ambient monitoring shows cyanide concentrations of 1.0 µg/L or higher in the main body of San Francisco Bay, then within 90 days of the notification, the Discharger shall commence with actions to identify and abate cyanide sources responsible for the elevated ambient concentrations and shall report annually on the progress and effectiveness of actions taken together with a schedule for actions to be taken in the next 12 months.</p>	With the annual pollution prevention report starting with the report due after the notification
<p>4. Report Status of Cyanide Control Program Each Discharger shall submit an annual report documenting implementation of its cyanide control program.</p>	With the annual pollution prevention report due each year starting with the 2011 report

**Table 5
COPPER ACTION PLAN**

Task	Deadline
<p>1. Review Potential Copper Sources Each Discharger shall submit an inventory of potential copper sources to its treatment plant.</p>	June 9, 2010
<p>2. Implement Copper Control Program Each Discharger shall submit a plan for and begin implementation of a program to reduce copper discharges identified through Task 1. For publicly owned treatment works, the plan shall consist, at a minimum, of the following elements (those with dry weather design flows less than 1 million gallon per day need not include elements b and c):</p> <ul style="list-style-type: none"> a. Provide education and outreach to the public (e.g., focus on proper pool and spa maintenance and plumbers' roles in reducing corrosion). b. If corrosion is determined to be a significant copper source, work cooperatively with local water purveyors to reduce and control water corrosivity, as appropriate, and ensure that local plumbing contractors implement best management practices to reduce corrosion in pipes. c. Educate plumbers, designers, and maintenance contractors for pools and spas to encourage best management practices that minimize copper discharges. 	With the annual pollution prevention report due in 2011
<p>3. Implement Additional Measures If the Regional Water Board notifies the Discharger that the three-year rolling mean dissolved copper concentration of the receiving water exceeds the values below:</p> <p style="padding-left: 40px;">GWF Power Systems Site I and Site V: 2.8 µg/L American Canyon, ConocoPhillips, Napa Sanitation District, Petaluma: 3.0 µg/L Hayward Marsh: 3.6 µg/L</p> <p>then the Discharger shall evaluate the effluent copper concentration, shall develop and begin implementation of additional measures to control copper discharges, and shall report annually on the progress and effectiveness of measures taken together with a schedule for measures to be taken in the next 12 months.</p>	With annual pollution prevention report starting with the report due after the notification
<p>4. Studies to Reduce Copper Pollutant Impact Uncertainties The Dischargers shall submit a study plan and schedule to conduct or cause to be conducted technical studies to investigate possible copper sediment toxicity and technical studies to investigate sublethal effects on salmonids. Specifically, the Dischargers shall include the manner in which the above will be accomplished and describe the studies to be performed with an implementation schedule. To satisfy this requirement, the Dischargers may collaborate and conduct these studies as a group.</p>	With annual pollution prevention report due in 2011
<p>5. Report on Status of Copper Control Program Each Discharger shall submit a report documenting copper control program implementation. Additionally, each Discharger shall report the findings and results of the studies completed, planned, or in progress under Task 4. Regarding the Task 4 studies, the Dischargers may collaborate and provide this information in a single report for the entire group.</p>	With annual pollution prevention report due each year starting with the 2011 report

- 6. The Monitoring and Reporting Program (or Self-Monitoring Program) attached to each order listed in Table 1 shall require influent cyanide monitoring at the same frequency as the Monitoring and Reporting Program requires for effluent cyanide monitoring.**

The Basin Plan requires that all municipal and industrial dischargers with WQBELs based on the cyanide SSOs implement influent cyanide monitoring. If a Discharger already monitors its influent for cyanide to comply with pretreatment requirements, such monitoring shall satisfy this requirement.

- 7. The Monitoring and Reporting Program (or Self-Monitoring Program) attached to each order listed in Table 1 shall allow effluent compliance monitoring for cyanide to take place at a location after effluent dechlorination.**

Each Discharger choosing to relocate effluent monitoring for cyanide shall notify the Regional Water Board in writing with a description of its new cyanide effluent monitoring location before any compliance monitoring is conducted at the new location.

- 8. If conflicts exist between this Order's provisions and those of the orders listed in Table 1, this Order's provisions shall prevail.**

- 9. This Order shall become effective on April 1, 2010.**

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 10, 2010.

Bruce H. Wolfe
Executive Officer

ATTACHMENT F

FACT SHEET

This Fact Sheet describes the legal requirements and technical rationale that serve as the basis for this Order's requirements. This Fact Sheet constitutes a portion of the findings for the Order.

Purpose

The purpose of the Order is to replace the cyanide and copper limits in the orders listed in Table 1 with WQBELs based on current water quality objectives. Table F-1 provides some basic information about the facilities this Order covers. The WQBELs in the orders listed in Table 1 are currently based on water quality objectives that no longer apply. The Regional Water Board has since amended the Basin Plan to incorporate cyanide SSOs for all San Francisco Bay segments and copper SSOs for San Francisco Bay segments north of the Dumbarton Bridge. USEPA subsequently approved these SSOs. The new WQBELs will replace the existing cyanide and copper limits.

Cyanide Background

USEPA approved cyanide SSOs for all San Francisco Bay segments on July 22, 2008. This approval put into effect a Basin Plan amendment containing site-specific marine aquatic life water quality objectives of 2.9 µg/L cyanide for chronic conditions (four-day average) and 9.4 µg/L cyanide for acute conditions (one-hour average). The orders listed in Table 1 contain cyanide WQBELs based on water quality objectives that became obsolete when the SSOs became effective. The City of American Canyon, Hayward Shoreline Marsh, Mt. View Sanitary District, and USS Posco Industries orders contain alternate WQBELs that cannot go into effect because they are based on different assumptions regarding dilution credits that were included in the SSOs ultimately adopted. This Order contains WQBELs based on the approved SSOs and dilution factors in the Basin Plan. Additionally, the Basin Plan now requires that all municipal and industrial facilities receive an effluent limit for cyanide and monitor influent for cyanide. The Basin Plan also requires that each discharger implement an action plan to ensure that receiving water cyanide concentrations do not increase. This Order imposes these requirements.

Copper Background

USEPA approved copper SSOs for all San Francisco Bay segments north of the Dumbarton Bridge on January 6, 2009. This approval put into effect a Basin Plan amendment containing the site-specific marine aquatic life water quality objectives for copper listed in Table F-2. The orders listed in Table 1 contain copper WQBELs based on water quality objectives that became obsolete when these SSOs became effective. In some cases, these orders contain alternate WQBELs that cannot go into effect because they are based on flawed assumptions regarding the SSOs ultimately adopted. This Order contains WQBELs based on the approved SSOs.

**Table F-1
DISCHARGER FACILITY INFORMATION**

Discharger	Facility Name	Facility Address	Facility Design Flow (mgd)	Receiving Water
American Canyon, City of	Wastewater Treatment and Reclamation Facility	151 Mezzeta Court American Canyon, CA 94503 Napa County	2.5	North Slough
ConocoPhillips	San Francisco Refinery	1380 San Pablo Ave Rodeo, CA 94572-1354 Contra Costa County	varies	San Pablo Bay
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA)	Hayward Shoreline Marsh	3010 West Winton Road Hayward, CA 94544 Alameda County	20	Lower San Francisco Bay
GWF Power Systems, LP, Site I	GWF – Site I Power Plant	895 East 3 rd Street Pittsburg, CA 94565 Contra Costa County	0.045 (average)	New York Slough
GWF Power Systems, LP, Site V	GWF – Site V Power Plant	555 Nichols Road Bay Point, CA 94565 Contra Costa County	0.047 (average)	Suisun Bay
Morton International, Inc, Morton Salt Division, Newark Facility	Morton Salt Division, Newark Facility	7380 Morton Ave Newark, CA 94560 Alameda County	0.0432 (average flow)	Alameda County Flood Control Ditch, tributary to Plummer Creek
Mt. View Sanitary District	Mt. View Sanitary District Wastewater Treatment Plant	3800 Arthur Road Martinez, CA 94553 Contra Costa County	3.2	Peyton Slough, a tributary to Carquinez Strait
Napa Sanitation District	Soscol Water Recycling Facility	151 Soscol Ferry Road Napa, CA 94558 Napa County	15.4	Napa River
Petaluma, City of	Ellis Creek Water Recycling Facility	3890 Cypress Drive Petaluma, CA 94954 Sonoma County	6.7	Petaluma River
Tesoro Refining & Marketing Co.	Golden Eagle Refinery	150 Solano Way Martinez, CA 94553 Contra Costa County	varies	Suisun Bay
USS-Posco Industries	Pittsburg Plant	900 Loveridge Road Pittsburg, CA 94565 Contra Costa County	28	Suisun Bay

**Table F-2
SAN FRANCISCO BAY COPPER SSOs ¹**

Location	4-day Average (CCC) ²	1-hour Average (CMC) ³
Lower San Francisco Bay south of the Hayward Shoals and South San Francisco Bay.	6.9	10.8
Delta (within San Francisco Bay Region), Suisun Bay, Carquinez Strait, San Pablo Bay, Central San Francisco Bay, and Lower San Francisco Bay north of the Hayward Shoals.	6.0	9.4

¹ These SSOs incorporate a water effects ratio of 2.4.

² Criteria Continuous Concentration

³ Criteria Maximum Concentration

Additionally, the Basin Plan requires that each discharger implement an action plan to ensure that receiving water copper concentrations do not increase. This Order imposes these requirements.

Cyanide WQBEL Calculations

The revised cyanide WQBELs are calculated in accordance with the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (hereinafter “State Implementation Policy”). Table F-3 provides the details of these calculations. The recalculated WQBELs are based on the original WQBEL calculations for each Discharger, modified to reflect the cyanide SSOs and appropriate dilution credit. These calculations use the same data and assumptions used when the Regional Water Board adopted the orders listed in Table 1.

This Order does not change the dry weather cyanide WQBELs in the Napa Sanitation District’s existing permit because those limits became effective on December 31, 2007.

Copper WQBEL Calculations

The revised copper WQBELs are calculated in accordance with the State Implementation Policy. Table F-4 provides the details of these calculations. The recalculated WQBELs are based on the original WQBEL calculations for each Discharger, modified to reflect the copper SSOs. These calculations use the same data and assumptions used when the Regional Water Board adopted the orders listed in Table 1, with the following exceptions:

- Napa Sanitation District submitted new background copper data. The background copper concentration used in the copper effluent limit calculations in the District’s existing permit was based on data in which the analytical method was later determined to contain a salinity interference. Subsequent water quality sampling using a different analytical method that eliminated the salinity interference was conducted in 2008. Based on these data, a background concentration of 4.9 µg/L was used in the copper WQBEL calculations in this Order.

- The City of Petaluma submitted additional data to support a site-specific translator. Because data collected in 2000 and 2001 were insufficient to characterize seasonal variations, the City conducted additional sampling in January 2010. These recent data were combined with the 2000 and 2001 data to determine acute and chronic site-specific translators of 0.77 and 0.66, respectively. Although these translators are used in this Order, the study does not fully characterize seasonal variations. Regional Water Board staff will require the City to collect additional samples during the portion of the discharge season not covered by the current translator study (i.e., October – December), and at very low tide or during the summer months. The City will also be required to evaluate its discharge data to determine if translators are lower when discharge occurs during very low river flow (e.g., summer or low tides).
- Union Sanitary District submitted a mixing zone and dilution study (*Union Sanitary District 2010 Amendment of Cyanide and Copper Water Quality-Based Effluent Limits Strategies for Compliance, February 8, 2010*) that provides dilution analyses for Hayward Shoreline Marsh and evaluation of an option to cease discharge to the marsh to achieve compliance with final copper WQBELs. The Hayward Marsh is an improved marsh system designed to receive reclaimed wastewater from the District. The marsh is operated to illustrate a beneficial use of reclaimed wastewater, to derive net environmental benefits, and as a research site to better understand development and management of a marsh utilizing reclaimed wastewater. Therefore, stopping discharge to the marsh is not a desirable option for compliance. Based on this consideration, the District's dilution analyses supports a dilution credit of 2:1 (D=1) and how the proposed mixing zone, which includes the two brackish water marsh basins (3A and 3B) and 7 meters of Lower South San Francisco Bay, is as small as practicable. The mixing zone also meets the conditions required by State Implementation Policy section 1.4.2.2, as briefly summarized below.

The mixing zone does not:

1. Compromise the integrity of the entire water body. Reclaimed wastewater has been utilized in the Hayward Marsh since restoration efforts began in the 1980s. Since that time, it has been well documented that the Marsh has developed into a successful habitat for numerous species of birds and fish. Regional Monitoring Program data show that copper levels in lower San Francisco Bay are below water quality objectives.
2. Cause acutely toxic conditions to aquatic life passing through the mixing zone. Although aquatic life is present in Basins 3A and 3B, these Basins could not be considered a passageway for aquatic life due to their layout and hydraulic design.
3. Restrict the passage of aquatic life. Because the mixing zone is limited to an extremely small corner of the Bay, it does not restrict the passage of aquatic life throughout Lower San Francisco Bay.

4. Adversely impact biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws. Restoration of the Hayward Marsh through use of reclaimed wastewater has created habitat for several important species.
5. Produce undesirable or nuisance aquatic life. The District's permit requires implementation of a marsh management plan to ensure management of water flow, water quality, and vegetation, preservation of salt marsh harvest mouse habitat, and implementation of vector control strategies.
6. Result in floating debris, oil, or scum.
7. Produce objectionable color, odor, taste, or turbidity.
8. Cause objectionable bottom deposits.
9. Dominate San Francisco Bay or overlap a mixing zone from a different outfall. The Regional Water Board has not established any other mixing zones for a nearby discharger.
10. Exist near any drinking water intake. The receiving water is not used for drinking water supplies.

The copper SSOs only apply to marine water. All the Dischargers listed in Table 1 of the Order, except the City of Petaluma and Napa Sanitation District, discharge to marine waters. The City of Petaluma and Napa Sanitation District discharge to estuarine waters. The Basin Plan and CTR state that the salinity characteristics (i.e., freshwater versus saltwater) of the receiving water is to be considered in determining the applicable water quality objectives. Freshwater criteria apply to discharges to waters with salinities equal to or less than 1 ppt at least 95 percent of the time. Saltwater criteria apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to waters with salinities in between these two categories, or tidally influenced fresh waters that support estuarine beneficial uses, the applicable objectives are the lower of the saltwater or freshwater objectives. The freshwater objectives applicable to the City of Petaluma and Napa Sanitation District discharges are less stringent than the saltwater SSOs. Therefore, the copper SSOs apply to these Dischargers as well.

**Table F-3
CYANIDE WQBEL CALCULATIONS (µg/L)**

	American Canyon	Mt. View SD	Hayward Marsh	USS Posco	Conoco Phillips	Petaluma	Napa	GWF Site I	GWF Site V	Morton	Tesoro
CTR Criteria -Acute	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
CTR Criteria -Chronic	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Dilution Factor (D) (if applicable)	2.25	2.25	2.25	2.25	9	2.25	9	9	9	0	9
No. of samples per month	4	4	4	4	4	4	4	4	4	4	4
Aquatic life criteria analysis required? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
HH criteria analysis required? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Applicable Acute WQO	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Applicable Chronic WQO	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
HH criteria	220,000	220,000	220,000	700	220,000	220,000	220,000	700	220,000	220,000	220,000
Background (Max Conc for Aquatic Life calc)	0.363	0.4	0.4	0.5	0.4	0.363	0.363	0.5	0.5	0.4	0.4
Background (Avg Conc for Human Health calc)	0.21	0.2	0.76	0.425			0.21	0.5	0.5	0.4	
Is the pollutant Bioaccumulative(Y/N)?	N	N	N	N	N	N	N	N	N	N	N
ECA acute	29.7	29.7	29.7	29.4	90.4	29.7	90.7	89.5	89.5	9.4	90.4
ECA chronic	8.6	8.5	8.5	8.3	25.4	8.6	25.7	24.5	24.5	2.9	25.4
ECA HH	715000	715000	714998	2274	220000	220000	2199998	6996	2199996	220000	220000
No. of data points <10 or at least 80% of data reported non detect? (Y/N)	N	N	N	Y	N	N	N	N	Y	Y	Y
Avg of effluent data points	2.077	1.16	2.6		3.57	3.14	3.44	3.43			
Std Dev of effluent data points	1.25	0.98	1.9		2.25		3.8	1.72			
CV calculated	0.60	0.85	0.73	N/A	0.63	0.64	1.10	0.50	N/A	N/A	N/A
CV (Selected) - Final	0.60	0.85	0.73	0.60	0.63	0.64	1.10	0.50	0.60	0.60	0.60
ECA acute mult99	0.32	0.24	0.27	0.32	0.31	0.30	0.19	0.37	0.32	0.32	0.32
ECA chronic mult99	0.53	0.42	0.47	0.53	0.51	0.51	0.34	0.58	0.53	0.53	0.53
LTA acute	9.52	7.00	8.02	9.45	27.83	9.03	16.94	33.27	28.74	3.02	29.03
LTA chronic	4.53	3.59	3.98	4.38	13.02	4.37	8.85	14.22	12.92	1.53	13.40
minimum of LTAs	4.53	3.59	3.98	4.38	13.02	4.37	8.85	14.22	12.92	1.53	13.40
AMEL mult95	1.55	1.80	1.68	1.55	1.58	1.59	2.05	1.46	1.55	1.55	1.55
MDEL mult99	3.12	4.23	3.70	3.11	3.25	3.29	5.36	2.69	3.11	3.11	3.11
AMEL (aq life)	7.04	6.46	6.70	6.80	20.60	6.96	18.11	20.71	20.06	2.37	20.80
MDEL(aq life)	14.15	15.20	14.73	13.63	42.28	14.39	47.43	38.26	40.25	4.76	41.72
MDEL/AMEL Multiplier	2.01	2.35	2.20	2.01	2.05	2.07	2.62	1.85	2.01	2.01	2.01
AMEL (human hlth)	715000	715000	714998	2274	220000	220000	2199998	6996	2199996	220000	220000
MDEL (human hlth)	1436459	1682984	1572124	4562	451598	454843	5762096	12923	4413607	441362	441362
Min of AMEL for Aq. life vs HH	7	6.5	6.7	6.8	20.6	7.0	18.1	20.7	20.1	2.4	21
min of MDEL for Aq. Life vs HH	14	15	15	14	42	14	47	38	40	5	42
Final limit - AMEL	7	6.5	6.7	6.8	21	7.0	18	21	20	2.4	21
Final limit - MDEL	14	15	15	14	42	14	38	38	40	5	42

**Table F-4
COPPER WQBEL CALCULATIONS (µg/L)**

	American Canyon	Conoco Phillips	Hayward Marsh	GWF Site I	GWF Site V	Napa	Petaluma
SSO Criteria -Acute	3.9	3.9	4.5	3.9	3.9	3.9	3.9
SSO Criteria -Chronic	2.5	2.5	2.88	2.5	2.5	2.5	2.5
Water Effects ratio (WER)	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Lowest WQO							
Site Specific Translator - MDEL	0.83	0.66	0.94	0.66	0.66	0.57	0.77
Site Specific Translator - AMEL	0.83	0.38	0.60	0.38	0.38	0.42	0.66
Dilution Factor (D) (if applicable)	0	9	1	9	9	9	0
No. of samples per month	4	4	4	4	4	4	4
Aquatic life criteria analysis required? (Y/N)	Y	Y	Y	Y	Y	Y	Y
HH criteria analysis required? (Y/N)	N	N	N	N	N	N	N
Applicable Acute WQO	11	14	11.5	14	14	22.29	12.16
Applicable Chronic WQO	7.2	15.8	11.5	15.8	15.8	10.53	9.06
HH criteria							
Background (Max Conc for Aquatic Life calc)	32	2.45	2.5	5.31	9.86	4.9	14.7
Background (Avg Conc for HH calc)							
Is the pollutant Bioaccumulative(Y/N)?	N	N	N	N	N	N	N
ECA acute	11.3	119.8	20.5	94.0	53.1	120.1	12.2
ECA chronic	7.2	135.8	21.6	110.1	69.2	98.8	9.1
ECA HH	--	--	--	--	--	--	--
No. of data points <10 or at least 80% of data reported non detect? (Y/N)	N	N	N	N	N	N	N
Avg of effluent data points	3.174	7.7	4.1	22.0	20.5	3.93	3.26
Std Dev of effluent data points	1.374	4.6	1.8	4.2	4.4	2.3	1.1
CV calculated	0.43	0.60	0.44	0.19	0.21	0.59	0.34
CV (Selected) - Final	0.43	0.60	0.44	0.19	0.21	0.59	0.34
ECA acute mult99	0.42	0.32	0.41	0.66	0.62	0.33	0.49
ECA chronic mult99	0.62	0.53	0.62	0.81	0.78	0.53	0.69
LTA acute	4.69	38.63	8.42	61.80	33.12	39.38	5.98
LTA chronic	4.50	71.86	12.7	88.75	54.21	52.83	6.24
minimum of LTAs	4.50	38.63	8.42	61.80	33.12	39.38	5.98
AMEL mult95	1.39	1.55	1.40	1.16	1.19	1.54	1.30
MDEL mult99	2.41	3.10	2.43	1.52	1.60	3.05	2.03
AMEL (aq life)	6.25	59.84	11.76	71.89	39.27	60.57	7.76
MDEL(aq life)	10.82	119.77	20.48	94.03	53.08	120.11	12.16
MDEL/AMEL Multiplier	1.73	2.00	1.74	1.31	1.35	1.98	1.57
AMEL (human hlth)	--	--	--	--	--	--	--
MDEL (human hlth)	--	--	--	--	--	--	--
minimum of AMEL for Aq. life vs HH	6.2	60	12	72	39	61	7.8
minimum of MDEL for Aq. Life vs HH	11	120	20	94	53	120	12
Final limit - AMEL	6.2	60	12	72	39	61	7.8
Final limit - MDEL	11	120	20	94	53	120	12

Table F-5 identifies the bases for the copper translators (i.e., ratios of total to dissolved copper) used to calculate the copper WQBELs. For the deepwater discharges (ConocoPhillips, GWF Power Systems Sites I and V, and Napa Sanitation District), the Basin Plan’s translators were used to convert the SSOs for dissolved copper into total copper criteria. For Suisun Bay and San Pablo Bay, these translators are 0.38 (chronic) and 0.66 (acute). For Central San Francisco Bay and Lower San Francisco Bay, they are 0.73 (chronic) and 0.87 (acute). For shallow water discharges, site-specific translators were used when available. For the Hayward Shoreline Marsh and Napa Sanitation District, the same translators were used as those used when the Regional Water Board adopted the orders listed in Table 1. For the City of Petaluma, recently developed site-specific translators were used. California Toxics Rule default translators of 0.83 (for acute and chronic) were used to calculate the WQBELs for the City of American Canyon.

This Order does not change the dry weather copper WQBELs in the Napa Sanitation District’s existing permit because those limits became effective on December 31, 2007.

**Table F-5
BASIS FOR COPPER TRANSLATORS**

Discharger	Basis
American Canyon, City of	Default CTR translator
ConocoPhillips	Basin Plan translators for San Pablo Bay
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA) (Hayward Shoreline Marsh)	Site-specific translators
GWF Power Systems, LP, Site I	Basin Plan translators for Suisun Bay
GWF Power Systems, LP, Site V	Basin Plan translators for Suisun Bay
Napa Sanitation District	Site-specific translators
Petaluma, City of	Site-specific translators

Anti-Backsliding

Clean Water Act sections 402(o)(2) and 303(d)(4), and 40 CFR 122.44(l), prohibit backsliding in NPDES permits. These anti-backsliding provisions require revised effluent limitations to be at least as stringent as those previously in place, with some exceptions. The WQBELs in this Order replace existing interim limits, which are not WQBELs. Anti-backsliding requirements do not apply when comparing different types of limits developed for different purposes (e.g., performance-based interim limits versus final WQBELs).

The WQBELs in this Order also replace WQBELs; however, in no case do they replace WQBELs that have become effective. For example, some existing cyanide and copper WQBELs are not yet effective because the Regional Water Board granted cyanide and copper compliance schedules that have not yet expired. Other WQBELs were alternate limits that could only become effective if specific SSOs and dilution credits were adopted. In these cases, the orders

were written such that these alternate limits can never become effective since the assumptions underlying them were flawed. Anti-backsliding requirements do not apply when comparing revised WQBELs with WQBELs that are not yet effective.

Antidegradation

Antidegradation policies require that the existing quality of waters be maintained unless degradation is justified based on specific findings. State Water Board Resolution Number 68-16 sets forth California's antidegradation policy. Consistent with 40 CFR 131.12, Resolution Number 68-16 incorporates the federal antidegradation policy. The Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Permitted discharges must be consistent with these antidegradation policies.

This Order revises cyanide and copper WQBELs based on the Basin Plan's cyanide and copper SSOs. Documentation completed when the Regional Water Board adopted these water quality objectives addressed antidegradation. The Regional Water Board found that implementing the cyanide and copper SSOs would not degrade water quality. This finding was based, in part, on the fact that the Regional Water Board also required, through the same Basin Plan amendment, dischargers to implement cyanide and copper action plans for source identification and pollution minimization. This Order requires such action plans and thus ensures that existing water quality will be maintained or improved.

Authority to Reopen Permits

The Regional Water Board is authorized to reopen the permits listed in Table 1 of the Order for purposes of this amendment because (1) the changes to WQBELs for cyanide and copper incorporate amended water quality standards on which the permit conditions were based, so 40 CFR 122.62(a)(3)(i) authorizes them; and (2) the changes that incorporate dilution credits, site-specific translators, and background data into copper WQBEL calculations reflect new information not considered when the permits were issued, so 40 CFR 122.62(a)(2) authorizes them.

Notification of Interested Parties

The Regional Water Board encouraged public participation in this amendment process. It notified the Dischargers and other interested parties, and provided an opportunity to submit written comments between December 17, 2009 and January 21, 2010. On December 26, 2009, *The Oakland Tribune* published a notice that the Regional Water Board would consider this item during its March 10, 2010, meeting.

Appendix B
Comment Letters



January 20, 2010

Ms. Heather Ottaway
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Tentative Order for the Amendment of Waste Discharge Requirements for
Municipal and Industrial Dischargers to Implement Cyanide and Copper
Site-Specific Objectives

Dear Ms. Ottaway:

The Napa Sanitation District (District) appreciates the opportunity to comment on the Tentative Order (TO) for the Amendment of Waste Discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site Specific Objectives, as issued for public comment on December 17, 2009. The District owns and operates a municipal wastewater treatment plant which collects and treats domestic and commercial wastewater from the City of Napa and nearby unincorporated areas of Napa County.

The District commends the substantial effort the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) staff has put into developing the TO, which replaces existing interim cyanide and copper limits with revised water quality-based effluent limits (WQBELs) based on the newly established cyanide and copper site-specific objectives. The District is in strong support of the scientific methods used to develop the cyanide and copper site-specific objectives and the rationale for the revision of existing interim effluent limits based on the new criteria. However, in review of the District's revised copper WQBEL calculations in Table F-4 of the TO, necessary revisions were identified. The following comments pertain to the calculation of the proposed final copper effluent limits for the District.

- 1. Correct the acute and chronic site-specific translators to accurately reflect the values used when the Regional Water Board adopted the District's existing NPDES permit.**

The acute and chronic site-specific translators used in the copper WQBEL calculations, as shown in Table F-4 of the TO, appear to be reversed from the values referenced in the District's existing NPDES permit. The acute translator, used in the development of the Maximum Daily Effluent Limit (MDEL), should be 0.57 and the chronic translator, used in the development of the Average Monthly Effluent Limit (AMEL), should be 0.42. The requested revisions to Table F-4, shown below, reflect the accurate acute and chronic site-specific translator values.

2. Revise the background maximum copper concentration to be representative of samples collected and analyzed without a salinity interference.

The receiving water maximum copper concentration used in the TO to calculate the final effluent limits is from data collected as part of the 2002 Collaborative Napa River Receiving Water Study (Collaborative Study). As identified in the District's Report of Waste Discharge, submitted to the Regional Water Board September 28, 2009, the methods used to analyze copper samples in the Collaborative Study were later determined to contain a salinity interference. To more accurately characterize the copper level in the receiving water, replacement monitoring commenced in 2008 using analytical methods without a salinity interference. Copper samples were analyzed with on-line chelation preconcentration followed by ICP-MS or ICP-MS in collision cell mode. The sampling location was the same as that in the Collaborative Study and copper samples were taken to account for seasonal variability of the receiving water and to cover both wet and dry weather conditions. **Attachment 1** contains the copper results from the 2008-2009 ambient background sampling.

Given that the methods used to analyze copper samples in the 2008-2009 Napa River ambient background sampling removed salinity interference, the results more accurately characterize the receiving water conditions for this constituent. The requested revisions to Table F-4 of the TO, shown below, are therefore based on the use of 4.9 µg/L as the maximum background copper concentration.

The District requests the following revisions to the copper WQBEL calculations shown below, as well as associated effluent limits and fact sheet language:

Revisions to Page 3 of the TO:

**Table 3
 COPPER WQBELS**

Discharger	Average Monthly (AMEL) µg/L	Maximum Daily (MDEL) µg/L
American Canon, City of	6.2	11
ConocoPhillips	60	120
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA) (Hayward Shoreline Marsh)	6.6	11
GWF Power Systems, LP, Site 1	72	94
GWF Power Systems, LP, Site V	39	53
Napa Sanitation District	8.6 <u>60.3</u>	17 <u>120.1</u>
Petaluma, City of	6.4	10

Revisions to Page F-4 of the Fact Sheet:

Copper WQBEL Calculations

The revised [cyanide copper](#) WQBELs are calculated in accordance with the State Implementation Policy. Table F-4 provides the details of these calculations. The recalculated WQBELs are based on the original WQBEL calculations for each Discharger, modified to reflect the copper SSOs. These calculations [generally](#) use the same data and assumptions used when the Regional Water Board adopted the existing orders. [The background copper concentration used in the calculations for Napa Sanitation District's exiting order was based on data in which the analytical method was later determined to contain a salinity interference. Subsequent water quality sampling has provided new, more representative information pertaining to the receiving water copper conditions near Napa Sanitation District's discharge. This new information was used in the copper WQBEL calculations.](#)

Revisions to Page F-5 of the Fact Sheet:

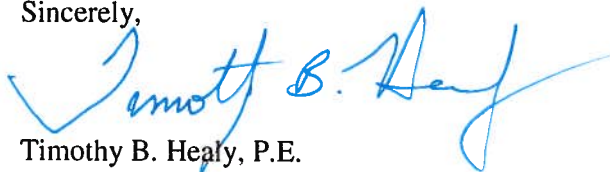
Table F-4
 COPPER WQBEL CALCULATIONS (µg/L)

	Napa
SSO Criteria -Acute	3.9
SSO Criteria -Chronic	2.5
Water Effects ratio (WER)	2.4
Lowest WQO	
Site Specific Translator - MDEL	0.42-0.57
Site Specific Translator - AMEL	0.57-0.42
Dilution Factor (D) (if applicable)	9
No. of samples per month	4
Aquatic life criteria analysis required? (Y/N)	Y
HH criteria analysis required? (Y/N)	N
Applicable Acute WQO	22.29-16.42
Applicable Chronic WQO	10.53-14.29
HH criteria	
Background (Maximum Conc for Aquatic Life calc)	18.5-4.9
Background (Average Conc for Human Health calc)	
Is the pollutant Bioaccumulative (Y/N)?	N
ECA acute	56.4-120.1
ECA chronic	10.5-98.8
ECA HH	--
No. of data points <10 or at least 80% of data reported non detect? (Y/N)	N
Avg of effluent data points	3.93
Std Dev of effluent data points	2.3
CV calculated	0.59
CV (Selected) - Final	0.59

ECA acute mult99	0.33
ECA chronic mult99	0.53
LTA acute	18.48 39.1
LTA chronic	5.62 52.6
minimum of LTAs	5.62 39.1
AMEL mult95	1.54
MDEL mult99	3.05
AMEL (aq life)	8.64 60.34
MDEL(aq life)	17.13 120.11
MDEL/AMEL Multiplier	1.98
AMEL (human hlth)	--
MDEL (human hlth)	--
minimum of AMEL for Aq. life vs HH	9 60
minimum of MDEL for Aq. Life vs HH	17 120
Final limit - AMEL	8.6 60.3
Final limit - MDEL	17.1 120.1

The District appreciates the Regional Water Board's attention to the comments made herein. District staff will be happy to meet to discuss these comments, and to provide additional information if needed.

Sincerely,



Timothy B. Healy, P.E.
Assistant General Manager/District Engineer

cc: Bruce Wolfe, Regional Water Board
Lila Tang, Regional Water Board
Bill Johnson, Regional Water Board
Monica Oakley, Oakley Water Strategies

Attachment 1

**Replacement Monitoring for
Collaborative Napa River Receiving Water Study Copper Data**

Sample Date (1)	Analytical Method	Copper Concentration (µg/L)	
		Sample Value	Reporting Limit
March 12, 2008	On-line chelation pre-concentration followed by ICPMS	2.54	0.20
July 22, 2008	ICPMS (collision cell)	4.9	0.5
October 1, 2008	ICPMS (collision cell)	3.6	0.5
September 9, 2009	ICPMS (collision cell)	3.7	0.5

Note:

(1) All samples were collected at station CC-1. The March sample was analyzed by the San Jose Watershed Protection Laboratory. The July, October and September samples were analyzed by Caltest.



CITY OF PETALUMA

POST OFFICE BOX 61
PETALUMA, CA 94953-0061

Pamela Torliatt
Mayor

Teresa Barrett
David Glass
Mike Harris
Mike Healy
David Rabbitt
Tiffany Renée
Councilmembers

January 20, 2010

VIA EMAIL: hottoway@waterboards.ca.gov; bwolfe@waterboards.ca.gov;
ltang@waterboards.ca.gov; wjohnson@waterboards.ca.gov

Heather Ottaway
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Tentative Order for the Amendment of Waste Discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site Specific Objectives

Dear Ms. Ottaway:

The City of Petaluma (City) appreciates the opportunity to comment on the Tentative Order (TO) for the Amendment of Waste Discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site Specific Objectives, as issued for public comment on December 17, 2009. The City provides wastewater treatment of domestic, commercial, and industrial wastewater generated in the City of Petaluma and in the un-incorporated community of Penngrove.

The City commends the substantial effort the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) staff has put into developing the TO, which replaces existing interim cyanide and copper limits with revised water quality-based effluent limits (WQBELs) based on the newly established cyanide and copper site-specific objectives. The City strongly supports the scientific methods used to develop the cyanide and copper site-specific objectives and the rationale for the revision of existing interim effluent limits based on the new criteria.

However, in reviewing the City's revised copper WQBELs, the need for a site-specific copper translator to replace the default translator is evident. The City has completed development of site-specific translators; the translator analysis is attached to this letter. Based on these translators and other editorial concerns, the City provides the following comments:

Water Resources & Conservation
202 N. McDowell Boulevard
Petaluma, CA 94954

Phone (707) 778-4546
Fax (707) 778-4508
E-Mail:
dwr@ci.petaluma.ca.us

Ellis Creek Water Recycling Facility
3890 Cypress Drive
Petaluma, CA 94954
Phone (707) 776-3777
Fax (707) 776-3746

1. Replace the acute and chronic default copper translators with site-specific copper translators.

Replace the acute and chronic default translators used in the copper WQBEL calculations, as shown in Table F-4 of the TO, to reflect the newly developed site-specific translators of 0.67 (average monthly effluent limit or AMEL) and 0.75 (maximum daily effluent limit or MDEL). The requested revisions to Table F-4, shown below, reflect the site-specific translator values.

Table F-4
COPPER WQBEL CALCULATIONS (µg/L)

	Petaluma
SSO Criteria -Acute	3.9
SSO Criteria -Chronic	2.5
Water Effects ratio (WER)	2.4
Lowest WQO	
Site Specific Translator - MDEL	<u>0.83-0.75</u>
Site Specific Translator - AMEL	<u>0.83-0.67</u>
Dilution Factor (D) (if applicable)	0
No. of samples per month	4
Aquatic life criteria analysis required? (Y/N)	Y
HH criteria analysis required? (Y/N)	N
Applicable Acute WQO	<u>11.28-12.48</u>
Applicable Chronic WQO	<u>7.23-8.96</u>
HH criteria	
Background (Maximum Conc for Aquatic Life calc)	14.7
Background (Average Conc for Human Health calc)	
Is the pollutant Bioaccumulative (Y/N)?	N
ECA acute	<u>11.3-12.5</u>
ECA chronic	<u>7.2-9.0</u>
ECA HH	--
No. of data points <10 or at least 80% of data reported non detect? (Y/N)	N
Avg of effluent data points	3.26
Std Dev of effluent data points	1.1
CV calculated	0.34
CV (Selected) - Final	0.34
ECA acute mult99	0.49
ECA chronic mult99	0.69
LTA acute	<u>5.55-6.14</u>
LTA chronic	<u>4.97-6.15</u>
minimum of LTAs	<u>4.97-6.14</u>
AMEL mult95	<u>1.30</u>
MDEL mult99	<u>2.03</u>
AMEL (aq life)	<u>6.45-7.97</u>

MDEL(aq life)	10.10-12.48
MDEL/AMEL Multiplier	1..57
AMEL (human hlth)	--
MDEL (human hlth)	--
minimum of AMEL for Aq. life vs HH	6.8
minimum of MDEL for Aq. Life vs HH	10.12
Final limit - AMEL	6.4 8.0
Final limit - MDEL	10.1 12.5

2. Revise Table 3, Page 3, to reflect the recalculation of WQBELs using the site-specific copper translators.

The City requests that Table 3 be revised as follows:

**Table 3
 COPPER WQBELS**

Discharger	Average Monthly (AMEL) µg/L	Maximum Daily (MDEL) µg/L
American Canon, City of	6.2	11
ConocoPhillips	60	120
East Bay Regional Park District (EBRPD), Union Sanitary District (USD), and East Bay Dischargers Authority (EBDA) (Hayward Shoreline Marsh)	6.6	11
GWF Power Systems, LP, Site 1	72	94
GWF Power Systems, LP, Site V	39	53
Napa Sanitation District	8.6	17
Petaluma, City of	6.4 8.0	10.1 12.5

3. Revise the second paragraph on Page F-6 to read as follows:

Table F-5 identifies the bases for the copper translators (i.e., ratios of total to dissolved copper) used to calculate the copper WQBELs. For the deepwater discharges (ConocoPhillips, GWF Power Systems Sites I and V, and Napa Sanitation District), the Basin Plan’s translators were used to convert the SSOs for dissolved copper into total copper criteria. For Suisun Bay and San Pablo Bay, these translators are 0.38 (chronic) and 0.66 (acute). For Central San Francisco Bay and Lower San Francisco Bay, they are 0.73 (chronic) and 0.87 (acute). For shallow water discharges, site-specific translators were used when available. For the Hayward Shoreline Marsh and Napa Sanitation District, the same translators were used as those used when the Regional Water Board adopted the existing orders. For the other shallow water discharges (City of American Canyon ~~and~~, Hayward Marsh, ~~and~~ City of Petaluma), site-specific translators are

unavailable; therefore, the California Toxics Rule default translator of 0.83 was used to calculate the WQBELs.

4. Revise the reference to Petaluma in Table F-5, Page F-6 as follows:

**Table F-5
 BASIS FOR COPPER TRANSLATORS**

Discharger	Basis
Petaluma, City of	Default CTR Translator Site-Specific Translators

5. Revise Table F-1, Page F-1, to reflect the new treatment plant name and address.

Revise the reference to the City of Petaluma in Table F-1 as follows:

Discharger	Facility Name	Facility Address	Facility Design Flow (mgd)	Receiving Water
Petaluma, City of	Municipal Wastewater Treatment Plant Ellis Creek Water Recycling Facility	950 Hopper Street, Petaluma, CA 94952 3890 Cypress Drive Petaluma, CA 94954 Sonoma County	5.2 6.7	Petaluma River

The City appreciates the Regional Water Board's attention to the comments made herein. City staff will be happy to meet to discuss these comments, and to provide additional information if needed.

Respectfully submitted,



Margaret Prehn Orr, P.E.
 Engineering Manager

cc: Bruce Wolfe, Regional Water Board
 Lila Tang, Regional Water Board
 Bill Johnson, Regional Water Board
 Larry Bahr, Oakley Water Strategies
 File: 6210 – 10.10.1.12.2



Directors
Pat D. Gacoscos

Pat Kite

Anjali Lathi

Jennifer Toy

Tom Handley

Officers
Richard B. Currie
General Manager
District Engineer

David M. O'Hara
Attorney

Date: January 21, 2010

VIA EMAIL: hottaway@waterboards.ca.gov; bwolfe@waterboards.ca.gov;
ltang@waterboards.ca.gov; wjohnson@waterboards.ca.gov

Ms. Heather Ottaway
San Francisco Bay Regional
Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Ottaway:

Thank you for the opportunity to comment on the tentative order for the Amendment of Waste discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site-Specific Objectives. The District owns and operates a municipal wastewater treatment plant and collection system serving approximately 334,000 people in Fremont, Newark, and Union City.

The District is generally in support of the rationale for establishing revised water quality-based effluent limits based on the newly established copper and cyanide site-specific objectives. However, the revised effluent limits will result in significant compliance problems for copper in the Hayward Marsh discharge. The District is in the process of completing a mixing zone study and is optimistic that this information will show the District can achieve compliance. We are diligently working on finalizing the study and are committed to submit a completed analysis within the next two weeks. The District therefore requests an adjustment to the revised copper effluent limits based on available dilution, to be provided shortly.

In addition, we would like to point out a couple of typos that appeared in the document – on page F-3 the word “cyanide” should be replaced with “copper” in the second paragraph from the bottom (in the copper section). On page F-6, the narrative indicates that the default translators were used for Hayward Marsh, when actually site-specific translators were used (Table F-5 is correct).

Please let us know if you have any questions or need additional information. Thank you very much for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "David Livingston", with a long horizontal flourish extending to the right.

David Livingston

Manager/Treatment & Disposal Services

Union Sanitary District

Phone: (510) 477-7560

Email: david_livingston@unionsanitary.com

cc: Bruce Wolfe, Regional Water Board
Lila Tang, Regional Water Board
Bill Johnson, Regional Water Board
Monica Oakley, Oakley Water Strategies



Bay Area Clean Water Agencies

A Joint Powers Public Agency

Leading the Way to Protect our Bay

January 20, 2010

VIA EMAIL: hottaway@waterboards.ca.gov; bwolfe@waterboards.ca.gov;
ltang@waterboards.ca.gov; wjohnson@waterboards.ca.gov

Ms. Heather Ottaway
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Tentative Order for the Amendment of Waste Discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site Specific Objectives

Dear Ms. Ottaway:

The Bay Area Clean Water Agencies (BACWA) and its members appreciate the opportunity to comment on the Tentative Order for the Amendment of Waste Discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site Specific Objectives (TO), as issued for public comment on December 17, 2009. BACWA member agencies are public agencies, governed by elected officials and managed by professionals who are dedicated to protecting our environment and the public health. BACWA members own and operate publicly-owned treatment works that collectively serve over 6.5 million people in the nine-county Bay Area.

BACWA appreciates the considerable effort made by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) staff in developing the TO, which replaces existing interim cyanide and copper limits with revised water quality-based effluent limits (WQBELs) based on the newly-established site-specific objectives. These site specific objectives for copper and cyanide were developed over many years to address regulatory compliance in a manner that is protective of the most sensitive aquatic life beneficial uses. The revision of interim copper and cyanide effluent limits demonstrates appropriate and effective regulation.

Respectfully submitted,

David M. Tucker
Chair, Bay Area Clean Water Agencies

Appendix C
Response to Comments

RESPONSE TO WRITTEN COMMENTS

On the Amendment of Waste Discharge Requirements for Municipal and Industrial Dischargers to Implement Cyanide and Copper Site-Specific Objectives

We received four comment letters regarding the tentative order:

- I. Napa Sanitation District – January 21, 2010**
- II. City of Petaluma – January 20, 2010**
- III. Union Sanitary District – January 21, 2010**
- IV. Bay Area Clean Water Agencies – January 20, 2010**

The format of this response begins with a brief introduction of each party's comments in italics, followed with our response. Interested persons should refer to the original letters to ascertain the full substance and context of each comment.

I. Napa Sanitation District

Napa Sanitation District Comment 1

The District requests correction of the acute and chronic site-specific translators to accurately reflect the values used when the Regional Water Board adopted the District's existing NPDES permit. It appears as if the acute and chronic translators were reversed.

Response 1

We agree with the District that we reversed the two translators. We revised the tentative order to reflect an acute translator of 0.57 and a chronic translator of 0.42. As a result, the final effluent limits for copper were revised to 61 (AMEL) and 120 (MDEL). These final limits also incorporate a different receiving water background concentration for copper as discussed in response Napa Sanitation District Comment 2.

Napa Sanitation District Comment 2

The District requests revision of the receiving water maximum copper concentration based on data collected in 2008. The District asserts that data from the 2002 Collaborative Napa River Receiving Water Study are not representative because the samples were analyzed with analytical methods with salinity interference. The samples collected in 2008 were analyzed using analytical methods without salinity interference and were collected from the same location as the 2002 study. Samples were taken to account for seasonal variability of the receiving water and to cover both wet and dry weather conditions.

Response 2

We revised the copper effluent limits for the District using the maximum background concentration (4.9 µg/L) determined from the monitoring conducted in 2008. This reflects additional receiving data provided to demonstrate the salinity interference with the samples collected in 2002. The result is an AMEL of 61 and an MDEL of 120. We also added text

to the Fact Sheet discussing the use of these new background data, and we revised Tables 3 and F-4 to reflect the changes to the copper water quality-based effluent limitation (WQBEL) calculations.

II. City of Petaluma

City of Petaluma Comment 1

The City requests that acute and chronic default copper translators used in the calculation of final effluent limits, be replaced with site-specific copper translators determined in a study conducted by the City in 2010.

Response 1

We partly agree and have revised the tentative order accordingly by recalculating the copper limits using the City's site-specific translators. We note however that these site-specific translators do not account for seasonal variability as required by USEPA translator guidance and the State Implementation Policy. The City collected data in April 2000, March 2001, and during one week in January 2010. The City discharges seasonally, primarily during wet weather months. However, discharge can and does occur in autumn prior to significant rain events. The City did not collect data that was representative of low river flow conditions. Despite this, using these available data provides a more accurate estimate of site-specific conditions than relying on California Toxics Rule default translators, which was the basis for the limits proposed in the tentative order. So based on the City's report, we replaced the default copper translators with site-specific translators of 0.66 (chronic) and 0.77 (acute). However, Regional Water Board staff will require the City to collect additional data during other portions of its discharge season (October – December) and during very low tides or summer months to determine any seasonal variation of the translators.

City of Petaluma Comments 2-4

The City requests several edits to reflect use of site-specific translators.

Response 2

We revised Tables 3 and F-4 to reflect changes to the copper WQBEL calculations. We also revised the text on page F-6 and in Table F-5 to state that the City of Petaluma translators are site-specific and not California Toxics Rule default values.

City of Petaluma Comment 5

Revise table F-1, page F-1, to reflect the new treatment plant name and address.

Response 3

We made the requested changes to Table F-1.

III. Union Sanitary District

Union Sanitary District Comment 1

The District requests an adjustment to the revised copper effluent limits based on available dilution. The District is in the process of completing a mixing zone study and is optimistic

that this information will show the District can achieve compliance. The District is working on finalizing the study and is committed to submit a complete analysis within two weeks.

Response 1

We revised the copper WQBELs to provide a dilution credit of 2:1 based on the District's mixing zone and dilution study. In its study, the District provides dilution analyses for Hayward Shoreline Marsh and evaluation of an option to cease discharge to the marsh, to obtain compliance with final copper WQBELs. The District's study demonstrates that a mixing zone, including the two brackish water marsh basins (3A and 3B) and extending 7 meters into Lower South San Francisco Bay, is the smallest practical mixing zone. The District asserts that this mixing zone meets the conditions in State Implementation Policy section 1.4.2.2 and corresponds to a dilution of 2:1 (D=1). Because Hayward Shoreline Marsh is an unique natural resource that is operated by the East Bay Regional Parks District to illustrate a beneficial use of reclaimed wastewater and to provide net environmental benefits, the alternative of stopping discharge to the marsh is not a desirable option. This factor weighed significantly in our proposal to grant the 2:1 dilution credit.

We added text to the Fact Sheet to summarize the basis for the mixing zone and revised Tables 3 and F-4 to reflect the recalculated copper WQBELs.

Union Sanitary District Comment 2

The District notes the following typos: on Page F-3 the word "cyanide" should be replaced with "copper" in the second paragraph from the bottom (in the copper section); on page F-6, the narrative indicates that the default translators were used for Hayward Marsh, when actually site-specific translators were used (Table F-5 is correct).

Response 2

We corrected these errors.

IV. Bay Area Clean Water Agencies (BACWA) – January 20, 2010

BACWA Comment 1

BACWA appreciates the considerable effort made by the San Francisco Bay Regional Water Quality Control Board staff in developing the TO, which replaces existing interim cyanide and copper limits with revised water quality-based effluent limits based on the newly-established site-specific objectives. These site-specific objectives for copper and cyanide were developed over many years to address regulatory compliance in a manner that is protective of the most sensitive aquatic life beneficial uses. The revision of interim copper and cyanide effluent limits demonstrates appropriate and effective regulation.

Response 1

No response is necessary.