

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

RESPONSE TO WRITTEN COMMENTS

ON THE REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

Town of Yountville/California Veterans Home Joint Wastewater Reclamation Facility
Yountville, Napa County
NPDES No. CA0038121

I. Town of Yountville

II. City of Calistoga

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

I. Town of Yountville (Town)

Town Comment 1

The Town believes the copper mass balance equation used to assess assimilative capacity and determine a minimum river-to-flow ratio for the Yountville plant is based on many overly-conservative or inaccurate assumptions that do not reflect actual conditions. The Town proposed the following changes:

- 1. Use the influent flows during the discharge season to represent the proportional flows of the three wastewater dischargers with outfalls along the river (Yountville, Calistoga, and Saint Helena), rather than the influent flows for the entire 2008 calendar year;*
- 2. Use the 95th percentile effluent copper concentrations for each facility, rather than assuming the concentrations for all three are the same as Yountville's concentration;*
- 3. Determine the downstream copper water quality objective based on the adjusted geometric mean of all hardness values measured both upstream and downstream, rather than the minimum value found upstream;*
- 4. Correct the maximum ambient copper concentration upstream from 4.1 µg/L to 3.1 µg/L; and*
- 5. Use the maximum ambient concentration downstream for the tributary copper concentration, rather than an overly-conservative safety factor.*

Response to Town Comment 1

We accepted most of the Town's suggestions. However, regarding the tributary copper concentration and "safety factor," we made different changes based on additional information we gathered. First, we assumed that urban runoff flow is about 15 times the

combined flows of the three wastewater plants.¹ We also assumed that tributary flows are negligible. This is a conservative assumption, but it is somewhat accurate during the early part of the discharge season when a large portion of the runoff is stored in reservoirs. Then, we assumed that the urban runoff copper load is about eight times the copper load of the three wastewater plants combined.² We revised the downstream copper water quality objective to reflect a higher hardness value, as described in Response to Town Comment 2, below.

The revised calculations appear in a new Fact Sheet appendix, Appendix F-1. The recalculated river-to-effluent ratio is 42:1.

Town Comment 2

The Town requested that the water quality objectives for copper and zinc be based on the adjusted geometric mean of the receiving water hardness measured upstream and downstream of the discharge, rather than on the minimum value. The Town noted that the Regional Water Board has used the adjusted geometric mean for other permits, and the Town discussed practices the Central Valley Regional Water Board currently uses, noting that USEPA is developing policy on the issue.

Response to Town Comment 2

We increased the hardness value used to calculate the copper and zinc water quality objectives. We agree that downstream receiving water hardness better represents receiving water conditions. However, since only 10 hardness values are available, we continue to use the lowest hardness value (103 mg/L as CaCO₃) in the calculations instead of the geometric mean (150 mg/L) to ensure that the resulting limits are adequately protective. Coincidentally, the result is similar to the geometric mean the Town suggested, which it calculated using both upstream and downstream data (106 mg/L).

Town Comment 3

The Town requested that the effluent limits for copper and zinc be recalculated based on a receiving water hardness of 106 mg/L, rather than 64 mg/L.

Response to Town Comment 3

As explained in Response to Town Comment 2, we adjusted the water quality objectives for copper and zinc based on a receiving water hardness of 103 mg/L as CaCO₃. The recalculated chronic and acute water quality objectives are 9.8 µg/L and 14.8 µg/L for copper, and 126 µg/L (both chronic and acute) for zinc. We therefore also adjusted the effluent limits for copper and zinc. Because of the higher water quality objectives, less

¹ Table 7b of January 16, 2007, staff report for the Napa River Sediment Total Maximum Daily Loads.

² June 6, 2007, staff report for Copper Site Specific Objectives

dilution is necessary to achieve compliance, so we decreased the size of the mixing zone to make it as small as practicable consistent with the SIP. For copper, using D=5, the revised WQBELs are 30 µg/L AMEL and 61 µg/L MDEL. For zinc, using D=3, the revised WQBELs are 230 µg/L AMEL and 460 µg/L MDEL.

Town Comment 4

The Town requested to use the USGS flow gage near Napa to determine the river-to-effluent ratio.

Response to Town Comment 4

We agree. In Response to Town Comment 1, we re-calculated the minimum river-to-effluent ratio such that use of the downstream flow gauge is appropriate. Therefore, we revised Table E-3 as requested to allow the use of the Napa River flow gauge to calculate the river-to-effluent ratio.

Town Comment 5

The Town requested that SMRs be due on the first day of the second month following the month of sampling, rather than on the 30th day following the month of sampling.

Response to Town Comment 5

We did not make this change because the existing text is consistent with all other recently adopted NPDES wastewater permits. Requiring reports on the 30th day facilitates tracking report submittals using our electronic database.

Town Comment 6

The Town requested that the requirement to monitor recycled water flows daily be eliminated, consistent with existing practice.

Response to Town Comment 6

We revised the Monitoring and Reporting Program as requested.

Town Comment 7

The Town requested that Table F-4 be changed to reflect that chlorodibromomethane and bis(2-ethylhexyl)phthalate monitoring results are merely estimated values.

Response to Town Comment 7

We revised Table F-4 to indicate the values were below minimum levels and are therefore estimates.

Town Comment 8

The Town suggested corrections for several typographical errors.

Response to Town Comment 8

We corrected the typographical errors.

II. City of Calistoga (City)

City Comments

The City comments were similar to Town Comment 1 regarding how the river-to-effluent ratio should be calculated.

Response to City Comments

See Response to Town's Comment 1.