

January 9, 2015

Geotechnical
Environmental
Water Resources
Ecological

Alydda Mangelsdorf
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Re: Proposal to Support the Use of Biotic Ligand Model for Copper Aquatic Life Criteria in North Coast Region

Dear Ms. Mangelsdorf,

We would like to participate in the upcoming California Regional Water Quality Control Board, North Coast Region (Board) triennial review of the Water Quality Control Plan on behalf of our client, the Copper Development Association (CDA). CDA played a significant role in sponsoring scientific research used in development of the freshwater Biotic Ligand Model (BLM) for copper, which was adopted by the United States Environmental Protection Agency (USEPA) in its latest national ambient water quality criteria (USEPA 2007). CDA is now interested in encouraging efforts by state agencies and tribes to incorporate these latest recommended USEPA national criteria for copper into their water quality standards programs.

It is our understanding that the Board is in the process of accepting comments on the proposed priority projects to consider during the 2015 Triennial Review. We are encouraged to see the Board's inclusion of the updating their copper standards to incorporate the BLM on their list of property issues. While this has been ranked as a low priority issue, we would like to offer our support in keeping this issue on the priority list and suggest the Board consider revising their copper standards in this current review.

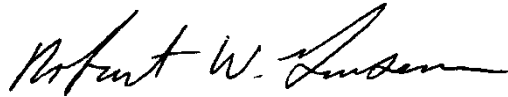
Incorporation of the BLM as the basis for copper standards has already been adopted, or is being considered, by over half the states across the country, while the current aquatic life criteria in the California Toxics Rule (CTR), used to derive freshwater copper aquatic life standards, only take into account hardness as a factor that modifies toxicity. Using only hardness as a modifying factor for metals criteria is an outdated approach that excludes a substantial body of peer-reviewed scientific literature demonstrating that additional modifying factors can and should be incorporated into regulatory benchmarks or standards, while providing the same levels of aquatic life protection required under the Clean Water Act (USEPA 1985, 1994, 2001, 2007).

Please let us know how we can assist the Board in its consideration of the BLM during this review. GEI or CDA could help in a variety of ways, including preparation of written or oral testimony supporting the technical basis of the BLM, or providing guidance on application of the BLM to water quality criteria and what type of implementation approach would best fit your available datasets.

We appreciate the opportunity to provide you with these comments in support of your proposal. Please let us know if you have any questions. We look forward to discussing this with you further.

Sincerely,

GEI CONSULTANTS, INC.



Robert W. Gensemer, Ph.D.
Senior Ecotoxicologist

RWG

cc: Joe Gorsuch, CDA
Steven Canton, GEI
John Gondek, GEI
David DeForest, Windward Environmental
Eric Van Genderen, International Zinc Association

References

U.S. Environmental Protection Agency (USEPA). 1985. Guidelines for deriving numerical national water quality criteria for the protection of the aquatic organisms and their uses. PB85-227049, U.S. Environmental Protection Agency, Washington, DC.

U.S. Environmental Protection Agency (USEPA). 1994. Interim guidance on determination and use of water-effect ratios for metals. EPA-823-B-94-001, U.S. Environmental Protection Agency, Washington, D.C.

U.S. Environmental Protection Agency (USEPA). 2001. Streamlined water-effect ratio procedure for discharges of copper. EPA-822-R001-005, U.S. Environmental Protection Agency, Washington, D.C.

U.S. Environmental Protection Agency (USEPA). 2007. Aquatic Life Ambient Freshwater Quality Criteria – Copper. EPA-822-R-07-001. U.S. Environmental Protection Agency, Washington, D.C.