

COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT 2014 TRIENNIAL REVIEW

The following representatives of organizations submitted written comments on the Draft 2014 Triennial Review

Letter	Signatory	Affiliation	Date
A	Donna Tisdale	Backcountry Against Dumps	10/29/14
B	Ken Frank	Chevron Environmental Management Company	12/18/14
C	Robert Gensemer	GEI Consultants, Inc.	12/19/14
D	Cheryl Cloud	Bard Water District	12/29/14

COMMENTS AND RESPONSES

Written comments on the Draft 2014 Triennial Review are reproduced on the following pages, along with responses to those comments, which are highlighted in bold font. To assist in referencing comments and responses, the following coding system is used:

Comment letters are coded by letters and each issue raised in the comment letter is assigned a number and the same letter (e.g., Comment Letter D, comment D-1).

Letter A

Date: October 29, 2014

To: Jose Angel, Assistant Executive Officer, RWQCB Region 7 via
Jose_Angel@waterboards.ca.gov and hand delivery at October 29th meeting in Brawley

From: Donna Tisdale & Backcountry Against Dumps; 619-766-4170; tisdale.donna@gmail.com;
PO Box 1275, Boulevard, CA 91905

RE: Triennial Review

Please include the following critical issues for consideration and prioritization in the current Triennial Review process & protection of beneficial uses:

1. The Desert Renewable Energy Conservation Plan's (DRECP) potential impacts on availability and quality of groundwater, surface waters, and the Salton Sea related to conversion of up to 2 million acres of desert lands and irrigated farmland for energy and transmission projects.
2. Lack transparency, adequate disclosure and/or public notification and involvement in DRECP and similar large-scale projects and plans.
3. The need to request an extension of the DRECP comment period by another 90 days and/or request a revised and re-circulated DEIR/EIS to ensure water use, water sources, and related are fully disclosed and analyzed.
4. The controversial and unsustainable use of groundwater resources in groundwater dependent and drought-stressed arid and semi arid areas for proposed, approved, and /or pending commercial/industrial scale energy and transmission projects and plans.
5. Require independent audit/accounting of actual versus estimated water use for commercial/industrial scale energy and transmission projects that have already been built in order to better determine the real world data for the water use for existing and future projects.
6. Recognition that SDG&E's \$425 million ECO Substation Project estimated water use at 30 million gallons but had to amend their Water Supply Plan¹ multiple times to increase supplies to 90 to 100 million gallons; they also had to curtail use of unauthorized and/or unstudied groundwater resources from Live Oak Springs Water, Jacumba Community Services District, and wells located on lands of the Campo Band of the Kumeyaay Nation, and increase water from the City of San Diego²; the estimated 1.15 million truck miles and related green house gases also increased.
7. Recognition that similar significant underestimation of water supply needs seems to be consistent and potentially manipulated by project developers / contractors to divert controversy until after projects are approved and public comment is closed.
8. Loss of irrigation drain water, tail water, and seepage flowing to the Salton Sea and other critical wildlife habitat/foraging areas due to the conversion of irrigated productive farmland into industrial energy / transmission facilities.
9. Impacts to water quantity and quality in seeps, springs, ephemeral streams, farm drains, and surface waters related to groundwater use and/or conversion of irrigated farmland for energy /transmission projects.
10. On-site and off-site impacts on soil disturbance, erosion, sediment, flood water management, change in flow, recharge, and potential contamination of ground and surface waters from large-scale energy and transmission projects

¹ http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/MPR_8_Request.pdf;

² http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/MPR%2014_SDG&E_Request.pdf

Letter A Continued

11. Audit and address the failure on the part of developers, independent consultants, contractors, decision makers to fully or adequately investigate, analyze, mitigate, implement, or enforce monitoring and reporting programs and plans
12. Fully analyze and address the disproportionate adverse and Environmental Justice impacts and considerably cumulative impacts , on the predominantly low-income communities and colonias located in Imperial and Eastern San Diego Counties, related to the current and proposed renewable energy and transmission projects and plans—that are politically driven and supported by mostly outside and vested interests.
13. Need to audit and control controversial bulk water sales for large-scale projects from independent groundwater dependent water districts and service providers located in drought stressed arid and semi-arid areas; especially for bulk sales for commercial projects that are located outside their service area boundaries.
14. Bulk water sales for large projects by the Jacumba Community Services District impact groundwater and groundwater dependent resources located up gradient in the Boulevard / McCain Valley areas where additional large-scale projects and bulk water sales are proposed; however, cumulative impacts are not addressed.
15. Unauthorized bulk water sales from the Campo Reservation wells for large-scale off-site projects have impacted groundwater and spring-fed domestic users both on and off tribal lands.
16. Address the types, components of various soil stabilizers used on tens to hundreds of thousands of acres of arid and semi-arid land in groundwater dependent communities such as Ocotillo, Boulevard, Ocotillo Wells, Borrego, and Desert Center, and on converted farmland; potential impacts to groundwater and surface waters
17. Address the handling, storage, and other uses and related impacts to groundwater and surface waters from potentially hazardous/toxic asphalt grindings produced by road upgrades, maintenance, or trenching for underground utilities, especially in groundwater dependent areas; new regulations and controls are needed.
18. SDG&E's recent trenching of 25,000 lineal feet of Old Hwy 80 and Carrizo Gorge Road in Jacumba for the undergrounding of two new 138kV lines (connected to SDG&E's ECO Substation project) resulted in 1,000 tons / 550 cubic yards of asphalt grindings that were reportedly "gifted" to and stored directly on the ground at the Jacumba Garage & Towing located in Jacumba, CA. No tests were conducted to determine what type of leach ate or runoff might be generated by this material during rainfall/storm events. No storm water management or best management practices seem to have been implemented (documented in SDG&E letter to CPUC dated October 3, 2014)
19. Jacumba Garage &Towing is located adjacent to several homes that are reliant on well water and is up gradient of more homes and wells, Boundary Creek, and the municipal wells that serve the Jacumba Community Service District.

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Response A: Commenter requests staff to evaluate water quality impacts from various environmental activities completed and proposed in Imperial County.

Comments noted. You raise several important water quality concerns. Some of these concerns will be addressed by the Triennial Review (e.g., water quality impacts to the Salton Sea from proposed solar projects), and other concerns may be addressed using our enforcement and/or regulatory authority.

Letter B



Kan L. Frank
Regulatory Affairs Manager

Chevron Environmental
Management Company
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Tel: (925) 790-3528
kfrank@chevron.com

December 18th, 2014

Ms. Joan Stormo
California Regional Water Quality Control Board, Colorado River Basin Region
72720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Subject:

Response to Public Notice No. 7-14-52: 2014 Triennial Review of the Water Quality Control Plan for the California Regional Water Quality Control Board, Colorado River Basin Region

Dear Ms. Stormo:

Chevron Environmental Management Company ("CEMC") appreciates the opportunity to submit comments / recommendations on the "2014 Triennial Review of the Water Quality Control Plan for the California Regional Water Quality Control Board, Colorado River Basin Region, Public Notice No. 7-14-52, dated October 29th, 2014".

By way of background, CEMC was established in 1998 as a subsidiary of Chevron Corporation ("Chevron"), the second-largest integrated energy company in the U.S. CEMC centrally manages the environmental remediation liabilities for Chevron Corporation, serving it in more than 50 countries worldwide. Its work includes site remediation, site assessment, facility decommissioning, well abandonment, and site operations and maintenance.

CEMC is currently managing environmental remediation projects located in the Colorado River Basin, Imperial Valley Planning Area, Area Code 723.00 Imperial hydrologic unit, under the guidance of the RWQCB and the Department of Toxic Substance Control (DTSC). In development of appropriate groundwater monitoring and remediation goals for these projects, CEMC consulted the Basin Plan to identify designated beneficial uses for surface and ground waters. The language in the Basin Plan that defines beneficial uses is not entirely clear. This letter describes the sections of the Basin Plan that are unclear, and recommends a means to clarify the plan.

The Basin Plan shows the Imperial hydrologic unit labeled as Area Code 23 on Map A in Appendix A, encompassing a large area of the New River and Alamo River watersheds in Imperial Valley. The beneficial uses of groundwater in the Imperial hydrologic unit are designated in Chapter 2, Table 2-5. Table 2-5 lists the beneficial uses as Municipal and Domestic Supply (MUN) and Industrial Service Supply (IND). The "MUN" designation is marked with a superscript for Footnote 2, which states:

"...An "X" placed under the MUN in this Table for a particular hydrologic unit indicates only that at least one of the aquifers in that unit currently supports a MUN beneficial use. For example, the actual MUN usage of the Imperial hydrologic unit is limited only to a small portion of that ground water unit."

Letter B Continued

CEMC Comments on the Colorado River Basin Plan – December 19th, 2014 Page 2

The Basin Plan does not specify where the 'limited' MUN beneficial use area is located within the Imperial hydrologic unit. CEMC's project experience in the Imperial hydrologic unit suggests that much of the groundwater in the area contains elevated concentrations of naturally occurring total dissolved solids (TDS) and/or is impacted by agricultural use that may prohibit a MUN beneficial use.

During the triennial review, CEMC asks RWQCB to consider updating the Basin Plan to specify which portion(s) of the Imperial hydrologic unit are designated for MUN and IND beneficial uses and which portions are designated for IND beneficial use only. If RWQCB cannot specify which portion(s) are designated for MUN at this time, then CEMC respectfully recommends that Footnote 2 of Table 2-5 be updated to reference the groundwater conditions for which a MUN designation would not be appropriate. Such an update would allow affected parties to analyze their own data and make a supportable request to RWQCB when defining appropriate monitoring and remediation goals.

In closing, thank you again for providing us the opportunity to submit these comments / recommendations on the 2014 Triennial Review of the Water Quality Control Plan. Please do not hesitate to contact me if you have any questions or need any clarification regarding Chevron's comments.

Sincerely,



Ken L. Frank

Response B: The commenter requests Water Board staff to update the Basin Plan to delineate the MUN and IND BUs for aquifers within the Imperial Hydrologic Unit, or in the alternative, to update Footnote 2 of Table 2-5 to reference the ground water conditions for which an MUN designation would not be appropriate.

Comment noted. The beneficial use (BU) designations for groundwater contained in the Basin Plan are presented in Table 2-5. These BUs are designated on a hydrologic unit basis rather than on an aquifer basis. In other words, if a use occurs within a single aquifer in a hydrologic unit, the entire hydrologic unit is designated with that use. Although Water Board staff finds merit in evaluating available groundwater data to determine the appropriateness of BUs and water quality standards assigned to hydrologic units, and to identify BUs of individual aquifers within hydrologic units, the Water Board's budget is insufficient to perform this task.

In regard to surface waters, the Federal Water Pollution Control Act, U.S.C. § 1251 et seq. (Clean Water Act), and Title 40 of the Code of Federal Regulations (CFR) contain the legal and regulatory criteria concerning water quality standards for surface waters (40 CFR Part 131). *Existing* BUs cannot be dedesignated unless the Water Board adds a use with more stringent criteria.

For guidance in determining whether a ground or surface water supports a MUN BU, please refer to the "Sources of Drinking Water Policy" in section IV of Chapter 2 of our Basin Plan.

Letter C



December 19, 2014

Geotechnical
Environmental
Water Resources
Ecological

Joan Stormo
California Regional Water Quality Control Board
Colorado River Basin Region
73720 Fred Waring Dr., Suite 100
Palm Desert, California 92260

Re: Proposal to Support the Use of Biotic Ligand Model for Copper Aquatic Life Criteria in Colorado River Basin Region

Dear Ms. Stormo,

We would like to participate in the upcoming California Regional Water Quality Control Board, Colorado River Basin 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 suggestions for topics to consider during the 2014 Triennial Review. The purpose of this letter is to encourage the Board to consider updating their standards to allow the use of BLM to calculate aquatic life criteria for copper, as currently recommended by USEPA.

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). Like most metals, copper toxicity is a function of its bioavailability, which in addition to being controlled by hardness, is also strongly related to other important factors such as dissolved organic carbon (DOC), alkalinity, pH, and temperature. The key strength of the BLM is that it accounts for

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Joan Stormo
Colorado River Basin Region

multiple factors—in addition to hardness—that mitigate or exacerbate copper's toxic effect on aquatic life.

Similar to copper, BLMs have been developed, validated, and are available for regulatory use for several other metals, including zinc, lead, nickel, and cadmium. While EPA has yet to develop formal recommended national ambient water quality criteria using BLMs for these other metals, the models are widely available (e.g., for zinc BLM-based criteria, see DeForest and Van Genderen 2012) and are being applied in regulatory programs in several European countries and Canada. CDA fully supports and shares their desire to move towards bioavailability models such as the BLM as being the current state of both scientific and regulatory practice.

There also are practical advantages for using the BLM; it is a cost effective regulatory tool compared to other site-specific toxicity test procedures (e.g., water-effect ratios), and the BLM software is publicly available, sanctioned by USEPA, and requires only brief training to generate rapid and useable output. While the model is widely considered to be useful for derivation of site-specific water quality criteria, we suggest its best application is on a state-wide basis for any discharger with sufficient water quality data to run the BLM. This would enable individual permit writers and permittees to collaborate directly to use the BLM to derive permit limits, thereby minimizing or eliminating the need to go through a lengthy and expensive rulemaking process. BLM-based criteria provide a practical means of deriving demonstrably more accurate levels of aquatic life protection across a broad range of water quality conditions, and with sufficient flexibility to support most any regulatory application framework.

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. CDA has also sponsored BLM training sessions over the past several years, and they have been well-attended by both regulators and the regulated community. If desired, it may be possible to provide this course or related education materials if you would find that helpful as a means of helping inform the public and stakeholders as to the basis and application of the BLM.

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.

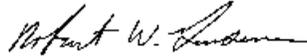
Letter C Continued

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December 19th, 2014

Joan Stormo
Colorado River Basin Region

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

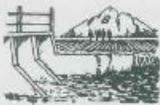
References

- DeForest, D.K., and E.J. Van Genderen. 2012. Application of U.S. EPA guidelines in a bioavailability-based assessment of ambient water quality criteria for zinc in freshwater. *Environ. Toxicol. Chem.* 31(6):1264-1272.
- 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.

Response C: The commenter requests to update the aquatic life criteria for copper to incorporate the Biotic Ligand Model.

Comment noted. The biotic ligand model (BLM) may be used as a tool in the development of site specific objectives, where appropriate and as desired by stakeholders. However, before the BLM can be applied or adopted for widespread use in the Colorado River Basin Region, it must undergo additional technical scrutiny and be validated for use in semi-arid, ephemeral western streams. Additionally, BLM results should be compared against those derived from the US EPA-approved water effects ratio (WER) method for criteria adjustment.

Letter D



BARD WATER DISTRICT

1473 Ross Road — Winterhaven, California 92283
Phone 572-0704



December 29, 2014

Joan Stormo
California Regional Water Quality Control Board,
Colorado River Basin Region
73720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Subject: Comments on Triennial Review of the Water Quality Control Plan for the California Regional Water Quality Control Board, Colorado River Basin Region.

Re: Conditional Waiver for Bard Unit Ag Dischargers R7-2013-0002

The following comments are submitted by the Bard Water District for consideration in its review of the Water Quality Control Plan (Basin Plan) which designates beneficial uses for ground and surface waters in the Colorado River Basin Region, and establishes water quality objectives and implementation plans to protect those beneficial uses

- a) **Comingled Waters:** The Monitoring and Reporting Program failed to acknowledge wastewater discharges consisting of comingled waters from sources not regulated by the Conditional Waiver. These unregulated sources include agricultural discharges from tribal lands, interceptor drains, and the All-American Canal. With the Bard Unit drainage system bordering tribal lands used for agricultural purposes, the Conditional Waiver does not provide a contingency plan to address issues that may arise from comingled drainage wastewater.
 - b) The Conditional Waiver failed to offer an alternate plan or solution for identifying responsible parties of comingled wastewater discharges from sources which the state has no jurisdiction. In the event water quality results exceed water quality standards, what action will the state take to identify the responsible party for such exceedances?
- 2) **Beneficial Uses of the State:** Once surface water discharges from the Bard Water District return to the Colorado River, there is no beneficial use of this water by the state of California. Agricultural wastewater from the District returns to the Colorado River (via Drain #4), and then flows directly to Mexico. The Bureau of Reclamation monitors the quality of Colorado River water by collecting samples for analysis from several locations along the Colorado River; sampling sites include locations above the Imperial Dam (before Colorado River water enters our system), Drain #4 outlet, and various locations at the Northern International Boundary.

Please direct any questions or comments to Ron Derma, General Manager for the Bard Water District. Mr. Derma is available to give a presentation to provide more detail on the comments listed above.

Sincerely,

Cheryl Cloud

Response D-1: The commenter requests the Water Board to address the commingling of waters from Tribal Lands into the Ag Waiver for Bard.

Comment noted. First, the Triennial Review's purpose is to determine whether the water quality objectives and beneficial uses identified in the Basin Plan are appropriate, or should be revised. Your comments pertain to the waiver that the Water Board adopted for the Bard Water District, which is not relevant to the Board's Basin Plan, or the Triennial Review. Nevertheless, the Water Board can consider your comments when the Bard Water District's waiver is due for renewal. California Water Code section 13269 specifies that agricultural waivers must be reviewed and updated at least every five years. Updated waivers may be renewed and/or amended by the Water Board after holding a public hearing. Based on your comments about the waiver, Board staff recommends revising the agricultural waiver for Bard to include the issue of commingled waters at the next waiver renewal update.

Response D-2: The commenter provides clarification on BUs of surface water discharges from Bard to the Colorado River.

Comment noted.