May 14, 2013

Chair Longley and Board Members
Ms. Pamela Creedon, Executive Director
Central Valley Regional Water Quality Control Board
1120 Sun Center Drive, #200
Rancho Cordova, CA 95670
Submitted via email to smcconnell@waterboards.ca.gov

Subject: Stakeholder Workgroup Core Team Member Support and Comments on the Drinking Water Policy Draft Staff Report and Policy

Dear Chair Longley, Board Members, and Ms. Creedon;

As you are aware, the efforts to develop the February 2013 *Draft Staff Report for the Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Establish a Drinking Water Policy for Surface Waters of the Sacramento-San Joaquin Delta and Upstream Tributaries* (Draft Staff Report and Policy) have been ongoing since 2002. The stakeholder workgroup has, over the years, included representatives of regulated dischargers, suppliers of drinking water, technical consultants, public members, regulators, and others. Workgroup meetings have been open for any interested party to attend and participate, either in person or by phone.

We have participated as part of the workgroup core team members in this stakeholder process during the multi-year effort to develop the Draft Staff Report and Policy that is currently under consideration for adoption. The stakeholder process involved a comprehensive review of data and technical documents and reports, many of which were prepared under the guidance of the workgroup. Our stakeholder members have attended numerous meetings where we have provided various resources including knowledge, technical expertise and funding to support this effort.

Although the stakeholder process has involved a significant amount of time and resources, the result is a well-planned Policy that we support as one that is based on science and that will be protective of the surface waters as intended. Through the work efforts of our stakeholder group, a tremendous amount of knowledge and information have been shared regarding water quality, water treatment, and related issues. This knowledge base and the partnerships that have been developed through the stakeholder workgroup will be useful in many other current and future efforts related to the Sacramento and San Joaquin Rivers and the Delta, including ongoing efforts that are required as part of the proposed Policy.

We have provided comments from our workgroup attached to this letter. These comments are respectfully submitted by the below-signed workgroup members for correction of, or incorporation into the Draft Staff Report. Note that green underlined text is shown for proposed text insertion and red strikethrough is shown for deletion on the attachment.

We would like to reiterate our support for the formal stakeholder process and for the Draft Staff Report and Policy.

Sincerely,

Cindy Paulson
California Urban Water Agencies

Debbie Webster
Central Valley Clean Water Association

Tony Pirondini
City of Vacaville

Lysa Voight
Sacramento Regional County Sanitation District

Tim Johnson
California Rice Commission

Bruce Houdesheldt
Northern California Water Association

Dana W. Booth
Sacramento County Department of Water Resources

Cindy Garcia
California Department of Water Resources

Attachment: Drinking Water Policy Stakeholder Workgroup Core Team Members' comments on the February 2013 *Draft Staff Report for the Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Establish a Drinking Water Policy for Surface Waters of the Sacramento-San Joaquin Delta and Upstream Tributaries*

Drinking Water Policy Stakeholder Workgroup Core Team Members' comments on the February 2013 *Draft Staff Report for the Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Establish a Drinking Water Policy for Surface Waters of the Sacramento-San Joaquin Delta and Upstream Tributaries*

Comment #1:
Add the phrase "at public water system intakes" after the word "ambient" at three locations for consistency and clarity:

Section 4.3.3 on page 21: *"Implementation requirements for the objective will include numeric ambient trigger levels* ***at public water system intakes*** *and a process for addressing trigger exceedance."*

Section 5.2 on page 42: *"To help public water systems stay in their existing bin classifications, ambient Cryptosporidium triggers* ***at public water system intakes*** *are included below based on LT2ESWTR bin classifications."*

Section 5.2 on page 46 under Antidegradation Analysis: *"In addressing Cryptosporidium and Giardia in an antidegradation analysis for evaluating the public water system component of the MUN beneficial use, the results of the downstream ambient trigger analysis* ***at public water system intakes*** *shall be considered."*

Comment #2:
On Page 49 Section 6 Proposed Basin Plan Amendment, in the *"Footnote for existing Chemical Constituents narrative objective,* delete the word "all", as this effort has focused on key drinking water constituents of concern.
*Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.**
This includes* ~~*all***~~ *drinking water chemical constituents of concern, such as organic carbon."*

Comments 3 and 4 are intended to clarify within the Staff Report and Policy that reasonable potential is applied at drinking water intakes and not at the end of a discharge pipe for NPDES permittees.

Comment #3:
Modify the second paragraph in Section 5.1.1 Federal Regulations and Guidance on page 41 as follows:

Change the first sentence of the second paragraph to add the text as shown below:

"Title 40 CFR Section 122.44(d)(1)(ii) sets forth the criteria for establishing a procedure for determining whether a discharge has a reasonable potential to cause or contribute to a violation of water quality standards."

Also, add the following sentence to the end of the second paragraph in Section 5.1.1:

"This policy through its actions to interpret and evaluate compliance with the Proposed Cyrptosporidium and Giardia Water Quality Objective (see section 5.2 below) establishes procedures for determining reasonable potential under 40 CFR section 122.44(d)(1)(ii) that apply only to such determinations with respect to the Proposed Cyrptosporidium and Giardia Water Quality Objective."

Comment #4:
Add the following sentence to the end of the first paragraph in Section 8 Drinking Water Policy Implementation on page 52 to clarify that reasonable potential for NPDES permittees will be based on application of the numeric triggers at the drinking water intakes, and will utilize the process described in the basin plan amendment for these specific drinking water constituents rather than determining reaseonable potential at the point of discharge using other processes and procedures often employed by the Regional Water Board:

"For NPDES permittees, the numeric triggers as applied at the public water system intakes are part of the Regional Water Board's procedures under 40 CFR § 122.44(d)(1)(ii) for determining whether a discharge has reasonable potential."

Comment #5:
Regional Water Board staff consulted productively with representatives from Agriculture on how best to represent costs for potential management practices that could be needed to control pathogen loading from agricultural lands. The suggested language below incorporates the results of our discussions, addressing;

1) development cost for management practices (there is no change from those cited in the Draft Staff Report),
2) land value of areas where management practices are located (reflected as a broad range due to uncertainty as to their location), and
3) monitoring, operation, and maintenance costs for these lands.

To incorporate these ideas, please modify Section 4.5.3 (Water Quality Conditions That Could Reasonably Be Achieved) under the subheading "Agricultural Lands" on Page 37 by deleting the two paragraphs in this section and replacing them with the following text:

"In the event that pathogen loading from agriculture (including irrigated and non-irrigated crop, and livestock operations) must be reduced, this can be achieved by using a combination of irrigation management, livestock and grazing management, vegetative filters such as filter (or buffer) strips (Knox, et al., 2007), and possibly other measures affecting runoff or how it is routed downstream of fields, pastures, and rangelands (DiGiorgio, 2002). For example, relatively small filter strips (~ 3m or ~10 ft in length along flow lines) have been shown to remove up to 99.9% of Cryptosporidium parvum oocysts from storm runoff generated during mild to moderate precipitation events (Atwill, 2002). However, the effectiveness of filter strips varies according to soil slope, soil infiltration rate, and flow rate. The pathogen load and removal efficiency of filter strips depend on factors such as livestock densities, runoff residence times in

filter strips, irrigation timing, and irrigation duration (George, 2011). As another example, studies have shown constructed wetlands to improve water quality and remove Cryptosporidium and Giardia from pasture and dairy runoff (Knox et al., 2008; Hogan et al., 2012).

A comprehensive listing of potential management practices, or a description about how, if necessary, they might be arrayed on the landscape is beyond the scope of this report."

Also, please modify Section 4.5.4 Economic Consideration, under the "Agricultural Lands" subheading on page 39, by deleting the two paragraphs in this section and replacing them with the following text:

"Considering the effectiveness demonstrated for filter strips in removing Cryptosporidium, they are one possible management measure that could be used to treat runoff, including that coming from rural lands. Other measures have been identified (e.g., irrigation and grazing management, treatment wetlands), and more may be identified in the future. Optimal measures actually vary substantially depending on field conditions, location, topographic setting, crop or livestock operation type, season, climate, etc. For example, when attempting to avoid pollutant transport to streams from grazed lands, animal exclosure (fencing with alternative watering points) and rotation of grazing to non-irrigated areas are frequently more effective than filter strips. There are many such examples. Thus, the optimal application of such measures (if and where necessary) requires site-specific knowledge. More importantly, current water quality data do not suggest that widespread implementation of measures beyond current practice would ever be needed.

Nevertheless, since the actual future need for and configuration of such management practices are currently unknown, a placeholder example involving a substantial complex of filter strips along waterbodies has been developed for the purpose of calculating a representative range of costs for source control from irrigated (including agricultural) lands.

The ability of rural land managers to finance such measures (including costs for the land required) varies widely. Filter strips are usually at least 12 feet wide and often 30 to 40 feet wide. In 2006, average costs to develop filter strips were about $750 per acre (Yolo County RCD website, 2012). Land costs for such facilities could range from $5,000 per acre (least costly field crops and infrastructure) to over $20,000 per acre (most costly permanent crops and infrastructure).

At this time, no additional requirements are being placed upon agricultural land managers as part of the proposed project. Furthermore, funding of such hypothetical facilities might come from many sources (special districts, coalitions, joint ventures among interested parties, grant funds, incentives, etc.), and not necessarily from owners of affected lands upon which source control facilities would be located. Since a

situation could arise in which a trend of increasing pathogen concentration at public water system intakes were attributable to rural land sources, it is useful to contemplate the potential cost to implement these types of facilities.

In the event of exceedances of the proposed numeric trigger and implementation of this type of mitigation as a corrective action (see Figure IV-I: Schematic Overview of Actions prompted by Cryptosporidium Trigger Exceedance), potential costs to develop filter strips in a 10-foot-wide filter strip along both sides of one percent of the approximately 38,000 stream-miles in the Central Valley (along 760 miles of shoreline) would be about $690,000, with total land values ranging from $6.7 M to $15 M (representing an average value range from $8,000 to $14,000 on 921 acres). Annual operations, maintenance, and monitoring of these facilities were estimated at approximately $138,000 (20% of the initial development cost). Sensitive reaches along waterbodies in the Central Valley might also fall into non-agricultural areas, where other measures (rather than filter strips) might be more appropriate. Again, this calculation is intended to illustrate the cost of protecting water bodies along a substantial length of sensitive shoreline. It is not considered to represent a probable future condition."