February 3, 2015

Robert Schlipf, P.E.
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Responses to Scoping and Evaluation Plan Conditional Approval Letter dated January 9, 2015

Dear Mr. Schlipf:

In accordance with the letter from the Water Board Executive Officer on the above subject, we are responding to you regarding the three conditions of approval discussed in the January 9, 2015 letter to the BACWA membership. In two separate conference calls (January 21, 2015, and January 28, 2015) involving BACWA, HDR, and the Water Board staff, I believe that we have reached agreement on how to proceed regarding the three conditions. We plan on proceeding as follows:

Condition #1: Approach to dealing with growth as it relates to the Optimization Studies.
The agreed upon approach is to review each individual plant's documented plans for future growth and record existing flows and BOD/nutrient loadings in 2015 and also what they are projected to be in 2025. For plants where no documentation exists, a 15% increase in BOD/nutrient loadings will be assumed for the 10 year period, and no increase in flows. This data will be provided in a table for all of the major plants identified in the Nutrient Watershed Permit. It is expected that some plants plan for more growth than other plants and that some plants will be projecting little or no growth during the 10 year period.

Each plant will be made aware of the fact that, at some point in the future, regulations may require no net increases in discharges of nutrients to the Bay or individual subembayments of the Bay. If this regulatory mandate occurs, individual plants will need to decide how best to meet those regulations. Capacity set aside for future growth will subtract from capacity available for future nutrient reductions utilizing existing facilities (i.e. optimization) and thus future growth allowances could lead to sooner than anticipated upgrades to plants. The estimated amount of nutrient reductions through optimization and the associated costs for the optimization for each plant will be documented in the report.

Condition #2: Recommended next steps for pursuing innovative technologies.
The study will focus on conventional technologies for optimizing and upgrading plants, however, innovative technologies will also be evaluated for each plant. The two most promising innovative technologies for each individual plant will be identified. The pros and cons of using those technologies at a specific plant will also be discussed. The discussion will include the potential for achieving lower nutrient loadings, via enhanced treatment, to receiving waters should the innovative technology prove to be reliable and cost effective. In addition, there will be recommendations for specific steps a utility could take as the innovative technologies become better understood and begin to be implemented at similar plants across the country and around the world. These steps may include additional testing (i.e. bench and pilot testing) and other activities that would be needed to prove the feasibility of an innovative technology at a particular plant and to develop design criteria and costs for implementing the technologies.

Costs for pursing the additional steps, including testing, will be identified in the report. It is premature at this point to speculate on the costs for full scale implementation of innovative technologies due to their on-going development and given the lack of feasibility testing. Individual plans will need to undertake development of design data when the innovative technologies have progressed to the point of beginning to be more broadly implemented.

Condition #3: Identification of the appropriate lowest level of nutrient discharge concentrations upon which to conduct the treatment upgrade assessments.
The Plan proposed to set a target of 6 mg/l TN as the lowest level for effluent nitrogen concentration from an upgraded plant. This target was selected based on an assessment of the capabilities of conventional nitrogen reduction technologies in a Northern California climate. To target a level wherein lower effluent nitrogen concentrations could be reliably met (i.e. 3-4 mg/L TN) would require additional levels of treatment (i.e. carbon addition, filtration, etc.) such that implementation costs would be significantly increased. Given the current uncertainty associated with the scientific studies analyzing impacts to the Bay from a wide variety of loadings, and the few plants that currently treat for nutrients, it seemed reasonable, for an initial assessment to set a target level for nutrient reduction consistent with what could be achieved by convention treatment applied at all plants around the Bay.

Innovative technologies that are emerging offer the hope of achieving even lower levels of nutrient discharges from treatment plants in a cost effective manner. As part of the assessment of innovative technologies applicable to specific plants, the consultant will provide what lower levels of nutrient reductions might possibly be achieved should the innovative technology prove to be feasible for full scale implementation.

To provide closure to the conditional approval allowing BACWA to move forward with the conduct of the Optimization/Upgrade investigations, we request that the Water Board signify your acceptance of the above approaches for meeting the conditions outlined in your January 9, 2015 letter.

We appreciate the collaborative effort with the WB in working through the details of conducting these important studies and are anxious to provide notice to proceed to our consulting team. If you have any questions regarding these responses to the conditional approval letter, please contact me at 925-765-9616 or dwilliams@bacwa.org.

David R. Williams

David R. Williams

Executive Director
Bay Area Clean Water Agencies (BACWA)

Cc: Thomas Mumley, Naomi Feger, Bruce Wolfe, Robert Schlipf, Lila Tang, William Johnson