July 20, 2015

J. Steven Williams, P.E.
District Engineer
State of California Water Resources Control Board
Division of Drinking Water
1350 Front Street, Room 2050
San Diego, CA 92101

Dear Mr. Williams,

COMPLIANCE ORDER NO. 05-20-15R-001

By the letter dated April 30, 2015, the State Water Resources Control Board (Board) issued a Compliance Order to the Coachella Water Authority (CWA) requiring a Corrective Action Plan (CAP) identifying improvements to the water system to correct the violation of the hexavalent chromium maximum contaminant level (MCL). This letter outlines CWA's CAP, including a time schedule for completion of each project phase and a date for completion at which CWA will be in compliance with the hexavalent chromium MCL.

Background

The CWA system is comprised of six (6) groundwater wells with a total pumping capacity of approximately 17.6 MGD. Currently, all 6 CWA wells are in operation and used to meet current water demands. All 6 wells have Cr6 concentrations above 10.4 µg/L, are out of compliance, and will require treatment to meet the hexavalent chromium MCL.

Corrective Action Plan (CAP)

The CAP is comprised of six phases: evaluation, funding, permitting and design, contractor selection, construction, and start-up. As all CWA wells require treatment, it is planned that all wells will be addressed in parallel during each project phase. The schedule for the CAP is depicted in **Table 1**.

Phase 1 – Alternatives Evaluation

During the evaluation phase, a Compliance Study is conducted to identify treatment requirements, recommend the most applicable treatment approach for impacted wells, and develop preliminary cost estimates that can be used for project budgeting. The Compliance Study for CWA has been underway since 2014 and a draft Study report is currently undergoing review (final report can be provided once complete). The Compliance Study recommended strong-base anion exchange as a treatment technology for all CWA wells based on effectiveness of the technology for the water quality, cost, and minimizing water losses during treatment. The estimated capital cost for CWA is $14M to $19M (up to $25M given

planning level cost range accuracy) with annual O&M costs ranging from $1.6M to $1.8M. These are the projected costs for treating five CWA wells, as the sixth well is planned to be inactivated in the future.

There are multiple options for implementing SBA at CWA well sites, which require further evaluation prior to final selection by conducting an operational evaluation. An operational evaluation is planned that will further assess available SBA options for CWA wells. This evaluation will include an assessment of SBA waste brine management options to determine the best long-term approach for CWA. In addition to this effort to select the most feasible SBA treatment approach, CWA will be evaluating various project delivery methods. Alternative project delivery approaches will be explored to maximize value added to the treatment facility design and to assess the impacts on the project schedule.

Phase 2 – Project Funding

As a disadvantaged community, CWA does not have the available funds to construct the treatment projects that are required for hexavalent chromium compliance. CWA began discussions and will continue to work closely with the State to identify and pursue available grants and financial assistance.

Phase 2 – Permitting and Design

Permitting coordination has the potential to significantly impact the project schedule. Evaluation of permitting requirements for the treatment facilities will be conducted along with California Environmental Quality Act (CEQA) requirements in conjunction with design. Design for all CWA wells will be completed in parallel and delivery packages of 30%, 60%, and 100% are planned.

Phase 3 - Contractor Selection

The bidding and selection process for the contractor following the traditional design-bid-build approach will occur upon completion of the design phase; however, if alternative project delivery is used, a contractor may be selected earlier to work alongside the design engineer.

Phase 4 – Construction

Construction of the treatment facilities will begin upon completion of the design phase. If alternative project delivery is used, some site work may begin in parallel with final design.

Phase 5 - Start-Up and Commissioning

Upon completion of construction, treatment facilities will go through a start-up and commissioning period to demonstrate performance. Upon successful start-up and commissioning of the treatment systems, operations of the facilities will be turned over to CWA. Compliance with the hexavalent chromium MCL in July 2019 is planned.

Table 1. CAP Completion Schedule

	Completion Date (End of Month)	2015		2016				2017				2018				2019			
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Phase 1 – Evaluation	December 2015																		
Compliance Study	August 2015																		
Operational Evaluation	December 2015																		
Project Delivery Approach	December 2015																		
Phase 2 – Funding	December 2016																		
Applications	December 2015																		
Approvals	December 2016																		
Phase 2 – Permitting and Design	September 2017																		
Permitting	September 2017																		
30%	September 2016																		
60%	March 2017																		
100%	September 2017																		
Phase 3 – Contractor Selection	December 2017																		
Phase 4 - Construction	July 2019																		
Phase 5- Start-Up	July 2019																		
Compliance	July 2019																		

Next Steps

CWA will present this CAP to the Division at the Division's San Diego office. Upon approval of the CAP, CWA will submit quarterly progress reports summarizing the actions taken to comply with the CAP.

Sincerely,