



## **State Water Resources Control Board**

Division of Drinking Water

June 29, 2016

Scott Rogers
Utilities General Manager
Coachella Water Authority
53-462 Enterprise Way
Coachella, CA 92236

Dear Mr. Rogers:

# COACHELLA WATER AUTHORITY, SYSTEM NO. 3310007 HEXAVALENT CHROMIUM COMPLIANCE PLAN

The State Water Resources Control Board, Division of Drinking Water, has reviewed the Coachella Water Authority's (CWA) Hexavalent Chromium Compliance Plan submitted on March 9, 2016. The Compliance Plan describes the actions that will be taken by CWA to return the system to compliance with the Chromium-6 MCL. A Copy of the Compliance Plan is attached for reference.

The Division hereby accepts CWA's Compliance Plan and requests the following information:

1.) Please provide a Hexavalent Chromium Public Notice to the Division for review and approval, prior to sending it to your customers, or no later than July 30, 2016, whichever comes first. Information regarding hexavalent chromium public notice language is posted on the Division website at:

## http://www.waterboards.ca.gov/drinking\_water/certlic/drinkingwater/Chromium6.shtml

- 2.) Please submit an initial status report on or before August 10, 2016 and a subsequent status report to the Division on or before the 10<sup>th</sup> day of the first month of each calendar quarter (i.e. October, January, April, July). The status report must contain the status of all Compliance Plan activity which took place in the previous calendar quarter which includes but it's not limited to:
  - a. A description of the work completed on each task/subtask identified in the compliance plan since the last status report,
  - b. The percentage of completion for each task/subtask,
  - c. A description of any factors which could prevent the system from achieving compliance by the date specified in the approved compliance plan,

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR



- d. Any requests for revision of the approved compliance plan found necessary to achieve compliance with the hexavalent chromium MCL by the earliest feasible date, and
- e. Results of all hexavalent chromium source monitoring and running annual average determinations since the last status report.

If you have any questions regarding this letter, please contact Manuel Delgado, or me, at (619) 525-4408.

Sincerely,

J. Steven Williams, P.E.

**District Engineer** 

Enclosure: CWA's Approved Hexavalent Chromium Compliance Plan

County of Riverside, Department of Environmental Health (via email w/o attachments) File – Correspondence (w/o attachments)

Berlinda Blackburn, Environmental Programs Manager, Coachella Water Authority, 53-462 Enterprise Way, Coachella, CA 92236 (via email w/ attachment)

Richard Perez, Water Superintendent, Coachella Water Authority, 53-462 Enterprise Way, Coachella, CA 92236 (via email w/ attachment)





PHONE (760) 398-3502 • FAX (760) 398-8117 • WWW.COACHELLA.ORG

March 10, 2016

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,

#### **HEXAVALENT CHROMIUM COMPLIANCE PLAN**

On April 30, 2015, the State Water Resources Control Board Division of Drinking Water (Division) issued Compliance Order No. 05-20-15R-001 to Coachella Water Authority (CWA) for violation of the hexavalent chromium (Cr6) maximum contaminant level (MCL) and on July 20, 2015 CWA submitted a Corrective Action Plan (CAP) describing actions to be taken to return the system to compliance.

On September 4, 2015, Senate Bill 385 (SB385) was signed by the Governor, authorizing the Division to grant additional time for public water systems to come into compliance without being deemed in violation of the MCL. Specifically, SB385 requires a Compliance Plan that will bring the system into compliance as soon as possible, but no later than January 1, 2020. The Division accepted CWA's CAP as an initial draft Compliance Plan and is in the process of rescinding Compliance Order No. 05-20-15R-001, so that CWA is not reported as having incurred a Cr6 MCL violation. This Compliance Plan builds upon the previously approved CAP, addressing the additional content requirements outlined in SB385.

### **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 the Cr6 MCL, and will require treatment to meet the Cr6 MCL.

Prior to and since the adoption of the new Cr6 MCL, CWA has been proactive in preparing to meet the standard. CWA completed a Hexavalent Chromium Treatment and Compliance Study that reviewed best available technologies for CWA wells (copy of the final study report is available from CWA). All of CWA's wells are impacted by Cr6, so CWA does not have the ability to operate by turning off impacted wells and there are not opportunities to blend with nearby compliant wells. Well modification is also

is no evidence that zone selection would produce compliant water. CWA wells will require treatment for compliance and strong-base anion exchange (SBA) was recommended 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. CWA does not have the available funds to construct the treatment projects that are required for Cr6 compliance. Identifying the funding needed to support the design, environmental planning, and construction of treatment facilities will take time as outlined in the Compliance Plan below.

### **COMPLIANCE PLAN**

The compliance plan outlines actions CWA is taking and will take to comply with the Cr6 MCL. The plan is comprised of eight phases: study, funding, design, environmental review, land acquisition, contractor selection, construction, and testing.

### Phase 1 – Study

CWA has already completed a Hexavalent Chromium Treatment and Compliance Study that recommended SBA as a treatment technology for CWA wells. There are multiple options for implementing SBA at CWA well sites, which required further evaluation prior to final selection by conducting an operational evaluation. This evaluation is currently underway and includes an assessment of SBA waste brine management options to determine the best long-term approach for CWA. The treatment facilities will be selected based on life cycle cost analysis.

#### Phase 2 - Funding

The estimated capital cost for CWA is \$10M to \$29M (given planning level cost range accuracy and the variation among feasible alternatives). These are the projected costs for treating five CWA wells, as the sixth well is planned to be inactivated in the future. As a disadvantaged community, CWA does not have the available funds to construct the treatment projects that are required for Cr6 compliance. CWA has contracted with Hazen and Sawyer to conduct an operational study that is evaluating the lowest cost alternatives. A rate study is also planned that will identify the financial burden that must be passed on to CWA customers. CWA plans to fund the Project using California DWSRF grants or loans, as well as a grant through one or more of the Prop 1 programs. A potential source of grant/loan funding for this project that is administered by the State Water Resources Control Board is the Proposition 1 Groundwater Sustainability Program. The finalized grant funding guidelines and applicability criteria for the planning and construction of Cr6 treatment facilities under this program directly impacts the project schedule and these compliance plan milestones. CWA began discussions, submitted pre-applications, and will continue to work closely with the State and Federal entities to identify and pursue available grants and financial assistance.

### Phase 3 – Design

Design for all CWA wells will be completed in parallel in preliminary and detailed design phases.

## Phase 4 - Environmental Review

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.

## Phase 5 - Land Acquisition

Existing CWA well sites have limited footprint for treatment equipment and at least one well will require additional land to be acquired. Also, CWA is evaluating the potential for a centralized treatment facility that could treat multiple wells. Time for land acquisition is included in conjunction with the design phase to allow for property to be acquired and if needed for a siting study to be performed.

#### Phase 6 - 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 7 - 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 8 - Testing

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 Cr6 MCL on or before January 1, 2020 is planned.

#### **MILESTONES**

- Complete Study March 2016
- Complete CEQA Certification- December 2017
- Design Substantially Complete- December 2017
- Complete Grant/Loans Application- December 2017
- Start Construction April 2018
- Begin Operating in Compliance with Cr6 Standard- December 2019

Table 1. Compliance Plan 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
Public Notice	Twice Annually					•			•		•		•		•				0
Phase 1 – Study	December 2015																		
Compliance Study	August 2015		73	77															
Operational Evaluation	March 2016		- 99																
Phase 2 – Funding	December 2017																		
Rate Study	September 2016					0.1													
Grant/Loan Application Submittal	December 2017																		
Phase 3 –Design	December 2017																		
Preliminary Design	March 2017																		
Detailed Design	December 2017								33										
Phase 4- Environmental Review	December 2017																		
Permitting and CEQA	December 2017									TV		9							
Phase 5 – Land Acquisition	December 2017																		
Phase 6 – Contractor Selection	March 2018																		
Phase 7 - Construction	September 2019		-									-	0.00	35				2018	
Phase 8 - Testing	December 2019																		
Begin Operating Facilities in Compliance with Cr6 Standard	December 2019																		-

## **PUBLIC NOTICE**

Once approved, CWA will submit a written status report to the Division quarterly and will provide written notice regarding the compliance plan to the persons served by the public water system at least two times per year. The current planned method of delivery for these notices is a printed bill insert and also post them on the City of Coachella's website. Delivery of public notices is planned for the following dates:

- July 2016
- December 2016
- June 2017
- December 2017
- June 2018
- December 2018
- June 2019
- December 2019

Sincerely,

David Garcia City Manager