

Results of the Comprehensive Performance Evaluation of Camino Real Rural Utility Authority Four Arsenic Treatment Facilities

Camino Real Rural Utility Authority
4950 McNutt Rd
Sunland Park, NM 88063

May 28 – 30, 2024



Prepared By:

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SITE VISIT INFORMATION

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Date of Site Visit:

May 28 – 30, 2024

Otter River Water Treatment Plant Personnel:

Eric Lopez (WS 4) and Raul Rangel (WS 2), Bridel Facility Ops (under contract)
Ernesto Carranza – Water Lead Operator (WS 4)
Andy Dozal – Well Maintenance and Operations

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COMPOSITE CORRECTION PROGRAM (CCP) BACKGROUND

The CCP is an approach developed by the U.S. Environmental Protection Agency (U.S. EPA) to improve the performance of treatment plants to achieve compliance with drinking water regulations. It is a systematic, comprehensive procedure to identify the unique combination of factors in the areas of design, operation, maintenance, and administration that may limit performance of the treatment plant. The CCP consists of two components:

1. A Comprehensive Performance Evaluation (CPE), which is an evaluation of the existing treatment plant, and
2. A Comprehensive Technical Assistance (CTA), which is a facilitated procedure to address issues identified in the CPE and help improve performance of the plant.

The CCP is based on a fundamental relationship among the four key areas that are shown in Figure 1. The CPE provides a comprehensive assessment of the existing unit processes, administrative support, and operation and maintenance practices. The goal is to evaluate the impact of each of these elements on the performance of the treatment plant and its ability to provide safe and reliable drinking water. The CPE also includes an assessment of the plant staff's ability to effectively apply process control principles that are critical to proper operation.

The CPE includes a comparison of the plant's current performance to optimized performance goals. The objective of the CPE is to provide the plant staff and administrators a prioritized list of items limiting optimized performance. Once identified, the plant staff can often accomplish improvements. In the case of difficult-to-address factors, a CTA facilitated by a third party may be helpful.

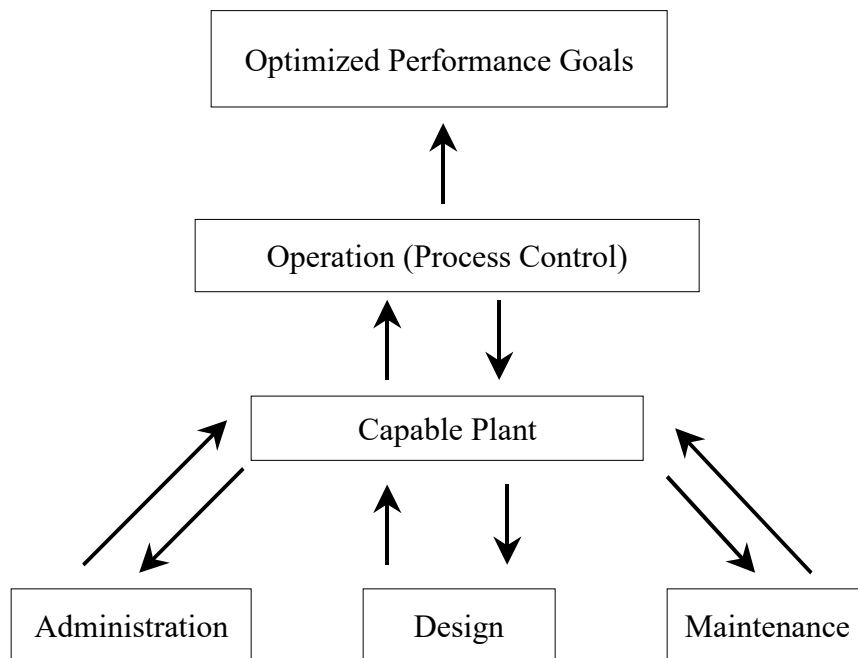


Figure 1- Comprehensive Performance Evaluation

The CPE process was applied to the evaluation of the four arsenic treatment facilities currently serving Camino Real Rural Utility Authority (CRRUA). The goal of the evaluation is to encourage production of high-quality treated water that is reliably and consistently below the arsenic maximum contaminant level (MCL) of 10 parts per billion (ppb) as established in the Safe Drinking Water Act (SDWA).

PROJECT BACKGROUND AND PURPOSE

On January 22, 2001 the US EPA established a new MCL for arsenic, lowering the level from 50 ppb to 10 ppb for all regulated community and nontransient noncommunity public water systems. New Mexico Environment Department (NMED) adopted this standard by reference. Given CRRUA's classification as a community water system, it is required to comply with the revised arsenic MCL of 10 ppb. CRRUA has naturally occurring arsenic in its wells above the arsenic MCL and therefore, was required to install treatment. CRRUA currently operates and maintains four arsenic treatment facilities (ATFs) to remove the arsenic prior to serving the water to its customers.

Arsenic is a health concern given long-term exposure to drinking water with arsenic above 10 ppb can cause:

- Skin thickening and discoloration.
- Bladder, lung, skin, kidney, nasal passages, liver, and prostate cancer.
- Stomach pain, nausea, and diarrhea.
- Cardiovascular health complications.
- Neurological complications and numbness.

CRRUA experienced exceedances of the arsenic MCL in 2023 and 2024 and NMED issued a number of Notice of Violations (NOV) to CRRUA. NMED conducted two site visits to CRRUA in December 2023:

- NMED conducted a site investigation on December 2, 2023 to follow-up on a call from CRRUA regarding high pH values (reported values of 10.68 for pH, well above the secondary MCL of 8.5) in the Industrial Park distribution system. The site investigation revealed a pH probe failure at the Industrial Park ATF resulted in excessive overfeed of caustic soda, causing the finished water sent to customers to have a slimy consistency and elevated pH values. The lack of controls and alarms at the plant, along with insufficient and properly trained operators to oversee the treatment plant, were identified as contributing to this event. NMED issued NOVs in connection with this situation.
- NMED conducted a regularly scheduled sanitary survey on December 5 and 6, 2023 and identified 58 significant deficiencies, some of which are related to the arsenic treatment facilities. CRRUA is actively addressing these significant deficiencies.

As of May 2024, CRRUA has one unresolved arsenic violation with an arsenic running annual average (average of past four quarters of arsenic samples taken) of 28 ppb at the Industrial Park ATF (see Appendix A). Recent arsenic samples at the Industrial Park ATF indicate the plant is producing water below 10 ppb. All other water treatment plants are in compliance with the arsenic MCL based on recent compliance monitoring records. A recent press release from CRRUA provides the most recent sample results based on analysis conducted by an accredited drinking water laboratory (see Appendix B).

This CPE was conducted at the request of NMED in response to recent challenges and arsenic compliance issues at CRRUA in an effort to identify performance limiting factors. The CPE evaluated CRRUA's management and operations, along with a technical evaluation of each water treatment facility's performance to achieve finished treated water that is consistently and reliably below the arsenic MCL of 10 ppb. CPEs can also focus on optimization of treatment plants, but the focus of this CPE was compliance and optimization efforts are to be addressed later. Also, NMED currently lacks arsenic optimization performance standards but is in the process of developing and adopting such standards.

CRRUA GENERAL INFORMATION

CRRUA was created in 2009 under a Joint Powers Agreement between City of Sunland Park and Dona Ana County and is governed by a seven-member board. CRRUA incorporated four existing water systems into one ownership structure: Sunland Park Water System, Santa Teresa Water System, Santa Teresa Industrial Park and the Dona Ana County Utilities Border Region.

The authority was created to provide two primary functions¹:

1. Create an independent Water and Wastewater Utility Authority to serve the City of Sunland Park and a defined service area within the unincorporated Southern Dona Ana County.
2. Provide development oversight to include subdivisions, zoning, as well as planning and platting for all development activity within its defined service area.

The board recently made changes to the board composition based on recommendations in the Garza and Associates May 2022 assessment:

- Three board members are from Dona Ana County, with one elected and two appointed.
- Four board members are from Sunland Park, with one elected and three appointed.
- All appointed board members are required to have a technical background, such as experience as an operator or an engineer.

Other recent improvements include board orientation and training, the removal of development oversight from CRRUA's responsibility, and hiring a new executive director. Appendix C shows the current organizational chart. As seen, approximately half of the water system staff positions are vacant. The executive director is actively filling positions, with plans to fill the operations manager soon.

CRRUA's most recent budget is presented in Appendix D and the rate structure is available in Appendix E. The residential water rate is scheduled to increase from \$15.00 to \$17.83 per month for the first 3,000 gallons used starting July 1, 2024. This rate increase was scheduled to occur in 2019 but the previous board did not take appropriate action to implement this rate increase. Dona Ana County fiscal staff support CRRUA with financial operations. According to Dona Ana County, CRRUA is actively addressing delinquent accounts in an effort to improve bill payment and revenues. The amount of the current water rate dedicated to operation and maintenance (O&M) versus debt

¹ Garza and Associates, LLC. May 2022. *Camino Real Rural Utility Authority Assessment*.

service payment is not known, but a rate study is scheduled to occur to better define O&M costs. CRRUA currently has approximately \$4.5 million in reserves in the water fund; this funding is dedicated to media replacement and other water system improvements. CRRUA had four findings in its 2023 audit and more information on the audit is available online

(<https://osaconnect.osa.nm.gov/auditReportSearchDetail.aspx?id=46203B27-D6E7-4C4C-A1F4-7745F0AC0D3B&type=>).

CCURA FACILITY INFORMATION

CRRUA water system consists of 10 wells, four ATFs, storage tanks, pumps, and distribution system. The population served is approximately 20,000 and is a mix of residential, commercial, and industrial customers. The CPE was focused on the current status and performance of the four ATFs. Treatment at three of the four ATFs consist of (in order of chemical feed):

1. Chlorination at the wellhead to oxidize arsenic and to maintain a free chlorine residual through treatment to distribution.
2. Sulfuric acid feed to lower the pH and promote precipitation of arsenic.
3. Ferric chloride injection to promote arsenic precipitation into filterable particles.
4. Filtration for removal of particles.
5. Caustic soda feed to increase the pH for corrosion control within the distribution system.

The three ATFs practicing oxidation/coagulation/filtration with pH adjustment are:

- Sunland Park ATF, rated at approximately 2 million gallons per day (MGD). This plant was placed into service in 2011. This plant can be fed by Wells (using NMED's facility naming convention) 2 (SP), 3 (SP), 4 (SP), 11A (SP), 19A (STWS) and 30A (STWS); currently Wells 2 (SP), 4A (SP), and 11A (SP) are offline and are in need of repairs or a new pump. Wells 19A (STWS) and 30A (STWS) are the main wells, operating continuously to serve both Sunland Park and Santa Teresa Community ATFs. See Appendix F for the system schematic and data collection forms with detailed information. The filter media has an estimated expected life of over 10 years (per the O&M Manual) and CRRUA has documentation of media loss. CRRUA is using reserves to replace the media. This plant is designed with the ability to bypass a portion of the well water to later be blended with the treated water, with a maximum bypass allowed of 25% of the total flow to the plant. Recycle of settled spent filter backwash occurs at the plant. The recycle pumps are manually activated one day after a backwash to ensure that only the supernatant is recycled back to the head of the treatment process at a flow of approximately 70 gallons per minute (gpm).
- Industrial Park ATF, rated at approximately 3.6 MGD. This plant was placed into service in 2013. This plant can be fed by Wells (using NMED's facility naming convention) 5 (STIP), 6A (STIP), and 14 (STIP); currently Wells 5 (STIP) and 14 (STIP) are offline, but at the time of the CPE the pump in Well 5 (STIP) was being replaced and scheduled to be back in service within a few days. Well 5 (STIP) has the highest concentration of arsenic of all wells, with a concentration of approximately 42 ppb. See Appendix G for a schematic of this plant and data collection forms with detailed information. The filter media is scheduled for replacement and CRRUA is using reserves to replace the media. Bypass is not

practiced at this plant given the high arsenic concentrations in the well water. Recycle can occur, but is currently not practiced as the contract operator has concerns with the plate settlers and quality of the settled spent filter backwash.

- Santa Teresa Community ATF, rated at approximately 3.5 MGD. This plant was placed into service in 2015. This plant can be fed by Wells (using NMED's facility naming convention) 8 (STWS), 11A (SP), 19A (STWS), 30A (STWS), and 31 (STWS); currently Well 11A (SP) is offline and is in need of repairs or a new pump. See Appendix H for a schematic of this treatment plant and the data collection forms with detailed information. This plant is designed with a bypass capability limited to 23% of the total raw water flow at the plant and bypass was occurring at a rate of 109 gpm during the site visit. Recycling of the settled backwash water occurs as part of regular operations and the pump conveying the recycle flow is set at 175 gpm. Recycling of the settled backwash water was occurring during the site visit.

The fourth plant, referred to as the Border ATF, is rated at approximately 1.1 MGD. The treatment plant is operated at less than half this flow currently. This treatment plant consists of chlorination to oxidize the arsenic and filtration with proprietary adsorptive media. This treatment plant is the only facility of the four with a generator to provide emergency power operations in the event of a power outage. This plant was placed into service in February 2024. This plant can be fed by Wells (using NMED's facility naming convention) 1 (STBC), 2 (STBC), and 3 (STBC); currently Wells 1 (STBC) and 2 (STBC) are out of service and are in need of repairs. CCRUA is considering redrilling Well #2. Well #3 has diminished in production over the years and currently is able to provide approximately 500 gpm. See Appendix I for a plant schematic and the data collection forms with detailed information. The filter media at this plant is estimated to have the ability to treat 92 million gallons of water. The current use of water at this plant is approximately 1.5 to 2.0 million gallons per month. The plant is designed with a bypass, but bypass is not currently practiced. Recycle of settled spent filter backwash does not occur. The spent filter backwash is sent to a pond for settling, and then evaporated (this practice does not coincide with the O&M manual that shows spent filter backwash discharges to a nearby sanitary sewer). Backwash occurs every two to three months, so the volume of backwash is small in comparison to the other treatment plants.

Bridel Facilities Ops currently provides the lead operator position under contract (Eric Lopez, Water Supply Level 4 licensed treatment operator). Mr. Lopez developed a Standard Operating Procedure (SOP) for the three plants providing oxidation/coagulation/filtration with pH adjustment, along with other SOPs (see Appendix J). In addition, Mr. Lopez developed daily log sheets for operators to use each day for the recording of critical information at each ATF (see Appendix K). Mr. Lopez is modifying the daily log sheets to better capture information. At the end of each month, Mr. Lopez compiles the information from each sheet to create graphs and trend information. This information can eventually be converted to graphs that can assist operators with identifying optimal chemical feed rates for removal of arsenic from the well water.

MAJOR UNIT PROCESS EVALUATION

Filters

Each arsenic treatment plant was reviewed to assess if flow rates and media life were within design parameters. Table 1 provides a summary of this information.

Table 1: Summary of Filtration Rates and Media Life for CRRUA ATFs.

Arsenic Treatment Facility	Flow		Media		
	Maximum Design*	Observed during Site Visit	Estimated Design Life	Estimated Remaining Life	Comments
Sunland Park	Maximum treatment plant design flow of 1,406 gpm, or 703 gpm per filter with a maximum loading rate of 6.7 gpm/ft ² . 25% bypass allowed. At maximum plant flow of 1,406 gpm, allowed bypass is 469 gpm.	1,067gpm flowing to the plant (fed by Wells 19A (STWS) and 30A (STWS)). These two wells are not on SCADA and are manually operated.	Filters placed into service in 2011. Per O&M manual, design life of over 10 years estimated based on average flow rate and arsenic concentrations.	Media is near its useful life and documented loss of media through failed valve on filter vessel.	CRRUA is using reserves to fund replacement of media in 2024.
Industrial Park	Maximum treatment plant design flow of 2,500 gpm, or 833 gpm per filter with a maximum loading rate of 4.9 gpm/ft ² . No bypass exists at this plant given the high raw water arsenic concentrations (42 ppb).	795 gpm flowing to the plant (fed by Well 6A (STIP)). Flow is manually controlled.	Filters placed into service in 2013. Could not find media design life information in O&M Manual or other documents provided.	Unknown; however, these filters treat a high arsenic concentration and could be approaching useful life.	CRRUA is using reserves to fund replacement of media in 2024.
Santa Teresa Community	Maximum treatment plant design flow of 2,430 gpm, or 810 gpm per filter, with maximum loading rate of 5 gpm/ft ² . 23% bypass allowed. At maximum plant flow of 2,430 gpm, allowed bypass is 720 gpm.	886 gpm flowing to the plant (fed by Well 30A (STWS)), with 109 gpm bypass. Flows are manually controlled.	Filters placed into service in 2015. Could not find media design life information in O&M Manual or other documents provided.	Unknown.	Remaining media in the filter vessel unknown.
Border	Maximum treatment plant design flow of 800 gpm, or 400 gpm per filter, with maximum loading rate of 6.3 gpm/ft ² . 30% bypass allowed. At maximum plant flow of 800 gpm, allowed bypass rate is 350 gpm.	Well 3 (STBC) serving this plant and only provides approximately 500 gpm, below the maximum design flow.	Designed to treat a total of 92.6 million gallons before media requires replacement. Filters in service for approximately 4 months.	Media has approximately 3 years left before replacement is needed based on current flow records and demands.	Current use is approximately 2.0 million gallons per month.

*Maximum flow and filter loading rates obtained from the O&M manuals provided by CRRUA.

Chemical Feed

The chemical feed pumps at all four treatment facilities were evaluated for proper controls, proper chemical feed rates, and adequacy of dosing each chemical. Adequate chemical feed control at the Sunland Park, Santa Teresa Community, and Industrial Park ATFs is critical to ensure proper arsenic removal. Table 2 provides a summary of this information and more details are available in the data collection forms in Appendices F through I.

The Border ATF includes gas chlorine at the wells to oxidize the arsenic for removal through the filter media. The chlorine feed appeared to be sufficient, with an initial measured free chlorine residual of 0.81 parts per million (ppm) and 0.46 ppm in the raw water and the finished water, respectively. The chlorine feed rate was adjusted and a new chlorine residual of 1.0 ppm was obtained in the finished water. All chlorine residuals are obtained through grab samples.

Table 2: Sunland Park, Industrial Park, and Santa Teresa Community ATF Chemical Feed Information

Chemical	Target Goal	Pumps	Control	Alarms	Comments
Gas Chlorine: Used to oxidize arsenic to improve arsenic removal and maintain free chlorine residual throughout distribution system.	Raw Water: 0.6 to 1.0 ppm free chlorine Filtered Water: 0.4 to 0.8 ppm free chlorine	Gas chlorine fed at each well; did not visit gas chlorine facilities during the CPE.	Manual grab samples taken and measured with field test kit at ATFs before filters and after filters. Feed rates are flow-paced based on flow from the well.	None	CRRUA plans to install inline chlorine analyzers and alarms as part of SCADA upgrades. Measured free chlorine residual values in finished water were not within range at Industrial Park ATF (0.29 ppm) and Santa Teresa Community ATF (0.32 ppm).
Sulfuric Acid: Used to reduce pH to improve arsenic removal.	Target pH of between 6.7 and 7 after sulfuric acid feed.	Two dosing pumps at each plant that alternate and shutdown if flow to plant is 0 gpm.	Pump feed is flow paced with ability to modify manually if pH is out of target range. pH is measured using both grab samples and inline pH probes.	None	Replaced pumps at Industrial Park ATF in 2023. Plan to replace pumps at Santa Teresa Community ATF. SCADA upgrades and additional inline pH probes are planned to better control chemical feed. Observed pH values from inline probes and grab samples indicate pH is within acceptable ranges.
Ferric Chloride: Used to coagulate arsenic into larger particles for removal through filtration.	Ferric chloride feed is adjusted if arsenic field test (taken Monday, Wednesday, and Friday) of filtered water indicates arsenic concentration above 10 ppb.	Two pumps at each plant that alternate. One pump out of service at Santa Teresa Community ATF.	Pumps are flow paced with ability to modify manually.	None	Replaced pumps at Industrial Park ATF in 2023. All finished water arsenic concentrations observed to be below 10 ppb using CRRUA field test kit. Recent arsenic samples sent to laboratory indicate arsenic concentrations in finished water below 10 ppb (see Appendix B).
Caustic Soda: Used to increase pH after filtration.	Try to maintain filtered water pH between 7.4 and 7.8.	Two pumps at each plant that alternate. One pump out of service at Santa Teresa Community ATF.	Inline pH probe is used to control caustic soda feed on/off to maintain pH.	None	Plan to replace pumps at Santa Teresa Community ATF. SCADA upgrades are planned to better control chemical feed. Observed pH values from inline probes and grab samples indicate pH is close to or within acceptable ranges.

PERFORMANCE ASSESSMENT

The focus of this CPE was to assess each ATF's ability to reliably and consistently produce water with an arsenic concentration less than 10 ppb. The evaluation team visited each ATF and operators provided an overview of operations. Following is a summary of activities undertaken and observed:

- Each ATF is visited daily by an operator to ensure the plant is properly performing with respect to measured chlorine residuals, pH values, and periodic arsenic samples. Operators spend approximately one hour at each water treatment plant, provided there are no issues encountered with chemical feed and treatment processes.
- Each plant has a daily log (recently developed and provided) to record information on wells in service, plant flow, chlorine residuals, sulfuric acid feed, pH, ferric chloride feed, caustic soda feed, and arsenic concentrations. Operators measure the finished water arsenic concentration on Monday, Wednesday, and Friday each week at each ATF using a portable arsenic analyzer (not approved for compliance samples). If any sample indicates the arsenic in the treated water is above 10 ppb, the lead operator (Eric Lopez) is contacted and chemical feed adjustments are made until the arsenic concentration is less than 10 ppb. The evaluation team reviewed the logs at each water treatment plant and noted operators are collecting the necessary information. See Appendix K for daily logs from each ATF.
- The evaluation team took independent samples for both chlorine residuals and pH. All samples were in alignment with the values recorded by CRRUA's instrumentation. See Table 3 for a summary of samples taken and observed during the CPE.
- Arsenic samples during the evaluation using CRRUA's portable arsenic analysis kit indicated all treated water was below 10 ppb at each ATF.
- CRRUA operators take arsenic samples at each water treatment plant every two weeks and have the samples analyzed at a certified laboratory as confirmation. The most current results are in Appendix B.

Detailed information gathered at each ATF is available in Appendices F through I.

Interviews were also conducted with the executive director, operators, and one board member. In addition, Dona Ana County fiscal staff provided responses to questions in writing. Information from the interviews was used to help identify performance limiting factors, presented in a later section.

Table 3. Summary of Samples Taken and Observed.

Date	Location	Data
5/28	Sunland Park ATF	<p>Grab sample of free chlorine residual in raw water analyzed by ERG: 1.01 ppm</p> <p>Grab sample of free chlorine residual in finished water analyzed by ERG: 0.89 ppm</p> <p>Observed pH on SCADA post sulfuric acid and ferric chloride injection: 6.69</p> <p>Observed pH on SCADA post caustic soda injection: 7.57</p> <p>Arsenic sample in settled spent filter backwash recycle water analyzed by CRRUA using Hach portable arsenic analytical unit: 18 ppb</p>
	Santa Teresa Community ATF	<p>Grab sample of free chlorine residual in raw water analyzed by ERG: 1.26 ppm</p> <p>Grab sample of free chlorine residual in finished water analyzed by ERG: 0.23 (below target level)</p> <p>Grab sample of pH of raw water before sulfuric acid injection analyzed by ERG with a portable pH meter: 7.59</p> <p>Observed pH on SCADA prior to sulfuric acid injection: 7.55</p> <p>Grab sample of pH of raw water post sulfuric acid injection analyzed by ERG with a portable pH meter: 7.03</p> <p>Observed pH on SCADA post sulfuric acid and ferric chloride injection: 6.97</p> <p>Grab sample of pH of backwash recycle return water analyzed by ERG with a portable pH meter: 7.30</p> <p>Grab sample of pH post filtration, before caustic soda injection analyzed by ERG with a portable pH meter: 6.77</p> <p>Observed pH on SCADA post filtration, before caustic soda injection: 6.77</p> <p>Observed pH on SCADA post caustic soda injection: 7.51</p> <p>Arsenic sample in raw water analyzed by CRRUA using Hach portable arsenic analytical unit: 12 ppb</p> <p>Arsenic sample in settled spent filter backwash recycle water analyzed by CRRUA using Hach portable arsenic analytical unit: 20 ppb. Measured a pH of 7.30 in the recycle. Recycle flow of 175 gpm observed (20% of influent flow).</p>
5/29	Industrial Park ATF	<p>Grab sample of free chlorine residual in finished water analyzed by ERG: 0.29 ppm (below target level).</p> <p>Arsenic sample in finished water analyzed by CRRUA using Hach portable arsenic analytical unit: 8 ppb</p> <p>Observed pH on SCADA pre caustic soda feed: 7.05</p> <p>Observed pH on SCADA post caustic soda feed: 7.56</p> <p>Grab samples taken of blended settled spent filter backwash recycle/coagulated water from the sample tap located prior to the filters: Free chlorine residual of 0.37 ppm; Arsenic: 85 – 100 ppb</p>
	Border Area ATF	<p>Daily logs completed by an operator recorded a raw water free chlorine residual of 0.81 ppm and finished of 0.46 ppm. Chlorine feed increased and grab sample indicated chlorine residual of 1.0 ppm.</p> <p>Arsenic sample in finished water analyzed by CRRUA using Hach portable arsenic analytical unit: 4 ppb</p>

SPECIAL STUDIES

The CPE Team evaluated the recycle of settled spent filter backwash at the three ATFs with chemical feed:

1. Sunland Park ATF. This plant is equipped with the ability to recycle settled spent filter backwash. The recycle return line discharges before the sulfuric acid and ferric chloride feed. Recycle of settled spent filter backwash occurs the day after a backwash. The recycle return flow pump provides a flow of 70 gpm. The arsenic concentration in the recycle flow was measured at 18 ppb (using CRRUA's field test kit). The contract operator stated adjustments to chemical feed pumps are not made during recycle of the settled spent filter backwash.
2. Santa Teresa Community ATF. This plant is equipped with the ability to recycle settled spent filter backwash. The recycle return line discharges after the ferric chloride injection but prior to the filters. Recycle of settled spent filter backwash occurs the day after a backwash. The recycle return flow pump provides a flow of 175 gpm, which was approximately 20% of the raw water flow from the wells. The arsenic concentration in the recycle flow was measured at 20 ppb (using CRRUA's field test kit) and a pH of 7.3. The contract operator stated adjustments to chemical feed pumps are not made during recycle of the settled spent filter backwash.
3. Industrial Park Arsenic Treatment Plant. This plant is equipped with the ability to recycle settled spent filter backwash. The recycle return line discharges after the ferric chloride feed but prior to the filters. The contract operator stated recycling of settled spent filter backwash is not currently practiced due to concerns with performance of the plate settlers. For investigative purposes, the contract operator activated the recycle return pumps to allow measurement of the arsenic concentration. A grab sample was taken prior to the filters consisting of a blend of raw water treated with sulfuric acid and ferric chloride plus the recycle return flow. The arsenic concentration in the sample was measured to be between 85 and 100 ppb (using CRRUA's field test kit that can only provide a range of arsenic concentrations). The arsenic concentration of the finished water was also sampled and found to be approximately 8 ppb using CRRUA's field test kit.

Another special study was undertaken during the CPE at the Santa Teresa Community ATF when the measured chlorine residual in the finished water was found to be below the target value. See Appendix H, Section N Special Study for more details.

PERFORMANCE LIMITING FACTORS

The areas of design, operation, maintenance, and administration were evaluated in order to identify factors that limit performance. These evaluations were based on information obtained from the plant tour, interviews, performance and design assessments, special studies, and the judgment of the evaluation team. Factors identified as limiting performance were then classified as A, B, or C according to the following guidelines:

A - Major effect on a long term, repetitive basis

B - Moderate effect on a routine basis or major effect on a periodic basis

C - Minor effect

The performance limiting factors are listed in order of priority as to their relative impact on arsenic treatment performance and are summarized below.

1. A Factor

ADMINISTRATION: Financial

Rates have not kept pace with the full cost to properly staff, operate, and maintain the water system, including the four ATFs. Insufficient revenue has resulted in the inability to properly staff the utility, retain properly certified and trained staff, purchase needed equipment, and encourage treatment performance that goes beyond the regulatory requirements. This finding is based on the ATFs producing water that exceeded the arsenic MCL based on compliance samples taken in April 2023, July 2023, August 2023, October 2023, and January 2024. In addition, reserves are being depleted to fund critical infrastructure projects: replacement of filter media at two ATFs and SCADA upgrades.

Recommendation: CRRUA should conduct a rate study to better evaluate all O&M costs (CRRUA is planning for a rate study) and determine the full cost of service. Also consider a rate structure that allows for creating a reserve account as the current reserves are being depleted for critical infrastructure upgrades. CRRUA board should develop a schedule for implementing rate increases.

2. A Factor

ADMINISTRATION: Policies

CRRUA board and management have not adopted clear, objective, and measurable goals for finished water quality at each ATF.

Recommendation: CRRUA board should pass a resolution stating its mission is to consistently provide safe and reliable drinking water to all customers and maintain compliance with all drinking water regulations.

3. A Factor

ADMINISTRATION: Familiarity with Plant Needs

The board members lack a full understanding of the staff and equipment resources necessary for proper operations of the four ATFs. In addition, it appears the former executive director was not sharing critical information with regard to the operations at the plant that resulted in each plant producing water that exceeded the arsenic MCL, with the Industrial Park ATF exceeding the MCL by over a factor of three for four consecutive quarters.

Recommendation for CRRUA: CRRUA board members should visit the ATFs and familiarize themselves with the water system operations. Require monthly summary reports on each ATF to assess compliance with regulations.

4. A Factor

ADMINISTRATION: Planning and Reliability

An inadequate capital replacement program results in equipment staying in service past its useful life or failing, resulting in challenges with meeting the arsenic MCL. As example, the Santa Teresa Community ATF has chemical feed pumps that are broken and in need of replacement. Each ATF is in need of upgrades to install more inline instrumentation to record critical data along with a Supervisory Control and Data Acquisition (SCADA) system to use recorded data to automatically control chemical feed pumps or issue critical alarms. The current configuration at each plant requires excessive operator time to take critical water quality samples and consult the Level 4 operator (currently under contract) on follow-up actions based on certain parameters. Also, the lack of SCADA prevents the ability to issue alarms that immediately notify the operators of a problem. Reserves are being used to finance filter media replacement at two ATFs along with SCADA upgrades. In addition, a number of wells are in need of repair or replacement in order for CRRUA to meet demands during the summer months.

Recommendation: CRRUA should develop short-term and long-term replacement programs for all critical components and ensure adequate funding to maintain all equipment. Example: Maintain adequate funding to allow purchase of inline pH probes and media replacement. Assess condition of all wells and identify wells to be rehabilitated and replaced, along with a financial strategy to support well improvements or replacement.

5. A Factor

PLANT STAFF: Number, Plant Coverage, and Compensation

The historic low rates by CRRUA results in insufficient revenue to support hiring an adequate number of staff to perform all required duties at each ATF daily. Also, salaries have historically not been competitive enough to attract and retain the staff and level of certified operators to maintain operations and compliance with drinking water regulations. According to the organizational chart provided, over half the positions are vacant. CRRUA currently contracts with Bridel Facility Ops to provide staff to oversee operations and respond to issues at each ATF. Sufficient operators are needed to cover all daily routines along with being on-call and available to respond quickly when alarms and callouts are activated at the ATFs. The current executive director is working to fill vacant positions. The current staff is commended for recent improvements to achieve compliance.

Recommendation: CRRUA should continue filling all positions shown on the organizational chart and provide adequate training and compensation for staff. Conduct salary study (if not yet completed) to identify competitive salaries to be offered for staff retention. CRRUA to evaluate long-term plan for oversight of the ATFs through contracted services or by hiring full-time staff to oversee the ATFs.

6. A Factor

DESIGN: Process Instrumentation and Alarms

The ATFs lack adequate inline monitoring, SCADA, and associated alarms to immediately notify operators if:

- A chemical feed pump is offline or malfunctioning.
- Chlorine residuals are outside of acceptable operating range.
- pH values are outside of acceptable operating range.
- Flow exceeds ATF rated capacity or allowed bypass flow percentage exceeded.

The current configuration requires significant operator time onsite at each ATF to manually take required samples and modify chemical feed operations and well pumps to meet distribution system demands and comply with the arsenic MCL in the finished water.

Recommendation: CRRUA should install additional inline instrumentation, including inline chlorine analyzers, and pH probes, along with SCADA with alarms and callouts when critical operational parameters are not met. Example: If finished water pH exceeds 8, then an alarm should be issued and operators should be immediately notified. If pH reaches 8.5, the plant is shut down and operators alerted again.

7. A Factor

OPERATION: Water Treatment Understanding and Training Program

CRRUA currently contracts with Bridel Facility Ops to provide staff to oversee operations at each ATF and respond to any problems at the ATFs. Bridel Facility Ops provides excellent service and implemented many improvements, but CRRUA should also have staff with this knowledge through a comprehensive training program. The three ATFs using oxidation/coagulation/filtration with pH adjustment are excellent technologies for arsenic removal (up to 90% arsenic removal estimated) but are categorized as requiring a high operator skill level (EPA *Arsenic Treatment Technology Evaluation Handbook for Small Systems*, July 2003, EPA 816-R-03-014).

Recommendation: CRRUA should provide training for staff to understand operations at the ATFs that allows all operators responsible for ATF oversight to identify and resolve problems in a manner that avoids the finished water exceeding the arsenic MCL. Ensure SCADA improvements include critical alarms and callouts that minimize events at each ATF where inadequately treated water is sent to distribution. Once alarms are set, provide training and SOPs for required follow-up by operators.

8. A Factor

OPERATIONS: Operational Guidelines and Procedures

Written standard operating guidelines and procedures were not available until recently. The lack of written standard operating guidelines and procedures result in staff making poor decisions or not properly addressing a problem at the ATFs, as demonstrated by the issues that occurred in 2023 with ATFs not being properly operated and exceeding the arsenic MCL repeatedly. In addition, some of the ATFs are equipped with the ability to bypass a certain percentage of the well water for blending with treated water. Some facilities also have the ability to recycle settled spent filter backwash water. CRRUA does not have written procedures for these operations and operators lack an understanding on how to operate the bypass or recycle systems, along with needed adjustments to chemical feed rates when bypass or recycling occurs.

Recommendation: CRRUA should update/revise SOPs for plant operations and review SOPs with the operators. SOPs are needed to describe the allowed flow for bypass and chemical feed modifications when recycling occurs. CRRUA should conduct raw water monitoring at each well to better understand current arsenic, iron, manganese, and other contaminant concentrations to ensure chemical feed rates are adequate for the raw water conditions and during recycle of settled spent filter backwash. Written procedures are needed for bypass operations to ensure the blended water going to distribution is below the arsenic MCL. Written procedures are also needed for operations during recycling events, including control of recycle flow to a maximum percentage of plant flow (such as 5%), testing of arsenic concentration in the settled spent filter backwash, and chemical feed adjustments based on measured arsenic concentrations.

9. A Factor

MAINTENANCE: Filter Media

CRRUA operators do not inspect the filter media annually, including coring of filter media and measuring depth of media. These activities are critical to assess the media condition and identify when media is approaching its useful life or needs replacement.

Recommendation: CRRUA should develop a SOP for annual media inspections. The O&M Manuals contain information on this process and data gathering forms to be used.

10. A Factor

DESIGN: Filter Media Life and Media Replacement

The CPE Team reviewed a number of documents provided by CRRUA to obtain expected media life for the Sunland Park, Industrial Park, and Santa Teresa Community ATFs. The CPE Team did find information for the Sunland Park ATF media and per the O&M Manual, the expected life is, “over 10 years.” Information with regard to the expected life for the Industrial Park and Santa Teresa Community media could not be found, both of which are a Tonka design. CRRUA is replacing the media at Sunland Park and Industrial Park ATFs this year and financing this effort using reserves.

Recommendation: CRRUA should obtain information from the filter media supplier on the expected useful life of the new media and track key parameters to avoid media being used beyond its useful life. The media condition is vital to provide adequate arsenic removal. CRRUA should also develop a monitoring program, such as tracking arsenic loading rates to filters (including raw and recycle water), volumes of filtered water on individual filters, annual media inspections (noted previously), and finished water arsenic concentrations, to ensure all filters are operated within the design flow rates and providing adequate arsenic removal. CRRUA should also identify a critical point, such as filters have treated 80% of their expected volume of water or through trending of finished water arsenic concentrations, to identify when media replacement is needed. This information is critical when planning media replacement frequency and ensuring a financial strategy to finance media replacement is available. CRRUA should also verify the current backwash rates and practices are in accordance with the media supplier’s recommendations. As CRRUA commences with media replacement at Sunland Park and Industrial Park ATFs,

operators need to closely monitor the flow to each ATF to avoid overloading the filter or filters remaining in service and that no one filter exceeds its design parameters (see Table 1 for individual filter loading rates).

11. B Factor

MAINTENANCE: Preventative Maintenance

CRRUA lacks an asset management program that allows for a preventative maintenance program. The lack of a preventative maintenance program places staff in a reactive mode to infrastructure needs versus the ability to plan and fund infrastructure. CRRUA is currently working on developing an asset management program.

Recommendation: CRRUA should fully develop an asset management program and develop procedures for scheduling and performing required maintenance along with establishing a replacement schedule for critical assets.

12. B Factor

MAINTENANCE: Skills or Contract Services

Due to extensive staff shortages and lack of staff with appropriate skills, a number of operational and maintenance activities are accomplished through contracted services. This mode of operation is expensive and can result in delayed response to addressing a maintenance issue if contractors are not available.

13. B Factor

DESIGN: Process Flexibility

The Sunland Park, Santa Teresa Community, and Industrial Park ATFs all have the ability to recycle settled spent filter backwash. The Santa Teresa Community and Industrial Park ATFs recycle return discharge point for the return of settled spent filter backwash occurs after sulfuric acid and ferric chloride injection. The operator does not currently adjust chemical feed rates during recycle. The measured arsenic concentration of the blended recycle stream plus water treated with sulfuric acid and ferric chloride at Industrial Park was between 85 and 100 ppb. See Table 3 for more details on the measured arsenic concentration in the recycle stream.

Recommendation: CRRUA should evaluate revised chemical feed operations if recycle is practiced along with evaluating revising the recycle return location prior to sulfuric acid feed at Santa Teresa Community and Industrial Park ATFs.

14. B Factor

DESIGN: Flow Control

Flow rates from each well, flow into each ATF, and bypass flows are monitored at each plant but are primarily manually controlled. There are no flowmeters or flow controls for each individual filter. It is unknown if flow is evenly distributed to each filter or how the flow to the plant is maintained below the maximum filter loading rates.

Recommendation: CRRUA should provide adequate controls and alarms to avoid overloading filters and exceeding the bypass flow rate.

15. B Factor

OPERATION: Finished Water pH

CRRUA operators were not sure of the allowed pH in the finished water sent to distribution. NMED notified CRRUA that a pH above 8.5 exceeded the secondary MCL for pH as result of events that transpired in December 2023.

Recommendation: CRRUA should conduct a corrosion control study at each ATF to determine the optimum pH that results in compliance with the Lead and Copper Rule. CRRUA should also consult their customers, particularly industrial customers and medical facilities, on the desired pH for these customers and consider incorporating finished water quality parameters in its service agreements.

16. B Factor

DESIGN: Alternate Power Source

The Border ATF is the only plant with a generator. The other three ATFs (Sunland Park, Santa Tresa Community, and Industrial Park) do not have a generator and in the event of a power outage, the distribution system served by these plants would rely on storage. The three plants do have large storage tanks but depending on the power outage duration, these storage tanks may not be able to keep the distribution pressurized and meet demands.

Recommendation: CRRUA should consider providing a generator at Sunland Park, Santa Tresa Community, and Industrial Park ATFs.

PROJECTED IMPACT OF COMPREHENSIVE TECHNICAL ASSISTANCE

Comprehensive Technical Assistance (CTA) is a formal and comprehensive program that systematically addresses the factors identified as limiting the plant's performance during the Comprehensive Performance Evaluation (CPE). A CTA is typically initiated when significant performance problems are identified during the CPE. It normally focuses on improved performance through operator training and improved process control. Administrative factors are also resolved as they relate to their impact on performance problems. All changes during a CTA are implemented by local personnel under the guidance of a facilitator external to the plant staff. The facilitator can be a consultant or other qualified person.

The evaluation team commends the CRRUA board and staff for the recently implemented improvements. However, the evaluation team believes CRRUA would greatly benefit from assistance providers to improve management and operations of the four ATFs. NMED should coordinate with CRRUA on follow-up resources and activities to address the performance limiting factors.

With the immediate goal of ensuring CRRUA meets all drinking water regulatory requirements, activities associated with optimization are to be scheduled at a later date. Recommended optimization efforts include:

1. Obtaining raw water samples from all wells currently in use and analyzed for arsenic, manganese, and iron. This information will help operators better understand required chemical feed rates and bypass operations to maintain compliance with the arsenic MCL.
2. Conducting jar testing to better determine chemical feed rates for chlorine, sulfuric acid, and ferric chloride. Develop target chemical feed rates for testing at full scale to determine optimum settings based on which well or wells are in use. Jar testing could also help determine if relocating chemical injection points to achieve more mixing time prior to the filters may improve arsenic removal.
3. Conducting more analysis of settled spent filter backwash to understand chemical properties of this recycle stream, including arsenic, iron, manganese, pH, and chlorine residual.
4. Evaluating the possibility of relocating the settled spent filter backwash recycle return discharge location prior to sulfuric acid and ferric chloride injection at the Santa Teresa Community and Industrial Park ATFs.
5. Evaluating backwash practices and frequency of backwash. Currently, backwash is initiated manually based on the availability of operators at the ATF rather than filter run times and the pressure differential per design of the filters. Also evaluate if the backwash flow rates are adequate at the Sunland Park, Industrial Park, and Santa Teresa Community ATFs. Current backwash practices do not align with the backwash flow rates identified in the O&M Manuals.

Appendix A
NMED Arsenic NOV



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

Notification provided via E-mail

April 19, 2024

Juan (JC) Crosby; juancarlos@donaanacounty.org
Camino Real Regional Utility Authority, NM3502507
PO Box 429
Sunland Park, NM 88063

RE: Notice of Violation – Arsenic Maximum Contaminant Level

Attention Juan (JC) Crosby:

This letter serves as Notice of Violation that the Camino Real Regional Utility Authority exceeded the arsenic MCL at Industrial Park Arsenic TP during the 2nd quarter of 2024. The running annual averages (RAA) for the Camino Real Regional Utility Authority are shown in the table below:

Sample Location	Quarter & Year	RAA mg/L
Industrial Park Arsenic TP	2 nd Quarter 2024	0.028

The maximum contaminant level (MCL) for arsenic is 0.010 mg/L (10 ppb). The MCL for arsenic is defined in the New Mexico Drinking Water Regulations, 20.7.10.100 NMAC [incorporating 40 CFR Section 141.62(b)(16)]. The MCL for arsenic is determined by a running annual average (RAA) pursuant to 20.7.10.100 NMAC, incorporating 40 CFR 141.23(i)(1).

Based on the exceedance of the MCL for arsenic, the New Mexico Environment Department Drinking Water Bureau (DWB) requires the Camino Real Regional Utility Authority to notify customers of this MCL exceedance as required in 20.7.10.100 NMAC [incorporating 40 CFR Section 141.203(b)(1) and 141.203(b)(2)]. The notice must be provided within thirty (30) days from the date on this letter to all customers and others who drink the water and must be issued every three (3) months as long as the exceedance persists. Public notice must be provided by hand delivery, mail delivery or by posting in conspicuous locations and any other method reasonably calculated to reach others. This notice must remain posted as long as the violation persists.

Pursuant to 20.7.10.100 NMAC [incorporating 40 CFR Section 141.31(d)] the Camino Real Regional Utility Authority must certify that the notice was published and the method of publication, by submitting a completed copy of the enclosed Public Notification Certification Form to the DWB within 10 days of completing the public notification requirements. A representative copy of each type of notice distributed, published, posted or made available to the persons served by the system must be included with the certification form.

Please fill out and return the enclosed Public Notice Certification Form to:
Tim Willy by email to tim.willy@env.nm.gov

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

2301 Entrada Del Sol, Las Cruces, NM 88001 | 505-690-6657 | www.env.nm.gov

Failure to comply with the public notice requirements will result in an additional violation(s) (failure to notify the public and the state) being issued without notice to the Camino Real Regional Utility Authority. Continued failure to comply with Public Notification Requirements, as defined in 20.7.10.100 NMAC [incorporating 40 CFR Sections 141.203 and 141.31(d)] will result in escalated enforcement actions including issuance of Administrative Orders with possible penalties assessed against the Camino Real Regional Utility Authority.

Please fill out and return the public notice, public notice certification Form and Level 2 Assessment Checklist to: Tim Willy by email to tim.willy@env.nm.gov

NMED-DWB reserves the right to take additional enforcement action regarding the violations identified in this NOV, to include the issuance of an Administrative Compliance Order compelling compliance and issuing civil penalties.

Pursuant to the NMED Delegation Order dated February 19, 2024, the Cabinet Secretary has delegated the authority to issue Notice of Violations to DWB Compliance Supervisor Brandi Littleton.

Please note that your facility will appear on the Department's Enforcement Watch as a result of this NOV (see: <https://www.env.nm.gov/enforcement-watch/>). Further, the Department will issue a press release to local media highlighting your public water system as appearing on this webpage. Your public water system will remain on the Enforcement Watch website as an active matter until this matter is fully resolved."

If you have any questions or need assistance, please contact Tim Willy at 505-690-6657 or by e-mail at tim.willy@env.nm.gov.

Respectfully,



Brandi Littleton, Compliance Supervisor
Drinking Water Bureau
Water Protection Division

Enclosures: Public Notice Template
Public Notice Certification Form

xc: Martin Torrez, PWSS Manger
Tim Willy, Compliance Officer
Electronic Central File

Instructions for Chemical MCLs Public Notice

Template on Following Page

Chemical or radiological maximum contaminant level (MCL) violations require Tier 2 notification. You must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation 20.7.10.100 NMAC [incorporating 40 CFR 141.203(b)]. You must issue a repeat notice every three months for as long as the violation persists.

Community systems must use one of the following methods 20.7.10.100 NMAC [incorporating 40 CFR 141.203(c)]:

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Noncommunity systems must use one of the following methods 20.7.10.100 NMAC [incorporating 40 CFR 141.203(c)]:

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and noncommunity systems must use another method reasonably calculated to reach others if they would not be reached by the first method 20.7.10.100 NMAC [incorporating 40 CFR 141.203(c)]. Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on your system's letterhead, if available.

The notice on the reverse is appropriate for mailing, posting, or hand delivery. If you modify this notice, you must still include all required PN elements from 40 CFR 141.205(a) and leave the mandatory language unchanged (see below).

Mandatory Language

Mandatory language on health effects (from Appendix B to Subpart Q) must be included as written (with blanks filled in). This notice includes a placeholder for a specific contaminant's health effects language.

You must also include standard language to encourage the distribution of the public notice to all persons served, where applicable 20.7.10.100 NMAC [incorporating 40 CFR 141.205(d)]. This language is also presented in this notice in italics and with an asterisk on either end.

Corrective Action

In your notice, describe corrective actions you are taking. Do not use overly technical terminology when describing treatment methods. Listed below are some steps commonly taken by water systems with chemical or radiological violations. Depending on the corrective action you are taking, you can use one or more of the following statements, if appropriate, or develop your own text:

- We are working with [local/state agency] to evaluate the water supply and are researching options to correct the problem. These options may include treating the water to remove [contaminant] or connecting to [system]'s water supply.
- We have stopped using the contaminated well. We have increased pumping from other wells, and we are investigating drilling a new well.
- We have increased the frequency that we will test the water for [contaminant].
- We have since taken samples at this location and had them tested. These samples show that we meet the standards.

Repeat Notices

If this is an ongoing violation and/or you fluctuate above and below the MCL, you should give the history behind the violation, including the source of contamination, if known. List the date of the initial detection, as well as how levels have changed over time. If levels are changing as a result of treatment, you can indicate this.

After Issuing the Notice

Make sure to send The New Mexico Environment Department's Drinking Water Bureau a copy of each type of notice and a certification that you have met all public notification requirements within ten days after issuing the notice 20.7.10.100 NMAC [incorporating 40 CFR 141.31(d)].

****PUBLIC WATER SYSTEM MUST APPROPRIATELY MODIFY THIS PUBLIC NOTICE TO INCLUDE UP-TO-DATE INFORMATION REGARDING THE VIOLATION AS WELL AS INFORMATION ABOUT THE CURRENT STATUS OF THE VIOLATION'S AFFECT ON THE WATER SYSTEM. PUBLIC WATER SYSTEM OFFICIAL MUST DELETE THIS PARAGRAPH ONCE PUBLIC NOTICE HAS BEEN APPROPRIATELY UPDATED, PRIOR TO SENDING OUT TO THE PUBLIC****

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Camino Real Regional Utility Authority
Has Levels of Arsenic Above Drinking Water Standards

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results we received show that our system exceeds the standard or maximum contaminant level (MCL) for arsenic. The standard for arsenic is 0.010 mg/L. The average level of arsenic in samples taken during 2Q24 was 0.028 mg/L. The table below shows the dates, locations, and values detected:

Sample Location	Quarter & Year	RAA mg/L
Industrial Park TP	2Q24	0.028

What should I do?

- There is nothing you need to do. **You do not need to boil your water** or take corrective actions. However, if you have specific health concerns, consult your doctor.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours. However, some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

What is being done?

[Describe corrective action.] We anticipate resolving the problem within **[estimated time frame]**.

For more information, please contact:

Juan (JC) Crosby, 575-589-1075
Camino Real Regional Utility Authority, NM3502507
PO Box 429
Sunland Park, NM 88063

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail

Appendix B

CRRUA June 2024 Press Release (provided by Udell Vigil, CRRUA Public Information Officer)

CRRUA Customer Message

Date: 06/07/2024

CRRUA Passes 6th Consecutive Arsenic Water Sample Test

For the sixth time in a row, the Camino Real Regional Utility Authority (CRRUA) passed its most recent arsenic water sample tests.

Test results released by Eurofins Environment Testing, a water testing lab certified by the New Mexico Environment Department (NMED,) show that arsenic levels from water samples taken May 21, 2024, at three of the four arsenic treatment facilities (ATF) operated by CRRUA are below the federal limit of 10 parts per billion (ppb.)

CRRUA excluded the Border Entry ATF from its voluntary twice monthly testing this test period due to its continued meeting of all NMED requirements.

Sample Location	Sample Result (ppb)	Arsenic MCL 10 (ppb)
Arsenic Treatment Facility (ATF)		
Sunland Park (ATF)	7.0	Below MCL
Santa Teresa Community (ATF)	4.1	Below MCL
Santa Teresa Industrial Park (ATF)	4.5	Below MCL
Border Entry (ATF)	Excluded	N/A

CRRUA passed the previous five, 2024 arsenic tests from water samples taken on May 7, April 16, NMED's second quarter 2024 test taken on April 3, April 2 and March 18.

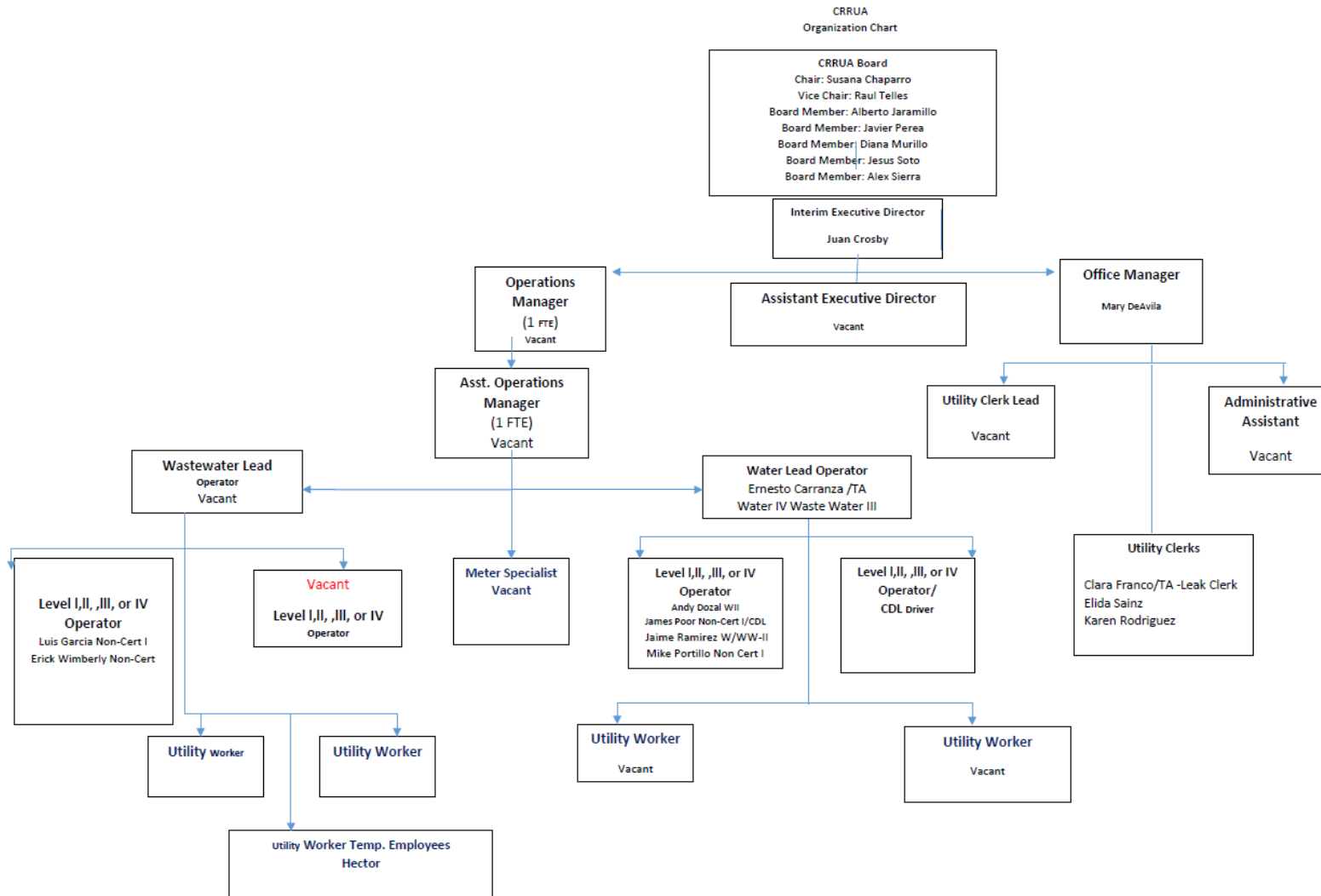
CRRUA voluntary conducts twice monthly arsenic testing, NMED conducts quarterly testing.

A video on the arsenic removal process is available on the CRRU YouTube channel at www.youtube.com/@crrua_info

Appendix C

CRRUA Organizational Chart (May 2024)

Note: Vacant positions are being filled and the following organizational chart may not accurately reflect the current staffing status.



Appendix D
CRRUA 2024 Budget

55110 - CRRUA-Water

(1) Fund	(2) Org	(3) SD Org	(4) Acct	(5) Title	(6) FY21 Actuals	(7) FY22 Actuals	(8) FY23 Budget	(9) YTD	(10) FY23 YE Proj	(11) FY24 Request	(12) % Incr ((11-9)/9)
40718 - CRRUA											
Expenditures											
55110	40718		31020	Full-Time Administrative Salaries	36,679	11,448	67,711	24,601	23,369	112,793	66.6%
			31030	Full-Time Classified Salaries	220,979	178,604	374,067	163,326	181,049	429,198	14.7%
			31035	Call-Back Time	100	-	600	56	120	500	-16.7%
			31040	Contract Salaries	70,762	69,178	63,250	62,955	69,499	69,576	10.0%
			31060	Temporary Salaries	-	6,384	5,000	-	-	3,000	-40.0%
			31070	Over-Time Salaries	28,331	38,414	36,000	36,048	42,000	48,000	33.3%
			31090	On Call Pay	3,142	3,076	5,000	2,704	2,500	5,000	-%
			31120	Reserve For Salary Adjustments	-	-	59,242	-	-	35,981	-39.3%
				Total Salaries	359,993	307,104	610,869	289,690	318,537	704,048	15.3%
55110	40718		32010	PERA	24,496	18,904	48,756	19,698	21,610	61,257	25.6%
			32020	Group Insurance	103,719	90,770	129,815	82,418	89,118	153,204	18.0%
			33010	Medicare	4,886	4,126	7,323	3,794	4,197	8,868	21.1%
			33020	Social Security	20,892	17,643	31,312	16,224	17,948	37,917	21.1%
			33030	Workman's Comp Admin Assessment	67	52	106	40	45	110	4.3%
			33040	Unemployment Insurance	467	1,900	4,773	205	2,873	4,775	-%
				Total Benefits	154,527	133,395	222,085	122,380	135,792	266,131	19.8%
				Total Salaries & Benefits	514,520	440,499	832,954	412,071	454,329	970,178	16.5%
55110	40718		71010	Audit	8,584	8,927	75,000	9,293	66,000	75,000	-%
			71030	Professional Services	89,603	155,203	212,000	122,132	204,000	212,000	-%
			72244	Insurance	-	-	93,500	53,449	-	93,500	-%
			72404	Annual Fees	489	330	15,000	427	600	12,000	-20.0%
			72406	Bond Interest Expense	164,636	113,908	76,238	119,138	155,000	159,000	108.6%
			72408	Bond Principal Expense	347,000	366,000	366,000	380,000	380,000	400,000	9.3%
			72416	Contractual Services	242,131	293,477	560,000	316,606	407,998	560,000	-%
			72420	Custodian Services	15,008	14,326	25,000	18,400	20,000	25,000	-%
			72431	Penalty Exp	-	468	-	-	-	-	-%
			72432	Freight & Shipping	1,187	432	2,000	671	2,000	2,500	25.0%
			724352	Interest Expense	-	2	3,374	-	-	3,374	-%
			72442	Loan Payments	91,603	149,014	127,790	75,500	100,000	127,790	-%
			72448	Office Equip/Furniture Under \$5000	458	889	1,000	-	-	1,000	-%
			72454	Printing & Publishing	26,666	15,915	35,000	21,904	36,000	40,000	14.3%
			72458	Postage	19,577	16,230	25,000	21,453	20,000	30,000	20.0%
			72462	Record Storage/Maint.	-	-	1,000	745	700	1,000	-%
			72464	Rental	21,618	15,796	22,000	11,506	14,000	20,000	-9.1%
			72472	Small Tools	-	-	3,000	-	-	3,000	-%
			72476	Equipment Under \$5,000	161,243	144,668	180,240	117,318	180,250	300,000	66.4%
			72478	Tax Payments	30,485	20,480	30,000	25,624	22,777	30,000	-%
			72482	Testing	1,569	3,678	15,000	4,748	10,000	12,000	-20.0%
			72485	Fee Charges	29	48	400	-	-	400	-%
			724851	CC Portal Fee	89	757	700	400	500	600	-14.3%
			724852	CC Charge Back Fee	225	403	700	3,080	2,726	3,200	357.1%
			72492	Uniforms	1,730	1,222	2,700	1,689	1,689	3,000	11.1%

5/22/2023

Parameters: Budget FY24 / PDEV03; Position: POSN2 Fund ; Org ; Period: 12.00

Proj as of YE Projections FY23

Page 2 of 20

55110 - CRRUA-Water

(1) Fund	(2) Org	(3) SD Org	(4) Acct	(5) Title	(6) FY21 Actuals	(7) FY22 Actuals	(8) FY23 Budget	(9) YTD	(10) FY23 YE Proj	(11) FY24 Request	(12) % Incr ((11-8) / 8)
40718 - CRRUA											
55110	40718		72495	75% Spaceport GRT Intercept	-	10	-	-	-	-	- %
			72615	Memberships	2,209	2,030	3,250	2,306	2,550	3,250	- %
			72676	Meals	-	227	2,000	649	1,000	1,500	-25.0%
			72677	Travel	-	-	2,500	12	12	2,000	-20.0%
			72678	Lodging	-	-	3,000	709	710	2,500	-16.7%
			72680	Registrations	415	375	5,000	597	567	5,000	- %
			72835	Data Systems Maintenance	7,380	8,091	36,000	12,078	10,000	30,000	-16.7%
			72845	Equipment Maintenance	-	-	5,000	-	-	5,000	- %
			72846	Operation parts/equip.	26,528	30,888	90,000	23,600	35,000	100,000	11.1%
			72847	Water/WW System Maint.	39,749	31,693	-	-	-	100,000	- %
			72871	Repairs & Maintenance	234,677	817,860	871,000	740,486	871,000	950,000	9.1%
			72872	Renovations	3,036	-	8,500	-	-	8,500	- %
			72895	Vehicle Maintenance	9,907	9,136	25,000	4,844	16,700	25,000	- %
			72905	Electricity	330,676	327,503	360,000	253,803	311,000	360,000	- %
			72925	Telephone	19,096	22,625	26,000	19,219	21,000	26,000	- %
			73025	Chemicals	53,870	44,625	162,000	53,040	100,000	162,000	- %
			73110	Fuel	15,109	27,400	30,000	8,826	12,000	30,000	- %
			73121	Asphalt Pavement Re-surfacing	22,865	27,736	50,000	-	-	50,000	- %
			73150	Janitorial Supplies	-	363	2,500	-	-	2,000	-20.0%
			73190	Office Supplies	7,858	2,450	8,500	3,209	5,000	8,500	- %
			73195	Promotions	-	-	300	-	-	300	- %
			73230	Safety Supplies	3,492	636	3,400	-	-	3,000	-11.8%
				Total Operating Expenditures	2,000,793	2,675,818	3,566,592	2,427,458	3,010,779	3,988,914	11.8%
55110	40718		74110	CAPITAL OUTLAY/SOFTWARE	-	-	89,760	-	44,880	45,000	-49.9%
			74118	Architectural Services	33,641	11,240	75,626	6,874	10,000	100,000	32.2%
			74130	Capital Outlay/Construction	-	44,634	-	-	-	-	- %
			74140	Capital Outlay/Data Equip	10,999	-	-	-	-	-	- %
				Total Capital Outlay	44,641	55,874	165,386	6,874	54,880	145,000	-12.3%
				Total Expenditures	2,559,954	3,172,191	4,564,932	2,846,403	3,519,988	5,104,092	11.8%
Total Summary for Org 40718											
				Total Revenue							- %
				Total Salaries	359,993	307,104	610,869	289,690	318,537	704,048	15.3%
				Total Benefits	154,527	133,395	222,085	122,380	135,792	266,131	19.8%
				Total Salaries & Benefits	514,520	440,499	832,954	412,071	454,329	970,178	16.5%
				Total Operating Expenditures	2,000,793	2,675,818	3,566,592	2,427,458	3,010,779	3,988,914	11.8%
				Total Capital Outlay	44,641	55,874	165,386	6,874	54,880	145,000	-12.3%
				Total Expenditures	2,559,954	3,172,191	4,564,932	2,846,403	3,519,988	5,104,092	11.8%
				Total Transfers							- %
				Net Total	(2,559,954)	(3,172,191)	(4,564,932)	(2,846,403)	(3,519,988)	(5,104,092)	11.8%

55110 - CRRUA-Water

(1) Fund	(2) Org	(3) SD Org	(4) Acct	(5) Title	(6) FY21 Actuals	(7) FY22 Actuals	(8) FY23 Budget	(9) YTD	(10) FY23 YE Proj	(11) FY24 Request	(12) % Incr ((11-8) / 8)
45611 - SAP 21-F2323-STB											
Revenues											
55110	45611		53176	Grant Revenues	-	-	100,000	-	-	100,000	- %
Total Revenues					-	-	100,000	-	-	100,000	- %
Expenditures											
55110	45611		74130	Capital Outlay/Construction	-	-	100,000	100,000	-	-	-100.0%
Total Capital Outlay					-	-	100,000	100,000	-	-	-100.0%
Total Expenditures					-	-	100,000	100,000	-	-	-100.0%
Total Summary for Org 45611											
Total Revenue					-	-	100,000	-	-	100,000	- %
Total Salaries											- %
Total Benefits											- %
Total Salaries & Benefits											- %
Total Operating Expenditures											- %
Total Capital Outlay					-	-	100,000	100,000	-	-	-100.0%
Total Expenditures					-	-	100,000	100,000	-	-	-100.0%
Total Transfers											- %
Net Total					-	-	-	(100,000)	-	100,000	- %

Appendix E

CRRUA Rate Increase

CRRUA Customer Message

Date: 05-13-2024

Utility Rates Corrective Action

For nearly five years, the Camino Real Regional Utility Authority (CRRUA) has not adjusted rates for water and wastewater services to its customers in Sunland Park and Santa Teresa, NM. The last rate increase was implemented on July 1, 2019.

At a special meeting on February 11, 2019, the CRRUA board of directors at the time approved a rate structure that included a provision for various rates for water and wastewater to be automatically increased over the following four years at either fixed percentages of 1.5%, 6%, and in some instances aligned with the consumer price index (CPI) over that period of time.

However, *the rate adjustments approved by the board in 2019 were never implemented under the previous administration*. As a result, the 2019 rate structure currently in place is not sufficient to meet CRRUA's operating costs including system maintenance, preventative maintenance, upgrades, government compliance and staffing.

In order to comply with the rate structure approved by the previous CRRUA board in 2019, the current board took corrective action at its regular meeting on May 13, 2024, by directing CRRUA administration to make corrections and adjustments to current water and wastewater rates beginning on July 1, 2024.

Residential Water Rates

<u>Current</u>	<u>New</u>	
\$15.00	\$17.83	First 3,000 gallons

Residential Wastewater Rates

<u>Current</u>	<u>New</u>	
\$20.62	\$27.00	Minimum on first 7,000 gallons

Non-residential Water Rates

Base Rate up to 3,000 Gallons	Commercial	Industrial	Institutional	Bulk
<u>Current</u>	\$50.00	\$100.00	\$50.00	\$70.00
<u>New</u>	\$53.07	\$106.14	\$53.07	\$74.30

Non-residential Wastewater Rates

Base Rate up to 7,000 Gallons	Commercial	Industrial	Institutional	Bulk
<u>Current</u>	\$77.08	\$77.08	\$77.08	n/a
<u>New</u>	\$81.51	\$81.51	\$81.51	n/a

“CRRUA’s infrastructure has a total replacement cost of \$81.5 million.” said CRRUA executive director Juan Carlos Crosby, “The additional revenue received from the rate correction will be used to help ensure the health, safety, and welfare of customers.”

Crosby said benefits to customers include:

- Keeping arsenic levels in water within the federal limit of 10 parts per billion (ppb.)

- Minimizing the causes of discolored and smelly water.
- Reduce water line breaks.
- Reduce and possibly eliminate pump failures that lead to low water levels.
- Maintaining an uninterrupted flow of clean, clear water.

Crosby said CRRUA's operating costs have increased with inflation and revenues from the rate correction will help keep up with rising costs and will help recruit and compensate qualified operational staff whose current pay is considerably below market for several positions.

FY2025 CRRUA RATE & FEE SCHEDULE

Effective 07/01/2024

Fiscal Year 2025 - 07/01/2024--06/30/2025

RESIDENTIAL RATE AND FEE SCHEDULE
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ADMINISTRATIVE CHARGES AND FEES

Administrative Set - Up Charge	\$150
Non-Compliance to Mandatory Connection (>6 months to connect)	\$300
Customer Deposit	\$100
Late fee on outstanding balances remaining on the 5th day after the due date	\$5
Reconnection within regular work hours after disconnection due to unpaid balance	\$50
Reconnection outside regular work hours after disconnection due to unpaid balances	\$75

RESIDENTIAL WATER RATES

RATE	DESCRIPTION
\$17.83	First 3,000 Gallons
\$1.78	Per 1,000 on Next 6,000 Gallons
\$3.57	Per 1,000 on Next 3,000 Gallons
\$4.76	Per 1,000 on Next 8,000 Gallons
\$5.94	Per 1,000 on Next 30,000 Gallons
\$11.89	Per 1,000 After 50,000 Gallons

RESIDENTIAL WASTEWATER RATES

RATE	DESCRIPTION
\$27.00	Minimum on First 7,000 Gallons
\$4.94	Per 1,000 Gallons Thereafter

The volume of flow formula used to compute the monthly variable charge shall be as provided for in Rate Schedule 1, 2012 Amended Monthly user charges. Based on 100% of Winter water use in gallons (winter water use = average of November through February)

Water and Wastewater Connection Charges

Water Meter Size	Charge Per Connection
5/8" x 3/4"	\$1,000
1"	\$1,600
1 1/2"	\$2,500
2"	\$6,000

The One-Time Charge for customers with water meter size greater than 2" shall be determined on a case by case basis. The evaluation will include but it is not limited to consideration of the volume and characteristics of wastewater discharge, pretreatment requirements, and the cost to the wastewater utility's infrastructure and treatment capacities.

Multi Service Lines with Individual Meters:

A customer may request individual meters to be installed for a multi-unit property. A master meter shall be required and the One Time Charge for applicable meter size will be applied. For each individual meter requested to be installed beyond the master meter, a Multi-Unit Surcharge will be required at \$157.00 per unit.