

CITY OF

Coachella

Utility Operations Staffing Study

Project Report / September 2023

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September 8, 2023

Bill Pattison
Finance Director
City of Coachella
53-990 Enterprise Way
Coachella, CA 92236

Subject: Utility Operations Staffing Study

Dear Mr. Pattison:

Raftelis is pleased to provide its Report on the Utility Operations Staffing Study of the City of Coachella Utilities Department. Providing utility services helps to preserve the health, environment, and prosperity of the community. They are critically important; providing them efficiently and effectively ensures that customers get high value. It is commendable that the City has commissioned this assessment to build upon an already strong foundation. We believe that it will help the organization have continued success in addressing the community's needs going forward.

This assessment evaluates the Utilities Department's water and wastewater operations and identifies opportunities to enhance efficiency and effectiveness. It summarizes Raftelis' analysis of staffing resources, organizational structures, technology, asset management, and related areas to develop recommendations.

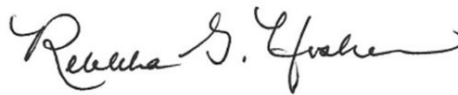
Coachella is fortunate to have a Utilities Department that is staffed with people who care deeply about the community, are passionate about the environment, and committed to meeting customer expectations. There is a great deal of good work being done, and the recommendations in this report are intended to build upon and enhance these efforts.

Thank you for the opportunity to assist the City of Coachella. Please don't hesitate to contact us at any time.

Sincerely,



Scott Parker
Senior Manager



Rebekka G. Hosken
Senior Manager

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Executive Summary

The City of Coachella commissioned Raftelis to complete a study of the City's Utilities Department to determine appropriate staffing levels under optimal performance conditions, as well as identify opportunities to enhance organizational efficiency and effectiveness. The recommendations in this report build upon the Department's strengths, especially its impressive professional staff who take pride in providing high levels of service to the Coachella community. Raftelis used a combination of techniques to assess the Utilities Department staffing levels, organizational structure, and operational circumstances, including comparing Coachella's utility operations to national and local peer utilities in southern California and gauging the effectiveness of various Utilities Department activities compared with industry best practices. Finally, we relied on our experience working with over 1,200 utilities of all sizes both in California and around the country.

The Utilities Department faces several challenges in delivering efficient and effective service; most importantly, low authorized staffing levels paired with significant employee turnover relative to the scope and scale of work undertaken by the department. As a result, some employees that remain are facing burnout. Additionally, like many utilities across California, Coachella competes with both neighboring municipalities and special utility districts for qualified staff and has experienced high levels of employee turnover. Backfilling these roles is especially difficult in the water and wastewater industry given the licenses required for many positions. This makes employee retention a high priority.

While filling current vacancies, particularly in the Water Authority, would likely boost productivity and morale, this report recommends that the Department needs additional positions in several areas to begin conducting proactive maintenance activities in accordance with industry best practices. Coachella currently performs little preventative maintenance (PM) or predictive maintenance on the City's water and wastewater infrastructure. An increasing number of pipeline leaks and other asset failures force staff to spend their time reacting to pressing operational needs and limits their capacity to operate proactively, which poses considerable financial and operational risks going forward. Although the Department has shown resilience by continuing to deliver the current level of service in the face of these challenges, it will likely struggle to sustain that standard if these issues are not proactively addressed.

There are also various technological and resource challenges impacting operational efficiency. Examples include the presence of a significant number of water meters which cannot be accurately read via radio signal and require time-consuming manual reads. The Department also does not consistently record maintenance information, limiting its ability to use data to set maintenance and capital planning priorities. Lack of heavy equipment and staff to run that equipment makes addressing operational failures, like main breaks, more difficult than would be the case if there were dedicated resources available. While the City's Utilities staff do an excellent job minimizing the impact of these challenging circumstances, they must be addressed to sustain the high quality of service customers have come to expect.

To address the challenges listed above, Raftelis recommends both adding new positions in key operational areas and enhancing maintenance through greater utilization of progressive maintenance practices. Additionally, several recommendations propose ways to increase operational efficiency and effectiveness. The following table summarizes the list of recommendations proposed in this report.

Table 1: List of Report Recommendations

Number	Recommendation
1	Create a Chief Treatment/Distribution Operator position in the Water Authority to increase management capacity.
2	Add a full-time Equipment Operator position to support Water and Sanitary maintenance activities.
3	Add three full-time treatment and/or distribution operator positions in the Water Authority.
4	Utilize temporary staff to perform meter reads until the transition to AMI is complete.
5	Add up to four full-time treatment and/or collections operator positions in the Sanitary District and build a dedicated Sanitary collections crew.
6	Move toward an asset management-based approach to infrastructure management.
7	Implement a rolling replacement budgeting cycle for equipment to perform preventative maintenance.
8	Conduct a focused compensation study of neighboring utilities including municipal and special utility districts.
9	Upgrade and expand the SCADA network that allows staff to remotely monitor the water and wastewater systems.
10	Add one full-time SCADA/Instrumentation Technician position to program and maintain the Department's SCADA communications network.
11	Conduct a critical spares exercise to identify critical spare parts and components needed for operational equipment in both water and wastewater and then contract with a parts supplier to order and deliver commonly needed parts and components for water and sanitary assets.

Introduction

Background and Methodology

In September 2022, the City of Coachella engaged Raftelis to conduct a staffing study of the City's Utilities Department. The goal of the study is to assess if the Department has the appropriate staffing levels and structure to achieve its current and future goals. This assessment also includes a review of the Department's major functions and processes to identify opportunities to improve organizational workflows.

Raftelis conducted a kick-off meeting for the study in November 2022 with the Assistant to the City Manager, Finance Director, Utilities Director, Sanitary Superintendent, Water Superintendent, collective bargaining representatives, and consultant team. The purpose of this meeting was to discuss the scope of the project, the City's objectives, and to finalize the project schedule. Raftelis then submitted a data request to collect background information about various topics, including organizational structures, operations, and staffing elements. Raftelis reviewed numerous documents provided by the City, including:

- Organizational Charts
- Budget documents and Capital Improvement Plan (CIP)
- Staffing and personnel data
- Maintenance schedules and data
- Water production and wastewater collection data
- Standard Operating Procedures (SOPs)

To perform this study, individual interviews were conducted with the City's Finance Director and five members of the Utilities Department's leadership team. Group interviews were also conducted with staff from the Department's different functional areas. Raftelis also visited the major water and wastewater treatment facilities to gain an understanding of their condition, as well as speak to staff about operations and maintenance practices. These tours included additional conversations with supervisory personnel and discussions with front line staff. After the visits, follow-up meetings and emails occurred with staff to clarify our understanding of the information provided, ask additional questions, and to discuss organizational structure and staffing options.

About the Coachella Utilities Department

As a full-service municipality, Coachella provides water and sanitary wastewater service to over 46,000 people across a 32 square mile service area. The Utilities Department provides for the treatment and distribution of potable water to over 9,000 residential, commercial, and industrial water service connections, as well as the collection, treatment, and disposal of wastewater from more than 8,000 wastewater service connections. The City's principal water supply is local groundwater pumped from six City-owned and operated wells, producing approximately 6.4 million gallons per day (MGD) of potable water distributed via 120 miles of pipeline. The sanitary system is comprised of one wastewater treatment plant designed to treat up to 4.5 MGD of wastewater to secondary standards, before being discharged into the Coachella Valley Stormwater Channel. The sanitary collection system that conveys wastewater from customers to the treatment plant consists of 90 miles of pipelines, two sewage pump stations, and over 1,600 manholes.

STRUCTURE

The Utilities Department is organized into three key functions: Administration, Water Authority (Water), and Sanitary District (Sanitary). The Department's approved 2023 staffing level is 17.0 full-time equivalents (FTEs), including 3.0 Administration FTEs, 7.00 Water FTEs, and 7.00 Sanitary FTEs. The Water Authority consists of one

Water Superintendent who manages a team of six staff positions. The Sanitary District is overseen by a Sanitary Superintendent and one Chief Treatment/Collections Operator, who directly supervises five staff and reports to the Superintendent. The following figure outlines the Department’s organizational structure in FY2023.

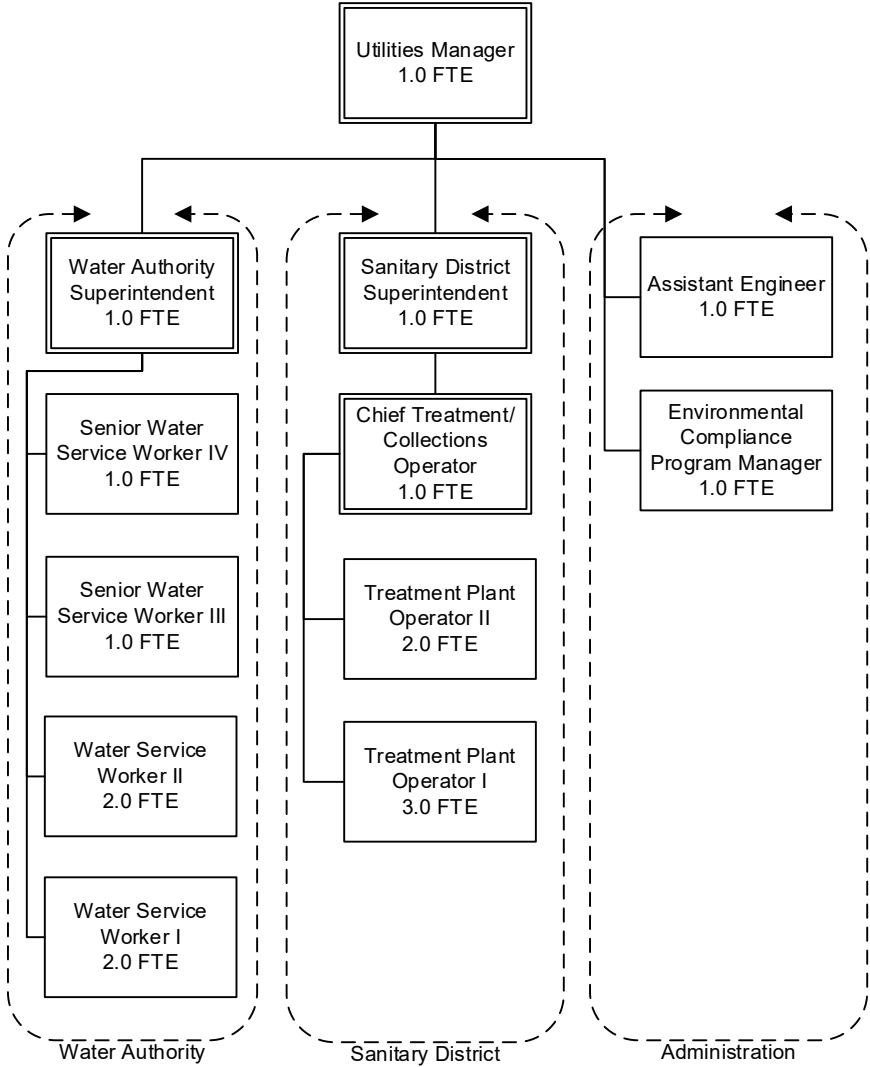


Figure 1: Utilities Department Organizational Structure, FY2023

An Administrative Assistant II position located in the Public Works Department provides approximately 25% support to the Utilities Department. An Environmental Compliance Inspector position in Administration has been shown in the Department’s budget but has not been filled nor funded.

CORE SERVICES MATRIX

The following table provides an overview of core services provided by the Utilities Department; it is not meant to be all-inclusive, but a summary of the main services provided by Utilities staff.

Table 2: Utilities Department Core Services

Department Function	Program Area	Activities and Service Levels
Administration	Executive Management	<ul style="list-style-type: none"> Oversee Departmental operations to ensure service level expectations are met Communicate operational updates to City Manager, City Council, and stakeholders Participate in regional environmental initiatives
	Regulatory Compliance	<ul style="list-style-type: none"> Track, manage, and report Departmental activities in accordance with applicable regulations
	Project/Contract Management	<ul style="list-style-type: none"> Oversee all contracts with third party vendors Ensure all projects are delivered on-time and within budget
Design & Construction	Capital Improvement Plan (CIP) Implementation	<ul style="list-style-type: none"> Provide engineering expertise and support to capital projects Develop maintenance schedules and plans for lateral and vertical infrastructure
Water Treatment	Water Treatment	<ul style="list-style-type: none"> Operate the City's six active groundwater wells Conduct regular water quality tests to ensure water meets acceptable drinking standards Inspect and maintain wellhouses and pump stations
Water Distribution	Water Distribution	<ul style="list-style-type: none"> Conduct maintenance of water mains, valves, and hydrants Respond to water line breaks and leaks Perform flushing of water mains to ensure water quality
Wastewater Treatment	Wastewater Treatment	<ul style="list-style-type: none"> Operate the City's wastewater treatment plant and perform maintenance and repairs as needed Inspect and maintain lift stations
Wastewater Collection	Wastewater Collection	<ul style="list-style-type: none"> Conduct regular maintenance of sewer mains including televising and cleaning Respond to sanitary sewer overflows and blockages

STAFFING

Full-time administration and operations and maintenance (O&M) staffing has increased by 6% between FY2018 and FY2023, or a net increase of 1.0 FTE. This total does not account for the Utilities Department's overhead allocations from other internal service departments within the City or shared positions. While staffing levels have remained stable in the Sanitary District during that time span, Administration dropped and then returned to the FY18 level with no net increase in positions, and the Water Authority added 1.0 FTE. The following table shows budgeted and approved staffing levels by division for the last six fiscal years.

Table 3: Utilities Department Authorized Staffing Level, FY2019 – FY2023

Division	FY2018 Budget	FY2019 Budget	FY2020 Budget	FY2021 Budget	FY2022 Budget	FY2023 Budget	Percent Change FY2019 – FY2023
Administration	3.00	2.00	2.00	2.00	2.50	3.00	0%
Water Authority	6.00	6.00	6.00	6.00	6.00	7.00	17%
Sanitary District	7.00	7.00	7.00	7.00	7.00	7.00	0%
Total	16.00	15.00	15.00	15.00	15.50	17.00	6%

It should be noted that the Department has experienced numerous vacancies in recent years. While the Water Authority has 7.00 authorized positions, at the time of this review, only three positions (including the Superintendent) were filled. Staffing is supplemented by part-time temporary workers. Vacancies and staff retention are having a significant negative impact upon the Department's ability to complete planned work.

FINANCIAL CONDITION

As is appropriate per government accounting standards, both the Water Authority and Sanitary District are accounted for as Enterprise Funds in the City’s books. Enterprise Funds are self-supporting funds that sell goods and services to the public for a fee and are considered business-type activities.

In summary, both funds are healthy and have revenues exceeding expenditures. The net position for both funds has been improving from past years; in fact, the City has resources available to further invest in the utilities as shown below.

Water Authority Fund

A review of the City’s most recent Annual Comprehensive Financial Report (ACFR) for fiscal year ending June 30, 2022, shows that the Water Authority had an increase in net position of \$3,682,247 for FY2022. Table 4 below shows Water Authority revenues by category from FY2019 to FY2023.

Table 4: Water Authority Fund Revenues by Category, FY2019 – FY2023

Category	FY2019 Actual	FY2020 Actual	FY2021 Actual	FY2022 Estimated	FY2023 Budget	Percent Change FY2019 – FY2023
Utility Service Revenue	\$6,221,940	\$5,991,611	\$6,370,803	\$6,851,756	\$6,200,000	-0.35%
Connection Fees	\$19,670	\$22,474	\$795,862	\$21,461	\$592,500	2912.20%
Ground Water Replenishment	\$433,729	\$437,331	\$459,736	\$502,319	\$550,000	26.81%
Other Charges for Service	\$165,131	\$97,450	\$43,557	\$64,020	\$115,000	-30.36%
Investment	\$162,734	\$218,918	(\$10,683)	(\$214,583)	\$0	-100.00%
Intergovernmental Revenues	\$154,666	\$65,224	\$92,011	\$196,863	\$100,000	-35.34%
Total Revenues	\$7,157,870	\$6,833,008	\$7,751,286	\$7,421,836	\$7,557,500	5.58%

As can be seen, most revenues are stable, with the most variability in connection fees and investment income and with an overall increase of 5.58% from FY2019 actuals to FY2023 budget.

Table 5 below details Water Authority Fund expenditures by category for the last five years.

Table 5: Water Authority Fund Expenditures by Category, FY2019 – FY2023

Category	FY2019 Actual	FY2020 Actual	FY2021 Actual	FY2022 Estimated	FY2023 Budget	Percent Change FY2019 – FY2023
Operating Costs	\$2,200,430	\$2,622,740	\$2,659,613	\$2,796,019	\$3,309,825	50.42%
Administrative Costs	\$1,518,447	\$2,031,019	\$1,975,145	\$1,904,069	\$1,943,480	27.99%
Depreciation & Amortization	\$1,300,348	\$1,300,348	\$1,300,348	\$1,400,000	\$1,200,000	-7.72%
Debt Service	\$483,642	\$483,642	\$483,642	\$556,655	\$509,437	5.33%
Transfers Out	\$618,502	\$618,502	\$618,502	\$601,436	\$793,115	28.23%
Total Expenditures	\$6,121,369	\$7,056,251	\$7,037,250	\$7,258,179	\$7,755,857	26.70%

Expenditures were more variable. Budgeted operating costs increased by 50% over FY2019 and transfers out increased by 28.23%. Operations increases included budgeting for replacement of vehicles and increasing costs of energy and staff salaries and overtime.

The fund’s total net position, the sum of all previous positive and negative annual changes to the bottom line, of \$28,978,383 includes \$5,343,463 in unrestricted net position or “reserves” available for use without restriction. The Government Accounting Standards Board (GASB) suggests a reserve level of 90 days’ (three months) of operating expenses. For the Water Authority, this would equal \$861,584 (25% of annual operating expenses of \$3,446,336). The Water Authority’s unrestricted reserves of \$5,347,463 are well above this amount and, in fact, are 155% of annual operating expenditures. FY2022 saw both an increase in operating revenues and a decrease in expenses, a large portion of which was due to the reduction of pension liability and associated expense. The City issued pension obligation bonds in 2020 to pay down the City’s pension liability.

Transfers out, which typically reimburse the City’s General Fund for the use of administrative staff such as legal, finance, or human resources personnel who support the utilities, were budgeted at \$793,115 for FY2022-23 for the Water Authority, which is equivalent to 24.0% of Water Authority costs. In our experience, this is on the high end; as a point of comparison, the transfers out of other nearby municipal utilities for FY2022 are equal to 4.6% of expenditures for the City of Oceanside, 1.1% for the City of Redlands, and 1.1% for the City of Norco.

Sanitary District Fund

A similar review for the Sanitary District shows a positive change in net position of \$4.1 million. FY2022 saw both an increase in operating revenues and a decrease in expenses, a large portion of which was due to the reduction of pension liability and associated expense. The City issued pension obligation bonds in 2020 to pay down the City’s pension liability.

Table 6 below shows Sanitary District Fund revenues by category for the last five years.

Table 6: Sanitary District Fund Revenues by Category, FY2019-FY2023

Category	FY2019 Actual	FY2020 Actual	FY2021 Actual	FY2022 Estimated	FY2023 Budget	Percent Change FY2019 – FY2023
General Revenue	\$183,787	\$178,215	\$172,514	\$160,000	\$99,000	-46.13%
Connection Fees	\$616,377	\$729,354	\$1,036,778	\$930,000	\$922,500	49.66%
Utility Service Revenue	\$5,866,814	\$5,969,661	\$6,657,982	\$6,050,000	\$5,850,000	-0.29%
Investment Income	(\$29,976)	\$47,911	(\$1,223)	\$22,702	\$17,027	-156.80%
Other Revenues	\$0	\$42,966	\$69,372	\$0	\$0	0.00%
Transfers In	\$219,675	\$0	\$0	\$0	\$0	-100.00%
Total Expenditures	\$6,856,677	\$6,968,107	\$7,935,423	\$7,162,702	\$6,888,527	0.46%

Table 7 below details Sanitary District Fund expenditures by category for the last five years.

Table 7: Sanitary District Fund Expenditures by Category, FY2019-FY2023

Category	FY2019 Actual	FY2020 Actual	FY2021 Actual	FY2022 Estimated	FY2023 Budget	Percent Change FY2019 – FY2023
Operating Costs	\$1,981,881	\$2,134,986	\$2,208,431	\$2,677,555	\$2,485,408	25.41%
Administrative Costs	\$1,491,828	\$1,447,857	\$1,746,257	\$1,610,687	\$1,404,994	-5.82%
Depreciation & Amortization	\$1,390,971	\$1,389,501	\$1,394,418	\$1,500,000	\$1,450,000	4.24%
Debt Service	\$650,684	\$612,591	\$606,339	\$666,879	\$614,964	-5.49%
Transfers Out	\$570,968	\$779,701	\$941,259	\$945,811	\$798,920	39.92%
Total Expenditures	\$6,086,332	\$6,364,636	\$6,896,704	\$7,400,932	\$6,754,286	10.97%

Expenditures increased by 10.97% over 2019. Operating costs increased by 25%, including the costs of energy and employee salaries and overtime. Transfers out increased by 39.92% over 2019. The Sanitary Fund total net position of \$21,514,454 includes \$6,269,887 in unrestricted net position or “reserves” available for use. A reserve level of 90 days (three months) of operating expenses for the Sanitary District would equal \$515,745 (25% of operating expenses of \$2,062,980). The Sanitary District’s unrestricted reserves of \$6,269,887 are well above this amount and, in fact, are 304% of annual operating expenditures.

Transfers out, which typically reimburse the City’s General Fund for the use of administrative staff such as legal, finance, or human resources personnel who support the utilities, were \$798,920 for the Sanitary District, which is equivalent to 32.1% of operating costs.

The Sanitary District Fund’s health improved significantly between FY2021 and FY2022, from having a *negative* \$1.2 million unrestricted net position to a positive \$6.3 million, due to a combination of factors. First, the City eliminated significant pension liabilities and expenses by issuing a pension obligation bond. Second, \$6.2 million in restricted net position for capital projects in FY2021 became unrestricted in FY2022; the nature of this change is unknown but contributed to the large increase in unrestricted net position for the year.

Peer Benchmarking

To inform this study, the City of Coachella identified five utility organizations in southern California to use as peers for benchmarking comparisons. These organizations are the Coachella Valley Water District, Indio Water Authority, Mission Springs Water District, City of Redlands, and Desert Water Agency. These peer organizations were chosen based on their similar traits to Coachella, such as proximity, environmental conditions, services provided, or size. Data from peer organizations came from publicly available sources such as adopted budgets, water quality reports, and organization websites. Table 8 below provides organizational information about each benchmark utility including total staffing, services provided, customer accounts, and water and wastewater volume.

Table 8: Peer Organization Information

Utility	Governance	Services Provided	Water O&M FTEs	Wastewater O&M FTEs	Water Customer Accounts	Wastewater Customer Accounts
City of Coachella	Municipality	Water, Wastewater	7.25	7.25	9,080	7,472
Mission Springs WD	Authority	Water, Wastewater	10.49	13.51	13,480	9,364
Indio Water Authority	Municipality	Water	24.00	N/A	24,895	N/A
Desert Water Agency	Authority	Water	34.00	N/A	23,000	N/A
City of Redlands	Municipality	Water, Wastewater	40.00	22.00	22,639	18,000
Coachella Valley WD	Authority	Water, Wastewater	134.15	133.85	112,180	98,351

It is important to note that the number of FTEs shown for each organization focuses on operations and maintenance staffing levels for water and wastewater operations. These O&M functions include water and wastewater treatment, distribution/collections, facility maintenance, and meter reading. Administrative and support services positions, such as finance, human resources, information technology, and others, were not included in the scope of this benchmarking analysis.

In addition to the services provided, O&M staffing levels, and number of customer accounts, this analysis also compared peer utilities' operational statistics to Coachella. These statistics include the number of groundwater wells, wastewater treatment plants, average daily potable water production and wastewater influent collected, and miles of pipelines. The following table outlines these statistics for each peer organization.

Table 9: Peer Organization Operational Statistics

Utility	Groundwater Wells	Wastewater Treatment Plants	Ave. MGD Drinking Water Treated	Ave. MGD Wastewater Collected	Miles of Water Main	Miles of Sewer Main
City of Coachella	6	1	6.41	2.93	120	90
Mission Springs WD	13	2	7.14	2.00	237	125
Indio Water Authority	20	N/A	18.00	N/A	347	N/A
City of Redlands	28	1	29.32	4.0	384	247
Desert Water Agency	29	N/A	N/A	N/A	392	N/A
Coachella Valley WD	95	5	83.50	16.66	2,032	1,162

In general, benchmarking attempts to use a variety of metrics to piece together a picture of how utilities compare. Given the unique operational circumstances and environments of each utility organization, however, true apples-to-apples comparisons are elusive. The most universal of these metrics is the number of customer accounts per FTE

utility employee, which are shown in the following two figures that present the water customer accounts per water FTE and sewer customer accounts per sewer FTE.

Figure 2 shows the number of water accounts per FTE. Coachella has 1,252 accounts per water FTE, which is 42% higher than the benchmark organization average. While having more water accounts per water employee compared to peers may indicate high levels of organizational efficiency, this does not appear to be the case in Coachella. A more likely explanation is that the Utilities Department is understaffed relative to its responsibilities. One would expect a smaller utility organization, like Coachella, to have fewer accounts per FTE than their larger peers, which typically benefit from economies of scale.

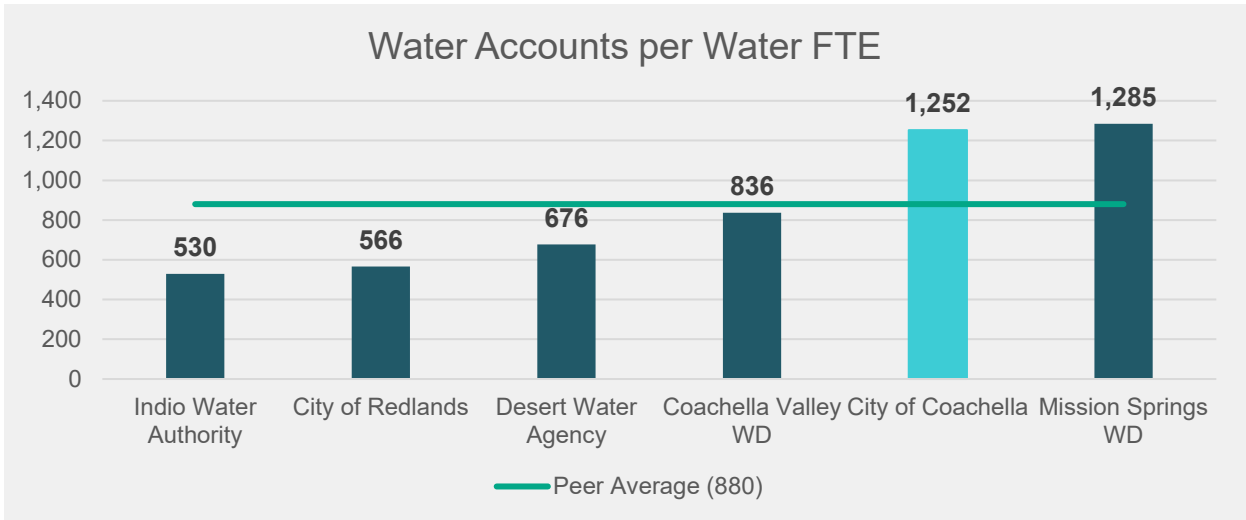


Figure 2: Water Customer Accounts per Water FTE

Figure 3 shows the number of wastewater accounts per wastewater FTE. Coachella has 1,031 accounts per Sanitary FTE, which is 38% higher than the peer average. Similar to the previous measure, having more wastewater accounts per wastewater employee compared to peers is not necessarily an indication of greater operational efficiency. In the case of Redlands, which operates a much more complex membrane bioreactor wastewater treatment plant that treats effluent to tertiary standards, the comparatively high number of accounts per FTE could indicate a commendable level of efficiency. In the case of Coachella, which treats effluent to secondary standards, a probable explanation for the high number of accounts per FTE is that the Sanitary District is understaffed compared to its peers.

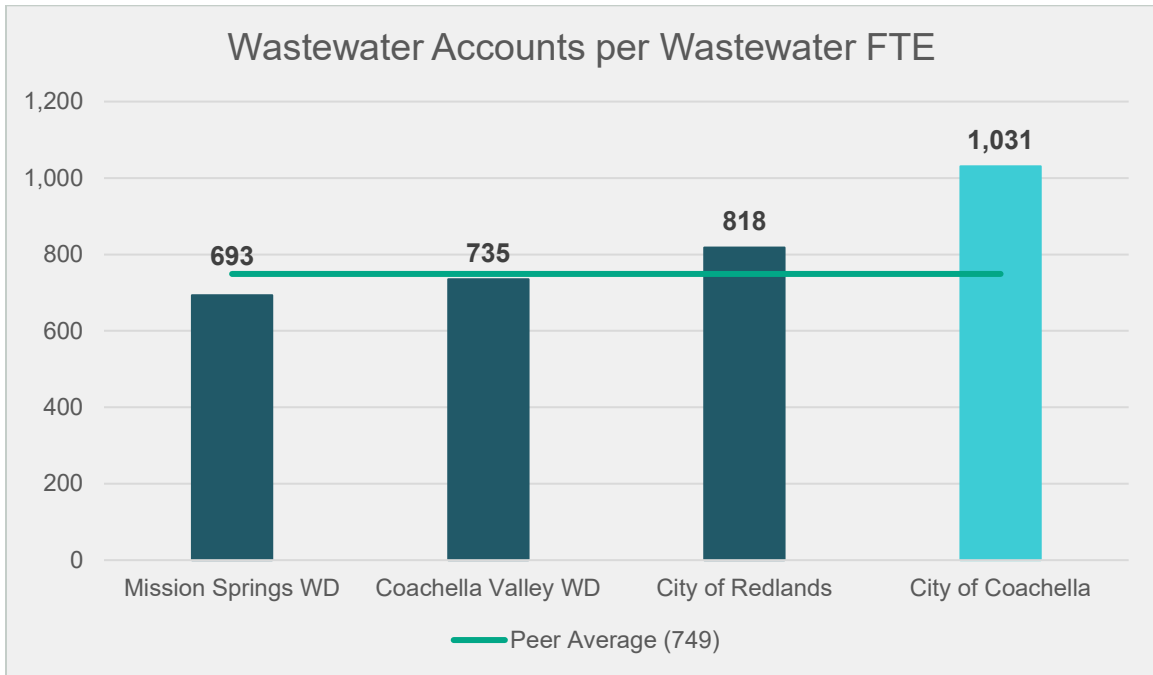


Figure 3: Sewer Customer Accounts per Sewer FTE

Another metric used to measure staffing levels is MGD of water produced or wastewater collected per FTE. Figure 4 shows that Coachella produces an average of 0.38 MGD per water employee, which is 48% less than the benchmark average. However, this is in line with expectations for a utility the size of Coachella's, which does not benefit from the same economies of scale that its larger peers do. For instance, Coachella has six active groundwater wells with a total capacity of 16.5 MGD, while most of the benchmark organizations have dozens of wells and substantially higher production to meet the needs of their larger service populations.

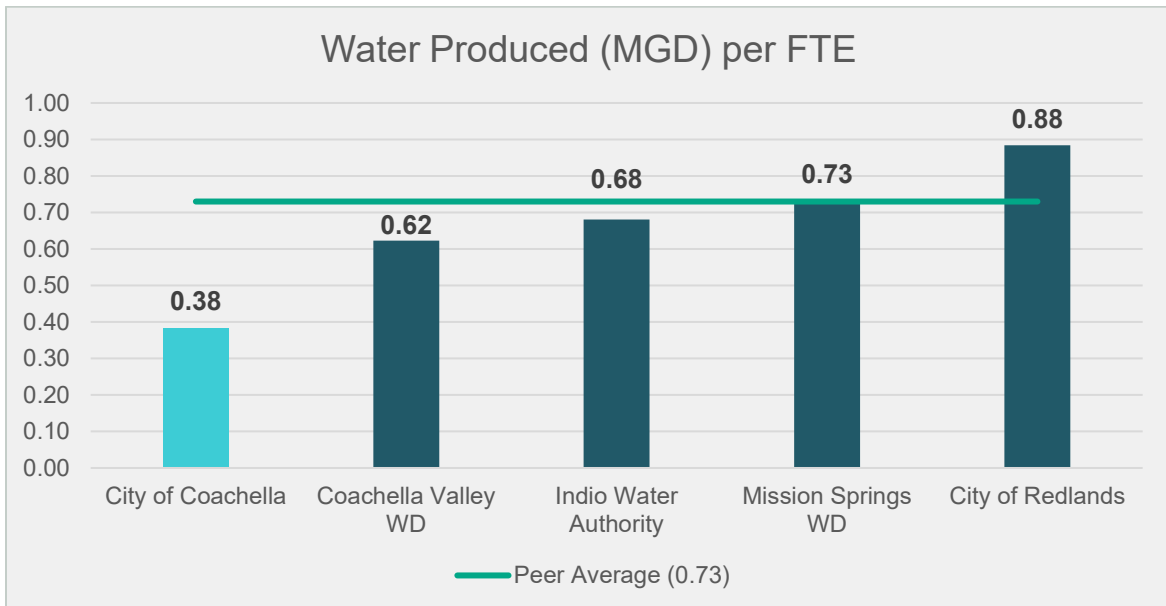


Figure 4: MGD Water Produced per Water FTE

Note that the relative rankings between the peer utilities can change when efficiency is measured on an account or a production basis. The average water used per account, the mix of customers a utility serves, and even how leaky a water distribution system is can greatly influence these relative rankings.

Figure 5 presents the average volume of wastewater (MGD) collected per wastewater FTE. Coachella collects an average of 0.40 MGD of wastewater per Sanitary employee, which is 167% more than its peers. As not all peers provide wastewater treatment service, including the Indio Water Authority and Desert Water Agency, comparisons can only be made for some peers.

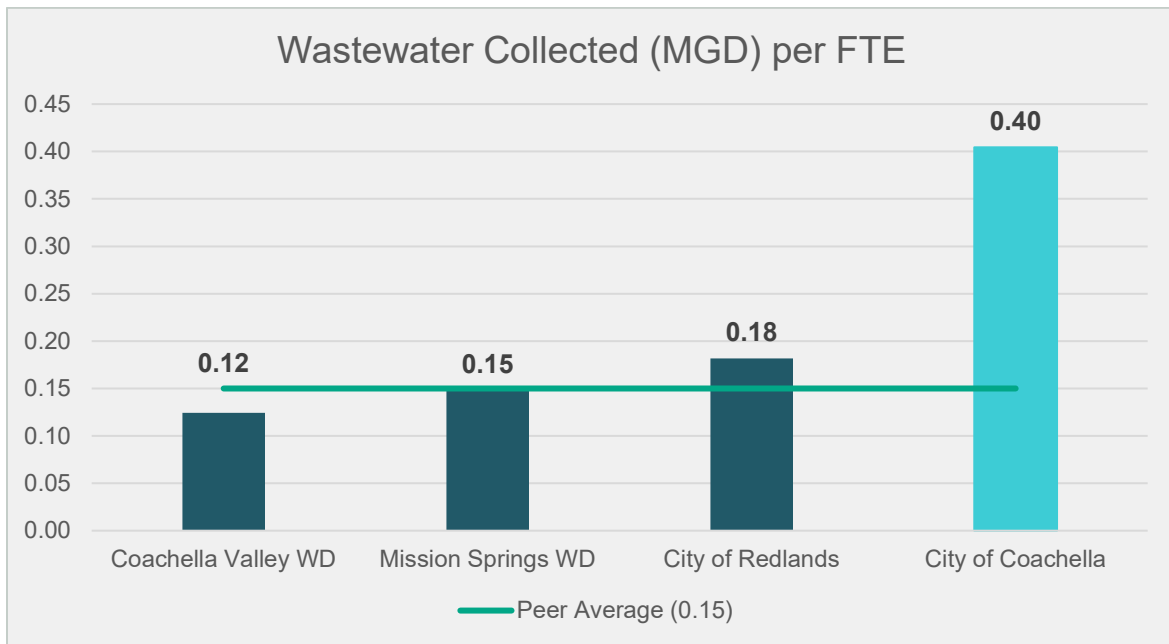


Figure 5: MGD Wastewater Collected per Wastewater FTE

The miles of water main per water FTE is a metric used to compare water system maintenance operations across different organizations. As shown in Figure 6, Coachella has approximately 16.6 miles of water main per Water Authority O&M FTE, which is the second largest among peer organizations and 32% higher than the peer average. This is likely another indication of Coachella’s relatively lean staffing structure.

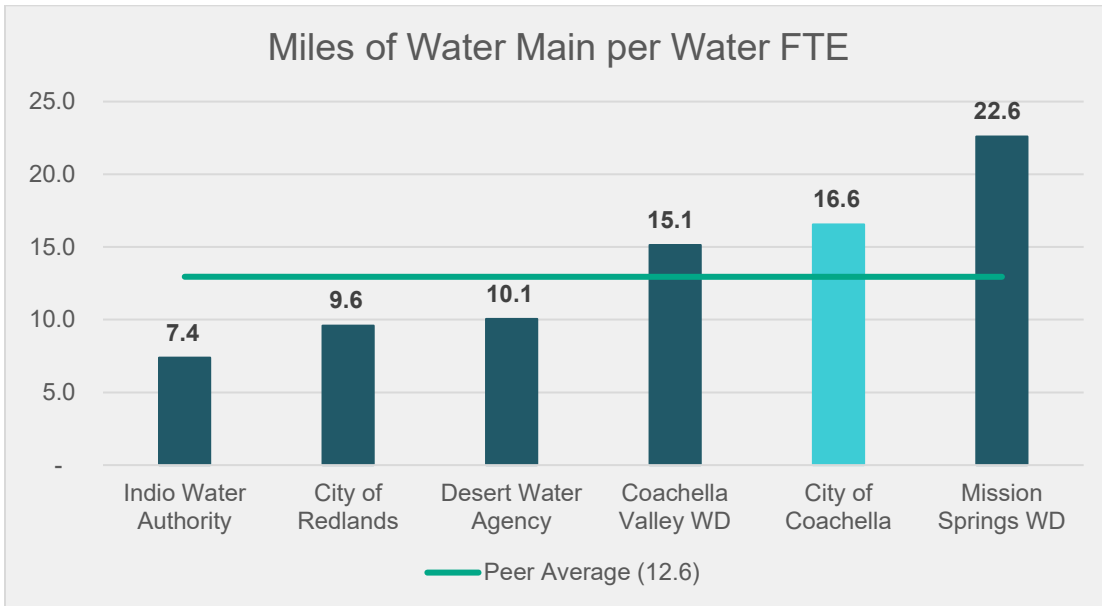


Figure 6: Miles of Water Main per Water FTE

For the wastewater collections system, the miles of sewer main per wastewater FTE shows the relative amount of infrastructure maintained per position across different organizations. On average, there are 10.7 miles of sewer main per FTE across all organizations and Coachella is responsible for 12.4 miles per FTE, which is 16% more than the peer average. Figure 7 shows the miles of sewer main per collections FTE across the benchmark organizations.

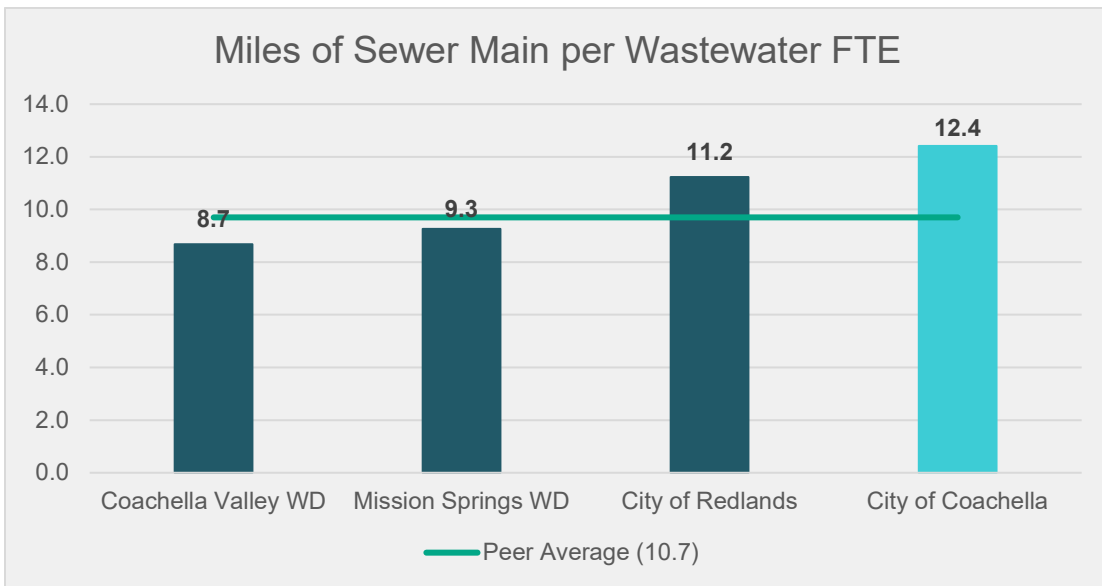


Figure 7: Miles of Sewer Main per Wastewater FTE

As mentioned previously, smaller urban utilities tend to have lower outputs than larger organizations, which benefit from operational economies of scale. Nevertheless, Coachella’s ratios of accounts per FTE, wastewater collected per FTE, and miles of pipelines per FTE, are considerably higher than peer averages. Only the number of gallons of water produced per FTE is lower than the average of the other benchmark organizations. Collectively, while at first glance these high ratios may appear favorable, it likely indicates that Coachella’s water and wastewater operations are understaffed.

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Analysis and Recommendations

The analysis and recommendations detailed in this section identify specific and actionable steps the Utilities Department can take to strengthen performance in two key areas: 1) Staffing and Organizational Structure, and 2) Operational Efficiency. While this assessment included reviewing all of the Department's work units and functions, the proposed recommendations focus upon those areas with the greatest opportunities for improvement.

STAFFING & STRUCTURE

Recommendation 1: Create a Chief Treatment/Distribution Operator position in the Water Authority to increase management capacity.

The current management structure of the Water Authority consists of one Water Superintendent who is responsible for managing six Water operators and handling accounts payable administrative duties. The Water Superintendent should provide highly complex support to the Utilities Manager and should focus on administrative work, such as reports and planning improvements in the Department. In practice, the current Superintendent has limited capacity to do anything other than address urgent operational and maintenance issues. This individual spends considerable time in the field filling in staffing gaps brought about by vacancies and a growing maintenance backlog. This limits their ability to handle administrative obligations and provide strategic management for the Water Authority.

To provide additional management capacity within the Water Authority, a Chief Treatment/Distribution Operator position should be added under the Water Superintendent to supervise the Water Authority's six operator positions and manage daily operations. This position would be similar to the Chief Treatment/Collections Operator in the Sanitary District's reporting structure, which has been instrumental in supporting the Sanitary Superintendent. Mirroring this structure by creating a Chief Treatment/Distribution Operator role in the Water Authority would allow the Superintendent to focus more on administrative needs (like compliance and other reporting) as well as strategic maintenance initiatives that will help the Water Authority become more proactive. It would further position the Water Authority, and the Utilities Department as a whole, to better address anticipated future staffing growth in response to Coachella's growing population and expanding water and wastewater infrastructure. Employee retention could also be favorably impacted by creating this role, as it would create further promotional opportunities for staff who desire to build careers with the Utilities Department.

Although creating this position requires a financial commitment, it would allow the Water Superintendent to spend more time enhancing the Department's practices to prolong the useful life of capital infrastructure. Both the Water and Sanitary Superintendents should ideally have capacity to assist the Utilities Manager with budget, CIP, and Department planning and support, which they currently do not have. The benefits of a robust asset management approach, as outlined in Recommendation 6, would likely save the City considerably more money than the costs associated with adding a Chief Treatment/Distribution Operator.

Recommendation 2: Add a full-time Equipment Operator position to support Water and Sanitary maintenance activities.

The Utilities Department currently shares an Equipment Operator position with the City's Public Works Department, paying 50% of this operator's salary and benefits costs while Public Works pays the other 50%. Based on this cost allocation, both departments should have equal access to the Equipment Operator for an average of 20 hours per week. Unfortunately, Utility Department staff report that Public Works' needs are often prioritized over

theirs, which means the Utilities Department typically has access to the Equipment Operator less than 50% of the time, sometimes significantly so. This negatively impacts the speed with which Utilities staff can respond to urgent maintenance issues, causing repairs to be delayed or resulting in contractors being brought in to perform excavation work.

As the current infrastructure continues to age, maintenance needs are expected to increase in the coming years. The addition of more infrastructure associated with the arrival of new residents and developments will make access to a dedicated utility Equipment Operator an important component of the City's current and future maintenance approach. To avoid paying a premium for contractors and better ensure maintenance issues are addressed as quickly as possible, the Utilities Department should add a full-time Equipment Operator position to support Water and Sanitary maintenance activities.

Recommendation 3: Add three full-time treatment and/or distribution operator positions in the Water Authority.

While filling the three current operator vacancies within the Water Authority will greatly improve the current challenges associated with operations, additional positions are needed to transition the Water Authority from a reactive maintenance approach to a proactive one. Adding more positions would also promote near- and long-term financial and operational sustainability by reducing overtime, which currently accounts for a significant portion of the Water Authority's personnel costs. For instance, even with six approved operator positions, the FY2023 budget still includes \$100,000 for operator overtime expenses. This represents a considerable amount of overtime, which stresses the utility financially and can have an impact on employee health, wellness, and safety. Staff report often working on their Fridays off (outside of their 40-hour workweek) and being on-call frequently, which is not sustainable. Although some financially motivated employees may enjoy the extra pay overtime brings, the City must be mindful of overworking employees who already perform physically demanding labor. Additional staff will also help the Water Authority follow required safety practices, including marking underground utilities prior to digging and having an employee perform traffic control duties while field crews do work in or alongside roadways. The lack of staff has also contributed to the inability to ensure adequate preventive maintenance programs, which include such activities as regularly exercising valves to ensure they remain operational, implementing a flushing program at water dead-ends to ensure water quality, and more. Presently, staff are limited primarily to reactive responses to daily work orders, service leaks, and repairs.

To mitigate these risks, three full-time treatment/distribution operator positions should be created. This would bring the Water Authority's total staffing level to 10.25 FTEs from the current total of 7.25 FTEs. With 10.25 full-time staff, the Water Authority will be able to field separate maintenance crews to perform proactive and reactive maintenance, something which it is not currently able to do. It will also create additional flexibility to input critical condition and maintenance data into GIS and allow for staff to take paid time off, attend training, and reduce the frequency that these operators must be on standby during evenings and weekends. These would all amount to a significant improvement in employees' quality of life and morale, and potentially result in improved productivity and employee retention. Although salaries, benefits, and equipment costs associated with adding these new positions is significant, the financial and operational benefits the City would experience over time will likely make it a worthwhile investment.

Recommendation 4: Utilize temporary staff to perform meter reads until the transition to AMI is complete.

The City currently bills water and sewer customers bi-monthly, requiring the Water Authority to read over 9,000 customer meters beginning on the 1st and 15th days of each month. The Department does not have dedicated meter reading staff, meaning the Water Authority’s treatment and distribution operators are pulled away from their normal duties to read meters.

Meters are read using Automated Meter Reading (AMR) systems that allow staff to capture information from each meter via radio waves while driving by customers’ homes, a process which typically takes one day to complete. Unfortunately, there are usually a significant number of errors, whereby the AMR system does not properly transmit the correct value. According to Water Authority staff at the time of this review, there are approximately 700 meter misreads per billing cycle, which is about 8% of the 9,080 accounts. According to the January 2023 Utilities Manager Quarterly Activity Report, there were 5,564 non-reads from April to June 2022, an average of 1,855 per month. These errors are identified in the billing process and reported to Water Authority staff so they can go back out and manually read the meters in question, which is very time consuming. Figure 8 outlines the meter reading workflow and process for addressing errors.

Given the Utilities Department’s staffing challenges, it is impractical to have licensed treatment and distribution operators reading water meters when they should be monitoring well sites, responding to maintenance emergencies, and performing proactive maintenance. The City recognizes this issue, as well as the ongoing challenge of meter reading errors, and is in the process of transitioning to Advanced Metering Infrastructure (AMI). In contrast to AMR systems, AMI systems consist of digital meters that should reduce the number of manual reads each billing cycle and are generally more accurate.

Until AMI is fully implemented, which may take several years, the Department should consider hiring temporary workers for a specific temporary period to perform meter reads so its licensed operators can focus on higher priority needs. By relieving treatment and distribution operators of meter reading duties, the Department will be better equipped to respond to maintenance needs, advance preventative maintenance practices, and monitor water production and quality.

The City could hire temporary staff, train them, and encourage them to hire for the new positions being opened rather than leave for other jurisdictions. The addition of staff in Recommendation 3 above may provide the unlicensed, lower-classification staff capacity to allow for this work to be done in-house. The addition of permanent in-house staff would also help the Department to implement a routine meter exchange program, switching out inoperable or malfunctioning meters with working ones to reduce the number of manual reads that are necessary.

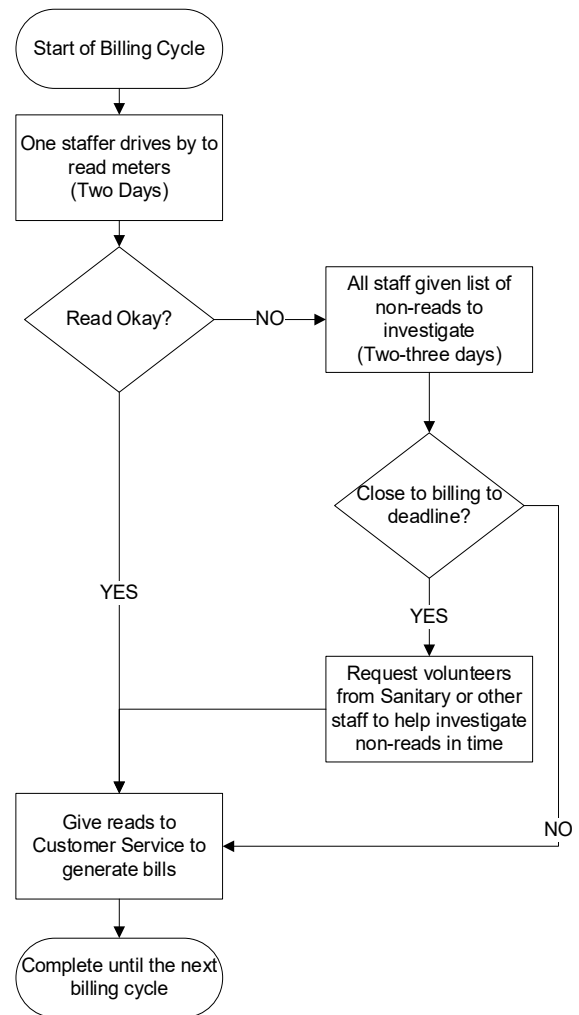


Figure 8: Meter Reading Workflow

In-house staff could regularly exchange meters year-round rather than the City having to outsource and contract for meter exchange programs at specific times of the year as has been done in 2022 and 2023.

Recommendation 5: Add up to four full-time treatment and/or collections operator positions in the Sanitary District and build a dedicated Sanitary collections crew.

Although the Sanitary District is currently fully staffed, it is also highly reactive and struggling to keep pace with its maintenance calls for service. Daily plant maintenance, including a series of both preventative and corrective activities from de-ragging the headworks facilities pumps to cleaning clarifiers, typically takes priority within the division and consumes significant time and attention. Staff recognize that the City also needs a properly maintained collections system to provide the high levels of service its customers expect, and this is not currently happening. For instance, the City's 90 miles of collections pipelines have never been completed jetted, as the Sanitary District only has capacity to clean and inspect the hot spots where leaks and breaks occur frequently. Furthermore, there is limited capacity, as well as insufficient camera equipment, to televise sewer lines after they are cleaned to assess their condition and look for roots or other indications of inflow and infiltration (I&I). Deferred pipeline and lift station maintenance can lead to costly failures and decrease the useful lifespan of these assets, which are very expensive to rehabilitate and replace. Unfortunately, the lack of staff limits the amount of time and attention that can be dedicated to collection system maintenance. Even when the focus of crew activity is on collections maintenance, there are still not enough personnel to conduct maintenance efficiently. For instance, although the Sanitary District has two vacor trucks for cleaning sewer pipelines (only one of which was operational at the time of this report), it does not have enough employees to use both trucks at the same time and staff must split their time between plant and collection system work. Staffing constraints also force leadership to defer proactive projects (things like CCTV inspections of sewers, sewer jetting, manhole and pipeline inspection, etc.) to deal with more pressing needs or emergencies, which typically require a full-team response.

To improve the Sanitary District's ability to provide its desired level of service, up to four full-time treatment and/or collections operator positions should be created. While the Sanitary District's current five operators and Chief Treatment/Collections Officer are all dual-certified in both treatment and collections, these new positions could be focused on collections-specific roles to begin to build a collections crew. Many utilities employ a dedicated collections maintenance crew, consisting of three full-time positions, to create daily capacity for collections system maintenance because it is natural that the regulatory requirements of plant operations will always take priority over non-regulated but equally important maintenance and prevention work on the collections system. Department and Sanitary District leaders should determine whether dual-certification, which promotes flexible staffing arrangements but is more difficult to hire and train for, or a collections-specific approach to these new positions is best.

Regardless of the Department's preference regarding dual versus single certification, adding these new positions should greatly improve the Sanitary District's capacity to perform proactive and reactive maintenance in both the facility and in the collection system. It may also allow the Department to cut back on its use of costly contractors it sometimes relies on to address service line blockages and other maintenance issues. Furthermore, adding new positions would likely improve employee satisfaction and retention by making it easier to take time off and attend training needed to maintain or receive certifications. Given the competitive local labor market, the Department should consider creative hiring strategies if it encounters difficulty attracting promising candidates, such as offering operator-in-training (OIT) opportunities or even hiring temporary staff. While the Department also uses temporary staff to perform certain functions, there have been few instances of converting temps who meet performance expectations to permanent hires. Temporary staff offer a low-risk way to assess an individual's fit and potential to take on more specialized roles and responsibilities within the organization. In the long-term, these staffing levels should be reassessed as the City's wastewater infrastructure expands to accommodate new residents and growth, but adding this crew as soon as possible would be a significant addition that should pay immediate dividends to the Sanitary District and its customers.

OPERATIONAL EFFICIENCY

Recommendation 6: Move toward an asset management-based approach to infrastructure management.

More staffing should have an impact on all areas of service delivery, especially if the hiring is combined with the implementation of a series of best practices operational activities. Currently, according to Utilities Department staff, most maintenance activities are reactive, and staff are essentially “fighting fires” every day as issues arise. Other, more routine but necessary maintenance activities are not happening. For example, in the water system, valves are not being regularly exercised; in wastewater, manholes are not being regularly inspected. Utility location associated with construction is not being performed. There are no dedicated staff to maintain and landscape well sites. Simply put, the Department does not have enough capacity to respond to its current maintenance workload, let alone perform proactive maintenance with the goal of extending the useful life and function of its assets.

Utility organizations that only perform reactive maintenance pay dearly when expensive assets fail prematurely and cause service disruptions. There is already evidence of this happening in Coachella. For example, valves in the water distribution network are not regularly exercised to ensure they are able to function, sometimes resulting in maintenance crews failing to quickly isolate leaks because they cannot find a working valve. In one case, crews attempting to isolate a leak had to turn many valves before finally managing to isolate a leak, at which point considerable amounts of water had been lost and the length of the outage to customers was far greater than anticipated. Coachella’s location in a desert environment that is often subject to long droughts makes the loss of any treated water significant, and every effort to reduce the impacts of breaks should be considered and implemented when possible.

To capitalize on more staffing capacity, the Department should move toward employing a robust Asset Management (AM) approach, which encompasses planning, design, operations, maintenance, and renewal activities, throughout the lifecycle of its assets. Success in this effort will depend on how maintenance activities and asset conditions are tracked, as well as how this data is used to establish maintenance priorities, and, ultimately, make decisions on how assets will be managed. As it looks forward, Coachella should consider a number of initiatives with regard to making this happen, including:

- **Risk-Based Management** – Risk, as defined by the International Standards Organization in statement 31000, is “the effect of uncertainty on objectives.” Utilizing this definition as a guide, a risk-based management approach requires the Department to both articulate what it wants to do (its objectives) and identify, to the greatest extent possible, what circumstances may impede its achievement of those objectives. From there a “treatment” or approach to mitigating risk can be formulated and measured for effectiveness. In running any organization as complex and multi-faceted as a public utility, there will inevitably be a host of corresponding, sometimes competing, objectives that compete for resources and attention. This makes the codification of objectives, once agreed to, very important so that their impact relative to the risk the organization incurs is properly considered. Their listing also gives direction to those involved with assuring their compliance a reference point to judge their approach to work. In Coachella, infrastructure risk assessment is often performed informally, based on staff experience, and standards may vary across the utility. This is not unusual in utilities, but it can cause confusion amongst staff, decision-makers, and customers. A well-articulated series of objectives based on an agreed to service level and with a consideration of risk is necessary for impactful decision-making that sets the utility up for success. This can be done at the strategic, Department-wide level, to the individual asset or system level. As new staff is hired, the Department will be best served if they can be educated on what the Department’s purpose is and what might impact the achievement of that purpose. A risk-based management approach can help achieve that.

- **Use Sedaru® as an Asset Management and Planning Tool** – One way to address risk is to have good, consistent, highly reliable data, from which operational and planning decisions can be made. Like a lot of utilities, Coachella is already in process of tracking asset condition and their corresponding risk level, where risk is the combination of the likelihood of an asset failing (represented by condition) and consequence of failure. While the Utilities Department has some of its infrastructure assets in GIS and its asset management system, Sedaru, key information about these assets, including maintenance history, installation date, age, size, location, etc., is inconsistently recorded and still in process due to staff capacity constraints. To use Sedaru to its full potential, all maintenance activities and asset information should be catalogued consistently. This information should then be used to guide maintenance and capital planning. The Department can then use Sedaru to make informed decisions on how and when to operate, maintain, and replace its assets.
- **Reliability-Centered Maintenance (RCM) Practices** – As the organization matures toward more mature Asset Management practice, the adoption of reliability-centered maintenance activities should be a goal. RCM advances past preventative maintenance and reactive maintenance to predictive maintenance practices that rely on condition, criticality, and past maintenance data to develop individual maintenance plans for all major assets. Adopting RCM will reduce unnecessary PM and help to mitigate the amount of unplanned maintenance.

Prioritizing an AM approach may lead to significant operational and cultural changes in the organization, from how supervisors and shift leaders assign work, to tasking certain employees with performing preventative and predictive maintenance while others focus on reactive maintenance, to reconceptualizing equipment needs to more robust training, etc. It should be noted that integrating AM principles into the Department’s current operating approach is a significant undertaking and the benefits could take years to fully realize. However, there is no viable alternative if the organization is to sustainably operate; failure to properly maintain utility assets will inevitably lead to more service disruptions and costly repairs. Making Asset Management a high priority moving forward will ensure Coachella’s significant investments in its community and environment are protected and their benefits are sustained well into the future.

Recommendation 7: Implement a rolling replacement budgeting cycle for equipment to perform preventative maintenance.

In addition to creating new Water and Sanitary positions to enhance the Department’s maintenance efforts, additional equipment and resources are needed to maximize operational efficiency and effectiveness. For example, although Sanitary staff clean sewer lines using a jet truck, they do not have a CCTV camera to televise sewer pipelines following cleaning. Inspecting those segments is a best practice that can identify problems before they become critical and could impact service delivery. To this end, a camera and, preferably, a CCTV van with monitors and other necessary equipment, is needed. This will allow staff to properly navigate and view the pipeline conditions in real time. Ideally, a program will be designed to ensure the van will follow closely behind the jet truck to televise lines just after they are cleaned, when problem areas are most visible. Similarly, staff open manhole covers by hand, which is physically demanding and carries a high risk of injury. Consideration should be given to purchasing mechanical liftgates and other tools to minimize the effort required to open manholes, saving employees’ energy, promoting safety, and potentially increasing productivity.

In some cases, the Department has the correct resources, but they are old or dysfunctional and need to be replaced. Water Authority staff shared that their concrete saw, used to cut through concrete and asphalt streets and sidewalks to reach buried pipelines, is very old and often takes up to one hour to start. This is problematic as the saw is required for most pipeline repairs, costing staff precious time when addressing maintenance emergencies. The Utilities Department should carefully assess its needs for new and upgraded equipment as a part of the annual budgeting and

long-term capital planning efforts. At a time when the Utilities Department is limited by staffing constraints, having the right equipment will help the City get the most out of Water and Sanitary employees. The exploration of new, more efficient technologies is also encouraged.

Recommendation 8: Conduct a focused compensation study of neighboring utilities including municipal and special utility districts.

According to several staff, the Utilities Department has lost many employees to neighboring utility organizations in recent years, and Coachella's comparatively low wages are noted as the driving force behind the City's struggles to retain qualified staff, along with high levels of overtime and frequent on-call shifts. This turnover has only made circumstances more challenging for the employees who remain, resulting in increasing amounts of overtime to compensate for vacancies, an inability or unwillingness to take paid leave, and other scheduling challenges.

While a salary and compensation survey was not within the scope of this review, in order to test this theory Raftelis benchmarked a few utility positions against salary schedules in other utilities in the region using publicly available information.

Table 10 below shows the salary range comparison for four positions: Water Service Worker I, Water Service Worker II, (Wastewater) Treatment Plant Operator I, and (Wastewater) Treatment Plant Operator III. This comparison shows that, for all four positions and despite a recent 7% salary range increase for Coachella staff in July, the City of Coachella range is below that in peer utilities as peers have continued to increase their ranges as well.

Table 10: Benchmark Salary Comparison

AGENCY	POSITION TITLE	MINIMUM	MIDPOINT	MAXIMUM
Coachella	Water Service Worker I	\$51,322	\$58,412	\$65,501
Hi-Desert WD	Water Quality Technician I	\$64,391	\$76,666	\$88,940
Redlands	Water Distribution Operator	\$52,538	\$59,796	\$67,054
Valley Sanitary District	N/A			
Mission Springs WD	Water Production Operator I	\$62,962	\$71,812	\$80,662
Indio	Water Utility Worker I	\$41,099	\$50,910	\$60,721
Peer Average		\$55,247	\$64,796	\$74,344
Above/Below		-7.11%	-9.85%	-11.90%
Coachella	Water Service Worker II	\$58,002	\$66,015	\$74,027
Hi-Desert WD	Water Quality Technician II	\$73,820	\$87,891	\$101,963
Redlands	Water Treatment Operator II	\$62,719	\$71,406	\$80,092
Valley Sanitary District	N/A			
Mission Springs WD	Water Production Operator II	\$69,534	\$79,279	\$89,024
Indio	Water Utility Worker II	\$45,410	\$56,251	\$67,091
Peer Average		\$62,871	\$73,707	\$84,543
Above/Below		-7.74%	-10.44%	-12.44%
Coachella	Treatment Plant Operator I	\$58,002	\$66,015	\$74,027
Hi-Desert WD	Wastewater Treatment Plant Operator I	\$64,391	\$76,666	\$88,940
Redlands	Wastewater Facilities Operator I	\$57,346	\$65,289	\$73,232
Valley Sanitary District	Wastewater Operator I	\$57,720	\$67,535	\$77,350
Mission Springs WD	Wastewater Treatment Plant Operator I	\$66,165	\$75,452	\$84,739
Indio	N/A			
Peer Average		\$61,406	\$71,235	\$81,065
Above/Below		-5.54%	-7.33%	-8.68%
Coachella	Treatment Plant Operator III	\$72,445	\$82,453	\$92,460
Hi-Desert WD	Wastewater Treatment Plant Operator III	\$84,629	\$100,761	\$116,893
Redlands	Wastewater Facilities Operator III	\$67,915	\$77,322	\$86,728
Valley Sanitary District	Wastewater Operator III	\$70,174	\$82,095	\$94,016
Mission Springs WD	N/A			
Indio	N/A			
Peer Average		\$74,239	\$86,726	\$99,212
Above/Below		-2.42%	-4.93%	-6.81%

Although many public utilities across the country are struggling to attract and retain staff, municipal utilities in California face unique competition from the state’s many special utility districts, which tend to offer better pay. Coachella neighbors several municipal utilities and special districts, including most of the regional peers cited in the benchmarking section of this report, contributing to a highly competitive local labor market.

Given the difficulties of attracting skilled and licensed utility professionals, Coachella must do everything it can to make the Utilities Department an attractive place to work. Retaining existing staff is also of the utmost importance, as their institutional knowledge of the Department's unique facilities and infrastructure takes years to develop and cannot be easily replaced. While the City should consider recruitment and retention holistically, from compensation to employee development and workplace culture, ensuring salaries and wages are aligned with market rates should be a high priority. The Department has plans to seek consultant support to conduct a compensation study of neighboring utilities, which is an excellent way to determine where Coachella's salaries may be out of line with the local market. This study should include a representative sample of both municipal utilities and special utility districts to provide a comprehensive picture of Coachella's competitive labor landscape. The study's results will guide the City in ensuring its salaries and benefits are sufficient to attract and retain the skilled staff needed to operate its utilities.

Recommendation 9: Upgrade and expand the SCADA network that allows staff to remotely monitor the water and wastewater systems.

The Utilities Department utilizes supervisory control and data acquisition (SCADA) technologies to monitor the various aspects of its water and wastewater plants and systems. SCADA systems are critical for effective utility operations as they help maintain system efficiency and communicate issues in real time, allowing staff to intervene quickly when issues arise. However, Coachella's SCADA network is outdated and is not extensively installed throughout the water and wastewater systems. For example, wastewater treatment plant operators who are on-call during the overnight and weekend hours are notified at home when an alarm is triggered in the plant, but cannot remotely access the SCADA network to determine the cause and severity of the issue. This requires the on-call operator to go to the plant and assess the situation, which may not be urgent or could even be a false alarm. Similarly, because SCADA instruments are not installed at all operational facilities, including some wastewater lift stations, operators cannot remotely monitor their performance.

To preserve staff capacity and support accurate, real-time monitoring of the water and wastewater systems, the Department should invest in SCADA upgrades that improve remote access capabilities, and possibly remote control for certain purposes. Upgraded SCADA instruments should also be fully deployed throughout the water and wastewater infrastructure systems to provide operators with comprehensive information so they can take corrective actions, when needed. Upgrading and expanding the Department's SCADA networks for the Water Authority and Sanitary District will create new maintenance needs, which the recommended SCADA/Instrumentation Technician would be able to address (Recommendation 10). While the Department could incur several hundreds of thousands of dollars upgrading and expanding the use of SCADA technologies, doing so is an industry best practice that would increase operational efficiency and minimize risks.

Recommendation 10: Add one full-time SCADA/Instrumentation Technician position to program and maintain the Department's SCADA communications network.

The Utilities Department currently does not have dedicated staff for programming and maintaining SCADA instruments throughout these plants and systems. Many utility organizations, including several of the peer utilities referenced in the benchmarking section of this study, have dedicated technicians responsible for installing, calibrating, and maintaining SCADA instruments. Coachella primarily relies on contractors to perform these duties, and occasionally has one Sanitary District employee, who was formerly an electrician, conduct minor SCADA maintenance. Having in-house staff available to manage this SCADA network and ensure it is properly integrated with Departmental technologies is a best practice which the City should consider moving forward.

Given the size of the Utilities Department's water and wastewater systems, one full-time SCADA/Instrumentation Technician should be capable of maintaining both the Water and Sanitary SCADA networks. Other duties could also include general facility maintenance during periods when the need for SCADA maintenance is slow; however

this Technician's workload will likely increase if the Department updates and expands its SCADA networks, as advised in Recommendation 9. The ideal candidate for this role will need to be knowledgeable of water and wastewater operational technologies, as well as, ideally, a proficient commercial electrician. The Department should determine whether candidates will be required to hold a Journeyman's electrician license based on local requirements. Ultimately, having this dedicated SCADA resource will ensure the Department's Water and Sanitary operators are receiving accurate data in real time, improving their ability to isolate leaks, control flows, and more.

Recommendation 11: Conduct a critical spares exercise to identify critical spare parts and components needed for operational equipment in both water and wastewater and then contract with a parts supplier to order and deliver commonly needed parts and components for water and sanitary assets.

The Utilities Department does not maintain a robust inventory of spare parts and components for asset repairs and replacements, instead buying most parts and materials as they are needed. While the Department previously contracted with a supplier for parts purchase and delivery, this practice was discontinued several years ago. Instead, staff currently track inventory and purchase parts at local hardware stores, including Lowe's and Home Depot. With the Department stretched thin due to staffing constraints, spending valuable time driving to pick up parts is not the best use of the Department's licensed operators. Furthermore, larger parts and orders often require multiple trips in the Department's light duty vehicles and pickup trucks, costing further time that could be spent at the plant or in the field. This inefficient use of time could also lead to negative consequences if the required parts are not on hand for a maintenance emergency, and the maintenance crews must leave the site to find it in a local store.

Performing a critical spares exercise to identify and inventory critical spare parts and components will assure that the Department is aware and can adequately stock those items that are needed to effectively run the Utility. If possible, the Department should also once again contract with a parts supplier to streamline the ordering and delivery process so staff can focus their energy on urgent maintenance and operational needs. Most parts suppliers will deliver orders directly to one of the Department's facilities, allowing for convenient access without the need to drive offsite to collect the materials. Scheduled orders may also be possible, whereby the most used parts can be purchased and delivered automatically on a regular basis (e.g., quarterly) to streamline the procurement process. It is also worth considering purchasing the most used parts in bulk, both to maintain a sufficient inventory and also to benefit from wholesale pricing, if available. Contracting with a parts provider is a simple way to increase staff capacity and ensure the right parts and resources are on hand when needed.

Conclusion

This organizational assessment was undertaken to identify opportunities to enhance the efficiency and effectiveness of the Water Utilities Department’s staff and operations. The Department is fortunate to have skilled and dedicated employees who provide high quality services to the Coachella community, improving public health and quality of life for residents, businesses, and visitors. The recommendations outlined in this report are intended to build upon the Department’s strengths and prepare it to meet present and future challenges.

Presently, both the Water Authority and Sanitary District are highly reactive in their approach to infrastructure maintenance, and this is largely due to their lean staffing numbers. As a result, water and wastewater assets, from motors to pumps to pipelines, are not proactively maintained to prevent defects and ensure optimal performance, leading to untimely asset failures that negatively impact customers. This study identified several opportunities to enhance the Department’s O&M staffing levels and improve maintenance practices to help the Department implement an asset management approach centered around preventative and predictive maintenance and improve operations and service levels now and in the future. As such, we recommend the addition of several O&M positions in the Water Authority and Sanitary District. Table 11 below summarizes these recommended positions.

Table 11: Summary of Recommended Positions

Position	Division	Number of FTEs	Estimated Cost Impact (Midpoint + 30% Benefits)
Chief Treatment/ Distribution Officer	Water Authority	1	\$140,930
Equipment Operator	Water Authority & Sanitary District (50/50 cost allocation)	1	\$92,022
Wastewater Treatment/ Distribution Operator I	Water Authority	3	\$257,456
Water Treatment/ Collections Operator I	Sanitary District	4	\$303,740
SCADA/ Instrumentation Technician	Water Authority & Sanitary District (50/50 cost allocation)	1	\$100,304
TOTAL		10	\$894,452

The City is urged to add these positions as soon as possible to begin reaping the maintenance benefits and alleviate current pressures on existing personnel. The planned salary study of the Utilities Department should aid recruitment efforts for these positions, as it will help the City determine if it has competitive compensation offerings. Some of the recommended changes can be implemented immediately as they represent formalization of existing relationships or the need for heightened focus on specific services or functions. Other changes will require time and careful phasing to ensure staff and services are cared for in the process. For all changes, the organization will need to communicate clearly why they are being implemented and what impacts, if any, the changes will have on employees.

Using this report as a guide, the Department will be able to continue to improve operations and services and to streamline its operations for the benefit of Coachella’s residents, businesses, and visitors. Prioritization of these recommendations and thoughtful, planned implementation should ensure resources are expended prudently and any risks to utility operations are reduced.